Kennedy Jenks

212 Carnegie Center, Suite 200
Princeton, NJ 08540
609-285-2620
Fax: 609-285-2659

Ecological Risk Assessment

Former Kenvil Works Facility
Kenvil, New Jersey

2 September 2025

Prepared for

HERCULES

500 Hercules Road
Wilmington, DE 19808

KJ Project No. 2140004*46

List of Figures ..... *iv*

List of Tables ..... *v*

List of Appendices ..... *viii*

List of Attachments ..... *viii*

Acronyms and Abbreviations ..... *ix*

Executive Summary **1**

Section 1: Introduction **1**

1.1 Regulatory Chronicle 1
1.1.1 Sitewide Remedial Strategy 3
1.2 Purpose and Objectives 4
1.3 Report Organization 6

Section 2: Facility & Environmental Background **7**

2.1 Facility Location 7
2.2 Facility Development and Operations 7
2.3 Environmental Chronicle 7
2.3.1 Site Investigation/Remedial Investigation 8
2.3.2 ERA Activities – 2016 to 2019 9
2.3.2.1 Aquatic Characterization 11
2.3.2.2 Terrestrial Characterization 12
2.3.2.3 2019 Technical Consultation and Presentation 12
2.3.3 Remedial Actions 13
2.3.4 Facility Redevelopment 13
2.4 Ecology 14
2.4.1 Regional Ecology 14
2.4.2 Local Ecology 15

Section 3: Problem Formulation **16**

3.1 Environmental History 16
3.1.1 Environmental Releases 16
3.1.1.1 Fires 16
3.1.1.2 Explosions 17
3.1.1.3 Spills 17
3.1.1.4 Historic Fill 18
3.2 Ecological Conceptual Site Model 19
3.2.1 Habitat Characterization 19
3.2.1.1 Stream Hydrology Assessment 20
3.2.1.2 Wetland Delineation 20

Table of Contents (cont'd)

3.2.1.3 New Jersey Natural Heritage Database Search 21
3.2.2 Environmentally Sensitive Natural Resources 22
3.2.2.1 Summary of ESNRs Identified 23
3.2.3 Groundwater 24
3.2.4 Exposure Areas 24
3.2.4.1 Terrestrial Exposure Area 25
3.2.4.2 Aquatic Exposure Areas 25
3.2.4.3 Groundwater 27
3.2.4.4 Potential Ecological Receptors 27
3.2.4.5 Potential Ecological Exposure Pathways 29
3.3 Assessment and Measurement Endpoints 32
3.4 Excluded Areas 34
3.4.1 Areas of Presumed Remedial Action 34
3.4.2 Areas Beyond the Remedial Area Boundary 35
3.4.3 Summary 35

Section 4: Data Review and COPEC Selection 36

4.1 Data Usability 36
4.1.1 Ecological Risk Assessment Dataset Selection 36
4.1.2 Data Management 37
4.1.2.1 PCDDs and PCDFs 37
4.1.2.2 Duplicate Samples 38
4.1.2.3 Redundant Analytes – SW846 Methods 8270 and 8330 38
4.1.2.4 Redundant Analytes – SW846 Methods 8260 and 8270 39
4.2 Identification of Constituents of Potential Ecological Concern 39
4.2.1 Ecological Screening Benchmarks 39
4.2.2 COPEC Screen 40
4.2.2.1 Terrestrial Exposure Area 41
4.2.2.2 Facility-Wide Soil 41
4.2.2.3 Aquatic Exposure Areas 41
4.2.2.4 Northern Drainage Area 41
4.2.2.5 Southern Drainage Area 43
4.3 Process Summary 46

Section 5: Ecological Exposure Assessment 48

5.1 Exposure Point Concentrations 48
5.1.1 Site Media 48
5.1.1.1 Bioavailability and Chemical Speciation 49
5.1.2 Upper-Trophic Level Wildlife Exposure 68
5.1.2.1 Exposure Parameters 68

Table of Contents (cont'd)

Section 6: Ecological Effects Assessment 79

6.1 Toxicological Properties of COPECs 79
6.1.1 Polycyclic Aromatic Hydrocarbons 79
6.1.1.1 Invertebrates 79
6.1.1.2 Fish 79
6.1.1.3 Wildlife 79
6.1.2 Metals 80
6.1.2.1 Arsenic 80
6.1.2.2 Copper 81
6.1.2.3 Lead 82
6.1.2.4 Mercury 83
6.1.2.5 Zinc 84
6.2 Potential Direct Effects 85
6.3 Potential Wildlife Effects 86
6.3.1 Lead 87

Section 7: Ecological Risk Characterization 88

7.1 Terrestrial Receptors 88
7.1.1 Soil Invertebrates 88
7.1.2 Plants 89
7.1.3 Wildlife 89
7.1.3.1 Birds 89
7.1.3.2 Mammals 89
7.2 Aquatic Receptors 90
7.2.1 Northern Drainage Area 90
7.2.1.1 Benthic Invertebrates 90
7.2.1.2 Aquatic Plants 92
7.2.1.3 Fish and Aquatic Invertebrates 92
7.2.1.4 Birds 92
7.2.1.5 Mammals 93
7.2.2 Southern Drainage Area 93
7.2.2.1 Benthic Invertebrates 94
7.2.2.2 Aquatic Plants 97
7.2.2.3 Fish and Aquatic Invertebrates 98
7.2.2.4 Birds 98
7.2.2.5 Mammals 98
7.3 PCDD/F Risk Characterization 99
7.4 Discussion 100
7.4.1 Terrestrial Exposure Area 100
7.4.2 Aquatic Exposure Areas 100
7.4.2.1 Northern Drainage Area 101
7.4.2.2 Southern Drainage Area 101

Table of Contents (cont'd)

Section 8: Uncertainty Analysis 103

8.1 Complexity of Natural Systems 103
8.2 Data Uncertainty 103
8.2.1 COPEC Screening Process 104
8.2.2 Exposure Point Concentrations 105
8.2.3 Exposure Areas 105
8.2.4 Uptake Factors 106
8.2.5 Explosive and Energetic Compounds 106
8.2.6 Toxicity Reference Values 107

Section 9: Conclusions & Recommendations 108

9.1 Conclusions 108
9.2 Recommendations 116
9.2.1 Areas within the Remedial Area not designated as APRAs 116
9.2.1.1 Terrestrial Exposure Area 116
9.2.1.2 Aquatic Exposure Areas 117
9.2.2 Areas of Presumed Remedial Action 118
9.2.3 Areas Beyond the Remedial Area Boundary 118

References 1

List of Figures

1-1 Site Location
2-1 Site Plan
2-2 Site Operational Areas
2-3 Habitat Characterization Results
3-1 Aquatic Exposure Areas
3-2 Terrestrial Exposure Area
3-3 Conceptual Site Model
4-1A-E Terrestrial Exposure Area Soil Samples
4-2 Duck Pond Sample Locations
4-3 Northeastern Ponds Sample Locations
4-4 Unnamed Ponds Sample Locations
4-5 Western Tributary Sample Locations

Table of Contents (cont'd)

4-6 Eastern Tributary Sample Locations
4-7 Central Drainage Basin Sample Locations
4-8 Maintenance Dynamite West Sample Locations
4-9 Maintenance Dynamite East Sample Locations
4-10 Miscellaneous Offsite Stream Upper Sample Locations
4-11 Miscellaneous Offsite Stream Lower Sample Locations
4-12 Maintenance NG Sample Locations
4-13 TNT-PETN-NG Ditches Sample Locations
4-14 Development Area Stream Sample Locations
5-1 Terrestrial Soil Spatial Evaluation – Lead
5-2 Terrestrial Soil Spatial Evaluation - Lead - Northern Bobwhite Habitat
5-3 Terrestrial Soil Spatial Evaluation - Copper
5-4 Terrestrial Soil Spatial Evaluation - Copper - Northern Bobwhite Habitat

List of Tables

2-1 Areas of Presumed Remedial Action
3-1 Plant Species Observations
3-2 Wildlife Species Observations
3-3 Assessment and Measurement Endpoints
4-1 Ecological Risk Assessment Dataset
4-2 Summary of Ecological Screening Benchmarks for Detected Constituents
4-3 COPEC Summary
4-4 Preliminary COPEC Screen for Soil
4-5 Preliminary COPEC Screen for Northern Drainage Area Surface Water
4-6 Preliminary COPEC Screen for Northern Drainage Area Sediment
4-7 Preliminary COPEC Screen for Southern Drainage Area Surface Water
4-8 Preliminary COPEC Screen for Southern Drainage Area Sediment
4-9 COPEC Tracking Matrix for Soil
4-10 COPEC Tracking Matrix for Sediment
4-11 COPEC Tracking Matrix for Surface Water

Table of Contents (cont'd)

5-1 Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Soil

5-2 Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Northern Subdrainage Areas Surface Water

5-3 Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Northern Subdrainage Areas Sediment

5-4 Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Southern Subdrainage Areas Surface Water

5-5 Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Southern Subdrainage Areas Sediment

5-6 Bioaccumulation Factors

5-7 Terrestrial Tissue Exposure Point Concentrations

5-8 Biota-Sediment Accumulation Factors

5-9 Aquatic Tissue Exposure Point Concentrations

5-10 Exposure Parameters for Wildlife

6-1 Toxicity Reference Values

7-1 Hazard Quotients for Soil Invertebrates

7-2 Hazard Quotients for Terrestrial Plants

7-3 Hazard Quotients for American Robin

7-4 Hazard Quotients for Northern Bobwhite

7-5 Hazard Quotients for Red-Tailed Hawk

7-6 Hazard Quotients for Short-Tailed Shrew

7-7 Hazard Quotients for White-Tailed Deer

7-8 Hazard Quotients for Red Fox

7-9 Summary of Hazard Quotients for Terrestrial Wildlife

7-10 Hazard Quotients for Benthic Invertebrates – Northern Subdrainage Areas

7-11 Hazard Quotients for Aquatic Plants – Northern Subdrainage Areas

7-12 Hazard Quotients for Fish and Aquatic Invertebrates – Northern Subdrainage Areas

7-13 Hazard Quotients for Tree Swallow – Northern Subdrainage Areas

7-14 Hazard Quotients for Great Blue Heron – Northern Subdrainage Areas

7-15 Hazard Quotients for Mallard Duck – Northern Subdrainage Areas

7-16 Hazard Quotients for Little Brown Bat – Northern Subdrainage Areas

Table of Contents (cont'd)

7-17 Hazard Quotients for Mink – Northern Subdrainage Areas

7-18 Hazard Quotients for Muskrat – Northern Subdrainage Areas

7-19 Hazard Quotients for Benthic Invertebrates – Southern Subdrainage Areas

7-20 Hazard Quotients for Aquatic Plants – Southern Subdrainage Areas

7-21 Hazard Quotients for Fish and Aquatic Invertebrates – Southern Subdrainage Areas

7-22 Hazard Quotients for Tree Swallow – Southern Subdrainage Areas

7-23 Hazard Quotients for Great Blue Heron – Southern Subdrainage Areas

7-24 Hazard Quotients for Mallard Duck – Southern Subdrainage Areas

7-25 Hazard Quotients for Little Brown Bat – Southern Subdrainage Areas

7-26 Hazard Quotients for Mink – Southern Subdrainage Areas

7-27 Hazard Quotients for Muskrat – Southern Subdrainage Areas

7-28 Summary of Hazard Quotients for Aquatic Wildlife

Table of Contents (cont'd)

List of Appendices

A NJDEP's 8 July 2019 Comments & Hercules' Response Matrix
B Areas of Presumed Remedial Action – Area Descriptions
C Aquatic Ecological Risk Assessment Supplemental Sampling Memo Implementation
D Terrestrial Lead Work Plan Implementation
E Ecological Risk Assessment Dataset
F ProUCL Output Files
G Spatial Analysis of Lead and Copper – Back Calculated EPCs

List of Attachments

1 2016 Ecological Evaluation/Ecological Risk Assessment
2 Hercules' 21 December 2023 Remedial Timeframe Extension Request
3 NJDEP Email Correspondence dated 07082019
4 NJDEP Technical Consultation Presentation
5 Hercules Email Correspondence dated 06032024
6 Hercules Email Correspondence dated 08192024
7 NJDEP Email Correspondence dated 06302025
8 Terrestrial Lead Work Plan
9 Updated Screening Summary & Recommendations Package
10 Aquatic ERA Supplemental Sampling Memorandum
11 New Jersey Natural Heritage Program Database Search Results
12 Professional Resumes

Table of Contents (cont'd)

Acronyms and Abbreviations

95UCL	95% upper confidence limit
AE	assessment endpoint
AN	ammonium nitrate
ANFO	ammonium nitrate fuel oil
ATSDR	Agency for Toxic Substances and Disease Registry
AVS	acid volatile sulfide
BAF	bioaccumulation factor
BaP	benzo(a)pyrene
BAZ	biologically active zone
bgs	below ground surface
BSAF	biota-sediment accumulation factor
bss	below soil/sediment surface
BTAG	Biological Technical Assistance Group
C&D landfill	construction and demolition debris landfill
COPEC	constituent of potential ecological concern
CSM	conceptual site model
DNT	dinitrotoluene
DTSC	California Department of Toxic Substances Control
E&E	explosive and energetic
EcoSSL	Ecological Soil Screening Level
EE	ecological evaluation
EPC	exposure point concentration
ERA	ecological risk assessment
ESB	ecological screening benchmark
ESC	Ecological Screening Criteria
GC/MS	gas chromatography/mass spectrometry
HMX	high melting explosive (octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)
HPLC	high-performance liquid chromatography
HQ	hazard quotient

HQ_{LOAEL}	LOAEL-based HQ
HQ_{NOAEL}	NOAEL-based HQ
ICMM	International Council on Mining and Metals
ISRA	Industrial Site Recovery Act
ITRC	Interstate Technology & Regulatory Council
kg/day	kilograms per day
kg_{oc}/kg_{l}	kilogram organic carbon per kilogram lipid
LOAEL	lowest observed adverse effects level
LEL	lowest effect level (sediment-specific benchmark)
ME	measurement endpoint
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
ng/L	nanograms per liter
µg/L	micrograms per liter
NG	nitroglycerin
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NOAEL	no observed adverse effects level
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCDD	polychlorinated dibenzo-*p*-dioxin
PCDF	polychlorinated dibenzo-*p*-furan
PETN	pentaerythritol tetranitrate
RDX	royal demolition explosive (hexahydro-1,3,5-trinitro-1,3,5-triazine)
RI	remedial investigation
RIR	Remedial Investigation Report
SEL	severe effect level (sediment-specific benchmark)
SEM	simultaneously extracted metal
SI	site investigation
AUF	area use factor
SVOC	semivolatile organic compound

T&E	threatened and endangered
TNT	2,4,6-trinitrotoluene
TRSR	Technical Requirements for Site Remediation
TRV	toxicity reference value
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventative Medicine
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service
VOC	volatile organic compound

Executive Summary

On behalf of Hercules LLC (Hercules), Kennedy/Jenks Consultants, Inc. (KJ) prepared this Ecological Risk Assessment (ERA) as an update to the Ecological Evaluation/ERA [2016 EE/ERA] submitted as Volume F of the May 2016 *Phase II Remedial Investigation Report* [Phase II RIR] (KJ 2016a) for the Hercules Kenvil Works Facility, located in Kenvil, Morris County, New Jersey (the Facility).

The Facility is undergoing remediation in the New Jersey Department of Environmental Protection's (NJDEP's) Contaminated Site Remediation and Redevelopment (CSRR) Program (Program Interest No. 000741) under the direction of a Licensed Site Remediation Professional (LSRP). Overall Facility remediation, including the ERA presented herein, are coordinated through the Facility's LSRP of Record (Caryn Barnes, LSRP ID No. 575011), with the NJDEP and the United States Environmental Protection Agency (USEPA). This ERA was conducted in accordance with NJDEP *Ecological Evaluation Technical Guidance* (Version 2.1; NJDEP 2023), and USEPA *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (1997).

Hercules' remedial strategy for the Facility remains consistent with that presented in the 2016 EE/ERA. The integration of a remedial cap in conjunction with future redevelopment across large contiguous portions of the former operational area remains a key component of the Facility's closure strategy. Hercules' 21 December 2023 remedial timeframe extension request approved by NJDEP on 11 January 2024 provides additional details related to the Facility closure strategy.

This document updates the 2016 EE/ERA and reflects current conditions and remedial status at the Facility. Updates incorporate additional data collected onsite since the 2016 EE/ERA (including that proposed in the ERA Work Plan appended to the EE/ERA at the time of submission) and is responsive to NJDEP's 2019 component review comments on the 2016 EE/ERA.

The Facility occupies approximately 1,059 acres along Howard Boulevard, about 0.5-mile northwest of the center of Kenvil, Morris County, New Jersey. Regionally, the Facility is approximately 40 miles west of New York City and 30 miles east of the Delaware Water Gap. The Facility is bounded by the New Jersey Transit Railway to the north, Berkshire Valley Road to the southeast, Route 46 to the south, and Howard Boulevard to the northwest.

The Facility began operation in 1871 and initially manufactured dynamite to support iron ore mining operations in the surrounding area. The facility was operated by various companies until 1912, when Hercules became the sole owner. Through the early and middle parts of the 20th century, Hercules expanded its manufacturing operations to meet the growing economic need for explosives and propellants. During this period, multiple operational areas were established.

Propellants and explosive and energetic (E&E) compounds, such as 2,4,6-trinitrotoluene (TNT), nitroglycerin (NG), pentaerythritol tetranitrate (PETN), smokeless powder, and ammonium nitrate fuel oil (ANFO), were produced for both military and commercial applications. Specialty products such as initiating materials, ingredients for medical applications, and materials for actuating

devices were also produced. In the final years of operation, smokeless powder was the primary product and was produced by Alliant under a site lease agreement from 1995 to 1996.

The facility ceased operation in 1996. At this time, Alliant operated the Facility, and Hercules entered into a voluntary agreement with the State of New Jersey to investigate the TNT Area. Hercules re-acquired control of the Facility on 1 January, 1997, and, as the property owner, remained responsible for remediation and closure of the Facility. Hercules, and its related environmental liabilities at the Facility, was acquired by Ashland, Inc. in 2008. Hercules currently operates as a wholly owned subsidiary of Ashland, Inc. and is responsible for remediating the Facility.

This ERA builds upon the findings presented in the media-specific Remedial Investigation Reports (RIRs) for the Facility (i.e., soil, groundwater, surface water, and sediment) and the 2016 EE/ERA and utilizes nearly 28 years of accumulated knowledge regarding historical site operations and related chemical and physical influences at the Facility.

This ERA develops a technical basis regarding whether exposure to Compounds of Potential Ecological Concern (COPECs) related to former Facility operations could adversely affect flora or fauna that inhabit the Facility. It evaluates the potential for ecological risks to ESNRs on and adjacent to the Facility consistent with NJDEP guidance (NJDEP 2023).

The site investigation/remedial investigation (SI/RI) process defined the Remedial Area based on the extent of and influences attributable to historical Facility operations and fulfilled the characterization and delineation objectives established in NJDEP's Technical Requirements for Site Remediation (TRSR). This ERA relies on the same informed, reductive approach employed in the SI/RI process and separates the Facility into three general categories described below.

- Undeveloped areas beyond the Remedial Area where the potential for ecological risk is assumed unlikely (hereafter referred to as Areas Beyond the Remedial Area Boundary).

- Areas within the Remedial Area where constituent concentrations and/or physical characteristics merit remediation (e.g., the potential for ecological risk is likely), regardless of the outcome of the EE/ERA process (hereafter referred to as Areas of Presumed Remedial Action [APRAs]).

- Areas within the Remedial Area where the potential for ecological risk is uncertain.

The first two categories represent locations where potential ecological risk is either unlikely or highly likely. These areas are discussed and considered separately and are not included in the quantitative evaluation of ecological risk for the remaining category where the potential for risk is uncertain.

The formerly developed portion of the Facility (the Remedial Area) provides patches of habitat for ecological receptors. Upper-trophic-level ecological receptors using onsite terrestrial habitats are likely to move among the habitat patches that share a common list of Facility-related constituents, as well as similarities in habitat type and composition. As such, this ERA evaluates potential exposure and risks to terrestrial receptors using one Facility-wide terrestrial soil exposure area within the Remedial Area. Acknowledging the scale of the terrestrial exposure are relative to the home ranges of certain upper trophic level receptor species, and smaller prey species, this ERA

presents an initial evaluation of localized hot spots and potential risks for COPECs identified as risk drivers.

Based on the distinct areas of surface water flow and the potential for groundwater to interact with surface water as identified during the RI, two aquatic exposure areas were identified for evaluation in the 2016 EE/ERA: Northern Drainage Area and Southern Drainage Area. These drainage areas support similar aquatic or semi-aquatic habitat, but different sources of hydrology influence these features. Discrete subdrainage areas of the Northern and Southern Drainage Areas were additionally identified based on geography, drainage pathways, and hydrological flow characteristics.

Refined subdrainage areas within the Northern Drainage Area (NDA) are identified as follows:

1. Duck Pond
2. Western Tributary
3. Unnamed Ponds
4. Northeast Ponds
5. Eastern Tributary

Refined subdrainage areas within the Southern Drainage Area (SDA) are identified as follows:

1. Central Drainage Basin
2. Development Area Stream
3. Maintenance - Dynamite Area – West
4. Maintenance – Dynamite Area – East
5. Maintenance - NG Area
6. TNT-PETN-NG Ditches
7. Miscellaneous Offsite Streams – Upper
8. Miscellaneous Offsite Streams – Lower

This ERA assesses potential ecological risk attributable to historical operational influences in formerly developed areas of the Facility. The risk characterization for lower-trophic-level receptors compares COPEC concentrations in exposure media to ecological screening benchmarks (ESBs) to generate hazard quotients (HQs). For upper-trophic-level wildlife receptors, the estimated exposure (i.e., daily dietary dose) of each COPEC to potential wildlife receptors is compared to literature-based toxicity reference values (TRVs) to generate HQs. Where applicable, a weight-of-evidence (WOE) approach considers multiple lines of evidence (LOEs) to support risk characterization and conclusions.

Potential risks to terrestrial receptors were evaluated Facility-wide. Soil COPECs, including four metals (lead, chromium, vanadium, and copper), present the highest potential for risk to terrestrial receptors via both direct exposure and food-web transfer. Metals are commonly associated with historical fill materials (e.g., fly ash, bottom ash, slag), which were byproducts of the local iron mining and processing industry and imported to the Facility as fill to support Facility development in the early 1900s. Overall, potential risks to terrestrial receptor populations related to COPECs other than lead are low.

Aquatic exposure pathways were evaluated across 13 subdrainage areas. Due to earlier development of the SDA in the Facility's history, the majority of historic fill imported to the Facility

was used to raise the ground surface elevation and support development in the SDA, and once developed, this area housed the largest concentration of historical operations and facility support services (e.g., Maintenance Area, powerhouse). These historical differences are evident in aquatic HQs from these exposure areas, as discussed below.

Four constituents (i.e., arsenic, copper, and lead) emerge as potential risk drivers in NDA subdrainage areas. Copper and lead concentrations yielded HQs greater than 1 for direct contact exposure scenarios (i.e., fish and aquatic plants and invertebrates) as well as aquatic food web modeling for upper-trophic-level mammals (i.e., little brown bat and mink). Arsenic also represents a potential risk to lower- and upper-level aquatic receptors, though elevated risk estimates are confined to the Unnamed Ponds (i.e., aquatic plants, benthic invertebrates, and little brown bat) and the Maintenance - NG Area (i.e., benthic invertebrates) and likely attributable to historical fill.

Potentially elevated risk from six COPECs (i.e., barium, cadmium, mercury, manganese, silver, and zinc), while also exceeding aquatic risk thresholds across multiple subdrainage areas, is restricted to lower-trophic-level receptors (i.e., aquatic plants and benthic invertebrates). Further, nitroglycerin presents a potential risk to piscivorous mammals (i.e., mink), though elevated risk estimates are limited to Duck Pond. Nitroglycerin is assumed to be 100% bioavailable to aquatic receptors in this ERA. In reality, nitroglycerin occurs at the Facility as a component of solid smokeless powder grains and thus is bound in an insoluble matrix with likely limited bioavailability.

Overall, Unnamed Ponds and the Eastern and Western Tributaries emerge as NDA subdrainage areas with the highest potential risk to aquatic receptors. Alternatively, potential risk to birds in each evaluated feeding guild is low in NDA subdrainage areas.

Lead, fluoranthene, and pyrene emerge as having the greatest potential for ecological risk in the SDA. Fluoranthene and pyrene are potential risk drivers to herbivorous mammals (i.e., muskrat) and piscivorous mammals (i.e., mink), while lead exceeds aquatic risk thresholds for fish, aquatic plants and invertebrates, and piscivorous mammals across several SDA subdrainage areas.

Potential risk from mercury, frequently co-located with lead, is limited to sediment direct contact in lower-trophic-level receptors (i.e., aquatic plants and benthic invertebrate communities). While bioavailability of mercury to lower-trophic-level receptors via microbial methylation is uncertain, multiple LOEs indicate potential risk to benthic invertebrates from co-located COPECs is limited to the Central Drainage Basin, Maintenance – Dynamite Area – West, and Maintenance – NG Area. While chromium exceeded HQs for lower-trophic-level receptors (i.e., benthic invertebrates and aquatic plants) in the Maintenance - Dynamite Area - East, speciation analysis indicates that sediment conditions favor the less mobile and bioavailable Cr(III).

Arsenic, copper, silver and zinc also present potential risk to lower-trophic level receptors (i.e., fish, aquatic plants and invertebrates, and benthic invertebrates) though elevated risk estimates are more limited in distribution across SDA subdrainage areas. Apart from fluoranthene and pyrene, potential risk is limited to aquatic plants, where the Central Drainage Basin, Maintenance – Dynamite Area – East and West, and Miscellaneous Offsite Streams - Lower represent the highest potential risk areas and most frequent HQ exceedances for 12 PAH congeners.

The emergence of lead to present potential risk in multiple media and exposure scenarios is not unexpected given the presence of lead in commerce, historical fill, and use of lead in historical

Facility operations. Lead used onsite existed primarily in the inorganic form, which is not readily bioavailable and not expected to bioaccumulate.

Historical fill materials were used during early development of the Facility to raise ground surface elevations. The SDA, where both PAHs and metals appear more prevalent in sediment, drains much of the former operational area of the Facility where large amounts of historical fill have been mapped (Hercules 2007, 2016). Physical and chemical conditions onsite, like those outlined above for lead, likely limit bioavailability of these potential secondary risk drivers.

The Facility history, previous reports (Hercules 2007), and Conceptual Site Model (CSM) establish links between the terrestrial and aquatic exposure areas used in this ERA. The RIRs (Hercules 2007) identified lead as a "frequent exceedance" constituent in soil, sediment, and surface water. Thus, the appearance of similar constituents (lead in particular) as potential risk drivers confirms historical findings and further informs an understanding of COPEC fate, transport, and exposure pathways.

Based on the conclusions presented above, additional ERA activities are recommended in both terrestrial and aquatic exposure areas.

Recommended action items and next steps in terrestrial exposure areas include:

1. **Spatial analysis of soil COPEC concentrations in terrestrial habitats:** To refine potential risk estimates to upper-trophic-level terrestrial receptors (i.e., short-tailed shrew and northern bobwhite), spatial analysis of soil COPEC concentrations in terrestrial habitat patches and literature-derived population density is recommended for targeted evaluation of data within home range-specific buffers for upper-trophic-level receptors.

2. **Invertebrate and plant community field evaluations in localized areas:** To further refine existing conclusions for terrestrial invertebrate and plant communities, a desktop evaluation is recommended to:

    - 1) identify habitat types in which soil COPECs disproportionately influence potential ecological risk to terrestrial plant communities, and in which terrestrial plant community surveys may be warranted, and

    - 2) identify areas of enrichment (AoEs) for four COPECs (i.e., copper, manganese, vanadium, and zinc) driving potential risk to soil invertebrates in the Facility-wide terrestrial exposure area and develop a field program to provide additional LOEs specific to these COPECs and receptors (e.g., bioavailability and toxicity). The spatial analysis (Item 1) will assist in this evaluation.

3. **Invertebrate prey tissue collection and analyses:** To further refine existing conclusions for upper-trophic-level terrestrial insectivores (i.e., American robin and short-tailed shrew), invertebrate tissue collection and analyses are recommended to provide site-specific prey tissue concentrations in terrestrial insectivore food web models (i.e., American robin and short-tailed shrew). Collection locations will be biased across the range of COPEC concentrations and informed via the results of spatial analysis recommended in Item 1.

4. No further evaluation is warranted for carnivorous bird and mammal receptors in the terrestrial exposure area.

Recommended action items and next steps in aquatic exposure areas include:

1. **Aquatic plant refined risk characterization and growth inhibition bioassays:** To further refine existing conclusions for aquatic plant communities, a stepwise evaluation is recommended to further refine aquatic plant risk characterization in various subdrainage areas. The stepwise evaluation would include a desktop evaluation of ESBs incorporating literature-derived NOEC concentrations, followed by growth inhibition bioassays of field-collected porewater in subdrainage areas where potential risk to aquatic plants remains uncertain following abovementioned desktop refinement.

2. **Sediment porewater COPEC speciation, bioavailability, and toxicity evaluations:** To further refine existing conclusions for benthic invertebrate communities, porewater sample collection is recommended to assess COPEC form, bioavailability and toxicity. Initial efforts will focus on evaluating speciation of arsenic and silver and partitioning of COPECs from sediment to porewater. If necessary, toxicity testing of field-collected porewater would be used as an additional LOE regarding potential benthic invertebrate risk from three sediment COPECs (i.e., arsenic, mercury, and silver).

3. **Desktop evaluation and aquatic invertebrate and fish habitat evaluation:** For dissolved copper, a desktop evaluation incorporating USEPA's (2007) Copper Biotic Ligand Model and site-specific water quality parameters is recommended to refine potential risk estimates to fish and aquatic invertebrates. Variations in hydrology in the Western Tributary subdrainage area throughout the seasons may preclude the ability of the habitat to sustain fish populations. To this end, a hydrology study is recommended to better align receptors with available habitat. The hydrology study could include time-series surface water sampling for total and dissolved lead and zinc to refine risk estimates for water-column invertebrates.

4. **Probabilistic risk evaluation, aquatic plant surveys, and tissue collection:** To further refine existing conclusions for herbivorous mammals in aquatic exposure areas (i.e., muskrat), aquatic vegetation surveys are recommended to delineate foraging habitat in SDA subdrainage areas. Literature-derived population density and spatial distributions of edible biomass and sediment COPEC concentrations will be incorporated in spatial analysis to evaluate probabilistic risk distributions. In subdrainage areas where risk remains uncertain following probabilistic analysis, aquatic plant tissue collection and analyses may be necessary to refine the muskrat food web model.

5. **Probabilistic risk evaluation and fish tissue collection:** For piscivorous mammals in aquatic exposure areas (i.e. mink), spatial analysis of sediment COPEC concentrations in aquatic habitat patches and literature-derived population density is recommended to evaluate probabilistic risk distributions. In subdrainage areas where risk remains uncertain following probabilistic analysis, fish tissue collection and analyses are recommended to further refine the mink food web model.

6. **Aerial invertebrate tissue collection and analyses:** For insectivorous mammals in aquatic exposure areas (i.e., little brown bat), additional aerial insect tissue collection and analyses for three COPECs (i.e., arsenic, copper, and lead) are recommended to refine insectivorous food web models for certain subdrainage areas.

Additionally, Hercules continues to advance pre-design, design, permitting, and implementation activities in APRAs identified through the RI/ERA process. Remedy selection, extents, and remediation goals will incorporate both human health and ecological endpoints and remain protective of human health and the environment. Remedial action work plans for specific APRAs will be submitted to NJDEP via e-portal, consistent with the approach taken for the TNT and PCB remedies to date.

Additional data collection is ongoing in the Areas Beyond the Remedial Area Boundary exposure area, with a sampling event scheduled for Fall 2025. Following receipt of sampling results, the ERA of this area will be updated as follows:

a) COPEC screen using the updated dataset,

b) evaluating discontinuous areas as individual exposure areas (e.g., uplands along Rt 46, western ridgeline, eastern ridgeline, northern undeveloped area),

c) assessing dataset composition (e.g., outliers) for each exposure area, and

d) providing recommendations on an area-by-area basis to address potential ecological risks (e.g., HQ>1), if identified.

Ultimately, these activities will provide a WOE approach to refine risk estimates and inform associated risk-based management decisions related to potential ecological risks at the Facility.

Section 1: Introduction

On behalf of Hercules LLC (Hercules), Kennedy/Jenks Consultants, Inc. (KJ) prepared this Ecological Risk Assessment (ERA) as an update to the Ecological Evaluation/ERA [2016 EE/ERA] submitted as Volume F of the May 2016 *Phase II Remedial Investigation Report* [Phase II RIR] (Hercules 2016a) for the Hercules Kenvil Works Facility, located in Kenvil, Morris County, New Jersey (the Facility, **Figure 1-1**). **Attachment 1** provides the 2016 EE/ERA.

The Facility is undergoing remediation in the New Jersey Department of Environmental Protection's (NJDEP's) Contaminated Site Remediation and Redevelopment (CSRR) Program (Program Interest No. 000741) under the direction of a Licensed Site Remediation Professional (LSRP). Overall Facility remediation, including the ERA presented herein, are coordinated through the Facility's LSRP of Record (Caryn Barnes, LSRP ID No. 575011), with the NJDEP and the United States Environmental Protection Agency (USEPA). This ERA was conducted in accordance with New Jersey Administrative Code (N.J.A.C.) 7:26E-4.8 Remedial Investigation of Ecological Receptors, NJDEP *Ecological Evaluation Technical Guidance* (Version 2.1; NJDEP 2023), and USEPA *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (1997).

Hercules' remedial strategy for the Facility remains consistent with that presented in the 2016 EE/ERA. The integration of a remedial cap in conjunction with future redevelopment across large contiguous portions of the former operational area remains a key component of the Facility's closure strategy. Hercules' 21 December 2023 remedial timeframe extension request (**Attachment 2**) approved by NJDEP on 11 January 2024 provides additional details related to the Facility closure strategy.

This document updates the 2016 EE/ERA and reflects current conditions and remedial status at the Facility. Updates incorporate additional data collected onsite since the 2016 EE/ERA (including that proposed in the ERA Work Plan appended to the EE/ERA at the time of submission) and is responsive to NJDEP's 2019 component review comments on the 2016 EE/ERA (**Attachment 3**). The regulatory chronicle that follows provides additional context and details.

1.1 Regulatory Chronicle

The 2016 Phase II RIR completed the remedial investigation (RI) phase of work at the Facility and included the 2016 EE/ERA that evaluated risk based on the comprehensive site investigation/RI (SI/RI) dataset. The 2016 EE/ERA included an ERA Work Plan outlining specific ERA desktop and field activities that would facilitate refining the risk characterization presented in the 2016 EE/ERA (Hercules 2016b). Hercules implemented the proposed activities and conducted subsequent ERA-specific field investigations between 2016 and 2019. On 8 July 2019, Hercules received NJDEP's comments on the EE/ERA submitted in May 2016 (**Attachment 3**). Hercules' ERA work completed following submission of the EE/ERA in 2016 generally aligned with and addressed certain of NJDEP's 2019 comments (**Appendix A**).

During the 2016-2019 timeframe, the Facility was being considered for redevelopment, with remedial capping over large portions of the former operational area integrated into the

development plan. Representatives from Hercules and NJDEP participated in a technical consultation on 5 December 2019 to review a revised risk characterization based on post-EE/ERA efforts, discuss incorporating development into the ERA process and build consensus on the approach to completing ERA activities for the Facility. During this meeting, Hercules and NJDEP discussed the pending development activities at the site, their influence on the ERA, and the value of defining the footprint of development (e.g., general development plan and/or site plan approval in place) prior to additional risk-related work. **Attachment 4**[1] provides the presentation from the technical consultation. Hercules agreed to prepare an ERA addendum providing data collected since the May 2016 EE/ERA and a matrix table providing the basis for identifying Areas of Presumed Remedial Action and associated status of each area as it relates to remediation and redevelopment.

In late 2020, Hercules entered into an agreement with a buyer who put forth a plan to develop an approximately 210-acre portion of the Facility where the development would remediate more than 50 percent of the AOCs onsite by functioning as a remedial cap, rendering ecological exposure pathways incomplete in that area. In August 2022, Hercules submitted a remedial action work plan for development-related capping to NJDEP; and the developer submitted development-related applications to local, county, and state agencies. As the developer engaged with various agencies (including NJDEP) reviewing permits for the proposed development, the design (including extents/footprint) was modified in response to agency feedback. As each of these changes influenced the ERA dataset, Hercules deferred completing the ERA addendum until the developer had final submissions/approvals in place that define the limits of the remedial cap and development.

At NJDEP's request, Hercules provided a development and ERA status update via email in June 2024 (**Attachment 5**). At that time, the developer was still pursuing permit approvals. Recognizing the increasing timeline for development approvals and the need to move the ERA forward in parallel, Hercules proposed to prepare an ERA data summary report without an updated risk characterization and identify how NJDEP's 2019 comments are/will be incorporated into the ERA. The ERA addendum with an updated risk characterization would follow upon receipt of development approvals that definitively establish a footprint of the development that could be relied upon in the ERA.

In August 2024, the developer walked away from the project and withdrew its development applications; Hercules also withdrew the associated remedial action work plan (**Attachment 6**).

On 30 June 2025, Hercules received an email from NJDEP directing them to submit an updated EE/ERA by 2 September 2025 (**Attachment 7**). This document is responsive to NJDEP's 2019 comments and fulfills the 30 June 2025 request. Specifically, this ERA Report:

- Presents ERA investigation findings from multiple efforts spanning 2016 to 2019 and incorporates those findings in a weight-of-evidence approach to the updated risk characterization.

[1] The underlying dataset for the statistics and visuals within this presentation may differ from this ERA report due to additional sampling and changes to APRA boundaries. This document was the basis of the conversation with NJDEP that occurred in 2019 and reflects the overall strategy/approach discussed during that meeting.

- Establishes an ERA dataset that focuses assessment activities on the biologically active zone (BAZ) in soil and sediment to the extent practicable. This approach balances the value of the breadth of historical data with the vertical intervals it represents.

- Refines risk estimates and key risk drivers in terrestrial exposure areas and proposes additional investigation activities to better align the scale of the exposure assessment with specific receptors.

- Assesses risk in a series of subdrainage areas, refining the broader drainage area approach presented in the 2016 EE/ERA and incorporating the identification and assessment of Environmentally Sensitive Natural Resources (ESNRs) at the Facility.

- Reduces the uncertainties associated with the risk characterization presented in the 2016 EE/ERA.

- Provides a forward-looking framework through which unacceptable ecological risks will be addressed.

Appendix A provides NJDEP's 8 July 2019 comments and a response matrix prepared by Hercules that illustrates how and where in this document each of the NJDEP's comments are addressed.

1.1.1 Sitewide Remedial Strategy

As part of the Remedial Agreement executed between Hercules and NJDEP in March 1995, a sitewide restoration strategy was developed to guide the investigation, remediation, and closure of the Facility. The strategy employs a phased approach whereby the focus of subsequent phases is tailored based on interpretation of information obtained during previous phase(s). The strategic approach considers both areal extent (i.e., entire Facility, former operational area, Area of Concern [AOC]) and media of interest (i.e., soil, groundwater, surface water, sediment) as appropriate. Environmental investigations at the Facility, including ERA activities, remain consistent with the Sitewide Remedial Strategy that has guided the SI/RI process, remedial action prioritization, and site closure planning to date.

The following presents an overview of investigation and assessment activities conducted in support of the ERA:

- Site Investigation – 2004
- Phase I Remedial Investigation – 2007
- Phase II Remedial Investigation – 2016
- Ecological Evaluation/Ecological Risk Assessment – 2016
- ERA Work Plan – 2016
- Terrestrial Lead Work Plan – 2018
- Updated Screening Summary & Recommendations Package – 2019
- Aquatic ERA Work Plan Addendum – 2019
- NJDEP Technical Consultation and Presentation - 2019

The 2004 SI involved a Facility-wide evaluation of environmental media (soil, groundwater, surface water, and sediment) to identify if constituents were present in media onsite, and if present, present at concentrations greater than NJDEP remedial criteria at the time. As part of the process, the SI identified approximately 1,200 AOCs at the Facility. In conjunction with NJDEP, Hercules aggregated AOCs based on proximity and/or function to develop a series of complex AOCs, called operational areas, at the scale at which remedial investigation and/or remedial action could occur. These are defined as former operational areas of the Facility (**Figure 2-2**). Collectively, these former operational areas, and certain areas immediately adjacent to them influenced by Facility operations, form the Remedial Area. The SI also evaluated whether operations influenced undeveloped areas of the Facility (i.e., those areas beyond the Remedial Area). The results of the SI focused the scope of the subsequent RI on refining the understanding of magnitude and extent, and delineating constituents in the Remedial Area. The ecological evaluation activities conducted since the 2016 EE/ERA follow this informed reductive approach in alignment with the sitewide strategy. Section 3 provides additional information regarding previous investigations at the Facility.

This document incorporates the findings presented in the 2016 Phase II RI (Hercules 2016a) and evaluates the comprehensive site characterization (SI, Phase I RI, and Phase II RI) and 2016-2019 ERA activity (as summarized in the following sections) datasets using the risk assessment framework.

1.2 Purpose and Objectives

This ERA builds upon the findings presented in the media-specific RIRs for the Facility (i.e., soil, groundwater, surface water, and sediment) and the 2016 EE/ERA, and utilizes nearly 28 years of accumulated knowledge regarding historical site operations and related chemical and physical influences at the Facility.

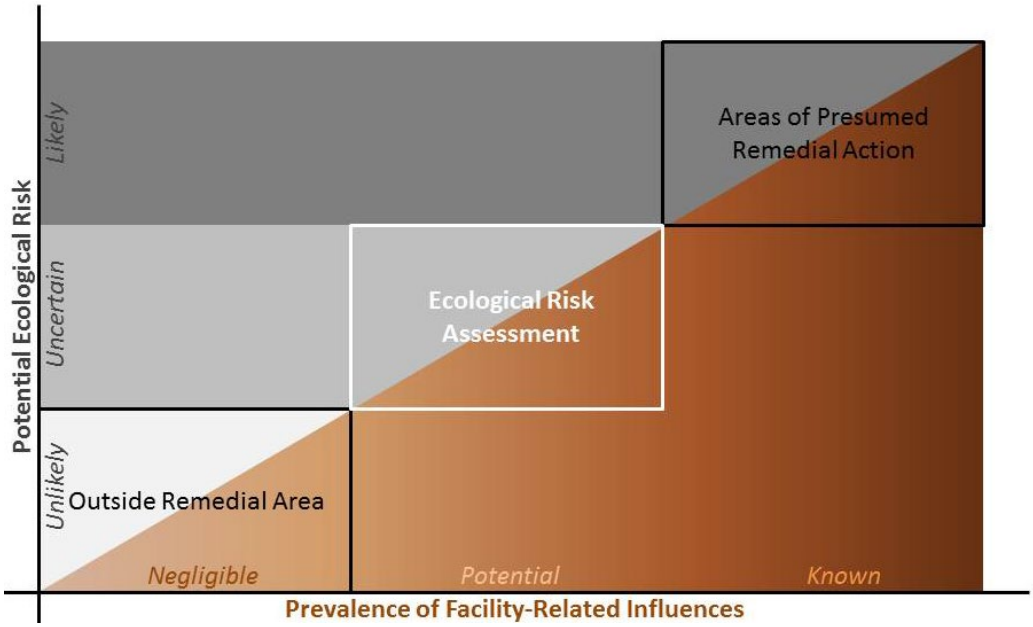
This ERA develops a technical basis regarding whether exposure to Compounds of Potential Ecological Concern (COPECs) related to former Facility operations could adversely affect flora or fauna that inhabit the site. It evaluates the potential for ecological risks to ESNRs on and adjacent to the site pursuant to NJAC 7:26E-1.16(a) and consistent with NJDEP guidance (NJDEP 2023).

The SI/RI process defined the Remedial Area based on the extent of and influences attributable to historical Facility operations. This ERA relies on the same informed, reductive approach employed in the SI/RI process and separates the Facility into three general categories described below and illustrated in the graphic that follows.

1. Undeveloped areas beyond the Remedial Area where the potential for ecological risk is assumed unlikely (hereafter referred to as Areas Beyond the Remedial Area Boundary).

2. Areas within the Remedial Area where constituent concentrations and/or physical characteristics merit remediation (e.g., the potential for ecological risk is likely), regardless of the outcome of the EE/ERA process (hereafter referred to as Areas of Presumed Remedial Action [APRAs]).

3. Areas within the Remedial Area where the potential for ecological risk is uncertain.



The first two categories represent locations where potential ecological risk is either unlikely or highly likely. These areas are discussed and considered separately and are not included in the quantitative evaluation of ecological risk for the remaining category where the potential for risk is uncertain. Additional information about Areas Beyond the Remedial Area Boundary is provided in Section 3.4. Additional information about APRAs is provided in **Appendix B**.

The overall objectives for this ERA, for the areas within the Remedial Area where the potential for ecological risk is uncertain, are as follows:

- Evaluate and present data and additional information from scientific resources to characterize ecological structure and function at the Facility.
- Describe potential ecological effects that may occur due to receptor exposure to COPECs.
- Estimate the extent of wildlife receptor exposure to COPECs.
- Characterize potential risks to wildlife receptors that may be exposed to COPECs.
- Describe uncertainty associated with the data evaluation, exposure assessment, effects evaluation, and risk characterization.
- Provide multiple lines of evidence (LOEs) to support a scientifically based risk management decision regarding the need for ecologically-focused remedial action at the Facility.

Per NJDEP and USEPA guidance, this ERA refines certain conservative assumptions from the 2016 EE/ERA using Facility-specific information and data collected between 2016 and 2019 in support of ERA and associated remedial decision-making processes. The conclusions and

recommendations of this ERA focus on additional ecological risk-related activities and/or remedial actions, where applicable.

1.3 Report Organization

The remainder of this ERA is organized as follows:

- Section 2, Facility & Environmental Background, summarizes the physical location of the Facility and its environmental chronicle.
- Section 3, Problem Formulation, describes the environmental history of the Facility, constituent releases, ecological CSM, and selects measurement endpoints (MEs) and assessment endpoints (AEs).
- Section 4, Data Review and COPEC Selection, describes data usability, the dataset used for the ERA, and screens data against ecological benchmarks to identify COPECs.
- Section 5, Ecological Exposure Assessment, discusses the selection of representative receptor species and exposure parameters used for food web modeling and presents the methodology of the food web modeling.
- Section 6, Ecological Effects Assessment, presents toxicity reference values (TRVs) for each COPEC.
- Section 7, Ecological Risk Characterization, presents results of the ERA, including hazard quotients (HQs) resulting from food web models.
- Section 8, Uncertainty Analysis, discusses specific uncertainties and their associated effects on the outcome of the ERA.
- Section 9, Recommendations, summarizes the results of the risk assessment process, including an evaluation of MEs and AEs, and provides multiple lines of evidence (LOEs) to support a scientifically-based risk management decision regarding the need for further ecological evaluation at the Facility and identify additional ERA activities to inform the need for and scope of ecologically-driven remedial actions.
- Section 10, References, lists the references used to develop this ERA.

Tables, figures, appendices, and attachments support the text and are referenced accordingly.

Section 2: Facility & Environmental Background

2.1 Facility Location

The Facility occupies approximately 1,059 acres along Howard Boulevard, about 0.5-mile northwest of the center of Kenvil, Morris County, New Jersey (**Figure 1-1**). Regionally, the Facility is approximately 40 miles west of New York City and 30 miles east of the Delaware Water Gap. The Facility is bounded by the New Jersey Transit Railway to the north, Berkshire Valley Road to the southeast, Route 46 to the south, and Howard Boulevard to the northwest. **Figure 2-1** presents a site plan with major topographic features.

2.2 Facility Development and Operations

The Facility began operation in 1871 and initially manufactured dynamite to support iron ore mining operations in the surrounding area. The facility was operated by various companies until 1912, when Hercules became the sole owner. Through the early and middle parts of the 20th century, Hercules expanded its manufacturing operations to meet the growing economic need for explosives and propellants. During this period, multiple operational areas were established (**Figure 2-2**).

Propellants and explosive and energetic (E&E) compounds, such as 2,4,6-trinitrotoluene (TNT), nitroglycerin (NG), pentaerythritol tetranitrate (PETN), smokeless powder, and ammonium nitrate fuel oil (ANFO), were produced for both military and commercial applications. Specialty products such as initiating materials, ingredients for medical applications, and materials for actuating devices were also produced. In the final years of operation, smokeless powder was the primary product and was produced by Alliant under a site lease agreement from 1995 to 1996.

The facility ceased operation in 1996. At this time, Alliant operated the Facility, and Hercules entered into a voluntary agreement with the State of New Jersey to investigate the TNT Area. Hercules re-acquired control of the Facility on 1 January 1997, and, as the property owner, remained responsible for remediation and closure of the Facility. Hercules, and its related environmental liabilities at the Facility, was acquired by Ashland, Inc. in 2008. Hercules currently operates as a wholly owned subsidiary of Ashland, Inc. and is responsible for remediating the Facility.

2.3 Environmental Chronicle

Environmental investigations were initiated onsite in response to a 1995 Remedial Agreement between NJDEP and Hercules and as part of the Industrial Site Recovery Act (ISRA) process triggered by the property transfer in 1996. The SI/RI activities spanned two decades, relied on the triad approach with NJDEP to build consensus on next steps based on the findings of prior phases of work, and culminated in the 2016 Phase II RIR documenting the completion of the RI submitted to NJDEP in May 2016. The Phase I and Phase II RIRs (Hercules 2007, 2016a) provide a comprehensive chronicle of environmental investigations conducted at the Facility and associated conclusions.

Findings from previous investigations pertinent to this ERA are summarized below.

2.3.1 Site Investigation/Remedial Investigation

In 1997, Hercules initiated an SI that included Facility-wide evaluations of environmental media (soil, groundwater, surface water, and sediment) to identify if constituents were present in media onsite, and if present, present at concentrations greater than NJDEP remedial standards at the time. As part of the process, the SI defined former operational areas of the Facility (**Figure 2-2**) and the extent of Facility operations on adjacent undeveloped areas. Collectively, these former operational areas and certain areas immediately adjacent to them influenced by Facility operations form the Remedial Area. The SI also evaluated whether operations influenced undeveloped areas of the Facility (i.e., those areas beyond the Remedial Area). The SI identified negligible influences related to Facility operations in the undeveloped areas, with the exception of a few small, isolated areas that were subsequently included in the Remedial Area and evaluated in the RI. The remaining undeveloped areas of the Facility were not evaluated further during the RI. The ERA has mirrored this approach, with a focus on the Remedial Area and a separate assessment of the undeveloped areas presented in the EE/ERA.

The results of the SI focused the scope of the subsequent RI on refining the understanding of magnitude and extent, and delineating constituents in the Remedial Area. Hercules completed the RI with the submission of the Phase II RIR in 2016. **Figure 2-2** shows the Facility boundary, Remedial Area, and former operational areas.

Regulatory submissions associated with the SI/RI are summarized in the following table.

Date	Report
May 2004	*Site Investigation Report – Soil* (MWH Americas Inc. [MWH] 2004a)
November 2004	*Site Investigation Report – Sediment/Surface Water* (MWH 2004b)
July 2005	*Site Investigation Report - Groundwater* (MWH 2005a)
May 2005	*Area I Remedial Investigation Work Plan* (MWH 2005b)
December 2006	*Revised Site-Wide Remedial Investigation Work Plan* (MWH 2006)
May 2007	*Phase I Remedial Investigation Report* [Phase I RIR] (MWH 2007)
April 2016	*Phase II RIR* (Hercules 2016a), including EE/ERA (Volume F) and *ERA Work Plan* (2016 ERAWP)

As excerpted from the Phase II RIR, *the principal findings of the SI and RI performed at the Facility include:*

- *The intent of the N.J.A.C. 7:26E TRSR for remedial investigations [N.J.A.C. 7:26E – 4.1 through 4.8] has been met. Facility-related influences in environmental media (soil, groundwater, sediment, and surface water) have been delineated site-wide.*

- *The SI and RI combine to effectively characterize and delineate the nature and extent of Facility-related influences. Influences associated with former manufacturing operations were often comingled with those attributable to the use of historic fill during Facility development. Where practicable, these influences have been separated and constituent sources identified.*

- *Facility-related influences in environmental media result in unacceptable levels of potential risk to ecological receptors based on the screening and conservative exposure modeling conducted in the EE/ERA. In response to these findings, additional sampling has been proposed to generate Facility-specific data that will replace non-specific estimated concentrations in the exposure models. The refined risk analysis will identify discrete areas of the Facility driving these risk estimates, and inform the remedial decision-making process related to these areas as well as the overall Facility. Establishment of ecological-based remediation goals will incorporate the footprint of redevelopment and related future land uses.*

- *Current Facility use precludes human health exposure risks, as personnel permitted to access the Facility are trained in the identification and control/mitigation of potential exposures. Characterization and delineation did not identify Facility-related influences beyond the property boundaries. As such, no off-site human health exposure risks exist.*

- *The SI and RI generated sufficient information to identify and prioritize areas requiring administrative controls and/or active remediation. These administrative controls and remedies will be aligned with redevelopment planning.*

Hercules continues to design and implement remedial actions focused on areas identified in the RI, including those APRAs identified in the EE/ERA.

2.3.2 ERA Activities – 2016 to 2019

The 2016 EE/ERA concluded that:

- Overall, the potential for ecological risks is low.

- The greatest potential for adverse effects is from lead. Upper-trophic-level receptors in terrestrial and aquatic exposure areas exhibit elevated lead HQs.

- Risk characterization also identified other metals and polycyclic aromatic hydrocarbons (PAHs) as the COPECs that pose the potential to cause adverse effects to ecological receptors exposed to environmental media at the Facility.

- Risk characterization relied on conservative exposure assumptions and did not incorporate measures of COPEC bioavailability. Soil and sediment characteristics at the Facility allow for the sequestration and binding of metals and PAHs, potentially reducing the fraction of these COPECs available for uptake by receptors and reducing the potential for adverse effects.

Based on the results presented in the 2016 EE/ERA and the uncertainty regarding bioavailability, additional risk assessment activities at the Facility to refine the risk characterization were recommended and presented in the ERAWP provided as an appendix to the 2016 EE/ERA. The ERAWP included spatial analysis to refine the scale at which exposures areas evaluated risk, with additional data collected recommended to refine exposure estimates.

Following submission of the 2016 EE/ERA, Hercules implemented the ERAWP and built upon the findings of that work through a series of documents focused on refining risk estimates, identifying areas requiring remediation based (in whole or in part) on ecological risk, and considering future development in the ERA process.

ERA-related documents prepared following ERAWP implementation are summarized in the following table.

Date	Attachment	Record Item
December 2018	**Attachment 8**	*Terrestrial Lead Work Plan* [2018 TLWP]
March 2019	**Attachment 9**	*Updated Screening Summary & Recommendations Package* [SSRP]
June 2019	**Attachment 10**	*Aquatic Ecological Risk Assessment Supplemental Sampling Memo* [Aquatic ERASSM]
December 2019	**Attachment 4**[2]	NJDEP Technical Consultation Presentation

The narrative that follows summarizes the scope and objectives associated with these documents within the context of the aquatic and terrestrial risk characterization that they refined.

The ERAWP (Hercules 2016b), developed as an appendix to the 2016 EE/ERA (**Attachment 1**), presented a desktop evaluation that refined the results of the 2016 EE/ERA. Specifically, this evaluation:

- Modified area use factors (AUFs) of upper-trophic level receptors, conservatively set at 1 in the 2016 EE/ERA, to reflect species-specific migratory patterns and home ranges from USEPA (1993)
- Updated dietary composition to reflect information available from species-specific field studies presented by USEPA (1993) and Hansen (2011).
- Preferentially selected TRVs based on species-specific studies of wild (rather than domesticated/lab-raised) individuals presented in USEPA documents and/or peer-reviewed scientific literature.
- Identified fractional risk contributions from distinct subareas composing the larger aquatic exposure areas.

The ERAWP desktop evaluation focused on refining understanding of potential impact to receptors by identifying those COPECs most likely to present unacceptable risk. Based on these findings, the ERAWP concluded that:

- **Terrestrial evaluation:** Additional evaluation of the form(s) and speciation of lead was needed better understand and assess its potential bioavailability to the American robin (*Turdus migratorius*).

[2] The underlying dataset for the statistics and visuals within this presentation may differ from this ERA report due to additional sampling and changes to APRA boundaries. This document was the basis of the conversation with NJDEP that occurred in 2019 and reflects the overall strategy/approach discussed during that meeting.

- **Aquatic evaluation:** Additional evaluation of sediment and surface water and aerial insect tissue sample collection was needed within distinct subareas of aquatic exposure areas to validate and refine modeled dietary exposures.

The following sections summarize the concurrent timeline of aquatic and terrestrial ERA activities following EE/ERA submission.

2.3.2.1 Aquatic Characterization

The 2007 Phase I Remedial Investigation Report – Volume B – Soil (Phase I Soil RIR; Hercules, 2007) identified changes in hydrology resulting from demolition and site investigation activities. Specifically, the removal of over 1,000,000 square feet of impervious surfaces and more than 325 buildings reduced the overland flow of stormwater that was managed via a series of ditches and channels. Following demolition, the upper ends of these ditches no longer received runoff, conveyed water, or supported aquatic receptor communities. As such, sediment samples in these reaches were re-categorized as soil samples and evaluated relative to soil criteria (Section 2.4 of the Phase I Soil RIR).

KJ observed continued changes in the upper reaches of certain ditches during ERAWP implementation activities in aquatic exposure areas in June 2016. Based on these observations, a survey of the historical drainage ditches evaluated in the EE/ERA was conducted in 2017 to identify reaches that no longer provide aquatic habitat or provide limited aquatic habitat (as discussed further in Section 3.2.1.1). Consistent with the approach taken during the Phase I RI, additional sediment samples in the reaches that no longer provided aquatic habitat were reclassified as soil and evaluated as part of the terrestrial exposure assessment. Recent observations did not identify further changes to the hydrology; conditions appear stable and additional substantive changes to these feature classifications are not expected.

Sediment data collected during ERAWP implementation were screened to evaluate potential risks of COPECs to ecological receptors (i.e., benthic invertebrate communities). The results of this screening, the survey to refine the sediment dataset, and resulting recommendations were documented in the March 2019 Updated SSRP (**Attachment 9**). The Updated SSRP recommended supplemental sampling in seven subdrainage areas to further evaluate potential risk to benthic macroinvertebrate communities in these areas.

The Aquatic ERASSM (**Attachment 10**) outlined proposed supplemental sampling activities as recommended in the Updated SSRP. The objectives of the Aquatic ERASSM field sampling plan were as follows:

- Evaluate bioavailability of divalent metals (i.e., copper, cadmium, lead, nickel, and zinc) and chemical speciation of chromium in subdrainage area sediment via analyses of acid-volatile sulfide/simultaneously extracted metals (AVS/SEM), hexavalent chromium, and sediment chemistry and grain size.

- Evaluate bioavailability of polycyclic aromatic hydrocarbons (PAHs) in subdrainage area sediment via analyses of 34 parent PAHs and alkylated families (USEPA Method 8270SIM) and equilibrium-partitioning sediment benchmark toxic units (ESBTUs)

- Evaluate the form and bioavailability of mercury in subdrainage area surface water via analysis of total and dissolved methylmercury (USEPA Method 1630)

- Evaluate benthic invertebrate community composition and diversity in subdrainage areas via benthic invertebrate community surveys in target subdrainage areas and reference areas

Aquatic ERASSM implementation occurred in August 2019 (**Appendix C**), results of which were presented to NJDEP during the 2019 Technical Consultation (Section 2.3.2.3).

Additionally, an updated survey of freshwater wetlands and/or State open waters was conducted at the Facility from 2018 to 2020 for the purpose of permitting ongoing site remediation and long-term site redevelopment activities. A Freshwater Wetlands Letter of Interpretation (LOI) Line Verification application was submitted to the NJDEP Division of Land Resource Protection on 2 November 2020 and approved by NJDEP on 27 August 2021. These surveys of aquatic and transitional habitat are incorporated into the ERA (Section 3.2.1).

2.3.2.2 Terrestrial Characterization

The 2018 TLWP (**Attachment 8**) outlined data collection activities to refine existing conclusions regarding lead in Facility soil and its potential risk to terrestrial receptors (i.e., American Robin). The objectives of the TLWP were as follows:

- Identify lead concentrations in the terrestrial exposure area driving risk estimates (areas of enrichment [AoEs]).
- Develop conceptual site models (CSMs) for each AoE.
- Establish a sampling plan to evaluate bioavailability, chemical speciation, and physical form of lead in soil of AoEs and the potential for upper trophic level receptor prey items to bioaccumulate lead.

KJ implemented TLWP field sampling activities in December 2018 (as detailed further in **Appendix D**), results of which were presented to NJDEP during the 2019 Technical Consultation (as discussed further in the following section).

2.3.2.3 2019 Technical Consultation and Presentation

Representatives of Hercules and NJDEP met for a technical consultation on 5 December 2019 (KJ 2020a). The objectives of the technical consultation included:

- Discuss NJDEP's 8 July 2019 Ecological Component Review comments,
- Update NJDEP on supplemental ERA activities and remediation activities that occurred between May 2016 to December 2019, and
- Initiate an ongoing dialogue between NJDEP and Hercules to build consensus on the approach to completing EE/ERA activities for the Facility.

During this technical consultation, Hercules representatives presented the results of supplemental ERA desktop and field activities implemented per the ERAWP, TLWP, and ERASSM (a copy of the presentation is provided in **Attachment 4**); and agreed to submit an ERA addendum incorporating these results and NJDEP comments into the ERA (the ERA Addendum was

subsequently deferred due to changes in the redevelopment plans). Hercules also informed NJDEP that development planning at the Facility was underway and would fundamentally influence ecological exposure pathways onsite in terrestrial and aquatic exposure areas. Additional details related to development planning, and its influence on the ERA, are provided in Section 2.3.4.

2.3.3 Remedial Actions

Concurrent with completing the RI via submission of the 2016 Phase II RIR, Hercules initiated planning and design activities associated with remedial actions in certain "Areas of Presumed Remedial Action" [APRAs] (e.g., TNT Area). Additionally, the conclusions of the RI and EE/ERA identified additional areas that merit remediation (e.g., Maintenance Area PCBs). Brief summaries of key remedial actions completed and underway are provided below. Additional information can be found in **Table 2-1**, **Attachment 2** and at www.hercules-kenvil.com.

Between 2017 and 2022, Hercules designed, permitted and implemented remedial excavation of soil containing PCBs and lead in the Maintenance Area, and soil containing PCBs in a northeast portion of the Development Area (AOC M5-3). These removals resulted in the offsite disposal of approximately 13,000 tons of regulated waste. A remedial cap compliant with NJDEP and Toxic Substances Control Act specifications will be integrated into site development design and documented in a remedial action report following construction completion.

From 2013 to present, Hercules has designed, piloted, permitted, and is implementing a multi-year soil bioremediation project addressing TNT in soil in the southwestern portion of the Facility (KJ 2020b). The remedy will treat approximately 100,000 tons of soil via a sequential ex-situ and in-situ bioremediation process, eliminating the need to transport contaminated soil offsite and providing for the use of treated (remediated) soil as backfill in the excavation areas.

Hercules continues to advance the design and implementation of pre-design investigations and remedial actions in APRAs. **Appendix B** presents information specific to each APRA and chronicles progress toward completing remedies for each area.

2.3.4 Facility Redevelopment

Future use at the Facility is considered in remedial action objectives and incorporated into the design, ultimately positioning the Facility for reuse. While no current development plan exists, future uses based on zoning designations for the Facility may include a mixture of preserved open space and light industrial/ commercial development.

Hercules, Roxbury Township, the New Jersey Highlands Council, and the New Jersey Office of Smart Growth developed conceptual future use plans for the Facility. Following cessation of operations in 1996 and throughout the decommissioning and environmental investigation process, the future use plans focused redevelopment in the central core of the Facility, in areas corresponding to those previously developed for Facility operations (**Figure 2-2**). The wetland complex at the southern end of the Facility, as well as Duck Pond and the forested area to the north, remain undeveloped as natural open space (**Figure 2-3**). Similarly, the steep wooded ridgelines that bound the Facility remain primarily undeveloped.

Hercules continues to develop a remedial strategy for the Facility that positions portions of the former operational areas for redevelopment while preserving the Facility's natural resources. This approach aligns with the brownfields redevelopment concept, best management practices (e.g., low-impact development and stormwater management), NJDEP land use practices, conceptual development plans prepared by Roxbury Township, and infrastructure already in place to support redevelopment (e.g., transit station, heavy rail access, water and wastewater resources).

In November 2020, Hercules entered into a sales agreement with a prospective buyer. Shortly thereafter the buyer engaged with regulatory agencies (local, county, state) and initiated design and pursuit of development-related approvals. The initial design focused on approximately 210-acre portion of the Facility where the development would remediate more than 50 percent of the AOCs onsite by functioning as a remedial cap rendering ecological exposure pathways incomplete. As the developer engaged with various agencies (including NJDEP) reviewing permits for the proposed development, the design (including extents/footprint) was modified in response to agency feedback. Hercules deferred ERA-related work until the developer had final submissions/approvals in place that define the limits of the remedial cap and development.

In August 2024, the developer walked away from the project and withdrew its development applications; Hercules also withdrew the associated remedial action work plan. Hercules is currently evaluating other prospective buyers and associated conceptual development plans.

The ERA presented herein addresses the entirety of the former operational area at the Facility. The integration of remedial capping into a development plan for the Facility remains the presumptive remedy for the central portion of the Facility where historic fill and operational influences are widespread in soil. Development-related influences on the ERA risk characterization will be addressed in future deliverable(s) as appropriate based on development planning and approval timelines.

2.4 Ecology

2.4.1 Regional Ecology

The Facility is located in the New Jersey Highlands physiographic province of north-central New Jersey and is characterized by broad, elevated ridges separated by long, narrow valleys. In general, topographic features in this region (e.g., ridges and valleys) tend to be oriented in a southwest to northeast direction (**Figure 2-1**).

Preserved land, primarily upland deciduous forest (dry mesic mixed oak forest [Karlin 1989]), is relatively abundant near the Facility. Rock outcrops, forested wetland mosaics, and stream channels intersperse among the expanses of upland forest. Open space within approximately 10 miles from the site includes the Berkshire Valley Wildlife Management Area, Mahlon-Dickerson Reservation, Allamuchy State Park, and other smaller parcels. Dense commercial and residential development and major infrastructure routes (e.g., railroads and highways) fragment other areas of forest habitat into smaller isolated patches.

The area currently known as Morris County was subject to repeated glaciation. Glacial lakes of varying sizes (e.g., Longwood Lake, Lake Hopatcong) occur in areas around the Facility. The glaciers scoured the northern part of the county to bare rock in places, deposited glacially mixed

till, transported material over the county, and altered drainage patterns. Included within the formerly glaciated areas are numerous kettles, or basins. These kettles were filled progressively as organic material and mineral sediment accumulated in them. These features occur in the northeastern portion of the Facility (Natural Resources Conservation Service 1976) beyond the former operational footprint.

Roxbury Township and Morris County support light industrial/commercial development. Originally settled in the early 1700s, Morris County became a national leader in iron ore mining following the Revolutionary War. By the late 1800s, the county produced more than ½ million tons of iron ore and relied on forests to provide wood and the vast network of flowing streams to power the mills and forges. By the early 1900s, the mining industry moved toward the Great Lakes region and the county became a suburban center for New York City. Consequently, this dynamic development history altered the landscape, ecology, and hydrology. Mapping and assessment (at the HUC-14 level) conducted by the New Jersey Highlands Council identifies the effect of these changes on the Facility's subwatershed, and others in the surrounding area, by assigning a moderate resource value (NJDEP 2024).

2.4.2 Local Ecology

The Facility is situated on a valley floor between two forested ridgelines. The former Facility operational areas remain vacant following decommissioning and demolition activities conducted between 1996 and 2003. These areas are in various states of vegetation succession and currently exist primarily as grass field and shrublands, interspersed with remnant infrastructure and building remains.

Transit corridors and development adjacent to the Facility create ecological breaks, separating the Facility from other natural areas nearby. Smaller ecological receptor species are unlikely to cross these ecological breaks and thus exist at the Facility in the capacity that the Facility is capable of supporting them. Given the size of the Facility and range of habitat and forage sources it provides, the Facility is likely to support populations of smaller receptor species. Larger, upper-trophic-level species are less restricted by these ecological breaks, particularly avian species that cover large areas to forage and/or breed.

Hydrologic inputs at the Facility consist of precipitation, surface water features, stormwater from adjacent developed areas, and other flow conveyed by natural, altered, and man-made features. Remnants of the stormwater management systems in place during historical Facility operations serve to drain and convey stormwater onsite. The area north of Powder Mill Road near the construction and demolition debris landfill (C&D landfill) serves as a general topographic and flow divide. Water entering the Facility via streams, runoff, and stormwater outfalls south of the C&D landfill is conveyed through a series of culverts and ditches to the wetland complex at the southern end of the Facility. Duck Pond (and vernal pools to a lesser extent) serves as the collection point for sources of hydrology north and east of the divide, including a series of wetlands and tributaries draining directly to Duck Pond. These systems were mapped and modeled as part of the July 2021 Flood Hazard Area Verification issued by NJDEP associated with the TNT soil bioremediation project currently underway.

Section 3: Problem Formulation

3.1 Environmental History

Historically, the valley currently occupied by the Facility drained the neighboring ridgelines via a network of wetlands and streams. Development and expansion occurred periodically throughout the Facility history and made use of historic fill materials (e.g., fly ash, bottom ash, and slag derived from the combustion of coal), obtained primarily from offsite sources. Fill was used to raise ground surface elevations, provide a stable substrate for transportation and operational infrastructure (i.e., narrow gauge rail, roadways, buildings) and otherwise manage or direct surface water (i.e., stormwater runoff, historical drainage features).

Multiple production/operational areas supported former operations at the Facility (**Figure 2-2**). Initial operations involved the manufacture of dynamite (NG encased with absorptive filler material in a waxed paper shell) to support local iron ore mining. The original dynamite production area was located within a small section of the later developed NG, TNT, and Dynamite Areas identified on **Figure 2-2**. Portions of the later developed A-Line and Maintenance Areas were also used for finished product storage (A-Line) and maintenance activities (Maintenance Area).

Demand for E&E products increased during war time (beginning with World War I and continuing through the Vietnam War). In response, manufacturing operations expanded to encompass approximately 800 acres, including the PETN, A-Line, B-Line, ammonium nitrate (AN), Finishing, Storage, Development, and Diazo (diazodinitrophenol) Areas. Support areas were also developed, including office space, plant laboratories, maintenance areas, power houses, mixed acid areas, drum storage areas, the water supply system, a wastewater treatment plant, warehouses, and miscellaneous production and support buildings.

Figure 2-2 provides approximate boundaries for former operational areas of the Facility.

3.1.1 Environmental Releases

Environmental releases occurred during the operational history and, to a lesser extent, during historical demolition practices (e.g. burning structures in place). Releases included accidents and/or incidents during production and transport of materials throughout the Facility as well as influences from historical practices onsite. Release mechanisms (e.g., fires, explosions, spills) and notable events are described below.

3.1.1.1 Fires

Historically, fires occurred as accidents and a means of intentionally decontaminating structures contaminated with E&E constituents or destroying off-specification E&E products. Uncontrolled fires resulting from accidents and production upsets were most frequent from 1871 until the 1950s when more advanced manufacturing process controls were incorporated. Though less common, fires have been documented as recently as 1989. Fires were of critical concern for the Facility as the nature of the E&E constituents manufactured released tremendous energy that could result in multiple operations becoming involved prior to the fire becoming controlled and eliminated.

Fires resulting from both accidents and intentional thermal decontamination efforts required the use of significant quantities of water. Accidental fires were contained and extinguished as soon as possible with as much water as could be directed toward the fire. There are no records of the use, storage, manufacturing, or handling of per- and polyfluoroalkylated substances related to fire suppression or other activities at the Facility. Intentional thermal decontamination efforts required the use of significant quantities of water to ensure the fire did not spread beyond the intended structure. The water used had the potential to redistribute constituents either not consumed or affected by fire creating localized heterogeneity of constituent distribution.

In some instances, it is possible that not all combustible constituents, including E&E, are consumed by fire. Small-scale detonations can occur if E&E constituents detonate at their thermal decomposition temperature of if they are confined with sufficient pressure. These small-scale detonations can cause the material to be thrown away from the fire and not be consumed. Certain energetic constituents have high melting and decomposition temperatures and have the potential to migrate in the molten state and recrystallize when temperatures drop below their melting point.

3.1.1.2 Explosions

Historically explosions at the Facility were not uncommon occurrences. In particular, during the World War I (WW I) era as many as 6,000 marginally trained and educated employees were imported from around the country to meet the rapidly increasing need for E&E constituents required to supply the United States (US) and its allies (Great Britain, France, and Russia). Other peak war time production eras (WW II, Korea, and Vietnam) also incorporated large untrained work forces into an ever-increasing production demand. Correspondingly, an increase in explosions occurred.

In most cases explosions were limited to single operational units (e.g., C13 – 666 Refined TNT Graining House), and while the explosions were very destructive. They were limited in the extent of their effect. Explosions resulted in disturbed ground surface, shattered structures, and scattered debris. Along with these direct effects, explosions also represent a potential means of constituent release and distribution.

3.1.1.3 Spills

Throughout the more than 125 years of manufacturing history at the Facility, general operations had the potential to release constituents to the environment through accidents (other than the more destructive fires and explosions previously discussed) or spills on relatively small scales.

Accidents during transportation of raw and finished products have the greatest potential to release constituents to the environment. Transportation of raw and finished products was accomplished through a variety of methods that included: mule-drawn buggies, human-drawn buggies (angel buggies), narrow gauge rail, and trucks. A small percentage of the accidents may have involved a release of the transported materials. Spillage of materials can occur for a variety of reasons that are often precipitated by either mechanical failure or human error.

It is possible that to a small degree some of the localized heterogeneity within the former operational areas of the Facility where material handling occurred could be attributed to the release of constituents by accidents and spills.

3.1.1.4 Historic Fill

The Facility began as a small operation in 1871 and solely produced dynamite to support the local iron mining industry. Manufacturing activities were limited to the southwestern area of the Facility in a small section of the current NG, TNT, and Dynamite Areas. Operations are believed to have been limited to the higher topography of the western ridge or immediately adjacent to the ridge where wet areas were not present. Portions of the A-Line and Maintenance Areas were also used in support roles such as finished product storage (A-Line) and maintenance activities (Maintenance Area). These areas were either located on the western ridge, adjacent to the western ridge, or on well drained elevated ground.

In the years leading up to and including WW I, the need for explosives and propellants increased dramatically and Hercules greatly expanded its manufacturing operations. Prior to this expansion, it is believed surface elevations in many portions of the Facility were in close proximity to the water table and unsuitable for industrial development. Historic fill (consisting of fly ash, bottom ash, and slag derived from the combustion of coal) largely imported from off-site sources, was used to increase grade, eliminate shallow ponds/wet areas, improve drainage, and increase compatibility of the soils to allow construction of large manufacturing complexes. Historic fill was also used extensively for establishing both narrow gauge and standard gauge rail beds. In addition to rail beds, historic fill was used in some locations as part of the bridging support material used to allow narrow gauge rail lines to cross the numerous shallow streams located in the southwestern portion of the facility. Narrow gauge rail was the primary vehicular conveyance system at the Facility for more than 75 years and is substantially smaller than standard gauge rail, allowing it to be moved or redirected quickly to meet changing operational needs. Due to the unknown historical topography of the Facility (e.g. location of former ponds/wet areas) and the locations of temporary narrow-gauge railbeds over time, the distribution of the historic fill is widespread and heterogeneously distributed across the Facility.

Hercules imported potentially large quantities of historic fill from local available sources that are believed to have possessed metal and PAH constituents prior to entering the Facility. The former iron foundries located in Dover, New Jersey, approximately four miles east of the Facility, are thought to have been the primary source of historic fill based on their location and extensive use of coal, although documentation of the source is not available.

Due to the very short period (1912 to 1914) of the large-scale Facility expansion, other unknown sources of historic fill may have been secured. It is likely that historic fill from on-site Facility boilers[3] were added to the imported historic fill but represented a very small fraction of the total historic fill emplaced.

[3] The Facility is believed to have possessed a total of four powerhouse sites with associated coal-fired boilers that supported previous manufacturing operations. Prior to the large WWI expansion, the powerhouses were relatively small (typically two boilers per powerhouse) and provided steam for areas immediately adjacent to the individual powerhouses. The small powerhouses were in the Dynamite, NG, Storage, and Maintenance former operational areas. The Maintenance Area powerhouse was divided into two structures, each believed to have two boilers. A total of ten small boilers are believed to have been present at the Facility prior to the WWI expansion. The exact dates of construction or operation of the four small power houses are not known but may have extended from the late 1800s through WWI (1919). Following WWI and after the major Facility expansion was complete the four small boilers were dismantled and replaced by a single large central powerhouse in the Maintenance Area that produced both steam and electricity.

3.2 Ecological Conceptual Site Model

Facility development, operations, and operational incidents served as historical sources and distributive processes by which constituents entered environmental media (primarily soil) at the Facility. The import of historic fill materials in the early 1900s, as well as precipitation and stormwater runoff draining from adjacent areas to the Facility, provide additional historical and current constituent sources. Time and natural processes (e.g., erosion, sorption, degradation) influence the distribution of constituents within soil, as well as from soil to secondary and tertiary media (e.g., groundwater, surface water, sediment, and biological tissue). As Facility operations changed over time, these distributive processes changed and altered the conditions in which potential exposures could occur.

Over the past 20 years, conditions onsite have remained stable. Localized areas have been disturbed and subsequently restored as part of remedial actions.

3.2.1 Habitat Characterization

The characterization of on-site and adjacent habitats provides information used to refine potential exposure and migration pathways and inform the selection of exposure areas and receptor species used in the ERA activities chronicled in this document. To this end, field surveys were conducted on 28 to 30 July 2010 that characterized aquatic, terrestrial, and wetland habitats (**Table 3-1**) and identified wildlife in these areas (**Table 3-2**). Additionally, data were collected from May through July 2011 during a Site-wide wetlands assessment (as detailed further in Section 3.2.1.1). The following information was collected in each habitat, as appropriate:

- Location and approximate boundaries
- Vegetative community structure and composition
- Hydrologic influences

Habitat designations were assigned to each habitat identified in the field surveys based on the Checklist for Ecological Assessment/Sampling, which is included in the *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (USEPA 1997). Ecosystem type designations included the following: terrestrial wooded, terrestrial scrub/shrub, terrestrial open field, terrestrial miscellaneous, aquatic non-flowing, aquatic flowing, and wetlands (**Figure 2-3**).

The presence of wildlife was identified via individual sightings, audible calls, or visual observation of wildlife signs (e.g. tracks, nesting structures, scat, and den sites). Rocks, logs, and leaf litter were also temporarily overturned to look for wildlife, such as amphibians, reptiles, and small mammals. Wildlife survey data (identification to lowest taxon, sighting type, notable observations) were recorded in a field log book and documented with digital photographs when possible (**Table 3-2**).

As part of the ERA update, the information presented in the 2016 EE/ERA was reviewed and updated to incorporate more recent and detailed information and more accurately reflect current Facility conditions, including ecosystems and presence of wildlife. Information sources include:

- Stream hydrology assessment in 2017

- Flood Hazard Area Verification mapping in 2019
- Wetland surveys between 2018 and 2020 and NJDEP's associated line verification work in 2021, and
- Current New Jersey Natural Heritage (NHP) Database and NJDEP Landscape Project (Version 3.3)

Beyond these formal assessments and surveys, remedial activities (ERA and otherwise) and development planning have resulted in field ecologists spending substantive amounts of time (e.g., more than 10,000 hours) onsite throughout the seasons since 2020. Qualitative ecological observations made over time by field teams (e.g., wildlife use, hydrological conditions, habitat variations) are incorporated into the information used in the development of this ERA.

3.2.1.1 Stream Hydrology Assessment

Stream reaches were originally mapped and classified during the SI, and mapping was based in part on historical Facility drawings. Following the SI, demolition of the Facility altered drainage patterns and removed some areas of impermeable surface cover. In light of these changes, a survey of stream reaches and hydrology during the RI resulted in the re-classification of certain SI sediment samples as soil samples based on then-current stream hydrology. In the time that has passed since the RI, vegetative succession has occurred, further reducing surface water runoff that feeds many of the water features onsite.

As summarized in the previous section, an updated survey of drainage features was conducted at the Facility in 2017 during ERAWP implementation to identify stream segments that no longer provide aquatic or transitional habitat.

Figure 3-1 illustrates the results of the 2017 survey and identifies stream segments as flowing, dry, or intermittent. Sediment and soil datasets reflect these updated hydrologic conditions; samples collected in areas identified as flowing or intermittent are incorporated in the sediment dataset, and samples collected in areas identified as dry are incorporated in the soil dataset.

3.2.1.2 Wetland Delineation

Hercules delineated wetlands at the Facility in 1999, following cessation of operations and prior to the majority of demolition activities onsite. The series of ditches and culverts that managed stormwater runoff during the Facility's operations remained largely intact at this time. Demolition and remediation activities removed areas of impervious surface, altered stormwater runoff patterns and volumes, and resulted in microtopographic alterations (e.g., ruts, grading following building slab removal).

A 2011 wetland delineation identified wetland conditions that formed after the 1999 delineation throughout the formerly developed core of the Facility (primarily the Maintenance Area, Diazo Area and A Line) as a result of hydrology and topography changes attributable to demolition and remediation activities. Unmaintained drainage pathways (i.e., clogged/damaged culvert pipes) also caused other upland areas of the Facility to hold water and wetland conditions to establish.

Following the 2011 wetland delineation, ongoing vegetative succession further decreased runoff volumes and maintenance of drainage pathways restored stormwater drainage patterns and eliminated ponding.

In anticipation of permitting multiple remedial actions and in support of development planning, Hercules conducted a formal wetland delineation and applied for a freshwater wetlands Letter of Interpretation (LOI) Line Verification in 2020. The delineation was conducted pursuant to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and consistent with Federal Interagency Committee for Wetland Delineation (FICWD) *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (FICWD 1989) and the *Eastern Mountains and Piedmont Regional Supplement* (USACOE 2012), an updated survey of freshwater wetlands and/or State open waters was conducted at the Facility from 2018 to 2020 for the purposes of permitting for ongoing site remediation and long-term site redevelopment activities.

NJDEP issued the LOI for the Facility on 27 August 2021 (File No. 1400-20-003.2**)**. Pursuant to N.J.A.C 7:7A-4.6, this LOI approval remains valid through August 2026.

Figure 2-3 illustrates the current wetland delineation. Historical sediment and soil datasets have been revised to reflect these updated hydrologic conditions.

3.2.1.3 New Jersey Natural Heritage Database Search

An updated search of the NHP Database was requested in 2025 to identify documented records of rare animals, plants, and natural communities at the Facility and/or within 0.25 miles of the Facility. Database results were received on 11 August 2025 and are provided in **Attachment 11**.

The NJ NHP identified records of the following state or federal threatened or endangered species, or their habitat and feature type, on the Facility:

- Arogos skipper (*Atrytone arogos*) – state endangered, nectaring/breeding/courtship
- Red-shouldered hawk (*Buteo lineatus*) – state endangered, breeding
- Bobcat (*Lynx rufus*) – state endangered, sighting
- Northern myotis (*Myotis septentrionalis*) – federally listed threatened, sighting
- Indiana bat (*Myotis sodalis*) – federally listed endangered, state endangered, sighting

According to the database, Downy phlox (*Phlox polisa var. pilosa* [state endangered plant]) was identified onsite in 1937. Downy phlox has not been observed during various ecological surveys conducted at the Facility.

The following vernal pool habitat record was also identified on the Facility:

- Potential vernal habitat area (Vernal Pool Habitat ID: 2622)

In addition to the records onsite, the search results also identified records of the following threatened or endangered species or their habitat within 0.25 miles of the Facility:

- Little brown bat (*Myotis lucifugus*) – state endangered
- Tricolored bat (*Perimyotis subflavus*) – state endangered

- Barred owl (*Strix varia*) – state threatened
- Golden-winged warbler (*Vermivore chrysoptera*) – state endangered
- Bog turtle (*Glyptemys muhlenbergii*) – federally listed threatened, state endangered
- Wood turtle (*Glyptemys insculpta*) – state threatened

The following vernal pool habitat records were also within 0.25 miles of the Facility:

- Vernal habitat area (Vernal Pool Habitat IDs: 2622, 2641, 2710)
- Potential vernal habitat area (Vernal Pool Habitat ID: 182)

Information provided by the NJ NHP relies on records of documented occurrences and information contained in the NJDEP Landscape Project (Version 3.3) map. The Landscape Project mapping uses buffers representative of foraging ranges or other species-specific behaviors (i.e. migration) and mapped habitat types to develop areas considered potential habitat for the species in question. NJDEP Landscape Project (Version 3.3) maps confirm the NJ NHP results (**Attachment 7**).

With the exception of an encounter with a rabid bobcat onsite in November 2017[4], none of the threatened or endangered species listed as possibly present on-Site have been identified on-Site. With the exception of the bog turtle, species-specific surveys have not been conducted.

3.2.1.3.1 Bog Turtle Habitat

Hercules conducted a bog turtle habitat assessment at the Facility in Fall 2014. A Phase 1 Bog Turtle Habitat Assessment Report identifying eight (8) survey areas within delineated wetlands that contained potential habitat for bog turtle (Maser 2017). These findings are reflected in the wetland resource value classification issued by NJDEP in the 2021 LOI.

3.2.2 Environmentally Sensitive Natural Resources

Ecological CSM development, including identification of ESNRs, incorporates Facility-specific knowledge and experience, and information from NJDEP's NJ-GeoWeb and the NJ Natural Heritage Program (NHP).

ESNRs are defined in the *Technical Requirements for Site Remediation* (N.J.A.C 7:26E-1.8) as all areas specified in *Discharges of Petroleum and Other Hazardous Substances Rules* (N.J.A.C. 7:1E-1.8) (environmentally sensitive areas), groundwater, and areas and/or resources that are protected or managed pursuant to the Pinelands Protection Act and the Pinelands Comprehensive Management Plan[5]. Environmentally sensitive areas may include but are not limited to the following:

1. Surface waters, including rivers, streams, creeks, ponds, lakes, reservoirs, canals, estuaries, open bays, semi-enclosed bays, and back bays

[4] This case was reported to NJ Fish & Wildlife (File No. 17-1109094427).
[5] The Facility is not located in an area regulated by the Pinelands Protection Act or associated management plan.

2. Wetlands and wetland transition areas, including associated buffers,
3. Any water resource utilized by a public or nonpublic water system,
4. Bay islands and barrier island corridors,
5. Beaches and dunes,
6. Critical wildlife habitat and/or habitat for Federal and State endangered or threatened plant and animal species,
7. Prime fishing areas, finfish migratory pathways, and/or shellfish waters,
8. Submerged vegetation habitat,
9. Prime or unique forestland, and
10. Federal and State wilderness areas, and
11. Wild and scenic river corridors.

3.2.2.1 Summary of ESNRs Identified

ESNRs identified at, or adjacent to, the Facility are detailed Section 3.2.1, shown on the habitat map (**Figure 2-3**), and summarized as follows:

- Surface waters
    - Unnamed tributaries flowing on the Facility through the Northwestern Development Area.
    - Unnamed tributary system flowing on the Facility from the Southern Maintenance Area south through the Dynamite Area and miscellaneous/offsite areas.
    - Duck Pond
    - Shooting Pond
    - Unnamed ponds southeast of Duck Pond
- Wetlands and wetland transition areas, including submerged vegetation habitat
    - Emergent wetlands in the Southern Maintenance Area and along the border of the NG and Dynamite Areas. Emergent wetlands are also interspersed on-Site in sunny open areas of the Site, some depressional areas formed during remedial activities, and open water fringe areas.
    - Forested wetland patches in the Dynamite Area, south of the Dynamite Area within the miscellaneous/offsite areas, and the northeastern-most part of the Facility, B-Line Area southeast of Duck Pond, Development Area northwest of Duck Pond, and Northeast and Northwest Storage Areas.

  - A series of isolated wetlands and vernal pools located in the Northern Drainage Area.

- Suitable habitat for threatened and endangered species
  - On-Site: red-shouldered hawk, arogos skipper, bobcat, bog turtle, Indiana bat, and northern myotis
  - Adjacent: bald eagle, barred owl, golden-winged warbler, bog turtle, and wood turtle

- State Open Space
  - The Berkshire Valley State Wildlife Management Area (WMA) located north of the Facility on the other side of Interstate 80 and Norfolk Southern rail corridors.

The following ESNRs were not identified at, or adjacent to, the Facility:

- Water resources utilized by a public or nonpublic water system,
- Bay islands or barrier island corridors,
- Beaches or dunes,
- Critical wildlife habitat
- Prime fishing areas, finfish migratory pathways, or shellfish waters,
- Prime or unique forestland, or
- Wild and scenic river corridors

3.2.3 Groundwater

While not a direct ecological exposure medium, groundwater may serve as a potential transport medium of COPECs from source release areas. As detailed in Section 3.2.3.3, groundwater quality is well-defined and, with exception to a TNT plume in the southwestern corner of the Facility, largely unaffected by historical operations. This ERA characterizes potential ecological risk related to groundwater via surface water and sediment aquatic receptors in the Facility.

3.2.4 Exposure Areas

Results of SI/RI data collection as well as the habitat characterization, described in Section 2.3.1 supported the development of exposure areas. Exposure areas for the ERA built upon the Facility-specific 2016 EE/ERA approach described in Section 2.3.2. The 2016 EE/ERA initially separated the Facility into three general categories:

- Areas where ecological risk is negligible.
- Areas where ecological risk is uncertain and assessment is needed.

- Areas where constituent concentrations and/or physical characteristics merit remediation (e.g., ecological risk likely), regardless of the outcome of the ecological risk assessment process (APRAs).

The purpose of this approach was to focus the 2016 EE/ERA on areas where risks may be present and avoid confounding the process by evaluating areas where risks are unlikely (undeveloped areas beyond the Remedial Area) or very likely (APRAs), or where proposed remedial actions will address any potential exposure risks (APRAs).

By eliminating areas beyond the influences of historical Facility operations based on previous investigation results (e.g., areas beyond the Remedial Area) and areas where active remediation or removal will occur (APRAs), the exposure areas selected below represent portions of the Remedial Area of the Facility where the potential for ecological risk remains uncertain.

The remainder of this document focuses on these areas of uncertainty within the Remedial Area. The 2016 EE/ERA included a separate assessment of the undeveloped areas beyond the Remedial Area, and this area is discussed further in Section 9 of this ERA.

Terrestrial and aquatic exposure areas are discussed below and presented in **Figures 3-1 and 3-2**, respectively.

3.2.4.1 Terrestrial Exposure Area

The formerly developed portion of the Facility (the Remedial Area) provides patches of habitat for ecological receptors. Upper-trophic-level ecological receptors using onsite terrestrial habitats are likely to move among the habitat patches that share a common list of Facility-related constituents, as well as similarities in habitat type and composition. As such, this ERA evaluates potential exposure and risks to terrestrial receptors using one Facility-wide terrestrial soil exposure area within the Remedial Area (**Figure 3-2**).

Acknowledging the scale of the terrestrial exposure are relative to the home ranges of certain upper trophic level receptor species, and smaller prey species, Section 9 presents an initial evaluation of localized hot spots and potential risks for COPECs identified as risk drivers.

Similarly, terrestrial habitat exists beyond the Remedial Area and is assessed separately. The EE/ERA includes an ERA of the undeveloped areas surrounding the Remedial Area. This area is also addressed further in Section 9.

3.2.4.2 Aquatic Exposure Areas

Based on the distinct areas of surface water flow and the potential for groundwater to interact with surface water as identified during the RI, two aquatic exposure areas were identified for evaluation in the 2016 EE/ERA: Northern Drainage Area (NDA) and Southern Drainage Area [SDA] (**Figure 3-1**). These drainage areas support similar aquatic or semi-aquatic habitat, but different sources of hydrology influence these features (as detailed in the following sections).

Discrete subdrainage areas of the NDA and SDA were identified based on geography, drainage pathways, and hydrological flow characteristics. These refined aquatic exposure areas are shown in **Figure 3-1** and discussed in the following sections.

3.2.4.2.1 Northern Drainage Area

This drainage area consists of aquatic features located north and east of the small stream channel described in the following section. Duck Pond serves as the primary drainage feature in the NDA, receiving water from surrounding stream channels, wetlands, and Shooting Pond. A series of isolated wetlands and vernal pools also exist in the NDA (**Figure 2-3**). The NDA occurs almost entirely within the Remedial Area boundary; samples collected from an isolated pond that borders the Remedial Area were also included in the NDA.

Refined subdrainage areas within the NDA are shown in **Figure 3-1** and identified as follows:

1. Duck Pond
2. Western Tributary
3. Unnamed Ponds
4. Northeast Ponds
5. Eastern Tributary

3.2.4.2.2 Southern Drainage Area

Surface water enters the Facility via a small stream channel along the northwestern Facility boundary, near the intersection of Howard Boulevard and Interstate 80. The stream, referred to as the development stream, flows southwest before entering a culvert beneath Powder Mill Road and discharges to the southern wetland complex. Overland flow and surface water runoff generally follow the same pattern, draining to aquatic features and flowing to the southern end of the Facility via a series of ditches and swales. These drainage features and the receiving waters of the southern wetland complex make up the SDA.

The SDA captures the water bodies within the Remedial Area as well as the series of ditches that drain the southern wetland complex south of the Remedial Area boundary. These ditches receive surface water and suspended sediment from the southern wetland complex (within the Remedial Area boundary) that drains former operational areas of the Facility. These drainage channels also receive runoff from Howard Boulevard and Route 46. Ultimately the wetland complex drains to a single tributary that flows offsite at the southeastern corner of the Facility. Data from 2013 sampling at and proximate to this outlet indicate that Facility-related influences cease upstream of the outlet, thus the exposure area does not extend offsite.

Refined subdrainage areas within the SDA are shown in **Figure 3-1** and identified as follows:

1. Central Drainage Basin
2. Development Area Stream
3. Maintenance - Dynamite Area – West
4. Maintenance – Dynamite Area – East

5. Maintenance - NG Area
6. TNT-PETN-NG Ditches
7. Miscellaneous Offsite Streams – Upper
8. Miscellaneous Offsite Streams – Lower

3.2.4.2.2.1 NG Area-Former Ponds

The NG Area – Former Ponds are remnant stormwater management features that occupy an area at the base of the hillside on which the NG and PETN production lines sat.

Additional environmental investigation was proposed to occur in the former ponds during the TLWP implementation in 2018. Habitat characterization efforts between 2016 and 2020 have established the former ponds as terrestrial habitat and the data have been reclassified as soil and this area is now designated an APRA due to high concentrations of lead in soil (as detailed further in Section 3.4.1)

3.2.4.3 Groundwater

Groundwater quality at the Facility is well defined and stable over time. Given the long industrial history of the Facility, groundwater is largely unaffected by historic site operations (Hercules 2007, 2009, 2016c), with the exception of a TNT plume in the southwestern corner of the Facility. TNT is observed in groundwater in proximity to the southern wetland complex (Miscellaneous Offsite Steams – Lower), however, the influences of TNT in groundwater are not observed in surface-water and sediment in this area of the Facility.

Regional groundwater issues do have the potential to affect surface water and sediment quality at the Facility. For example, NJDEP, in cooperation with Hercules, evaluated a regional tetrachloroethene (TCE) groundwater plume adjacent to the Facility. They found that while the Facility falls within the footprint of the TCE plume, the Facility was not a contributor to the plume (Hercules 2007). However, the interaction between groundwater underlying the Facility and various surface water features (e.g., wetlands, ponds, ditches) represents a potential migration pathway for constituents unrelated to the Facility.

Ecological receptors are exposed to constituents in groundwater via groundwater discharges to surface-water features. As such, evaluating surface water and sediment characterizes potential ecological risk related to groundwater for aquatic receptors at the Facility.

3.2.4.4 Potential Ecological Receptors

Potential ecological receptors onsite and in the surrounding environment can be directly or indirectly exposed to constituents in environmental media if a complete exposure pathway exists.

Ecological receptor groups potentially exposed to constituents in terrestrial areas of the Facility include:

- Terrestrial plants
- Soil-dwelling invertebrates
- Mammals with terrestrial-based diets
- Birds with terrestrial-based diets

Ecological receptors potentially exposed to constituents in aquatic areas of the Facility include:

- Benthic invertebrates
- Aquatic plants
- Water column invertebrates
- Fish
- Mammals with aquatic-based diets
- Birds with aquatic-based diets

Specific receptors are selected to represent the organisms that could be present most frequently or are likely to be sensitive to the effects of constituents in environmental media. Selection considerations include the following factors:

- Occurrence of potentially complete pathways for exposure of ecological receptors to constituents in environmental media
- Resident communities or species exposed to the highest concentrations of constituents in environmental media
- Species or functional groups considered to be essential to, or indicative of, the normal functioning of the affected habitat
- Species of special status or designation (e.g., threatened or endangered) by state or federal entities
- Feasibility of completing a quantitative assessment for the identified pathways and receptors (e.g., availability of modeling parameters and toxicology values)

Based on the above criteria, the following ecological receptor populations and associated feeding guilds (where applicable) are evaluated in this ERA:

- Terrestrial Area:
    - Terrestrial plant communities
    - Terrestrial invertebrate communities
    - Insectivorous mammals (short-tailed shrew [*Blarina brevicauda*])
    - Insectivorous birds (American robin [*Turdus migratorius*])

- Herbivorous birds (northern bobwhite [*Colinus virginianus*])
- Herbivorous mammals (white-tailed deer [*Odocoileus virginianus*])
- Carnivorous birds (red-tailed hawk [*Buteo jamaicensis*])
- Carnivorous mammals (red fox [*Vulpes vulpes*])

- Aquatic Area:
  - Benthic invertebrate communities
  - Aquatic plant communities
  - Fish and aquatic invertebrate communities
  - Piscivorous mammals (mink [*Neovison vison*])
  - Piscivorous birds (great blue heron [*Ardea herodias*])
  - Herbivorous birds (mallard duck [*Anas platyrhynchos*])
  - Herbivorous mammals (muskrat [*Ondatra zibethicus*])
  - Insectivorous birds (tree swallow [*Tachycineta bicolor*])
  - Insectivorous mammals (little brown bat [*Myotis lucifugus*])

3.2.4.5 Potential Ecological Exposure Pathways

Potential ecological receptors onsite and in the surrounding environment can be directly or indirectly exposed to constituents in environmental media if a complete exposure pathway exists. An exposure pathway is considered complete if it contains the following five elements:

- Constituent source
- Release mechanism to the environment
- Transport medium
- Receptor contact at the exposure point
- Exposure route.

Important considerations when evaluating exposure pathway completeness include:

- Constituent concentrations in different media and their respective locations
- Physical and chemical properties of Facility-related constituents
- Locations of environmentally sensitive areas.

Potentially complete exposure pathways for each medium are discussed in the following sections. A graphical ecological CSM showing potential media, pathways, and ecological receptors is provided on **Figure 3-3**.

3.2.4.5.1 Surface Soil

Potential exposure routes associated with surface soil[6] include direct contact, ingestion, inhalation, and indirect exposure (i.e., food-web transfer). Constituents in soil possess varying degrees of potential for exposure through each of these exposure routes depending on chemical-specific parameters. The following potentially complete exposure pathways to surface soil were identified:

- Incidental contact with constituents in soil (i.e., dermal exposure) by plants and soil invertebrates is a complete exposure pathway. Plants and soil invertebrates are directly exposed to constituents from the soil. This pathway is quantitatively evaluated comparing soil constituent concentrations to soil ecological screening benchmarks[7] (ESBs) protective of plants and soil invertebrates (Section 5.1).
    - Ingestion of constituents in soil by plants and soil invertebrates is a complete exposure pathway. Plants and soil invertebrates may directly ingest constituents from the soil. This pathway is quantitatively evaluated by comparing soil constituent concentrations to soil ESBs (Section 5.1).
    - Indirect exposure to soil via food-web transfer of bioaccumulative constituents is a complete exposure pathway for upper-trophic level wildlife receptors (i.e., birds and mammals). Bioaccumulative constituents taken up by soil invertebrates and plants may be consumed by mammalian and avian wildlife as part of their diets. This pathway is quantitatively evaluated via food web modeling (Section 5.1.2).
    - Incidental ingestion of contaminated soil by upper-trophic level wildlife (i.e., birds and mammals) is a complete exposure pathway. Wildlife may indirectly ingest constituents from soil during foraging. This pathway is quantitatively evaluated via food web modeling (Section 5.1.2).
    - Incidental contact with constituents in soil (i.e., dermal exposure) by wildlife is a potentially complete exposure pathway. Wildlife may have direct exposure to soil while burrowing and/or preening; however, because fur or feathers greatly reduce the potential exposure, direct contact with soil is considered a minor, *de minimis* pathway for wildlife and is not evaluated quantitatively (Suter 2007).
    - Inhalation of constituents in soil by wildlife, via inhalation of airborne soil particulates or volatilization of constituents from the soil, is a potentially compete exposure pathway. However, inhalation as a route of exposure is likely to be insignificant compared to other routes of exposure for two reasons:
        - Vegetative cover would prevent substantial production of airborne particulates due to wind erosion.
    - Most Facility-related constituents in soil are unlikely to volatilize from the soil due to their physicochemical properties. Those constituents that may volatilize are unlikely to be present in substantial concentrations following volatilization and subsequent dispersal. As

[6] This ERA evaluates a surface soil sample as a soil sample with a starting depth from 0 to 0.5 foot below ground surface (bgs) and an end depth no more than 1.5 feet bgs. This evaluation accounts for the size and variability of the SI/RI dataset and includes sample intervals spanning the biologically active zone (BAZ).

[7] Ecological screening benchmarks were selected from NJDEP's Ecological Screening Criteria (ESC) table (NJDEP 2009) and supplemented with preferentially selected ESBs from based on a review of appropriate ecological literature (Section 4.2.1).

a result, the inhalation pathway is considered insignificant (Suter 2007) and is not quantitatively evaluated.

3.2.4.5.2 Surface Water

Direct contact with surface water represents a potentially complete exposure pathway for both aquatic and terrestrial receptors. Aquatic receptors such as fish and water column invertebrates may be directly exposed to constituents in surface water via ingestion and direct contact/uptake. Exposure to surface water is evaluated by comparing surface water ESBs that are protective of aquatic life to surface water data.

Upper-trophic level aquatic and terrestrial wildlife receptors may ingest surface water; however, surface water ingestion represents a *de minimis* exposure pathway for constituents, when compared to wildlife exposure via ingestion of dietary food items, soil and/or sediment. As such, the surface water ingestion pathway for wildlife receptors is not quantitatively evaluated.

3.2.4.5.3 Surface Sediment

Surface sediment represents the primary medium for aquatic receptor exposure to constituents. Exposure to sediment occurs in the BAZ, which is identified based on levels of dissolved oxygen, bioturbation, and other biological processes (Interstate Technology & Regulatory Council [ITRC] 2011). Ecological receptors may be exposed to constituents in surface sediment via three potential routes of exposure: direct contact, ingestion, and food-web transfer. The potential completeness of each of these exposure pathways is evaluated below:

- Direct contact with constituents bound to sediment is a potentially complete exposure pathway for aquatic plants and benthic invertebrates. Constituents bound to sediment and those dissolved in the interstitial water (pore water) of the sediment can affect aquatic plants and invertebrates through dermal contact and absorption into tissues. This pathway is quantitatively evaluated by comparing sediment constituent concentrations to ESBs protective of plants and benthic invertebrates (Section 5.1).
- Ingestion of constituents bound to sediment is a potentially complete exposure pathway for aquatic plants and benthic invertebrates. Constituents bound to ingested sediment and in pore water may partition into invertebrate tissues through the lining of the digestive tract and via root uptake into aquatic plants. This pathway is quantitatively evaluated by comparing sediment constituent concentrations to sediment ESBs protective of aquatic plants and benthic invertebrates (Section 5.1).
- Food-web transfer of constituents bound to sediment is a complete exposure pathway for upper-trophic level wildlife consumers. Constituents can accumulate in tissues of lower-trophic level aquatic organisms (e.g., benthic organisms, fish, aquatic plants), which are then consumed by avian and mammalian receptors. This pathway is quantitatively evaluated via food web modeling (Section 5.1).
- Ingestion of sediment containing COPECs is a complete exposure pathway for upper-trophic level wildlife (i.e., birds and mammals). Wildlife may indirectly ingest constituents from sediment during foraging. This pathway is quantitatively evaluated via food web modeling (Section 5.1.2).

3.3 Assessment and Measurement Endpoints

AEs provide explicit expressions of the actual environmental values (i.e., ecological resources) that are to be protected at the Facility (USEPA 1997) and are based on the complete exposure pathways and receptor categories identified in the CSM. Four principal criteria are used to select ecological values that may be appropriate for use as AEs (USEPA 1998a):

1. Ecological relevance
2. Susceptibility to known or potential stressors
3. Commercial or social value
4. Relevance to management goals

AEs focus risk assessment on components that could be adversely affected by COPECs at a site. AEs are typically communities or trophic guilds (e.g., insectivorous birds). Trophic guilds may be deemed at risk if statistically significant, population-level effects occur to reproduction or survival of a receptor species representing the subject trophic guild.

Population-level effects of concern include:

- Mortality, growth, or reproductive effects resulting from direct exposure to constituents that may result in population-level effects.
- Mortality, growth, or reproductive effects resulting from exposure to constituents that have bioaccumulated in the food web and may result in effects to trophic-level receptor populations.
- Indirect effects associated with a substantial reduction in abundance of prey populations.

MEs are characteristics, quantifiable through laboratory or field experimentation, that are related to the valued characteristic chosen as the AE (USEPA 1992a, 1998a). The ME represents the same exposure pathway and mechanisms of toxicity as the associated AE.

Based on the complete exposure pathways and potential receptor categories identified at the Facility, the following AEs and MEs were identified for each of the selected receptor groups (**Table 3-3**). The AEs are phrased as risk questions and the MEs were selected to address these questions, as presented below.

Terrestrial Area

AE 1. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial plant community?

- ME 1. Compare concentrations of COPECs in soil to ESBs protective of terrestrial plants.

AE 2. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial invertebrate community?

- ME 2. Compare concentrations of COPECs in soil to ESBs protective of terrestrial invertebrates.

AE 3. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

- ME 3. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals (represented by northern bobwhite and white-tailed deer).

AE 4. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

- ME 4. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals (represented by American robin and short-tailed shrew).

AE 5. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

- ME 5. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for carnivorous birds and mammals (represented by red-tailed hawk and red fox).

Aquatic Areas

AE 6. Could direct contact with COPECs in sediment in each area affect the structure, function, and/or survival of the benthic invertebrate community?

- ME 6. Compare COPEC concentrations in sediment in five (5) NDA and eight (8) SDA subdrainage areas to ESBs protective of benthic invertebrates.

AE 7. Could direct contact with COPECs in sediment in each area affect the survival and function of aquatic plant populations?

- ME 7. Compare COPEC concentrations in sediment in five (5) NDA and eight (8) SDA subdrainage areas to ESBs protective of terrestrial plants.

AE 8. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?

- ME 8. Compare COPEC concentrations in surface water in five (5) NDA and eight (8) SDA subdrainage areas to ESBs protective of fish and aquatic invertebrates.

AE 9. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?

- ME 9. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals (represented by mallard duck and muskrat) in five (5) NDA and eight (8) SDA subdrainage areas.

AE 10. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?

- ME 10. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals (represented by tree swallow and little brown bat) in five (5) NDA and eight (8) SDA subdrainage areas.

AE 11. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammalian populations?

- ME 11. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for piscivorous birds and mammals (represented by great blue heron and mink) in five (5) NDA and eight (8) SDA subdrainage areas.

3.4 Excluded Areas

As discussed, areas of the Facility where potential ecological risk is either likely (e.g., APRAs) or unlikely (areas beyond the Remedial Area) are not evaluated in this ERA.

3.4.1 Areas of Presumed Remedial Action

Based on a review of the CSM, historical Facility information, and current analytical data, several process/disposal areas within the Remedial Area were identified as areas where remedial action is warranted, irrespective of the outcome of the ERA. The locations, composition, and/or constituents present in these areas align with historical Facility practices and records from the Facility (e.g., disposal areas, explosions).

Appendix B presents a description of each APRA, including the presumptive remedial approach protective of human health and the environment and anticipated implementation timeline. APRAs are also listed in the table below.

Area of Presumed Remedial Action
TNT Area - TNT Soil Bioremediation Project Area
Ammonium Nitrate Area – Former Burning Ground and Intervening AOCs
B-Line Area – WWII Disposal Area (M8-1)
Development Area – Old Burning Grounds (M5-3 and AOCs to the Southwest)
Storage Area – WWI Disposal Area (N6-1)
B-Line Area – South (conglomerate of AOCs)
A-Line Area – Northwest (conglomerate of AOCs)
Development Area – Ballistics Range
Development Area - Experimental Dynamite Production Area
PETN/NG Area – Acid Recovery
Maintenance Area – PCBs
Maintenance Area – Acid Production Plant
NG Area – Former Ponds

Acknowledging the pending remedial actions in these APRAs, data from these areas are not included in this ERA. **Table 2-1** provides information regarding the history, constituent fate and transport, and presumptive remedy for each area. **Figure 3-2** notes these areas on a site plan.

3.4.2 Areas Beyond the Remedial Area Boundary

The SI/RI identified the Remedial Area by comparing sample results from undeveloped areas around the margins of the Facility to criteria protective of human health (i.e., soil remediation goals). Once established, additional site characterization activities focused on the Remedial Area. This ERA relies on the Remedial Area to focus assessment activities. As part of establishing the assessment area, sample results from undeveloped areas around the margins of the Facility (outside the Remedial Area) were evaluated in the context of potential ecological risk as a technical appendix to the 2016 EE/ERA. The evaluation concluded that potential ecological risk in the undeveloped areas beyond the Remedial Area is unlikely.

3.4.3 Summary

This ERA uses data collected as part of site characterization activities. Where potential ecological risk is likely (APRAs), Hercules is committed to active remediation and focusing efforts on remedial planning. Acknowledging undeveloped areas of the Facility beyond the influence of former operations (i.e., beyond the Remedial Area boundary) allows the evaluation to focus on the remaining areas of the Facility where potential ecological risk is uncertain.

Section 4: Data Review and COPEC Selection

Information in the following sections describes the data available from previous investigations and ERA activities, and data consolidation procedures used in the ERA. The data were then compared to literature-based ecological screening benchmarks (ESBs) to identify COPECs for quantitative evaluation in the ERA.

4.1 Data Usability

The SI/RI dataset was reviewed for applicability to the ERA. Data collected as part of the SI and Phase I RI were validated by a third-party validator in accordance with USEPA's Region II Standard Operating Procedures (SOPs) for data validation (USEPA 2022b).

The quality of the data was assessed according to USEPA's PARCC (precision, accuracy, representativeness, comparability and completeness) parameters. These criteria were used to identify unacceptable or biased data that could result in corrective actions being implemented or otherwise require qualification of the data. Reporting limits provided by the laboratory were elevated if the sample was analyzed at a dilution; however, data were not qualified based on elevated reporting limits. The evaluation of the data against PARCC criteria provided information on the data quality and reliability. Phase II RI data were validated in accordance with NJDEP guidance on data usability.

As a result of these evaluations, data are considered to be of known and acceptable quality and are considered valid and usable for decision-making purposes (Hercules 2007). Available site characterization data used in the ERA are described below.

Each media-specific volume of the Phase II RIR included a data quality section that evaluated data presented in the report based on NJDEP's Data of Known Quality Protocols Technical Guidance (DKQP Guidance; NJDEP 2014). These data were found to be of acceptable quality for use in remedial decision making, including the ERA.

Data reviews consistent with DKQP Guidance were conducted for data generated during the post-RI ERA activities. Certain data and analyses are not addressed in the DKQP Guidance, and in these cases a general data quality review was performed. Post-RI ERA data were found to be of acceptable quality for use in remedial decision making, including the ERA.

4.1.1 Ecological Risk Assessment Dataset Selection

Data selected for the ERA include surface soil and sediment samples from the 0- to 12-inch interval below soil/sediment surface (bss); representative of the BAZ) and surface water sample results. Where historical information contained in the database was ambiguous (e.g., sample interval recorded as 12 inches without listing both a start and ending depth bss), samples where over 50 percent of their depth interval within the 0 to 12 inch bss interval were included in the ERA dataset. The dataset was specifically filtered to include samples with a start depth of 0-6 inch bss and an end depth of 0-18 in bss. This definition accounts for the size and variability of the SI/RI dataset and includes sample intervals spanning the BAZ. **Table 4-1** summarizes samples available for the ERA dataset.

Consistent with the approach outlined in Section 3.2.3, the dataset was separated to focus on data from sample locations within the Remedial Area and excludes data from the Areas of Presumed Remedial Action (hereafter referred to as the ERA dataset [**Appendix E**]).

As previously discussed, the ERA dataset presented in the 2016 EE/ERA has been updated to incorporate sampling and analyses as detailed in the following documents:

Reference Location	Document
Attachment 9	Updated SSRP (KJ 2019)
Appendix D	TLWP Implementation
Appendix C	Aquatic ERASSM Implementation

The ERA dataset was also separated by medium: soil (1600+ samples from 1300+ locations), sediment (800+ samples from 400+ locations), and surface water (400+ samples from 300+ locations). **Table 4-1** presents the ERA dataset separated by constituent class. **Figures 4-1 through 4-14** illustrate the spatial coverage of sample locations by constituent class.

The terrestrial exposure area is shown in **Figure 3-2**. As discussed in Section 3.3.3, the soil dataset was evaluated as a whole based on the similarity in constituent composition and habitat suitability across former manufacturing areas of the Facility. Soil sample locations are presented on **Figures 4-1 A-E**.

Sediment and surface water datasets were compiled by subdrainage exposure areas. The five subdrainage exposure areas within the NDA and SDA are presented in **Figure 3-1**. NDA sample locations are presented in **Figures 4-2 through 4-6**. SDA sample locations are presented in **Figures 4-7 through 4-14**.

The figures illustrate the spatial coverage of samples across the exposure areas. The Phase II RIR (Hercules 2016c) presents sample locations, sample IDs, and results on a sample-by-sample basis. RI conclusions indicate that constituents occur primarily within the former operational areas and acknowledge that the horizontal and vertical extent of constituents is well defined.

4.1.2 Data Management

Specific data handling was required to achieve spatial representativeness for the ERA. Duplicate analyses at one sample location (e.g., field duplicates), or constituents analyzed by more than one method, create spatial disparity among the dataset during statistical evaluation. Additional data reduction and handling was conducted to minimize these influences. The following subsections present methods and rationale for additional database management to facilitate the COPEC screen.

4.1.2.1 PCDDs and PCDFs

The PCDD/F soil sample dataset is relatively small (n=20) compared to the Facility-wide soil characterization dataset. The spatial coverage of the datasets differ considerably, as sampling for polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzo-*p*-furans (PCDFs) focused on four former burning grounds at the Facility at the request of NJDEP. Given these differences, PCDD/F is evaluated separately. Results of the evaluation are discussed in sections

of this ERA where applicable. PCDD/F was detected in two of the four former burning grounds and both of these areas were identified as APRAs in the 2016 EE/ERA. The soil volume of the Phase II RIR (Hercules 2016c) provides additional information regarding the basis for PCDD/F soil sampling at the Facility. The PCDD/F evaluation included in the 2016 EE/ERA (**Attachment 1**) remains current, as no additional PCDD/F work has been conducted at the Facility within the area being evaluated in this ERA.

4.1.2.2 Duplicate Samples

Field duplicate samples are presented in the dataset (**Appendix E**) next to their parent sample. One numerical representation of parent/duplicate data was derived for use in risk calculations to avoid spatial weighting bias associated with two results at the same sample location. When the parent/duplicate data were either both detects or both non-detects, sample results were averaged. Because field duplicates are co-located, sample variation caused by potential heterogeneity is also included in the measurement (USEPA 1991). The average concentration provides for the best representation of concentration at that location. In situations where one-half of a parent/duplicate pair was a detect and the other half was non detect, the detected concentration was used, which provides for a conservative measurement.

4.1.2.3 Redundant Analytes – SW846 Methods 8270 and 8330

Eight constituents occur on the analyte lists for both the SW846 8270 semivolatile organic compound (SVOC) and SW846 8330 E&E methods. As such, the SI/RI database contains two results for each constituent at each sample location where both methods were used.

For this ERA, NJDEP's acceptance of data based on laboratory certification (which is based on the analytical methods meeting precision and accuracy targets) was used. Method SW846 8270 is a gas chromatography/mass spectrometry (GC/MS) method and SW846 8330 uses high-performance liquid chromatography (HPLC); each method offers distinct advantages and disadvantages depending on the target analyte. The table below summarizes the eight analytes and associated NJDEP-approved analytical methods, and notes the data selected for use in this ERA.

Analyte	NJDEP Laboratory Certification[1]		Data used in ERA
	SW846 8270	SW846 8330	
2,4-DNT	X	X	SW846 8270
2,6-DNT	X	X	SW846 8270
2-nitrotoluene		X	SW846 8330
3-nitrotoluene		X	SW846 8330
4-nitrotoluene		X	SW846 8330
Nitrobenzene	X	X	SW846 8330
1,3,5-trinitrobenzene	X	X	SW846 8330
2,4-dinitrophenol	X		SW846 8270

Note:
[1]Application for Certification of Environmental Measurements, Part III – Analytical Testing Parameters (NJDEP 2014).

For analytes with one NJDEP-approved laboratory analytical method, data from the approved method was selected for use in the ERA. Where the NJDEP approves both analytical methods, additional information related to precision and accuracy of the methods as they relate to analytes (or analyte families) was evaluated. For nitrotoluene compounds, the GC/MS method (8270) generates chromatographs enabling the analytical laboratory to more precisely identify individual compound peaks and accurately quantify associated concentrations. Conversely, the HPLC

(8330) methods provide superior performance for the analysis of nitrobenzene compounds. This rationale is consistent with that provided in the Phase I RIR (Hercules 2007).

4.1.2.4 Redundant Analytes – SW846 Methods 8260 and 8270

Six constituents occur on the analyte lists for both the SW846 8270 SVOC and SW846 8260 volatile organic compound (VOC) methods. As such, the database contains two results for each constituent at each sample location where both methods were used.

The NJDEP approves both analytical methods for six constituents (1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, hexachloro-1,3-butadiene, and naphthalene). None of these constituents were retained as COPECs during the initial data screen (see Section 4.2.2).

4.2 Identification of Constituents of Potential Ecological Concern

COPECs are identified via a comparison of generic ESBs to maximum detected constituent concentrations in environmental media. Generic ESBs represent a threshold concentration that a majority of target organisms (e.g., plants, invertebrates) can tolerate and a concentration that may cause adverse effects in specific organism communities. Generally, ESBs were developed from various datasets that relate constituent concentrations in an environmental medium with occurrence of effects in sensitive species. Generic ESBs do not consider site-specific factors that may affect constituent bioavailability and toxicity (e.g., pH, organic carbon content). Ecological screening benchmarks utilized in this ERA are summarized below.

4.2.1 Ecological Screening Benchmarks

Ecological screening benchmarks were selected from NJDEP's Ecological Screening Criteria (ESC) table (NJDEP 2009) and supplemented with preferentially selected ESBs based on a review of the following additional sources:

- Resource Conservation and Recovery Act (RCRA) Region 5 Ecological Screening Levels (ESLs; USEPA 2003a)
- Ecological Soil Screening Levels (EcoSSLs) (USEPA 2007a)
- Ecotoxicology of Explosives (Sunahara et al. 2009)
- Nitroaromatic Munition Compounds: Environmental Effects and Screening Values (Talmage et al. 1999)
- Region 3 Biological Technical Assistance Group - Freshwater Sediment and Freshwater Screening Benchmarks (USEPA 2006)
- Munition constituents: Preliminary sediment screening criteria for the protection of marine benthic invertebrates (Pascoe et al. 2010)
- Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water (Verbruggen et al. 2001)
- USEPA's Ecotox Database (available at http://cfpub.epa.gov/ecotox/)

- Acute Oral Toxicity and Repellency of 933 Chemicals to House and Deer Mice (Schafer et al. 1985)
- Comparison of Lethality, Reproduction, and Behavior as Toxicological Endpoints in the Nematode *Caenorhabditis elegans* (Dhawan et al. 1999)
- Toxicity of Trihalomethanes to Common Carp Embryos (Mattice et al. 1981).

Table 4-2 summarizes ESBs used in this ERA. For constituents lacking ESB, surrogate values from constituents with similar properties (e.g., chemical class, molecular structure) were selected. Surrogate values and their sources are footnoted in **Table 4-2.**

Surface water ESBs for certain metals (i.e., cadmium, chromium, copper, nickel, silver, and zinc) presented in the NJDEP ESC table are hardness-dependent. Representative hardness values were calculated for both the NDA and SDA using available surface water data. An average hardness value and 95 percent upper confidence limit (95UCL) were calculated for each area. The table below summarizes hardness values, presented as milligrams per liter (mg/L) calcium carbonate.

Representative Hardness Values (mg/L)		
	NDA	SDA
Average	57	120
95UCL	84	155

In both the NDA and SDA, the average hardness value was lower than the 95UCL value. As such, the calculated screening values were lower using the average hardness, which represents the more conservative approach for screening surface water data. Screening values were calculated for both total and dissolved metals per the NJDEP ESC table (2009) equations using a conversion factor. **Table 4-2** presents hardness-dependent ESB.

4.2.2 COPEC Screen

The maximum concentration of each detected constituent was compared to its ESB or ESBTU to calculate a hazard quotient (HQ). Constituents with HQs greater than 1 or those lacking an ESB were retained as COPECs. Constituents were not retained as COPECs if they were not detected (i.e., 0 detections), had a low frequency of detection (i.e., less than 5 detections irrespective of the number of samples analyzed), or if the HQ was less than 1.

Metals commonly considered essential nutrients (i.e., calcium, iron, magnesium, potassium, and sodium) were not retained as COPECs. The soluble fraction of aluminum in soil and sediment can pose a potential risk to ecological receptors; however, it is understood that solubility, and therefore bioavailability, is based on the measured pH of onsite soil/sediment. Potential ecological risks associated with aluminum are only expected to occur when soil/sediment pH is less than 5.5 (USEPA 2003b). The average for soil pH was calculated from both field (pH = 6.0) and laboratory samples (pH = 6.3). The average was also calculated for NDA and SDA sediment pH from both field (NDA pH = 6.1 and SDA pH = 7.1) and laboratory samples (NDA pH = 5.7 and SDA pH = 7.1). As such, aluminum was not retained as a COPEC in soil or sediment.

Tables 5-1 through 5-5 present the COPEC screen and associated summary statistics by sample media and exposure area.

The following sections summarize selected COPECs by media, exposure area, and constituent class. **Table 4-3** summarizes COPECs identified onsite.

4.2.2.1 Terrestrial Exposure Area

4.2.2.2 Facility-Wide Soil

A total of 39 COPECs were identified in Facility-wide soil (**Table 4-4)** based on a comparison of the maximum detected concentration to ESBs. The following table summarizes COPECs by constituent class. **Table 4-9** tracks the COPEC progression through the various evaluation methods.

Facility-Wide Soil COPEC Screen Summary				
VOCs	**SVOCs**	**Metals**	**Explosives**	**PCBs**
Benzene	2,4-DNT	Antimony	2,4,6-TNT	Aroclor-1254
Bromomethane	2,6-DNT	Arsenic	2-Amino-4,6-DNT	Aroclor-1260
--	Benzo(g,h,i)fluoranthene	Cadmium	4-Amino-2,6-DNT	Total PCBs
--	Benzo[a]anthracene	Chromium	Nitrocellulose	--
--	Benzo[a]pyrene	Cobalt	Nitroglycerin	--
--	Bis(2-Ethylhexyl)phthalate	Copper	HMX	--
--	Butylbenzylphthalate	Lead	--	--
--	Chrysene	Manganese	--	--
--	Di-n-butylphthalate	Mercury	--	--
--	Naphthalene	Nickel	--	--
--	N-Nitroso-Di-N-Propylamine	Selenium	--	--
--	N-Nitrosodiphenylamine	Silver	--	--
--	Phenanthrene	Thallium	--	--
--	--	Vanadium	--	--
--	--	Zinc	--	--

Notes: DNT = dinitrotoluene; HMX = octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine; PCB = polychlorinated biphenyl; TNT = trinitrotoluene

4.2.2.3 Aquatic Exposure Areas

Aquatic exposure area COPECs were identified by subdrainage areas within the NDA and SDA (further discussed in **Section 3.2.3.2**). **Tables 4-10 and 4-11** track the COPEC progression through the various evaluation methods.

4.2.2.4 Northern Drainage Area

The five subdrainage areas within the NDA encompass a series of aquatic features including ponds, tributaries, and vernal pools. **Figure 3-1** illustrates the five NDA subdrainage areas.

4.2.2.4.1 Surface Water COPEC Summary

Six COPECs were identified in NDA subdrainage area surface water (**Table 4-5** and below) based on a comparison of the maximum detected concentration to ESBs.

NDA Subdrainage Areas - Surface Water COPEC Screen Summary					
COPEC	**Duck Pond**	**Eastern Tributary**	**Northeast Ponds**	**Unnamed Ponds**	**Western Tributary**
Aluminum	-	-	-	+	+
Cadmium	-	-	+	-	-
Copper	-	-	-	-	+
Lead	-	+	-	-	+
Manganese	-	-	-	+	+
Selenium	-	-	-	-	+
Zinc	-	-	-	+	+

+ = screened in as COPEC; - = screened out as COPEC

Metals were retained as COPECs based on a comparison of dissolved metals data to ESBs, which more accurately approximates the fraction of the metal that is available for uptake by aquatic organisms (i.e., bioavailable, not bound to suspended particulates) (International Council on Mining and Metals [ICMM] 2007; Meyer et al. 2007; USEPA 1993a) relative to total metals data. **Table 4-5** presents both the total and dissolved metals data for any metal that exceeds ESB. COPEC retention summarized in the table above is based on dissolved metals results.

Table 4-5 presents the results of the COPEC screen and provides summary statistics for COPECs identified in surface water in the NDA subdrainage areas.

4.2.2.4.2 Sediment COPEC Summary

Eighteen COPECs were identified in NDA subdrainage area sediment (**Table 4-6** and the following summary table) based on a comparison of the maximum detected concentration to ESBs.

NDA Subdrainage Areas - Sediment COPEC Screen Summary					
COPEC	**Duck Pond**	**Eastern Tributary**	**Northeast Ponds**	**Unnamed Ponds**	**Western Tributary**
Explosives					
Nitroglycerin	+	-	-	-	-
Metals					
Arsenic	+	+	+	+	+
Cadmium	+	-	-	+	+
Chromium	+	-	-	+	+
Copper	+	+	+	+	+
Lead	+	+	+	+	+
Mercury	-	-	+	+	+
Nickel	+	+	+	+	-
Silver	-	-	+	-	-
Zinc	+	+	+	+	+
PAHs					
Benzo(a)anthracene	+	-	-	+	-
Benzo(a)pyrene	+	-	-	+	-
Benzo(g,h,i)perylene	+	-	-	+	-
Benzo(k)fluoranthene	+	-	-	+	-
Chrysene	+	-	-	+	-
Fluoranthene	+	-	-	+	-
Phenanthrene	+	-	-	-	-
Pyrene	+	-	-	-	-

Notes: + = screened in as COPEC; - = screened out as COPEC

Table 4-6 presents the results of the COPEC screen and provides summary statistics for COPECs identified in sediment in the NDA subdrainage areas (**Figure 3-1**).

4.2.2.5 Southern Drainage Area

The SDA encompasses aquatic areas south and west of the surface water divide described in Section 3.2.3.2. Aquatic features include intermittent and perennial ditches draining to, and including, the southern wetland complex. **Figure 3-1** shows the SDA.

4.2.2.5.1 Surface Water COPEC Summary

Two COPECs were identified in SDA subdrainage area surface water (**Table 4-7** and the following summary table) based on a comparison of the maximum detected concentration to ESBs.

SDA Subdrainage Areas - Surface Water COPEC Screen Summary								
COPEC	Central Drainage Basin	Development Stream	Maint-Dyn West	Maint-Dyn East	Maint NG	Offsite Streams Lower	Offsite Streams Upper	TNT-PETN-NG Ditches
Lead	-	-	+	-	-	-	-	-
Manganese	-	-	-	-	-	-	-	+

+ = screened in as COPEC; - = screened out as COPEC

Metals were retained as COPECs based on a comparison of dissolved metals data to ESBs, which more accurately approximates the fraction of the metal that is available for uptake by aquatic organisms (i.e., bioavailable, not bound to suspended particulates) (International Council on Mining and Metals [ICMM] 2007; Meyer et al. 2007; USEPA 1993a) relative to total metals data. **Table 4-7** presents both the total and dissolved metals data for any metal that exceeds ESB. COPEC retention summarized in the table above is based on dissolved metals results.

Table 4-7 presents the results of the COPEC screen and provides summary statistics for COPECs identified in surface water in the NDA subdrainage areas.

4.2.2.5.2 Sediment COPEC Summary

Twenty-three COPECs were identified in SDA subdrainage area sediment (as detailed in **Table 4-8** and summarized in the table below) based on a comparison of the maximum detected concentration to ESBs.

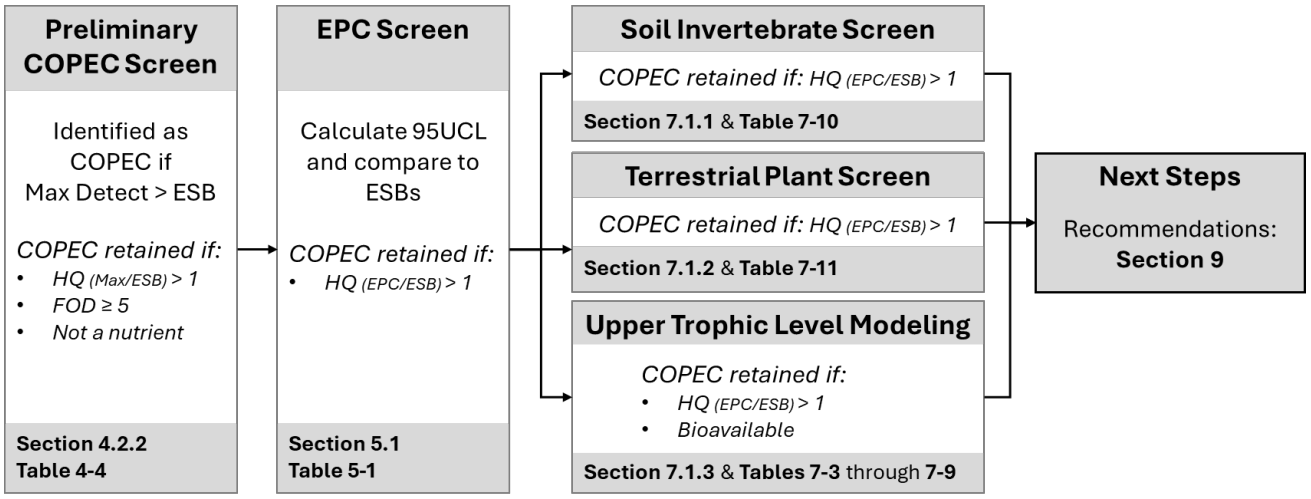
SDA Subdrainage Areas - Sediment COPEC Screen Summary								
COPEC	**Central Drainage Basin**	**Development Area Stream**	**Maintenance - Dynamite Area - East**	**Maintenance – Dynamite Area - West**	**Maintenance – NG Area**	**Misc. Offsite Streams - Lower**	**Misc. Offsite Streams - Upper**	**TNT-PETN-NG Ditches**
Metals								
Arsenic	+	+	+	+	+	+	+	+
Cadmium	+	+	+	+	+	+	+	+
Chromium	+	+	+	+	+	+	+	+
Copper	+	+	+	+	+	+	+	+
Lead	+	+	+	+	+	+	+	+
Mercury	+	+	+	+	+	+	+	+
Nickel	+	-	+	+	+	-	+	+
Silver	-	-	+	+	+	-	-	-
Zinc	+	+	+	+	+	+	+	+
PAHs								
Acenaphthene	-	-	-	+	-	-	-	-
Acenaphthylene	-	-	+	+	-	+	-	-
Anthracene	-	-	+	+	-	+	-	-
Benzo(a)anthracene	-	-	+	+	+	+	-	+
Benzo(a)pyrene	-	-	+	+	+	+	-	+
Benzo(g,h,i)perylene	-	-	+	+	+	+	-	+
Benzo(k)fluoranthene	-	-	+	+	+	+	-	-
Chrysene	-	-	+	+	+	+	-	+
Dibenzo(a,h)anthracene	-	-	+	+	-	+	-	+
Fluoranthene	+	-	+	+	+	+	-	+
Fluorene	-	-	+	+	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	-	+	-	-	-	-	-
Phenanthrene	-	-	+	+	+	+	-	+
Pyrene	+	-	+	+	+	+	-	+

Notes: + = screened in as COPEC; - = screened out as COPEC

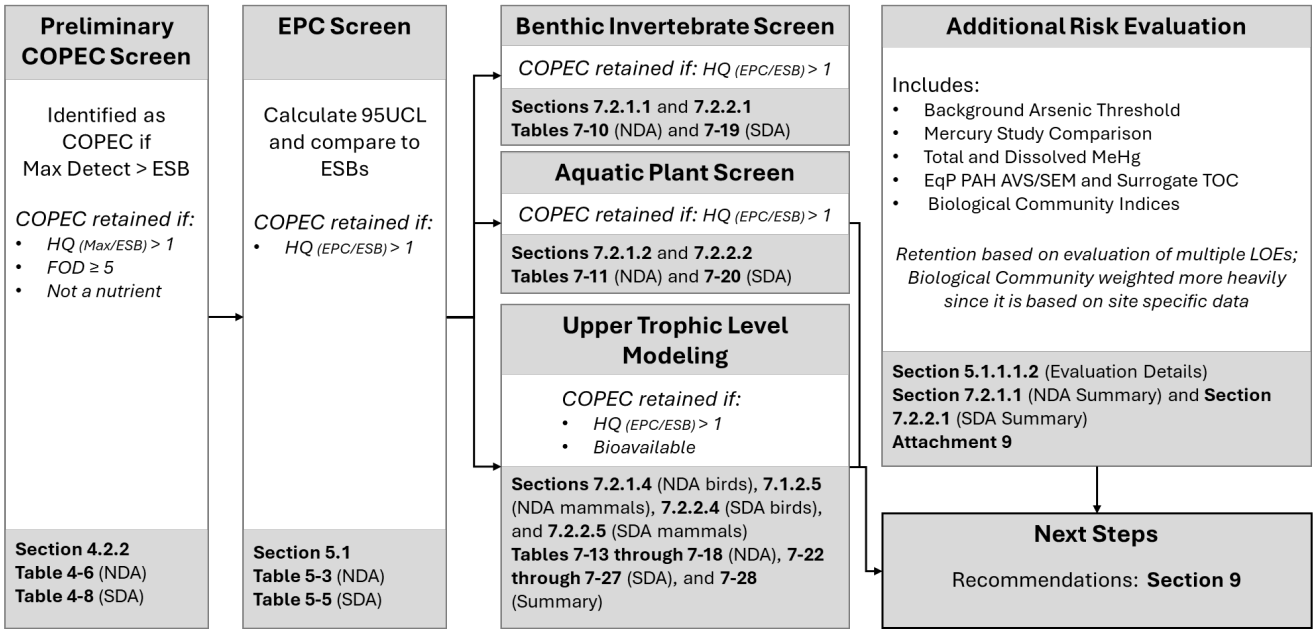
4.3 Process Summary

In Section 4, initial COPECs have been identified. Sections 5 and 6 evaluate exposures and effects, respectively. Assessment results presented in Section 5 and 6 are brought together in the risk characterization presented in Section 7. Summary tables referenced in Section 7 present the results of these stepwise processes. The COPEC identification, screening, and evaluation processes for each media type are illustrated in the graphics that follow.

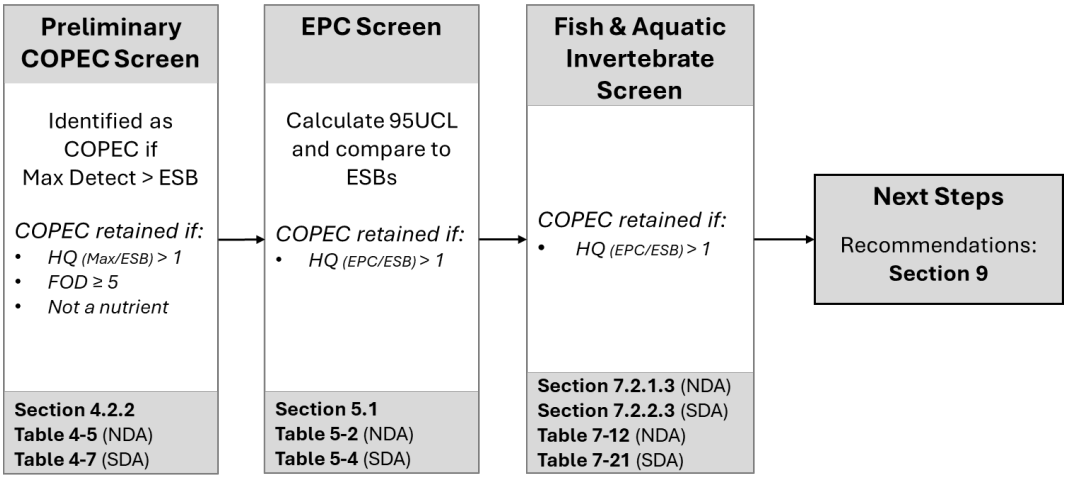
SOIL EVALUATION PROCESS:



SEDIMENT EVALUATION PROCESS:



SURFACE WATER EVALUATION PROCESS:



Notes:
ESB = ecological screening benchmark (Section 4.2.1)
EPC = exposure point concentration (Section 5.1)
FOD = frequency of detection
HQ = hazard quotient
95UCL = 95% upper confidence limit

Tables 4-9 through 4-11 additionally present a summary of the data for each stage of the evaluation process for each media type. These tables are intended as a companion reference to the text to help visualize how each stage of the evaluation fits into the overall process, and how individual COPECs are either retained or screen out.

Section 5: Ecological Exposure Assessment

The exposure assessment estimates a dose for each COPEC to which a receptor could be exposed. Exposure to plants and soil invertebrates (i.e., earthworms) is estimated solely by the Facility-specific soil concentration. Exposure to fish is estimated by the Facility-specific surface water concentration. Exposure to benthic invertebrates is estimated by the Facility-specific sediment concentration. Exposure to upper-trophic-level wildlife (birds and mammals) is estimated using an average daily dietary dose calculated via a food web model that incorporates estimated concentrations of COPEC in the diet (Section 5.2).

Section 5.1 presents the process by which exposure point concentrations were derived (Section 5.1.1) and summarizes multiple lines of evidence generated during the ERA process since the 2016 EE/ERA beyond the comparison of COPEC concentrations to ESBs. These lines of evidence are media-, constituent-, and/or exposure area-specific based on the results of prior work and the specific measurement endpoint they evaluate. For example, Section 5.1.1.1.1 presents the results of an evaluation of the bioavailability of lead in soil using a sequential extraction process. These activities resulted from lead in soil emerging as the primary risk driver in the 2016 EE/ERA, identification of areas of higher lead concentrations in soil presented in the desktop evaluation section of the ERAWP, and the evaluation of form, concentration, and bioavailability completed per the TLWP. These lines of evidence are compiled at the end of Section 5 and exposure area- and COPEC-specific risk management decisions are presented using a weight of evidence approach.

5.1 Exposure Point Concentrations

The exposure point concentration (EPC) is a conservative estimate of the chemical concentration in an environmental medium to which a receptor may be exposed. An individual receptor is assumed to be equally exposed to media within all portions of the exposure unit over the time frame of the risk assessment (USEPA 2002).

USEPA recommends using the average concentration to represent "a reasonable estimate of the concentration likely to be contacted over time" (USEPA 1989). In addition, USEPA (1992b) notes that “because of the uncertainty associated with estimating the true average concentration at a site, the 95 percent upper confidence limit (95UCL) of the arithmetic mean should be used for this variable.” EPCs (95UCLs) were calculated for COPECs identified at the Facility in soil, sediment and surface water, as indicated in **Tables 5-1 through 5-5**.

Although PCB Aroclors 1254 and 1260 were selected as COPECs during the initial data screen, Total PCBs (sum of detected Aroclors) was carried forward for use in food web modeling. This value provides a more conservative estimate of the concentration of PCBs in Facility media. Aroclors are mixtures of individual PCB congeners, and Total PCBs incorporates the congeners that make up Aroclors 1254 and 1260.

5.1.1 Site Media

Soil, surface water, and sediment 95UCLs were calculated using ProUCL Version 5.2.00. Per USEPA (2022) guidance, 95UCL calculation requires a dataset with at least eight samples and

five detects. For datasets that do not meet this requirement, the maximum concentration was used as the EPC.

Tables 5-1 through 5-5 present EPCs and their bases for terrestrial and aquatic exposure areas. **Appendix F** presents ProUCL output files.

5.1.1.1 Bioavailability and Chemical Speciation

Per regulatory guidance (USEPA 1997, NJDEP 2023), the 2016 EE/ERA assumed COPECs were 100% bioavailable to ecological receptors. In reality, the bioavailability of constituents depends on the form originally released, as well as various physical and chemical characteristics of the medium.

As discussed in Section 2.3.2, field sampling plans were developed for terrestrial and aquatic exposure areas, respectively, to evaluate:

- bioavailability, speciation, and physical forms of lead in soil
- bioavailability and speciation of metals and polycyclic aromatic hydrocarbons (PAHs) in subdrainage areas

The following sections detail lines of evidence related to Facility-specific bioavailability and/or speciation of COPECs in associated environmental media.

5.1.1.1.1 Terrestrial Exposure Area

5.1.1.1.1.1 Lead Bioavailability

Results of the 2016 EE/ERA and ERAWP desktop evaluation guided development of the TLWP (**Attachment 8**), which outlined data collection activities to refine existing conclusions regarding lead in soil and its potential risk to terrestrial receptors.

Appendix D details implementation of the TLWP field sampling plan in December 2018. Terrestrial areas of enrichment (AoEs), selected based on lead concentrations in soil, historical release mechanism(s), and anticipated form, evaluated in the TLWP now occur within updated APRAs (as discussed in Section 3.4.1). Sequential extraction procedure (SEP) analysis data generated during TLWP implementation are used in the ERA to evaluate the bioavailability of lead to terrestrial receptors.

Interpretation of the SEP results relies on the following information about each step and the associated complexation/binding of lead.

Step 1 - Exchangeable Phase: This extraction includes trace elements that are reversibly sorbed to soil minerals, amorphous solids, and/or organic material by electrostatic forces.

Step 2 - Carbonate Phase: This extraction targets trace elements that are sorbed or otherwise bound to carbonate minerals.

Step 3 - Non-Crystalline Materials Phase: This extraction targets trace elements that are complexed by amorphous minerals (e.g. iron).

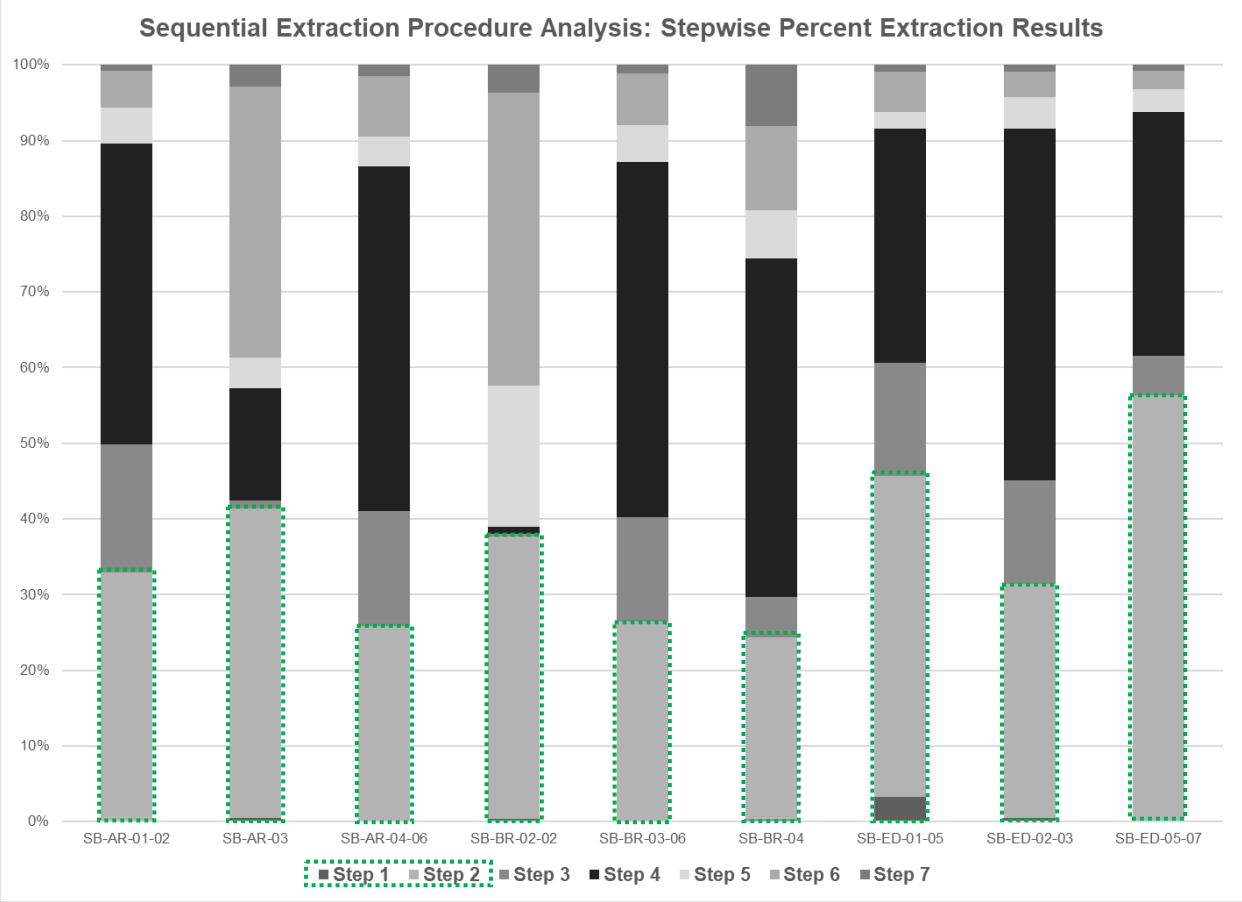
Step 4 - Metal Hydroxide Phase: Trace elements bound to hydroxides of iron, manganese, and/or aluminum.

Step 5 - Organic Phase: This extraction targets trace elements strongly bound via chemisorption to organic material.

Step 6 - Acid/Sulfide Fraction: The extraction is used to identify trace elements precipitated as sulfide minerals.

Step 7 - Residual Fraction: Trace elements remaining in the soil after the previous extractions will be distributed between silicates, phosphates, and refractory oxides.

The chart below presents SEP analysis results broken down by stepwise percent extraction.



The fraction of total lead extracted in Steps 1 and 2 of SEP analysis represent the exchangeable and carbonate phases, respectively. The exchangeable phase is associated with the potentially bioavailable fraction where variations in soil chemistry can influence sorption and desorption. The carbonate phase represents a fraction where lead is associated with carbonates, whereby bioavailability and mobility are a function of pH. These two phases collectively comprise the weakly bound fraction of lead (Tessier et al. 1979) and are most readily bioavailable to ecological receptors.

Results of SEP analysis indicate that 24 to 56 percent of total lead concentrations in soil are weakly bound and potentially bioavailable. As such, terrestrial receptor risk characterization (Section 7.1) incorporates 24, 56, and 100% bioavailable lead fractions in soil direct contact EPCs and terrestrial food web modeling.

5.1.1.1.1.2 Spatial Analysis of Lead and Copper

Spatial weighting using Thiessen polygons is a commonly used approach (NJDEP 2025, USEPA 2019, ITRC 2016) to visualize and weigh analytical data by representing the spatial area each sample influences - often referred to as surface-weighted average concentrations (SWACs). For upper-trophic-level receptors, spatial analysis of soil COPEC concentrations in terrestrial habitat patches can support the evaluation of probabilistic risk distributions, accounting for spatial exposure variability in the Facility-wide terrestrial exposure area. The first step of this approach is presented in **Figures 5-1** through **5-4**.

Thiessen polygons were calculated for lead (**Figure 5-1**) and copper (**Figure 5-3**) within the terrestrial exposure area. The spatially-weighted data were then compared to back-calculated, risk-based, site-specific ESCs (SSESC) for lead (488 mg/kg) and copper (312 mg/kg) that were developed using the American robin model and the following equation:

$$EPC = \frac{HQ \times TRV \times BW}{AUF \times \left(IRsed + \left[IRfood \times \left[\left(BAF_{invert} \times \%diet\right) + \left(BAF_{plant} \times \%\,diet\right)\right]\right]\right)}$$

EPC = exposure point concentration
TRV = toxicity reference value
BW = body weight (kg)
AUF = area use factor
IRsed = Sediment Ingestion Rate (kg/day)
IRfood = Daily Ingestion Rate (kg/day)
BAF = Bioaccumulation Factor
%diet = Dietary Composition

These calculations are presented in **Appendix G**.

High level findings included:

- The spatially-weighted average for lead was 266 mg/kg, which is below the SSESC of 488 mg/kg. Additionally, 94 percent of the terrestrial exposure area had a lead concentration less than the SSESC
- The spatially-weighted average for copper was 68.8 mg/kg, which is below the SSESC of 312 mg/kg. Additionally, 98 percent of the terrestrial exposure area had a copper concentration less than the SSESC

These results will steer future risk assessment activities to those areas where SWACs exceed SSESCs. Section 9 presents the initial steps and a framework to guide supplemental risk characterization activities associated with lead and copper in the terrestrial exposure area.

5.1.1.1.2 Aquatic Exposure Areas

Results of the 2016 EE/ERA and ERAWP desktop evaluation guided development and implementation of data collection activities to evaluate bioavailability and speciation of metals and PAHs in aquatic subdrainage exposure areas. Implementation of the ERAWP field sampling plan occurred in June 2016 and May 2018, and implementation of the Aquatic ERASSM field sampling plan occurred in July 2019. Analytical results from aquatic field sampling implementation are incorporated in the ERA dataset as indicated in Section 4.1.1.

The following sections detail results of aquatic sampling activities as they pertain to constituent bioavailability and chemical speciation of COPECs in aquatic exposure media (i.e., sediment and surface water) and COPEC exposure to benthic invertebrate communities.

5.1.1.1.2.1 Metals

5.1.1.1.2.1.1 Arsenic

As detailed in the ERAWP (**Attachment 1**) and Updated SSRP (**Attachment 9**), sediment arsenic concentrations in aquatic exposure areas were evaluated against background threshold of arsenic at the Facility (90th percentile concentration of 11.6 mg/kg). Background arsenic concentrations at the Facility are less than NJDEP's SRS value of 19 mg/kg based on state-wide background concentrations, and greater than the regional background threshold value (7.32 mg/kg; NJDEP 2003). The presence of arsenic at the Facility is likely attributable to historic fill (as detailed further below).

The following table summarizes a series of datasets representative of areas onsite and results of sediment arsenic analyses in NDA and SDA subdrainage areas where potential risk remained uncertain following the 2016 EE/ERA.

Arsenic Background Threshold and Sediment Summary Statistics					
Dataset	**Detection Frequency**	**Min.**	**Max.**	**Arithmetic Mean**	**90th Percentile Concentration**
		mg/kg			
Background Datasets					
Statewide Background – NJDEP SRS	NA	NA	NA	NA	19
Regional Background - NJDEP (2003)	13/13	NA	NA	NA	7.32
Facility Background - Undeveloped Area Soil	127/131	1.6	164	7.53	14.5
Less outlier	126/130	1.6	21.1	6.28	11.6
Remedial Area Soil Datasets					
Soil – No Historic Fill	538/543	1.4	675	11.8	15.5

Soil – Historic Fill	575/579	0.71	1,150	27.6	36.0
Aquatic Exposure Area Sediment Datasets					
Duck Pond	35/45	1.27	41.1	8.55	9.68[a]
Unnamed Ponds	21/23	1.86	111	13.2	**34.5**[a]
Central Drainage Basin	13/15	2.64	97.3	35.8	**51.4**[a]
Development Area Stream	15/15	1.91	31.6	6.56	8.92[a]
Maintenance Dynamite Area – West	34/37	1.12	72.4	12.5	**18.2**[a]
Maintenance NG Area	23/24	2.05	61.3	15.4	**21.4**[a]
Misc. Offsite Streams – Upper	26/31	0.69	31.8	4.29	6.14[a]
TNT-PETN-NG Ditches	23/25	1.67	192	24.6	**49.9**[a]

Notes: Bolded values indicate exceedance of Facility-specific background threshold (11.6 mg/kg). Summary statistics incorporate historical and supplemental analyses.
Min. – minimum
Max. – maximum
mg/kg – milligrams per kilogram
[a]95UCL calculation

Throughout numerous periods of expansion and development, historic fill from multiple local sources was used onsite to increase grade, eliminate shallow ponds/wet areas, improve drainage, increase compatibility of the soils to allow construction of large manufacturing complexes, and establish both narrow gauge and standard gauge rail beds throughout the Facility. Coal combustion byproducts from the local iron foundries made up the majority of historic fill material brought onsite. Historical record confirms that blast furnaces at local foundries burned primarily Anthracite coal (Bayley 1910).

The use of coal combustion byproducts as historic fill, and presence of arsenic in historic fill material is well documented (NJDEP 2013). USGS (2006) found relatively high arsenic levels in northern Appalachian coal and its combustion byproducts. USEPA (1998b) found Anthracite coal to contain arsenic at an average concentration of 8 mg/kg prior to combustion. NJDEP's historic fill database includes records of arsenic in historic fill samples at over 1,000 milligrams per kilogram.

Arsenic occurs at a range of concentrations within the former manufacturing areas of the Facility with no discernable pattern linking former operations to arsenic concentrations. As illustrated above, arsenic concentrations are higher in areas of historic fill placement, and consistent with local and regional background beyond the footprint of historic fill.

Surface-water drainage pathways onsite cut through areas of historic fill, flow in streambeds confined by historic fill, and discharge through culverts anchored/embedded in historic fill material. These interactions with upland/soil sources, and the influences of erosion, bedload sediment transport, and deposition, appear to be responsible for the presence and distribution of arsenic in Facility sediment. Arsenic in Facility sediments appears attributable to historic fill surrounding and within aquatic features.

Doughten et al. (2015) identified pentavalent arsenic (As(V)) as the dominant form in coal combustion byproducts. As(V) is less bioavailable and less toxic than trivalent arsenic (As(III)), and does not readily leach from coal combustion byproducts (USGS 2006, Doughten et al. 2015; Shah et al 2007). Additionally, reduction of As(V) to the more soluble and toxic As(III) occurs slowly, even in reducing environments, and is readily inhibited by the binding of As(V) while As(III) is rapidly oxidized to As(V) (Brannon 1987, Battelle & Exponent 2000). Arsenic is readily bound by a number of metals, including sulfides and manganese (Nriagu 1994, Battelle & Exponent 2000*).* Manganese is regionally elevated in soils and sediments (NJDEP 2003) and is present in sediment onsite. Sulfides are also present across aquatic features onsite and likely serve as a binding complex for divalent metals as well as arsenic.

Arsenic is not present above ESBs in surface water in aquatic features onsite, further supporting its presence in sediment in a relatively immobile and insoluble form.

Benthic invertebrate community surveys were performed (as detailed further in Section 5.1.1.2) in subdrainage areas where sediment arsenic exceeded the Facility-specific background threshold concentration (i.e., Unnamed Ponds, Central Drainage Basin, Maintenance NG Area, and TNT-PETN-NG Ditches). The resulting biological data (presented in Section 5.1.1.2) provides an additional LOE to be evaluated in a weight of evidence approach with the source attribution, form, and solubility/mobility discussions presented herein.

5.1.1.1.2.1.2 Mercury

In subdrainage areas where potential risk remained uncertain following ERAWP implementation, a mercury study comparison and mercury speciation analysis were performed. Results of these analyses are discussed in the following sections.

5.1.1.1.2.1.2.1 Mercury Study Comparison

The mercury study comparison relied upon Conder et al.'s (2015) review of laboratory and field studies characterizing mercury-specific-effect thresholds. Conder et al.'s study compiled 30 studies (7 spiked-sediment bioassays, 23 field-collected sediment bioassays from mercury-contaminated sites) that provided mercury sediment quality values (SQVs) for protection of benthic invertebrates. Mercury concentrations within each subdrainage area were compared to the compiled no observed effect concentrations (NOECs). Where maximum detected mercury concentrations in sediment are less than or within the range of spiked-sediment NOECs from Conder et al. (2015; 0.59 – 11 mg/kg), risk to benthic invertebrate communities is considered unlikely. Results of this evaluation are detailed further in the Updated SSRP (**Attachment 9)**.

The following table summarizes the results of the mercury study comparison and sediment mercury results in subdrainage areas incorporating historical and supplemental analyses.

Sediment Mercury Summary Statistics and Conder et al. (2015) NOEC Exceedances							
Drainage Area	Subdrainage Area	Detection Frequency	Min.	Max.	Arithmetic Mean	Median	95UCL
			mg/kg				
NDA	Duck Pond	44/45	0.0043	0.69	0.24	0.17	0.29
	Unnamed Ponds	23/23	0.0079	**11.4**	0.88	0.24	3.03
	Western Tributary	34/34	0.044	2.79	0.70	0.48	0.95
SDA	**Central Drainage Basin**	25/25	0.021	**25.4**	2.32	0.49	6.84
	Development Area Stream	11/15	0.011	0.70	0.13	0.06	0.35
	Maintenance Dynamite Area-East	44/44	0.017	11	1.02	0.46	2.13
	Maintenance Dynamite Area-West	38/39	0.005	**14.7**	1.05	0.25	2.88
	Maintenance NG Area	27/27	0.069	**27**	1.57	0.42	1.88
	Miscellaneous Offsite Streams – Upper	30/31	0.0043	4.14	0.50	0.14	0.92
	TNT-PETN-NG Ditches	22/25	0.014	7.51	0.62	0.25	1.49

Notes: Bold values indicate exceedance of Conder et al. (2015) spiked-sediment NOEC upper bound (11 mg/kg). Summary statistics incorporate historical and supplemental analyses.

In subdrainage areas where sediment mercury exceeded the Conder et al. (2015) NOEC upper-bound concentration (11 mg/kg), benthic invertebrate community surveys were performed to provide an additional LOE regarding potential risk (as detailed further in Section 5.1.1.2). These subdrainage areas are as follows:

- Unnamed Ponds
- Central Drainage Basin
- Maintenance Dynamite Area - West
- Maintenance NG Area

5.1.1.1.2.1.2.2 Methylmercury

In subdrainage areas where potential risk from mercury remained uncertain following ERAWP implementation (**Attachment 9**), supplemental surface water samples were collected and analyzed for total and dissolved MeHg. These subdrainage areas include:

- Unnamed Ponds
- Maintenance Dynamite Area – West
- Maintenance Dynamite Area – East

Results of total and dissolved MeHg analyses in surface water are provided in **Appendix C** and summarized in the table that follows.

Drainage Area	Subdrainage Area	Methylmercury (ng/L)			
		Total		Dissolved	
		Min.	Max.	Min.	Max.
NDA	Unnamed Ponds	0.49	3.1	ND	0.24
SDA	Maintenance – Dynamite Area – West	0.17	0.38	ND	
	Maintenance – Dynamite Area - East	0.05		ND	

As shown above, total MeHg across subdrainage areas ranged from 0.05 to 3.1 nanograms per liter (ng/L). Dissolved MeHg was not detected above reporting limits apart from one sample (0.24 ng/L) in Unnamed Ponds, suggesting low potential MeHg mobility and bioavailability to aquatic life in Maintenance – Dynamite Areas – East and West.

While no formal MeHg ESC are available for direct comparison, NJDEP's surface water ESC of 0.77 µg/L (770 ng/L) for total mercury is greater than three orders of magnitude above the sample result and represents a bioavailable MeHg fraction (dissolved:total MeHg) of approximately half (49.3%), as compared to its paired total MeHg sample. Alternatively, while total and dissolved MeHg in overlying water provides an additional LOE regarding potential risk to aquatic and benthic invertebrates, uncertainty arises when translating potential benthic risk from dissolved concentrations in overlying water to potential risk from direct porewater exposure. Thus, additional investigation of mercury in Unnamed Ponds is recommended despite this LOE.

5.1.1.1.2.1.3 Chromium

Potential risk to benthic invertebrates from sediment chromium remained uncertain (i.e., HQ_{LEL} greater than 1) in Maintenance - Dynamite Area - East following ERAWP implementation. As detailed in the ERASSM implementation memo (**Appendix C**), three sediment samples were collected and analyzed in July 2019 for total, trivalent [Cr(III)], and hexavalent chromium [Cr(VI)] in this subdrainage area. Chromium toxicity aquatic life is dependent on valence state, with Cr(VI) being considerably more toxic and bioavailable.

Sediment Cr(III) concentrations (range: 6.42 – 31.6 mg/kg) were equivalent to total chromium and Cr(VI) was not detected. Results of chromium speciation analysis indicated that sediment conditions in Maintenance - Dynamite Area – East favor the less toxic and less mobile Cr(III). As such, no further investigation of chromium is warranted in this subdrainage area.

5.1.1.1.2.1.4 Copper and Zinc

Surface water samples collected during ERAWP implementation (**Attachment 4**) were analyzed for total and dissolved copper and zinc in one subdrainage area (i.e., Unnamed Ponds) targeted for refinement in the ERAWP desktop evaluation (**Appendix A**).

In June 2016, water depths within Unnamed Ponds were less than three inches in the smaller of the two ponds, where only one sample was able to be collected and analyzed. Standing water

was present in the larger pond, and four samples were collected. In May 2018, an additional three samples were collected for dissolved zinc when standing water was present.

The table below summarizes surface water quality parameters and dissolved copper and zinc in Unnamed Ponds in June 2016 and May 2018.

Unnamed Ponds - Water Quality Parameters and Dissolved Copper and Zinc Summary				
Parameter	**Unit**	**Large Pond**	**Small Pond**	
		June 2016	**June 2016**	**May 2018**
Turbidity	NTU	12.5	71,000	12.4
Total Suspended Solids	mg/L	44	1,880	32.9
Hardness	mg/L $CaCO_3$	22.1	120	72
Hardness-dependent SWQS - Copper	µg/L	2.33	9.9	--
Hardness-dependent SWQS - Zinc	µg/L	31.7	133	86.2
Maximum Detected Dissolved Copper	µg/L	ND	4.4	--
Maximum Detected Dissolved Zinc	µg/L	8.7	**247**	35.7

In June 2016, high turbidity (71,000 NTU) caused by low water levels in the small pond likely contributed to the hardness-dependent SWQS exceedance for zinc in the single sample collected. Alternatively, samples collected in May 2018 measured considerably lower turbidity with no exceedances for zinc. As such, potential risk from dissolved copper and zinc in this subdrainage area is unlikely and no further evaluation is warranted.

5.1.1.1.2.2 Polycyclic Aromatic Hydrocarbons

Consistent with *Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures* (PAH EQP Guidance) (USEPA 2003c), equilibrium partitioning (EQP) analysis was used to evaluate the bioavailability of PAHs in sediment under given sediment conditions. EQP analysis requires analysis of 17 parent and 17 alkylated family PAHs (34 total constituents) to develop ESB toxic units (ESBTUs) to predict constituent concentrations in sediment interstitial (pore) water based on equilibrium partitioning between sediment organic carbon and water (USEPA 2003c).

Consistent with *Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures* (USEPA 2003c), equilibrium partitioning (EQP) analysis was used to evaluate the bioavailability of PAHs in sediment under given sediment conditions. EQP analysis requires analysis of 17 parent and 17 alkylated family PAHs (34 total constituents) to develop ESB toxic units (ESBTUs) to predict constituent concentrations in sediment interstitial (pore) water based on equilibrium partitioning between sediment organic carbon and water (USEPA 2003c).

The 34-PAH ESBTU is calculated as follows:

$$\sum ESBTU_{FCV} = \sum_{i} \frac{C_{OC,PAHi}}{C_{OC,PAHi,FCVi}}$$

Where,

FCV = Final Chronic Value

$C_{OC,PAHi}$ = organic carbon-normalized concentration of an individual PAH in sediment

$C_{OC,FCVi}$ = the critical organic carbon-normalized concentration of a PAH in sediment, as determined by the FCV

FCVs presented in the PAH EQP Guidance represent ESB toxicity endpoints for PAHs derived using National Water Quality Criteria Guidelines (Stephan et al. 1985).

The PAH EQP Guidance recognizes that many PAH datasets generated during stie characterization activities do not contain data for each of the 34 parent and alkylated family compounds. As such, the guidance establishes procedures and uncertainty factors for handling PAH datasets with fewer compounds represented. Specifically, these include 13-PAH datasets and 23-PAH datasets.

Consistent with NJDEP regulations, the SI and RI analyses for PAHs focused on the 17-PAH Priority Pollutant analyte list. To this end, the evaluation of historical PAH data relies on the 13-PAH datasets and application of a 95% uncertainty factor (95%UF) to calculate ESBTUs in eight subdrainage areas targeted for further evaluation in the ERAWP (Hercules 2016b) and listed below:

- Duck Pond
- Northeast Ponds
- Unnamed Ponds
- Maintenance – Dynamite Area – East
- Maintenance – Dynamite Area – West
- Maintenance – NG Area
- TNT-PETN-NG Ditches
- Miscellaneous Offsite Stream - Upper

The 95%UF of 11.5 (Table 6-1 of USEPA 2003) used in the 13-PAH ESBTUs is calculated as follows:

$$\frac{\Sigma ESBTU_{FCV,TOT}}{\Sigma ESTBTU_{FCV,13}}$$

Where,

$\sum ESBTU_{FCV,TOT}$ = the summation of FCV-based ESBTUs for a 34-PAH (total) mixture

$\sum ESBTU_{FCV,13}$ = the summation of FCV-based ESBTUs for a 13-PAH mixture

ESBTUs calculated using the 95%UF are presented in the Updated SSRP (**Attachment 9**).

Further, the Updated SSRP back-calculated a 13-PAH ESBTU benchmark of 8.83 that equated to a 34-PAH ESBTU of 1. This value was initially calculated through comparison to the Central Drainage Basin 34-PAH dataset. Initial PAH ESBTUs calculated using the SI/RI dataset were compared to ESBTUs calculated for the Central Drainage Basin, where ESBTUs were calculated using both the full 34 PAH dataset and the 13 PAH dataset with 95%UF to provide context and account for the overestimation of the 95%UF.

During ERASSM implementation (**Appendix C**), sediment samples were collected for analysis of 34 PAHs to refine PAH speciation and exposure estimates within subdrainage areas identified to have uncertain risk in the Updated SSRP. Supplemental sediment sampling for 34-PAH analysis was performed in three SDA subdrainage areas targeted for risk refinement, including:

- Maintenance – Dynamite Area - East
- Maintenance – Dynamite Area - West
- Miscellaneous Offsite Streams – Lower

These samples were used to confirm the benchmark value calculated for the Central Drainage Basin. In subdrainage areas where samples for 34-PAH analysis were not collected, the 13-PAH ESBTU benchmark value is used.

Results of this evaluation are presented in **Appendix C** and summarized in the following table.

Aquatic Exposure Areas Sediment PAHs Equilibrium-Partitioning Ecological Screening Benchmark Toxic Unit (ESBTU)				
Drainage Area	**Subdrainage Area**	**ESBTU Benchmark[a]**	**Maximum ESBTU**	**HQ**
NDA	Unnamed Ponds	8.83	4	≤ 1
	Duck Pond	8.83	4.6	≤ 1
	Northeast Ponds	8.83	2.3	≤ 1
SDA	Central Drainage Basin (ESBTU Benchmark Reference)	8.83 / 1	NA	NA
	Maintenance Dynamite Area - East	1	0.01	≤ 1
	Maintenance Dynamite Area - West	1	0.37	≤ 1
	Maintenance NG Area	8.83	6	≤ 1
	Miscellaneous Offsite Streams – Lower	1	**1.26**	≤ 1
	TNT-PETN-NG Ditches	8.83	5	≤ 1

Notes: ESBTU – Ecological Screening Benchmark Toxic Unit; [a]The ESBTU benchmark of 1 (unitless) represents a 34-PAH benchmark. The ESBTU benchmark of 8.83 (unitless) represents a 13-PAH benchmark with 95% certainty factor, equating to a 34-PAH benchmark of 1.

As shown above, results of these collective EqP PAH mixtures analyses indicate that potential risk to benthic invertebrates is possible (i.e., 34-PAH ESBTU greater than 1) in one subdrainage area (Miscellaneous Offsite Streams – Lower). A dataset evaluation was completed for Miscellaneous Offsite Streams – Lower to better understand the elevated ESBTU. Two 34-PAH samples were collected within this subdrainage area – one at SD-ERA-B16-MOSL-01 with an ESBTU of 1.26, and one at SD-ERA-C15-MOSL-01 with an ESBTU of 0.01. SD-ERA-B16-MOSL-01 is located adjacent to Rt 46, and the elevated ESBTU is likely attributable to run-on from offsite sources. Therefore, this elevated ESBTU is not considered of significant risk for Miscellaneous Offsite Streams – Lower.

5.1.1.1.2.3 Benthic Invertebrates

The ERAWP desktop evaluation identified NDA and SDA subdrainage areas where potential risk to benthic invertebrate communities remained uncertain following the 2016 EE/ERA. In this evaluation, benthic invertebrate EPCs were compared to Lowest Effects Level (LEL) and Severe Effects Level (SEL) criteria (see Section 6.2) considered protective of benthic organisms. These LEL- and SEL-based HQs (HQ_{LELs} and HQ_{SELs}, respectively) were calculated to provide a bounding estimate of potential risk. Where subdrainage HQ_{LELs} were greater than 1, additional LOEs were evaluated, including acid-volatile sulfide/simultaneously extracted metals (AVS/SEM) analyses at 30 sediment sampling locations in six subdrainage areas supplemented with total organic carbon (TOC) surrogate evaluations in seven remaining subdrainage areas (as detailed in the following section).

Further, the Updated SSRP identified NDA and SDA subdrainage areas where potential risk to benthic invertebrate communities remained uncertain following ERAWP implementation in June

2016. Where LOEs indicated potential risk to benthic invertebrates (as detailed in **Attachment 9**), supplemental LOEs were evaluated, including AVS/SEM analyses at 3 sediment sampling locations in an additional subdrainage area (Maintenance Dynamite Area – East) and benthic invertebrate community sampling in five subdrainage areas.

The following sections summarize the results of AVS/SEM analyses, TOC surrogate evaluations, and benthic invertebrate community sampling.

5.1.1.1.2.3.1 AVS/SEM and Total Organic Carbon

In the presence of adequate quantities of sulfide, divalent metals (i.e., Cd, Cu, Pb, Ni, Zn) bind in sulfide complexes and are not bioavailable. In the absence of sufficient sulfide (or excess metals), metals will bind to organic carbon as well. A comparison of sulfide and organic carbon content relative to divalent metals concentrations can be used as an indicator of potential bioavailability, and toxicity, to benthic communities (ITRC 2011). This method gives a better indication of sediment toxicity to benthic organisms than total metals sampling by measuring the bioavailable fraction of metals present. Ratios less than 130 micromoles per gram organic carbon (µmoles/gOC) indicate that toxicity to the benthic community is unlikely; between 130 and 3,000 µmoles/gOC indicate that toxicity is possible, and over 3,000 µmoles/g indicate that toxicity is likely (USEPA 2005).

In subdrainage areas not evaluated via AVS/SEM, percent total organic carbon (TOC%), correlative with AVS/SEM (ITRC 2011), was used as a surrogate. Where TOC% exceeds 0.1%, potential bioavailability, and toxicity, of divalent metals to benthic invertebrate communities is considered unlikely.

Results of AVS/SEM analysis and TOC% surrogate evaluation are detailed further in **Appendix C** and the Updated SSRP (**Attachment 9**) and are summarized in the table that follows.

Sediment AVS/SEM and Total Organic Carbon Summary Statistics							
Drainage Area	Subdrainage Area	Maximum (∑SEM-AVS) fOC	%TOC[b]				
			Min.	Max.	Median	Arithmetic Mean	Frequency ≤0.1% TOC
		µM/gOC	Percent				
NDA	Unnamed Ponds	14.4	11.4	40	22	22.28	0/5
	Duck Pond[a]	--	0.086	37	6.75	10.6	2/44
	Eastern Tributary[a]	--	0.63	7.3	1.55	2.565	0/6
	Western Tributary	--	19.2	24.4	21.8	21.8	0/2
	Northeast Ponds	--	3.95	22.7	10.5	12.38	0/3
SDA	Development Area Stream[a]	--	0.091	5.2	1.55	1.91	1/16
	TNT-PETN-NG Ditches	59	2.89	41.6	22.25	22.25	0/2
	Maintenance NG Area	23.9	0.0695	13.2	4.71	5.99	1/4
	Maintenance -Dynamite Area - West	20	8.34	14.2	10.2	10.91	0/3
	Maintenance -Dynamite Area - East	43.5	0.982	22.6	5.34	7.07	0/7
	Central Drainage Basin	0.24	0.478	45.6	18.2	21.52	0/11
	Miscellaneous Offsite Streams - Upper	**1,100**	0.0767	8.99	2.85	3.47	1/5
	Miscellaneous Offsite Streams - Lower	--	0.42	21.3	5.06	7.96	0/4

Notes: Bolded values indicate (∑SEM-AVS)/fOC exceeding 130 µM/gOC, where benthic invertebrate toxicity is uncertain
µM/gOC - micromoles per gram organic carbon, fOC – fraction organic carbon
[a]TOC data from Duck Pond, Eastern Tributary, and Development Area only available in 0.5-1.0 ft bgs depth intervals.
[b]Where duplicate samples were collected, the lower TOC% of the parent and duplicate sample is used for summary statistics.

The AVS/SEM ratio of 1,100 uM/gOC in Miscellaneous Offsite Steams – Upper is an artifact of both very low sulfide and TOC, and low metals concentrations. The concentrations of each divalent metal at the location of the maximum AVS/SEM ratio were each less than 0.1 mg/kg and less than sediment ESC. As such, despite the high ratio (a relative measure), metals concentrations (an absolute measure) are not expected to cause unacceptable risk at this single sample location. Further, similar results were observed at sample locations proximate to this AVS/SEM sample location. Similarly, the metals concentrations at Duck Pond and Development Streams are below ESB in locations of low TOC. Therefore, risk is unlikely in these areas as assessed by this method.

5.1.1.1.2.3.2 Biodiversity Indices

Flowing and/or non-flowing aquatic habitat in five SDA subdrainage areas were targeted for benthic invertebrate community sampling as shown in the table below. In addition, two samples were collected from each of two on-site reference locations in the Development Area and

Northeast Ponds. These locations occur near the perimeter of the Facility and represent local, ambient conditions beyond the influence of former Facility operations. Reference sample locations targeted similar substrate types and hydrological conditions as the sample locations in the five subdrainage areas.

Subdrainage areas sampled for benthic invertebrate community data are shown in **Figures 3-3** and in the table below.

Benthic Invertebrate Community Sampling		
Drainage Area	**Subdrainage Area**	**No. of Sample Locations**
Flowing Aquatic Habitat		
SDA	Development Area Stream (Reference)	2
	Central Drainage Basin	2[a]
	Maintenance Dynamite Area - West	2
	Maintenance NG Area	2
	TNT-PETN-NG Ditches	1
Non-flowing Aquatic Habitat		
NDA	Northeast Ponds (Reference)	2
SDA	Unnamed Ponds	3
	Central Drainage Basin	2[a]

[a]A total of two benthic community samples were collected in the Central Drainage Basin. This subdrainage area contains habitat representative of both flowing and non-flowing habitat.

August 2019 implementation of the ERASSM field sampling plan and results of benthic invertebrate identification and enumeration are provided in **Appendix C**. These results were used to calculate biodiversity indices for flowing and non-flowing subdrainage areas.

Benthic community analysis of flowing and non-flowing aquatic habitat relied on common statistical metrics and the NJDEP's high gradient macroinvertebrate index (HGMI). Specific information regarding each analysis follows:

- Shannon-Weiner Diversity Index (H') – measures diversity within the benthic invertebrate community. Typical H' values fall between 1.5 and 3.5 and increase as both the richness and the evenness of the community increases. A lower (closer to 0) H' value indicates a lower level of diversity. Inversely, a higher H' value indicates a greater number of species within the community and a more even distribution of the number of individuals across species.

- Pielou's Species Evenness Index (J') – measures evenness within the benthic invertebrate community. The J' value is constrained between 0 and 1. A lower J' value (closer to 0) indicates less evenness between species in communities and the likely presence of a

dominant species. A higher J' (closer to 1) value indicates less variation, and thus greater continuity or evenness, in communities between the species.

- Abundance – measures the number of individuals in each benthic invertebrate community sample. In this case, abundance is calculated by averaging the number of individuals in the replicates across each individual sample location.

- Effective Number of Species (ENS) – measures the number of equally-common species within a community. The ENS represents the real biodiversity and allows for comparison of biodiversity with other communities

The following metrics (Ludwig & Reynolds 1988) were calculated for each benthic invertebrate community sample location as follows:

$$H' = - \sum_{i=1}^{m} (n/N) * \ln(n/N)$$

Where,

n = number of individuals per taxon
N = total number of individuals
m = number of taxa

$$J' = H'/\ln(S)$$

Where,

S = number of species in the benthic invertebrate community sample

And,

$$ENS = e^{H'}$$

The HGMI was calculated at each sample location according to NJDEP's *Standard Operating Procedures Ambient Biological Monitoring Using Benthic Macroinvertebrates* (2007). The HGMI is an indication of water quality that is based on richness and abundance of pollution intolerant and tolerant species.

Calculated biodiversity indices are presented in **Appendix C** and summarized in the following tables.

Benthic Invertebrate Biodiversity Indices						
Drainage Area	Subdrainage Area	HGBI	H'	J'	ENS	Abundance
		Lower Bound				
Flowing Aquatic Habitat						
SDA	Development Area Stream (Reference)	20.1	3.52	0.68	34.0	32.0
	Central Drainage Basin	25.2	**1.45**	**0.35**	**4.26**	65.0
	Maintenance Dynamite Area - West	22.0	**2.46**	**0.57**	**11.6**	178.3
	Maintenance NG Area	**14.1**	**1.64**	**0.39**	**5.22**	74.0
	TNT-PETN-NG Ditches	26.4	3.60	0.77	36.4	54.0
Non-flowing Aquatic Habitat						
NDA	Northeast Ponds (Reference)	19.5	1.93	0.48	6.86	181.7
SDA	**Unnamed Ponds**	**7.65**	**1.72**	**0.37**	**5.59**	**37**
	Central Drainage Basin	25.2	**1.45**	**0.35**	**4.26**	**65**

Notes: Bolded values indicate biodiversity indices below Facility-specific flowing or non-flowing habitat reference lower bound.

Comparison of benthic invertebrate samples identified benthic invertebrate communities with Shannon-Weiner Diversity Index scores lower than those represented by reference locations, including flowing aquatic habitat samples in the Maintenance NG Area, Maintenance Dynamite Area – West, and Central Drainage Basin) and non-flowing aquatic habitat samples in the Central Drainage Basin and Unnamed Ponds, though HGBI scores were lower than reference locations only at Maintenance NG Area within the flowing aquatic habitat.

5.1.1.1.2.3.3 Benthic Invertebrate Community Summary

As detailed in previous sections, implementation of the ERAWP and ERASSM field sampling plans resulted in multiple LOEs regarding potential risk to benthic invertebrates.

Sediment COPECs were initially compared to LELs and SELs considered protective of benthic invertebrates, resulting in HQ_{LELs} and HQ_{SELs}. Where HQ_{LELs} were greater than 1, additional LOEs were evaluated (as shown in the table below). These supplemental LOEs are incorporated in risk characterization of aquatic exposure areas (as discussed in Section 7.2).

The following table summarizes the results of supplemental LOEs for each NDA subdrainage area. **Tables 4-10 and 4-11** additionally track the COPEC progression through the various evaluation methods.

NDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation						
Risk Evaluation Method	**Notes**	**Unnamed Ponds**	**Duck Pond**	**Eastern Tributary**	**Western Tributary**	**Northeast Ponds**
ESC Screen	b	+	+	+	+	+
Background Arsenic Threshold	d	+	-	NA	NA	NA
Mercury Study Comparison	d	+	-	NA	-	NA
Total and Dissolved MeHg	c	+	NA	NA	NA	NA
EqP PAH Analysis	c,d	-	-	NA	NA	-
AVS/SEM and Surrogate TOC%	a,c,d	-	-	-	-	-
Biological Community Indices	c	+	NA	NA	NA	R
Risk Drivers	-	As, Hg	None	None	None	None
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**N**	**N**

Notes: + = potential unacceptable risk, retained as a COPEC; - = acceptable risk. not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]The AVS/SEM and Surrogate TOC% evaluation method represents a LOE for divalent metals including cadmium, copper, lead, nickel, and zinc.
[b]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[c]Evaluated during ERASSM implementation
[d]Evaluated in Updated SSRP (**Attachment 9**)

As shown above, the weight-of-evidence (WOE) in the NDA subdrainage areas indicates acceptable risk within four subdrainage areas. Alternatively, the WOE for the Unnamed Ponds indicates potential unacceptable risk for arsenic and mercury in sediment. Additional investigation into Unnamed Ponds for these COPECs is recommended.

The table that follows summarizes the results of supplemental LOEs for each NDA subdrainage area. **Tables 4-10 and 4-11** additionally track the COPEC progression through the various evaluation methods.

SDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation					
Risk Evaluation Method	**Notes**	**Central Drainage Basin**	**Development Area Stream**	**Maintenance Dynamite Area - East**	**Maintenance Dynamite Area - West**
ESC Screen	c	+	+	+	+
Background Arsenic Threshold	d	+	-	NA	+
Mercury Study Comparison	d	+	-	-	+
Total and Dissolved MeHg	c	NA	NA	-	-
Chromium Speciation	c	NA	NA	-	NA
EqP PAH Analysis	c,d	R	-	-	-
AVS/SEM and Surrogate TOC%	a,c,d	-	-	-	-
Biological Community Indices	c	+	R	NA	+
Risk Drivers	-	As, Pb, Hg	None	None	As, Pb, Hg
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**Y**

Notes: + = potential unacceptable risk, retained as a COPEC; - = acceptable risk. not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]The AVS/SEM and Surrogate TOC% evaluation method represents a LOE for divalent metals including cadmium, copper, lead, nickel, and zinc.
[b]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[c]Evaluated during ERASSM implementation
[d]Evaluated in Updated SSRP (**Attachment 9**)

SDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation Cont.					
Risk Evaluation Method	**Notes**	**Maintenance NG Area**	**Misc. Offsite Streams - Lower**	**Misc. Offsite Streams - Upper**	**TNT-PETN-NG Ditches**
ESC Screen	b	+	+	+	+
Background Arsenic Threshold	d	+	NA	-	+
Mercury Study Comparison	d	+	NA	-	-
EqP PAH Analysis	c,d	-	-	NA	-
AVS/SEM and Surrogate TOC%	a,c,d	-	-	-	-
Biological Community Indices	c	+	NA	NA	-
Risk Drivers	-	As, Ag, Hg	None	None	None
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**N**

Notes: + = potential unacceptable risk, retained as a COPEC; - = acceptable risk. not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]The AVS/SEM and Surrogate TOC% evaluation method represents a LOE for divalent metals including cadmium, copper, lead, nickel, and zinc.
[b]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[c]Evaluated during ERASSM implementation
[d]Evaluated in Updated SSRP (**Attachment 9**)

The WOE in SDA subdrainage areas indicates acceptable risk within five subdrainage areas. Alternatively, the WOE for the Central Drainage Basin, Maintenance NG Area, and Maintenance – Dynamite Area - West indicates potential unacceptable risk for arsenic, lead, mercury, and/or silver in sediment. Additional investigation into these SDA subdrainage areas for these COPECs is recommended.

5.1.2 Upper-Trophic Level Wildlife Exposure

To evaluate potential exposure of upper-trophic-level wildlife (e.g., mammals and birds) to COPECs, a food web model is used to estimate the daily dietary dose to each receptor. This equation estimates the dose of a COPEC through dietary ingestion of soil/sediment and prey tissue items.

Generally, only bioaccumulative COPECs (identified in **Table 4-4**) are modeled for upper-trophic-level wildlife, as these constituents accumulate in prey tissue and can be transferred up the food web via ingestion. As a result, chronic effects to survival, growth, and reproduction are the general endpoints of an ERA and are evaluated through the dietary ingestion pathway. Although upper-trophic level wildlife may also be exposed to non-bioaccumulative constituents via other pathways (e.g., inhalation, dermal exposure), these exposure pathways are generally considered *de minimis* and are not quantitatively evaluated in ecological risk assessments (Suter 2007).

For this ERA, E&E constituents (although not considered bioaccumulative) were also run through food web models due to their direct ties to the Facility operational history and presence in soil at the Facility.

The food web model to estimate potential exposure to wildlife is as follows:

$$DDD = \frac{\{[(IR_f \times C_f) + (IR_s \times C_s)] \times AUF\}}{BW}$$

Where:

DDD	=	Daily dietary dose of COPEC (mg/kg per day)
C_f	=	Concentration of a COPEC in food (mg/kg)
IR_f	=	Daily ingestion of food (kilograms per day [kg/day])
C_s	=	Concentration of a COPEC in soil/sediment (mg/kg)
IR_s	=	Daily incidental ingestion rate of soil/sediment (kg/day)
AUF	=	Area use factor (unitless)
BW	=	Body weight (kilograms)

5.1.2.1 Exposure Parameters

Exposure parameters for upper-trophic-level wildlife receptors include body weight, dietary composition, dietary and incidental media (e.g., soil and/or sediment) ingestion rates, bioavailability, bioaccessibility, and area use factors (AUFs). When available, these values are obtained via direct or indirect measurements at the Facility (as detailed in the following sections). Otherwise, values were derived from literature, including the USEPA's *Exposure*

Factors Handbook (USEPA 1993b), Sample and Suter (1994), Nagy (2001), USEPA (2007a, 2007b), and Beyer et al. (1994). Literature-derived exposure parameters were selected from a hierarchy of sources to preferentially select values based on measured data (e.g., Nagy 2001) instead of modeled data, and more recent sources instead of historical information.

Table 5-10 presents the selected exposure parameters for the terrestrial and aquatic receptor species.

5.1.2.1.1 Body Weights

Body weights were selected from Nagy (2001) when available. If unavailable, body weights were calculated as the mean adult and juvenile body weights provided in USEPA (1993b). Incorporating juvenile body weights is a conservative approach because it is protective of the juvenile portion of the population in addition to the adults.

5.1.2.1.2 Dietary Composition

In the 2016 EE/ERA, prey items with a potential to bioaccumulate COPECs were selected to represent the entirety of a receptor's diet. Thus, the American robin's diet was assumed to consist solely of earthworms. However, USEPA (1993b) and Martin et al. (1951) indicate that the diet of American robins consists of both plants and invertebrates. As such, the American robin is re-evaluated using a study-based diet of plants, comprising 62.5 percent of its diet, and invertebrates, comprising 37.5 percent of its diet (USEPA 1993b; Martin et al. 1951).

Tree swallows also have a varied diet of aerial insects, seeds and plants. Tree swallows are the only member of the swallow family that also feed on berries when insects are limited. This trait enables tree swallows to overwinter in harsher climates and make early spring returns to their breeding habitat. Beal (1918) found the following results by analyzing stomach contents of adults collected during different seasons at various locations: 80 percent of diet was animal, 20 percent vegetable. As such, their dietary composition has been modified to reflect 80 percent invertebrates and 20 percent plants (Beal 1918, Robertson et al. 1992).

5.1.2.1.2.1 Prey Tissue Concentrations

The 2016 EE/ERA relied on soil-to-tissue bioaccumulation factors to estimate prey item tissue concentrations from soil data. To reduce uncertainty associated with the modeled relationship between soil and tissue concentrations, aerial insect tissue was collected from specific areas of the Facility and used as a direct measurement of concentrations of copper and lead in dietary matter in aquatic exposure area insectivore models (i.e., tree swallow and little brown bat). The maximum concentration identified across all subdrainage areas within the NDA or SDA, respectively, were used in place of the biota-sediment accumulation factors (BSAFs) for copper and lead within the aquatic food web models for tree swallow (**Tables 7-13 and 7-22**) and little brown bat (**Tables 7-16 and 7-25). Appendix E** presents the full aerial insect tissue dataset.

In the absence of these Facility-specific tissue concentrations, soil bioaccumulation factors (BAFs) and biota-sediment accumulation factors (BSAFs) were used to estimate COPEC concentrations in biological tissue. These factors relate the concentration in environmental medium to which receptors are exposed to a tissue concentration. The bioavailability of each COPEC varies relative to physical and biological Facility-specific conditions; therefore, the use of BSAFs and BAFs introduces considerable uncertainty. BAFs and BSAFs are discussed below and in Section 8. Bioaccumulative compounds were selected from USEPA (2000).

5.1.2.1.2.1.1 Bioaccumulation Factors

BAFs are available for several COPECs to estimate concentrations in terrestrial organisms (i.e., soil invertebrates [earthworms], terrestrial plants, and mammals) based on concentrations in soil. Although bioaccumulation can vary substantially by species and site, these factors provide some bounding estimates of potential bioaccumulation to help assess potential risk and the need for additional Facility-specific bioaccumulation information.

BAFs may either be a simple factor by which the soil EPC is multiplied or based on a linear equation that incorporates the soil EPC.

Sources of BAFs include:

- Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities – Appendices C through E (USEPA 1999)
- Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs), including Attachment 4-1 – Exposure Factors and Bioaccumulation Models for Derivation of Wildlife Eco-SSLs (USEPA 2007a)
- Development and Validation of Bioaccumulation Models for Earthworms (Sample et al. 1998a)
- Development and Validation of Bioaccumulation Models for Small Mammals (Sample et al. 1998b)
- Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants (Bechtel Jacobs 1998)
- Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates (CH2M HILL 2005)
- Ecotoxicology of Explosives (Sunahara et al. 2009).

When multiple BAFs are available, BAFs based on a wide range of studies or a large dataset were preferentially selected over those developed based on more limited information. Terrestrial BAFs are presented in **Table 5-6**; the resulting estimated tissue concentrations are presented in **Table 5-7**.

5.1.2.1.2.1.2 Biota-Sediment Accumulation Factors

BSAFs were available for several COPECs to estimate tissue concentrations in aquatic organisms (i.e., fish and benthic invertebrates) based on concentrations in sediment. While these values vary by species and site, they provide some bounding estimates of potential bioaccumulation to help assess potential risk and the need for additional Facility-specific bioaccumulation information.

Aquatic tissue concentrations estimated with BSAFs incorporate the organic carbon of the sediment and the percent lipid of the organism, according to the following equation:

$$C_{tissue} = \left(\frac{BSAF \times C_{sed} \times f_{lipid}}{f_{oc}}\right)$$

Where:

C_{tissue} = COPEC concentration in tissue (invertebrate or fish) (milligrams per kilogram [mg/kg])

BSAF = Biota-sediment accumulation factor (kilogram organic carbon per kilogram lipid [kg_{oc}/kg_l])

C_{sed} = COPEC concentration in sediment (mg/kg)

f_{lipid} = Fraction of lipid in tissue (kg_{oc}/kg_l)

f_{oc} = Fraction of organic carbon in sediment (kg_{oc}/kg_l)

Sources of BSAFs include:

- USEPA's Mid-Atlantic Ecology Division BSAF database (http://www.epa.gov/med/Prods_Pubs/bsaf.htm) (USEPA 2009)
- U.S. Army Corps of Engineers (USACE) BSAF database (http://el.erdc.usace.army.mil/bsafnew/) (USACE ERDC EL 2011[8])
- Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants (Bechtel Jacobs 1998)
- Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates (CH2M HILL 2005)
- Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities – Appendices C through E (USEPA 1999).

Average lipid content was assumed to be 5% for fish and 3% for invertebrates, based on average lipid values from the USACE's BSAF database (USACE ERDC EL 2011). Average TOC content for the NDA and SDA of 13 and 6 percent, respectively, were used to calculate tissue concentrations.

BSAFs required for fish tissue concentration estimates were unavailable for several COPECs. As a result, BSAFs for invertebrates are used in lieu of BSAFs for fish tissue. Furthermore, BSAFs do not exist for aquatic plants; therefore, terrestrial BAFs were used. In other cases where BSAFs were unavailable, the BAF for soil invertebrates was selected as a conservative factor to estimate aquatic invertebrate and fish tissue concentrations.

The aquatic BSAFs are provided in **Table 5-8**; resulting tissue concentrations are provided in **Table 5-9**.

5.1.2.1.3 Dietary Ingestion Rates

Ingestion rates are generally presented on either a dry or fresh (wet) weight basis. Nagy (2001) presents actual dietary ingestion data for both wet and dry weight dietary tissue. Available values from Nagy (2001) were selected instead of values from other sources presenting only wet or dry weights that require conversion factors to obtain the corresponding wet or dry weight value. When values were not available in Nagy (2001), wet weight ingestion rates were selected from USEPA (1993b) and converted to dry weight ingestion rates using the following equation:

[8] This website is down for construction indefinitely.

$$IR_{dw} = IR_{ww} \times (1 - Percent\ moisture)$$

Where:

IR_{dw}	=	Ingestion rate (dry weight)
IR_{ww}	=	Ingestion rate (wet weight)
Percent moisture	=	Invertebrates: 84 percent, tissue: 68 percent; plants: 85 percent (USEPA 2007a)

5.1.2.1.4 Soil/Sediment Ingestion Rates

In the 2016 EE/ERA, soil/sediment ingestion rates were preferentially selected from Beyer et al. (1994) for muskrat, American robin, northern bobwhite, red fox, and white-tailed deer. Soil ingestion rates for red-tailed hawk and short-tailed shrew are from USEPA (2007a). If literature values less than 2 percent soil ingestion (by weight) were noted, or if no soil/sediment ingestion rate could be found for a particular species, a conservative value of 2 percent was used. The percent of soil/sediment ingested was multiplied by the dry weight ingestion rate to obtain the rate in kg/day.

Recent data indicates that the percentage of soil in the American robin's diet is higher than that assumed in the 2016 EE/ERA (10%), which was based on soil ingestion for a surrogate species, the woodcock. Hansen et al. (2011) concludes that American robins consume approximately 20% of soil in their diets, so a soil ingestion rate of 20% was incorporated into the model.

5.1.2.1.5 Bioaccessibility of Lead

The 2016 EE/ERA conservatively assumed that COPECs are completely absorbed into an organism's gastrointestinal tract and enter the bloodstream where they can cause adverse effects. Kaufman et al. (2007) provide gastric models for both birds and mammals to evaluate the proportion of lead that mobilizes into the digestive juices (bioaccessible fraction) from soil, earthworms, and vegetation collected at a rifle and pistol range.

Results for the avian gastric model suggest that the bioaccessible fraction of lead was 53 and 73 percent in soil and earthworm tissue, respectively Kaufman et al. 2007). For the mammalian model, the bioaccessible fraction of lead was 66, 77 and 50 percent in soils, earthworm tissue, and unwashed vegetation, respectively. As such, results from Kaufman et al. (2007) were incorporated into the upper trophic level food web models (**Attachment 8**).

5.1.2.1.6 Area Use Factor

The area use factor (AUF) is an input parameter representing the fraction of time that a wildlife receptor spends in an area based on factors such as proportion of a receptor's foraging range that is encompassed by the area or migratory patterns.

In the 2016 EE/ERA, each wildlife species was assumed to forage only in the exposure area, incorporating an AUF of 1 (i.e., 100% of the time). However, mammals and birds may forage beyond the boundaries of the exposure areas or the Facility itself. For instance, tree swallows, American robins, red-tailed hawks, and great blue herons migrate from their northerly breeding grounds in the autumn and return in the spring (Sample et al. 1997; USEPA 1993b), reducing the amount of time that could be spent at the Facility.

In addition, birds and mammals have a species- and or sex-specific foraging or home range, which is the distance from their nest or den they will travel to forage for food. Frequently, this area is larger than the exposure area or Facility, which would result in an AUF less than one for birds and mammals using the Facility as part of their foraging territory. Specific habitat types may be avoided when preferrable habitat is available. Such is the case for tree swallows and little brown bats, where open areas are preferrable for foraging activities and flight obstructions (e.g., trees and dense shrubs) are avoided (Sample et al. 1997; USEPA 1993b). Further, foraging range or territory size may also be reduced during breeding periods and/or during incubation and nesting periods in the case of avian receptors.

These different use patterns are accounted for within the AUF calculation. The following equation serves as a general example:

$$Area\ Use\ Factor = \left(\left(\left(\frac{Home\ range_{NB}}{Habitat\ area}\right) * Time_{NB}\right) + \left(\left(\frac{Home\ range_{B}}{Habitat\ area}\right) * Time_{B}\right)\right) * Seasonal\ Use$$

Where:

Habitat area	=	Useable habitat area in the Facility (acres)
Home range$_{NB}$	=	Non-breeding home range or territory (acres)
Time$_{NB}$	=	Non-breeding time (days per year)
Home range$_{B}$	=	Breeding home range or territory (acres)
Time$_{B}$	=	Breeding time (days per year)
Seasonal use	=	Northern range time (days per year); only applicable to migratory receptors

The specifics of this equation vary by receptor. For example, the breeding home range and breeding time parameters may also incorporate periods of reduced home range size associated with incubation, nesting, and/or time spent as a family unit (e.g., northern bobwhite). Where home range or territory size varies by sex, the more conservative of the male and female AUF is used.

The following sections detail literature-derived life history characteristics for upper-trophic-level receptors in terrestrial and aquatic exposure areas and specify how these characteristics were incorporated in AUF calculation.

5.1.2.1.6.1 Terrestrial Exposure Area Receptors

The following sections detail the rationale for receptor-specific AUFs in the terrestrial exposure area. Terrestrial receptor AUFs are also presented in the summary table below.

Terrestrial Receptor Species	Area Use Factor
Birds	
American robin	0.67
Northern bobwhite quail	1
Red-tailed hawk	0.5
Mammals	
Short-tailed shrew	1
White-tailed deer	0.67
Red fox	1

Available habitats considered in the AUF calculations within the terrestrial exposure area are summarized below:

Habitat Type	Size (acres)
Shrubland	11.8
Grassland/Forb Complex	167
Forest	162.5
Total Terrestrial Exposure Area	**341**

5.1.2.1.6.1.1 American robin

For the American robin, an AUF of 0.67 is used. The average territory size of adult American robins is 1 ac (range: 0.3-2.1 ac) with an average reported foraging home range of 0.4 ac while feeding nestlings (USEPA 1993b). Adult robins will incubate for 12.5 days [d] and nest for 13.4 d. (approximately 26 d total). Terrestrial foraging habitat includes forests, open woodlands, orchards, and open areas (USEPA 1993b).

As such, this AUF assumes adult robins forage and nest in shrubland, grassland/forb complex, and forested habitat in the terrestrial exposure area (341 ac) for eight months of the year, incubating and nesting in the Facility for approximately 30 d, but migrate out of the area for the remainder of the year (USEPA 1993b).

5.1.2.1.6.1.2 Northern bobwhite quail

Northern bobwhite quail are non-migratory, anticipated to spend 100% of the year within their breeding and foraging home range. As such, an AUF of 1 is used.

Adult quail have an average pre-incubation and breeding home range of 8.9 and 16.8 ac, respectively (USEPA 1933b). During the breeding season (May-August; 1 clutch/year average), mated males average 18.8 ac, while females average 15.8 ac during nesting and 38.5 ac during post-nesting. Clutches incubate for 23 d and family units, when not lost to predation, remain intact

through the summer. During winter, average adult home ranges are approximately 16.8 ac. Grasslands, fallow, and pastures are preferred nesting habitats. Adult quail forage in open areas, whereas shrubby thickets are used for daytime cover.

As such, this AUF assumes adult quail nest and forage in shrubland and grassland/forb complex habitat in the terrestrial exposure area (179 ac) throughout the year, where adults incubate one clutch for 23 d in May, and nesting and foraging occur as a family unit post-incubation until the end of August (USEPA 1993b).

5.1.2.1.6.1.3 Red-tailed hawk

For the red-tailed hawk, an AUF of 0.5 is used. Breeding adults are reported to have an average territory size of 148 and 4,374 ac in spring and fall, respectively (USEPA 1993b). Terrestrial red-tailed hawk habitat can range from woodlands, pastures, and prairies to deserts, where a mixed landscape of open areas for foraging and woodlands for nesting and perching is preferred.

As such, this AUF assumes that adult red-tailed hawks forage and nest in shrubland, grassland/forb complex, and forested habitat in the terrestrial exposure area (341 ac) for 6 months of the year (i.e., spring and summer). For two months in fall, these usable terrestrial habitat types represent 7.8% of the red-tailed hawk's territory, while the remainder of fall and winter (four months) are spent away from the Facility in their southern migratory range.

5.1.2.1.6.1.4 Short-tailed shrew

For the short-tailed shrew, an AUF of 1 is used, consistent with the 2016 EE/ERA. Short-tailed shrews do not undergo torpor so they are active in their territory year-round (USEPA 1993b). Breeding also occurs year-round, with an average home range size of 0.96 ac across all seasons. Short-tailed shrews occupy a wide variety of terrestrial habitats, nesting underground in the top 10 cm of soil, and are common in areas with abundant vegetative cover.

As such, this AUF assumes that adult short-tailed shrews forage and nest in shrubland, grassland/forb complex, and forested habitat in the terrestrial exposure area (341 ac) throughout the year. In lieu of modeling 351 different 1-acre home ranges, Section 5.1.1.1.2 presents an initial evaluation and framework for assessing risks in areas of higher COPEC concentrations at a scale commensurate with a short-tailed shrew home range.

5.1.2.1.6.1.5 White-tailed deer

For white-tailed deer, an AUF of 0.67 is used. Annual home ranges of sedentary populations average 146 ac (Smith 1991). Northern populations of white-tailed deer have larger and less stable home ranges than southern populations, where seasonal migrations are common and variable according to snow depth, averaging 15.6 to 23.2 km [188,921 - 417,838 ac] (Smith 1991). Females and young move directly between seasonal ranges, while adult males tend to meander. White-tailed deer historically inhabit brushy and woodland areas.

As such, this AUF is based on adult male white-tailed deer, given their tendency to meander during seasonal migrations. It is assumed that browse and breeding grounds include shrubland and forested habitat in the terrestrial exposure area (174 ac), representing 100% of their home range for eight months of the year and less than 0.1% of their seasonal migration range for four months of the year.

5.1.2.1.6.1.6 Red fox

For red foxes, an AUF of 1 used, consistent with the 2016 EE/ERA. Red foxes do not undergo torpor or hibernation, so they are active in their territory year-round, averaging 1,772 and 237 ac for male and female adults, respectively (USEPA 1993b). Red foxes occupy a wide variety of terrestrial habitats, including cropland, brush, pastures, hardwood stands, and coniferous forests, preferring areas with broken and diverse upland habitats.

As such, this AUF is based on adult female red foxes, given their reduced territory size compared to males. It is assumed that red foxes hunt and den in in shrubland, grassland/forb complex, and forested habitat in the terrestrial exposure area (341 ac) throughout the year.

5.1.2.1.6.2 Aquatic Exposure Area Receptors

The following sections detail the rationale for receptor-specific AUFs within the NDA and SDA. AUFs were evaluated for each overall drainage area, then applied to each subdrainage area. Aquatic receptor AUFs are also presented in the summary table below.

Aquatic Receptor Species	Area Use Factor by Drainage Area	
	NDA	SDA
Birds		
Tree swallow	0.004	0.007
Mallard duck	0.17	0.07
Great blue heron	0.04	0.02
Mammals		
Little brown bat	0.25	0.25
Muskrat	1	1
Mink	1	1

Available habitats considered in the AUF calculations within the aquatic exposure areas are summarized below:

Habitat Type	Size (acres)	
	NDA	SDA
Forested Wetlands	15.8	40.7
Emergent Wetlands	16.5	30
Flowing and Non-flowing Aquatic Areas	12.6	4.6
Total Aquatic Exposure Area	**44.9**	**75.3**

5.1.2.1.6.2.1 Tree swallow

For the tree swallow, AUFs of 0.004 and 0.007 were incorporated for the NDA and SDA, respectively. Tree swallows will forage up to 60 kilometers [km] (2,794,696 ac) prior to incubation (Sample et al. 1997). However, during incubation (15 d) and nesting (22 d), foraging range is reduced, where females will travel up to 3 km (6,987 ac) and males up to 5 km (19,408 ac). Tree

swallows require open areas that do not inhibit flight activity, including marshes, bodies of water, and riparian edge habitat (Sample et al. 1997).

As such, these AUFs are based on adult female tree swallows, given their reduced foraging and home range compared to adult males. It is assumed that female adults forage in emergent wetlands and flowing and non-flowing aquatic habitat in the aquatic exposure areas for eight months of the year, incubating and nesting in the Facility for 37 d, but migrate out of the area for the remainder of the year (four months). Calculated AUFs were then multiplied by a factor of ten to account for uncertainty in aquatic habitat patch fidelity.

5.1.2.1.6.2.2 Mallard duck

For the mallard duck, AUFs of 0.17 and 0.07 were incorporated for the NDA and SDA, respectively. Mallards are migratory, arriving from their wintering grounds in March and departing in August through November (USEPA 1993b). Mallards have an average total home range of 1,156 ac for females and 1,532 ac for males, requiring dense grassy vegetation for nesting and preferring seeded cover fields and idle grassland. Nests are usually located within a few kilometers of water (USEPA 1993b).

As such, these AUFs are based on adult female mallard ducks, given their reduced home range compared to adult males. It is assumed that female adults forage in emergent wetlands and flowing and non-flowing aquatic habitat in aquatic exposure areas for eight months of the year (suitable aquatic habitat area; NDA = 19 ac, SDA = 12.1 ac), but migrate out of the area for the remainder of the year (four months). Calculated AUFs were then multiplied by a factor of ten to account for uncertainty in aquatic habitat patch fidelity.

5.1.2.1.6.2.3 Great blue heron

For the great blue heron, AUFs of 0.04 and 0.02 are used for the NDA and SDA respectively. In the northern part of its range, great blue herons are migratory, leaving their breeding grounds by October or November and returning between February and April (USEPA 1993b). For breeding adults, foraging distance from colonies averages 3.1 km (7,460 ac). Great blue herons inhabit a variety of freshwater areas, including freshwater lakes and rivers, occasionally foraging in wet meadows and pastures. Heronries are typically close to foraging grounds, where tall trees are preferred over short trees and bushes for nests.

As such, these AUFs assume that adult herons nest and forage in forested and emergent wetlands and flowing and non-flowing aquatic habitat in aquatic exposure areas for eight months of the year (suitable aquatic habitat area; NDA = 24.4 ac, SDA = 20.2 ac) but migrate out of the area for the remainder of the year (four months). Calculated AUFs were then multiplied by a factor of ten to account for uncertainty in aquatic habitat patch fidelity.

5.1.2.1.6.2.4 Little brown bat

For little brown bats, AUFs of 0.25 are used for the NDA and SDA. In summer, females form maternity colonies, while locations of males are suspected to be solitary and scattered in a variety of roost types. While home range information is limited for little brown bats, a congeneric species, the gray bat, may travel as far as 12 km from roost caves to foraging sites (Sample et al. 1997).

Day and night roosts (e.g., buildings, hollows, trees, caves) are used by active bats in spring, summer, and fall. Little brown bats hibernate for approximately 6 months of the year (Davis and Hitchcock 1965), where hibernation roosts (hibernacula) in caves or abandoned mines are used.

Foraging is opportunistic and occurs in open habitat, frequently over bodies of water, whereas dense vegetation or flight obstructions are avoided. In New Hampshire, Anthony and Kunz (1977) observed bimodal foraging activity; the first feeding period was before midnight (2200-2400 h) while the second was before dawn (0330-0500 h). In contrast, Saunders and Barclay (1992) found activity was greatest within one hour of sunset. As such, foraging time is conservatively assumed to be 4 hours per Anthony and Kunz (1997).

Several abandoned mines are located within 12 km of the Facility, the closest being Burt Mine located approximately 0.5 km from the Facility. Due to relatively limited information on home range size, this AUF assumes foraging in aquatic exposure areas occurs 100% in the Facility for twelve hours per day for six months of the year, while little brown bats hibernate in caves or abandoned mines away from the Facility for six months of the year.

5.1.2.1.6.2.5 Muskrat

For the muskrat, an AUF of 1 is used for the NDA and SDA. Muskrats do not undergo torpor and are active year-round, with a reported home range of 0.27 ac from main dwellings or feeders (USEPA 1993b). Muskrats occupy a variety of freshwater habitats, including creeks, streams, lakes, marshes, and ponds. They prefer to excavate dens in banks or shores of waterways, whereas lodges are constructed in ponded areas.

As such, this AUF assumes that adult muskrats den and forage in flowing and non-flowing aquatic habitat and emergent and forested wetlands in aquatic exposure areas throughout the year.

5.1.2.1.6.2.6 Mink

For the mink, an AUF of 1 is used for the NDA and SDA. Mink do not undergo torpor and are active year-round (USEPA 1993b), with a reported home range of 1,903 and 19.3 ac for male and female adults, respectively. Mink occupy a variety of freshwater habitat, including rivers, streams, lakes, ditches, swamps, marshes, and backwater areas. Den sites are typically constructed in brushy or wooded cover adjacent to the water.

As such, these AUFs are based on adult female mink, given their reduced home range compared to adult males. It is assumed that adult female mink den and hunt in flowing and non-flowing aquatic habitat and emergent and forested wetlands in aquatic exposure areas throughout the year.

Section 6: Ecological Effects Assessment

The ecological effects assessment describes the potential effects associated with the exposure of identified COPECs to ecological receptors and reflects the type of AEs selected. The potential for effects is estimated by comparing COPEC concentrations in receptor species (daily dietary doses) to known effects concentrations from the literature. These benchmark values are concentrations of COPECs that are not expected to cause adverse effects to ecological receptors. ESBs were selected for evaluation of direct contact with lower-trophic-level organisms (i.e., invertebrates, fish, and plants) and wildlife TRVs were selected to evaluate exposure to upper-trophic-level organisms (i.e., birds and mammals, **Table 6-1**).

6.1 Toxicological Properties of COPECs

Brief toxicological profiles for major categories of COPECs (PAHs and metals) identified in Section 5 are presented below.

6.1.1 Polycyclic Aromatic Hydrocarbons

PAHs are composed of two or more aromatic or benzene rings. There is a large number (>10,000) of possible PAH structures that occur in the environment as complex mixtures (USEPA 2003c). PAHs show little tendency for bioconcentration despite their high lipid solubility (Pucknat 1981), likely because most PAHs are rapidly metabolized. PAHs evaluated at the Facility include the 16 priority pollutant PAHs identified by USEPA.

6.1.1.1 Invertebrates

PAHs deposited in sediments can affect benthic invertebrates differently, depending on the individual PAH and species of organisms. For instance, in sediment toxicity tests with the tubificid, *Limnodrilus hoffmeisteri*, Lotufo and Fleeger (1996) observed a median lethal phenanthrene concentration of 298 mg/kg. In the same study, pyrene concentrations up to 841 mg/kg were not acutely toxic. Decreases in tubificid reproduction were observed at lower levels. Bivalve mollusks tend to accumulate high PAH levels due to their inability to metabolize and excrete them (Eisler 1987a).

6.1.1.2 Fish

Most PAHs in aquatic environments are associated with particulate materials; only about 33% are present in dissolved form (Eisler 1987a). Fish have been shown to be capable of metabolizing PAHs better than other aquatic organisms (e.g., invertebrates) (Meador et al. 1995) Varanasi et al. (1985) as cited by the Agency for Toxic Substances and Disease Registry (ATSDR [1995]) ranked the extent of benzo(a)pyrene (BaP) metabolism by aquatic organisms as follows: fish > shrimp > amphipod > crustaceans > mussels. In addition, some fish species have been shown to avoid areas with high PAH concentrations (Rice 1973, Pastorok et al. 1994).

6.1.1.3 Wildlife

In general, PAHs show little tendency to biomagnify in food webs, despite their high lipid solubility, likely because most PAHs are rapidly metabolized. PAH exposure to mammalian and avian laboratory species is reported for both low- and high-molecular-weight PAHs (USEPA 2007b). Juvenile mice orally ingesting 2-methylnaphthalene at a dose of 110 mg/kg-body weight/day for 81 weeks exhibited reduced growth (Murata et al. 1997 in USEPA 2007b). Mice orally exposed

to BaP for 65 weeks (3.07 mg/kg-body weight/day) were found to have lower survival (Culp et al. 1998 in USEPA 2007b).

Sparse data are available on the effects of PAH ingestion to avian species. Patton and Dieter (1980) reported effects on liver function of mallards fed low-molecular-weight PAHs at the dose of 440 mg/kg-body weight/day for 7 months. European starlings (*Sturnus vulgaris*) gavaged with dimethylbenz(a)anthracene at a dose of 20 mg/kg-body weight/day for 5 days experienced reduced growth (Trust et al. 1994 in USEPA 2007b).

6.1.2 Metals

Metals enter the environment from natural processes and through anthropogenic sources. Chemical, physical, and biological factors influence the potential toxicity of metals. Generally, the bioavailable fraction of total metals concentrations can affect ecological receptors. Metals exhibit a range of binding affinities with both organic (e.g., carbon) and inorganic (e.g., other metals) substances, so the concentration of bioavailable fractions of metals varies. The total concentration of metals is generally not predictive of their bioavailability. Key factors that affect the partitioning and speciation, and thus the bioavailability, of metals include redox conditions, pH, hardness, organic carbon content, sulfide availability, and percent fines. These factors influence the sequestration, oxidation state, and species of dissolved ions present.

6.1.2.1 Arsenic

According to Eisler (1988a), most authorities agree on the following five points regarding ecological risk of arsenic in the environment: (1) arsenic is relatively common in air, water, soil, plants, and living tissues; (2) large quantities are released as a result of industrial and agricultural activities, posing risk to ecological receptors; (3) wildlife exposure may occur via air, water, and diet; (4) chronic exposure is associated with liver, kidney, and heart damage, hearing loss, altered brain activity, and impaired resistance to viral infections; and (5) arsenic is carcinogenic to mammals.

Elemental arsenic is rarely found in water, whereas predominant forms include pentavalent arsenic (As(V)) and arsenate compounds, trivalent arsenic (As(III)) and arsenite compounds, and arsenic sulfides. Inorganic species are favored during colder months, while reduced and methylated species are predominant in warmer months (Eisler 1988a). In waters with high dissolved oxygen, As(V) tends to exist as arsenic acid, dihydrogen arsenate, arsenious acid, and arsenate. In reducing environments (e.g., sediments), arsenate is reduced to arsenite species and methylated to methylarsonic acid (MAA) or dimethylarsinic acid (DMA). Though, even in reducing environments, reduction of As(V) to more soluble and toxic As(III) occurs slowly and is readily inhibited by the binding of As(V), while As(III) is rapidly oxidized to As(V) (Brannon 1987, Battelle & Exponent 2000).

6.1.2.1.1 Invertebrates

While As(III) is generally more toxic than As(V) to aquatic invertebrates (Eisler 1988a), experiments in marine and freshwater ecosystems and microcosms indicate that environmental exposure and effects of arsenic are significantly variable across invertebrate species, water/sediment chemistry, and arsenic speciation. For example, cladocerans and amphipods exhibited 50% immobilization after 96-h exposure at doses ranging from 0.63 to 4.3 mg As(III)/L (As(IV) equivalent effect at 7.4 mg/L in cladocerans), while 96 h As(III) LC50 in stoneflies (*Pteronarcys californica*) was 38 mg/L (Eisler 1988a).

6.1.2.1.2 Fish

While fish bioaccumulate arsenic, there is no evidence of biomagnification in aquatic food chains. Tissue concentrations are largely comprised of arsenobetaine, an organoarsenical compound with relatively lower toxicity than inorganic arsenic (Eisler 1988a). Marginal effects on rainbow trout (*Salmo gaidneri*) have been observed at 90 mg dietary As(V)/kg, while greater than or equal to 120 mg/kg of As(V) or As(III) resulted in malaise, food avoidance, and reduced metabolism. However, tolerance is species-specific, where impaired behavior in goldfish has been observed at 100 ug As(V)/L. Alternatively, 8 weeks of 1,600 mg/kg dietary exposure to methylated arsenicals did not elicit toxic effects in rainbow trout (Eisler 1988a).

6.1.2.1.3 Wildlife

Chronic inorganic arsenic exposure in mammals most notably includes adverse effects on the integumentary and nervous systems, and increased risk of skin, liver, bladder, and lung cancer (ATSDR 2007). Alternatively, scant mammalian toxicological information exists regarding organic arsenic compounds, though evidence suggests organic species are less toxic than inorganic species. Adverse effects involving respiratory, gastrointestinal, cardiovascular, and hematopoietic systems range from reversible to cancer and death, depending on the physical and chemical form of arsenic, route of administration, and dose (Eisler 1988a). Arsenic tolerance in birds varies among species, but adverse effects include involvement of neurological and reproductive systems and damage to gut blood vessels (Stanley et al. 1994; Whitworth et al. 1991; Camardese et al. 1990).

6.1.2.2 Copper

Copper is among the most toxic heavy metals to aquatic biota, while birds and mammals are relatively more resistant (Eisler 1997). Copper bioaccumulates and can cause irreversible harm to sensitive species at levels just above those considered essential for normal growth and metabolism. Alternatively, detoxifying mechanisms, particularly metallothionein induction, may allow for excess copper retention or excretion in vertebrates without observable effect. Inorganic copper exists in four oxidation states, of which cupric copper (Cu^{2+}) is the most toxic and readily bioavailable. Free cupric ions generally account for less than 1% of total dissolved copper in freshwater, where dissolved fractions are primarily complexed with carbonate, amino acids, and humic substances (Eisler 1997). In the presence of essential and non-essential trace elements, copper tends to be a disproportionate modifying factor driving synergistic or antagonistic interactions.

6.1.2.2.1 Invertebrates

In aquatic and terrestrial environments, adverse effects of copper to invertebrates may include reduced reproductive success, growth and development, motility, and survival. Gill damage and increased oxygen consumption may also occur in aquatic invertebrates, whereas reduced cocoon production and/or litter breakdown activity has been observed across genera of earthworms. In benthic invertebrate communities, reduced species richness, diversity, and abundance may occur where elevated tissue copper concentrations are observed (Eisler 1997). In general, aquatic and benthic invertebrate toxicity is greatest under conditions of low water hardness, starvation, elevated water temperatures, and among early developmental stages.

6.1.2.2.2 Fish

In fish, the external gill epithelial surface has a relatively low affinity for copper, allowing for greater penetration of intracellular compartments. Sublethal effects of copper may include adverse effects on blood chemistry, liver metabolism, respiration, reduced growth and appetite, inhibition of spawning, and depressed olfactory response (Eisler 1997). At high concentrations, copper may adversely affect osmoregulation, alter gill histopathology and function, and may cause necrosis of the liver parenchyma and/or irreversible damage to the olfactory organ.

6.1.2.2.3 Wildlife

In mammals, subchronic effects at oral doses ranging from 2 to 17 mg/kg-bw include reduced weight gain in rats and pigs and adverse effects on blood chemistry, blood pressure, sperm production and morphology, and squamous cell hyperplasia in rats (ATSDR 2024), while chronic effects include decreased hemoglobin. At oral doses ranging from 6.4 to 198 mg/kg-bw, subchronic mammalian effects may include hemolytic crisis, and/or morphological and histopathological changes in liver, kidney, and brain (ATSDR 2024; Eisler 1997). In birds, anemia, reduced weight gain, and adverse effects on gizzard histopathology were largely observed between 42 and 800 mg/kg-bw over two to 24 weeks (Eisler 1997).

6.1.2.3 Lead

Lead adversely affects survival, growth, reproduction, development, and metabolism of most species under controlled conditions, but its effects are substantially modified by numerous physical, chemical, and biological variables. In general, organic lead compounds are more toxic than inorganic lead compounds, food web biomagnification of lead is negligible, and younger, immature organisms are most susceptible to its adverse effects. Uptake of lead by terrestrial plants is limited by the low bioavailability of lead from soils. Lead concentrations in aquatic and terrestrial vertebrates tend to increase with increasing age of the organism, and to localize in hard tissues such as bone and teeth (Eisler 1988b).

6.1.2.3.1 Invertebrates

In general, the responses of aquatic invertebrate species to lead differ. In sensitive species the following conclusions can be made: dissolved waterborne lead is more toxic than total lead; organic lead compounds are more toxic than inorganic forms; and lead causes adverse effects on daphnid reproduction (Eisler 1988b).

6.1.2.3.2 Fish

Although lead is concentrated by biota from water, no significant biomagnification of lead occurs in aquatic food chains. Increasing waterborne concentrations of lead over 10 ug/l may cause increasingly severe long-term effects on fish and fisheries (Eisler 1988b). Lethal solutions of lead can cause a variety of adverse effects to fish including increased mucous formation, anemia, spinal curvature, degeneration of the caudal fin, muscular atrophy, and growth inhibition (Eisler 1988b).

6.1.2.3.3 Wildlife

In wildlife, lead can modify the function and structure of kidney, bone, the central nervous system, and the hematopoietic system. It can also produce adverse biochemical, histopathological, neuropsychological, fetotoxic, teratogenic, and reproductive effects.

Remedial goals at five Superfund Sites across the country range from 380 mg/kg to 605 mg/kg of lead in soil, based on robins, ground-feeding insectivores, or earthworm-feeding wildlife (Beyer et al. 2013). Field (bioavailability) data suggest that the remedial goals could be set even higher. For instance, Beyer et al. (2013) concluded a lack of effects to songbirds with lead soil concentrations less than 1,000 mg/kg in the southeast Missouri Lead Mining District. Hansen et al. (2011) showed no effects to robins with lead soil concentrations of up to 1300 mg/kg in Idaho's Coeur d'Alene River Basin. In addition, data from the Dutchman Riparian Lands at the Anaconda Superfund Site indicate no adverse effects to robins with lead in soils below 2,000 mg/kg (Texas Tech 2002).

6.1.2.4 Mercury

According to Eisler (1987b), most authorities agree on the following six points regarding mercury in the environment (1) mercury and its compounds have no known biological function, and the presence of the metal in the cells of living organisms is undesirable and potentially hazardous; (2) forms of mercury with relatively low toxicity (e.g., inorganic compounds) can be transformed into forms of mercury with high toxicity (i.e. organomercury compounds, such as methylmercury) through biological and other processes; (3) mercury can be bioconcentrated in organisms and biomagnified through food chains; (4) mercury is a mutagen, teratogen, and carcinogen; (5) some species of fish and wildlife contain high concentrations of mercury that are not attributable to human activities; (6) the difference between tolerable natural background levels of mercury and harmful effects in the environment is small.

6.1.2.4.1 Invertebrates

Mercury at comparatively low concentrations adversely affects the reproduction, growth, behavior, metabolism, blood chemistry, osmoregulation, and oxygen exchange of marine and freshwater organisms. In general, the accumulation of mercury by aquatic biota is rapid, and depuration is slow. It is emphasized that organomercury compounds, especially methylmercury, were significantly more effective than inorganic mercury compounds in producing adverse effects and accumulations.

For sensitive marine invertebrates such as hydroids, protozoans, and mysid shrimp, reproduction was inhibited at concentrations between 1.1 and 2.5 ug Hg^{2+}/l; this range was 5 to 71 ug/l for more resistant species of marine invertebrates (Eisler 1987b).

6.1.2.4.2 Fish

In general, the accumulation of mercury in fish is enhanced at elevated water temperatures, reduced water salinity or hardness, reduced water pH, increased age of the fish, and reduced organic matter content of the medium; in the presence of zinc, cadmium, or selenium in solution; after increased duration of exposure; and in the presence of increased nominal concentrations of protein-bound mercury. Uptake patterns were significantly modified by sex, sexual condition, prior history of exposure to mercury salts, the presence of complexing and chelating agents in solution, dietary composition, feeding niche, tissue specificity, and metabolism; however, trends were not consistent between species and it is difficult to generalize (Eisler 1987b).

6.1.2.4.3 Wildlife

For the protection of sensitive species of birds that regularly consume fish and other aquatic organisms, total mercury concentrations in the prey items should not exceed 100 ug/kg fresh weight. For some birds, adverse effects, predominantly on reproduction, have been associated

with total mercury concentrations of (in fresh weight) of 5,000 ug/kg in feather, 900 ug/kg in egg; and with daily intakes of 640 ug/kg body weight (Eisler 1987b).

The significance of elevated mercury levels in tissues of fish and wildlife is not fully understood; some species of marine pinnipeds, for example, normally contain high concentrations of mercury in various tissues without apparent adverse effects. Mercury concentrations in sensitive mammals in excess of 1,100 ug/kg fresh weight of tissue (liver, kidney, blood, brain, hair) or when daily intakes reach 250 ug/kg body weight can cause adverse effects (Eisler 1987b).

6.1.2.5 Zinc

According to Eisler (1993), most authorities agree on the following points regarding ecological risk of zinc in the environment: (1) elevated concentrations (i.e., greater than 2 g/kg fresh weight [FW]) are normally encountered in some species of oysters, scallops, barnacles, red and brown algae, and terrestrial arthropods; (2) tissue concentrations are usually less than 700 mg/kg dw in fish, less than 210 mg/kg dw in birds, and less than 210 mg/kg dw in mammals; (3) concentrations are higher in animals and plants collected near zinc-contaminated sites than in the same species collected from more distant sites; (4) zinc content in tissue is not proportionate to that of the organism's immediate surroundings; (5) for individual species, zinc concentration varies with age, sex, season, tissue or organ, and other variables; and (6) many species contain zinc loadings far in excess of immediate needs, suggesting active zinc regulation.

Zinc predominantly occurs in the environment as Zn(II), though it is frequently complexed with organic and inorganic ligands. Zinc bioaccumulates in terrestrial and aquatic food chains (but does not biomagnify) and biota appear to represent a relatively minor sink compared to sediment/soil (ATSDR 2005). Though, ecotoxicity in sediment and soil is complex and driven largely by pH, oxidation-reduction potential, organic carbon content, and the presence of acid volatile sulfides, co-occurring metals, and organic ligands.

As with other metals, metallothionein and metallothionein-like protein (MTLP) induction acts as a detoxifying mechanism for zinc in vertebrate and invertebrate species. Additionally, dietary zinc can mediate excess copper toxicity via induction of metallothionein synthesis, whereby metallothionein exhibits a greater binding affinity to copper than zinc, decreasing absorption into plasma and systemic uptake (ATSDR 2005).

6.1.2.5.1 Invertebrates

Reduced earthworm survival and inhibited woodlouse reproduction were observed at soil concentrations above 470 and 1,600 mg/kg, respectively, while reduced growth in slugs occurred above 300 mg/kg dietary intake (Eisler 1993). Representative soil invertebrates have also shown reduced growth at 300-1,000 mg/kg of dietary zinc and reduced survival at soil concentrations of 470-6,400 mg/kg. Acute LC50 (96 h) values have been observed between 32 and 40,930 µg/L for freshwater invertebrates but the most sensitive aquatic species were adversely affected between 10 and 25 µg/L.

6.1.2.5.2 Fish

Excess zinc can disrupt normal metabolism of fish gills, and acute toxicosis in fish may include osmoregulatory failure, acidosis and low oxygen tensions in arterial blood, inhibited immune response, and disrupted gas exchange at the gill surface and internal tissue sites (Eisler 1993).

Zinc is teratogenic to fish embryos, and gill epithelia of fish are the primary target of zinc toxicity, with high concentrations in the water column causing destruction of gill epithelium and tissue hypoxia. Though, acutely toxic doses are significantly variable in freshwater teleosts (96 h LC50 range: 66 to 40,900 µg/L; Eisler 1993).

6.1.2.5.3 Wildlife

In mammals, chronic exposure to excess dietary zinc may result in adverse effects to the gastrointestinal system, pancreas, and bone, and decreased copper absorption leading to anemia (ATSDR 2005). The pancreas and bone are the primary targets of zinc toxicity in mammals and birds. Zinc preferentially accumulates in bone, and excess zinc may cause stimulation of bone resorption and inhibition of bone formation in chicks, osteomalacia. Further, pancreatic abnormalities have been observed in birds and mammals following oral exposure to zinc. Zinc is not considered a mammalian or avian carcinogen by dermal, inhalation, or oral administration. Zinc poisoning in wildlife typically occurs in birds when the liver or kidney residues exceed 2,100 mg/kg dw, and in mammals when concentrations exceed 274, 465, and 752 mg/kg dw in kidney, liver, and pancreas, respectively (Eisler 1993).

6.2 Potential Direct Effects

Direct exposure risks to lower-trophic-level receptors (i.e., plants, terrestrial and aquatic invertebrates, and fish) are evaluated via a comparison of soil, sediment, or surface water EPCs to available ESBs used to represent threshold values below which adverse effects are unlikely.

ESB sources include:

- Plants and terrestrial invertebrates:
  - NJDEP ESC table (NJDEP 2009)
  - USEPA (2007a) EcoSSLs
  - USEPA's Ecotox Database
  - Oak Ridge National Laboratory (e.g., Efroymson et al.1997a, 1997b)
  - Published peer-reviewed journal articles (e.g., Sverdrup et al. 2003; Talmage et al. 1999)
- Benthic invertebrates:
  - NJDEP ESC table (NJDEP 2009)
  - Mid-Atlantic (Region 3 Biological Technical Assistance Group [BTAG]) Freshwater Sediment Screening Values (USEPA 2006)
  - Published peer-reviewed journal articles (e.g., Persaud et al. 1993)
  - USEPA (2003a) Region 5 ESLs
  - Conder et al. (2015)
- Fish:
  - NJDEP ESC table (NJDEP 2009)

- Mid-Atlantic (Region 3 BTAG) Freshwater Screening Values (USEPA 2006)
- National Recommended Water Quality Criteria (USEPA 2009)

Section 7 compares soil, sediment, and surface water EPCs to ESBs to characterize potential risk from direct contact exposures.

6.3 Potential Wildlife Effects

USEPA (2007a) defines a TRV as a dose (based on laboratory toxicological investigations) above which a particular ecologically relevant effect may be expected to occur in an organism following chronic dietary exposure, and below which it is reasonably expected that such effects will not occur. Rather than deriving one point estimate associated with specific biological effects, both high and low TRVs are identified for each COPEC to bracket a threshold effect level.

The low TRV is a conservative value consistent with a chronic no observed adverse effects level (NOAEL). It represents a conservative dose level at or below which adverse effects are unlikely to occur. Conversely, the high TRV is a less conservative estimator of potential adverse effects, representing a dose level at which adverse effects may occur, and is consistent with a chronic lowest observed adverse effects level (LOAEL). As recommended by USEPA (1997a), in the absence of either a NOAEL or LOAEL, the missing value was obtained by extrapolating from the existing value by a factor of 10.

The following literature sources were reviewed for the selection of TRVs for upper-trophic-level wildlife (i.e., birds and mammals):

- USEPA EcoSSLs (USEPA 2003b, 2007a, 2007b)
- Toxicological studies cited in Sample et al. (1996)
- California Department of Toxic Substances Control (DTSC) BTAG TRVs for Birds and Mammals (DTSC 2002)
- Wildlife Toxicity Assessment Program at the U.S. Army Center for Health Promotion and Preventative Medicine (USACHPPM: 2001a, 2001b, 2001c, 2007, 2012)
- Wildlife Toxicity Assessments for Chemicals of Military Concern. (U.S. Army Institute of Public Health [AIPH] 2015).

When reviewing the toxicological literature and selecting the most appropriate study for TRV development, several factors were considered:

- Taxonomic relationship between the test animal and the receptor species.
- Use of laboratory animals or domesticated species, with preference for wildlife species.
- Toxicological studies where the chemical was administered through diet are preferred over studies using other dosing methods, such as oral gavage or intraperitoneal injection.
- Ecological relevance of the study endpoints. Studies with toxicity endpoints such as reproduction, growth, behavior, and developmental endpoints were targeted. Sensitive endpoints such as reproductive or developmental toxicity were preferentially selected because they are closely related to the selected AEs.

- Long-term studies representing chronic exposure were preferentially selected over short-term, acute studies.

Mammalian and avian TRVs are presented in **Table 6-1**. In general, these TRVs are consistent with those used in the 2016 EE/ERA and discussed in the ERAWP.

Notable exceptions are discussed in the following section.

6.3.1 Lead

In the 2016 EE/ERA, TRVs for lead were obtained from the EcoSSL documents (USEPA 2005) which were conservatively developed. For instance, the form of metal used to dose animals in a laboratory study is frequently the most toxic and most bioavailable form to ensure uptake by the animal. While the form of lead in Facility soils is often metallic lead, many of the toxicity studies are based upon toxic lead forms such as lead acetate or lead nitrate (USEPA 2005). This adds additional conservatism into the evaluation.

Furthermore, avian toxicity data used in the development of the TRVs include reproduction data for chickens, a domestic bird species with higher rates of reproduction than wild birds. In fact, TRVs recommended by USEPA (2005) for lead are based exclusively on reproduction in chickens. For this assessment, TRVs based on wild bird data, NOAEL-based TRVs for reproduction range from 0.194 to 125 mg/kg bw/day; LOAEL-based TRVs for reproduction range from 0.11 to 377 mg/kg bw/day, with a geometric mean of 11.4 mg/kg bw/day, were selected.

Sample et al. (1996) reports a similar LOAEL (11.3 mg/kg bw/day) based on a study of Japanese quail (from Edens et al. 1976). This LOAEL was also used by Kaufman et al. (2007) to evaluate the bioaccessibilty of lead to birds and mammals. Edens et al. (1976) reports a NOAEL of 1.13 mg/kg bw/day for lead. As such, 1.13 and 11.3 mg/kg bw/day will serve as the avian TRVs for lead.

For mammals, conservative TRVs used in the 2016 EE/ERA are modified from 4.7 to 8 mg/kg bw/day for the NOAEL and from 8.9 to 80 mg/kg bw/day for the LOAEL. These TRVs are reported in Sample et al. (1996) and are based on a study by Azar et al. (1973) using laboratory rats.

These updated lead TRVs are presented in **Table 6-1**.

Section 7: Ecological Risk Characterization

Risk characterization evaluates potential ecological risk to receptors. For lower-trophic-level terrestrial and aquatic receptors (i.e., terrestrial plants and invertebrates, aquatic invertebrates and fish) potential risks were characterized by comparing soil, sediment, or surface water EPCs to ESBs, which results in an HQ.

For benthic invertebrate communities, EPCs were compared to LEL and SEL criteria considered protective of benthic organisms. These LEL- and SEL-based HQs (HQ_{LELs} and HQ_{SELs}, respectively) were calculated to provide a bounding estimate of potential risk. Where HQ_{LELs} were greater than 1, supplemental LOEs were evaluated (as detailed in Section 5.1.1.2) and incorporated in risk characterization.

For upper-trophic-level avian and mammalian species, resulting dietary doses from the food web models were compared to TRVs to derive the HQs. NOAEL-based HQs (HQ_{NOAEL}) and LOAEL-based HQs (HQ_{LOAEL}) were calculated for both the low and high TRVs, respectively. In general, HQ_{NOAEL} less than one indicate that there are no potential ecological risks and HQ_{LOAEL} less than one suggest that adverse effects are unlikely. With respect to HQ_{LOAEL} greater than 1, USEPA (1994) recommends that HQs be interpreted relative to the assumptions on which the assessment is based. In other words, more conservative exposure and effects assumptions result in a broader range of tolerable HQs. The following sections present both the HQ_{NOAEL} and HQ_{LOAEL} to provide bounding estimates of potential risk to upper-trophic-level receptors.

7.1 Terrestrial Receptors

The following section summarizes HQs for terrestrial receptors at the Facility. **Tables 7-1 through 7-8** present the results of the terrestrial receptor evaluation. **Table 7-9** summarizes the results presented in **Tables 7-1 through 7-8**.

As detailed in Section 5.1.1.1.1.1 (Lead Bioavailability), results of SEP analysis indicate that 24 to 56% of lead in soil is weakly bound and potentially bioavailable. The following summary tables incorporate HQs assuming 24, 56, and 100% bioavailability of lead in soil.

7.1.1 Soil Invertebrates

Table 7-1 presents HQs based on maximum detected constituent concentrations and 95UCL EPCs estimating potential risks to soil invertebrates. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

COPEC	Soil Invertebrate HQ (95UCL)
Copper	2
Manganese	8
Vanadium	2
Zinc	2

7.1.2 Plants

Table 7-2 presents HQs based on maximum detected constituent concentrations and 95UCL EPCs estimating potential risks to terrestrial plants. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

COPEC	Terrestrial Plant HQ (95UCL)
Chromium	24
Copper	2
Lead (24 / 56 / 100)[a]	≤1 / 3 / 5
Manganese	3
Mercury	32
Selenium	6
Vanadium	17

[a]Lead HQs assume 24, 56, and 100% bioavailability of lead in soil

7.1.3 Wildlife

Potential ecological risk was evaluated for three avian receptors (**Tables 7-3, 7-4, and 7-5**) and three mammalian receptors (**Tables 7-6, 7-7, and 7-8**). **Table 7-9** summarizes the terrestrial receptor HQs.

7.1.3.1 Birds

The evaluation of potential ecological risks for American robin, northern bobwhite, and red-tailed hawk indicates the following:

- Two COPEC HQ_{NOAELs} and one HQ_{LOAEL} exceeds 1 for American robin.
- COPEC HQ_{NOAELs} and HQ_{LOAELs} are less than or equal to 1 for northern bobwhite.
- COPEC HQ_{NOAELs} and HQ_{LOAELs} are less than or equal to 1 for red-tailed hawk.

The following table summarizes COPECs with HQs greater than 1.

COPEC	American Robin	
	HQ_{NOAEL}	HQ_{LOAEL}
Copper	**2**	≤1
Lead (24 / 56 / 100)[a]	**3 / 5 / 9**	≤1 **/ 3 / 5**

[a]Lead HQs assume 24, 56, and 100% bioavailability of lead in soil

7.1.3.2 Mammals

The evaluation of potential ecological risks for short-tailed shrew, white-tailed deer, and red fox indicates the following:

- One COPEC HQ_{NOAEL} exceeds 1 for short-tailed shrew. HQ_{LOAEL} is less than or equal to 1.
- COPEC HQ_{NOAELs} and HQ_{LOAELs} are less than or equal to 1 for white-tailed deer.
- COPEC HQ_{NOAELs} and HQ_{LOAELs} are less than or equal to 1 for red fox.

The following table summarizes COPECs with HQs greater than 1.

COPEC	Short-Tailed Shrew	
	HQ_{NOAEL}	HQ_{LOAEL}
Lead (24 / 56 / 100)[a]	≤1 / ≤1 / **2**	≤1

[a]Lead HQs assume 24, 56, and 100% bioavailability of lead in soil

7.2 Aquatic Receptors

Sections 7.2.1-2 presents HQs for aquatic receptors in subdrainage exposure areas within the NDA and SDA. HQs were calculated for benthic invertebrates, aquatic life (fish and aquatic invertebrates), tree swallow, great blue heron, mallard duck, little brown bat, mink, and muskrat. **Tables 7-10 through 7-27** present COPEC HQs for each receptor. **Table 7-28** summarizes HQs for aquatic wildlife receptors.

7.2.1 Northern Drainage Area

The NDA encompasses several aquatic habitats, including several ponds and tributaries, across five distinct subdrainage areas. Results of the evaluation for these subdrainage areas are presented in **Tables 7-10 through 7-18**.

7.2.1.1 Benthic Invertebrates

Multiple LOEs were considered during refined risk characterization of benthic invertebrates in NDA subdrainage areas. Benthic invertebrate EPCs were initially compared to LELs and SELs considered protective of benthic invertebrates (**Table 7-10**).

NDA subdrainage areas COPEC HQ_{LELs} and HQ_{SELs} greater than 1 are summarized in the following table.

NDA Subdrainage Areas – Benthic Invertebrate Risk Evaluation										
COPEC	Duck Pond		Eastern Tributary		Northeast Ponds		Unnamed Ponds		Western Tributary	
	HQ_{LEL}	HQ_{SEL}	HQ_{LEL}	HQ_{SEL}	HQ_{LEL}	HQ_{SEL}	HQ_{LEL}	HQ_{SEL}	HQ_{LEL}	HQ_{SEL}
Metals										
Arsenic	**2**	≤1	**2**	≤1	≤1	≤1	**4**	≤1	≤1	≤1
Cadmium	**2**	≤1	≤1	≤1	≤1	≤1	**2**	≤1	**2**	≤1
Copper	**4**	≤1	**12**	≤1	**3**	≤1	**5**	≤1	**5**	≤1
Lead	**6**	≤1	**8**	≤1	**2**	≤1	**9**	≤1	**12**	≤1
Mercury	≤1	≤1	≤1	≤1	≤1	≤1	**8**	≤1	**5**	≤1
Silver	≤1	--	≤1	--	**5**	--	≤1	--	≤1	--
Zinc	**3**	≤1	**2**	≤1	**2**	≤1	**6**	≤1	**3**	≤1
SVOCs										
PAHs[a]	(≤1-**2**)	≤1	≤1	≤1	≤1	≤1	(≤1-**7**)	≤1	≤1	≤1

Notes: [a]The PAH ecological screening benchmark toxic unit (ESBTU) threshold of 1 (unitless) was calculated using a 34-PAH dataset, where available (see Section 5.1.1.1.2.2); otherwise, a ESBTU benchmark of 8.83 (unitless) was used, representing a 13-PAH benchmark with 95% certainty factor and equating to a 34-PAH benchmark of 1.
HQ – hazard quotient
LEL – lowest effect level
SEL – severe effect level
-- = no SEL available

In subdrainage areas where the comparison of COPEC EPCs to SELs and LELs indicated potential unacceptable risk to benthic invertebrates (i.e., HQ_{LEL} greater than 1), additional LOEs were evaluated. Supplemental evaluations identified acceptable risk within four subdrainage areas. In Unnamed Ponds, potentially unacceptable risk was remained for arsenic and mercury in sediment. As such, additional investigation of Unnamed Ponds for these sediment COPECs is recommended.

The table below summarizes the results of these supplemental evaluations for each NDA subdrainage area.

The table below summarizes the results of supplemental LOEs for each NDA subdrainage area.

NDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation						
Risk Evaluation Method	**Notes**	**Unnamed Ponds**	**Duck Pond**	**Eastern Tributary**	**Western Tributary**	**Northeast Ponds**
ESC Screen	b	+	+	+	+	+
Background Arsenic Threshold	d	+	-	NA	NA	NA
Mercury Study Comparison	d	+	-	NA	-	NA
Total and Dissolved MeHg	c	+	NA	NA	NA	NA
EqP PAH Analysis	c,d	-	-	NA	NA	-
AVS/SEM and Surrogate TOC%	a,c,d	-	-	-	-	-
Biological Community Indices*	c	+	NA	NA	NA	R
Risk Drivers	-	As, Hg	None	None	None	None
Additional Assessment? (Y/N)	**-**	**Y**	**N**	**N**	**N**	**N**

Notes: + = potential unacceptable risk, retained as a COPEC; - = acceptable risk. not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]The AVS/SEM and Surrogate TOC% evaluation method represents a LOE for divalent metals including cadmium, copper, lead, nickel, and zinc.
[b]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[c]Evaluated during ERASSM implementation
[d]Evaluated in Updated SSRP (**Attachment 4**)

* This evaluation method is weighted more heavily, as the data are from site specific sources

7.2.1.2 Aquatic Plants

Summarizes COPECs with HQs greater than one based on the 95UCL, where applicable. Where the 95UCL could not be calculated, the HQ is based on the maximum concentration [HQ_{max}].

NDA Subdrainage Areas – Aquatic Plant Risk Evaluation					
COPEC	Duck Pond	Eastern Tributary	Northeast Ponds	Unnamed Pond	Western Tributary
	Aquatic Plant HQ_{95UCL}				
Metals					
Arsenic	≤1	≤1[a]	≤1	**4**	≤1
Cadmium	≤1	≤1	≤1	≤1	**2**
Copper	≤1	**3[a]**	≤1	≤1	≤1
Lead	**2**	**2[a]**	≤1	**2**	**3**
Mercury	≤1	≤1	≤1	≤1	**3**
Silver	≤1	≤1	≤1[a]	**6**	≤1
Zinc	**2**	≤1	**2**	**5**	**2**

Notes: [a]HQ_{max}

7.2.1.3 Fish and Aquatic Invertebrates

Table 7-12 presents HQs estimating potential risks to fish and aquatic invertebrates in NDA subdrainage areas. HQ calculations estimate potential risks to fish and aquatic invertebrates. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

NDA Subdrainage Areas Fish and Aquatic Invertebrate Risk Evaluation		
COPEC	Western Tributary	
Fish and Aquatic Invertebrate $HQ_{95UCL/max}$		
Metals		
Copper, dissolved	**3**	a
Lead, dissolved	**147**	a
Zinc, dissolved	**2**	a

Notes: [a]HQ_{95UCL}; [b]HQmax;
-- = not a COPEC for this subdrainage area

7.2.1.4 Birds

The evaluation of potential ecological risks for tree swallow, great blue heron, and mallard duck using aquatic habitats in NDA subdrainage areas, as presented in **Tables 7-13, 7-14, and 7-15**, indicates the following:

- COPEC HQ_{NOAELs} are less than or equal to 1 for great blue heron.
- COPEC HQ_{NOAELs} are less than or equal to 1 for mallard duck.

- COPEC HQ_{NOAELs} are less than or equal to 1 for tree swallow.

7.2.1.5 Mammals

The evaluation of potential ecological risks for little brown bat, mink, and muskrat using aquatic habitats in NDA subdrainage areas, as presented in **Tables 7-16, 7-17, and 7-18**, indicates the following:

- Three COPEC HQ_{NOAELs} and two COPEC HQ_{LOAELs} exceed 1 for little brown bat.
- Three COPEC HQ_{NOAELs} exceed 1 for mink. HQ_{LOAELs} are less than or equal to 1.
- COPEC HQ_{NOAELs} are less than or equal to 1 for muskrat.

The following table summarizes COPECs with HQs greater than 1.

NDA Subdrainage Areas – Mammal Risk Evaluation				
COPEC	Little Brown Bat		Mink	
	HQ_{NOAEL}	HQ_{LOAEL}	HQ_{NOAEL}	HQ_{LOAEL}
Duck Pond				
Nitroglycerin	≤1	≤1	**5**	≤1
Eastern Tributary				
Copper	**3**	**2**	≤1	≤1
Lead	**5**	**3**	≤1	≤1
Unnamed Ponds				
Arsenic	**2**	≤1	≤1	≤1

7.2.2 Southern Drainage Area

The SDA drains the majority of the former operational area of the Facility. **Tables 7-19 through 7-27** present results of the evaluation for SDA subdrainage areas.

7.2.2.1 Benthic Invertebrates

Multiple LOEs were considered during refined risk characterization of benthic invertebrates in SDA subdrainage areas. Benthic invertebrate EPCs were initially compared to LELs and SELs considered protective of benthic invertebrates (**Table 7-19**).

SDA subdrainage area COPEC HQ_{LELs} and HQ_{SELs} greater than 1 are summarized in the following table.

SDA Subdrainage Area Sediment COPECs								
COPEC	**Central Drainage Basin**		**Development Area Stream**		**Maintenance - Dynamite Area - East**		**Maintenance – Dynamite Area - West**	
	HQ_{LEL}	**HQ_{SEL}**	**HQ_{LEL}**	**HQ_{SEL}**	**HQ_{LEL}**	**HQ_{SEL}**	**HQ_{LEL}**	**HQ_{SEL}**
Metals								
Arsenic	**7**	≤1	**2**	≤1	**2**	≤1	**3**	≤1
Cadmium	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chromium	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Copper	**6**	≤1	≤1	≤1	**2**	≤1	**2**	≤1
Lead	**30**	≤1	**2**	≤1	**11**	≤1	**11**	≤1
Mercury	**20**	≤1	≤1	≤1	**11**	≤1	**16**	≤1
Silver	≤1	≤1	≤1	≤1	**3**	--	≤1	≤1
Zinc	**2**	≤1	**2**	≤1	≤1	≤1	≤1	≤1
SVOCs								
PAHs	(≤1-**5306**)	(≤1-**3**)	≤1	≤1	(≤1-**10**)	≤1	(≤1-**6**)	≤1

SDA Subdrainage Area Sediment COPECs Cont.								
COPEC	**Maintenance - NG Area**		**Misc Offsite Streams Upper**		**Misc Offsite Streams Lower**		**TNT-PETN-NG Ditches**	
	HQ_{LEL}	**HQ_{SEL}**	**HQ_{LEL}**	**HQ_{SEL}**	**HQ_{LEL}**	**HQ_{SEL}**	**HQ_{LEL}**	**HQ_{SEL}**
Metals								
Arsenic	**4**	≤1	≤1	≤1	≤1	≤1	**9**	**2**
Cadmium	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	**9**	≤1	**2**	≤1	≤1	≤1	**2**	≤1
Lead	**39**	≤1	**14**	≤1	**2**	≤1	**28**	**3**
Mercury	**17**	**2**	**5**	≤1	≤1	≤1	**10**	≤1
Silver	**9**	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs								
PAHs	(≤1-**10**)	≤1	≤1	≤1	(≤1-**4**)	≤1	(≤1-**5**)	≤1

Notes: [a]The PAH ecological screening benchmark toxic unit (ESBTU) threshold of 1 (unitless) was calculated using a 34-PAH dataset, where available (see Section 4.2.1.1.1); otherwise, a ESBTU benchmark of 8.83 (unitless) was used, representing a 13-PAH benchmark with 95% certainty factor and equating to a 34-PAH benchmark of 1.
HQ – hazard quotient
LEL – lowest effect level
SEL – severe effect level
-- = not a COPEC for this subdrainage area

In SDA subdrainage areas where the EPC comparison to SEL and LELs indicated potentially unacceptable risk to benthic invertebrates (i.e., HQ_{LEL} greater than 1), additional LOEs were evaluated.

Supplemental evaluations identified acceptable risk within seven SDA subdrainage areas. Alternatively, risk characterization across multiple LOEs in the Maintenance NG Area identified potential unacceptable risk to benthic invertebrate communities from sediment COPECs including arsenic, mercury, and silver. Additional investigation in the Maintenance NG Area for these COPECs is recommended.

The following table summarizes the results of the supplemental evaluations for each SDA subdrainage area.

SDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation					
Risk Evaluation Method	**Notes**	**Central Drainage Basin**	**Development Area Stream**	**Maintenance Dynamite Area - East**	**Maintenance Dynamite Area - West**
ESC Screen	c	+	+	+	+
Background Arsenic Threshold	d	+	-	NA	+
Mercury Study Comparison	d	+	-	-	+
Total and Dissolved MeHg	c	NA	NA	-	-
Chromium Speciation	c	NA	NA	-	NA
EqP PAH Analysis	c,d	R	-	-	-
AVS/SEM and Surrogate TOC%	a,c,d	-	-	-	-
Biological Community Indices*	c	+	R	NA	+
Risk Drivers	-	As, Pb, Hg	None	None	As, Pb, Hg
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**Y**

Notes: + = potential unacceptable risk, retained as a COPEC; - = acceptable risk. not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]The AVS/SEM and Surrogate TOC% evaluation method represents a LOE for divalent metals including cadmium, copper, lead, nickel, and zinc.
[b]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[c]Evaluated during ERASSM implementation
[d]Evaluated in Updated SSRP (**Attachment 9**)
* This evaluation method is weighted more heavily, as the data are from site specific sources

SDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation Cont.					
Risk Evaluation Method	**Notes**	**Maintenance NG Area**	**Misc. Offsite Streams - Lower**	**Misc. Offsite Streams - Upper**	**TNT-PETN-NG Ditches**
ESC Screen	b	+	+	+	+
Background Arsenic Threshold	d	+	NA	-	+
Mercury Study Comparison	d	+	NA	-	-
EqP PAH Analysis	c,d	-	-	NA	-
AVS/SEM and Surrogate TOC%	a,c,d	-	-	-	-
Biological Community Indices*	c	+	NA	NA	-
Risk Drivers	-	As, Ag, Hg	None	None	None
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**N**

Notes: + = potential unacceptable risk, retained as a COPEC; - = acceptable risk. not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]The AVS/SEM and Surrogate TOC% evaluation method represents a LOE for divalent metals including cadmium, copper, lead, nickel, and zinc.
[b]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[c]Evaluated during ERASSM implementation
[d]Evaluated in Updated SSRP (**Attachment 9**)
* This evaluation method is weighted more heavily, as the data are from site specific sources

7.2.2.2 Aquatic Plants

Table 7-20 presents HQs estimating potential risks to aquatic plants in SDA subdrainage areas. Metals and PAHs are the primary risk drivers for aquatic plants (i.e., have HQs greater than 1). The following table summarizes COPECs with HQs greater than one based on the 95UCL, where applicable. Where the 95UCL could not be calculated, the HQ_{max} is used.

SDA Subdrainage Areas – Aquatic Plant Risk Evaluation (HQ_{95UCL})								
COPEC	**Central Drainage Basin**	**Development Area Stream**	**Maintenance – Dynamite Area - East**	**Maintenance – Dynamite Area - West**	**Maintenance – NG Area**	**Misc. Offsite Streams - Lower**	**Misc. Offsite Streams - Upper**	**TNT-PETN-NG Ditches**
Metals								
Arsenic	**2**	≤1	≤1	≤1	≤1	≤1	≤1	**3**
Chromium	≤1	≤1	**54**	≤1	≤1	≤1	≤1	≤1
Copper	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Lead	**8**	≤1	**3**	**3**	**10**	≤1	**4**	**7**
Mercury	**14**	≤1	**7**	**11**	**12**	≤1	**4**	**7**
Zinc	**2**	≤1	≤1	≤1	**2**	≤1	≤1	≤1
PAHs								
Acenaphthylene	≤1	≤1	**21**	**10**	≤1	**5**	≤1	≤1
Anthracene	≤1	≤1	**19**	≤1	≤1	≤1	≤1	≤1
Benzo(a)anthracene	≤1	≤1	**86**	**102**	**280[a]**	**52**	≤1	≤1
Benzo(a)pyrene	≤1	≤1	**87**	**78**	**240[a]**	≤1	≤1	**35**
Benzo(g,h,i)perylene	≤1	≤1	**60**	**45**	**140[a]**	**37**	≤1	≤1
Benzo(k)fluoranthene	≤1	≤1	**48**	**77**	**150[a]**	≤1	≤1	≤1
Chrysene	≤1	≤1	**125**	**127**	**260[a]**	**63**	≤1	≤1
Dibenzo(a,h)anthracene	≤1	≤1	**13**	**17**	≤1	**19**	≤1	**29[a]**
Fluoranthene	**23,333[a]**	≤1	**14**	**10**	**31[a]**	≤1	≤1	≤1
Indeno(1,2,3-cd)pyrene	≤1	≤1	**75**	≤1	≤1	≤1	≤1	≤1
Phenanthrene	≤1	≤1	**38**	≤1	**37[a]**	≤1	≤1	≤1
Pyrene	**46,429[a]**	≤1	**43**	**48**	**88[a]**	**19**	≤1	**15**

Notes: [a]HQ_{max}

7.2.2.3 Fish and Aquatic Invertebrates

Table 7-21 summarizes potential risks to fish and aquatic invertebrates in SDA subdrainage areas.

No COPECs were retained from the initial ESC screen for the SDA subdrainage areas.

7.2.2.4 Birds

The evaluation of potential ecological risks for tree swallow, great blue heron, and mallard duck using aquatic habitats in SDA subdrainage areas, as presented in **Tables 7-22, 7-23, and 7-24**, indicates the following:

- COPEC HQ_{NOAELs} are less than or equal to 1 for mallard duck.
- COPEC HQ_{NOAELs} are less than or equal to 1 for mallard duck.
- COPEC HQ_{NOAELs} are less than or equal to 1 for tree swallow.

7.2.2.5 Mammals

The evaluation of potential ecological risks for little brown bat, mink, and muskrat in eight subdrainage areas in SDA subdrainage areas, as presented in **Tables 7-25, 7-26, and 7-27**, indicates the following:

- COPEC HQ_{NOAELs} are less than or equal to 1 for little brown bat.
- Three COPEC HQ_{NOAELs} and one COPEC HQ_{LOAEL} exceed 1 for mink.
- Two COPEC HQ_{NOAELs} and two COPEC HQ_{LOAEL} exceed 1 muskrat.

The following table summarizes COPECs with HQs greater than 1 in SDA subdrainage areas.

SDA Subdrainage Areas				
COPEC	Mink		Muskrat	
	HQ_{NOAEL}	HQ_{LOAEL}	HQ_{NOAEL}	HQ_{LOAEL}
Central Drainage Basin				
Lead	**2**	≤1	≤1	≤1
Fluoranthene	**6**	≤1	**9**	**2**
Pyrene	**4**	≤1	**8**	**2**
Development Area Streams				
Lead	**2**	≤1	≤1	≤1
Maintenance – Dynamite Area – East				
Lead	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	**4**	≤1
Pyrene	≤1	≤1	**4**	≤1
Maintenance – Dynamite Area – West				
Lead	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	**4**	≤1
Pyrene	≤1	≤1	**4**	≤1
Maintenance – NG Area				
Lead	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	**4**	≤1
Pyrene	≤1	≤1	**4**	≤1
Miscellaneous Offsite Streams - Lower				
Lead	**2**	≤1	≤1	≤1
Pyrene	≤1	≤1	**4**	≤1
Miscellaneous Offsite Streams - Upper				
Lead	**2**	≤1	≤1	≤1
TNT-PETN-NG Ditches				
Lead	**2**	≤1	≤1	≤1
Pyrene	≤1	≤1	**4**	≤1

7.3 PCDD/F Risk Characterization

The 2016 EE/ERA **(Attachment 1)** presents an ERA specific to PCDD/F in soil in former burning areas of the Facility. General site characterization sampling in the SI/RI did not include analysis for PCDD/F. Focused PCDD/F sampling was conducted in areas of the site that supported historical burning activities and in response to a request by NJDEP. PCDD/F data were evaluated separately given the differences in size and spatial coverage of the datasets (i.e., Facility-wide [more than 1,000 acres] versus four discrete former burning areas totaling less than 10 acres). Food web modeling was conducted for each of the terrestrial receptors evaluated in this ERA using congener-specific 95UCLs for PCDD/F and a toxicity equivalency quotient (TEQ)-based

approach (Van den Berg et al. 1998, 2006). Species-specific exposure factors used in the food web model for PCDD/F remain consistent with those in the overall ERA.

As summarized in the table below, food web models for PCDD/F in soil resulted in HQs less than 1 for each ecological receptor evaluated. These results indicate that potential ecological risk attributable to PCDD/F in soil in former burning areas of the Facility is unlikely.

PCDD/F – Former Burning Area Soil	
Receptors	**HQs**
American robin	≤1
Red-tailed hawk	≤1
Bobwhite quail	≤1
Short-tailed shrew	≤1
Red fox	≤1
White-tailed deer	≤1

7.4 Discussion

The risk characterization compares COPEC concentrations in potential receptors to conservative benchmark values identified in Section 6. To characterize potential ecological risk to populations using the exposure areas, consideration of benchmark values below which significant effects are not expected (i.e., LOAEL-based TRVs) to occur is appropriate.

7.4.1 Terrestrial Exposure Area

Potential risks to terrestrial receptors were evaluated Facility-wide. Soil COPECs, including four metals (lead, chromium, vanadium, and copper), present the highest potential for risk to terrestrial receptors via both direct exposure and food-web transfer.

Metals are commonly associated with historical fill materials (e.g., fly ash, bottom ash, slag), which were byproducts of the local iron mining and processing industry and imported to the Facility as fill to support Facility development in the early 1900s.

Overall, potential risks to terrestrial receptor populations related to COPECs other than lead are low.

Section 5.1.1.1.2. presents an initial evaluation and framework for refining risks attributable to individual sample locations or clusters of sample locations where COPEC concentrations may result in localized risk (e.g., hotspots).

Similarly, Section 3.2.1.3.1. presents an approach to assessing risk to sensitive populations (e.g., bog turtle) in wetland areas.

7.4.2 Aquatic Exposure Areas

Aquatic exposure pathways were evaluated across 13 subdrainage areas.

Due to its earlier development in the Facility's history, the majority of historic fill imported to the Facility was used to raise the ground surface elevation and support development in the SDA, and once developed, this area housed the largest concentration of historical operations and facility

support services (e.g., Maintenance Area, powerhouse). These historical differences are evident in aquatic HQs from these exposure areas, as discussed below.

7.4.2.1 Northern Drainage Area

Four constituents (i.e., arsenic, copper, and lead) emerge as potential risk drivers in NDA subdrainage areas. Copper and lead concentrations yielded HQs greater than 1 for direct contact exposure scenarios (i.e., fish and aquatic plants and invertebrates) as well as aquatic food web modeling for upper-trophic-level mammals (i.e., little brown bat and mink). Arsenic also represents a potential risk to lower- and upper-level aquatic receptors, though elevated risk estimates are confined to the Unnamed Ponds (i.e., aquatic plants, benthic invertebrates, and little brown bat) and the Maintenance - NG Area (i.e., benthic invertebrates) and likely attributable to historical fill.

Potentially elevated risk from six COPECs (i.e., barium, cadmium, mercury, manganese, silver, and zinc), while also exceeding aquatic risk thresholds across multiple subdrainage areas, is restricted to lower-trophic-level receptors (i.e., aquatic plants and benthic invertebrates). Further, nitroglycerin presents a potential risk to piscivorous mammals (i.e., mink), though elevated risk estimates are limited to Duck Pond. Nitroglycerin is assumed to be 100% bioavailable to aquatic receptors in this ERA. In reality, nitroglycerin occurs at the Facility as a component of solid smokeless powder grains and thus is bound in an insoluble matrix with likely limited bioavailability.

Overall, Unnamed Ponds and the Eastern and Western Tributaries emerge as NDA subdrainage areas with the highest potential risk to aquatic receptors. Alternatively, potential risk to birds in each evaluated feeding guild is low in NDA subdrainage areas.

7.4.2.2 Southern Drainage Area

Lead, fluoranthene, pyrene emerge as having the greatest potential for ecological risk in the SDA. Fluoranthene and pyrene are potential risk drivers to herbivorous mammals (i.e., muskrat) and piscivorous mammals (i.e., mink), while lead exceeds aquatic risk thresholds for fish, aquatic plants and invertebrates, and piscivorous mammals across several SDA subdrainage areas.

Potential risk from mercury, frequently co-located with lead, is limited to sediment direct contact in lower-trophic-level receptors (i.e., aquatic plants and benthic invertebrate communities). While bioavailability of mercury to lower-trophic-level receptors via microbial methylation is uncertain, multiple LOEs indicate potential risk to benthic invertebrates from co-located COPECs is limited to the Central Drainage Basin, Maintenance – Dynamite Area – West, and Maintenance – NG Area. While chromium exceeded HQs for lower-trophic-level receptors (i.e., benthic invertebrates and aquatic plants) in the Maintenance - Dynamite Area - East, speciation analysis indicates that sediment conditions favor the less mobile and bioavailable Cr(III).

Arsenic, copper, silver and zinc also present potential risk to lower-trophic level receptors (i.e., fish, aquatic plants and invertebrates, and benthic invertebrates) though elevated risk estimates are more limited in distribution across SDA subdrainage areas. Apart from fluoranthene and pyrene, potential risk is limited to aquatic plants, where the Central Drainage Basin, Maintenance – Dynamite Area – East and West, and Miscellaneous Offsite Streams - Lower represent the highest potential risk areas and most frequent HQ_{95UCL} exceedances for 12 PAH congeners.

The emergence of lead to present potential risk in multiple media and exposure scenarios is not unexpected given the presence of lead in commerce, historical fill, and use of lead in historical Facility operations. Lead possesses non-conductive/non-sparking properties and several buildings were partially lined with lead, as were material conveyances (i.e., pipes, culverts,

vessels). Lead used onsite existed primarily in the inorganic form, which is not readily bioavailable and not expected to bioaccumulate.

Vegetated wetland features make up the majority of aquatic habitat in the SDA with intermittent ditches and other drainage features draining wetlands to the large southern wetland complex. Sediment in these wetland habitats is rich in organics (SDA total organic carbon average of 5.8 percent, with a maximum value of 43 percent and many values between 10 and 30 percent in the southern wetland complex). The breakdown of these organics consumes oxygen and results in

Together, anoxic (reducing) conditions and available organic carbon yield an environment favorable for binding of metals, rendering them unavailable for uptake by organisms (ITRC 2011). Lead (as well as other divalent metals: copper, cadmium, nickel, zinc, and silver) is subject to binding/ sequestration in the presence of acid volatile sulfide (AVS), often found in anoxic wetland sediment. While food web modeling results identify potential risks related to lead in soil and sediment, the conservative assumptions on which the HQs are based, particularly those related to bioavailability, likely overestimate potential risks. The inorganic forms of lead used onsite during historical operations and reducing onsite aquatic habitat conditions likely constrain lead bioavailability, as do other habitat conditions that facilitate metals sequestration (e.g., high organic carbon content).

Historical fill is known to contain PAHs and metals (N.J.A.C. 7:26E – NJDEP TRSR). Historical fill materials were used during early development of the Facility to raise ground surface elevations. The SDA, where both PAHs and metals appear more prevalent in sediment, drains much of the former operational area of the Facility where large amounts of historical fill have been mapped (Hercules 2007, 2016a).

Surface water drains through shallow ditches cut into the filled valley floor. PAHs and metals in SDA sediments may be influenced by non-Facility-related sources as well. The RI has documented these constituents in stormwater runoff from adjacent roadways (i.e., Route 46 and Howard Boulevard) that directly discharge to a series of ditches in the SDA (Hercules 2007). Physical and chemical conditions onsite, like those outlined above for lead, likely limit bioavailability of these potential secondary risk drivers.

The Facility history, previous reports (Hercules 2007), and CSM (Section 3.1) establish links between the terrestrial and aquatic exposure areas used in this ERA. The RIRs (Hercules 2007) identified lead as a “frequent exceedance” constituent in soil, sediment, and surface water. Thus, the appearance of similar constituents (lead in particular) as potential risk drivers confirms historical findings and further informs an understanding of COPEC fate, transport, and exposure pathways.

Section 8: Uncertainty Analysis

In a risk assessment, uncertainty exists. Sources of uncertainty include:

- Natural variability of ecological systems
- Incomplete knowledge of site-specific fate and transport mechanisms and biological processes
- Use of organism-specific TRVs to evaluate potential population level effects
- Use of generic bioaccumulation factors and models to estimate uptake of COPECs at the Facility

Following submission of the 2016 EE/ERA, Hercules conducted multiple focused field sampling events to address uncertainties in the risk assessment process and refine risk characterization results. The results of the activities are incorporated into this document and have supplemented and/or replaced certain generic or theoretical values with site-specific empirical data and reduced the level of uncertainty. Nevertheless, some level of uncertain always exists, and the scale of the Facility and exposure areas lends a degree of uncertainty unique to this risk assessment. The preparers of this updated ERA (**Attachment 12**) have relied on expertise, experience, and technical guidance to identify areas of uncertainty and manage the influence of that uncertainty in the risk characterization.

Uncertainties potentially influencing results of the ERA are briefly described below.

8.1 Complexity of Natural Systems

Natural systems are complex and involve the interaction of several physical, chemical, and biological elements. The ERA uses simplifying assumptions to attempt to model these interactions. Direct measurements of COPEC concentrations are used along with information from scientific literature to model the interactions that may be occurring in natural systems. The assumptions made and models used, and how well or poorly these assumptions and models reproduce the interactions taking place in the natural system, introduce uncertainty in the ERA. An effort has been made to use conservative assumptions to bias potential risk to ecological receptors toward overestimation.

8.2 Data Uncertainty

The ERA makes use of the SI/RI dataset collected between 1999 and 2013. These data were collected in support of general site characterization activities; not specifically to assess ecological risk. As such, certain limitations are inherent in the existing dataset that contribute uncertainty to the results of the ERA.

The overall approach of the ERA focuses the assessment on areas of the Facility where potential ecological risk is uncertain. To achieve this focus, data representative of undeveloped areas outside the Remedial Area boundary and data from areas where Hercules is committed to active remediation (APRAs) to address Facility-related influences were removed from the ERA dataset. The evaluation of potential ecological risk at the Facility using the parsed dataset introduces uncertainty to the process. However, the commitment to implement a remedy protective of human

health and the environment in APRAs addresses ecological risk with a greater degree of certainty than estimating risks via the methods outlined in this ERA.

Samples collected early in the SI/RI process were analyzed for a full constituent list per regulatory requirements. As the investigation progressed, the analyte list was reduced based on previous findings to focus on Facility-related constituents. Presumably, if the constituents were not analyzed for, detections were below screening standards at the time those decisions were made. This situation contributes a degree of uncertainty to the ERA.

Analytical data resulting from a preliminary investigation of free or residual product (i.e., motor oil, diesel fuel, No. 6 fuel oil, gasoline, hydrocarbons as mineral spirits, and total petroleum hydrocarbons) were reported for six samples in the database. Results were non-detect for these analytes (except motor oil). Motor oil has not been carried forward as a COPEC because it represents a combination of individual PAH constituents represented elsewhere in the dataset, and toxicology information specific to motor oil is not available to support food web modeling.

Finally, the SI/RI sediment dataset represents the 0- to 1-foot sample interval. The BAZ in sediment is generally considered the 0- to 0.5-foot interval and occasionally extends to the 1 foot-depth based on geochemical conditions in the sediment (e.g., redox potential). Data from the deeper component of the interval may not represent the most recently deposited sediment and/or the BAZ and may have been deposited decades ago during the Facility's operational history. The correlation of constituent concentrations in sediment between 0.0 to 0.5 and 0.5 to 1 foot is unknown and contributes a degree of conservatism and uncertainty to the ERA. More contemporary sediment analytical data collected in support of the ERA has targeted the surface sediment interval and serves to reduce the above-referenced uncertainties.

8.2.1 COPEC Screening Process

The COPEC screening process involved a sequential analysis of the dataset to retain constituents for consideration in the ERA. Constituents detected in at least five samples and that exceeded their respective benchmark (or lacked a screening benchmark) were retained as COPECs. Constituents that were detected in less than five samples were not retained as COPECs. **Tables 5-1 through 5-5** summarize statistical information for the constituents with low detection frequencies in each exposure medium. Although some of these constituents have detection limits that are higher than associated screening values, many of these constituents are volatile, can be associated with laboratory techniques, are tentatively identified compounds, and/or have limited toxicity. Given the size of the site characterization dataset, elimination of these infrequently detected constituents contributes negligible uncertainty to the assessment.

COPEC screening considered the number of detects and maximum detected concentration. Based on the comprehensive nature of the dataset, non-detect reporting limits were not considered in the COPEC selection process. As such, some constituents that were not retained as COPECs possessed a maximum non-detect reporting limit greater than the associated ESB. Thus, the potential exists for this process to underestimate risk. However, inclusion of these data by relying on assumptions regarding the actual concentration that may be present would also introduce significant uncertainty to the assessment, and the overall size and comprehensive nature of the dataset limit the likelihood of these false negatives.

Potential risk associated with several constituents could not be quantitatively evaluated because screening benchmarks were unavailable. A list of commonly used ESB sources were evaluated, as well as constituent- and class-specific peer-reviewed literature and publicly available

documents, without identifying an appropriate ESB. Little is known about the environmental fate, transport, and/or toxicity for many of these constituents; or the information available indicates that these constituents are unlikely to pose significant risk to ecological receptors. Limited toxicity and/or scientific information for certain constituents results in some uncertainty, and the magnitude of any potential for risk is unknown.

Beyond a comparison of constituent concentrations to ESB, constituent-specific information was used to further refine the list of COPECs carried through the ERA, as presented below:

- As described in Section 4.1.2, some constituents appeared on multiple analyte lists, resulting in multiple data points at the same location. A combination of technical and regulatory information was used to select the more conservative and representative (e.g., accurate and precise) data for use in the ERA.
- The maximum detected concentration of aluminum exceeded its associated generic ESB. Risk guidance (USEPA 2003b) indicates that soluble aluminum in soil can pose a potential risk to ecological receptors, and that soil pH below 5.5 dictates aluminum solubility and therefore bioavailability. As such, information regarding the pH of Facility soil was evaluated prior to retaining aluminum as a COPEC. The 95UCL calculated for Facility soil from field (pH = 5.8) and laboratory samples (pH = 6.1) was greater than 5.5; therefore, aluminum was not retained as a COPEC.

The refined risk characterization presented in this document builds upon the work done in the 2016 EE/ERA, and incorporates site-specific data collected in support of the ERA. This information provides for a shift from generic screening benchmarks to site-specific measures of potential toxicity and/or bioavailability that better inform COPEC retention and associated risk characterization.

8.2.2 Exposure Point Concentrations

The COPEC screen identified COPECs based on the maximum detected constituent concentration. EPCs used in the food web models were calculated using the 95UCL (or maximum detected concentration in the absence of sufficient data for statistical analysis). The size of the available datasets introduces uncertainty to the development of one point concentration representative of exposures across the entire exposure area.

For many COPECs, orders of magnitude differences occur when calculating HQs using the maximum concentration and the 95UCL (**Tables 5-1 through 5-5**). While the direction and magnitude of this uncertainty are not completely measurable across receptor groups, the use of the maximum concentration or the 95UCL may overestimate risk.

8.2.3 Exposure Areas

The habitat quality within each exposure area varies. In general, natural areas and those forested areas that served as buffers between historical operational areas provide higher quality habitat, while the former operational areas consist of disturbed lands with early successional vegetation and provide habitat of lesser quality. The quality of the habitat is often consistent with the quality of the environmental media within. That is, areas of poorer quality habitat often coincide with areas of former Facility operations and influences, resulting in higher COPEC concentrations and a greater characterization sample density. Conversely, COPEC concentrations and sampling

density in buffer areas that often provide higher quality habitat are generally lower. Food web models assume that wildlife receptors spend equal amounts of time in useable habitat areas of the Facility. In reality, wildlife receptors may prefer the higher quality habitat for cover, forage resources, and other ecological advantages that it affords. These assumptions inherent to the food web models may overestimate risk.

Risk assessment requires assumptions regarding the extent to which organisms are exposed to constituents at the Facility. The exposure parameters used to conduct food web modeling for birds and mammals were selected to represent conservative feeding strategies for each of the selected receptors. These exposure parameters are not Facility-specific, although an attempt was made to reflect actual Facility conditions to the extent possible. For example, relevant information about regional diet was considered. Site-specific habitat characteristics (e.g., availability, distribution, and quality of food) influence feeding strategies and, therefore, exposure parameters, resulting in uncertainty attributable to the use of generic exposure parameters. To the extent practicable, the acreage of available habitat types has been incorporated into the AUF calculation to reduce uncertainty.

8.2.4 Uptake Factors

Apart from Facility-specific concentrations of copper and lead in aerial insect tissue in aquatic exposure areas, this ERA uses literature-derived BAFs and BSAFs to estimate tissue concentrations for soil/sediment invertebrates, plants, small mammals, and fish tissue. For soil, literature-based BAF models from USEPA (1999 and 2007) were used. For sediment, BSAF data were obtained from the USACE BSAF database (USACE ERDC EL 2011).

Non-site-specific and modeled accumulation factors introduce a high degree of uncertainty. Furthermore, BSAFs are highly variable and dependent upon the species tested, lipid content of the organism, and organic carbon content of the sediment. Values selected from the USACE BSAF database are based on data collected at different sites and across ranges of species that likely do not reflect uptake under the conditions at the Facility. To date, only non-polar organic compounds have been shown to uphold the relationship between sediment organic content and tissue lipids, and even these constituents show a wide variation in BSAF values (USACE ERDC EL 2011). The direction and magnitude of this uncertainty are not measurable.

8.2.5 Explosive and Energetic Compounds

Despite more than 100 years of E&E material production onsite, potential ecological risks related to E&E compounds are generally low. There are several reasons for this:

- TNT, the most prominent E&E constituent identified in the SI/RI, occurs in one of the Areas of Presumed Remedial Action that will undergo remediation. As such, the TNT data representing the most substantially influenced areas of the Facility were not considered in the ERA. The chemical and biological breakdown of TNT is a source of the DNT and amino-DNT constituents onsite. Thus, these constituents are frequently co-located and, by excluding areas of highest TNT concentrations, the highest concentrations of DNTs and amino-DNTs were removed as well.

- Most E&E compounds will degrade via natural weathering and through time. The Facility was decommissioned between 1996 and 2003; therefore, natural recovery has been occurring at the Facility. In addition, E&E compounds are capable of being metabolized by biological processes. These processes form the basis of the soil bioremediation remedy underway in the TNT APRA.
- Many E&E compounds that were detected at the Facility were screened out of media during the COPEC screen due to their low toxicity (relatively high ESBs).
- Several E&E compounds were carried through the COPEC screen and into the food web models because they lacked ESB. They were then modeled to upper-trophic-level receptors but, because they lack bioaccumulative properties, could not be assessed further.

As a result of the low toxicity/low bioavailability and propensity of E&Es to be metabolized or degraded over time, most E&Es released at the Facility are unlikely to pose potential ecological risk. However, there is some uncertainty for E&E constituents with laboratory detection limits greater than ESB, and/or those for which ESB are unavailable. The effect of this uncertainty on the ERA is unknown.

8.2.6 Toxicity Reference Values

This ERA uses toxicological data that were collected on an individual basis, not at the population level. Therefore, the HQs represent potential risks to single species of organisms, not to a population or community. However, potential risks were extrapolated to include the entire population as a whole. In general, species selected for study are those with a high degree of sensitivity to the chemical exposure being evaluated, resulting in benchmarks that are protective of sensitive species and conservative when used for the general population conditions.

In addition, the majority of evaluated toxicity data, obtained from literature values, were derived from laboratory studies conducted in settings that do not mimic true field conditions. Laboratory studies typically control various factors in order to isolate one particular parameter. Although such controlled experiments make it simpler to interpret isolated parameters or relationships, uncertainty is associated with assuming that laboratory exposure conditions are equivalent to in-field exposure conditions. TRVs are typically based on laboratory dosing studies in which highly soluble forms of the COPECs were used. As a result, these toxicity estimates can overestimate the bioavailability, uptake, and ultimate toxicity of a particular COPEC. However, for the ERA, it is assumed that the TRVs represent actual exposures to the receptors evaluated. As such, potential risks are likely overestimated.

Section 9: Conclusions & Recommendations

This ERA assesses potential ecological risk attributable to historical operational influences in formerly developed areas of the Facility. The risk characterization for lower-trophic-level receptors compares COPEC concentrations in exposure media to ESBs. For upper-trophic-level wildlife receptors, the estimated exposure (i.e., daily dietary dose) of each COPEC to potential wildlife receptors is compared to literature-based TRVs. Where applicable, a weight-of-evidence approach considers multiple lines of evidence to support risk characterization and conclusions.

9.1 Conclusions

An interpretation of HQ values relative to each AE and ME is presented below.

- **AE 1.** *Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial plant community?*
  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to terrestrial plant communities by exposure to COPECs at the Facility are possible.
  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.
  - This conclusion is supported by the following ME:
    - ✓ HQs resulting from a comparison of soil COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for 7 metals; HQs ranged from 2 to 32, with the greatest potential for risk from mercury (32)[9], chromium (24), and vanadium (17).
- **AE 2.** *Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial invertebrate community*?
  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to terrestrial invertebrate communities by exposure to COPECs at the Facility are unlikely.
  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

[9] Calculated HQs are presented in parentheses next to each COPEC to show magnitude of potential to cause adverse effects; in other words, the larger the number, the greater the likelihood that adverse effects are possible.

- This conclusion is supported by the following ME:

  - ✓ HQs resulting from a comparison of soil COPEC concentrations to ESBs protective of terrestrial invertebrates were less than 1 for COPECs, with the exception of manganese (8), copper (2), vanadium (2), and zinc (2).

- **AE 3.** *Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of herbivorous avian and mammal populations*?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to herbivorous avian and mammal populations by exposure to COPECs at the Facility are unlikely.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following MEs:

    - ✓ HQ_{NOAELs} and HQ_{LOAELs} for northern bobwhite, an herbivorous bird, are less than 1.

    - ✓ HQ_{NOAELs} and HQ_{LOAELs} for white-tailed deer, an herbivorous mammal, are less than 1.

- **AE 4.** *Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of insectivorous avian and mammal populations*?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to insectivorous avian populations by exposure to COPECs at the Facility are possible, but adverse effects to mammal populations by exposure to COPECs at the Facility are unlikely.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk. This conclusion is supported by the following MEs:

    - ✓ HQ_{NOAELs} for American robin, an insectivorous bird, are less than 1, with the exception of lead (9) and copper (2). HQ_{LOAELs} for American robin are less than 1, with the exception of lead (5).

    - ✓ HQ_{NOAELs} for short-tailed shrew, an insectivorous mammal, are less than 1, with the exception of lead (2). HQ_{LOAELs} for short-tailed shrew are less than 1.

- **AE 5.** *Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of carnivorous avian and mammal populations*?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to carnivorous avian and mammal populations by exposure to COPECs at the Facility are unlikely.

  – This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  – This conclusion is supported by the following MEs:

    ✓ HQ_{NOAELs} and HQ_{LOAELs} for red-tailed hawk, a carnivorous bird, are less than 1.

    ✓ HQ_{NOAELs} and HQ_{LOAELs} for red fox, a carnivorous mammal, are less than 1.

✓ **AE 6.** *Could direct contact with COPECs in sediment in each subdrainage area affect the structure, function, and/or survival of the benthic invertebrate community*?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to benthic invertebrate communities by exposure to COPECs are possible in Unnamed Ponds, Central Drainage Basin, Maintenance – Dynamite Area – West, and Maintenance NG Area; and unlikely in the nine remaining subdrainage areas.

  – This is a reasonable finding based on the evaluation of multiple LOEs evaluated to characterize risk to the benthic invertebrate community, the uncertainty inherent to the exposure and effects assessment process, and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  – This conclusion is supported by the following MEs:

    ✓ HQ_{LELs} resulting from a comparison of NDA subdrainage area sediment COPEC concentrations to ESBs protective of benthic invertebrates were greater than 1 for eight COPECs.

    ✓ In NDA subdrainage areas, supplemental evaluation of the benthic invertebrate biodiversity LOE identified HGMI (7.65), H’ (1.72), J’ (0.37), ENS (5.59) and abundance (37) metrics in Unnamed Ponds lower than Facility-specific reference thresholds for non-flowing habitat (reference lower bound; HGMI = 19.5, H’ = 1.93, J’ = 0.48, ENS = 6.86, abundance = 181.7), indicating reduced benthic biodiversity in Unnamed Ponds.

- HQ_{LELs} and supplemental evaluation of arsenic background threshold, sediment chemistry, and chemical speciation LOEs in Unnamed Ponds indicate the greatest potential for adverse benthic invertebrate community effects are from arsenic (4) and mercury (8).

✓ HQs resulting from a comparison of SDA subdrainage area sediment COPEC concentrations to ESBs protective of benthic invertebrates were greater than 1 for nine COPECs.

✓ Supplemental evaluation of the benthic invertebrate biodiversity LOE in SDA subdrainage areas evaluated biodiversity indices as follows:

- In the Maintenance NG Area, HGMI (14.1), H' (1.64), J' (0.39), and ENS (5.22) metrics were lower than Facility-specific reference thresholds for flowing habitat (reference lower bound; HGMI = 20.1, H' = 3.52, J' = 0.68, ENS = 34.0), indicating reduced benthic biodiversity in Maintenance NG Area.
  - HQ_{LELs} and supplemental evaluation of arsenic background threshold, sediment chemistry, and chemical speciation LOEs in Maintenance NG Area indicate the greatest potential for adverse benthic invertebrate community effects are from arsenic (2), mercury (11), and silver (3).
- In the Central Drainage Basin, H' (1.45), J' (0.35), and ENS (4.26) metrics are lower than Facility-specific reference thresholds for flowing habitat (reference lower bound; H' = 3.52, J' = 0.68, ENS = 34.0) and non-flowing habitat (H' = 1.93, J' = 0.48, ENS = 6.86). Additionally, abundance (65) in Central Drainage Basin is lower than the Facility-specific threshold for non-flowing habitat (181.7). These metrics indicate reduced benthic biodiversity in the Central Drainage Basin.
  - HQ_{LELs} and supplemental evaluation of arsenic background threshold and chemical speciation LOEs in the Central Drainage Basin indicate the greatest potential for adverse benthic invertebrate community effects are from arsenic (7) and mercury (20).
- In Maintenance Dynamite Area - West, H' (2.46), J' (0.57), and ENS (11.6) metrics are lower than Facility-specific reference thresholds for flowing habitat (reference lower bound; H' = 3.52, J' = 0.68, ENS = 34.0).
  - HQ_{LELs} and supplemental evaluation of arsenic background threshold, sediment chemistry, and chemical speciation LOEs in the Central Drainage Basin indicate the greatest potential for adverse benthic invertebrate community effects are from arsenic (7) and mercury (20).

- **AE 7.** *Could direct contact with COPECs in sediment in each subdrainage area affect the survival and function of aquatic plant populations*?

- Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to aquatic plants in the NDA and SDA subdrainage areas are as follows:

    - ✓ In the NDA, adverse effects to aquatic plants are possible in each of the five subdrainage areas (i.e., Duck Pond, Eastern and Western Tributaries, Northeast Ponds, and Unnamed Ponds).

    - ✓ In the SDA, adverse effects to aquatic plants are possible in eight subdrainage areas (i.e., Central Drainage Basin, Maintenance - Dynamite Areas – East and West, Maintenance – NG Area, Miscellaneous Offsite Streams – Lower and Upper, and TNT-PETN-NG Ditches); and unlikely in the Development Area Stream.

- This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk and considering ESBs for aquatic plants are based on toxicity to terrestrial plants.

    - This conclusion is supported by the following MEs:

        - ✓ HQs resulting from a comparison of NDA subdrainage area sediment COPEC concentrations to ESBs protective of terrestrial plants are greater than 1 for 7 COPECs; HQs ranged from 2 to 6, with the greatest potential for adverse effects from silver.

        - ✓ HQs resulting from a comparison of SDA subdrainage area sediment COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for 18 COPECs; HQs range from 2 to an HQ_{max} of 46,429, with the greatest potential for adverse effects from pyrene.

- **AE 8**. *Could direct contact with COPECs in surface water in each subdrainage area affect the survival and reproduction of fish and aquatic invertebrate populations?*

    - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis in the NDA Subdrainage Areas indicate that adverse effects to fish populations by exposure to COPECs are possible but unlikely in Duck Pond, Eastern Tributary, Northeast Ponds, and Unnamed Ponds; and likely in Western Tributary.

    - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis in the SDA subdrainage areas indicate that adverse effects to fish populations by exposure to COPECs are unlikely in eight subdrainage areas (i.e., Central Drainage Basin, Development Area Stream, Maintenance Dynamite Areas – East and

West, Maintenance – NG Area, Miscellaneous Offsite Streams – Lower and Upper, and TNT-PETN-NG Ditches).

- This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

- This conclusion is supported by the following measurement endpoint:

  - ✓ HQs resulting from a comparison of NDA Subdrainage Area surface water COPEC concentrations (dissolved phase) to ESBs protective of fish populations are as follows:

    - In Duck Pond, Eastern Tributary, Northeast Pond, and Unnamed Ponds, COPEC HQs were less than 1.

    - In Western Tributary, COPEC HQs were less than 1, with the exception of copper (3), lead (2), and zinc (2).

  - ✓ HQs resulting from a comparison of SDA Subdrainage Area surface water COPEC concentrations (dissolved phase) to ESBs protective of fish populations were less than or equal to 1 for all COPECs in all SDA Subdrainage Areas.

- **AE 9.** *Could food-web transfer of COPECs in sediment in each subdrainage area adversely affect reproductive success or survival of herbivorous avian and mammal populations?*

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to herbivorous avian and mammal populations by exposure to COPECs are unlikely in NDA subdrainage areas, and possible in SDA subdrainage areas.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following MEs:

    - ✓ NDA subdrainage area HQ_{NOAELs} for mallard duck, an herbivorous bird, are less than 1.

    - ✓ NDA subdrainage area HQ_{NOAELs} for muskrat, an herbivorous mammal, are less than 1.

    - ✓ SDA subdrainage area HQ_{NOAELs} for mallard duck, an herbivorous bird, are less than 1.

- ✓ SDA subdrainage area HQ_{NOAELs} for muskrat, an herbivorous mammal, are less than 1, with the exception of:

  - Pyrene in six subdrainage areas (range; HQ_{NOAEL}: 4 – 8). Of these subdrainage areas, pyrene HQ_{LOAEL} is greater than 1 in one subdrainage area (Central Drainage Basin; HQ_{LOAEL} = 2).

  - Fluoranthene in four subdrainage areas (range; HQ_{NOAEL}: 4 – 9). Of these subdrainage areas, fluoranthene HQ_{LOAEL} is greater than 1 in one subdrainage area (Central Drainage Basin; HQ_{LOAEL} = 2).

- **AE 10.** *Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?*

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to insectivorous avian and mammal populations by exposure to COPECs are possible in NDA subdrainage areas and unlikely in SDA subdrainage areas.

  – This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  – This conclusion is supported by the following MEs:

    - ✓ NDA HQ_{NOAELs} for tree swallow, an insectivorous bird, are less than 1.

    - ✓ NDA subdrainage area HQ_{NOAELs} for little brown bat, an insectivorous mammal, are less than or equal to 1, with the exception of:

      - lead in one subdrainage area (Eastern Tributary; HQ_{NOAEL} = 5). In this subdrainage area, lead HQ_{LOAEL} is greater than 1 (HQ_{LOAEL} = 3).

      - copper in one subdrainage area (Eastern Tributary; HQ_{NOAEL} = 3). In this subdrainage area, copper HQ_{LOAEL} is greater than 1 (HQ_{LOAEL} = 2).

      - arsenic in one subdrainage area (Unnamed Ponds; HQ_{NOAEL} = 2). In this subdrainage area, arsenic HQ_{LOAEL} is less than or equal to 1.

    - ✓ SDA subdrainage area HQ_{NOAELs} for tree swallow, an insectivorous bird, are less than 1.

    - ✓ SDA subdrainage area HQ_{NOAELs} for little brown bat, an insectivorous mammal, are less than or equal to 1.

- **AE 11.** *Could food-chain transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammal populations?*

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to:

    ✓ Piscivorous avian populations by exposure to COPECs in NDA subdrainage areas are unlikely.

    ✓ Piscivorous mammal populations by exposure to COPECs in NDA subdrainage areas are possible but unlikely.

    ✓ Piscivorous avian populations by exposure to COPECs in SDA subdrainage areas are possible but unlikely.

    ✓ Piscivorous mammal populations by exposure to COPECs in SDA subdrainage areas are possible.

  – This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  – This conclusion is supported by the following MEs:

    ✓ NDA subdrainage area HQ_{NOAELs} for great blue heron, a piscivorous bird, are less than or equal to 1.

    ✓ SDA subdrainage area HQ_{NOAELs} for great blue heron, a piscivorous bird, are less than or equal to 1.

    ✓ NDA subdrainage area HQ_{NOAELs} for mink, a piscivorous mammal, are less than or equal to 1.

    ✓ SDA subdrainage area HQ_{NOAELs} for mink, a piscivorous mammal, are less than or equal to 1, with the exception of:

      ○ Lead in seven subdrainage areas (HQ_{NOAEL}: 2). In these subdrainage areas, lead HQ_{LOAELs} are less than or equal to 1.

      ○ Fluoranthene in one subdrainage area (Central Drainage Basin; HQ_{NOAEL} = 6). In this subdrainage area, fluoranthene HQ_{LOAEL} is less than or equal to 1.

      ○ Pyrene in one subdrainage area (Central Drainage Basin; HQ_{NOAEL} = 4). In this subdrainage area, pyrene HQ_{LOAEL} is less than or equal to 1.

9.2 Recommendations

Section 1.2 outlined the approach to this ERA that focused: A) risk characterization in areas where risk was uncertain, and B) on the identification and assessment of localized areas driving potential risk. These actions segregated the Facility into the following areas:

1. Areas within the Remedial Area not designated as APRAs (the focus of this document)
2. Areas of Presumed Remedial Action
3. Areas Beyond the Remedial Area Boundary

Hercules' site closure strategy relied on through the completion of the SI and RI maintained a similar focus – sitewide characterization to identify areas that pose the greatest potential risk to human health and environment, followed by pre-remedial design work to refine the areal extents and inform remedy selection and design. Hercules acknowledges that closure of the Facility through CSRR requires addressing compliance across each of the three areas noted above.

Recommendations for ecological risk-related activities in each of these areas are presented in the following subsections. Recommendations maintain a focus on the assessment of specific areas (and COPECs) driving risk, with the objectives of supporting a weight-of-evidence approach to refining risk estimates and arriving at a scientifically-based risk management decision regarding the need for and scope of ecologically-based remedial actions.

9.2.1 Areas within the Remedial Area not designated as APRAs

Based on the conclusions presented in Section 9.1, additional ERA activities are recommended in both terrestrial and aquatic exposure areas. Specific risk conclusions and the associated proposed next steps are outlined below.

9.2.1.1 Terrestrial Exposure Area

Recommended action items and next steps in terrestrial exposure areas include:

1. **Spatial analysis of soil COPEC concentrations in terrestrial habitats:** To refine potential risk estimates to upper-trophic-level terrestrial receptors whose smaller home range sizes may lead to spatial exposure variability in the Facility-wide terrestrial exposure area (i.e., short-tailed shrew and northern bobwhite), spatial analysis of soil COPEC concentrations in terrestrial habitat patches and literature-derived population density is recommended. The framework of this approach was initiated in this ERA for northern bobwhite (as detailed in Section 5.1.1.1.2). **Figures 5-2** and **5-4** are a visual representation of anticipated future desktop activities, where Thiessen polygons were calculated for soil data within northern bobwhite habitat, datasets within each home range buffer will be evaluated for ecological risk. This analysis represents the initial step toward spatial analysis of soil COPEC concentrations and an evaluation of COPEC concentrations in home range-specific buffers for upper-trophic-level receptors and prey items.

2. **Invertebrate and plant community field evaluations in localized areas:** To further refine existing conclusions for terrestrial invertebrate and plant communities, a desktop evaluation is recommended to: 1) identify habitat types in which soil COPECs disproportionately influence potential ecological risk to terrestrial plant communities, and in which terrestrial plant community surveys may be warranted, and 2) identify AoEs for four COPECs (i.e., copper, manganese, vanadium, and zinc) driving potential risk to soil invertebrates in the Facility-wide terrestrial exposure area and develop a field program to provide additional LOEs specific to these COPECs and receptors (e.g., bioavailability and toxicity). The spatial analysis (Item 1) will assist in this evaluation.

3. **Invertebrate prey tissue collection and analyses:** To further refine existing conclusions for upper-trophic-level terrestrial insectivores (i.e., American robin and short-tailed shrew), invertebrate tissue collection and analyses are recommended to provide site-specific prey tissue concentrations in terrestrial insectivore food web models (i.e., American robin and short-tailed shrew). Collection locations will be biased across the range of COPEC concentrations and informed via the results of spatial analysis recommended in Item 1.

No further evaluation is warranted for carnivorous bird and mammal receptors in the terrestrial exposure area.

9.2.1.2 Aquatic Exposure Areas

Recommended action items and next steps in aquatic exposure areas include:

7. **Aquatic plant refined risk characterization and growth inhibition bioassays:** To further refine existing conclusions for aquatic plant communities, a stepwise evaluation is recommended to further refine aquatic plant risk characterization in various subdrainage areas. The stepwise evaluation would include a desktop evaluation of ESBs incorporating literature-derived NOEC concentrations, followed by growth inhibition bioassays of field-collected porewater in subdrainage areas where potential risk to aquatic plants remains uncertain following abovementioned desktop refinement.

8. **Sediment porewater COPEC speciation, bioavailability, and toxicity evaluations:** To further refine existing conclusions for benthic invertebrate communities, porewater sample collection is recommended to assess COPEC form, bioavailability and toxicity. Initial efforts will focus on evaluating speciation of arsenic and silver and partitioning of COPECs from sediment to porewater. If necessary, toxicity testing of field-collected porewater would be used as an additional LOE regarding potential benthic invertebrate risk from three sediment COPECs (i.e., arsenic, mercury, and silver).

9. **Desktop evaluation and aquatic invertebrate and fish habitat evaluation:** For dissolved copper, a desktop evaluation incorporating USEPA's (2007) Copper Biotic Ligand Model and site-specific water quality parameters is recommended to refine potential risk estimates to fish and aquatic invertebrates. Variations in hydrology in the Western Tributary subdrainage area throughout the seasons may preclude the ability of the habitat to sustain fish populations. To this end, a hydrology study is recommended to better align receptors with available habitat. The hydrology study could include time-series

surface water sampling for total and dissolved lead and zinc to refine risk estimates for water-column invertebrates.

10. **Probabilistic risk evaluation, aquatic plant surveys, and tissue collection:** To further refine existing conclusions for herbivorous mammals in aquatic exposure areas (i.e., muskrat), aquatic vegetation surveys are recommended to delineate foraging habitat in SDA subdrainage areas. Literature-derived population density and spatial distributions of edible biomass and sediment COPEC concentrations will be incorporated in spatial analysis to evaluate probabilistic risk distributions. In subdrainage areas where risk remains uncertain following probabilistic analysis, aquatic plant tissue collection and analyses may be necessary to refine the muskrat food web model.

11. **Probabilistic risk evaluation and fish tissue collection:** For piscivorous mammals in aquatic exposure areas (i.e. mink), spatial analysis of sediment COPEC concentrations in aquatic habitat patches and literature-derived population density is recommended to evaluate probabilistic risk distributions. In subdrainage areas where risk remains uncertain following probabilistic analysis, fish tissue collection and analyses are recommended to further refine the mink food web model.

12. **Aerial invertebrate tissue collection and analyses:** For insectivorous mammals in aquatic exposure areas (i.e., little brown bat), additional aerial insect tissue collection and analyses for three COPECs (i.e., arsenic, copper, and lead) are recommended to refine insectivorous food web models for certain subdrainage areas.

9.2.2 Areas of Presumed Remedial Action

As presented in **Attachment 2**, Hercules continues to advance pre-design, design, permitting, and implementation activities in APRAs identified through the RI/ERA process. Remedy selection, extents, and remediation goals will incorporate both human health and ecological endpoints and remain protective of human health and the environment. Remedial action work plans for specific APRAs will be submitted to NJDEP via e-portal, consistent with the approach taken for the TNT and PCB remedies to date.

9.2.3 Areas Beyond the Remedial Area Boundary

Additional data collection is ongoing in the Areas Beyond the Remedial Area Boundary exposure area, with a sampling event scheduled for Fall 2025. Following receipt of sampling results, the ERA of this area will be updated as follows: A), COPEC screen using the updated dataset, B) evaluating discontinuous areas as individual exposure areas (e.g., uplands along Rt 46, western ridgeline, eastern ridgeline, northern undeveloped area), C) assessing dataset composition (e.g., outliers) for each exposure area, and D) providing recommendations on an area-by-area basis to address potential ecological risks (e.g., HQ>1), if identified.

References

Adams, W., R. Blust, U. Borgmann, K. Brix, D. DeForest, A. Green, J. McGeer, J. Meyer, P. Paquin, P. Rainbow, and C. Wood. 2010. Utility of tissue residues for predicting effects of metals on aquatic organisms. Integr Environ Assess Manage. 7(1)75-98.

Ankley, G.T, D.M. DiToro, D.J. Hansen, and W.J. Berry. 1996. Technical Basis and Proposal for Deriving Sediment Quality Criteria for Metals. Environ. Toxicol. Chem. 15:2056-2066.

Anthony, E.L.P., and T.H. Kunz. 1977. Feeding Strategies of the Little Brown Bat, *Myotis lucifugus,* in southern New Hampshire. Ecology, 58:775-786.

Army Institute of Public Health [AIPH]. 2015. Wildlife Toxicity Assessments for Chemicals of Military Concern. Eds: Williams., M.A., Reddy, G., Quinn, M.J. and M.S. Johnson. Elsevier Science. ISBN-13: 9780128004807. 722 pp.

ATSDR. 1995. Toxicological Profile for Polycyclic Aromatic Hydrocarbons (PAHs). Agency for Toxic Substances and Disease Registry, Atlanta, GA.

ATSDR. 2003. Toxicological Profile for Selenium. Agency for Toxic Substances and Disease Registry, Atlanta, GA.

ATSDR. 2005. Toxicological Profile for Zinc. U.S. Public Health Service. Agency for Toxic Substances and Disease Registry, Atlanta, GA. August.

ATSDR. 2007. Toxicological Profile for Arsenic. U.S. Public Health Service. Agency for Toxic Substances and Disease Registry, Atlanta, GA. August.

ATSDR. 2024. Toxicological Profile for Copper. U.S. Public Health Service. Agency for Toxic Substances and Disease Registry, Atlanta, GA. October.

Azar, A., H.J. Trochimowicz, M.E. Maxfield. 1973. Review of lead studies in animals carried out at Haskell Laboratory – Two year feeding study and response to hemorrhage study. Environmental health aspects of lead: Proceedings of an international symposium pp 199-210.

Battelle and Exponent. 2000. Guide for Incorporating Bioavailability Adjustments into Human Health and Ecological Risk Assessments at U.S. Navy and Marine Corps Facilities. Prepared for Naval Facilities Engineering Service Center, Port Hueneme, CA and Engineering Field Activity West (NAVFAC) San Bruno, CA. Prepared by Battelle, Columbus, OH; and Exponent, Bellevue, WA. June.

Bayley 1910. Iron Mines and Mining in New Jersey. Part VII of the Final Report Series of the State Geologist. Geological Survey of New Jersey.

Beal, F. E. L. 1918. Food habits of the swallows, a family of valuable native birds. U.S. Dept. Agric. Bull. 619.

Bechtel-Jacobs. 1998. Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants. Bechtel Jacobs Company LLC, Oak Ridge, TN. BJC/OR-133.

Beyer, W.N., E.E. Connor, and S. Gerould. 1994. Estimates of soil ingestion by wildlife. Journal of Wildlife Management. Vol 58.

Beyer W.N., Franson, J.C., French, J.B., May T., Rattner B.A., Shearn-Bochsler, V.I., Warner, S.E., Weber, J.S., and D.E. Mosby. 2013, Toxic exposure of songbirds to lead in the Southeast Missouri Lead Mining District, Archives of Environmental Contamination and Toxicology 10.1007/s00244-013-9923-3.

Brannon 1987. Fixation, transformation, and mobilization of arsenic in sediments. Environmental Science & Technology. May 1987.

Camardese, M.B., D.J. Hoffman, L.J. LeCaptain, G.W. Pendleton. 1990. Effects of arsenate on growth and physiology in mallard ducklings. Environmental Toxicology and Chemistry 9(6):785-795. June.

CH2M HILL. 2005. Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates. Technical Memorandum. Prepared by Mark S. Johnson, USACHPPM. Prepared for Allen Tsao and Brad Sample (CH2M HILL). 27 June.

Culp, S. J., Gaylor, D. W., Sheldon, W. G., Goldstein, L. S., and Beland, F. A. 1998. A comparison of the tumors induced by coal tar and benzo(a)pyrene in a 2-year bioassay. Carcinogenesis. 19(1): 117-124.

Dhawan, R., D.B. Dusenbery, and P.L. Williams. 1999. Comparison of Lethality, Reproduction, and Behavior as Toxicological Endpoints in the Nematode Caenorhabditis elegans; J. Toxicol. Environ. Health Part A 58(7): 451-462.

Conder J.M., Fuchsman, P., Grover, M., Magar, V., and Henning, M. 2015. Critical Review of Mercury Sediment Quality Values for the Protection of Benthic Invertebrates. Environmental Toxicology and Chemistry, Vol. 34, No. 1, pp. 6–21, 2015.

Culp, S.J., D.W. Gaylor, W.G. Sheldon, L.S. Goldstein, F.A. Beland. 1998. A Comparison of the tumors induced by coal tar and benzo[a]pyrene in a 2-year bioassay. Carcinogenesis 19(1):117-124.

Davis, W.H. and H.B. Hitchcock. Biology and Migration of the Bat, *Myotis lucifugus*, in New England. Journal of Mammalogy 46(2): 296-313. May.

Dhawan et al. 1999. Comparison of Lethality, Reproduction, and Behavior as Toxicological Endpoints in the Nematode *Caenorhabditis elegans.*

DiToro, D.M., J.D. Mahony, D.J. Hansen, K.J. Scott, M.B. Hicks, S.M. Mayr, and M.S. Redmond. 1990. Toxicity of Cadmium in Sediments: The Role of Acid Volatile Sulfide; Environ. Toxicol. Chem. 9:1487-1502.

Di Toro, D.M., C.S. Zarba, D.J. Hansen, W.J. Berry, and J.C. Swartz. 1991. Technical basis for establishing sediment quality criteria for non-ionic organic chemicals using equilibrium partitioning. Env. Sci. Technol. 37:735-741.

Doughten et al. 2015. Trace elements in coal ash: U.S. Geological Survey Fact Sheet 2015–3037

DTSC. 2002. HERD Ecological Risk Assessment (ERA) Note 5. November.

Edens, F.W., E. Benton, S.J. Bursian, G.W. Morgan. 1976. Effects of dietary lead on reproductive performance in Japanese quail, *Coturnix coturnix japonica.* Toxicol. Appl. Pharmacol. 38:307-314.

Efroymson, R.A., M.E. Will, and G.W. Suter II. 1997a. Toxicological Benchmarks for Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Processes: 1997 Revision. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory, TN. ES/ER/TM-126/R2. November.

Efroymson, R.A., M.E. Will, G.W. Suter II, and A.C. Wooten. 1997b. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants. 1997 Revision. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory, TN. ES/ER/TM-126/R2. November.

Eisler, R. 1986. Polychlorinated biphenyl hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.7). 72 pp.

Eisler, R. 1987a. Polycyclic aromatic hydrocarbon hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.11).

Eisler, R. 1987b. Mercury hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.10).

Eisler, R. 1988a. Arsenic hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.12).

Eisler, R. 1988b. Lead hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.14).

Eisler, R. 1993. Zinc hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 10.

Eisler, R. 1997. Copper hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Geological Survey. Biological Resources Division, Biological Science Report. USGS/BRD/BSR—1997-0002 98 pp.

FICWD 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. Federal Interagency Committee for Wetland Delineation, United States.

Hansen, J.A., D. Audet, B.L. Spears, K.A. Healy, R.E. Brazzle, D.J. Hoffman, A. Dailey, and W.N. Beyer. 2011. Lead Exposure and Poisoning of Songbirds Using the Coeur d'Alene River Basin, Idaho, USA. Integrated Environmental Assessment and Management 7(4):587-595.

Hercules. 2007. Remedial Investigation Report – Volumes A through E. Prepared for Hercules Incorporated. December 2006 through May 2007.

Hercules. 2009. Additional Groundwater Remedial Investigation Sampling Report. Prepared for Hercules Incorporated. June 2009.

Hercules, Inc. 2016a. Phase II Remedial Investigation Report – Volumes A through E. Kenvil Works Facility. May.

Hercules, Inc. 2016b. Ecological Risk Assessment Work Plan (ERAWP). Kenvil Works Facility. April.

Hercules 2019. Wetland Arsenic Evaluation Technical Memorandum (DRAFT). Dated March 7, 2019.

ICMM. 2007. MERAG: Metals Environmental Risk Assessment Guidance.

ITRC. 2011. Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites. CS-1. Washington, D.C.: Interstate Technology & Regulatory Council, Contaminated Sediments Team. www.itrcweb.org.

ITRC. 2016. Geospatial Analysis for Optimization at Environmental Sites. Washington, D.C.: Interstate Technology & Regulatory Council. www.itrcweb.org.

Karlin, E.F. 1989. New Jersey's Rare and Endangered Plants and Animals. Institute for Environmental Studies, Ramapo College. Mahwah, NJ.

Kaufman, C.A., J.R. Bennett, I. Koch, and K.J. Reimer. 2007. Lead bioaccessibility in food web intermediates and the influence on ecological risk characterization. *Environ. Sci. Technol.* 41: 5902-5907.

KJ. 2020a. NJDEP ERA Technical Consultation Summary Memo. Kenvil Works Facility. Prepared on behalf of Hercules, Inc. April.

KJ. 2020b. TNT Project Area Soil Remedial Action Work Plan. Kenvil Works Facility. Prepared on behalf of Hercules, Inc. August.

Lotufo, G.R., and J.W. Fleeger. 1996. Toxicity of Sediment-Associated Pyrene and Phenanthrene to Limnodrilus hoffmeisteri (Oligochaeta: Tubificidae), Environ. Toxicol. Chem.15: 1508-1516.

Ludwig J. and Reynolds J. 1988. Statistical Ecology: A Primer on Methods and Computing. John Wiley & Sons, Inc. ISBN 0-471-83235-9.

Martin, A.C., H.S. Zim, A.L. Nelson. 1951. American Wildlife and Plants: A Guide to Wildlife Food Habits. McGraw-Hill, New York, NY.

Maser Consulting P.A. 2017. Phase 1 Bog Turtle Habitat Assessment. Kenvil Works Facility. March.

Mattice, J.S., S.C. Tsai, M.B. Burch, and J.J. Beauchamp. 1981. Toxicity of Trihalomethanes to Common Carp Embryos; Trans. Am. Fish. Soc.110(2): 261-269

Meador, J.P., J.E. Stein, W.L. Reichert, and U. Varanasi. 1995. Bioaccumulation of polycyclic aromatic hydrocarbons by marine organisms. Reviews of Environmental Contamination and Toxicology 143:79-165.

Meyer, J.S., S.J. Clearwater, T.A. Doser, M.J. Rogaczewski, and J.A. Hansen. 2007. Effects of Water Chemistry on the Bioavailability and Toxicity of Waterborne Cadmium, Copper, Nickel, Lead, and Zinc to Freshwater Organisms. SETAC Press, Pensacola, Florida.

Murata, Y., Denda, A., Maruyama, H., Nakae, D., Tsutsumi, M., Tsujiuchi, M., and Konishi, Y. 1997. Chronic toxicity and carcinogenicity studies of 2-methylnaphthalene in b6c3f1 mice. Fundam.Appl.Toxicol. 36(1): 90-93.

MWH. 2004a. Site Investigation Report – Soil. Kenvil Works Facility. Prepared on behalf of Hercules, Inc. Kenvil Works Facility. May.

MWH. 2004b. Site Investigation Report – Sediment/Surface Water. Prepared on behalf of Hercules, Inc. Kenvil Works Facility. November.

MWH. 2005a. Site Investigation Report – Groundwater. Prepared on behalf of Hercules, Inc. Kenvil Works Facility. Kenvil Works Facility. July.

MWH. 2005b. Area I Remedial Investigation Work Plan. Prepared on behalf of Hercules, Inc. Kenvil Works Facility. May.

MWH. 2006. Revised Site-Wide Remedial Investigation Work Plan. Prepared on behalf of Hercules, Inc. Kenvil Works Facility. December.

MWH. 2007. Phase II Remedial Investigation Report – Volumes A through E. Prepared on behalf of Hercules, Inc. Kenvil Works Facility. May.

Nagy, K.A. 2001. Food requirements of wild animals: predictive equations for free-living mammals, reptiles, and birds. Nutrition Abstracts and Reviews, Series B 71, 21R-31R.

Natural Resources Conservation Service. 1976. Soil Survey of Morris County.

NJDEP. 2003. Ambient Levels of Metals in New Jersey Soils. NJDEP – Environmental Assessment and Risk Analysis Element – Research Project Summary. May 2003.

NJDEP. 2007. NJDEP's Standard Operating Procedures Ambient Biological Monitoring Using Benthic Macroinvertebrates. Document No. BMNJ2. Revised December 2007.

NJDEP. 2009. Ecological Screening Criteria Table. NJDEP – Site Remediation Program – Environmental Toxicology and Risk Assessment Unit. Last Updated March 10, 2009.

NJDEP. 2013. Historic Fill Material Technical Guidance. Site Remediation Program. Version 2.0, April 29. 2013.

NJDEP. 2014. Application for Certification of Environmental Measurements, Part III – Analytical Testing Parameters. Office of Quality Assurance. July 23.

NJDEP. 2015. Ecological Evaluation Technical Guidance. Site Remediation Program. Version 1.3. February.

NJDEP. 2018. Discharges of Petroleum and Other Hazardous Substances Rules. N.J.A.C. 7:1E, Amended January 16, 2018.

NJDEP. 2023. Ecological Evaluation Technical Guidance. Version 2.1. May.

NJDEP. 2024. HUC14 Subwatershed Mapping GIS Dataset. Available for download here: https://highlands-data-njhighlands.opendata.arcgis.com/datasets/.

NJDEP. 2025. Technical Requirements for Site Remediation. N.J.A.C. 7:26E, Amended April 7, 2025.

Nriagu J.O. 1994. Arsenic in the Environment, Part I: Cycling and characterization, and Part II: Human health and ecosystem effects. John Wiley & Sons; New York.

Pascoe, G.A., K. Kroeger, D. Leisle, and R.J. Feldpausch. 2010. Munition constituents: Preliminary sediment screening criteria for the protection of marine benthic invertebrates. Chemosphere. 81: 807-816.

Pastorak, R.A., D.C. Peek, J.R. Sampson, and M.A. Jacobson. 1994. Ecological risk assessment for river sediments contaminated by creosote. Envir. Tox. Chem. 13: 1929-1942.

Patton, J.F., and M.P. Dieter. 1980. Effects of petroleum hydrocarbon on hepatic function in the duck. Comp. Biochem. Physiol. 65C: 33-36.

Persaud, D., R. Jaaguagi, and A. Hayton. 1993. Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario. Ontario Ministry of the Environment. March.

Pucknat, A.W. (ed.). 1981. Health impacts of polynuclear aromatic hydrocarbons. Environmental Health Review No. 5. Noyes Data Corp., Park Ridge, New Jersey. 271 pp.

Rice, S.D. 1973. Toxicity and avoidance tests with Prudhoe Bay oil and pink salmon fry Proceedings, Joint Conference on the Prevention and Control of Oil Spills API 4172 American Petroleum Institute, Washington, DC, pp 667–670.

Robertson, R.J., B.J. Stutchbury, and R.R. Cohen. 1992. Tree Swallow. The Birds of North America, No. 11.

Sample, B.E., and G.W. Suter II. 1994. Estimating Exposure of Terrestrial Wildlife to Contaminants. DRAFT. Prepared by Environmental Sciences Division Oak Ridge National Laboratory Oak Ridge, Tennessee. Prepared for U.S. Department of Energy Office of Environmental Restoration and Waste Management under budget and reporting code EW 20. ES/ER/TM-125.W

Sample, B.E., D.M. Opresko, and G.W. Suter II. 1996. Toxicological Benchmarks for Wildlife: 1996 Revision. Prepared by the Risk Assessment Program Health Sciences Research Division. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-86/R3.W

Sample, B.E., M.S. Aplin, R.A. Efroymson, G.W. Suter, C.J.E. Welsh. 1997. Methods and Tools for Estimation of the Exposure of Terrestrial Wildlife to Contaminants.

Sample, B.E, J.J. Beauchamp, R.A. Efroymson, G.W. Suter II, and T.L. Ashwood. 1998a. Development and Validation of Bioaccumulation Models for Earthworms. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-220.

Sample, B.E., J.J. Beauchamp, R.A. Efroymson, and G.W. Suter II. 1998b. Development and Validation of Bioaccumulation Models for Small Mammals. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-219.

Saunders, M. B. and R.M. R. Barclay. 1992. Ecomorphology of Insectivorous Bats: A Test of Predictions Using Two Morphologically Similar Species. Ecology 73(4):1335-1345. August.

Schafer, E.W., Jr., and W.A. Bowles, Jr. 1985. Acute Oral Toxicity and Repellency of 933 Chemicals to House and Deer Mice; Arch. Environ. Contam. Toxicol. 14(1): 111-129.

Shah et al. 2007. Speciation of Arsenic and Selenium in Coal Combustion Products.

Sunahara, G.I., G. Lotufo, R.G. Kuperman, and J. Hawari. 2009. Ecotoxicology of Explosives. CRC Press. Boca Raton, FL.

Smith, W.P.. 1991. Odocoileus virginianus. In: Mammalian Species. Volume 388 pp. 1-13. The American Society of Mammalogists

Stanley, Jr., T. R., J. W. Spann, G. J. Smith, and R. Rosscoe. 1994. Main and Interactive Effects of Arsenic and Selenium on Mallard Reproduction and Duckling Growth and Survival. Archives of Environmental Contamination and Toxicology. 26: 444-51

Stephan, C.E., Mount, D.I., Hansen, D.J., Gentile, J.H., Chapman, G.A., and W.A. Brungs. 1985. Guidelines for deriving numerical national water quality criteria for the protection of aquatic organisms and their uses. PB85- 227049. National Technical Information Service, Springfield, VA.

Suter II, G.W. 2007. Ecological Risk Assessment. CRC Press. Taylor & Francis Group. Boca Raton, FL.

Sverdrup, L.E., P.H. Krogh, T. Nielsen, C. Kjær, and J. Stenersen. 2003. Toxicity of eight polycyclic aromatic compounds to red clover (Trifolium pratense), ryegrass (Lolium perenne), and mustard (Sinapsis alba). Chemosphere 53:993-1003.

Talmage, S.S., D.M. Opresko, C.J. Maxwell, C.J. Welsh, F.M. Cretella, P.H. Reno, and F.B. Daniel. 1999. Nitroaromatic Munition Compounds: Environmental Effects and Screening Values. Rev Environ Contam Toxicol 161:1-156.

Tessier A., Campbell, P.G., and M. Bisson. 1979. Sequential extraction procedure for the speciation of particulate trace metals. Analytical Chemistry, 51(7) 844-851. https://doi.org/10.1021/ac50043a017

Texas Tech University (Texas Tech). 2002. Wildlife Monitoring at the Anaconda Smelter Site, Deer Lodge County, Montana. Final Report. Presented to: Dr. Bill Olsen, USFWS and Dr. Dale Hoff, USEPQ Region 8. August 16.

Trust, K. A., Fairbrother, A., and Hooper, M. J. 1994. Effects of 7,12-dimethylbenz(a)anthracene on immune function and mixed-function oxygenase activity in the European starling. Environmental Toxicology and Chemistry. 13(5): 821.

USACHPPM. 2001a. Wildlife Toxicity Assessment for 2,4,6-trinitrotoluene (TNT). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2001b. Wildlife Toxicity Assessment for Pentaerythritol Tetranitrate (PETN). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2001c. Wildlife Toxicity Assessment for High Melting Explosive (HMX). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2007. Wildlife Toxicity Assessment for Nitroglycerin (NG). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2012. Wildlife Toxicity Assessment for 2,4 &2,6-Dinitrotoluene. Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. May.

USACE ERDC EL. 2011. BSAF Database. http://el.erdc.usace.army.mil/bsafnew/bsaf.html. Accessed: 2/8/11, Charles H. Lutz, editor. U.S. Army Engineer Research and Development Center.

USACOE. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0). U.S. Army Corps of Engineers. April.

USEPA. 1989. Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part A). Interim Final, EPA/540/1-89/002. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. Available online: http://www.epa.gov/superfund/programs/risk/ragsa/.

USEPA. 1991. Guidance for Data Useability in Risk Assessment (Part A) Final. EPA/540/R-92/003. December. Available online: https://rais.ornl.gov/documents/USERISKA.pdf

USEPA. 1992a. Framework for Ecological Risk Assessment. Risk Assessment Forum, Washington, DC.EPA/630/R-92/001. February 1992.

USEPA. 1992b. A Supplemental Guidance to RAGS: Calculating the Concentration Term. Publication 9285.7-081. Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available online: http://www.deq.state.ms.us/newweb/opchome.nsf/pages/HWDivisionFiles/$file/uclmean.pdf.

USEPA. 1993a. Memorandum from Martha G. Prothro, Acting Assistant Administrator for Water, to Water Management Division Directors RE Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria. October 1.

USEPA. 1993b. Wildlife Exposure Factors Handbook. Volumes I and II. United States Environmental Protection Agency, Washington, D.C. EPA/600/R-93/187a&b.

USEPA. 1994. Great Lakes Water Quality Initiative Technical Support Document for the Procedure to Determine Bioaccumulation Factors. EPA-822-R-94-002.

USEPA. 1997. Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments. EPA 540-R-97-006. Office of Solid Waste and Emergency Response. June.

USEPA. 1998a. Guidelines for Ecological Risk Assessment. Risk Assessment Forum. EPA/630/R-95/002F. April.

USEPA 1998b. Locating and Estimating Air Emissions from Sources of Arsenic and Arsenic Compounds. Office of Air Quality. EPA-454/R-98-013. June 1998.

USEPA. 1999. Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Appendices C through E.

USEPA. 2000. Bioaccumulation Testing and Interpretation for The Purpose of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

USEPA. 2002. Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10. December.

USEPA. 2003a. Ecological Screening Levels. Region 5, Resource Conservation and Recovery Act.

USEPA. 2003b. Ecological Soil Screening Level for Aluminum. OSWER Directive 9285.7-60

USEPA. 2003c. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC. EPA/600/R-02/013. Available at: http://www.epa.gov/nheerl/publications/files/PAHESB.pdf

USEPA. 2005. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Metal Mixtures (Cadmium, Copper, Lead, Nickel, Silver, and Zinc). EPA/600/R-02/011. Washington, D.C.: Office of Research and Development.

USEPA. 2006. Mid-Atlantic Freshwater and Freshwater Sediment Screening Benchmarks. Available at: http://www.epa.gov/reg3hwmd/risk/eco/btag/sbv/fwsed/screenbench.htm

USEPA. 2007a. Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs). Including Attachment 4-1. Exposure Factors and Bioaccumulation Models for Derivation of Wildlife Eco-SSLs. Office of Solid Waste and Emergency Response. http://www.epa.gov/ecotox/ecossl/.

USEPA. 2007b.Ecological Soil Screening Level for Polycyclic Aromatic Hydrocarbons (PAHs). OSWER Directive 9285.7-78.

USEPA. 2009. National Recommended Water Quality Criteria. Office of Water. Office of Science and Technology. Online at _http://www.epa.gov/ost/criteria/wqctable/.

USEPA. 2019. Contaminated Sediments Virtual Workshop Session 4 – Long-term Monitoring. USEPA Office of Research and Development (ORD)'s Office of Science Policy.

USEPA. 2022a. ProUCL Version 5.2.00. Technical Guide (Draft) May. EPA/600/R-07/041.

USEPA. 2022b. Region 2 Data Validation Standard Operating Procedures (SOPs). Available at: https://www.epa.gov/quality/region-2-quality-assurance-guidance-and-standard-operating-procedures

USGS. 2006. Arsenic in Coal – Fact Sheet 2005-3152

Van den Berg, M., Birnbaum, L., Bosveld, ATC., 1998. Toxic equivalency factors (TEFs) for PCBs, PCDDs, and PCDFs for humans and wildlife. Environ. Health Perspect. 106, 775–792.

Van den Berg, M., Birnbaum, L., Denison, M., et al., 2006. The 2006 World Health Organization re-evaluation of human and mammalian toxic equivalency factors for dioxin and dioxin-like compounds. Toxicol. Sci. 93, 223–241.

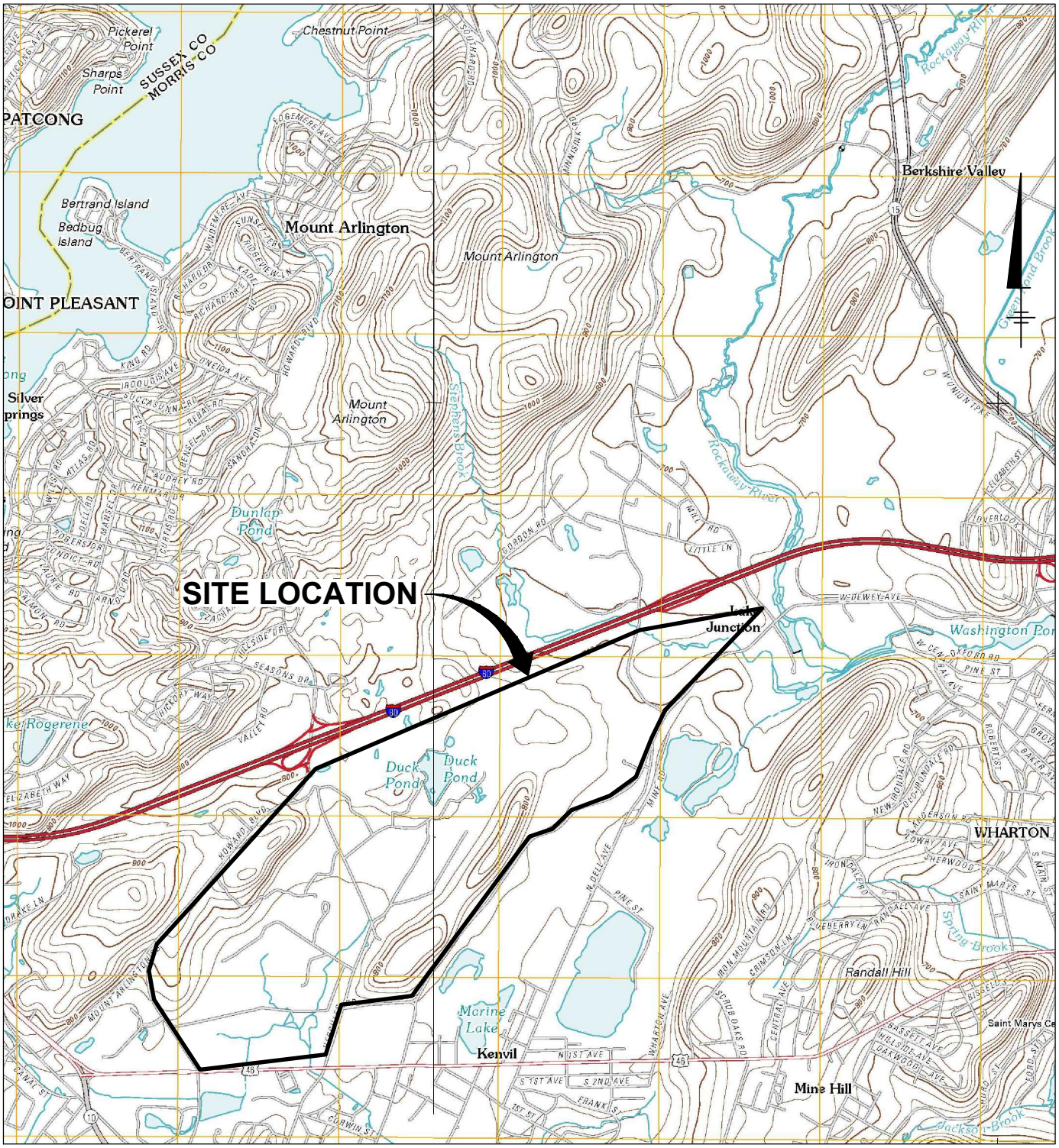
Varanasi U, Reichert WL, Stein JE, et al. 1985. Bioavailability and biotransformation of aromatic hydrocarbons in benthic organisms exposed to sediment from an urban estuary. Environ Sci Technol 19:836-841.

Verbruggen, E.M.J., R. Posthumus, and A.P. van Wezel. 2001. Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water: updated proposals for first series of compounds. RIVM report 711701 020. April.

Whitworth, M. R., G.W. Pendleton, D. J. Hoffman, and M. B. Camardese. 1991. Effects of dietary boron and arsenic on the behavior of mallard ducks. Environmental Toxicology and Chemistry. 10: 911-16

Wittig, R., H.J. Ballach, and A. Kuhn. 2003. Exposure of the Roots of Populus nigra L. cv. Loenen to PAHs and Its Effect on Growth and Water Balance. Environ. Sci. Pollut. Res. Int.10(4): 235-244.

Figures



SOURCES:

USGS QUADRANGLE MAPS
DOVER, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

STANHOPE, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

0 3000' 6000'

GRAPHIC SCALE

NEW JERSEY

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

SITE LOCATION

HERCULES

FIGURE
1-1

CITY: CRANBURY-NJ DIV/GROUP: ENVCAD DB: T.FATTO/JMEYER/TFATTO LD: TFATTO PIC: PM: B.PIERCE TM: S.LAREW LYR: ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY\ACTIVE\NJ007000\NJ77\00003\NJ007000N01.dwg LAYOUT: 1-1 SAVED: 3/30/2015 1:23 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/7/2015 10:15 AM BY: MEYER, JULIE
XREFS: IMAGES: PROJECTNAME: ---
hercules logo.png
NJ003000X01.jpg
NJ003000X02.jpg

CITY:CRANBURY-NJ DIV/GROUP: ENVCAD DB: T.FATTO/JMEYER LD: T.FATTO PIC: PM: B.PIERCE TM: S.LAREW LYR: ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY\ACTIVE\NJ007000\NJ7700003\NJ007000B01.dwg LAYOUT: 2-1 SAVED: 3/31/2015 2:23 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/7/2015 10:17 AM BY: MEYER, JULIE
XREFS: IMAGES: PROJECTNAME: ----
NJ003000X01hercules logo.png
NJ003000X02

LEGEND:

- PROPERTY BOUNDARY
- STREAM/WATER FEATURE
- TOPOGRAPHIC CONTOURS
- DIRT ROAD/TRAIL
- TREELINE
- RAILROAD
- FENCE

0 500' 1000'
GRAPHIC SCALE

SOURCE:
BASEMAP INFORMATION FROM ELECTRONIC FILES PROVIDED BY ASHLAND, INC.
TITLED: SITE PLAN.DWG AND TOPO.DWG

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

SITE PLAN

HERCULES

FIGURE
2-1

Remedial Area Boundary
Site Boundary
Miscellaneous Offsite Areas
Former Operational Area Boundary

N

500 250 0 500
Feet

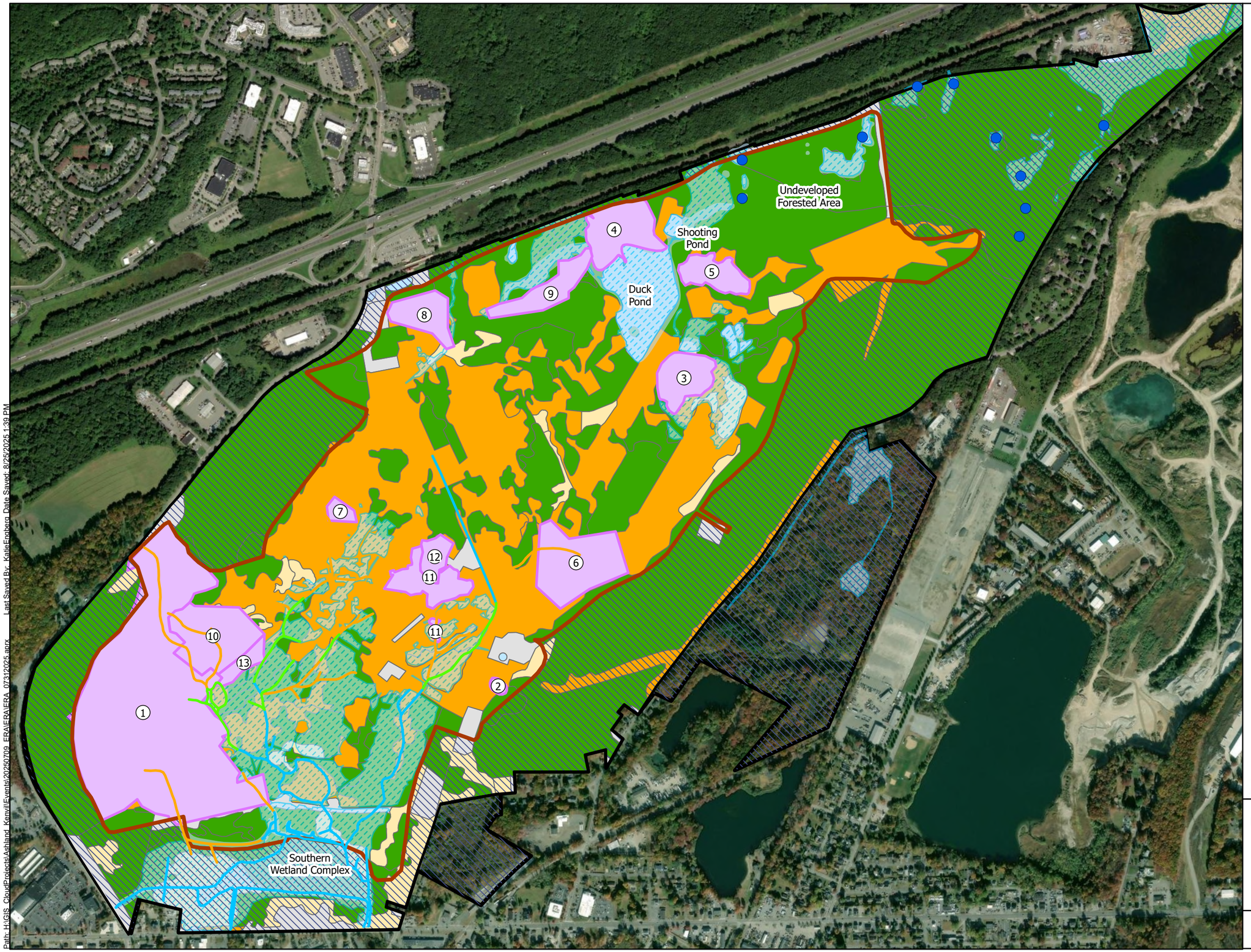
HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Former Operational Areas

Figure
2-2

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07412025.mxx Last Saved By: KatieFinchero Date Saved: 8/11/2025 11:00 AM



Remedial Area Boundary
Pond/Water Feature
Site Boundary
Miscellaneous Offsite Areas
Areas of Presumed Remedial Action

Habitat Types - 2020 Land Use Cover
- Terrestrial Miscellaneous (Buildings/Roads)
- Terrestrial Scrub/Shrub
- Terrestrial Wooded
- Terrestrial Open Field
- Aquatic Non-Flowing
- Potential Vernal Pool Habitat
- Wetlands (2021 LOI)

Stream Categories
- Dry
- Aquatic Flowing
- Aquatic Flowing - Intermittent

Areas of Presumed Remedial Action:
1. TNT Area – TNT Soil Bioremediation Project Area
2. Ammonium Nitrate Area – Former Burning Ground
3. B-Line Area – WWII Disposal Area (M8-1)
4. Development Area – Old Burning Ground (M5-3 and AOCs to the SW)
5. Storage Area – WWI Disposal Area (N6-1)
6. B-Line Area – South (conglomerate of AOCs)
7. A-Line Area – Northwest (conglomerate of AOCs)
8. Development Area – Ballistics Range
9. Development Area - Experimental Dynamite Production Area
10. PETN/NG Area – Acid Recovery
11. Maintenance Area – PCBs
12. Maintenance Area – Acid Production Plant
13. NG Area – Former Ponds

N

500 250 0 500
Feet

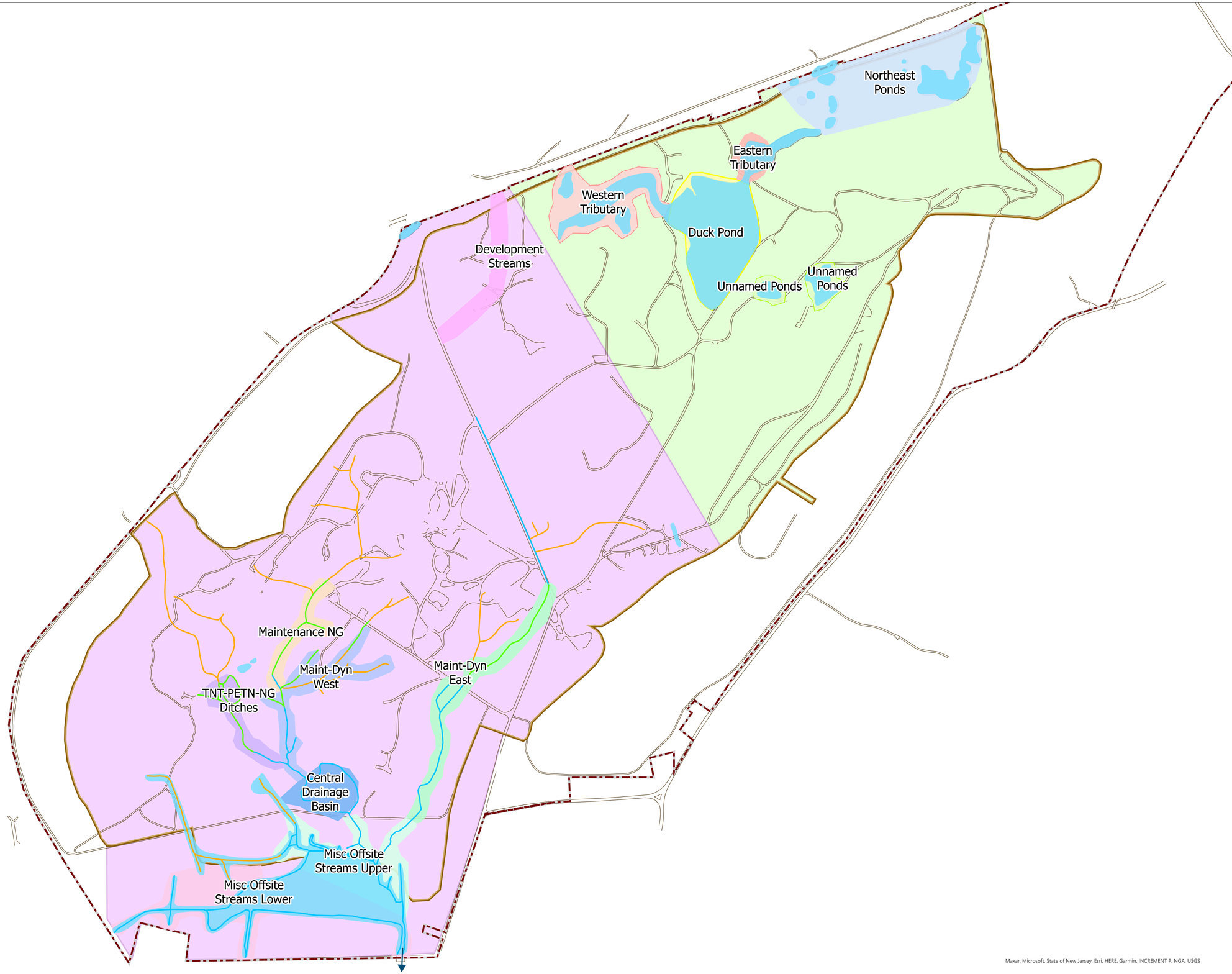
HERCULES

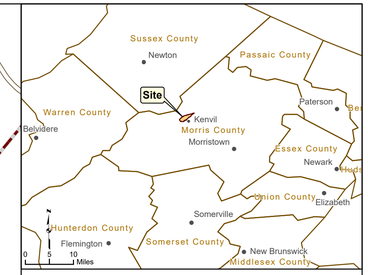
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Habitat Characterization

Figure **2-3**

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KatieEngberg Date Saved: 8/25/2025 1:39 PM





Index Map

- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Road

Stream Categories

- Dry
- Flowing Water
- Intermittent
- Pond/Water Feature

Aquatic Subdrainage Areas

- Central Drainage Basin
- Development Streams
- Duck Pond
- Eastern Tributary
- Maint-Dyn East
- Maint-Dyn West
- Maintenance NG
- Misc Offsite Streams Lower
- Misc Offsite Streams Upper
- Northeast Ponds
- TNT-PETN-NG Ditches
- Unnamed Ponds
- Western Tributary

0 250 500 1,000
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

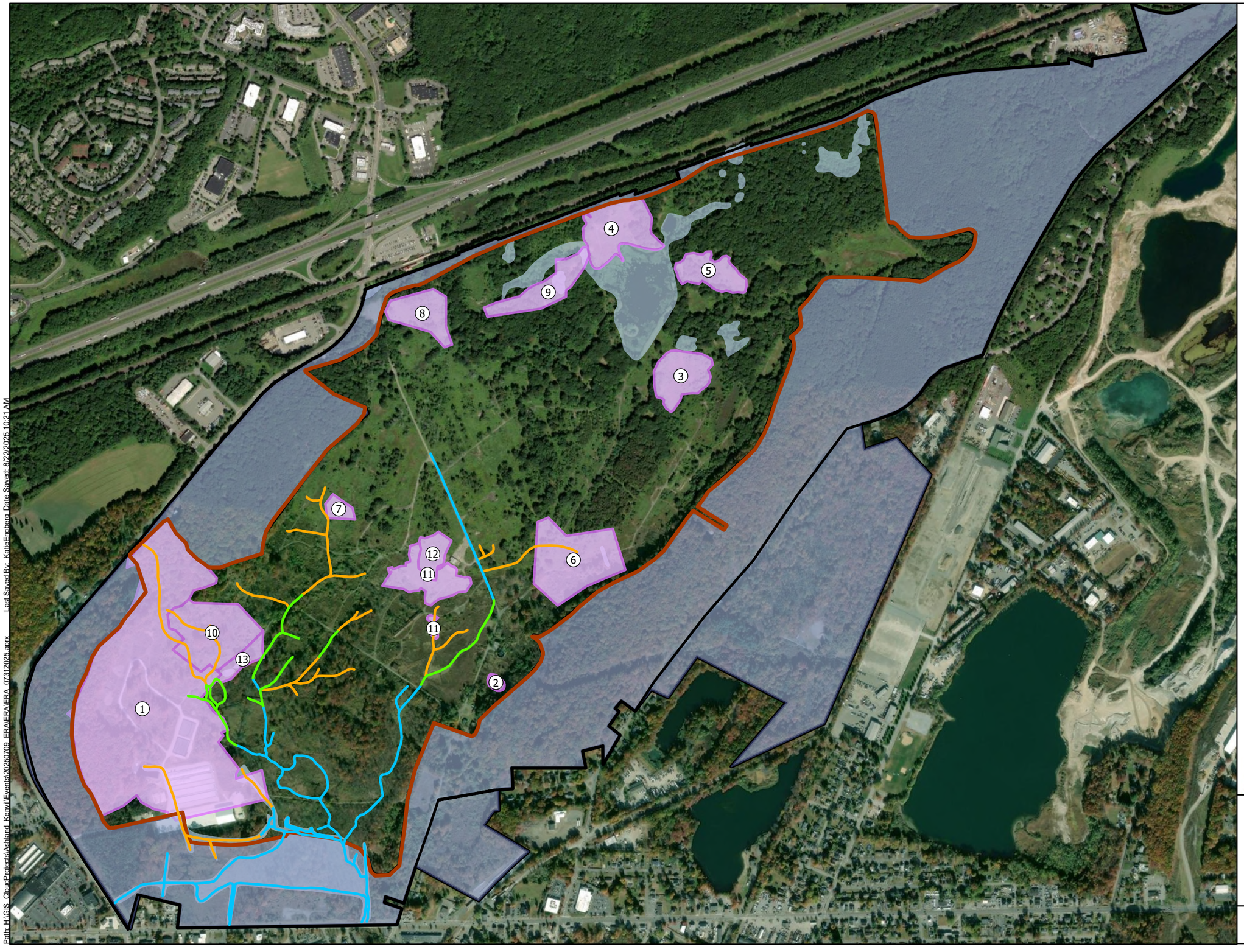
AQUATIC EXPOSURE AREA

HERCULES

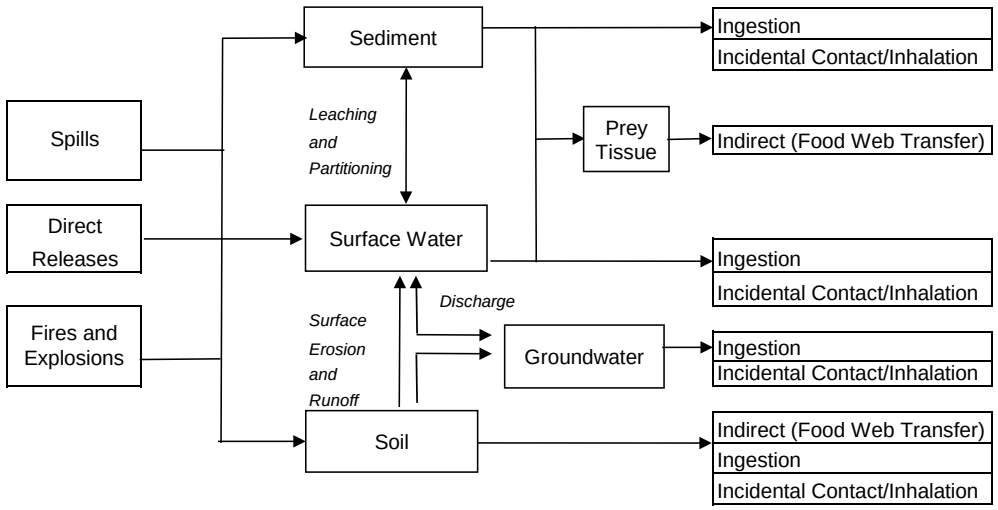
FIGURE
3-1

Maxar, Microsoft, State of New Jersey, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

Path: H:\GIS_CloudProjects\Ashland_KenvilEvents\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KallieEngberg



Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_FEA\FEA\FEA_07312025.aprx Last Saved By: Katie Emmaro Date Saved: 8/22/2025 10:21 AM



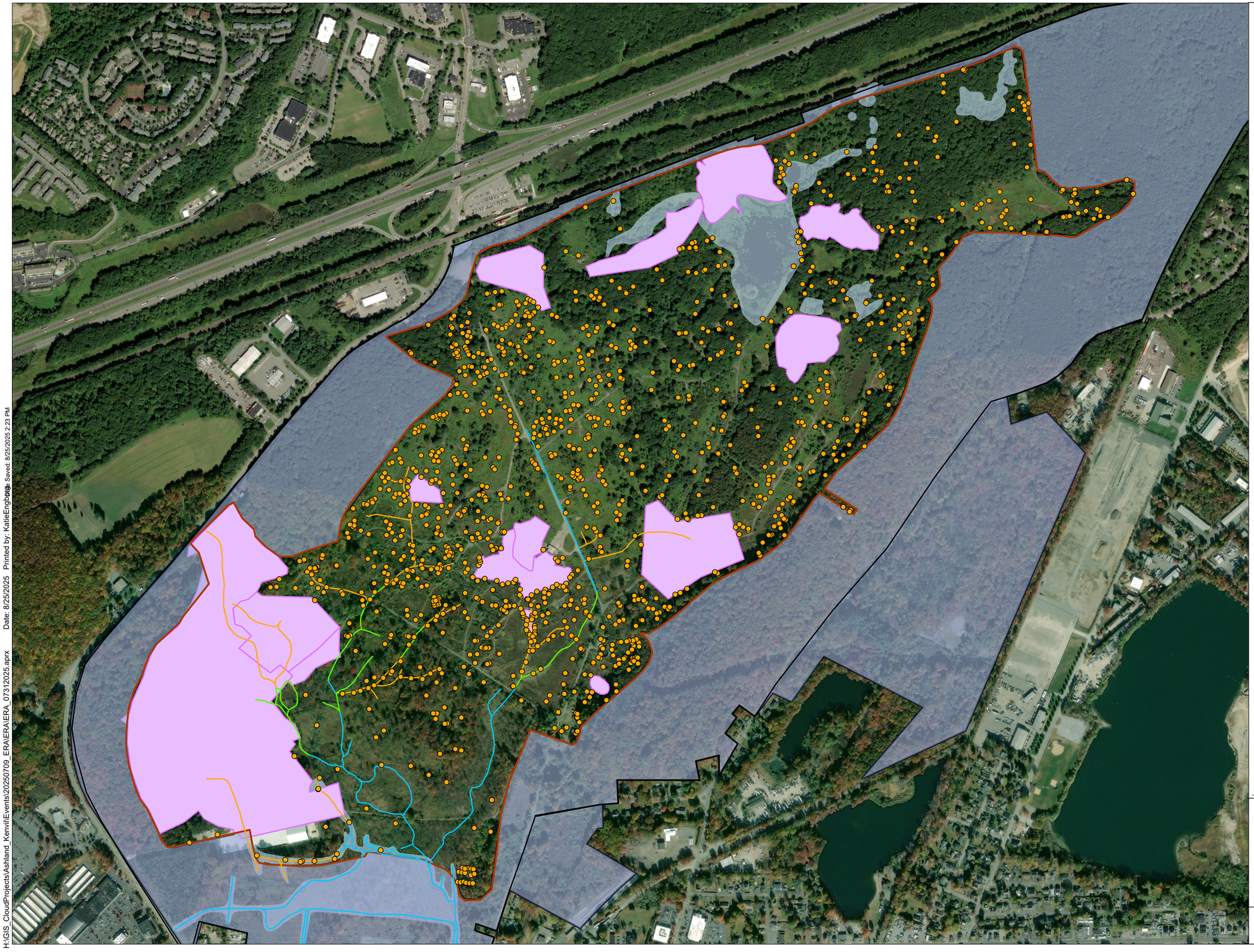
HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

ECOLOGICAL CONCEPTUAL SITE MODEL

HERCULES

FIGURE
3-1

World Imagery: Maxar



- Terrestrial Exposure Area Soil Samples
- Remedial Area Boundary
- Site Boundary
- Areas of Presumed Remedial Action
- Miscellaneous Offsite Areas
- Pond/Water Feature

Stream Categories

- Dry
- Aquatic Flowing
- Aquatic Flowing - Intermittent

Miscellaneous Offsite Areas

N

200 0 200 400 600 800 1,000 1,200 1,400 Feet

HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Exposure Area
Soil Samples

Figure
4-1A

H:\GIS_CloudProjects\Ashland_KenvilEvents\20250709_ERA\ERA\ERA_07312025.aprx Date: 8/25/2025 Printed by: KatieEngbers Saved: 8/25/2025 2:23 PM

World Imagery: Maxar, Microsoft

H:\GIS_CloudProjects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_073120225.aprx Date: 8/25/2025 Printed by: KatieEngberg Saved: 8/25/2025 2:23 PM

Terrestrial Exposure Area Soil Samples
Remedial Area Boundary
Site Boundary
Areas of Presumed Remedial Action
Miscellaneous Offsite Areas
Pond/Water Feature

Stream Categories
Dry
Aquatic Flowing
Aquatic Flowing - Intermittent
Miscellaneous Offsite Areas

N

200 0 200 400 Feet

HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Exposure Area
Southern Soil Samples

Figure
4-1B

World Imagery: Maxar, Microsoft

Terrestrial Exposure Area Soil Samples
Remedial Area Boundary
Site Boundary
Areas of Presumed Remedial Action
Miscellaneous Offsite Areas
Pond/Water Feature

Stream Categories
Dry
Aquatic Flowing
Aquatic Flowing - Intermittent
Miscellaneous Offsite Areas

N

200 0 200 400 Feet

HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Exposure Area
South-Central Soil Samples

Figure
4-1C

H:\GIS_CloudProjects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Date: 8/25/2025 Printed by: KatieEngberg Saved: 8/25/2025 2:23 PM

World Imagery: Maxar, Microsoft

H:\GIS_CloudProjects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Date: 8/25/2025 Printed by: KatieEngberg Saved: 8/25/2025 2:23 PM

- Terrestrial Exposure Area Soil Samples
- Remedial Area Boundary
- Site Boundary
- Areas of Presumed Remedial Action
- Miscellaneous Offsite Areas
- Pond/Water Feature

Stream Categories

- Dry
- Aquatic Flowing
- Aquatic Flowing - Intermittent
- Miscellaneous Offsite Areas

N

200 0 200 400 Feet

HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Exposure Area
North-Central Soil Samples

Figure
4-1D

World Imagery: Maxar

- Terrestrial Exposure Area Soil Samples
- Remedial Area Boundary
- Site Boundary
- Areas of Presumed Remedial Action
- Miscellaneous Offsite Areas
- Pond/Water Feature

Stream Categories
- Dry
- Aquatic Flowing
- Aquatic Flowing - Intermittent

N

200 0 200 400 Feet

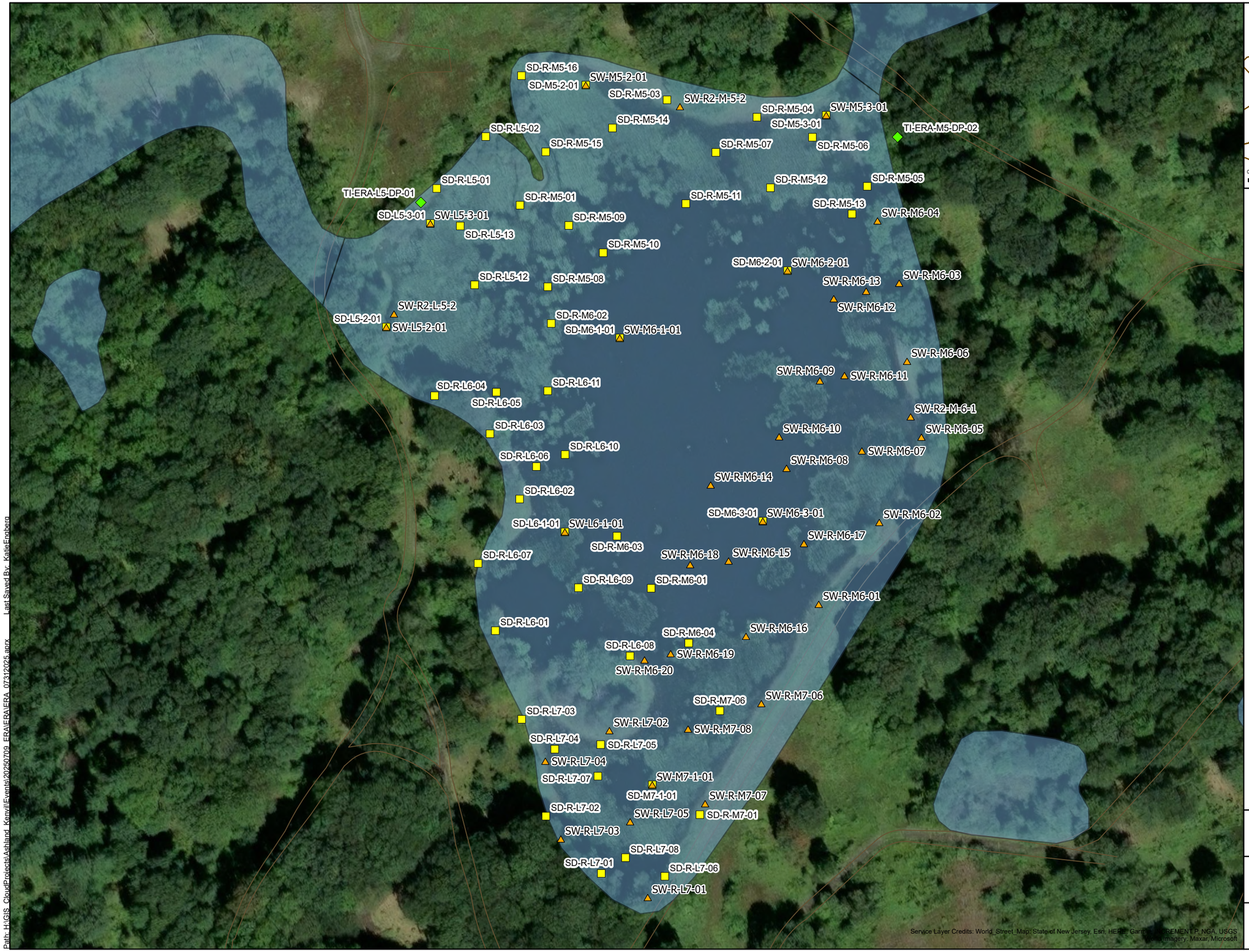
HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Exposure Area
Northern Soil Samples

Figure
4-1E

H:\GIS_CloudProjects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Date: 8/25/2025 Printed by: KatieEngbers Last Saved: 8/25/2025 2:23 PM



Path: H:\GIS_Cloud\Projects\Ashland_KenvilEvents\20250709_ERA\ERA\ERA_07212025.aprx Last Saved By: KatieFrohlich

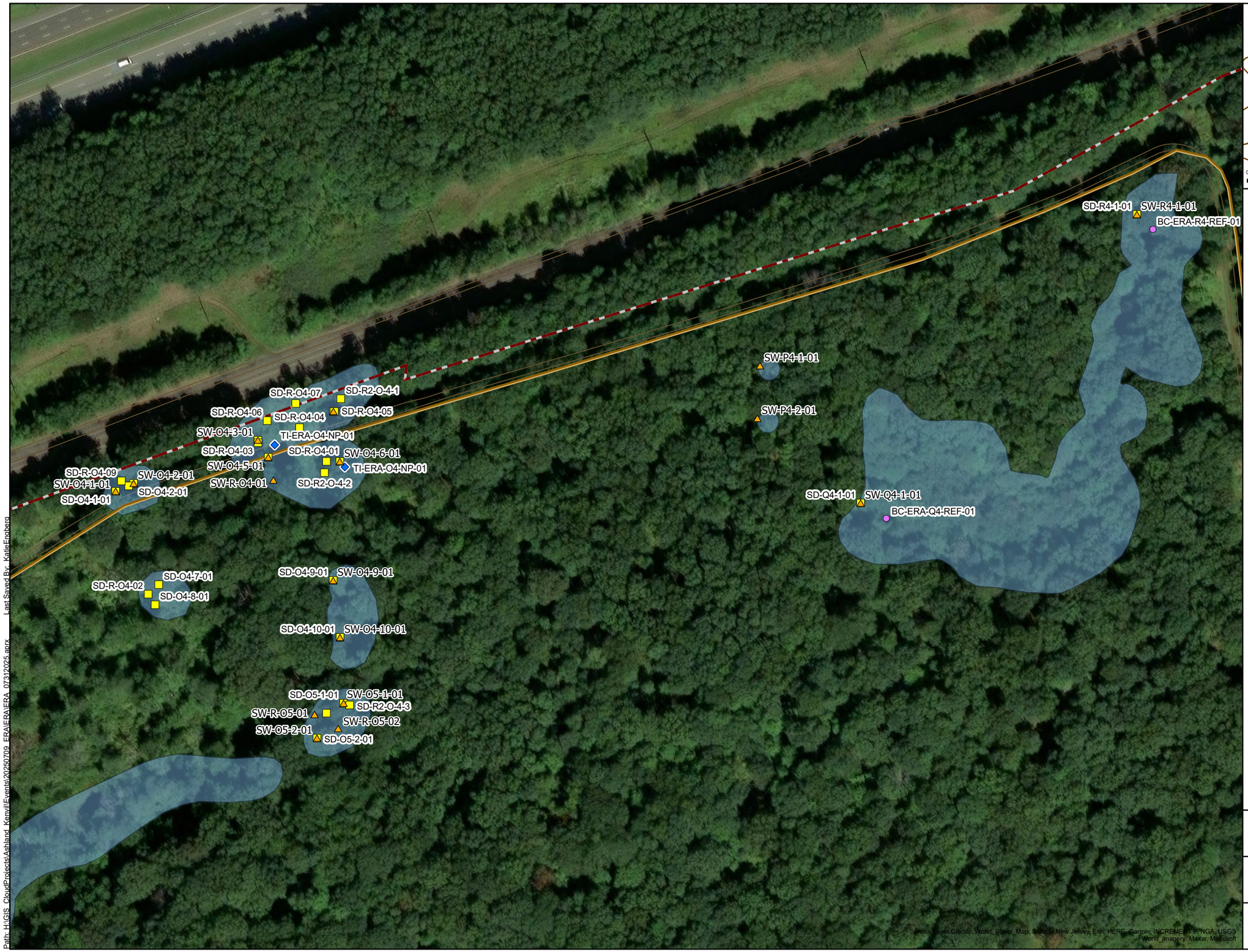
HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

DUCK POND SAMPLE LOCATIONS

HERCULES

FIGURE 4-2



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Tissue - Composited Samples
- Sediment Samples
- Benthic Community
- Surface Water Samples

N

0 40 80 160

Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

NORTHEAST PONDS SAMPLE LOCATIONS

HERCULES

FIGURE 4-3

Service Layer Credits: World_Street_Map, State of New Jersey, Esri, HERE, Garmin, INCREMENT P, NGA, USGS | World_Imagery: Maxar, Microsoft

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07212025.aprx
Last Saved By: KaylaFlaherty

Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Surface Water Samples
- Tissue - Composited Samples
- Tissue - Non-Composited Samples
- Sediment Samples
- Benthic Community

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

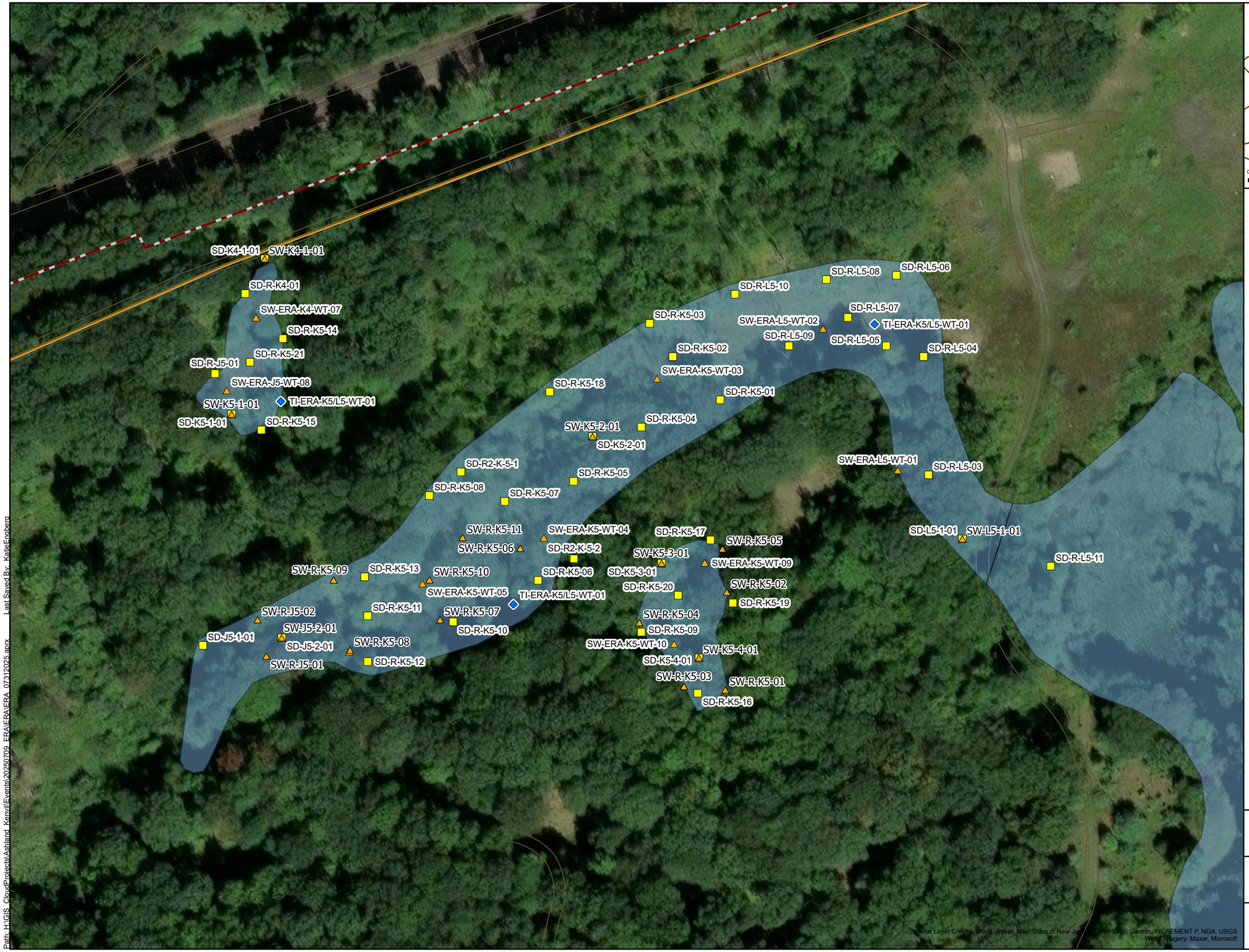
UNNAMED PONDS SAMPLE LOCATIONS

HERCULES

FIGURE
4-4

Service Layer Credits: World_Street_Map: State of New Jersey, Esri, HERE, Garmin, INCREMENT P, NGA, USGS
World_Imagery: New York State, Maxar, Microsoft

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07212025.aprx Last Saved By: KaitlinEnoberg



Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: Katie.Engberg

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

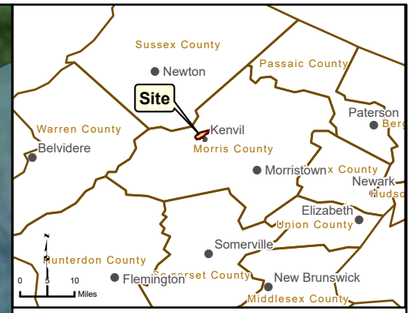
ECOLOGICAL RISK ASSESSMENT

WESTERN TRIBUTARY SAMPLE LOCATIONS

HERCULES

FIGURE 4-5

SW-R-N5-06
SD-N5-1-01
SW-N5-1-01
SD-R-N5-01
SW-R-N5-03
SW-R-N5-02
SD-N5-3-01
SW-N5-3-01
SW-R-N5-01
SD-R-N5-04
SD-N5-2-01
SW-N5-2-01
SD-R-N5-05
SW-R-N5-05
SD-N5-4-01
SW-N5-4-01
SD-M5-1-01
SW-M5-1-01
SD-R-N5-02
SD-R-N5-03
SD-N5-5-01
SW-N5-5-01
SW-R-N5-04
SD-N5-6-01
SD-R-M5-02
SW-R2-M-5-1



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Sediment Samples
- Surface Water Samples

N

0 10 20 40
Feet

Surface Layer Credits: World_Street_Map: State of New Jersey, Esri, HERE, Garmin, INCREMENT P, NGA, USGS
World Imagery: Maxar, Microsoft

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

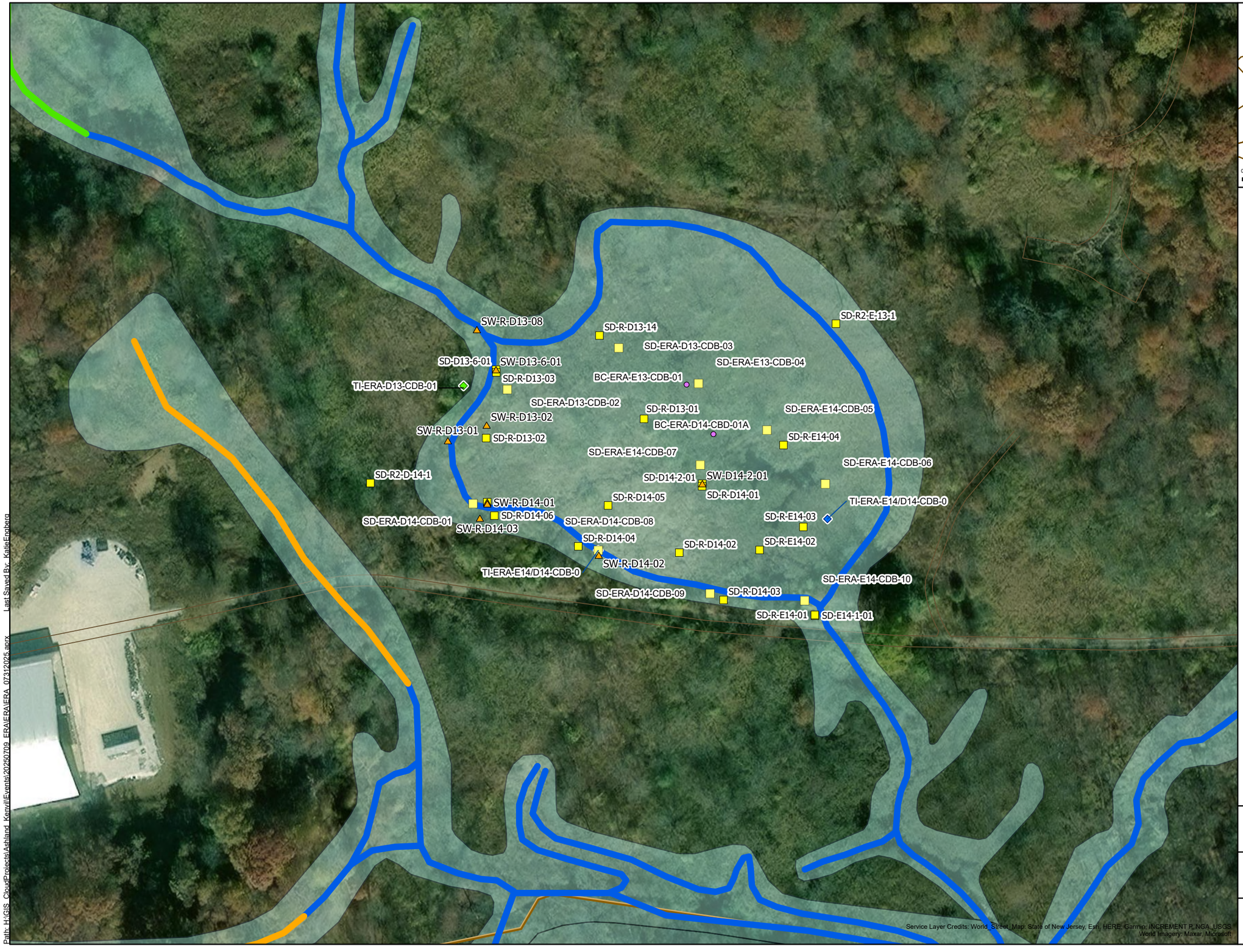
ECOLOGICAL RISK ASSESSMENT

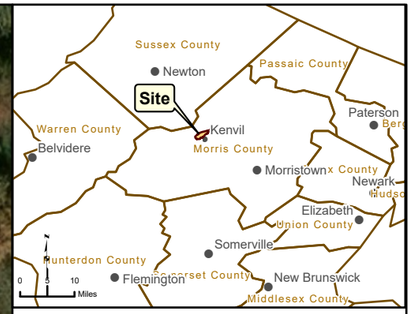
EASTERN TRIBUTARY SAMPLE LOCATIONS

HERCULES

FIGURE
4-6

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07412025.aprx Last Saved By: KatieEngberg





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Flowing Water
- Intermittent
- Dry
- Sediment Samples
- Tissue - Non-Composited-Samples
- Tissue - Composited Samples
- Surface Water Samples
- Benthic Community

N

0 25 50 100

Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

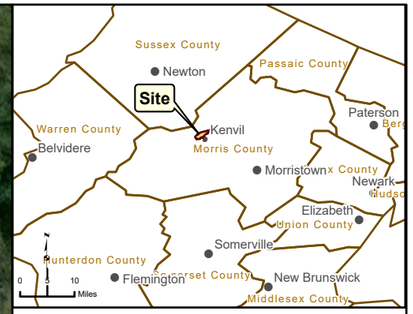
CENTRAL DRAINAGE BASIN SAMPLE LOCATIONS

HERCULES

FIGURE
4-7

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx
Last Saved By: Katie.Fogbero

SW-R-E11-01
SW-E11-3-01
SD-E11-3-01
SD-R-E11-02
SW-R-D11-04
SW-E11-4-01
SW-E12-3-01
SD-R-D11-06
SW-R-D12-03
SW-E12-2-01
SD-R-D12-10
SW-R-D12-02
SW-E12-1-01
TI-ERA-D12/D13-MDW-0
SD-R-D12-06
SD-D12-3-01
SW-D12-3-01
SW-R-D12-04
SD-R-D12-07
SW-R2-D-12-1
SD-D12-2-01
SW-R2-D-12-3
SD-R-D12-05
SW-D12-4-01
SD-R-D12-04
SW-R-D12-08
SD-ERA-D12-MDW-02
BC/SW/SD-ERA-D13-MDW-01
BC/SW/SD-ERA-D13-MDW-01
SD-R-D12-03
SW-R-D12-07
SW-R-D12-06
SD-R-D12-02
SW-R-D12-01
SD-R-D13-15
SW-R-D13-04
BC-ERA-C13-TPND-01
SD-ERA-D13-MDW-01
SW-D13-5-01
SW-D13-2-01
SD-R-D13-10
BC/SW/SD-ERA-D13-MDW-02
SW-R-D13-03
SD-R-D13-07
TI-ERA-D12/D13-MDW-0
SD-R-D13-06
SW-D13-3-01
SW-R-D13-05
SD-R-D13-08
SW-R-D13-07
SD-R-D13-05
SW-D13-4-01
SD-R-D13-04



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Flowing Water
- Intermittent
- Dry
- Surface Water Samples
- Sediment Samples
- Tissue - Composited Samples
- Benthic Community

0 40 80 160
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

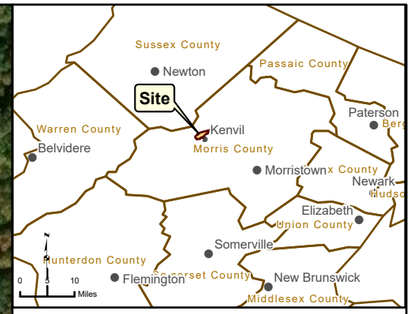
MAINTENANCE DYNAMITE WEST SAMPLE LOCATIONS

HERCULES

FIGURE
4-8

Service Layer Credits: World_Street_Map: State of New Jersey, Esri, HERE, Garmin, INCREMENT P, NGA, USGS
World Imagery: Maxar, Microsoft

Path: I:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07212025.aprx Last Saved By: KaitlaFinbarg



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Surface Water Samples
- Sediment Samples
- Tissue - Composited Samples
- Tissue - Non-Composited Samples
- Flowing Water
- Intermittent
- Dry

N

0 50 100 200

Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

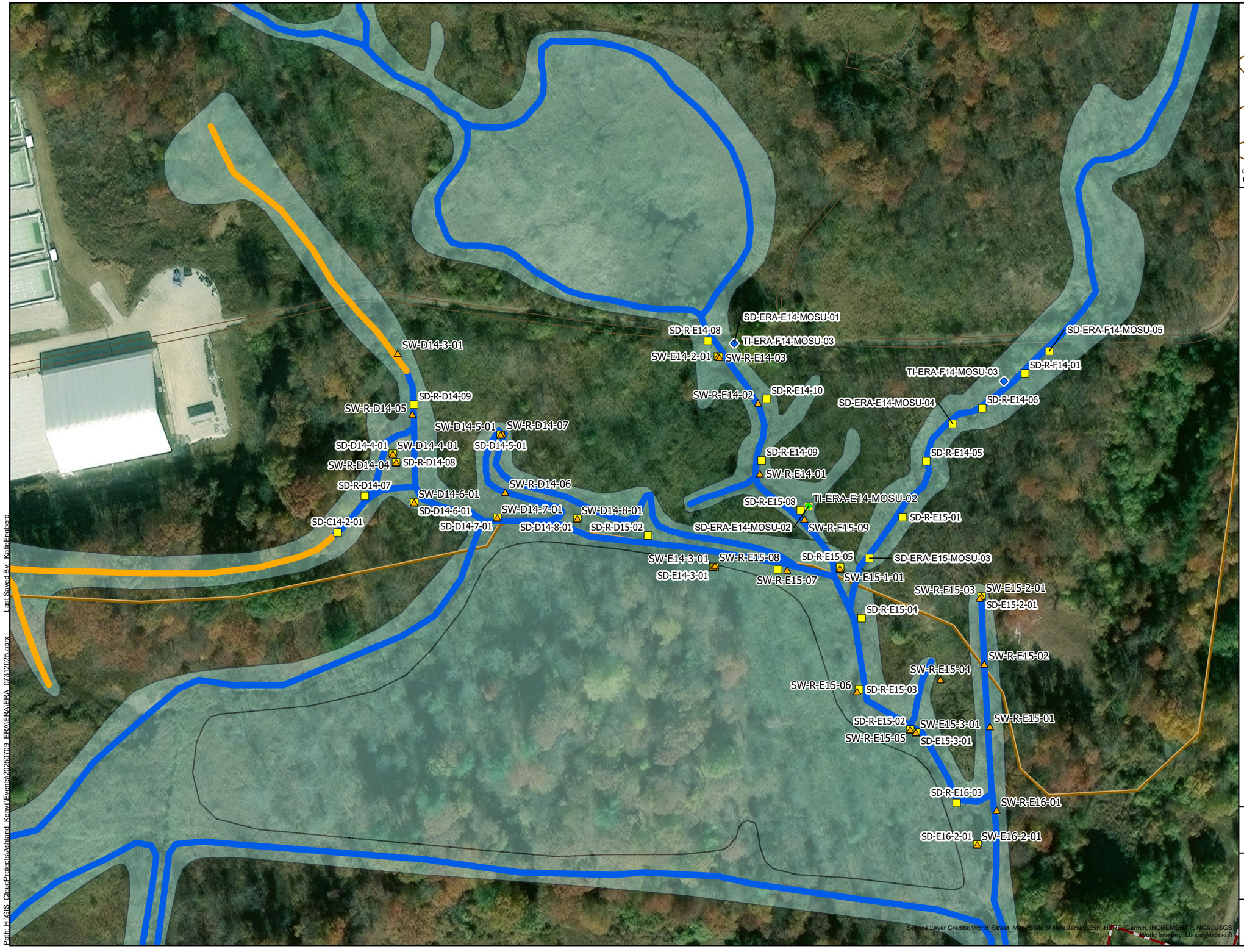
MAINTENANCE DYNAMITE EAST SAMPLE LOCATIONS

HERCULES

FIGURE
4-9

Service Layer Credits: World Imagery, Maxar, Microsoft
World Imagery (Clarity) Source: Esri, Vexcel, Earthstar Geographics, IGN, and the GIS User Community

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KatieEngberg



Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07212025.aprx Last Saved By: KaitlinFinbarg

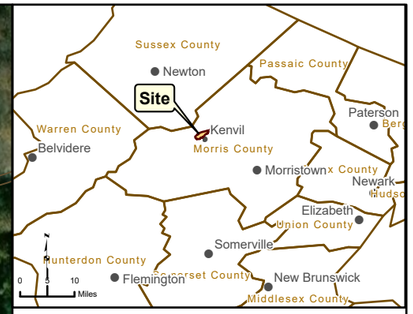
HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

MISCELLANEOUS OFFSITE STREAM UPPER SAMPLE LOCATIONS

HERCULES

FIGURE 4-10



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Sediment Samples
- Surface Water Samples
- Flowing Water
- Dry

0 50 100 200
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

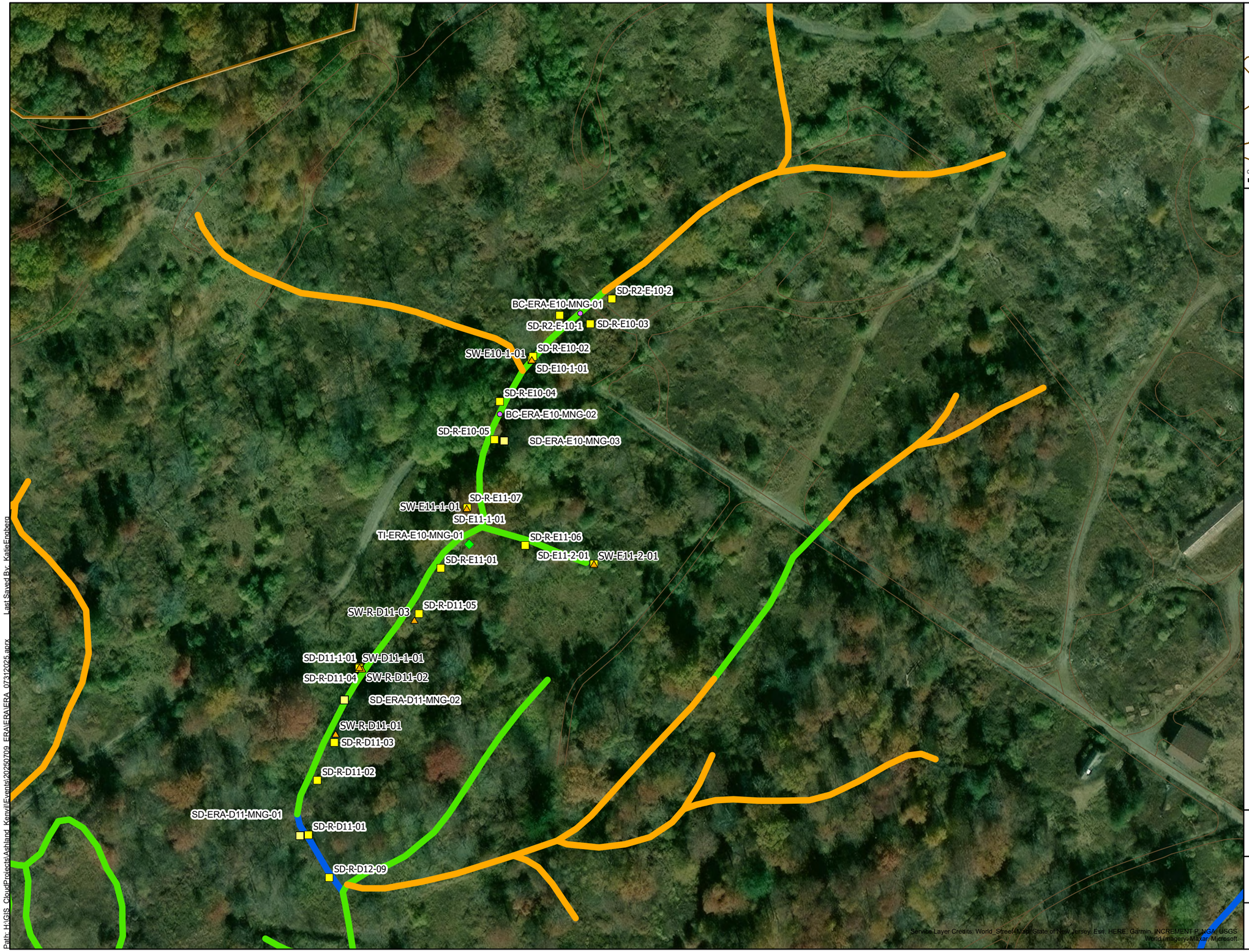
MISCELLANEOUS OFFSITE STREAMS LOWER SAMPLE LOCATIONS

HERCULES

FIGURE
4-11

Service Layer Credits: World_Street_Map: State of New Jersey, ESRI, HERE, Garmin, INCREMENT P, NGA, USGS
World_Imagery: Maxar, Microsoft

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07242025.aprx Last Saved By: KaitlaErdbrugg



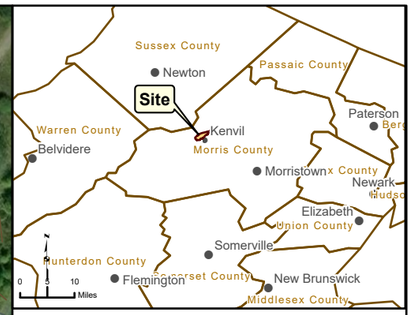
HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

MAINTENANCE NG SAMPLE LOCATIONS

HERCULES

FIGURE
4-12



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Flowing Water
- Intermittent
- Dry
- Surface Water Samples
- Sediment Samples
- Tissue - Non-Composited Samples
- Benthic Community

0 60 120 240
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

TNT - PETN - NG DITCHES SAMPLE LOCATIONS

HERCULES

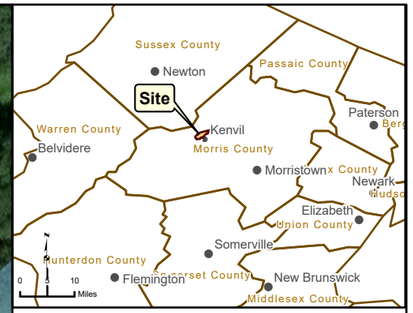
FIGURE
4-13

Path: I:\AGIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: Katie.Fincher

BC-ERA-I5-REF-01
SW-I5-1-01
SD-I5-1-01
SD-R-I5-05
SD-R-I5-04
SD-R-I5-03
BC-ERA-I5-REF-02
SD-R-I5-02
SD-R-I5-01
SD-I5-2-01
SW-I5-2-01
SD-R-I6-05
SD-R-I6-04
SD-R-I6-03
SD-R-I6-02
SD-I6-1-01
SW-I6-1-01
SD-R-I6-01
SD-R-H6-02
SD-R-H6-01
SD-H7-1-01
SW-H7-1-01

Service Layer Credits: World_Street_Map State of New Jersey, Esri, HERE, Garmin, INCREMENT P, N...
World Imagery: Maxar, Mi...

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\FERA\FERA_07312025.aprx
Last Saved By: KatieFinnbeiro



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Pond
- Road
- Sediment Samples
- Benthic Community
- Surface Water Samples

N

0 35 70 140
Feet

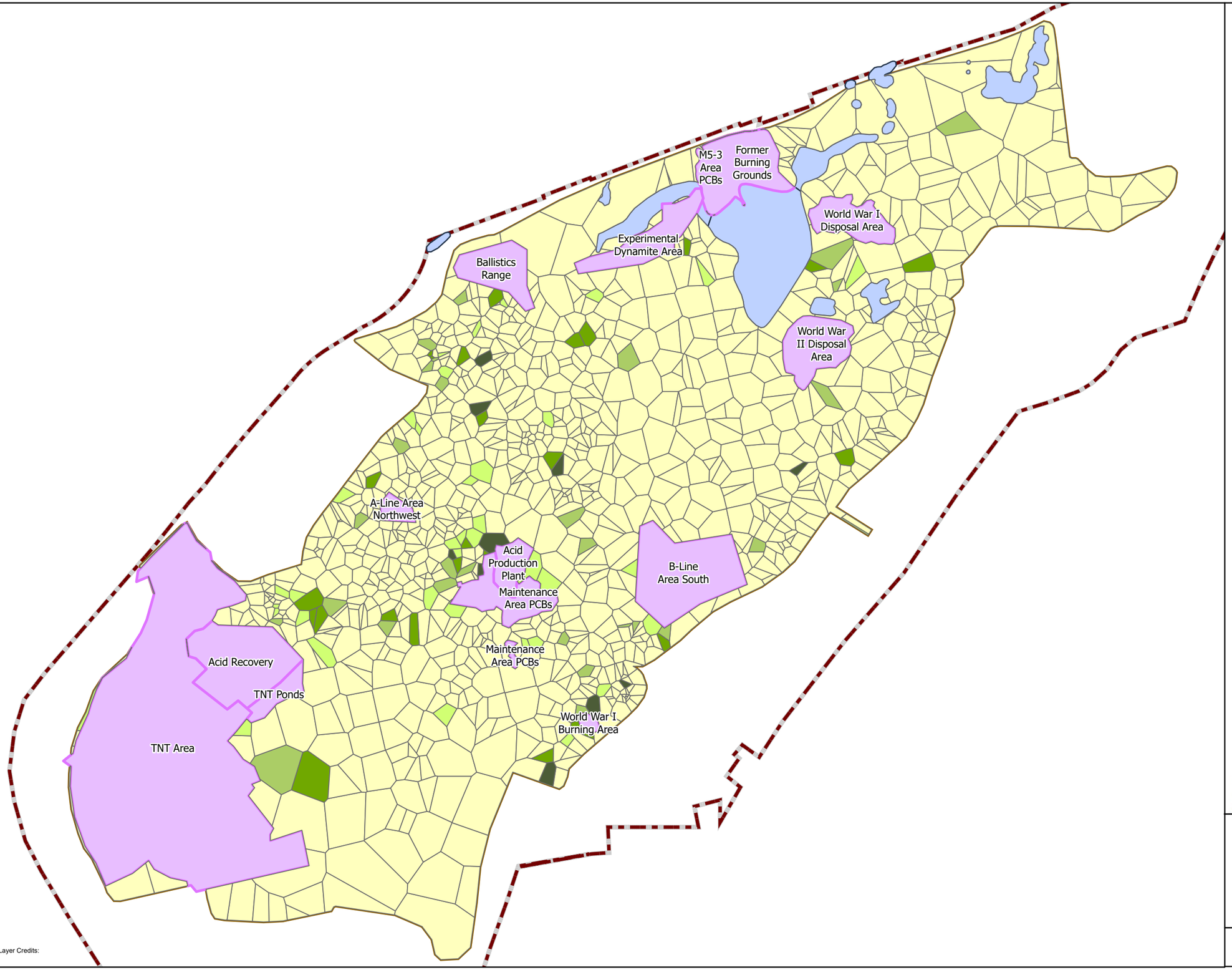
HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

DEVELOPMENT AREA STREAM SAMPLE LOCATIONS

HERCULES

FIGURE
4-14



Notes:
mg/kg = milligrams per kilogram
488 = backcalculated lead ecological screening criteria
800 = Non-Residential Soil Remediation Standard for lead

HERCULES

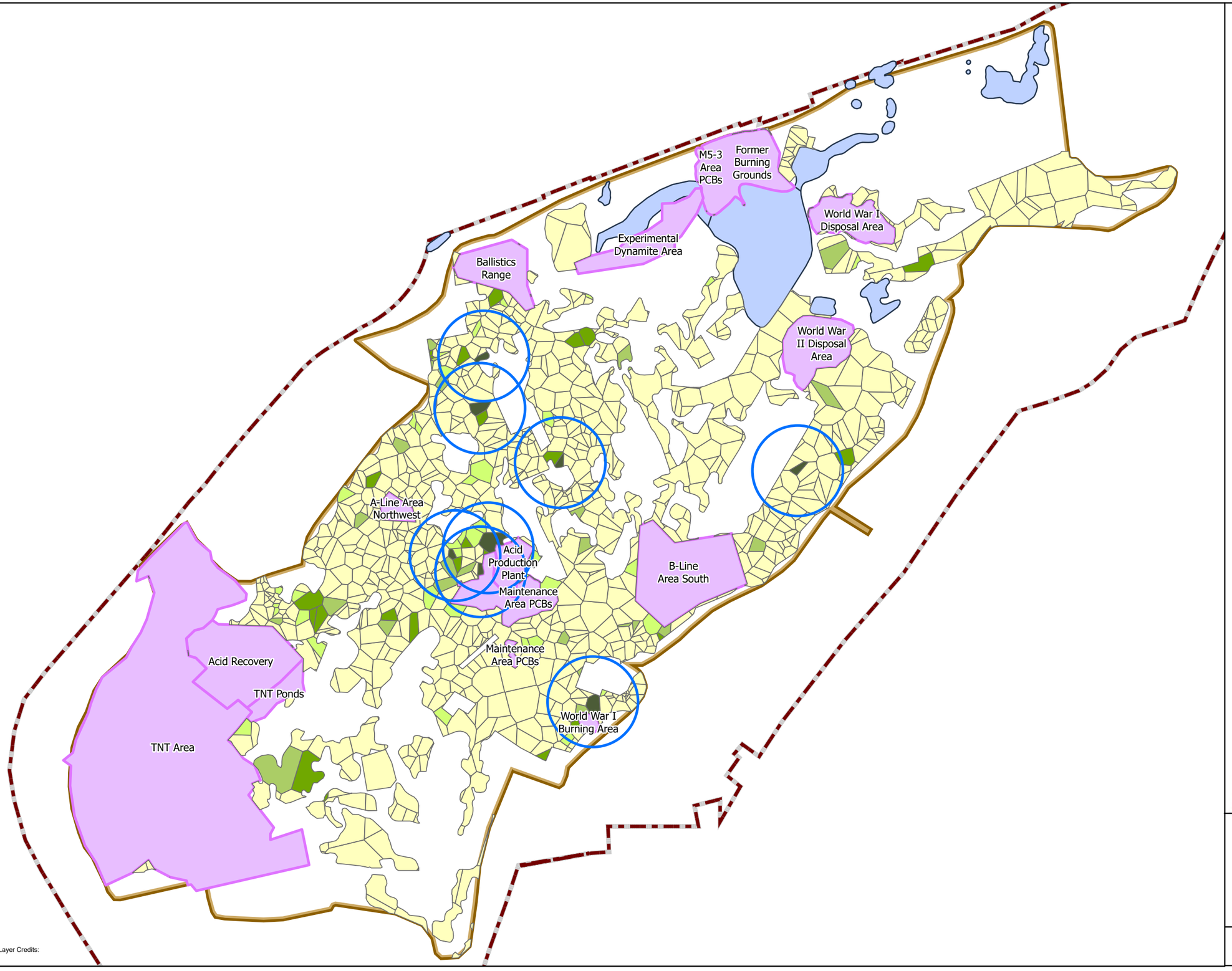
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Soil Spatial Evaluation
Lead

Figure **5-1**

Service Layer Credits:

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KatieEngberg Date Saved: 8/8/2025 4:53 PM



Notes:
mg/kg = milligrams per kilogram
Northern Bobwhite min home range = 8.9 acres
488 = backcalculated lead ecological screening criteria
800 = Non-Residential Soil Remediation Standard for lead

HERCULES

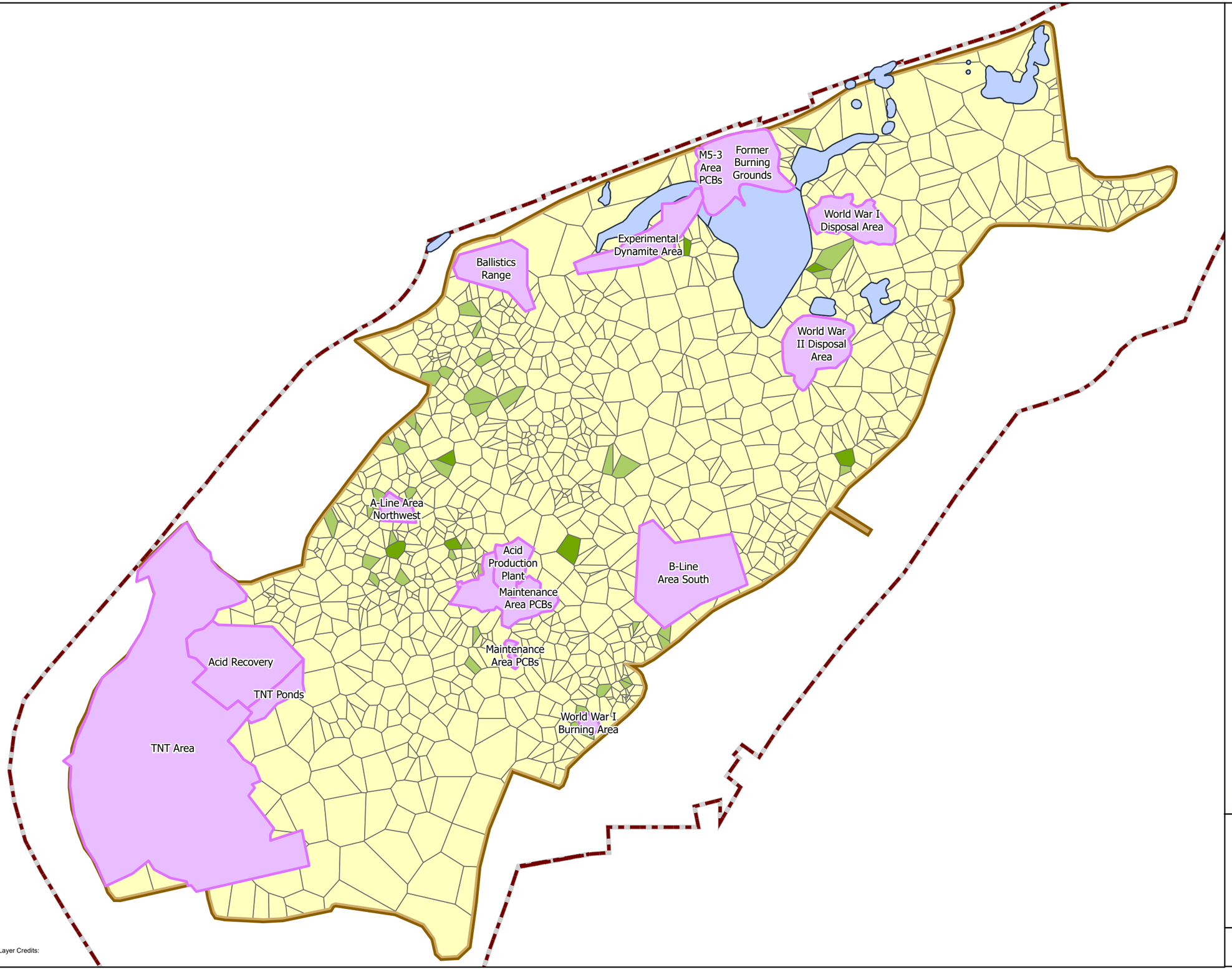
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Soil Spatial Evaluation
Lead - Northern Bobwhite Habitat

Figure **5-2**

Service Layer Credits:

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KatieEnderg Date Saved: 8/8/2025 4:53 PM



Notes:
mg/kg = milligrams per kilogram
312 = backcalculated copper ecological screening criteria
52,000 = Non-Residential Soil Remediation Standard for copper

HERCULES

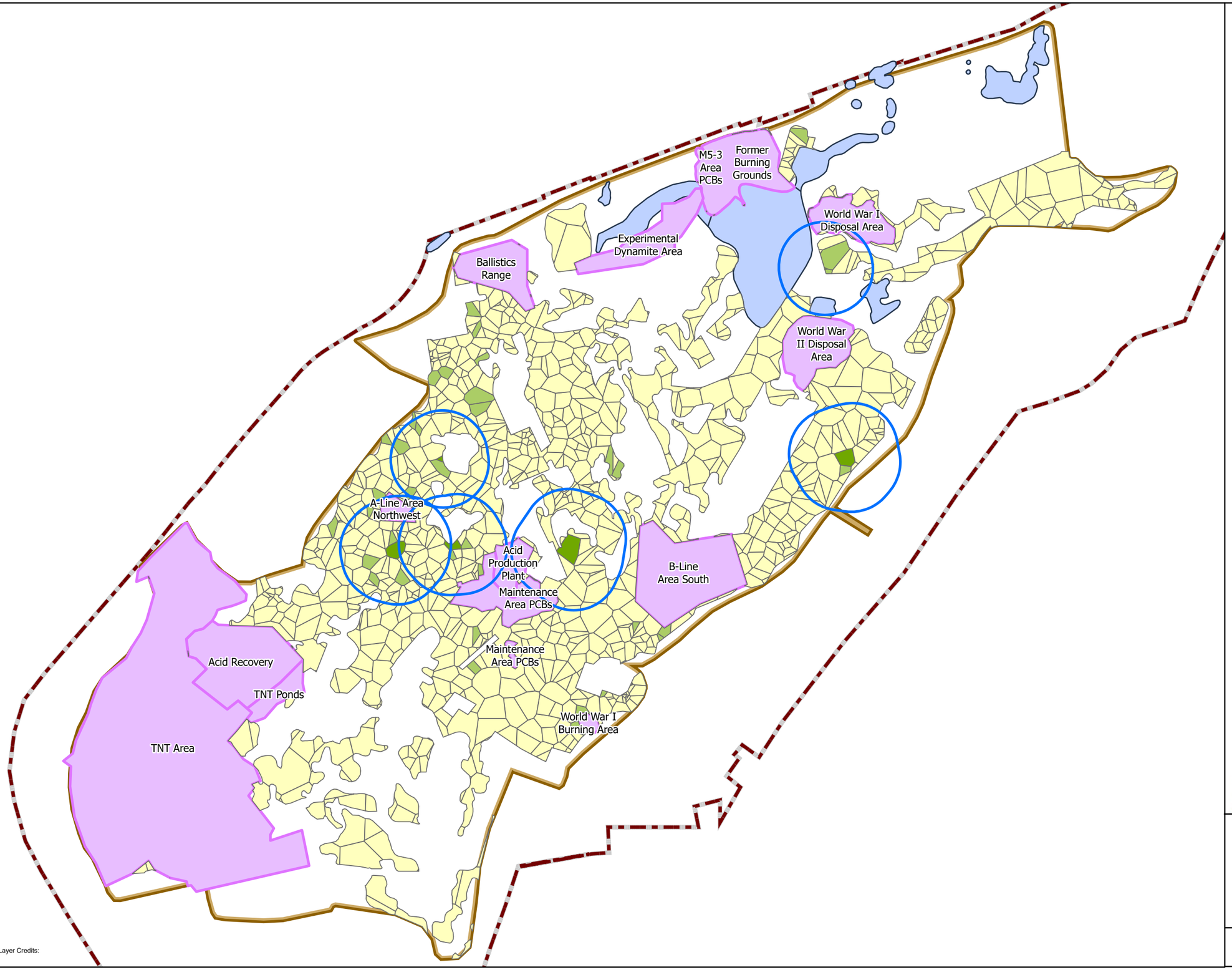
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Soil Spatial Evaluation
Copper

Figure
5-3

Service Layer Credits:

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KatieEngkera Date Saved: 8/8/2025 4:53 PM



Facility Boundary
Remedial Area Boundary
N. Bobwhite Home Range
Areas of Presumed Remedial Action
Water Features/Ponds

Copper Max Concentration (mg/kg)
0 - 312
313 - 3120
3121 - 9520

Notes:
mg/kg = milligrams per kilogram
Northern Bobwhite min home range = 8.9 acres
312 = backcalculated copper ecological screening criteria
52,000 = Non-Residential Soil Remediation Standard for copper

HERCULES

Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

Terrestrial Soil Spatial Evaluation
Copper - Northern Bobwhite Habitat

Figure **5-4**

Service Layer Credits:

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERA\ERA_07312025.aprx Last Saved By: KatieEnoberg Date Saved: 8/8/2025 4:50 PM

Tables

Table 2-1 - Areas of Presumed Remedial Action
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

	Area of Presumed Remedial Action	History	Fate and Transport	Remedial Objective
Tier I	TNT Area (conglomerate of adjacent areas of concern)	One of the earliest developed portions of the Facility as well as the Facility of one of the most powerful explosions in the history of the Facility. This area of the Facility produced explosives for more than a century; during this period operational procedures and incidental release of materials affected soil and groundwater quality. Areas of stressed vegetation, as well as areas devoid of vegetation (former footprint of Building 666 that exploded in 1917) are visible. Stained soil and discolored water have been observed in a former lagoon area (depression in ground surface) where overburden groundwater interacts with surface soil and discharges becoming surface water.	Constituent distribution in this areas occurred primarily during process upsets (e.g., explosions, spills). Following these incidents, the ground surface was leveled and new structures built, these activities further distributed source material (e.g., crystalline TNT, inorganic lead chunks) into the upper few feet of the soil column. Over time, precipitation mobilized constituents in soil to groundwater. TNT in soil influences groundwater quality in this area of the Facility. Groundwater discharges to the southern wetland complex adjacent to the Dynamite/TNT area. The absence of source area constituents in these wetland features is likely related to strong reducing conditions in sediment and associated biological degradation of dissolved phase constituents as groundwater discharges through the sediment. In the southwestern corner of the Facility.	Hercules is evaluating a combination of source removal, bioremediation, and monitored natural attenuation to address constituent concentrations (primarily TNT and its breakdown products) in this area.
Tier II	Ammonium Nitrate Area – Former Burning Ground and intervening areas of concern (H12-237, H13-1, H13-7)	From the beginning of production onsite through the end of WWI, off-specification product and residual materials were transported via rail car to the WWI Burning Grounds (near the AN Area and wastewater treatment plant). The contents of the rail car were emptied down a slope where the materials were incinerated in place on the ground surface. Currently, the area supports sparse vegetation and the ground surface contains a non-combustible fraction of the waste materials (e.g., ceramic, metal) and related constituents in soil (e.g., metals, PAHs).	Given the surficial nature of the activities conducted in this area, debris and constituents in soil do not extend beyond the surface soil. No interaction with groundwater is evident, and would not be expected based on the topography of the area and associated groundwater table elevations. In the absence of vegetation, erosion of surficial soil is possible and may result in localized transport of constituents at/near the perimeter of the area of concern.	The presumptive remedy for this area involves excavation of soil and comingled debris, backfilling with clean fill and restoration of vegetative cover. Excavated material may be disposed of offsite or consolidated and contained elsewhere onsite. Additional study is needed to guide final disposition of the excavated material.
Tier II	B-Line Area – Disposal Area (M8-1)	This area served as a disposal area for solid waste materials during the period of increased production surrounding World War II (WWII). The area currently consists of a low-lying depression with visible surface debris. Vegetation is moderate to sparse and consists of grasses and shrubs. The area occurs between Duck Pond and an emergent/forested wetland complex.	The groundwater table is at or near the ground surface in this areas throughout the year. The material disposed of consists of empty metal containers, concrete debris, and off-spec fiberglass motor housings. This debris, while potentially emplaced below the groundwater table, are not expected to contain constituents that would leach to groundwater. Groundwater monitoring wells in proximity to the disposal area confirm this expectation.	The presumptive remedy will include a combination of removal and offsite disposal, debris consolidation and capping while minimizing disturbance to freshwater wetlands. Pre-design investigation activities will include test pitting to refine the perimeter of the disposal area and further characterize the emplaced material.
Tier II	Development Area – Old Burning Ground and adjacent areas of concern to the southwest (M5-3, L5-2313, L5-10, L5-2275, L5-539)	The burning area was used to dispose off-spec and residual energetic materials and was situated in a low-lying area adjacent to Duck Pond. Duck Pond provided a source of water and a buffer from nearby forested areas. Currently, the area supports sparse vegetation and the ground surface contains a non-combustible fraction of the waste materials (e.g., metal, ceramic).	The topography of the old burning grounds slopes down towards the northern end of Duck Pond. The absence of vegetation creates conditions where stormwater runoff and overland flow can erode surface soil and associated constituents (i.e., metals, PAHs, E&E) into the sediment at the northern end of Duck Pond. Duck Pond bathymetry confirms that deposition is greatest along the northern shoreline adjacent to the burning grounds. Infiltration of precipitation and runoff do not appear to influence local groundwater quality based on recent groundwater quality monitoring results.	The presumptive remedy involves a combination of debris/hot spot removal, and isolation and capping of the remaining material. Given the low-lying topography of the area and proximity to Duck Pond, this area may serve as a consolidation site in the event that sediment is removed from Duck Pond or for similar materials generated elsewhere onsite during remedial activities (e.g., Ammonium Nitrate Area – Former Burning Ground soil).

Table 2-1 - Areas of Presumed Remedial Action
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

	Area of Presumed Remedial Action	History	Fate and Transport	Remedial Objective
Tier III	Storage Area – Disposal Area (N6-1)	This area served as a disposal area for solid waste materials during the period of increased production associated with WWI and the years that followed. Over time, soil has been placed/accumulated at the ground surface and the area has almost entirely revegetated with grasses and shrubs. Miscellaneous debris is present at ground surface in places. A focused removal of large metal debris occurred concurrent with Facility demolition.	This area lies at a topographic high spot onsite, well above the underlying groundwater table. Similar to the B-Line disposal area, the buried waste consists primary of solid, metal containers and similar scrap material. Constituents in soil do not appear mobile and may be related more to the fill material place atop the debris than the debris itself. The area is heavily vegetated, reducing the liklihood of erosion or wind scour of surface soil. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will address the removal and/or containment of these materials during the feasibility study (FS) process. Additional evaluation and assessment of this area may be required to select an appropriate remedy.
	B Line Area - South (conglomerate of adjacent areas of concern)	Various process buildings and structures (e.g., basins, sheds) existed at the southern end of the B-Line Area near the terminus of Powder Mill Road. During decommissioning and demolition activities, residual product was observed in soil at various locations in this area and interim remedial measures (e.g., excavation) implemented. A review of SI/RI sample results identified an aggregation of locations surrounding former structures that share similar Facility-related influences approximately 11 acres in size.	This area does not occur in proximity to surface water features, and constituents detected in this area (i.e., metals and PAHs) do not appear to be influencing groundwater quality. Localized erosion and transport of surface soil and associated constituents may occur, however, the dense vegetation established in this area likely minimizes those influences. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will address removal and/or containment these materials during the FS process. Additional evaluation and assessment of this area is required to refine the extente of Facility-related influences and select an appropriate remedy (where applicable).
	A Line Area - Northwest (conglomerate of adjacent areas of concern)	Historical records indicate that two buildings in the northwestern corner of the A-Line Area were destroyed during a fire and explosion. The buildings were later rebuilt on the Facility of the incident. During the SI/RI investigation and decommissioning and demolition activities, evidence of explosions (e.g., physical debris and residual source material) were identified in the area surrounding the former building locations. A review of SI/RI sample results identified two areas where these historical influences were evident.	This portion of the former operational area is relatively flat and well vegetated. Historical influences occur primarily in surface soil, and do not appear mobile in groundwater based on recent groundwater quality data. The dense vegetation throughout the area preclude erosion or wind scour of surface soils. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will address the removal and/or containment of these materials during the FS process. Additional evaluation and assessment of this area is required to refine the extente of Facility-related influences and select an appropriate remedy (where applicable).
Tier IV	Development Area - Ballistics Range	The Ballistics Range tested propellant (i.e., smokeless powder) formulations to achieve manufacturer-specified projectile velocities, resulting in the introduction of lead shot and bullets to surface soil in discrete areas. During test firing on the range, projectiles impacted a backstop constructed of timber and sand. Historic fill material, imported to reclaim low-lying land during Facility expansion, underlies much of the Development Area, including the Ballistics Range. The SI/RI activities within the Ballistics Range identified metals, PAHs, SVOCs, and E&Es at concentrations exceeding NJDEP SRS.	A toxicological profile of lead completed by the Agency for Toxic Substances and Disease Registry (ATSDR 2007) found that at approximately neutral pH, lead predominately binds to carbon forming organic carbon-lead complexes. This form of lead is not bioavailable if consumed by ecological receptors. Most lead is retained strongly in soil, and very little is transported through runoff to surface water or leaching to groundwater except under acidic conditions. Based on the sources and release mechanisms, the location of lead detected in soil during SI/RI sampling, and evidence observed in the field during the Terrestrial Lead Work Plan (TLWP), lead appears to be present in surface soil as a solid debris (e.g., projectile fragments).	Hercules will remove and dispose of stockpiled lead debris and comingled surface soil in the Ballistics Range to address lead sources and residual debris material. These activities will coincidentally address areas of PAH enrichment indicative of operational influences beyond the PAH concentrations present in historic fill materials.

Table 2-1 - Areas of Presumed Remedial Action
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

	Area of Presumed Remedial Action	History	Fate and Transport	Remedial Objective
Tier IV	Development Area - Experimental Dynamite Area	Established in 1915, the Development Area housed research and quality control activities related to the development and improvement of propellants and explosives produced onsite. The Experimental Dynamite Production Area (EDPA) produced and tested formulations of dynamite within the Development Area. NG, a component of dynamite, was manufactured in the NG Area and transported in small batches to the EDPA. EDPA structures supporting formulation and mixing of dynamite were known to have lead floors, conveyances and equipment	Lead in this area has likely remained in solid form (i.e., lead sheeting in surface soil). Neither historical processes nor current conditions are expected to influence the form or solubility of lead in surface soil. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will remove and dispose of stockpiled lead debris and comingled surface soil in the EDPA to address lead sources and residual debris material.
	PETN/NG - Acid Recovery (conglomerate of adjacent areas of concern)	The Facility manufactured NG in the NG Area from site development in 1871 through Facility closure in 1996. Given NG's sensitivity to static electrical charges, building floors, process equipment and conveyances were typically lined with or constructed of lead. Prior to the 1920s, the Facility generated spent acids during the nitration process, which were then discharged to the Facility's surface water bodies via ditches and culverts. These spent acids likely contained lead derived from contact with process vessels and conveyances. Process upsets likely released these acids to the ground surface in areas outside discharge conveyances. Following the 1920s, a method was developed to recover and process these spent acids, and they were no longer discharged as a waste. Dismantlement and reconstruction of the production line in the NG Area also introduced lead into the environment.	Lead exists in in both solid and potentially dissolved forms, as a result of facility operations. The mobility of lead increases in environments with a low pH due to the enhanced solubility of lead under acidic conditions . Until the late 1800s there was not an established method to recover spent acids from nitrating explosive and energetic constituents. Following the late 1800s an economical method of recovering spent acids was developed and they were no longer considered a waste material. The use of concentrated nitric and sulfuric acid would have slowly eroded (via dissolution) lead equipment and materials, resulting in a spent acid solution containing dissolved lead. Over time, accidental discharges of acid solutions likely contributed to mobilizing lead from solid forms located in surface soil, as well as the transport of dissolved lead from the process stream to the environment. Additionally, acid releases reduced soil pH creating conditions under which lead in solid forms would more readily move into solution. These source – release mechanism combinations may have introduced lead into soil in both a solid, relatively immobile form (lead sheeting), or as more mobile lead particulates entrained in spent acid.	Hercules anticipates focused removal and/or stabilization of lead in soil in the NG Area. Remediation strategy for the remaining constituents will be aligned with redevelopment planning and addressed accordingly (if outside the redevelopment footprint).
	Maintenance Area PCBs	The Maintenance Area-Acid Production Plan was historically utilized to provide operational support including power generation and maintenance shops to the entire Facility. Historical uses of PCBs at the Facility were limited to dielectric fluids contained in electrical transformers and equipment. Wide-spread PCB detections in soil were identified throughout an approximately 13-acre area withing the Maintenance Area.	This area occurs in an area of relatively flat topography at the geographic center of the Facility. Source material (PCB concentrations greater than 10 mg/kg) has been removed, and remaining concentrations do not appear mobile based on recent groundwater quality data. Soil and associated constituents in this area appear stable and generally immobile.	Hercules has removed and disposed of soil containing PCB concentrations greater than 10 mg/kg. Remaining soil containing PCBs has been delineated and will be capped in the context of future Facility redevelopment.

Table 2-1 - Areas of Presumed Remedial Action
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Area of Presumed Remedial Action	History	Fate and Transport	Remedial Objective
Maintenance Area - Acid Production Plant	The Maintenance Area – Acid Production Plant produced sulfuric and nitric acids used to support various manufacturing processes onsite, as well as supply other nearby manufacturing installations.	Lead debris was not observed on the ground surface during the TLWP activities, indicating that lead likely occurs in a fine particulate or dissolved form. At low pH, dissolved lead in ions and ion pairs were the predominant species identified, and the mobility of lead increases in environments with low pH due to the enhanced solubility of lead under acidic conditions. Lead could be transported through runoff to surface water or leaching to groundwater under acidic conditions. Despite this, dissolved lead has been detected at concentrations less than the NJDEP grounwater quality standards in downgradient groundwater monitoring wells.	The remedial approach for this area will include confirmation and delineation sample to refine the nature and extent of lead in soil and sediment. Source material will then be removed and sent offsite for disposal and remaining soil will be stabilized.
NG Area - Former Ponds (TNT Ponds)	The TNT Ponds are remnant stormwater management features that occupy an area at the base of the hillside on which the NG and PETN production lines sat.	Historical surface water management practices involved the collection and channelization of water, which flowed naturally from the PETN/NG Area hillside to the base of the hill. A series of depressions (unknown origin) exist at the base of the hill into the Formet TNT Ponds. Lead particulates present in surface soil and mobilized as suspended solids may have settled out and accumulated in these depressions. These source – release mechanism combinations may have introduced lead into soil in both a solid, relatively immobile form (lead sheeting), or as more mobile lead particulates entrained in spent acid.	The remedial approach for this area will include confirmation and delineation sample to refine the nature and extent of lead in soil and sediment. Source material will then be removed and sent offsite for disposal and remaining soil will be stabilized.

Table 3-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Terrestrial Habitats					
				Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Upland Deciduous (Oak/Hickory) Forest	Mixed Hardwood Forests	Red Pine Stands	Disturbed Shrubland	Disturbed Grassland/Forb Complex	Landscaped Areas
Tree									
Acer rubrum	red maple	FAC	FAC	X	X*	X	X		
Acer saccharum	sugar maple	FAC, FACW	FACW	X					
Ailanthus altissima	tree of heaven	FACU	NI		X		X	X	
Betula lenta	black birch	FACU	FACU	X		X	X		
Betula populifolia	grey birch	FAC	FAC	X				X	
Carya glabra	pignut hickory	FACU-, FACU	FACU-	X				X	
Carya ovata	shagbark hickory	FACU-, FACU+	FACU-					X	
Carya tomentosa	mockernut hickory	NL	NL	X		X			
Catalpa speciosa	catalpa	FACU, FAC	FAC					X	
Cornus florida	flowering dogwood (understory)	FACU-, FACU	FACU-	X					
Fraxinus pennsylvanica	green ash	FAC, FACW	FACW					X	
Juglans nigra	black walnut	FACU	FACU					X	
Juniperus virginiana	eastern red cedar	FACU-, FACU	FACU					X	
Pinus resinosa	red pine	FACU	FACU	X		X*		X	
Pinus rigida	pitch pine	FACU-, FACU	FACU	X	X				
Pinus strobus	white pine	FACU	FACU				X	X	
Populus deltoides	eastern cottonwood	FAC, FACW	FAC				X	X	X
Populus tremuloides	quaking aspen	NL	NL		X				
Prunus serotina	wild black cherry	FACU	FACU		X	X		X	
Prunus virginiana	chokecherry	FACU-, FAC	FACU			X			
Quercus alba	white oak	FACU-, FACU+	FACU-	X	X	X		X	
Quercus palustris	pin oak	FAC, FACW	FACW		X				
Quercus prinus	chestnut oak	UPL, FACU-	UPL	X*			X	X	
Quercus rubra	red oak	FACU-, FACU+	FACU-	X	X	X		X	
Quercus velutina	black oak	NL	NL	X					
Rhus glabra	smooth sumac	NA	NA		X		X		X
Robinia pseudoacacia	black locust	UPL, FAC	FACU-		X			X	
Sassafras albidum	sassafras	FACU-, FACU	FACU-		X		X		
Tilia americana	American basswood	FACU	FACU	X	X				
Tsuga canadensis	eastern hemlock	FACU	FACU	X	X				
Shrub									
Berberis thunbergii	Japanese barberry	UPL, FACU	FACU	X*	X*	X*	X		
Betula lenta	black birch seedling	FACU	FACU				X		
Elaeagnus umbellata	autumn olive	NL	NL		X		X		
Gaylussacia baccata	black huckleberry	FACU	FACU	X*	X*		X*		
Gaylussacia frondosa	dangleberry	NA	NA				X		
Rubus flagellaris	common dewberry	NL	NL				X	X*	
Rubus phoenicolasius	wineberry	NL	NL		X*				
Rubus spp.	blackberry	NA	NA			X	X		X

Table 3-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Terrestrial Habitats					
				Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Upland Deciduous (Oak/Hickory) Forest	Mixed Hardwood Forests	Red Pine Stands	Disturbed Shrubland	Disturbed Grassland/Forb Complex	Landscaped Areas
Sambucus canadensis	elderberry	NA	NA		X		X		
Spirea spp.	spirea	NA	NA		X		X	X	
Vaccinium corymbosum	highbush blueberry	FACW-, FACW	FACW-	X			X		
Zanthoxylum clava-herculis	hercules club	NL	NL	X		X			
Herbaceous									
Achillea millefolium	yarrow	UPL, FACU	FACU		X			X*	
Adiantum pedatum	maiden hair fern	FACU, FAC	FAC-	X					
Ageratina altissima	white snakeroot	UPL, FAC	FACU-		X				
Agrostis alba	red top	FACW, OBL	FACW					X*	
Andropogon gerardii	big bluestem	FACU, FAC	0					X	
Apocynum androsaemifolium	spreading dogbane	NL	NL		X		X	X*	
Asclepias syriaca	common milkweed	NL	NL					X	X
Asclepias tuberosa	butterfly weed	NL	NL					X	
Bidens spp.	bidens	NA	NA		X		X		
Bryophyta spp.	moss	NA	NA				X		
Carex vulpinoidea	fox sedge	OBL	OBL				X		
Centaurea spp.	knapweed	NA	NA						X
Centaurea stoebe	spotted knapweed	NA	NA					X*	
Chimaphila maculata	striped wintergreen	NA	NA	X					
Cimicifuga spp.	snakeroot	NA	NA		X		X		
Cirsium arvense	Canada thistle	FACU-, FAC	FACU					X	X
Dactylis glomerata	orchard grass	UPL, FACU+	FACU				X		
Daucus carota	Queen Anne's lace	NL	NL					X*	
Dennstaedtia punctilobula	hey-scented fern	NL	NL	X*	X*	X*	X		
Desmodium ciliare	hairy small-leaved tick treefoil	NL	NL				X		
Equisetum spp.	horsetail (unbranched)	NA	NA					X*	
Erigeron strigosus	daisy fleabane	FACU, FAC	FACU+				X		
Hypericum perforatum	St. John's Wort	NA	NA						X
Juncus effusus	common rush	FACW+, OBL	FACW+				X		
Lespedeza spp.	bush clover	NA	NA					X	
Leucanthemum vulgare	common oxeye daisy	NL	NL					X*	
Linaria vulgaris	butter and eggs	NL	NL					X*	
Lotus scoparius	deerweed	NL	NL					X*	
Matteuccia struthiopteris	ostrich fern	FACW	FACW	X	X				
Medicago lupulina	black medick	UPL, FAC	UPL					X*	
Microstegium vimineum	Japanese stiltgrass	NA	NA		X	X	X		
Panicum clandestinum	deer tongue panicum	NL	NL		X*	X	X	X*	
Panicum virgatum	switchgrass	UPL, FACW	FAC		X		X	X*	
Phleum pratense	timothy grass	FACU	FACU					X	
Phlox paniculata	fall phlox	FACU, FAC	FACU		X				

Table 3-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Terrestrial Habitats					
				Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	**Common Name**	**National Indicator**	**Region 1 Indicator**	**Upland Deciduous (Oak/Hickory) Forest**	**Mixed Hardwood Forests**	**Red Pine Stands**	**Disturbed Shrubland**	**Disturbed Grassland/Forb Complex**	**Landscaped Areas**
Phragmites australis	common reed	FACW, OBL	FACW				X	X	
Phytolacca americana	pokeberry	FACU+, FAC	FACU+		X		X		
Plantago lanceolata	narrow leaf plantain	UPL, FACW	UPL		X				
Polystichum acrostichoides	christmas fern	UPL, FAC	FACU-	X					
Pteridium aquilinum	bracken fern	FACU-, FAC-	FACU		X		X		
Rudbeckia hirta	black-eyed susan	FACU-, FACU	FACU-					X	
Scirpus cyperinus	woolgrass	FACW+, OBL	FACW+		X*				
Solanum carolinense	horse nettle	UPL, FACU	UPL				X		
Solidago spp.	goldenrod	NA	NA		X				X
Symplocarpus foetidus	skunk cabbage	OBL	OBL	X					
Verbascum blattaria	moth mullein	UPL, FACW	UPL				X	X	
Verbascum thapsus	common mullein	NL	NL				X	X	X
Woody Vine									
Parthenocissus quinquefolia	Virginia creeper	FACU, FAC	FACU	X					
Polygonum perfoliatum	mile-a-minute	FAC	FAC*		X		X		X
Rosa multiflora	multiflora rose	UPL, FACU	FACU		X		X	X*	X
Smilax spp.	catbriar	NA	NA	X	X				
Solanum dulcamara	bittersweet nightshade	FACU, FAC+	FAC-		X				
Toxicodendron radicans	poison ivy	FACU, FACW	FAC	X		X			
Vicia americana	American vetch	FAC?	NI					X*	X
Vitus spp.	wild grape	NA	NA		X*		X		

Table 3-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Aquatic and Wetland Habitats			
				Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Forested Wetland	Emergent Wetland		
Tree							
Acer rubrum	red maple	FAC	FAC	X*	X		X
Acer spp.	maple	NA	NA		X		
Betula lenta	black birch	FACU	FACU	X	X		
Betula nigra	river birch	FACW, OBL	FACW				X
Betula papyrifera	white birch	FACU, FACU+	FACU		X		
Betula populifolia	grey birch	FAC	FAC	X			
Carya spp.	hickory	NA	NA	X			
Carya tomentosa	mockernut hickory	NL	NL	X			
Fraxinus pennsylvanica	green ash	FAC, FACW	FACW	X			
Juglans nigra	black walnut	FACU	FACU	X			
Nyssa sylvatica	blackgum	FAC	FAC	X	X		
Pinus resinosa	red pine	FACU	FACU	X			
Populus deltoides	eastern cottonwood	FAC, FACW	FAC		X		
Prunus serotina	wild black cherry	FACU	FACU	X			
Prunus virginiana	chokecherry	FACU-, FAC	FACU	X			
Quercus alba	white oak	FACU-, FACU+	FACU-	X			
Quercus bicolor	swamp white oak	FACW+, OBL	FACW+	X			
Quercus coccinea	scarlet oak	NL	NL	X			
Quercus palustris	pin oak	FAC, FACW	FACW	X	X		X
Quercus rubra	red oak	FACU-, FACU+	FACU-	X			
Quercus spp.	oak	NA	NA	X			
Rhus glabra	smooth sumac	NA	NA		X		
Robinia pseudoacacia	black locust	UPL, FAC	FACU-		X		
Salix nigra	black willow	UPL, OBL	FACW+		X		X
Salix sepulcralis	weeping willow	0	0		X		
Sassafras albidum	sassafras	FACU-, FACU	FACU-	X			
Tilia americana	American basswood	FACU	FACU	X			
Ulmus americana	American elm	FAC, FACW	FACW-	X			
Shrub							
Berberis thunbergii	Japanese barberry	UPL, FACU	FACU	X	X		
Cephalanthus occidentalis	button bush	NA	NA		X		X
Clethra alnifolia	sweet pepperbush	FAC+, FACW	FAC+	X			
Elaeagnus umbellata	autumn olive	NL	NL	X	X		
Gaylussacia baccata	black huckleberry	FACU	FACU	X*			
Gaylussacia frondosa	dangleberry	NA	NA	X*			
Rhododendron viscosum	swamp azalea	FACW+, OBL	OBL	X			
Rubus flagellaris	common dewberry	NL	NL		X		
Rubus phoenicolasius	wineberry	NL	NL		X		
Rubus spp.	blackberry	NA	NA	X			
Spirea spp.	spirea	NA	NA	X	X		
Vaccinium angustifolium	lowbush blueberry	FACU-, FACU	FACU-	X			
Vaccinium corymbosum	highbush blueberry	FACW-, FACW	FACW-	X*	X		

Table 3-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Aquatic and Wetland Habitats			
				Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Forested Wetland	Emergent Wetland		
Herbaceous							
Agrostis alba	red top	FACW, OBL	FACW		X		
Andropogon gerardii	big bluestem	FACU, FAC	NA		X		
Apocynum androsaemifolium	spreading dogbane	NL	NL		X		X
Arisaema triphyllum	jack in the pulpit	FAC, FACW	FACW-	X			
Asclepias incarnata	swamp milkweed	FACW+, OBL	OBL		X		
Asclepias syriaca	common milkweed	NL	NL		X		
Aster spp.	unknown aster	NA	NA		X		
Athyrium filix-femina	lady fern	FAC, FAC+	FAC	X	X		
Bidens spp.	bidens	NA	NA		X		
Boehmeria cylindrica	false nettle	FACW, OBL	FACW+	X	X		
Brasenia schreberi	watershield	OBL	OBL				X
Carex lupulina	hop sedge	FACW+, OBL	OBL		X		
Carex lurida	lord sedge	NA	NA		X		
Carex spp.	sedge	NA	NA		X		
Carex stricta	tussex sedge	OBL	OBL	X			
Carex vulpinoidea	fox sedge	OBL	OBL		X		
Chimaphila maculata	striped wintergreen	NA	NA	X			
Convolvulus arvensis	bindweed	NA	NA	X			
Dennstaedtia punctilobula	hey-scented fern	NL	NL	X	X		
Dulichium arundinaceum	threeway sedge	OBL	OBL		X		
Eleocharis spp.	spikerush	NA	NA		X		X
Elodea spp.	waterweed	NA	NA				X
Euthamia graminifolia	long-leaved goldenrod	NA	NA		X		
Gallium spp.	bedstraw	NA	NA	X			
Impatiens capensis	jewelweed	FACW, FACW+	FACW	X			
Iris pseudacorus	yellow iris	OBL	OBL		X		
Juncus effusus	common rush	FACW+, OBL	FACW+		X		
Juncus spp.	juncus	NA	NA		X		
Justicia americana	water willow	OBL	OBL		X		X
Lemna minor	duckweed	OBL	OBL	X	X		
Lolium spp.	ryegrass	NA	NA		X		X
Lythrum salicaria	purple loosestrife	FACW+, OBL	FACW+	X			
Matteuccia struthiopteris	ostrich fern	FACW	FACW	X	X*		
Mentha spp.	mint	NA	NA		X		X
Microstegium vimineum	Japanese stiltgrass	NA	NA		X		
Mimulus spp.	monkey flower	NA	NA		X		X
Monotropa uniflora	indianpipe	UPL, FACU	FACU-	X			
Nasturtium officinale	watercress	OBL	OBL	X			
Nuphar lutea	spaderdock	OBL	OBL		X		X
Nymphaea odorata	fragrant lily	OBL	OBL				X
Onoclea sensibilis	sensitive fern	FACW	FACW	X			
Osmunda claytoniana	interrupted fern	FAC, FAC+	FAC	X			
Osmunda regalis	royal fern	OBL	OBL	X	X		

Table 3-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Aquatic and Wetland Habitats			
				Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Forested Wetland	Emergent Wetland		
Panicum clandestinum	deer tongue panicum	NL	NL	X	X		
Panicum virgatum	switchgrass	UPL, FACW	FAC		X		
Phalaris arundinacea	reed canary grass	FACW, OBL	FACW+	X*	X		
Phlox paniculata	fall phlox	FACU, FAC	FACU		X		
Phragmites australis	common reed	FACW, OBL	FACW	X	X*		X
Plantago lanceolata	narrow leaf plantain	UPL, FACW	UPL		X		
Polygonum spp.	smartweed	NA	NA		X		X
Schoenoplectus acutus	hard stem bulrush	NL	NL		X		X
Schoenoplectus tabernaemontani	softstem bulrush	OBL	OBL	X			
Scirpus cyperinus	woolgrass	FACW+, OBL	FACW+	X	X		X
Sparganium spp.	sparganium	NA	NA		X		X
Symplocarpus foetidus	skunk cabbage	OBL	OBL	X	X		
Typha spp.	cattail	NA	NA	X*	X		X
Urtica dioica	stinging nettle	FACU, FACW	FACU		X		
Verbascum blattaria	moth mullein	UPL, FACW	UPL		X		
Verbascum thapsus	common mullein	NL	NL		X		
Verbena hastata	blue vervain	NA	NA		X		
Woody Vine							
Lygodium palmatum	climbing fern	FACW-, FACW	FACW	X	X		
Parthenocissus quinquefolia	Virginia creeper	FACU, FAC	FACU	X	X		
Rosa multiflora	multiflora rose	UPL, FACU	FACU	X			
Solanum dulcamara	bittersweet nightshade	FACU, FAC+	FAC-	X			
Toxicodendron radicans	poison ivy	FACU, FACW	FAC	X	X		
Vitus spp.	wild grape	NA	NA	X	X		

Notes:

[1] Species observations made during July 2010 and July 2011 habitat characterizations.

X* = Dominant species

USFWS = United States Fish and Wildlife Service

The following are the USFWS hydrophytic classifications for the observed species:

OBL = a plant species generally (>99% of the time) only found in wetlands under natural conditions

FACW = a plant species usually (>66% to 99% of the time) found in wetlands, but which may be found occasionally in uplands under natural conditions

Note: a negative sign (-) indicates a species less frequently found in wetlands, a positive sign (+) indicates a species more frequently found in wetlands, and a star sign (*) indicates a tentative status.

FAC = a plant species sometimes (>33% to 66% of the time) found in wetlands, but which may also be found commonly in uplands

FACU = a plant species seldom (<33% of the time) found in wetlands, but which may also be found commonly in uplands

UPL = a plant species generally (>99% of the time) found only in uplands under natural conditions

NL = a plant species that is not listed

NI = insufficient information was available to determine an indicator status

NA = not available

Table 3-2
Wildlife Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Wildlife[1]		Terrestrial Habitats					
		Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	Common Name	Upland Deciduous (Oak/Hickory) Forest	Mixed Hardwood Forests	Red Pine Stands	Disturbed Shrubland	Disturbed Grassland/ Forb Complex	Landscaped Areas
Birds							
Buteo jamaicensis	red-tailed hawk					X	
Cardinalis cardinalis	cardinal					X	
Hirundo rustica	barn swallow					X	
Mimus polyglottos	mocking bird	X			X	X	
Tachycineta bicolor	tree swallow					X	
Dumetella carolinensis	catbird				X		
Accipiter	sparrow hawk					X	
Insects							
Papilio glaucus	yellow swallowtail					X	
Danaus plexippus	monarch butterfly	X			X	X	
Lepidoptera	butterflies					X	
Phoebis sennae	yellow sulphur butterfly					X	
Mammals							
Odocoileus virginianus	deer	X				X	X
Tamias striatus	chipmunk					X	

Table 3-2
Wildlife Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Wildlife[1]		Aquatic and Wetland Habitats			
		Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	Forested Wetland	Emergent Wetland		
Birds					
Cynocitta cristata	blue jay	X			
Turdus migratorius	American robin	X			
Dumetella carolinensis	catbird	X	X		
Anas platyrhynchos	mallard	X			X
Insects					
Anisoptera	dragonfly	X			
Mammals					
Leporidae	rabbit	X			
Odocoileus virginianus	deer	X	X		
Canis latrans var	coyote	X			
Marmota monax	ground hog				X
Reptiles/Amphibians					
Rana clamitans melanota	green frog	X			
Bufo americanus	American toad	X			

Notes:

[1] Species observations made during a July 2010 and July, 2011 habitat characterization.

X = individual observed, specific activity not noted

Table 3-3
Assessment and Measurement Endpoints
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Exposure Medium	Exposure Areas		Rationale	Receptor Group	Assessment Endpoint	Measurement Endpoint	Target Species
Soil	Terrestrial	Former Operational Areas and Undeveloped Areas	*Former Operational Areas:* Contiguous area of site that has similar historical uses and potential for operational impacts; subject to future redevelopment. *Undeveloped Areas:* Contiguous area of site that remained undeveloped during site's known history; proposed as conservation area during site redevelopment.	Terrestrial Plant Community - Structure, Function, Survival	1. Could direct contact with COPECs in site soil affect the structure, function, and/or survival of the terrestrial plant community?	1. Compare concentrations of COPECs in soil to ESBs protective of plants.	NA
				Terrestrial Invertebrate Community - Survival and Reproduction	2. Could direct contact with COPECs in site soil affect the structure, function, and/or survival of the terrestrial invertebrate community?	2. Compare concentrations of COPECs in soil to ESBs protective of terrestrial invertebrates.	NA
				Herbivorous Avian and Mammal Populations - Survival and Reproduction	3. Could food-web transfer of COPECs in site soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?	3. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals.	Northern Bobwhite; White-tailed Deer
				Insectivorous Avian and Mammal Populations - Survival and Reproduction	4. Could food-web transfer of COPECs in site soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?	4. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals.	American Robin; Short-tailed Shrew
				Carnivorous Avian and Mammal Populations - Survival and Reproduction	5. Could food-web transfer of COPECs in site soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?	5. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for carnivorous birds and mammals.	Red-Tailed Hawk; Red Fox
Sediment and Surface Water	Aquatic	Northern Drainage Area (Duck Pond, miscellaneous ponds, tributaries)	*Ponds and Tributaries:* Perennial aquatic habitat features onsite, located amidst historic operational areas; miscellaneous ponds are isolated surface-water features that provide semi-aquatic habitat.	Aquatic Plant Populations - Structure, Function, Survival	6. Could direct contact with COPECs in sediment in each area affect the survival and function of aquatic plant populations?	6. Compare concentrations of COPECs in sediment and surface water in the Northern and Southern Drainage Areas to ESBs protective of terrestrial plants.	NA
				Benthic Community - Structure, Function, Survival	7. Could direct contact with COPECs in sediment in each area affect the structure, function, and/or survival of the benthic invertebrate community?	7. Compare concentrations of COPECs in sediment in the Northern and Southern Drainage Areas to ESBs protective of benthic invertebrates.	NA
				Fish and Aquatic Invertebrate Populations - Survival and Reproduction	8. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?	8. Compare concentrations of COPECs in surface water in the Northern and Southern Drainage Areas to ESBs protective of fish and aquatic invertebrates.	NA
				Herbivorous Avian and Mammal Populations - Survival and Reproduction	9. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?	9. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals in the Northern and Southern Drainage Areas.	Mallard Duck; Muskrat
		Southern Drainage Area (drainage areas and wetland complex)	*Drainage Areas and Wetland Complex:* Linear intermittent drainage features drain historic operational areas to the undeveloped wetland complex, which consists of perennial aquatic habitat consisting of both flowing and non-flowing water bodies.	Insectivorous Avian and Mammal Populations - Survival and Reproduction	10. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?	10. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals in the Northern and Southern Drainage Areas.	Tree Swallow; Little Brown Bat
				Piscivorous Avian and Mammal Populations - Survival and Reproduction	11. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammal populations?	11. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for piscivorous birds and mammals in the Northern and Southern Drainage Areas.	Great Blue Heron; Mink

Notes:
COPEC = constituent of potential ecological concern
ESB = ecological screening benchmark
HQ = hazard quotient
NA = not applicable
TRV = toxicity reference value

Table 4-1
ERA Dataset
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Matrix	Depth (ft)	VOCs	SVOCs	TPH	Metals	E&E	Dioxins/Furans	Pest/PCBs
Sediment	0.0 - 0.5	0	37	0	45	20	0	0
Sediment	0.5 - 1.0	5	108	104	271	274	0	0
Soil	0.0 - 0.5	64	149	11	151	95	6	63
Soil	0.5 - 1.0	312	232	27	249	249	4	190
Soil	0.0 - 1.0	8	488	0	476	307	0	42
Soil	0.0-1.5	7	175	0	164	127	9	19
Surface Water		119	125	102	250	231	0	0

Notes:

PCB = polychlorinated biphenyl

SVOC = semivolatile organic compound

VOC = volatile organic compound

TPH = total petroleum hydrocarbons

E&E = explosives and energetics

ft = feet

Table 4-2
Summary of Ecological Screening Benchmarks for Detected Constituents
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte [12]	CAS	Soil Screening Value (mg/kg)	Note	Sediment Screening Value (mg/kg)	Note	Surface Water Screening Value (µg/L)	Note
VOCs							
1,1,2,2-Tetrachloroethane	79-34-5	0.127	2	0.85	2	380	2
1,1-Dichloroethene	75-35-4	8.28	2	0.0194	2	65	2
1,2,4-Trichlorobenzene	120-82-1	20	1	5.062	2	NA	--
1,2-Dichlorobenzene	95-50-1	2.96	2	0.294	1	NA	--
1,3-Dichlorobenzene	541-73-1	37.7	2	1.315	2	NA	--
1,4-Dichlorobenzene	106-46-7	0.546	2	0.318	2	NA	--
2-Butanone	78-93-3	89.6	2	0.0424	2	NA	--
Acetone	67-64-1	2.5	2	0.0099	2	NA	--
Acrolein	107-02-8	5.27	2	0.00000152	2	0.19	2
Acrylonitrile	107-13-1	0.0239	2	0.0012	2	66	2
Benzene	71-43-2	0.255	2	0.34	1	114	2
Bromodichloromethane	75-27-4	0.54	2	NA	--	--	15
Bromomethane	74-83-9	0.235	2	0.00137	2	16	2
Carbon Disulfide	75-15-0	0.0941	2	0.0239	2	NA	--
Carbon Tetrachloride	56-23-5	2.98	2	1.45	2	240	2
CFC-11	75-69-4	16.4	2	NA	--	NA	--
Chlorobenzene	108-90-7	13.1	2	0.291	2	47	2
Chlorodibromomethane	124-48-1	2.05	2	NA	--	35000	23
Chloroform	67-66-3	1.19	2	0.121	2	140	2
Chloromethane	74-87-3	10.4	2	NA	--	NA	--
cis-1,2-Dichloroethene	156-59-2	NA	--	NA	--	590	9
Dichloromethane	75-09-2	4.05	2	0.159	2	940	2
Ethylbenzene	100-41-4	5.16	2	1.4	1	14	2
Hexachloro-1,3-Butadiene	87-68-3	0.0398	2	0.0265	2	0.053	2
Isopropylbenzene	98-82-8	--	15	0.086	9	NA	--
Methyl Acetate	79-20-9	--	15	NA	--	NA	--
Naphthalene	91-20-3	0.0994	2	0.16	1	13	2
Tetrachloroethene	127-18-4	9.92	2	0.45	1	45	2
Toluene	108-88-3	200	1	2.5	1	253	2
Trichloroethene	79-01-6	12.4	2	1.6	1	47	2
Vinyl Chloride	75-01-4	0.646	2	0.202	2	930	2
SVOCs							
1,2-Diphenylhydrazine	122-66-7	--	15	NA	--	NA	--
1-Methylnaphthalene	90-12-0	3240	2,25	0.0202	2,25	NA	--
2,2-Oxybis(1-Chloropropane)	108-60-1	19.9	2	NA	--	NA	--
2,4-Dimethylphenol	105-67-9	0.01	2	0.304	2	100	2
2,4-Dinitrophenol	51-28-5	0.0609	2	0.00621	2	19	2
2,4-Dinitrotoluene	121-14-2	1.28	2	0.0144	2,12	44	2
2,6-Dinitrotoluene	606-20-2	0.0328	2	0.0398	2,12	81	2
2-Chlorophenol	95-57-8	0.243	2	0.0319	2	24	2
2-Methyl-4,6-Dinitrophenol	534-52-1	0.144	2	0.104	2	23	2
2-Methylnaphthalene	91-57-6	3.24	1	0.070	1	330	2
3,3-Dichlorobenzidine	91-94-1	0.646	2	0.127	2	4.5	2
3,5,5-Trimethyl-2-Cyclohexene-1-One	78-59-1	139	2	0.432	2	920	2
4-Methylphenol	106-44-5	163	2	0.0202	2	25	2
4-Nitrophenol	100-02-7	7	1	0.0133	2	60	2
Acenaphthene	83-32-9	20	1	0.016	1	38	2
Acenaphthylene	208-96-8	682	2	0.044	1	4840	2
Anthracene	120-12-7	1480	2	0.22	7	0.035	2
Benzaldehyde	100-52-7	470	16	NA	--	NA	--
Benzidine	92-87-5	1.31	2,17	NA	--	3.9	9
Benzo(a)anthracene	56-55-3	5.21	2	0.32	7	0.025	2
Benzo(a)pyrene	50-32-8	1.52	2	0.37	7	0.014	2
Benzo(b)fluoranthene	205-99-2	59.8	2	10.4	2	9.07	2
Benzo(g,h,i)fluoranthene	203-12-3	1.1	18	NA	--	NA	--
Benzo(g,h,i)perylene	191-24-2	119	2	0.17	7	7.64	2
Benzo(k)fluoranthene	207-08-9	148	2	0.24	7	9.07	2,22
Benzyl Butyl Phthalate	85-68-7	0.239	2	1.97	2	23	2
Bis(2-Ethylhexyl)phthalate	117-81-7	0.925	2	0.182	2	0.3	2
Carbazole	86-74-8	NA	--	NA	--	NA	--
SVOCs							
Chrysene	218-01-9	4.73	2	0.34	7	0.28	10
Dibenzo(a,h)anthracene	53-70-3	18.4	2	0.06	7	NA	--
Dibenzofuran	132-64-9	NA	--	0.449	2	4	2
Diethyl Phthalate	84-66-2	24.8	2	0.295	2	110	2
Dimethyl Phthalate	131-11-3	734	2	1	10	NA	--
Di-N-Butyl Phthalate	84-74-2	0.15	2	1.114	2	9.7	2
Di-n-Octyl Phthalate	117-84-0	7.09	2	40.6	2	NA	--
Fluoranthene	206-44-0	122	2	0.75	7	1.9	2
Fluorene	86-73-7	122	2	0.19	7	19	2
Hexachlorobenzene	118-74-1	0.199	2	0.02	7	0.0003	2
Hexachloroethane	67-72-1	0.596	2	0.584	2	8	2
Indeno(1,2,3-cd)pyrene	193-39-5	109	2	0.2	7	4.31	2
Nitrobenzene	98-95-3	1.31	2	0.145	2	220	2
N-Nitrosodimethylamine	62-75-9	0.0000321	2	NA	--	117	9
N-Nitrosodi-N-Propylamine	621-64-7	0.544	2	NA	--	NA	--
N-nitrosodiphenylamine	86-30-6	0.545	2	2.68	9	210	9
Pentachlorophenol	87-86-5	2.1	3	23	2	5	14

Table 4-2
Summary of Ecological Screening Benchmarks for Detected Constituents
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte [12]	CAS	Soil Screening Value (mg/kg)	Note	Sediment Screening Value (mg/kg)	Note	Surface Water Screening Value (µg/L)	Note
Phenanthrene	85-01-8	45.7	2	0.56	7	3.6	2
Phenol	108-95-2	30	1	0.0491	2	180	2
Pyrene	129-00-0	78.5	2	0.49	7	0.3	2
Total PAHs	ARC-TPAH	NA	--	NA	--	NA	--
Dioxins							
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	0.00000315	1	0.00000012	1,7	0.000000003	1
TPH							
Amyl Alcohol	71-41-0	NA		NA	--	NA	--
Di-n-propyl ether	111-43-3	NA		NA	--	NA	--
Ethanol	64-17-5	NA	--	NA	--	8,000,000	24
Ethyl ether	60-29-7	NA		NA	--	NA	--
Methanol	67-56-1	NA	--	NA	--	NA	--
Motor Oils	ARC-MOIL	NA		NA	--	NA	--
Triphenylene	217-59-4	1.1	18	NA	--	NA	--
PCBs							
Aroclor 1016	12674-11-2	0.371	1	--	--	--	--
Aroclor 1221	11104-28-2	0.371	1	--	--	--	--
Aroclor 1232	11141-16-5	0.371	1	--	--	--	--
Aroclor 1242	53469-21-9	0.371	1	--	--	--	--
Aroclor 1248	12672-29-6	0.371	1	--	--	--	--
Aroclor 1254	11097-69-1	0.371	1	--	--	--	--
Aroclor 1260	11096-82-5	0.371	1	--	--	--	--
Total PCBs	1336-36-3	0.371	1	--	--	--	--
Inorganics							
Aluminum	7429-90-5	50	1	25,500	1	87	9
Antimony	7440-36-0	0.27	3	3	8	80	2
Arsenic	7440-38-2	9.9	1	6	7	150	1
Barium	7440-39-3	283	1	7,000	10	220	2
Beryllium	7440-41-7	10	1	NA	--	3.6	2
Cadmium (solid)	7440-43-9	0.36	3	0.6	7	NA	--
Cadmium (AQ - dissolved)	7440-43-9	NA	--	NA	--	0.12^{n} / 0.20^{s}	13
Cadmium (AQ - total)	7440-43-9	NA	--	NA	--	0.18^{n} / 0.31^{s}	13
Calcium	7440-70-2	--	19	--	19	--	19
Chromium (solid)	7440-47-3	0.4	1	26	7	42	2
Chromium (AQ - dissolved)	7440-47-3	NA	--	NA	--	15^{n} / 28^{s}	13
Chromium (AQ - total)	7440-47-3	NA	--	NA	--	54^{n} / 100^{s}	13
Cobalt	7440-48-4	0.14	2	50	2	24	2
Copper (solid)	7440-50-8	5.4	2	16	7	NA	--
Copper (AQ - dissolved)	7440-50-8	NA	--	NA	--	5.2^{n} / 9.9^{s}	13
Copper (AQ - total)	7440-50-8	NA	--	NA	--	5.7^{n} / 11^{s}	13
Iron	7439-89-6	--	19	20,000	9	300	9
Lead	7439-92-1	11	3	31	7	5.4	1
Magnesium	7439-95-4	--	19	460	9	82,000	9
Manganese	7439-96-5	220	3	630	28	120	9
Mercury	7439-97-6	0.1	2	0.2	7	0.77	1
Nickel (solid)	7440-02-0	38	3	16	7	NA	--
Nickel (AQ - dissolved)	7440-02-0	NA	--	NA	--	27^{n} / 52^{s}	13
Nickel (AQ - total)	7440-02-0	NA	--	NA	--	32^{n} / 61^{s}	13
Potassium	7440-09-7	--	19	--	19	--	19
Selenium	7782-49-2	0.52	3	2	9	5	1
Silver (solid)	7440-22-4	2	1	1	1	--	--
Silver (AQ - dissolved)	7440-22-4	NA	--	NA	--	1.2^{n} / 4.4^{s}	13
Silver (AQ - total)	7440-22-4	NA	--	NA	--	1.4^{n} / 5.2^{s}	13
Sodium	7440-23-5	--	19	--	19	--	19

Table 4-2
Summary of Ecological Screening Benchmarks for Detected Constituents
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte [12]	CAS	Soil Screening Value (mg/kg)	Note	Sediment Screening Value (mg/kg)	Note	Surface Water Screening Value (µg/L)	Note
Inorganics							
Thallium	7440-28-0	1	1	NA	--	10	2
Vanadium	7440-62-2	2	1	57	27	12	1
Zinc (solid)	7440-66-6	8.5	1	120	7	--	--
Zinc (AQ - dissolved)	7440-66-6	NA	--	NA	--	70^{n} / 133^{s}	13
Zinc (AQ - total)	7440-66-6	NA	--	NA	--	74^{n} / 140^{s}	13
Explosives							
1,3,5-Trinitrobenzene	99-35-4	0.376	2	0.16	11	10	6
1,3-Dinitrobenzene	99-65-0	0.665	2	0.5	11	22	2
2,4,6-Trinitrotoluene	118-96-7	6	20,4	1.1	11	90	6
2-Amino-4,6-dinitrotoluene	35572-78-2	80	6	1.3	11	20	6
2-Nitrotoluene	88-72-2	--	15	620	11	NA	--
3-Nitrotoluene	99-08-1	--	15	190	11	NA	--
4-Nitrotoluene	99-99-0	NA	--	68	11	NA	--
4-Amino-2,6-Dinitrotoluene	19406-51-0	80	6,21	3.5	11	20	6,21
Diazodinitrophenol	87-31-0	NA		NA	--	NA	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	600	20,4	0.38	11	150	9
Nitrocellulose	9004-70-0	NA	29	NA	--	9825	20,4
Nitroglycerin	55-63-0	65	20,4	127	11	138	9
Pentaerythritol Tetranitrate (PETN)	78-11-5	65	20	32533	11	85000	9
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	98	20,4	1.2	11	360	9
2,4,6-Trinitrophenylmethylnitramine (tetryl)	479-45-8	25	6	0.6	11	NA	--

Notes:
1. New Jersey Department of Environmental Protection (NJDEP) value from Ecological Screening Criteria (ESC) Table (NJDEP 2009
2. Resource Conservation and Recovery Act Region 5 Ecological Screening Level (United States Environmental Protection Agency [U
3. Ecological Soil Screening Value (EcoSSL) (USEPA 2007)
4. Kuperman et al. 2009. In Ecotoxicology of Explosives. Sunahara et al. (eds). CRC Press.
6. Talmage et al. 1999
7. NJDEP Lowest Effects Level value
8. NJDEP Severe Effects Level value
9. Region 3 Biological Technical Assistance Group Freshwater Sediment Screening Benchmarks (USEPA 2006)
10. Verbruggen et al. 2001
11. Pascoe et al. 2010
12. Some constituents were analyzed under multiple analytical methods but are presented once in the table.
13. Metals screening values based on average hardness of 57 milligrams per liter (mg/L) calcium carbonate ($CaCO_3$) in Northern Drain and 120 mg/L CaCO3 in Southern Drainage Area. Values for the Northern Drainage Area designated with an "n" while values for th Southern Drainage Area are designated with an "s"
14. Value calculated as a function of pH based on NJDEP ESC Table.
15. Analyte detected fewer than five times and screens out based on frequency of detection. Screening value not necessary.
16. Schafer et al. 1985
17. Value for nitrobenzene used as a surrogate.
18. Conservative high molecular weight polycyclic aromatic hydrocarbons from EcoSSL Table.
19. Analyte considered an essential nutrient; therefore, a screening level is not necessary.
20. Value for nitroglycerin used as a surrogate.
21. Value for 2-amino-4,6-dinitrotoluene used as a surrogate.
22. Value for benzo(b)fluoranthene used as a surrogate.
23. Mattice et al. 1981
24. Dhawan et al. 1999
25. Value for 2-methylnaphthalene used as a surrogate.
26. Screening value is organic carbon normalized. Converted to site-specific screening value based on an average organic carbon of 13.3% in the Northern Drainage Area and 5.8% in the Southern Drainage Area.
27. Value for saline water in the NJDEP ESC Table used for lack of a freshwater value.
28. Sediment value from NOAA Screening Quick Reference Tables (SQuiRTs).
29. Department of Defense. 1980. Data Summary for Nitrocellulose.

-- = not applicable
CAS = Chemical Abstract Service
mg/kg = milligram per kilogram
NA = not available
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
µg/L = microgram per liter
VOC = volatile organic compound

Table 4-3
COPEC Summary
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

		Sediment													Surface Water										
		Northern Drainage Area					Southern Drainage Area								Northern Drainage Area					Southern Drainage Area							
Analyte	Soil	Duck Pond	Eastern Trib	Northeastern Pond	Unnamed Pond	Western Trib	Central Drainage	Development	Maint-Dyn East	Maint-Dyn West	Maint-NG	Stream Lower	Stream Upper	TNT-PETN-NG Ditches	Duck Pond	Eastern Trib	Northeastern Pond	Unnamed Pond	Western Trib	Drainage	Development	Maint-Dyn East	Dyn West	Maint-NG	Stream Lower	Stream Upper	TNT-PETN-NG Ditches
VOC																											
Benzene	X																										
Bromomethane	X																										
SVOC																											
2-Methylnaphthalene						X	X		X		X																
2,4-Dinitrotoluene	X	X									X			X													
2,6-Dinitrotoluene	X													X													
Acenaphthene							X		X	X	X	X		X													
Acenaphthylene		X			X		X		X	X	X	X		X													
Anthracene		X			X		X		X	X	X	X															
Benzo(a)anthracene	X	X			X		X		X	X	X	X		X									X		X		
Benzo(a)pyrene	X	X			X		X		X	X	X	X		X									X		X		
Benzo(g,h,i)fluoranthene	X	X			X		X		X	X	X	X		X													
Benzo(g,h,i)perylene		X			X		X		X	X	X	X		X													
Benzo(k)fluoranthene			X						X			X		X													
Benzyl Butyl Phthalate	X																										
Bis(2-Ethylhexyl)phthalate	X														X	X							X				
Chrysene	X	X			X	X	X		X	X	X	X		X									X		X		
Dibenzo(a,h)anthracene		X			X		X		X	X	X	X		X													
Di-N-Butyl Phthalate	X																										
Fluoranthene		X		X	X		X		X	X	X	X		X									X		X		
Fluorene						X	X		X	X																	
Indeno(1,2,3-cd)pyrene		X							X		X	X		X													
Naphthalene	X					X	X		X	X																	
N-Nitrosodi-N-Propylamine	X																										
N-nitrosodiphenylamine	X																										
Phenanthrene	X	X		X	X		X		X	X	X	X		X													
Pyrene		X		X			X		X	X	X	X		X													
Metals - Filtered																							X		X		
Cadmium																	X										
Copper															X		X		X						X		
Zinc																		X	X								
Metals - Total																											
Aluminum				X												X		X	X				X		X		
Antimony	X																										
Arsenic	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X			X	X	X			
Barium																		X									
Beryllium																									X		
Cadmium	X	X			X	X	X	X	X	X	X	X	X	X				X	X				X		X	X	
Chromium	X	X			X	X	X	X	X	X	X	X	X	X													
Cobalt	X						X																				
Copper	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X
Lead	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
Manganese	X						X											X	X			X	X		X		X
Mercury	X	X		X	X	X	X	X	X	X	X	X	X	X				X	X			X	X	X	X		
Nickel	X	X	X	X	X	X	X		X	X	X		X	X		X		X							X		
Selenium	X					X												X				X	X	X	X	X	X
Silver	X	X		X	X		X	X	X	X	X	X	X				X	X	X				X				
Thallium	X																		X	X			X			X	
Vanadium	X																	X	X								
Zinc	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X			X	X	X	X	X	X
Explosives and Energetics																											
2,4,6-Trinitrotoluene	X		X				X							X													
2-Amino-4,6-dinitrotoluene	X																										
4-Amino-2,6-dinitrotoluene	X																			X							
HMX	X																										
Nitrobenzene									X				X	X													
Nitrocellulose	X	X																									
Nitroglycerin	X																										
RDX																											
PCBs																											
Aroclor 1254	X																										
Aroclor 1260	X																										
Total PCBs	X																										

Notes:
COPEC = constituent of potential ecological concern
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound

Table 4-4
Preliminary COPEC Screen for Soil
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Chemical	CAS Number	Units	Sediment ESB	Detected Exceedances	# Analyses	# Detections	Frequency of Detections	Min Detected	Max Detected	Max HQ	Bioaccumulative[1]
Explosives											
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	11	767	103	13%	84	350000	58	2
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	1	767	11	1%	69	290000	4	2
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	1	767	14	2%	98	200000	3	2
Nitroglycerin	55-63-0	ug/kg	65000	52	779	224	29%	570	3900000	60	2
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	1	767	18	2%	300	8500000	14	2
Metals											
Antimony	7440-36-0	mg/kg	0.27	239	1000	254	25%	0.11	1040	3852	
Arsenic	7440-38-2	mg/kg	9.9	311	1039	1032	99%	1.21	1150	116	X
Cadmium	7440-43-9	mg/kg	0.36	414	1033	660	64%	0.02	140	389	X
Chromium	7440-47-3	mg/kg	0.4	834	834	834	100%	3.9	1010	2525	X
Cobalt	7440-48-4	mg/kg	0.14	57	57	57	100%	1.1	10	71	
Copper	7440-50-8	mg/kg	5.4	1019	1030	1029	100%	2.85	9520	1763	X
Lead	7439-92-1	mg/kg	11	892	1039	1039	100%	1.77	73600	6691	X
Manganese	7439-96-5	mg/kg	220	48	57	57	100%	26	3700	17	
Mercury	7439-97-6	mg/kg	0.1	541	1028	997	97%	0.0039	2940	29400	X
Nickel	7440-02-0	mg/kg	38	18	1032	1031	100%	1.9	1380	36	X
Selenium	7782-49-2	mg/kg	0.52	620	1001	707	71%	0.22	803	1544	X
Silver	7440-22-4	mg/kg	2	17	1037	244	24%	0.043	332	166	X
Thallium	7440-28-0	mg/kg	1	175	1000	287	29%	0.036	8.88	9	
Vanadium	7440-62-2	mg/kg	2	57	57	57	100%	13	54.1	27	
Zinc	7440-66-6	mg/kg	8.5	1028	1029	1028	100%	9.26	5320	626	X
PCBs											
Aroclor-1254	11097-69-1	ug/kg	371	13	313	76	24%	4.2	9800	26.42	X
Aroclor-1260	11096-82-5	ug/kg	371	8	312	82	26%	4.3	3000	8.09	X
Polychlorinated biphenyls	1336-36-3	ug/kg	371	30	302	110	36%	4.2	9800	26	X
SVOCs											
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	38	1043	198	19%	28	150000	117	2
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	83	1033	92	9%	16	180000	5488	2
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	1	66	19	29%	100	5500	5	X
Benzo[a]anthracene	56-55-3	ug/kg	5210	19	1045	615	59%	4.4	46000	9	X
Benzo[a]pyrene	50-32-8	ug/kg	1520	52	1045	617	59%	5	39000	26	X
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	18	1031	482	47%	19	8100	9	
Butylbenzylphthalate	85-68-7	ug/kg	239	14	1051	23	2%	60	23000	96	
Chrysene	218-01-9	ug/kg	4730	20	1045	632	60%	4	40000	8	X
Di-n-butylphthalate	84-74-2	ug/kg	150	210	1031	422	41%	22	190000	1267	
Naphthalene	91-20-3	ug/kg	99.4	16	828	95	11%	7	14900	150	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	3	1030	8	1%	21.6	2840	5	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	104	1003	306	31%	20	24000	44	
Phenanthrene	85-01-8	ug/kg	45700	2	842	549	65%	4	79000	2	X
VOCs											
Benzene	71-43-2	ug/kg	255	6	381	11	3%	1	8000	31	
Bromomethane	74-83-9	ug/kg	235	7	170	10	6%	123	907	4	

Notes:
1. Considered bioaccumulative according to USEPA 2000 and NJDEP 2015
2. Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational histor

% = percent
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
ug/kg = microgram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound
-- = no sediment ESB available

References:
NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2022. ProUCL Version 5.2.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 4-5
Preliminary COPEC Screen for Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	HQmax
Duck Pond								
Metals								
Copper	ug/L	T	5.2	23	5	2.4	4.7	≤1
Copper	ug/L	D	5.2	9	2	2.9	7.6	≤1
Lead	ug/L	T	5.4	23	3	0.99	12.5	**2**
Lead	ug/L	D	5.4	9	0	--	--	--
SVOCs								
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	27	1	2	2	**7**
Eastern Tributary								
Metals								
Aluminum	ug/L	T*	87	4	2	88.1	107	≤1
Copper	µg/L	D	5.2	8	1	2.9	2.9	≤1
Copper	µg/L	T	5.7	16	7	2.7	17.5	**3**
Lead	µg/L	D	5.4	8	3	8.5	10.7	**2**
Lead	µg/L	T	5.4	16	10	0.54	35.6	**7**
Nickel	µg/L	D	27	6	0	--	--	--
Nickel	µg/L	T	32	10	3	1.9	178	**6**
Zinc	µg/L	D	70	8	8	24.8	43.6	≤1
Zinc	µg/L	T	74	16	14	2.1	419	**6**
SVOCs								
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	10	1	12	12	**40**
Northeast Ponds								
Metals								
Cadmium	µg/L	D	0.12	14	1	0.74	0.74	**6**
Cadmium	µg/L	T	0.18	14	0	--	--	--
Copper	µg/L	D	5.2	16	4	2.6	6.7	≤1
Copper	µg/L	T	5.7	15	8	2.8	9.8	**2**
Lead	µg/L	D	5.4	16	0	--	--	--
Lead	µg/L	T	5.4	15	1	55.2	55.2	**10**
Silver	µg/L	D	1.4	16	0	--	--	--
Silver	µg/L	T	1.4	15	1	2.8	2.8	**2**
Zinc	µg/L	D	70	16	16	9.1	49.2	≤1
Zinc	µg/L	T	74	15	15	9.7	100	≤1
Unnamed Ponds								
Metals								
Aluminum	µg/L	D	87	5	4	122	181	**2**
Aluminum	µg/L	T	87	7	7	168	12300	**141**
Barium	µg/L	D	220	5	5	23.7	35.9	≤1
Barium	µg/L	T	220	7	7	25.6	1000	**5**
Cadmium	µg/L	D	0.12	13	0	--	--	--
Cadmium	µg/L	T	0.18	15	2	0.66	19.2	**107**
Copper	µg/L	D	5.2	13	1	4.4	4.4	≤1
Copper	µg/L	T	5.7	22	11	3.1	366	**64**
Iron	µg/L	D	300	5	5	1460	4010	**13**
Iron	µg/L	T	300	7	7	874	131000	**437**
Lead	µg/L	D	5.4	13	5	0.52	3.9	≤1
Lead	µg/L	T	5.4	22	8	2.2	623	**115**
Manganese	µg/L	D	120	5	5	27.4	199	**2**
Manganese	µg/L	T	120	7	7	87.7	1320	**11**
Mercury	µg/L	D	0.77	13	0	--	--	--
Mercury	µg/L	T	0.77	22	1	1.3	1.3	**2**
Nickel	µg/L	D	27	13	6	1.8	3.7	≤1
Nickel	µg/L	T	32	15	2	4.2	65.6	**2**

Table 4-5
Preliminary COPEC Screen for Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Selenium	µg/L	D	5	13	0	--	--	--
Selenium	µg/L	T	5	22	1	25.6	25.6	**5**
Silver	µg/L	D	1.4	13	0	--	--	--
Silver	µg/L	T	1.4	22	1	2	2	≤1
Vanadium	µg/L	D	12	5	0	--	--	--
Vanadium	µg/L	T	12	7	4	2.9	62.1	**5**
Zinc	µg/L	D	70	15	15	4.8	247	**4**
Zinc	µg/L	T	74	24	24	6	6920	**94**
Western Tributary								
Metals								
Aluminum	µg/L	D	87	10	4	111	175	**2**
Aluminum	µg/L	T	87	11	8	137	3120	**36**
Arsenic	µg/L	D	150	22	9	0.62	2.5	≤1
Arsenic	µg/L	T	150	26	14	0.86	176	≤1
Cadmium	µg/L	D	0.12	17	0	--	--	--
Cadmium	µg/L	T	0.18	18	3	0.92	3.8	**21**
Copper	µg/L	D	5.2	22	7	1.9	72.4	**14**
Copper	µg/L	T	5.7	26	14	2.5	871	**153**
Iron	µg/L	D	300	10	10	74.8	5300	**18**
Iron	µg/L	T	300	11	11	838	15000	**50**
Lead	µg/L	D	5.4	22	12	0.18	40	**7**
Lead	µg/L	T	5.4	26	18	0.99	3000	**556**
Manganese	µg/L	D	120	10	10	2.3	1970	**16**
Manganese	µg/L	T	120	11	11	23	2070	**17**
Mercury	µg/L	D	0.77	22	6	0.069	0.32	≤1
Mercury	µg/L	T	0.77	26	6	0.027	2.5	**3**
Selenium	µg/L	D	5	22	1	10.3	10.3	**2**
Selenium	µg/L	T	5	26	0	--	--	--
Silver	µg/L	D	1.4	22	0	--	--	--
Silver	µg/L	T	1.4	26	2	11.8	12.2	**9**
Thallium	µg/L	D	10	22	0	--	--	--
Thallium	µg/L	T	10	26	2	104	149	**15**
Vanadium	µg/L	D	12	10	0	--	--	--
Vanadium	µg/L	T	12	11	3	6	15.2	≤1
Zinc	µg/L	D	70	23	16	4.3	504	**7**
Zinc	µg/L	T	74	27	23	5.8	7620	**103**

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
HQ = hazard quotient
ESB = ecological screening benchmark
Y = yes
N = no
ug/L = micrograms per liter
mg/L = milligram per liter
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
Screening Criteria from Ecological Screening Benchmark (ESB) Table 4-2
* only totals metal data available; screen based on total metals in this case
In cases where an ESB is only available for total metals, the dissolved metal data is screened against the total metal ESB

Table 4-6
Preliminary COPEC Screen for Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ
Sed N - Duck Pond									
Explosives									
Nitroglycerin	µg/kg	127000		45	15	33%	3100	2700000	**21**
Metals									
Arsenic	mg/kg	6	33	45	35	78%	1.27	41.1	**7**
Cadmium	mg/kg	0.6	10	45	42	93%	0.191	4.5	**8**
Chromium	mg/kg	26	110	45	45	100%	8.18	106	**4**
Copper	mg/kg	16	110	45	45	100%	7.67	556	**35**
Lead	mg/kg	31	250	45	45	100%	4.51	851	**27**
Mercury	mg/kg	0.2	2	45	44	98%	0.0043	0.69	**3**
Nickel	mg/kg	16	75	45	45	100%	3.22	151	**9**
Silver	mg/kg	1		45	3	7%	0.498	1.32	1
Zinc	mg/kg	120	820	45	45	100%	32	1110	**9**
SVOCs									
2,4-Dinitrotoluene	µg/kg	14.4		27	2	7%	270	4500	**313**
Acenaphthylene	µg/kg	44		27	2	7%	130	580	**13**
Anthracene	µg/kg	220	370,000	27	2	7%	120	560	**3**
Benzo(a)anthracene	µg/kg	320	1,480,000	27	10	37%	53	1800	**6**
Benzo(a)pyrene	µg/kg	370	1,440,000	27	10	37%	67	1500	**4**
Benzo(g,h,i)perylene	µg/kg	170	320,000	27	7	26%	59	850	**5**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	27	10	37%	71	1600	**7**
Chrysene	µg/kg	340	460,000	27	12	44%	62	2000	**6**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	27	2	7%	95	240	**4**
Fluoranthene	µg/kg	750	1,020,000	27	14	52%	80	2000	**3**
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	1	1	100%	270	270	1
Phenanthrene	µg/kg	560	950,000	27	5	19%	59	770	1
Pyrene	µg/kg	490	850,000	27	14	52%	85	4000	**8**
Sed N - Eastern Trib									
Explosives									
2,4,6-Trinitrotoluene	µg/kg	1100		8	1	13%	1200	1200	1
Metals									
Arsenic	mg/kg	6	33	8	8	100%	1.17	11.7	**2**
Copper	mg/kg	16	110	8	8	100%	10.4	189	**12**
Lead	mg/kg	31	250	8	8	100%	7.63	235	**8**
Nickel	mg/kg	16	75	8	8	100%	6.25	25.3	**2**
Zinc	mg/kg	120	820	8	8	100%	32.8	294	**2**
SVOCs									
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	2	2	100%	150	230	1
Sed N - Northeastern Pond									
Metals									
Aluminum	mg/kg	25500		3	3	100%	12200	38000	1
Arsenic	mg/kg	6	33	16	12	75%	0.64	9.7	**2**
Copper	mg/kg	16	110	16	16	100%	3.6	98.7	**6**
Lead	mg/kg	31	250	16	16	100%	9.7	214	**7**
Mercury	mg/kg	0.2	2	16	15	94%	0.034	0.495	**2**
Nickel	mg/kg	16	75	16	16	100%	1.7	17.6	1
Silver	mg/kg	1		16	5	31%	0.813	5.06	**5**
Zinc	mg/kg	120	820	16	16	100%	10.6	929	**8**
SVOCs									
Fluoranthene	µg/kg	750	1,020,000	6	3	50%	56	1100	1
Phenanthrene	µg/kg	560	950,000	6	3	50%	49	1100	**2**
Pyrene	µg/kg	490	850,000	6	3	50%	57	1100	**2**
Sed N - Unnamed Pond									
Metals									
Arsenic	mg/kg	6	33	22	20	91%	1.86	111	**19**
Cadmium	mg/kg	0.6	10	17	14	82%	0.255	7.19	**12**
Chromium	mg/kg	26	110	17	17	100%	4.89	48.9	**2**
Copper	mg/kg	16	110	17	17	100%	3.77	357	**22**
Lead	mg/kg	31	250	22	22	100%	15.9	2370	**76**
Mercury	mg/kg	0.2	2	22	22	100%	0.0079	11.4	**57**
Nickel	mg/kg	16	75	17	17	100%	3.01	36.5	**2**
Silver	mg/kg	1		17	3	18%	0.274	1.46	1
Zinc	mg/kg	120	820	22	22	100%	35.8	4500	**38**
SVOCs									
Acenaphthylene	µg/kg	44		12	2	17%	170	230	**5**
Anthracene	µg/kg	220	370,000	12	2	17%	230	430	**2**
Benzo(a)anthracene	µg/kg	320	1,480,000	12	6	50%	81	2100	**7**
Benzo(a)pyrene	µg/kg	370	1,440,000	12	6	50%	76	1500	**4**
Benzo(g,h,i)perylene	µg/kg	170	320,000	12	6	50%	57	1300	**8**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	12	5	42%	57	1700	**7**
Chrysene	µg/kg	340	460,000	12	6	50%	110	2900	**9**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	12	2	17%	180	180	**3**
Fluoranthene	µg/kg	750	1,020,000	12	8	67%	83	2200	**3**

Table 4-6
Preliminary COPEC Screen for Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ
Sed N - Western Trib									
Metals									
Arsenic	mg/kg	6	33	34	29	85%	1.84	16.2	**3**
Cadmium	mg/kg	0.6	10	34	33	97%	0.317	2.85	**5**
Chromium	mg/kg	26	110	34	34	100%	6.3	52.1	**2**
Copper	mg/kg	16	110	34	34	100%	6.85	584	**37**
Lead	mg/kg	31	250	34	34	100%	18.8	2990	**96**
Mercury	mg/kg	0.2	2	34	34	100%	0.0444	2.79	**14**
Nickel	mg/kg	16	75	34	34	100%	3.21	16.6	1
Selenium	mg/kg	2		2	1	50%	5.49	5.49	**3**
Zinc	mg/kg	120	820	34	34	100%	71.2	1000	**8**
SVOCs									
2-Methylnaphthalene	µg/kg	70		2	1	50%	130	130	**2**
Chrysene	µg/kg	340	460,000	3	2	67%	240	360	1
Fluorene	µg/kg	190	160,000	3	1	33%	210	210	1
Naphthalene	µg/kg	160	2,100,000	3	1	33%	170	170	1

Notes:

Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
LEL - lowest effects level
SEL = severe effects level
HQ = hazard quotient
ESB = ecological screening benchmark
Sed N = sediment Northen drainage area
Y = yes
N = no
ug/kg = micrograms per kilogram
mg/kg = milligram per kilogram
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds

Table 4-7
Preliminary COPEC Screen for Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	HQmax
Central Drainage Basin								
Explosives								
4-Amino-2,6-dinitrotoluene	ug/L	T	20	11	6	0.72	21	≤1
Metals								--
Copper	µg/L	D	9.9	6	0	--	--	--
Copper	µg/L	T	11	9	4	2.1	12.6	≤1
Lead	µg/L	D	5.4	6	0	--	--	--
Lead	µg/L	T	5.4	9	5	21.1	223	**41**
Thallium	µg/L	D	10	6	0	--	--	--
Thallium	µg/L	T	10	9	1	10.4	10.4	≤1
Development Area Stream								
No COPECS								
Maintenance Dynamite East								
Metals								
Arsenic	µg/L	D	150	19	0	--	--	--
Arsenic	µg/L	T	150	21	5	6	185	≤1
Copper	µg/L	D	9.9	24	6	3	3.8	≤1
Copper	µg/L	T	11	26	11	2.1	297	**27**
Lead	µg/L	D	5.4	24	1	0.32	0.32	≤1
Lead	µg/L	T	5.4	26	15	0.15	3210	**594**
Manganese	µg/L	T	120	1	1	210	210	**2**
Mercury	µg/L	D	0.77	19	0	--	--	--
Mercury	µg/L	T	0.77	21	4	0.03	4	**5**
Selenium	µg/L	D	5	19	2	4.5	5.2	≤1
Selenium	µg/L	T	5	21	2	10	21	**4**
Zinc	µg/L	D	133	19	9	3.4	31.4	≤1
Zinc	µg/L	T	140	21	11	5.2	4450	**32**
Maintenance Dynamite West								
Metals								
Aluminum	µg/L	T*	87	2	2	219	512	**6**
Arsenic	µg/L	D	150	19	0	--	--	--
Arsenic	µg/L	T	150	38	16	2.1	469	**3**
Cadmium	µg/L	D	0.2	17	0	--	--	--
Cadmium	µg/L	T	0.31	19	2	0.84	2	**6**
Copper	µg/L	D	9.9	21	4	2.5	2.8	≤1
Copper	µg/L	T	11	40	24	2.2	2400	**218**
Iron	µg/L	T*	300	2	2	12400	28000	**93**
Lead	µg/L	D	5.4	21	1	17.5	17.5	**3**
Lead	µg/L	T	5.4	40	24	9.2	1320	**244**
Manganese	µg/L	T*	120	2	2	1490	2060	**17**
Mercury	µg/L	D	0.77	21	1	0.072	0.072	≤1
Mercury	µg/L	T	0.77	40	9	0.064	13	**17**
Selenium	µg/L	D	5	19	1	4.4	4.4	≤1
Selenium	µg/L	T	5	38	2	21.8	71.9	**14**
Silver	µg/L	D	4.4	19	1	2.1	2.1	≤1
Silver	µg/L	T	5.2	38	6	8.4	16.2	**3**
Thallium	µg/L	D	10	19	0	--	--	--
Thallium	µg/L	T	10	38	1	32.1	32.1	**3**
Zinc	µg/L	D	133	19	17	5.6	37.7	≤1
Zinc	µg/L	T	140	38	34	6.6	2630	**19**
SVOCs								
Benzo[a]anthracene	ug/L	T	0.025	27	1	2	2	**80**
Benzo[a]pyrene	ug/L	T	0.014	27	2	1	2	**143**
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	27	1	2	2	**7**
Chrysene	ug/L	T	0.28	27	2	1	2	**7**
Fluoranthene	ug/L	T	1.9	19	1	3	3	**2**
Pyrene	ug/L	T	0.3	19	1	3	3	**10**
Maintenance NG								
Metals								

Table 4-7
Preliminary COPEC Screen for Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	HQmax
Arsenic	µg/L	D	150	7	1	4.4	5.3	≤1
Arsenic	µg/L	T	150	11	5	16.4	153	≤1
Copper	µg/L	D	9.9	7	4	2.4	3.2	≤1
Copper	µg/L	T	11	11	7	2.9	1030	**94**
Lead	µg/L	D	5.4	7	0	--	--	--
Lead	µg/L	T	5.4	11	7	32.9	2320	**430**
Mercury	µg/L	D	0.77	7	0	--	--	--
Mercury	µg/L	T	0.77	11	2	0.44	1.9	**2**
Selenium	µg/L	D	5	7	0	--	--	--
Selenium	µg/L	T	5	11	1	5.7	5.7	≤1
Zinc	µg/L	D	133	7	7	14.4	89.6	≤1
Zinc	µg/L	T	140	11	10	26.2	3750	**27**
Offsite Stream Lower								
Metals								
Aluminum	µg/L	T*	87	4	3	148	1430	**16**
Beryllium	µg/L	D	3.6	13	0	--	--	--
Beryllium	µg/L	T	3.6	17	1	21.7	21.7	**6**
Cadmium	µg/L	D	0.2	13	0	--	--	--
Cadmium	µg/L	T	0.31	17	2	1	8.6	**28**
Copper	µg/L	D	9.9	13	1	11.7	11.7	≤1
Copper	µg/L	T	11	41	28	2.2	215	**20**
Iron	µg/L	T*	300	4	4	926	21000	**70**
Lead	µg/L	D	5.4	13	0	--	--	--
Lead	µg/L	T	5.4	41	26	0.35	1020	**189**
Manganese	µg/L	T*	120	4	4	416	1670	**14**
Mercury	µg/L	D	0.77	13	0	--	--	--
Mercury	µg/L	T	0.77	41	12	0.026	7.7	**10**
Nickel	µg/L	D	52	13	2	2	3.4	≤1
Nickel	µg/L	T	61	17	8	2.2	91.3	≤1
Selenium	µg/L	D	5	13	0	--	--	--
Selenium	µg/L	T	5	41	2	7.5	28.4	**6**
Zinc	µg/L	D	133	13	10	3.5	40	≤1
Zinc	µg/L	T	140	41	38	2.1	3330	**24**
SVOCs								--
Benzo[a]anthracene	ug/L	T	0.025	20	2	0.1	0.1	**4**
Benzo[a]pyrene	ug/L	T	0.014	20	2	0.2	0.2	**14**
Chrysene	ug/L	T	0.28	20	4	0.2	1	**4**
Fluoranthene	ug/L	T	1.9	17	3	0.3	2	≤1
Pyrene	ug/L	T	0.3	17	3	0.3	2	**7**
Offsite Stream Upper								
Metals								
Cadmium	µg/L	D	0.2	11	0	--	--	--
Cadmium	µg/L	T	0.31	11	4	0.66	1.4	**5**
Copper	µg/L	D	9.9	12	0	--	--	--
Copper	µg/L	T	11	21	8	3.5	99	**9**
Lead	µg/L	D	5.4	12	0	--	--	--
Lead	µg/L	T	5.4	21	11	12.9	375	**69**
Selenium	µg/L	D	5	12	0	--	--	--
Selenium	µg/L	T	5	21	2	13.8	15.5	**3**
Thallium	µg/L	D	10	12	0	--	--	--
Thallium	µg/L	T	10	21	1	10.9	10.9	≤1
Zinc	µg/L	D	133	12	9	3.7	29.4	≤1
Zinc	µg/L	T	140	21	18	3.2	910	**7**
TNT-PETN-NG Ditches								
Metals								
Copper	µg/L	D	9.9	4	0	--	--	--
Copper	µg/L	T	11	8	5	2.5	140	**13**
Iron	µg/L	D	300	1	1	200	200	≤1
Iron	µg/L	T	300	1	1	4940	4940	**16**

Table 4-7
Preliminary COPEC Screen for Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	HQmax
Lead	µg/L	D	5.4	4	1	0.36	0.36	≤1
Lead	µg/L	T	5.4	8	7	11.7	652	**121**
Manganese	µg/L	D	120	1	1	342	342	**3**
Manganese	µg/L	T	120	1	1	505	505	**4**
Selenium	µg/L	D	5	4	0	--	--	--
Selenium	µg/L	T	5	8	1	5.5	5.5	≤1
Zinc	µg/L	D	133	4	3	9.6	20.1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
HQ = hazard quotient
ESB = ecological screening benchmark
Y = yes
N = no
ug/L = micrograms per liter
mg/L = milligram per liter
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
Screening Criteria from Ecological Screening Benchmark (ESB) Table 4-2
* only totals metal data available; screen based on total metals in this case
In cases where an ESB is only available for total metals, the dissolved metal data is screened against the total metal ESB

Table 4-8
Preliminary COPEC Screen for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ
Sed S - Central Drainage									
Explosives									
2,4,6-Trinitrotoluene	µg/kg	1100		16	1	6%	19000	19000	**17**
Metals									
Arsenic	mg/kg	6	33	15	13	87%	2.64	97.3	**16**
Cadmium	mg/kg	0.6	10	15	8	53%	0.51	2.37	**4**
Chromium	mg/kg	26	110	15	14	93%	10.4	46.1	**2**
Copper	mg/kg	16	110	15	14	93%	6.88	217	**14**
Lead	mg/kg	31	250	25	24	96%	9.43	3400	**110**
Manganese	mg/kg	630	1,100	2	2	100%	697	2400	**4**
Mercury	mg/kg	0.2	2	25	25	100%	0.0205	25.4	**127**
Nickel	mg/kg	16	75	15	14	93%	3.85	27.9	**2**
Silver	mg/kg	1		15	3	20%	0.561	2.4	**2**
Zinc	mg/kg	120	820	15	15	100%	24.6	426	**4**
SVOCs									
2-Methylnaphthalene	µg/kg	70		2	1	50%	100	100	1
Acenaphthene	µg/kg	16		7	2	29%	250	140000	**8750**
Acenaphthylene	µg/kg	44		7	2	29%	340	900000	**20455**
Anthracene	µg/kg	220	370,000	7	2	29%	200	1100000	**5000**
Benzo(a)anthracene	µg/kg	320	1,480,000	7	4	57%	72	1500000	**4688**
Benzo(a)pyrene	µg/kg	370	1,440,000	7	4	57%	70	900000	**2432**
Benzo(g,h,i)perylene	µg/kg	170	320,000	7	4	57%	51	470000	**2765**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	7	4	57%	41	580000	**2417**
Chrysene	µg/kg	340	460,000	7	4	57%	70	1100000	**3235**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	7	2	29%	120	180000	**3000**
Fluoranthene	µg/kg	750	1,020,000	7	6	86%	110	3500000	**4667**
Fluorene	µg/kg	190	160,000	7	2	29%	98	1200000	**6316**
Naphthalene	µg/kg	160	2,100,000	7	2	29%	150	240000	**1500**
Phenanthrene	µg/kg	560	950,000	7	3	43%	240	5300000	**9464**
Pyrene	µg/kg	490	850,000	7	6	86%	100	2600000	**5306**
Sed S - Development									
Metals									
Arsenic	mg/kg	6	33	15	15	100%	1.91	31.6	**5**
Cadmium	mg/kg	0.6	10	15	6	40%	0.256	0.867	1
Chromium	mg/kg	26	110	15	15	100%	5.09	52.8	**2**
Copper	mg/kg	16	110	15	15	100%	6.55	59.4	**4**
Lead	mg/kg	31	250	15	15	100%	7.75	77.6	**3**
Mercury	mg/kg	0.2	2	15	11	73%	0.011	0.704	**4**
Silver	mg/kg	1		15	1	7%	1.17	1.17	1
Zinc	mg/kg	120	820	15	15	100%	71	237	**2**
Sed S - Maint-Dyn East									
Explosives									
Nitrobenzene	µg/kg	145		50	1	2%	400	400	**3**
Metals									
Arsenic	mg/kg	6	33	43	40	93%	1.1	28.9	**5**
Cadmium	mg/kg	0.6	10	43	11	26%	0.11	3.3	**6**
Chromium	mg/kg	26	110	46	46	100%	6.42	246	**9**
Copper	mg/kg	16	110	43	43	100%	3.73	92.5	**6**
Lead	mg/kg	31	250	43	43	100%	5.25	1990	**64**
Mercury	mg/kg	0.2	2	43	43	100%	0.0169	11	**55**
Nickel	mg/kg	16	75	43	43	100%	2.06	28	**2**
Silver	mg/kg	1		43	19	44%	0.225	13.4	**13**
Zinc	mg/kg	120	820	43	43	100%	26.8	1100	**9**
SVOCs									
2-Methylnaphthalene	µg/kg	70		6	2	33%	180	780	**11**
Acenaphthene	µg/kg	16		30	4	13%	79	480	**30**
Acenaphthylene	µg/kg	44		30	11	37%	35	2400	**55**
Anthracene	µg/kg	220	370,000	30	11	37%	60	2100	**10**
Benzo(a)anthracene	µg/kg	320	1,480,000	30	20	67%	49	4300	**13**
Benzo(a)pyrene	µg/kg	370	1,440,000	30	20	67%	60	4200	**11**
Benzo(g,h,i)perylene	µg/kg	170	320,000	30	19	63%	47	2700	**16**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	30	17	57%	70	2100	**9**
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	7	1	14%	1400	1400	**8**
Chrysene	µg/kg	340	460,000	30	20	67%	70	6600	**19**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	30	10	33%	50	560	**9**
Fluoranthene	µg/kg	750	1,020,000	30	24	80%	47	11000	**15**
Fluorene	µg/kg	190	160,000	30	7	23%	59	1500	**8**
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	13	12	92%	78	2200	**11**
Naphthalene	µg/kg	160	2,100,000	30	4	13%	82	770	**5**
Phenanthrene	µg/kg	560	950,000	30	19	63%	76	9700	**17**
Pyrene	µg/kg	490	850,000	30	25	83%	47	13000	**27**
Sed S - Maint-Dyn West									
Metals									
Arsenic	mg/kg	6	33	37	34	92%	1.12	72.4	**12**
Cadmium	mg/kg	0.6	10	37	31	84%	0.199	1.43	**2**
Chromium	mg/kg	26	110	37	37	100%	6.65	43.8	**2**
Copper	mg/kg	16	110	37	37	100%	3.3	195	**12**
Lead	mg/kg	31	250	37	37	100%	6.42	1060	**34**
Mercury	mg/kg	0.2	2	39	38	97%	0.0052	14.7	**74**

Table 4-8
Preliminary COPEC Screen for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ
Nickel	mg/kg	16	75	37	37	100%	3.77	29.4	**2**
Silver	mg/kg	1		37	4	11%	0.504	1.45	1
Zinc	mg/kg	120	820	37	37	100%	27.6	294	**2**
SVOCs									
Acenaphthene	µg/kg	16		20	2	10%	79	320	**20**
Acenaphthylene	µg/kg	44		20	6	30%	53	660	**15**
Anthracene	µg/kg	220	370,000	20	4	20%	160	1600	**7**
Benzo(a)anthracene	µg/kg	320	1,480,000	20	13	65%	79	6100	**19**
Benzo(a)pyrene	µg/kg	370	1,440,000	20	11	55%	78	2500	**7**
Benzo(g,h,i)perylene	µg/kg	170	320,000	20	10	50%	63	1200	**7**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	20	10	50%	60	2600	**11**
Chrysene	µg/kg	340	460,000	20	13	65%	93	6100	**18**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	20	6	30%	62	540	**9**
Fluoranthene	µg/kg	750	1,020,000	20	14	70%	110	7800	**10**
Fluorene	µg/kg	190	160,000	20	3	15%	66	300	**2**
Phenanthrene	µg/kg	560	950,000	20	13	65%	60	1700	**3**
Pyrene	µg/kg	490	850,000	20	17	85%	54	16000	**33**
Sed S - Maint-NG									
Metals									
Arsenic	mg/kg	6	33	22	21	95%	2.05	61.3	**10**
Cadmium	mg/kg	0.6	10	22	14	64%	0.256	3.8	**6**
Chromium	mg/kg	26	110	22	22	100%	7.8	29.7	1
Copper	mg/kg	16	110	25	25	100%	13.3	979	**61**
Lead	mg/kg	31	250	25	25	100%	27.9	12500	**403**
Mercury	mg/kg	0.2	2	25	25	100%	0.0692	27	**135**
Nickel	mg/kg	16	75	22	22	100%	4.04	81.9	**5**
Silver	mg/kg	1		22	5	23%	0.294	8.68	**9**
Zinc	mg/kg	120	820	22	22	100%	31.7	1550	**13**
SVOCs									
2,4-Dinitrotoluene	µg/kg	14.4		5	1	20%	120	560	**39**
2-Methylnaphthalene	µg/kg	70		2	1	50%	120	120	**2**
Acenaphthene	µg/kg	16		7	1	14%	98	98	**6**
Acenaphthylene	µg/kg	44		7	1	14%	180	180	**4**
Anthracene	µg/kg	220	370,000	7	3	43%	150	520	**2**
Benzo(a)anthracene	µg/kg	320	1,480,000	7	5	71%	100	2800	**9**
Benzo(a)pyrene	µg/kg	370	1,440,000	7	5	71%	81	2400	**6**
Benzo(g,h,i)perylene	µg/kg	170	320,000	7	5	71%	130	1400	**8**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	7	6	86%	99	1500	**6**
Chrysene	µg/kg	340	460,000	7	5	71%	120	2600	**8**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	7	2	29%	110	470	**8**
Fluoranthene	µg/kg	750	1,020,000	7	5	71%	180	4600	**6**
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	3	3	100%	170	260	1
Phenanthrene	µg/kg	560	950,000	7	5	71%	80	1700	**3**
Pyrene	µg/kg	490	850,000	7	6	86%	61	4900	**10**
Sed S - Offsite Stream Lower									
Metals									
Arsenic	mg/kg	6	33	36	21	58%	0.71	12.1	**2**
Cadmium	mg/kg	0.6	10	36	23	64%	0.176	2.09	**3**
Chromium	mg/kg	26	110	36	36	100%	4.99	117	**5**
Copper	mg/kg	16	110	36	36	100%	2.13	60.7	**4**
Lead	mg/kg	31	250	36	36	100%	4.43	206	**7**
Mercury	mg/kg	0.2	2	36	31	86%	0.0133	0.37	**2**
Silver	mg/kg	1		36	2	6%	0.943	1.58	**2**
Zinc	mg/kg	120	820	36	36	100%	18.1	340	**3**
SVOCs									
Acenaphthene	µg/kg	16		20	2	10%	51	99	**6**
Acenaphthylene	µg/kg	44		20	8	40%	39	210	**5**
Anthracene	µg/kg	220	370,000	20	11	55%	37	440	**2**
Benzo(a)anthracene	µg/kg	320	1,480,000	20	13	65%	70	1,500	**5**
Benzo(a)pyrene	µg/kg	370	1,440,000	20	13	65%	90	1,500	**4**
Benzo(g,h,i)perylene	µg/kg	170	320,000	20	13	65%	63	1,000	**6**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	20	13	65%	46	710	**3**
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	2	1	50%	460	460	**3**
Chrysene	µg/kg	340	460,000	20	15	75%	81	1,600	**5**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	20	8	40%	51	260	**4**
Fluoranthene	µg/kg	750	1,020,000	20	15	75%	130	2,600	**3**
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	5	3	60%	59	310	**2**
Phenanthrene	µg/kg	560	950,000	20	14	70%	72	1,500	**3**
Pyrene	µg/kg	490	850,000	20	15	75%	150	3,300	**7**
Sed S - Offsite Stream Upper									
Explosives									
Nitrobenzene	µg/kg	145		26	2	8%	1500	1800	**12**
Metals									
Arsenic	mg/kg	6	33	26	22	85%	1	31.8	**5**
Cadmium	mg/kg	0.6	10	26	18	69%	0.11	2.38	**4**
Chromium	mg/kg	26	110	26	26	100%	7.36	108	**4**
Copper	mg/kg	16	110	26	26	100%	3.13	47.4	**3**
Lead	mg/kg	31	250	31	31	100%	4.7	1580	**51**

Table 4-8
Preliminary COPEC Screen for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ
Mercury	mg/kg	0.2	2	26	25	96%	0.0229	4.14	**21**
Nickel	mg/kg	16	75	26	26	100%	1.8	21.7	1
Silver	mg/kg	1		26	2	8%	0.31	3.9	**4**
Zinc	mg/kg	120	820	26	26	100%	27	311	**3**
Sed S - TNT-PETN-NG Ditches									
Explosives									
2,4,6-Trinitrotoluene	µg/kg	1100		22	3	14%	840	1400	1
Nitrobenzene	µg/kg	145		22	4	18%	250	610	**4**
Metals									
Arsenic	mg/kg	6	33	24	22	92%	1.67	192	**32**
Cadmium	mg/kg	0.6	10	22	7	32%	0.245	3.33	**6**
Chromium	mg/kg	26	110	22	22	100%	8	43.1	**2**
Copper	mg/kg	16	110	22	22	100%	8.37	57.2	**4**
Lead	mg/kg	31	250	24	24	100%	7.28	2690	**87**
Mercury	mg/kg	0.2	2	24	21	88%	0.014	7.51	**38**
Nickel	mg/kg	16	75	22	22	100%	2.66	29.2	**2**
Zinc	mg/kg	120	820	22	22	100%	25.2	549	**5**
SVOCs									
2,4-Dinitrotoluene	µg/kg	14.4		9	2	22%	280	410	**28**
2,6-Dinitrotoluene	µg/kg	39.8		9	1	11%	75	75	**2**
Acenaphthene	µg/kg	16		10	1	10%	55	55	**3**
Acenaphthylene	µg/kg	44		10	1	10%	53	53	1
Benzo(a)anthracene	µg/kg	320	1,480,000	10	8	80%	120	710	**2**
Benzo(a)pyrene	µg/kg	370	1,440,000	10	8	80%	130	840	**2**
Benzo(g,h,i)perylene	µg/kg	170	320,000	10	8	80%	130	610	**4**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	10	8	80%	84	250	1
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	1	1	100%	540	540	**3**
Chrysene	µg/kg	340	460,000	10	8	80%	200	650	**2**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	10	5	50%	63	290	**5**
Fluoranthene	µg/kg	750	1,020,000	10	9	90%	230	980	1
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	2	2	100%	93	330	**2**
Phenanthrene	µg/kg	560	950,000	10	9	90%	140	880	**2**
Pyrene	µg/kg	490	850,000	10	10	100%	64	1300	**3**

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
LEL - lowest effects level
SEL = severe effects level
HQ = hazard quotient
ESB = ecological screening benchmark
Sed S = sediment Southern drainage area
Y = yes
N = no
ug/kg = micrograms per kilogram
mg/kg = milligram per kilogram
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds

Table 4-9
COPEC Tracking Matrix for Soil
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs									Soil Invertebrate EPC Screen				Terrestrial Plant EPC Screen				COPEC list starts with COPECs that have an EPC/ESB HQ greater than 1	Upper Trophic Level Receptors												
																		American Robin		Northern Bobwhite		Red-Tailed Hawk		Short-Tailed Shrew		White-Tailed Deer		Red Fox	
Chemical	Units	Soil ESB	Detections	EPC	HQ (EPC/ ESB)	Bioaccumulative[3]	COPEC	Rationale	Chemical	Soil Invertebrate ESB	EPC	HQ (EPC/ ESB)	Chemical	Plant ESB	EPC	HQ (EPC/ ESB)		Chemical	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Explosives									**Explosives**				**Explosives**					**Explosives**												
2,4,6-Trinitrotoluene	ug/kg	6000	103	1491	≤1	4	N	HQ<1																						
2-Amino-4,6-dinitrotoluene	ug/kg	80000	11	1042	≤1	4	N	HQ<1																						
4-Amino-2,6-dinitrotoluene	ug/kg	80000	14	719	≤1	4	N	HQ<1																						
Nitroglycerin	ug/kg	65000	224	41642	≤1	4	N	HQ<1																						
HMX	ug/kg	600000	18	30160	≤1	4	N	HQ<1																						
Metals									**Metals**				**Metals**					**Metals**												
Antimony	mg/kg	0.27	254	3.75	**14**		N	Not bioaccumulative	Antimony	78	4	≤1	Antimony	5	4	1														
Arsenic	mg/kg	9.9	1032	26.1	**3**	X	**Y**	**HQ>1**	Arsenic	100	26	≤1	Arsenic	18	26	1		Arsenic	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Cadmium	mg/kg	0.36	660	0.95	**3**	X	**Y**	**HQ>1**	Cadmium	140	1	≤1	Cadmium	32	1	0		Cadmium	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chromium	mg/kg	0.4	834	23.6	**59**	X	**Y**	**HQ>1**	Chromium	57	24	≤1	Chromium	1	24	**24**		Chromium	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Cobalt	mg/kg	0.14	57	6.34	**45**		N	Not bioaccumulative	Cobalt	1000	6	≤1	Cobalt	13	6	0														
Copper	mg/kg	5.4	1029	135.4	**25**	X	**Y**	**HQ>1**	Copper	80	135	**2**	Copper	70	135	**2**		Copper	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	11	1039	567	**52**	X	**Y**	**HQ>1**	Lead	1700	567	≤1	Lead	120	567	**5**		Lead	**9**	**5**	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Manganese	mg/kg	220	57	757	**3**		N	Not bioaccumulative	Manganese	100	757	**8**	Manganese	220	757	**3**														
Mercury	mg/kg	0.1	997	9.5	**95**	X	**Y**	**HQ>1**	Mercury	30	9	≤1	Mercury	0.3	9	**32**		Mercury	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Nickel	mg/kg	38	1031	16	≤1	X	N	HQ<1	Nickel	280	16	≤1	Nickel	38	16	0		Nickel	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Selenium	mg/kg	0.52	707	3.34	**6**	X	**Y**	**HQ>1**	Selenium	4.1	3.3	≤1	Selenium	0.52	3.3	**6**		Selenium	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Silver	mg/kg	2	244	1.1	≤1	X	N	HQ<1	Silver	50	1	≤1	Silver	560	1	0														
Thallium	mg/kg	1	287	1	≤1		N	HQ<1	Thallium	--	1	--	Thallium	1	1	1														
Vanadium	mg/kg	2	57	33	**17**		N	Not bioaccumulative	Vanadium	20	33	**2**	Vanadium	2	33	**17**														
Zinc	mg/kg	8.5	1028	201.6	**24**	X	**Y**	**HQ>1**	Zinc	120	202	**2**	Zinc	160	202	1		Zinc	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
PCBs									**PCBs**				**PCBs**					**PCBs**												
Aroclor-1254	ug/kg	371	76	86	≤1	X	N	HQ<1	Aroclor-1254	371	86	≤1	Aroclor-1254	40000	86	0														
Aroclor-1260	ug/kg	371	82	72	≤1	X	N	HQ<1	Aroclor-1260	371	72	≤1	Aroclor-1260	40000	72	0														
Polychlorinated biphenyls	ug/kg	371	110	246	≤1	X	N	HQ<1	Polychlorinated biphenyls	371	246	≤1	Polychlorinated biphenyls	40000	246	0														
SVOCs									**SVOCs**				**SVOCs**					**SVOCs**												
2,4-Dimethylphenol	ug/kg	10	1	280	28		N	Low FOD																						
2,4-Dinitrophenol	ug/kg	60.9	3	4240	70		N	Low FOD																						
2,4-Dinitrotoluene	ug/kg	1280	198	952	≤1	4	N	HQ<1	2,4-Dinitrotoluene	20000	952	≤1	2,4-Dinitrotoluene	6000	952	0														
2,6-Dinitrotoluene	ug/kg	32.8	92	553.1	**17**	4	**Y**	**HQ>1**	2,6-Dinitrotoluene	7000	553	≤1	2,6-Dinitrotoluene	5000	553	0		2,6-Dinitrotoluene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(g,h,i)fluoranthene	ug/kg	1100	19	240	≤1	X	N	HQ<1	Benzo(g,h,i)fluoranthene	18000	240	≤1	Benzo(g,h,i)fluoranthene	10000	240	0														
Benzo[a]anthracene	ug/kg	5210	615	619	≤1	X	N	HQ<1	Benzo[a]anthracene	18000	619	≤1	Benzo[a]anthracene	10000	619	0														
Benzo[a]pyrene	ug/kg	1520	617	538	≤1	X	N	HQ<1	Benzo[a]pyrene	18000	538	≤1	Benzo[a]pyrene	10000	538	0														
Bis(2-Ethylhexyl)phthalate	ug/kg	925	482	145	≤1		N	HQ<1	Bis(2-Ethylhexyl)phthalate	200000	145	≤1	Bis(2-Ethylhexyl)phthalate	200000	145	0														
Butylbenzylphthalate	ug/kg	239	23	133	≤1		N	HQ<1	Butylbenzylphthalate	--	133	--	Butylbenzylphthalate	--	133	--														
Chrysene	ug/kg	4730	632	636	≤1	X	N	HQ<1	Chrysene	18000	636	≤1	Chrysene	10000	636	0														
Di-n-butylphthalate	ug/kg	150	422	1071	**7**		N	Not bioaccumulative	Di-n-butylphthalate	200000	1071	≤1	Di-n-butylphthalate	200000	1071	0														
Naphthalene	ug/kg	99.4	95	80.4	≤1		N	HQ<1	Naphthalene	29000	80	≤1	Naphthalene	10000	80	0														
N-Nitroso-Di-N-Propylamine	ug/kg	544	8	29	≤1		N	HQ<1	N-Nitroso-Di-N-Propylamine	--	29	--	N-Nitroso-Di-N-Propylamine	--	29	--														
N-Nitrosodimethylamine	ug/kg	0.0321	1	330.0000	10280		N	Low FOD																						
N-Nitrosodiphenylamine	ug/kg	545	306	395	≤1		N	HQ<1	N-Nitrosodiphenylamine	20000	395	≤1	N-Nitrosodiphenylamine	--	395	--														
Phenanthrene	ug/kg	45700	549	820	≤1	X	N	HQ<1	Phenanthrene	29000	820	≤1	Phenanthrene	46000	820	0														
VOCs									**VOCs**				**VOCs**					**VOCs**												
1,1,2,2-Tetrachloroethane	ug/kg	127	2	601	5		N	Low FOD																						
Acrylonitrile	ug/kg	23.9	1	1370.0	57		N	Low FOD																						
Benzene	ug/kg	255	11	84	≤1		N	HQ<1	Benzene	255	84	≤1	Benzene	1000000	84	0														
Bromomethane	ug/kg	235	10	57	≤1		N	HQ<1	Bromomethane	235	57	≤1	Bromomethane	--	57	--														
Hexachlorobutadiene	ug/kg	39.8	2	331.0	8		N	Low FOD																						
Naphthalene	ug/kg	99.4	4	586.0	6		N	Low FOD																						

Notes:

1. EPC = 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).
2. The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections).
3. Considered bioaccumulative according to USEPA 2000 and NJDEP 2015. (X indicates that the chemical is bioaccumulative)
4. Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational history.

95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
ESB = ecological screening benchmark
EPC = exposure point concentration (if mean > 95UCL, mean was used. If 95UCL couldnt be calculated, max detection was used.)
Y = yes
N = no
FOD = frequency of detection
mg/kg = milligram per kilogram
ug/kg = microgram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
NA = not analyzed

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2022. ProUCL Version 5.2.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development.
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 4-10
COPEC Tracking Matrix for Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs								Benthic Invertebrate Screen & Additional Risk Evaluation									
Subdrainage Area COPEC	Units	Sediment ESB	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area COPEC	Sediment ESB	EPC[1]	HQ (EPC/ ESB)	EPC Screen	Sediment Chemistry[2]	Bioavailability/ Toxicity[3]	Biological Community Indices [4]	COPEC Retained for Benthic Invertebrates	Notes/Rationale
Sed N - Duck Pond																	
Explosives																	
Nitroglycerin	µg/kg	127000	15	174317	≤1	N	HQ<1	Nitroglycerin	127000	174317	≤1	HQ<1					
Metals								**Metals**									
Arsenic	mg/kg	6	35	10	2	Y	**HQ>1**	Arsenic	6	9.682	2	**HQ>1**	-	NA	NA	N	
Cadmium	mg/kg	0.6	42	1.1	2	Y	**HQ>1**	Cadmium	0.6	1.085	2	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate; very low TOC at one location, but samples collected around the low TOC sample location are all below ESC for Cd, Cu, and Pb
Chromium	mg/kg	26	45	22	≤1	N	HQ<1	Chromium	26	21.72	≤1	HQ<1					
Copper	mg/kg	16	45	61	4	Y	**HQ>1**	Copper	16	60.97	4	**HQ>1**	NA	-	NA	N	
Lead	mg/kg	31	45	195	6	Y	**HQ>1**	Lead	31	195.3	6	**HQ>1**	NA	-	NA	N	
Mercury	mg/kg	0.2	44	0.3	≤1	N	HQ<1	Mercury	0.2	0.289	≤1	HQ<1					
Nickel	mg/kg	16	45	20	≤1	N	HQ<1	Nickel	16	20.32	≤1	HQ<1					
Silver	mg/kg	1	3	1	≤1	N	Low FOD										
Zinc	mg/kg	120	45	398	3	Y	**HQ>1**	Zinc	120	397.6	3	**HQ>1**	NA	+	NA	N	TOC% used as AVS/SEM surrogate
SVOCs								**SVOCs**									
2,4-Dinitrotoluene	µg/kg	14.4	2	4500.0	313	N	Low FOD										
Acenaphthylene	µg/kg	44	2	580	13	N	Low FOD										
Anthracene	µg/kg	220	2	560	3	N	Low FOD										
Benzo(a)anthracene	µg/kg	320	10	481	2	Y	**HQ>1**	Benzo(a)anthracene	320	481.2	2	**HQ>1**	NA	-	NA	N	13-PAH ESBTU benchmark (8.83) used
Benzo(a)pyrene	µg/kg	370	10	424	≤1	N	HQ<1	Benzo(a)pyrene	370	424.2	≤1	HQ<1					
Benzo(g,h,i)perylene	µg/kg	170	7	386	2	Y	**HQ>1**	Benzo(g,h,i)perylene	170	386	2	**HQ>1**	NA	-	NA	N	13-PAH ESBTU benchmark (8.83) used
Benzo(k)fluoranthene	µg/kg	240	10	394	2	Y	**HQ>1**	Benzo(k)fluoranthene	240	394.2	2	**HQ>1**	NA	-	NA	N	13-PAH ESBTU benchmark (8.83) used
Chrysene	µg/kg	340	12	530	2	Y	**HQ>1**	Chrysene	340	529.9	2	**HQ>1**	NA	-	NA	N	13-PAH ESBTU benchmark (8.83) used
Dibenzo(a,h)anthracene	µg/kg	60	2	240	4	N	Low FOD										
Fluoranthene	µg/kg	750	14	559	≤1	N	HQ<1	Fluoranthene	750	559.4	≤1	HQ<1					
Indeno(1,2,3-cd)pyrene	µg/kg	200	1	270	≤1	N	Low FOD										
Phenanthrene	µg/kg	560	5	770	≤1	N	HQ<1	Phenanthrene	560	770	≤1	HQ<1					
Pyrene	µg/kg	490	14	535	≤1	N	HQ<1	Pyrene	490	534.9	≤1	HQ<1					
Sed N - Eastern Trib																	
Explosives																	
2,4,6-Trinitrotoluene	µg/kg	1100	1	1200	≤1	N	Low FOD										
Metals								**Metals**									
Arsenic	mg/kg	6	8	12	2	Y	**HQ>1**	Arsenic	6	11.7	2	**HQ>1**	-	NA	NA	N	
Copper	mg/kg	16	8	189	11	Y	**HQ>1**	Copper	16	189	12	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Lead	mg/kg	31	8	235	8	Y	**HQ>1**	Lead	31	235	8	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Nickel	mg/kg	16	8	15	≤1	N	HQ<1	Nickel	16	15.34	≤1	HQ<1					
Zinc	mg/kg	120	8	191	2	Y	**HQ>1**	Zinc	120	190.9	2	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
SVOCs																	
Bis(2-Ethylhexyl)phthalate	µg/kg	182	2	230	≤1	N	Low FOD										
Sed N - Northeastern Pond																	
Metals								**Metals**									
Aluminum	mg/kg	25500	3	38000	≤1	N	Low FOD										
Arsenic	mg/kg	6	12	5	≤1	N	HQ<1	Arsenic	6	5.048	≤1	HQ<1					
Copper	mg/kg	16	16	44	3	Y	**HQ>1**	Copper	16	43.55	3	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Lead	mg/kg	31	16	63	2	Y	**HQ>1**	Lead	31	62.73	2	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Mercury	mg/kg	0.2	15	0.2	≤1	N	HQ<1	Mercury	0.2	0.193	≤1	HQ<1					
Nickel	mg/kg	16	16	11	≤1	N	HQ<1	Nickel	16	10.61	≤1	HQ<1					
Silver	mg/kg	1	5	5	5	Y	**HQ>1**	Silver	1	5.06	5	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Zinc	mg/kg	120	16	250	2	Y	**HQ>1**	Zinc	120	249.9	2	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
SVOCs																	
Fluoranthene	µg/kg	750	3	1100	≤1	N	Low FOD										
Phenanthrene	µg/kg	560	3	1100	≤1	N	Low FOD										
Pyrene	µg/kg	490	3	1100	2	N	Low FOD										

COPEC list resets to start with COPECs that have an EPC/ESB HQ greater than 1

Aquatic Plants					Great Blue Heron		Mallard Duck		Tree Swallow		Mink		Little Brown Bat		Muskrat	
Subdrainage Area COPEC	Units	Aquatic Plant ESB	EPC[1]	HQ (EPC/Plant ESB)	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Sed N - Duck Pond																
Metals																
Arsenic	mg/kg	18	10	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Cadmium	mg/kg	10	1	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	61	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	195	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	mg/kg	160	398	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs																
Benzo(a)anthracene	µg/kg	10000	481	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(g,h,i)perylene	µg/kg	10000	386	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	10000	394	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chrysene	µg/kg	10000	530	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Sed N - Eastern Trib																
Metals																
Arsenic	mg/kg	18	12	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	189	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**3**	**2**	≤1	≤1
Lead	mg/kg	120	235	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**5**	**3**	≤1	≤1
Zinc	mg/kg	160	191	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Sed N - Northeastern Pond																
Metals																
Copper	mg/kg	70	44	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	63	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Silver	mg/kg	560	5	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	mg/kg	160	250	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Table 4-10
COPEC Tracking Matrix for Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs								Benthic Invertebrate Screen & Additional Risk Evaluation									
Subdrainage Area COPEC	Units	Sediment ESB	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area COPEC	Sediment ESB	EPC[1]	HQ (EPC/ ESB)	EPC Screen	Sediment Chemistry[2]	Bioavailability/ Toxicity[3]	Biological Community Indices [4]	COPEC Retained for Benthic Invertebrates	Notes/Rationale
Sed N - Unnamed Pond																	
Metals								**Metals**									
Arsenic	mg/kg	6	20	21	4	Y	**HQ>1**	Arsenic	6	21.24	4	**HQ>1**	+	NA	+/-	N	Lower biodiversity scores only identified in the smaller of the two ponds
Cadmium	mg/kg	0.6	14	1.4	2	Y	**HQ>1**	Cadmium	0.6	1.375	2	**HQ>1**	NA	-	+/-	N	
Chromium	mg/kg	26	17	19	≤1	N	HQ<1	Chromium	26	19.14	≤1	HQ<1					
Copper	mg/kg	16	17	85	5	Y	**HQ>1**	Copper	16	84.72	5	**HQ>1**	NA	-	+/-	N	Lower biodiversity scores only identified in the smaller of the two ponds
Lead	mg/kg	31	22	281	9	Y	**HQ>1**	Lead	31	281	9	**HQ>1**	NA	-	+/-	N	
Mercury	mg/kg	0.2	22	2	8	Y	**HQ>1**	Mercury	0.2	1.672	8	**HQ>1**	+	NA	+/-	N	
Nickel	mg/kg	16	17	16	≤1	N	HQ<1	Nickel	16	16.39	≤1	HQ<1					
Silver	mg/kg	1	3	1	≤1	N	Low FOD										
Zinc	mg/kg	120	22	752	6	Y	**HQ>1**	Zinc	120	752	6	**HQ>1**	NA	-	+/-	N	Lower biodiversity scores only identified in the
SVOCs								**SVOCs**									
Acenaphthylene	µg/kg	44	2	230	5	N	Low FOD										
Anthracene	µg/kg	220	2	430	≤1	N	Low FOD										
Benzo(a)anthracene	µg/kg	320	6	859	3	Y	**HQ>1**	Benzo(a)anthracene	320	859	3	**HQ>1**	NA	-	+/-	N	13-PAH ESBTU benchmark (8.83) used; Lower biodiversity scores only identified in the smaller of the two ponds
Benzo(a)pyrene	µg/kg	370	6	642	2	Y	**HQ>1**	Benzo(a)pyrene	370	641.5	2	**HQ>1**	NA	-	+/-	N	
Benzo(g,h,i)perylene	µg/kg	170	6	550	3	Y	**HQ>1**	Benzo(g,h,i)perylene	170	550	3	**HQ>1**	NA	-	+/-	N	
Benzo(k)fluoranthene	µg/kg	240	5	1700	7	Y	**HQ>1**	Benzo(k)fluoranthene	240	1700	7	**HQ>1**	NA	-	+/-	N	
Chrysene	µg/kg	340	6	1225	4	Y	**HQ>1**	Chrysene	340	1225	4	**HQ>1**	NA	-	+/-	N	
Dibenzo(a,h)anthracene	µg/kg	60	2	180	3	N	Low FOD										
Fluoranthene	µg/kg	750	8	952	≤1	N	HQ<1	Fluoranthene	750	951.9	≤1	HQ<1					
Sed N - Western Trib																	
Metals								**Metals**									
Arsenic	mg/kg	6	29	8	≤1	N	HQ<1	Arsenic	6	8.325	≤1	HQ<1					
Cadmium	mg/kg	0.6	33	1.3	2	Y	**HQ>1**	Cadmium	0.6	1.27	2	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Chromium	mg/kg	26	34	20	≤1	N	HQ<1	Chromium	26	20.33	≤1	HQ<1					
Copper	mg/kg	16	34	86	5	Y	**HQ>1**	Copper	16	85.94	5	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Lead	mg/kg	31	34	375	12	Y	**HQ>1**	Lead	31	375.1	12	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
Mercury	mg/kg	0.2	34	0.9	5	Y	**HQ>1**	Mercury	0.2	0.946	5	**HQ>1**	-	NA	NA	N	
Nickel	mg/kg	16	34	11	≤1	N	HQ<1	Nickel	16	11.33	≤1	HQ<1					
Selenium	mg/kg	2	1	5	3	N	Low FOD										
Zinc	mg/kg	120	34	310	3	Y	**HQ>1**	Zinc	120	310.3	3	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate
SVOCs																	
2-Methylnaphthalene	µg/kg	70	1	130	≤1	N	Low FOD										
Chrysene	µg/kg	340	2	360	≤1	N	Low FOD										
Fluorene	µg/kg	190	1	210	≤1	N	Low FOD										
Naphthalene	µg/kg	160	1	170	≤1	N	Low FOD										

COPEC list resets to start with COPECs that have an EPC/ESB HQ greater than 1

Aquatic Plants					Great Blue Heron		Mallard Duck		Tree Swallow		Mink		Little Brown Bat		Muskrat	
Subdrainage Area COPEC	Units	Aquatic Plant ESB	EPC[1]	HQ (EPC/Plant ESB)	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Sed N - Unnamed Pond																
Metals																
Arsenic	mg/kg	18	21	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Cadmium	mg/kg	10	1	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	85	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	281	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.3	1.7	**6**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	mg/kg	160	752	**5**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs																
Benzo(a)anthracene	µg/kg	10000	859	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)pyrene	µg/kg	10000	642	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(g,h,i)perylene	µg/kg	10000	550	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	10000	1700	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chrysene	µg/kg	10000	1225	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Sed N - Western Trib																
Metals																
Cadmium	mg/kg	10	1	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	86	1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	375	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.3	0.9	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	mg/kg	160	310	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Table 4-10
COPEC Tracking Matrix for Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs								Benthic Invertebrate Screen & Additional Risk Evaluation									
Subdrainage Area COPEC	Units	Sediment ESB	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area COPEC	Sediment ESB	EPC[1]	HQ (EPC/ ESB)	EPC Screen	Sediment Chemistry[2]	Bioavailability/ Toxicity[3]	Biological Community Indices [4]	COPEC Retained for Benthic Invertebrates	Notes/Rationale
Sed S - Central Drainage																	
Explosives																	
2,4,6-Trinitrotoluene	µg/kg	1100	1	19000	17	N	Low FOD										
Metals								**Metals**									
Arsenic	mg/kg	6	13	41	7	Y	**HQ>1**	Arsenic	6	41.46	7	**HQ>1**	+	NA	+	N	
Cadmium	mg/kg	0.6	8	1.7	3	Y	**HQ>1**	Cadmium	0.6	1.73	3	**HQ>1**	NA	-	+	N	
Chromium	mg/kg	26	14	28	≤1	N	HQ<1	Chromium	26	28.19	≤1	HQ<1					
Cobalt	mg/kg	50	1	3	≤1	N	Low FOD										
Copper	mg/kg	16	14	93	6	Y	**HQ>1**	Copper	16	92.64	6	**HQ>1**	NA	-	+	N	
Lead	mg/kg	31	24	925	30	Y	**HQ>1**	Lead	31	924.5	30	**HQ>1**	NA	-	+	N	
Manganese	mg/kg	630	2	2400	4	N	Low FOD										
Mercury	mg/kg	0.2	25	4.1	21	Y	**HQ>1**	Mercury	0.2	4.094	20	**HQ>1**	+	NA	+	N	
Nickel	mg/kg	16	14	16	≤1	N	HQ<1	Nickel	16	15.66	≤1	HQ<1					
Silver	mg/kg	1	3	2	2	N	Low FOD										
Zinc	mg/kg	120	15	239	2	Y	**HQ>1**	Zinc	120	239.3	2	**HQ>1**	NA	-	+	N	
SVOCs								**SVOCs**									
2-Methylnaphthalene	µg/kg	70	1	100	≤1	N	Low FOD										
Acenaphthene	µg/kg	16	2	140000	8750	N	Low FOD										
Acenaphthylene	µg/kg	44	2	900000	20455	N	Low FOD										
Anthracene	µg/kg	220	2	1100000	5000	N	Low FOD										
Benzo(a)anthracene	µg/kg	320	4	1500000	4688	N	Low FOD										
Benzo(a)pyrene	µg/kg	370	4	900000	2432	N	Low FOD										
Benzo(g,h,i)perylene	µg/kg	170	4	470000	2765	N	Low FOD										
Benzo(k)fluoranthene	µg/kg	240	4	580000	2417	N	Low FOD										
Chrysene	µg/kg	340	4	1100000	3235	N	Low FOD										
Dibenzo(a,h)anthracene	µg/kg	60	2	180000	3000	N	Low FOD										
Fluoranthene	µg/kg	750	6	3500000	4667	Y	**HQ>1**	Fluoranthene	750	3500000	4667	**HQ>1**	NA	NA	+	N	
Fluorene	µg/kg	190	2	1200000	6316	N	Low FOD										
Naphthalene	µg/kg	160	2	240000	1500	N	Low FOD										
Phenanthrene	µg/kg	560	3	5300000	9464	N	Low FOD										
Pyrene	µg/kg	490	6	2600000	5306	Y	**HQ>1**	Pyrene	490	2600000	5306	**HQ>1**	NA	NA	+	N	
Sed S - Development																	
Metals								**Metals**									
Arsenic	mg/kg	6	15	10	2	Y	**HQ>1**	Arsenic	6	9.795	2	**HQ>1**	-	NA	NA	N	
Cadmium	mg/kg	0.6	6	0.5	≤1	N	HQ<1	Cadmium	0.6	0.486	≤1	HQ<1					
Chromium	mg/kg	26	15	21	≤1	N	HQ<1	Chromium	26	20.5	≤1	HQ<1					
Copper	mg/kg	16	15	23	≤1	N	HQ<1	Copper	16	22.92	≤1	HQ<1					
Lead	mg/kg	31	15	47	2	Y	**HQ>1**	Lead	31	46.78	2	**HQ>1**	NA	+	NA	N	TOC% used as AVS/SEM surrogate
Mercury	mg/kg	0.2	11	0.3	≤1	N	HQ<1	Mercury	0.2	0.282	≤1	HQ<1					
Silver	mg/kg	1	1	1	≤1	N	Low FOD										
Zinc	mg/kg	120	15	177	≤1	N	HQ<1	Zinc	120	177.3	≤1	HQ<1					

COPEC list resets to start with COPECs that have an EPC/ESB HQ greater than 1

Aquatic Plants					Great Blue Heron		Mallard Duck		Tree Swallow		Mink		Little Brown Bat		Muskrat	
Subdrainage Area COPEC	Units	Aquatic Plant ESB	EPC[1]	HQ (EPC/Plant ESB)	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Sed S - Central Drainage																
Metals																
Arsenic	mg/kg	18	41	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Cadmium	mg/kg	32	2	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	93	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	925	**8**	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.3	4.1	**14**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	mg/kg	160	239	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs																
Fluoranthene	µg/kg	150	3500000	**23333**	≤1	≤1	≤1	≤1	≤1	≤1	**6**	≤1	≤1	≤1	**9**	**2**
Pyrene	µg/kg	56	2600000	**46429**	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1	≤1	≤1	**8**	**2**
Sed S - Development																
Metals																
Arsenic	mg/kg	18	10	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	47	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Table 4-10
COPEC Tracking Matrix for Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs								Benthic Invertebrate Screen & Additional Risk Evaluation									
Subdrainage Area COPEC	Units	Sediment ESB	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area COPEC	Sediment ESB	EPC[1]	HQ (EPC/ ESB)	EPC Screen	Sediment Chemistry[2]	Bioavailability/ Toxicity[3]	Biological Community Indices [4]	COPEC Retained for Benthic Invertebrates	Notes/Rationale
Sed S - Maint-Dyn East																	
Explosives																	
Nitrobenzene	µg/kg	145	1	400	3	N	Low FOD										
Metals								**Metals**									
Arsenic	mg/kg	6	40	9	2	Y	**HQ>1**	Arsenic	6	9.385	2	**HQ>1**	-	NA	NA	N	
Cadmium	mg/kg	0.6	11	0.5	≤1	N	HQ<1	Cadmium	0.6	0.481	≤1	HQ<1					
Chromium	mg/kg	26	46	54	2	Y	**HQ>1**	Chromium	26	53.84	2	**HQ>1**	NA	-	NA	N	
Copper	mg/kg	16	43	33	2	Y	**HQ>1**	Copper	16	33.05	2	**HQ>1**	NA	-	NA	N	
Lead	mg/kg	31	43	329	11	Y	**HQ>1**	Lead	31	329.4	11	**HQ>1**	NA	-	NA	N	
Mercury	mg/kg	0.2	43	2.2	11	Y	**HQ>1**	Mercury	0.2	2.214	11	**HQ>1**	-	NA	NA	N	
Nickel	mg/kg	16	43	11	≤1	N	HQ<1	Nickel	16	11.35	≤1	HQ<1					
Silver	mg/kg	1	19	2	2	Y	**HQ>1**	Silver	1	1.713	2	**HQ>1**	NA	-	NA		
Zinc	mg/kg	120	43	170	≤1	N	HQ<1	Zinc	120	170.3	≤1	HQ<1					
SVOCs								**SVOCs**									
2-Methylnaphthalene	µg/kg	70	2	780	11	N	Low FOD										
Acenaphthene	µg/kg	16	4	480	30	N	Low FOD										
Acenaphthylene	µg/kg	44	11	420	10	Y	**HQ>1**	Acenaphthylene	44	420.1	10	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Anthracene	µg/kg	220	11	388	2	Y	**HQ>1**	Anthracene	220	388.2	2	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Benzo(a)anthracene	µg/kg	320	20	862	3	Y	**HQ>1**	Benzo(a)anthracene	320	861.9	3	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Benzo(a)pyrene	µg/kg	370	20	866	2	Y	**HQ>1**	Benzo(a)pyrene	370	865.9	2	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Benzo(g,h,i)perylene	µg/kg	170	19	599	4	Y	**HQ>1**	Benzo(g,h,i)perylene	170	598.8	4	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Benzo(k)fluoranthene	µg/kg	240	17	482	2	Y	**HQ>1**	Benzo(k)fluoranthene	240	482.4	2	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Bis(2-Ethylhexyl)phthalate	µg/kg	182	1	1400	8	N	Low FOD										
Chrysene	µg/kg	340	20	1249	4	Y	**HQ>1**	Chrysene	340	1249	4	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Dibenzo(a,h)anthracene	µg/kg	60	10	125	2	Y	**HQ>1**	Dibenzo(a,h)anthracene	60	125.2	2	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Fluoranthene	µg/kg	750	24	2142	3	Y	**HQ>1**	Fluoranthene	750	2142	3	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Fluorene	µg/kg	190	7	271	≤1	N	HQ<1	Fluorene	190	271	≤1	HQ<1					
Indeno(1,2,3-cd)pyrene	µg/kg	200	12	751	4	Y	**HQ>1**	Indeno(1,2,3-cd)pyrene	200	751.4	4	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Naphthalene	µg/kg	160	4	770	5	N	Low FOD										
Phenanthrene	µg/kg	560	19	1767	3	Y	**HQ>1**	Phenanthrene	560	1767	3	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Pyrene	µg/kg	490	25	2409	5	Y	**HQ>1**	Pyrene	490	2409	5	**HQ>1**	NA	-	NA	N	34-PAH ESBTU of 1
Sed S - Maint-Dyn West																	
Metals								**Metals**									
Arsenic	mg/kg	6	34	18	3	Y	**HQ>1**	Arsenic	6	18.19	3	**HQ>1**	+	NA	-	N	As > background threshold, but SS benthic
Cadmium	mg/kg	0.6	31	0.7	≤1	N	HQ<1	Cadmium	0.6	0.728	≤1	HQ<1					
Chromium	mg/kg	26	37	18	≤1	N	HQ<1	Chromium	26	17.99	≤1	HQ<1					
Copper	mg/kg	16	37	34	2	Y	**HQ>1**	Copper	16	33.6	2	**HQ>1**	NA	-	-	N	
Lead	mg/kg	31	37	342	11	Y	**HQ>1**	Lead	31	342.2	11	**HQ>1**	NA	-	-	N	
Mercury	mg/kg	0.2	38	3.2	16	Y	**HQ>1**	Mercury	0.2	3.239	16	**HQ>1**	+	NA	-	N	Hg above range of NOEC spiked sediment from
Nickel	mg/kg	16	37	11	≤1	N	HQ<1	Nickel	16	10.99	≤1	HQ<1					
Silver	mg/kg	1	4	1	≤1	N	Low FOD										
Zinc	mg/kg	120	37	124	≤1	N	HQ<1	Zinc	120	123.6	≤1	HQ<1					
SVOCs								**SVOCs**									
Acenaphthene	µg/kg	16	2	320	20	N	Low FOD										
Acenaphthylene	µg/kg	44	6	196	4	Y	**HQ>1**	Acenaphthylene	44	195.6	4	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Anthracene	µg/kg	220	4	1600	7	N	Low FOD										
Benzo(a)anthracene	µg/kg	320	13	1022	3	Y	**HQ>1**	Benzo(a)anthracene	320	1022	3	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Benzo(a)pyrene	µg/kg	370	11	779	2	Y	**HQ>1**	Benzo(a)pyrene	370	779.3	2	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Benzo(g,h,i)perylene	µg/kg	170	10	451	3	Y	**HQ>1**	Benzo(g,h,i)perylene	170	451.1	3	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Benzo(k)fluoranthene	µg/kg	240	10	771	3	Y	**HQ>1**	Benzo(k)fluoranthene	240	770.9	3	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Chrysene	µg/kg	340	13	1274	4	Y	**HQ>1**	Chrysene	340	1274	4	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Dibenzo(a,h)anthracene	µg/kg	60	6	183	3	Y	**HQ>1**	Dibenzo(a,h)anthracene	60	183	3	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Fluoranthene	µg/kg	750	14	1431	2	Y	**HQ>1**	Fluoranthene	750	1431	2	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1
Fluorene	µg/kg	190	3	300	≤1	N	Low FOD										
Naphthalene	µg/kg	160	1	130	≤1	N	Low FOD										
Phenanthrene	µg/kg	560	13	476	≤1	N	HQ<1	Phenanthrene	560	476.3	≤1	HQ<1					
Pyrene	µg/kg	490	17	2697	6	Y	**HQ>1**	Pyrene	490	2697	6	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1

COPEC list resets to start with COPECs that have an EPC/ESB HQ greater than 1

Aquatic Plants					Great Blue Heron		Mallard Duck		Tree Swallow		Mink		Little Brown Bat		Muskrat	
Subdrainage Area COPEC	Units	Aquatic Plant ESB	EPC[1]	HQ (EPC/Plant ESB)	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Sed S - Maint-Dyn East																
Metals																
Arsenic	mg/kg	18	9	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chromium	mg/kg	1	54	**54**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	33	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	329	**3**	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.3	2.2	**7**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Silver	mg/kg	560	2	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs																
Acenaphthylene	µg/kg	20	420	**21**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Anthracene	µg/kg	20	388	**19**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)anthracene	µg/kg	10	862	**86**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)pyrene	µg/kg	10	866	**87**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(g,h,i)perylene	µg/kg	10	599	**60**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	10	482	**48**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chrysene	µg/kg	10	1249	**125**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Dibenzo(a,h)anthracene	µg/kg	10	125	**13**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Fluoranthene	µg/kg	150	2142	**14**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Indeno(1,2,3-cd)pyrene	µg/kg	10	751	**75**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Phenanthrene	µg/kg	46	1767	**38**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Pyrene	µg/kg	56	2409	**43**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Sed S - Maint-Dyn West																
Metals																
Arsenic	mg/kg	18	18	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	mg/kg	70	34	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	120	342	**3**	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.3	3.2	**11**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs																
Acenaphthylene	µg/kg	20	196	**10**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)anthracene	µg/kg	10	1022	**102**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)pyrene	µg/kg	10	779	**78**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(g,h,i)perylene	µg/kg	10	451	**45**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	10	771	**77**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chrysene	µg/kg	10	1274	**127**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Dibenzo(a,h)anthracene	µg/kg	10	183	**18**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Fluoranthene	µg/kg	150	1431	**10**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Pyrene	µg/kg	56	2697	**48**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1

Table 4-10
COPEC Tracking Matrix for Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs								Benthic Invertebrate Screen & Additional Risk Evaluation										Aquatic Plants					Great Blue Heron		Mallard Duck		Tree Swallow		Mink		Little Brown Bat		Muskrat	
Subdrainage Area COPEC	Units	Sediment ESB	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area COPEC	Sediment ESB	EPC[1]	HQ (EPC/ ESB)	EPC Screen	Sediment Chemistry[2]	Bioavailability/ Toxicity[3]	Biological Community Indices [4]	COPEC Retained for Benthic Invertebrates	Notes/Rationale	Subdrainage Area COPEC	Units	Aquatic Plant ESB	EPC[1]	HQ (EPC/Plant ESB)	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Sed S - Maint-NG																		**Sed S - Maint-NG**																
Metals								**Metals**										**Metals**																
Arsenic	mg/kg	6	21	24	4	Y	**HQ>1**	Arsenic	6	23.64	4	**HQ>1**	+	NA	+	Y		Arsenic	mg/kg	18	24	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Cadmium	mg/kg	0.6	14	1.4	2	Y	**HQ>1**	Cadmium	0.6	1.357	2	**HQ>1**	NA	-	+	Y		Cadmium	mg/kg	32	1	0	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chromium	mg/kg	26	22	18	≤1	N	HQ<1	Chromium	26	17.69	≤1	HQ<1																						
Copper	mg/kg	16	25	146	9	Y	**HQ>1**	Copper	16	145.5	9	**HQ>1**	NA	-	+	Y		Copper	mg/kg	70	146	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	31	25	1200	39	Y	**HQ>1**	Lead	31	1200	39	**HQ>1**	NA	-	+	Y		Lead	mg/kg	120	1200	**10**	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.2	25	3.5	17	Y	**HQ>1**	Mercury	0.2	3.477	17	**HQ>1**	+	NA	+	Y		Mercury	mg/kg	0.3	3.5	**12**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Nickel	mg/kg	16	22	20	≤1	N	HQ<1	Nickel	16	19.52	≤1	HQ<1																						
Silver	mg/kg	1	5	9	9	Y	**HQ>1**	Silver	1	8.68	9	**HQ>1**	+	NA	+	Y		Silver	mg/kg	560	9	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	mg/kg	120	22	378	3	Y	**HQ>1**	Zinc	120	378.1	3	**HQ>1**	NA	-	+	Y		Zinc	mg/kg	160	378	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
SVOCs								**SVOCs**										**SVOCs**																
2,4-Dinitrotoluene	µg/kg	14.4	1	560.0	39	N	Low FOD																											
2-Methylnaphthalene	µg/kg	70	1	120	≤1	N	Low FOD																											
Acenaphthene	µg/kg	16	1	98	6	N	Low FOD																											
Acenaphthylene	µg/kg	44	1	180	4	N	Low FOD																											
Anthracene	µg/kg	220	3	520	2	N	Low FOD																											
Benzo(a)anthracene	µg/kg	320	5	2800	9	Y	**HQ>1**	Benzo(a)anthracene	320	2800	9	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Benzo(a)anthracene	µg/kg	10	2800	**280**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)pyrene	µg/kg	370	5	2400	6	Y	**HQ>1**	Benzo(a)pyrene	370	2400	6	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Benzo(a)pyrene	µg/kg	10	2400	**240**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(g,h,i)perylene	µg/kg	170	5	1400	8	Y	**HQ>1**	Benzo(g,h,i)perylene	170	1400	8	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Benzo(g,h,i)perylene	µg/kg	10	1400	**140**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	240	6	1500	6	Y	**HQ>1**	Benzo(k)fluoranthene	240	1500	6	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Benzo(k)fluoranthene	µg/kg	10	1500	**150**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Chrysene	µg/kg	340	5	2600	8	Y	**HQ>1**	Chrysene	340	2600	8	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Chrysene	µg/kg	10	2600	**260**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Dibenzo(a,h)anthracene	µg/kg	60	2	470	8	N	Low FOD																											
Fluoranthene	µg/kg	750	5	4600	6	Y	**HQ>1**	Fluoranthene	750	4600	6	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Fluoranthene	µg/kg	150	4600	**31**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Indeno(1,2,3-cd)pyrene	µg/kg	200	3	260	≤1	N	Low FOD																											
Phenanthrene	µg/kg	560	5	1700	3	Y	**HQ>1**	Phenanthrene	560	1700	3	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Phenanthrene	µg/kg	46	1700	**37**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Pyrene	µg/kg	490	6	4900	10	Y	**HQ>1**	Pyrene	490	4900	10	**HQ>1**	NA	-	+	Y	13-PAH ESBTU benchmark (8.83) used	Pyrene	µg/kg	56	4900	**88**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Sed S - Offsite Stream Lower																		**Sed S - Offsite Stream Lower**																
Metals								**Metals**										**Metals**																
Arsenic	mg/kg	6	21	4	≤1	N	HQ<1	Arsenic	6	4.355	≤1	HQ<1																						
Cadmium	mg/kg	0.6	23	0.8	≤1	N	HQ<1	Cadmium	0.6	0.82	≤1	HQ<1																						
Chromium	mg/kg	26	36	31	≤1	N	HQ<1	Chromium	26	31.27	≤1	HQ<1																						
Copper	mg/kg	16	36	21	≤1	N	HQ<1	Copper	16	21.33	≤1	HQ<1																						
Lead	mg/kg	31	36	72	2	Y	**HQ>1**	Lead	31	71.77	2	**HQ>1**	NA	-	NA	N	TOC% used as AVS/SEM surrogate	Lead	mg/kg	120	72	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.2	31	0.1	≤1	N	HQ<1	Mercury	0.2	0.123	≤1	HQ<1																						
Silver	mg/kg	1	2	2	≤1	N	Low FOD																											
Zinc	mg/kg	120	36	109	≤1	N	HQ<1	Zinc	120	109.3	≤1	HQ<1																						
SVOCs								**SVOCs**										**SVOCs**																
Acenaphthene	µg/kg	16	2	99	6	N	Low FOD																											
Acenaphthylene	µg/kg	44	8	162	4	Y	**HQ>1**	Acenaphthylene	44	162	4	**HQ>1**	NA	-	NA	Y	34-PAH ESBTU of 1	Acenaphthylene	µg/kg	20	162	**8**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Anthracene	µg/kg	220	11	211	≤1	N	HQ<1	Anthracene	220	211	≤1	HQ<1																						
Benzo(a)anthracene	µg/kg	320	13	521	≤1	Y	**HQ>1**	Benzo(a)anthracene	320	520.6	2	**HQ>1**	NA	-	NA	Y	34-PAH ESBTU of 1	Benzo(a)anthracene	µg/kg	10	521	**52**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(a)pyrene	µg/kg	370	13	534	≤1	N	HQ<1	Benzo(a)pyrene	370	533.7	≤1	HQ<1																						
Benzo(g,h,i)perylene	µg/kg	170	13	370	2	Y	**HQ>1**	Benzo(g,h,i)perylene	170	370.1	2	**HQ>1**	NA	-	NA	Y	34-PAH ESBTU of 1	Benzo(g,h,i)perylene	µg/kg	10	370	**37**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	240	13	282	≤1	N	HQ<1	Benzo(k)fluoranthene	240	281.8	≤1	HQ<1																						
Bis(2-Ethylhexyl)phthalate	µg/kg	182	1	460	3	N	Low FOD																											
Chrysene	µg/kg	340	15	626	2	Y	**HQ>1**	Chrysene	340	626	2	**HQ>1**	NA	-	NA	Y	34-PAH ESBTU of 1	Chrysene	µg/kg	10	626	**63**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Dibenzo(a,h)anthracene	µg/kg	60	8	191	3	Y	**HQ>1**	Dibenzo(a,h)anthracene	60	191.3	3	**HQ>1**	NA	-	NA	Y	34-PAH ESBTU of 1	Dibenzo(a,h)anthracene	µg/kg	10	191	**19**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Fluoranthene	µg/kg	750	15	934	≤1	N	HQ<1	Fluoranthene	750	934.4	≤1	HQ<1																						
Indeno(1,2,3-cd)pyrene	µg/kg	200	3	310	≤1	N	Low FOD																											
Phenanthrene	µg/kg	560	14	568	≤1	N	HQ<1	Phenanthrene	560	567.8	1	HQ<1																						
Pyrene	µg/kg	490	15	1066	2	Y	**HQ>1**	Pyrene	490	1066	2	**HQ>1**	NA	-	NA	Y	34-PAH ESBTU of 1	Pyrene	µg/kg	56	1066	**19**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Sed S - Offsite Stream Upper																		**Sed S - Offsite Stream Upper**																
Explosives																																		
Nitrobenzene	µg/kg	145	2	1800	12	N	Low FOD																											
Metals								**Metals**										**Metals**																
Arsenic	mg/kg	6	22	7	≤1	N	HQ<1	Arsenic	6	6.737	≤1	HQ<1																						
Cadmium	mg/kg	0.6	18	0.6	≤1	N	HQ<1	Cadmium	0.6	0.634	≤1	HQ<1																						
Chromium	mg/kg	26	26	28	≤1	N	HQ<1	Chromium	26	27.7	≤1	HQ<1																						
Copper	mg/kg	16	26	24	2	Y	**HQ>1**	Copper	16	24.41	2	**HQ>1**	NA	-	NA	N		Copper	mg/kg	70	24	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	31	31	439	14	Y	**HQ>1**	Lead	31	439.3	14	**HQ>1**	NA	-	NA	N		Lead	mg/kg	120	439	**4**	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.2	25	1.1	5	Y	**HQ>1**	Mercury	0.2	1.077	5	**HQ>1**	-	NA	NA	N		Mercury	mg/kg	0.3	1.1	**4**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Nickel	mg/kg	16	26	10	≤1	N	HQ<1	Nickel	16	10.09	≤1	HQ<1																						
Silver	mg/kg	1	2	4	4	N	Low FOD																											
Zinc	mg/kg	120	26	118	≤1	N	HQ<1	Zinc	120	118.2	≤1	HQ<1																						

COPEC list resets to start with COPECs that have an EPC/ESB HQ greater than 1

Table 4-10
COPEC Tracking Matrix for Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs								Benthic Invertebrate Screen & Additional Risk Evaluation										COPEC list resets to start with COPECs that have an EPC/ESB HQ greater than 1	Aquatic Plants					Great Blue Heron		Mallard Duck		Tree Swallow		Mink		Little Brown Bat		Muskrat	
Subdrainage Area COPEC	Units	Sediment ESB	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area COPEC	Sediment ESB	EPC[1]	HQ (EPC/ ESB)	EPC Screen	Sediment Chemistry[2]	Bioavailability/ Toxicity[3]	Biological Community Indices [4]	COPEC Retained for Benthic Invertebrates	Notes/Rationale		Subdrainage Area COPEC	Units	Aquatic Plant ESB	EPC[1]	HQ (EPC/Plant ESB)	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Sed S - TNT-PETN-NG Ditches																			**Sed S - TNT-PETN-NG Ditches**																
Explosives																																			
2,4,6-Trinitrotoluene	µg/kg	1100	3	1400	≤1	N	Low FOD																												
Nitrobenzene	µg/kg	145	4	610	4	N	Low FOD																												
Metals								**Metals**											**Metals**																
Arsenic	mg/kg	6	22	52	9	Y	**HQ>1**	Arsenic	6	51.66	9	**HQ>1**	+	NA	-	N	As > background threshold, but SS benthic		Arsenic	mg/kg	18	52	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Cadmium	mg/kg	0.6	7	0.8	≤1	N	HQ<1	Cadmium	0.6	0.84	≤1	HQ<1																							
Chromium	mg/kg	26	22	21	≤1	N	HQ<1	Chromium	26	21.26	≤1	HQ<1																							
Copper	mg/kg	16	22	29	2	Y	**HQ>1**	Copper	16	28.85	2	**HQ>1**	NA	-	-	N	AVS/SEM ratio of 1,100 uM/gOC driven by very low sulfide and TOC, even at low metals		Copper	mg/kg	70	29	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	mg/kg	31	24	862	28	Y	**HQ>1**	Lead	31	861.9	28	**HQ>1**	NA	-	-	N			Lead	mg/kg	120	862	**7**	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Mercury	mg/kg	0.2	21	2.0	11	Y	**HQ>1**	Mercury	0.2	2.03	10	**HQ>1**	-	NA	-	N			Mercury	mg/kg	0.3	2.0	**7**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Nickel	mg/kg	16	22	14	≤1	N	HQ<1	Nickel	16	13.65	≤1	HQ<1																							
Zinc	mg/kg	120	22	151	≤1	N	HQ<1	Zinc	120	151.1	≤1	HQ<1																							
SVOCs								**SVOCs**											**SVOCs**																
2,4-Dinitrotoluene	µg/kg	14.4	2	410.0	28	N	Low FOD																												
2,6-Dinitrotoluene	µg/kg	39.8	1	75	≤1	N	Low FOD																												
Acenaphthene	µg/kg	16	1	55	3	N	Low FOD																												
Acenaphthylene	µg/kg	44	1	53	≤1	N	Low FOD																												
Benzo(a)anthracene	µg/kg	320	8	432	≤1	N	HQ<1	Benzo(a)anthracene	320	432.4	≤1	HQ<1																							
Benzo(a)pyrene	µg/kg	370	8	445	≤1	N	HQ<1	Benzo(a)pyrene	370	445	≤1	HQ<1																							
Benzo(g,h,i)perylene	µg/kg	170	8	346	2	Y	**HQ>1**	Benzo(g,h,i)perylene	170	346.2	2	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1		Benzo(g,h,i)perylene	µg/kg	10	346	**35**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	µg/kg	240	8	214	≤1	N	HQ<1	Benzo(k)fluoranthene	240	213.6	≤1	HQ<1																							
Bis(2-Ethylhexyl)phthalate	µg/kg	182	1	540	3	N	Low FOD																												
Chrysene	µg/kg	340	8	459	≤1	N	HQ<1	Chrysene	340	458.9	≤1	HQ<1																							
Dibenzo(a,h)anthracene	µg/kg	60	5	290	5	Y	**HQ>1**	Dibenzo(a,h)anthracene	60	290	5	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1		Dibenzo(a,h)anthracene	µg/kg	10	290	**29**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Fluoranthene	µg/kg	750	9	655	≤1	N	HQ<1	Fluoranthene	750	655.1	≤1	HQ<1																							
Indeno(1,2,3-cd)pyrene	µg/kg	200	2	330	≤1	N	Low FOD																												
Phenanthrene	µg/kg	560	9	451	≤1	N	HQ<1	Phenanthrene	560	451.3	≤1	HQ<1																							
Pyrene	µg/kg	490	10	840	2	Y	**HQ>1**	Pyrene	490	840	2	**HQ>1**	NA	-	-	N	34-PAH ESBTU of 1		Pyrene	µg/kg	56	840	**15**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1

Notes:

1. EPC = 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).
2. Sediment chemistry evaluation includes background threshold comparison for arsenic and a study comparison for mercury
3. Bioavailability/toxicity evaluation includes AVS/SEM for metals and Equilibrium Partitioning for PAHs
4. Onsite benthic community sampling includes both flowing and non-flowing aquatic high gradient benthic index, and Shannon-Weiner Diversity Indices and Abundance; this evaluation method is weighted more heavily than the sediment chemistry and bioavailability/toxicity, as the data are from site specific (SS) sources

Bolded values indicate a hazard quotient that is greater than 1
Gray shaded rows indicate acceptable risk for that specific evaluation method

Definitions:

COPEC = constituent of potential ecological concern
UCL = upper confidence level
HQ = hazard quotient
ESB = ecological screening benchmark
Sed N = sediment Northen drainage area
EPC = exposure point concentration (if mean > 95UCL, mean was used. If 95UCL couldnt be calculated, max detection was used.)
Sed S = sediment Southern drainage area
Y = yes
N = no
ug/kg = micrograms per kilogram
mg/kg = milligram per kilogram
FOD = frequency of detection
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
NA = not analyzed
+ = potential unacceptable risk; not screened out by benthic invertebrate additional risk evaluation analysis method
- = acceptable risk; screened out by benthic invertebrate additional risk evaluation analysis method

Table 4-11
COPEC Tracking Matrix for Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs									Fish and Aquatic Invertebrates			
Subdrainage Area COPEC	Units	Fraction	Surface Water	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area	Fish ESB	EPC[1]	HQ (EPC/ ESB)
Duck Pond									**Duck Pond**			
Metals									**Metals**			
Copper	ug/L	T	5.2	5	4.7	≤1	N	HQ ≤ 1				
Copper	ug/L	D	5.2	2	7.6	≤1	N	HQ ≤ 1				
Lead	ug/L	T	5.4	3	12.5	2	N	Low FOD				
Lead	ug/L	D	5.4	0	--	--	N	No Detection				
SVOCs									**SVOCs**			
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	1	2	7	N	Low FOD				
Eastern Tributary									**Eastern Tributary**			
Metals									**Metals**			
Aluminum	ug/L	T*	87	2	107	≤1	N	HQ ≤ 1				
Copper	µg/L	D	5.2	1	2.9	≤1	N	HQ ≤ 1				
Copper	µg/L	T	5.7	7	6.231	≤1	N	HQ ≤ 1				
Lead	µg/L	D	5.4	3	10.7	2	N	Low FOD				
Lead	µg/L	T	5.4	10	13.41	2	N	Total Metals				
Nickel	µg/L	D	27	0	--	--	N	No Detection				
Nickel	µg/L	T	32	3	90.15	3	N	Low FOD				
Zinc	µg/L	D	70	8	43.6	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	74	14	158.1	2	N	Total Metals				
SVOCs									**SVOCs**			
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	1	12	40	N	Low FOD				
Northeast Ponds									**Northeast Ponds**			
Metals									**Metals**			
Cadmium	µg/L	D	0.12	1	0.74	6	N	Low FOD				
Cadmium	µg/L	T	0.18	0	--	--	N	No Detection				
Copper	µg/L	D	5.2	4	6.7	≤1	N	HQ ≤ 1				
Copper	µg/L	T	5.7	8	6.233	≤1	N	HQ ≤ 1				
Lead	µg/L	D	5.4	0	--	--	N	No Detection				
Lead	µg/L	T	5.4	1	55.2	10	N	Low FOD				
Silver	µg/L	D	1.4	0	--	--	N	No Detection				
Silver	µg/L	T	1.4	1	2.8	2	N	Low FOD				
Zinc	µg/L	D	70	16	49.2	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	74	15	41.46	≤1	N	HQ ≤ 1				
Unnamed Ponds									**Unnamed Ponds**			
Metals									**Metals**			
Aluminum	µg/L	D	87	4	181	2	N	Low FOD				
Aluminum	µg/L	T	87	7	12300	141	N	Total Metals				
Barium	µg/L	D	220	5	35.9	≤1	N	HQ ≤ 1				
Barium	µg/L	T	220	7	1000	5	N	Total Metals				
Cadmium	µg/L	D	0.12	0	--	--	N	No Detection				
Cadmium	µg/L	T	0.18	2	19.2	107	N	Low FOD				
Copper	µg/L	D	5.2	1		≤1	N	HQ ≤ 1				
Copper	µg/L	T	5.7	11	50.43	9	N	Total Metals				
Iron	µg/L	D	300	5	4010	13	N	Nutrient				
Iron	µg/L	T	300	7	131000	437	N	Nutrient				
Lead	µg/L	D	5.4	5		≤1	N	HQ ≤ 1				
Lead	µg/L	T	5.4	8	83.8	16	N	Total Metals				
Manganese	µg/L	D	120	5	150.7	≤1	N	HQ ≤ 1				
Manganese	µg/L	T	120	7	1320	11	N	Total Metals				
Mercury	µg/L	D	0.77	0	--	--	N	No Detection				
Mercury	µg/L	T	0.77	1	1.3	2	N	Low FOD				
Nickel	µg/L	D	27	6		≤1	N	HQ ≤ 1				
Nickel	µg/L	T	32	2	65.6	2	N	Low FOD				
Selenium	µg/L	D	5	0	--	--	N	No Detection				
Selenium	µg/L	T	5	1	25.6	5	N	Low FOD				
Silver	µg/L	D	1.4	0	--	--	N	No Detection				
Silver	µg/L	T	1.4	1	2	≤1	N	HQ ≤ 1				
Vanadium	µg/L	D	12	0	--	--	N	No Detection				
Vanadium	µg/L	T	12	4	62.1	5	N	Low FOD				
Zinc	µg/L	D	70	15	47.26	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	74	24	867.7	12	N	Total Metals				
Western Tributary									**Western Tributary**			
Metals									**Metals**			
Aluminum	µg/L	D	87	4	175	2	N	Low FOD				
Aluminum	µg/L	T	87	8	1641	19	N	Total Metals				
Arsenic	µg/L	D	150	9	2.5	≤1	N	HQ ≤ 1				
Arsenic	µg/L	T	150	14	26.35	≤1	N	HQ ≤ 1				
Cadmium	µg/L	D	0.12	0	--	--	N	No Detection				
Cadmium	µg/L	T	0.18	3	1.301	7	N	Low FOD				
Copper	µg/L	D	5.2	7	15.65	3	**Y**	**HQ >1**	Copper	8.8	15.65	**1**
Copper	µg/L	T	5.7	14	187.2	33	N	Total Metals				
Iron	µg/L	D	300	10	5300	18	N	Nutrient				
Iron	µg/L	T	300	11	9044	30	N	Nutrient				
Lead	µg/L	D	5.4	12	9.049	2	**Y**	**HQ >1**	Lead	5.4	9.049	**2**
Lead	µg/L	T	5.4	18	796	147	N	Total Metals				
Manganese	µg/L	D	120	10	1307	11	**Y**	**HQ >1**	Manganese	NA	1307	--
Manganese	µg/L	T	120	11	1248	10	N	Total Metals				
Mercury	µg/L	D	0.77	6	0.32	≤1	N	HQ ≤ 1				
Mercury	µg/L	T	0.77	6	0.401	≤1	N	HQ ≤ 1				
Selenium	µg/L	D	5	1	10.3	2	N	Low FOD				
Selenium	µg/L	T	5	0	--	--	N	No Detection				
Silver	µg/L	D	1.4	0	--	--	N	No Detection				
Silver	µg/L	T	1.4	2	12.2	9	N	Low FOD				
Thallium	µg/L	D	10	0	--	--	N	No Detection				
Thallium	µg/L	T	10	2	149	15	N	Low FOD				
Vanadium	µg/L	D	12	0	--	--	N	No Detection				
Vanadium	µg/L	T	12	3	15.2	≤1	N	HQ ≤ 1				
Zinc	µg/L	D	70	16	177.7	3	**Y**	**HQ >1**	Zinc	113	177.7	**0**
Zinc	µg/L	T	74	23	1548	21	N	Total Metals				

Table 4-11
COPEC Tracking Matrix for Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs									Fish and Aquatic Invertebrates			
Subdrainage Area COPEC	Units	Fraction	Surface Water	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area	Fish ESB	EPC[1]	HQ (EPC/ ESB)
Central Drainage Basin									**Central Drainage Basin**			
Explosives									**Explosives**			
4-Amino-2,6-dinitrotoluene	ug/L	T	20	6	21	≤1	N	HQ ≤ 1				
Metals									**Metals**			
Copper	µg/L	D	9.9	0	--	--	N	No Detection				
Copper	µg/L	T	11	4	12.6	≤1	N	HQ ≤ 1				
Lead	µg/L	D	5.4	0	--	--	N	No Detection				
Lead	µg/L	T	5.4	5	223	**41**	N	Total Metals				
Thallium	µg/L	D	10	0	--	--	N	No Detection				
Thallium	µg/L	T	10	1	10.4	≤1	N	HQ ≤ 1				
Development Area Stream									**Development Area Stream**			
No COPECS Retained												
Maintenance Dynamite East									**Maintenance Dynamite East**			
Metals									**Metals**			
Arsenic	µg/L	D	150	0	--	--	N	No Detection				
Arsenic	µg/L	T	150	5	185	≤1	N	HQ ≤ 1				
Copper	µg/L	D	9.9	6	3.8	≤1	N	HQ ≤ 1				
Copper	µg/L	T	11	11	88.33	**8**	N	Total Metals				
Lead	µg/L	D	5.4	1	0.32	≤1	N	HQ ≤ 1				
Lead	µg/L	T	5.4	15	1048	**194**	N	Total Metals				
Manganese	µg/L	T	120	1	210	**2**	N	Low FOD				
Mercury	µg/L	D	0.77	0	--	--	N	No Detection				
Mercury	µg/L	T	0.77	4	4	**5**	N	Low FOD				
Selenium	µg/L	D	5	2	5.2	≤1	N	HQ ≤ 1				
Selenium	µg/L	T	5	2	21	**4**	N	Low FOD				
Zinc	µg/L	D	133	9	31.4	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	140	11	1461	**10**	N	Total Metals				
Maintenance Dynamite West									**Maintenance Dynamite West**			
Metals									**Metals**			
Aluminum	µg/L	T*	87	2	512	**6**	N	Low FOD				
Arsenic	µg/L	D	150	0	--	--	N	No Detection				
Arsenic	µg/L	T	150	16	83.69	≤1	N	HQ ≤ 1				
Cadmium	µg/L	D	0.2	0	--	--	N	No Detection				
Cadmium	µg/L	T	0.31	2	2	**6**	N	Low FOD				
Copper	µg/L	D	9.9	4	2.8	≤1	N	HQ ≤ 1				
Copper	µg/L	T	11	24	179.1	**16**	N	Total Metals				
Iron	µg/L	T*	300	2	28000	**93**	N	Nutrient				
Lead	µg/L	D	5.4	1	17.5	**3**	N	Low FOD				
Lead	µg/L	T	5.4	24	316	**59**	N	Total Metals				
Manganese	µg/L	T*	120	2	2060	**17**	N	Low FOD				
Mercury	µg/L	D	0.77	1	0.072	≤1	N	HQ ≤ 1				
Mercury	µg/L	T	0.77	9	0.269	≤1	N	HQ ≤ 1				
Selenium	µg/L	D	5	1	4.4	≤1	N	HQ ≤ 1				
Selenium	µg/L	T	5	2	71.9	**14**	N	Low FOD				
Silver	µg/L	D	4.4	1	2.1	≤1	N	HQ ≤ 1				
Silver	µg/L	T	5.2	6	4.178	≤1	N	HQ ≤ 1				
Thallium	µg/L	D	10	0	--	--	N	No Detection				
Thallium	µg/L	T	10	1	32.1	**3**	N	Low FOD				
Zinc	µg/L	D	133	17	37.7	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	140	34	604.7	**4**	N	Total Metals				
SVOCs									**SVOCs**			
Benzo[a]anthracene	ug/L	T	0.025	1	2	**80**	N	Low FOD				
Benzo[a]pyrene	ug/L	T	0.014	2	2	**143**	N	Low FOD				
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	1	2	**7**	N	Low FOD				
Chrysene	ug/L	T	0.28	2	2	**7**	N	Low FOD				
Fluoranthene	ug/L	T	1.9	1	3	**2**	N	Low FOD				
Pyrene	ug/L	T	0.3	1	3	**10**	N	Low FOD				
Maintenance NG									**Maintenance NG**			
Metals									**Metals**			
Arsenic	µg/L	D	150	1	5.3	≤1	N	HQ ≤ 1				
Arsenic	µg/L	T	150	5	153	≤1	N	HQ ≤ 1				
Copper	µg/L	D	9.9	4	3.2	≤1	N	HQ ≤ 1				
Copper	µg/L	T	11	7	1030	**94**	N	Total Metals				
Lead	µg/L	D	5.4	0	--	--	N	No Detection				
Lead	µg/L	T	5.4	7	695.5	**129**	N	Total Metals				
Mercury	µg/L	D	0.77	0	--	--	N	No Detection				
Mercury	µg/L	T	0.77	2	1.9	**2**	N	Low FOD				
Selenium	µg/L	D	5	0	--	--	N	No Detection				
Selenium	µg/L	T	5	1	5.7	≤1	N	HQ ≤ 1				
Zinc	µg/L	D	133	7	89.6	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	140	10	1594	**11**	N	Total Metals				

Table 4-11
COPEC Tracking Matrix for Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Preliminary COPEC Screen and EPCs									Fish and Aquatic Invertebrates			
Subdrainage Area COPEC	Units	Fraction	Surface Water	Detections	EPC[1]	HQ (EPC/ ESB)	COPEC	Rationale	Subdrainage Area	Fish ESB	EPC[1]	HQ (EPC/ ESB)
Offsite Stream Lower									**Offsite Stream Lower**			
Metals									**Metals**			
Aluminum	µg/L	T*	87	3	1430	**16**	N	Low FOD				
Beryllium	µg/L	D	3.6	0	--	--	N	No Detection				
Beryllium	µg/L	T	3.6	1	21.7	**6**	N	Low FOD				
Cadmium	µg/L	D	0.2	0	--	--	N	No Detection				
Cadmium	µg/L	T	0.31	2	3.936	**13**	N	Low FOD				
Copper	µg/L	D	9.9	1	11.7	≤1	N	HQ ≤ 1				
Copper	µg/L	T	11	28	40.41	**4**	N	Total Metals				
Iron	µg/L	T*	300	4	21000	**70**	N	Nutrient				
Lead	µg/L	D	5.4	0	--	--	N	No Detection				
Lead	µg/L	T	5.4	26	159.5	**30**	N	Total Metals				
Manganese	µg/L	T*	120	4	1645	**14**	N	Low FOD				
Mercury	µg/L	D	0.77	0	--	--	N	No Detection				
Mercury	µg/L	T	0.77	12	1.132	≤1	N	HQ ≤ 1				
Nickel	µg/L	D	52	2	3.4	≤1	N	HQ ≤ 1				
Nickel	µg/L	T	61	8	17.84	≤1	N	HQ ≤ 1				
Selenium	µg/L	D	5	0	--	--	N	No Detection				
Selenium	µg/L	T	5	2	28.4	**6**	N	Low FOD				
Zinc	µg/L	D	133	10	40	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	140	38	1971	**14**	N	Total Metals				
SVOCs									**SVOCs**			
Benzo[a]anthracene	ug/L	T	0.025	2	0.1	**4**	N	Low FOD				
Benzo[a]pyrene	ug/L	T	0.014	2	0.2	**14**	N	Low FOD				
Chrysene	ug/L	T	0.28	4	1	**4**	N	Low FOD				
Fluoranthene	ug/L	T	1.9	3	2	≤1	N	HQ ≤ 1				
Pyrene	ug/L	T	0.3	3	2	**7**	N	Low FOD				
Offsite Stream Upper									**Offsite Stream Upper**			
Metals									**Metals**			
Cadmium	µg/L	D	0.2	0	--	--	N	No Detection				
Cadmium	µg/L	T	0.31	4	1.4	**5**	N	Low FOD				
Copper	µg/L	D	9.9	0	--	--	N	No Detection				
Copper	µg/L	T	11	8	19.21	**2**	N	Total Metals				
Lead	µg/L	D	5.4	0	--	--	N	No Detection				
Lead	µg/L	T	5.4	11	89.27	**17**	N	Total Metals				
Selenium	µg/L	D	5	0	--	--	N	No Detection				
Selenium	µg/L	T	5	2	15.5	**3**	N	Low FOD				
Thallium	µg/L	D	10	0	--	--	N	No Detection				
Thallium	µg/L	T	10	1	10.9	≤1	N	HQ ≤ 1				
Zinc	µg/L	D	133	9	29.4	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	140	18	289.6	**2**	N	Total Metals				
TNT-PETN-NG Ditches									**TNT-PETN-NG Ditches**			
Metals									**Metals**			
Copper	µg/L	D	9.9	0	--	--	N	No Detection				
Copper	µg/L	T	11	5	140	**13**	N	Total Metals				
Iron	µg/L	D	300	1	200	≤1	N	HQ ≤ 1				
Iron	µg/L	T	300	1	4940	**16**	N	Nutrient				
Lead	µg/L	D	5.4	1	0.36	≤1	N	HQ ≤ 1				
Lead	µg/L	T	5.4	7	652	**121**	N	Total Metals				
Manganese	µg/L	D	120	1	342	**3**	N	Low FOD				
Manganese	µg/L	T	120	1	505	**4**	N	Low FOD				
Selenium	µg/L	D	5	0	--	--	N	No Detection				
Selenium	µg/L	T	5	1	5.5	≤1	N	Low FOD				
Zinc	µg/L	D	133	3	20.1	≤1	N	HQ ≤ 1				
Zinc	µg/L	T	140	8	193.1	≤1	N	HQ ≤ 1				

Notes:

1. EPC = 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).
2. The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections).
3. Considered bioaccumulative according to USEPA 2000 and NJDEP 2015. (X indicates that the chemical is bioaccumulative)
4. Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational history.

95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
ESB = ecological screening benchmark
EPC = exposure point concentration (if mean > 95UCL, mean was used. If 95UCL couldnt be calculated, max detection was used.)
Y = yes
N = no
FOD = frequency of detection
mg/kg = milligram per kilogram
ug/kg = microgram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
NA = not analyzed
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
* only totals metal data available; screen based on total metals in this case
In cases where an ESB is only available for total metals, the dissolved metal data is screened against the total metal ESB

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2022. ProUCL Version 5.2.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development.

Table 5-1
Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Soil
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Chemical	CAS Number	Units	Soil ESB	Detected Exceedances	# Analyses	# Detections	Frequency of Detections	Min Detected	Max Detected	Max HQ	Mean	95UCL[2]	ProUCL Basis	EPC	HQ	Retain as COPEC?	Bioaccumulative[3]
Explosives																	
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	11	767	103	13%	84	350000	58	95.7	1491	KM H-UCL	1491	0	N	4
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	1	767	11	1%	69	290000	4	62.4	1042	95% KM (t) UCL	1042	0	N	4
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	1	767	14	2%	98	200000	3	63.1	719	95% KM (t) UCL	719	0	N	4
Nitroglycerin	55-63-0	ug/kg	65000	52	779	224	29%	570	3900000	60	3120	41642	95% KM (t) UCL	41642	1	N	4
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	1	767	18	2%	300	8500000	14	139	30160	95% KM (t) UCL	30160	0	N	4
Metals																	
Antimony	7440-36-0	mg/kg	0.27	239	1000	254	25%	0.11	1040	3852	0.557	3.8	95% KM (t) UCL	3.75	14	**Y**	
Arsenic	7440-38-2	mg/kg	9.9	311	1039	1032	99%	1.21	1150	116	8.37	26.1	95% KM (t) UCL	26.1	3	**Y**	X
Cadmium	7440-43-9	mg/kg	0.36	414	1033	660	64%	0.02	140	389	0.366	0.95	95% KM (t) UCL	0.95	3	**Y**	X
Chromium	7440-47-3	mg/kg	0.4	834	834	834	100%	3.9	1010	2525	17.0	23.6	95% Student's-t UCL	23.6	59	**Y**	X
Cobalt	7440-48-4	mg/kg	0.14	57	57	57	100%	1.1	10	71	5.38	6.34	95% Student's-t UCL	6.34	45	**Y**	
Copper	7440-50-8	mg/kg	5.4	1019	1030	1029	100%	2.85	9520	1763	29.8	135	95% KM (t) UCL	135.4	25	**Y**	X
Lead	7439-92-1	mg/kg	11	892	1039	1039	100%	1.77	73600	6691	55.2	567	95% Student's-t UCL	567	52	**Y**	X
Manganese	7439-96-5	mg/kg	220	48	57	57	100%	26	3700	17	374	757	95% Student's-t UCL	757	3	**Y**	
Mercury	7439-97-6	mg/kg	0.1	541	1028	997	97%	0.0039	2940	29400	0.154	9.5	95% KM (t) UCL	9.5	95	**Y**	X
Nickel	7440-02-0	mg/kg	38	18	1032	1031	100%	1.9	1380	36	9.99	16.5	95% KM (t) UCL	16	0	N	X
Selenium	7782-49-2	mg/kg	0.52	620	1001	707	71%	0.22	803	1544	0.920	3.3	95% KM (t) UCL	3.34	6	**Y**	X
Silver	7440-22-4	mg/kg	2	17	1037	244	24%	0.043	332	166	0.220	1.1	95% KM (t) UCL	1.1	1	N	X
Thallium	7440-28-0	mg/kg	1	175	1000	287	29%	0.036	8.88	9	0.761	0.572	95% KM (t) UCL	1	1	N	
Vanadium	7440-62-2	mg/kg	2	57	57	57	100%	13	54.1	27	30.7	33.16	95% Student's-t UCL	33	17	**Y**	
Zinc	7440-66-6	mg/kg	8.5	1028	1029	1028	100%	9.26	5320	626	102	202	95% KM (t) UCL	201.6	24	**Y**	X
PCBs																	
Aroclor-1254	11097-69-1	ug/kg	371	13	313	76	24%	4.2	9800	26.42	18.8	86	KM H-UCL	86	0	N	X
Aroclor-1260	11096-82-5	ug/kg	371	8	312	82	26%	4.3	3000	8.09	17.8	72	95% KM (t) UCL	72	0	N	X
Polychlorinated biphenyls	1336-36-3	ug/kg	371	30	302	110	36%	4.2	9800	26	31.5	246	95% KM (t) UCL	246	1	N	X
SVOCs																	
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	38	1043	198	19%	28	150000	117	215	952	95% KM (t) UCL	952	1	N	4
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	83	1033	92	9%	16	180000	5488	177	553	95% KM (t) UCL	553.1	17	**Y**	4
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	1	66	19	29%	100	5500	5	234	240	KM H-UCL	240	0	N	X
Benzo[a]anthracene	56-55-3	ug/kg	5210	19	1045	615	59%	4.4	46000	9	132	619	95% KM (t) UCL	619	0	N	X
Benzo[a]pyrene	50-32-8	ug/kg	1520	52	1045	617	59%	5	39000	26	128	538	95% KM (t) UCL	538	0	N	X
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	18	1031	482	47%	19	8100	9	101	145	95% KM (t) UCL	145	0	N	
Butylbenzylphthalate	85-68-7	ug/kg	239	14	1051	23	2%	60	23000	96	91.3	133	95% KM (t) UCL	133	1	N	
Chrysene	218-01-9	ug/kg	4730	20	1045	632	60%	4	40000	8	153	636	95% KM (t) UCL	636	0	N	X
Di-n-butylphthalate	84-74-2	ug/kg	150	210	1031	422	41%	22	190000	1267	139	1071	95% KM (t) UCL	1071	7	**Y**	
Naphthalene	91-20-3	ug/kg	99.4	16	828	95	11%	7	14900	150	70.3	80	95% KM (t) UCL	80.4	1	N	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	3	1030	8	1%	21.6	2840	5	79.6	29	95% KM (t) UCL	29	0	N	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	104	1003	306	31%	20	24000	44	127	395	95% KM (t) UCL	395	1	N	
Phenanthrene	85-01-8	ug/kg	45700	2	842	549	65%	4	79000	2	128	820	95% KM (t) UCL	820	0	N	X
VOCs																	
Benzene	71-43-2	ug/kg	255	6	381	11	3%	1	8000	31	171	84	95% KM (t) UCL	84	0	N	
Bromomethane	74-83-9	ug/kg	235	7	170	10	6%	123	907	4	118	57	95% KM (t) UCL	57	0	N	

Notes:

1. 95UCLs calculated using ProUCL v5.2 including non-detect values and at a 95% confidence level (α = 0.05). Datasets all had a sample size greater than or equal to 8 and detects greater than or equal to 5. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.
2. The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections).
3. Considered bioaccumulative according to USEPA 2000 and NJDEP 2015.
4. Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational history.

% = percent
95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
ug/kg = microgram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound
-- = no sediment ESB available

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February

USEPA. 2022. ProUCL Version 5.2.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development.

USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 5-2
Exposure Point Concentrations for Northern Subdrainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area / COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Frequency of Detection	Minimum Detection	Maximum Detection	Average Detection	95 UCL	Basis	EPC	HQ (EPC/ ESB)	COPEC	Rationale
Duck Pond															
Metals															
Copper	ug/L	T	5.2	23	5	22%	2.4	4.7	3.6	--		4.7	≤1	N	HQ ≤ 1
Copper	ug/L	D	5.2	9	2	22%	2.9	7.6	5.25	--		7.6	≤1	N	HQ ≤ 1
Lead	ug/L	T	5.4	23	3	13%	0.99	12.5	8.26	--		12.5	2	N	Low FOD
Lead	ug/L	D	5.4	9	0	0%	--	--	--	--		--	--	N	No Detection
SVOCs															
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	27	1	4%	2	2	2	--		2	7	N	Low FOD
Eastern Tributary															
Metals															
Aluminum	ug/L	T*	87	4	2	50%	88.1	107	97.6	--		107	≤1	N	HQ ≤ 1
Copper	µg/L	D	5.2	8	1	13%	2.9	2.9	2.36	--		2.9	≤1	N	HQ ≤ 1
Copper	µg/L	T	5.7	16	7	44%	2.7	17.5	4.61	6.231	95% KM (t) UCL	6.231	≤1	N	HQ ≤ 1
Lead	µg/L	D	5.4	8	3	38%	8.5	10.7	6.3	--		10.7	2	N	Low FOD
Lead	µg/L	T	5.4	16	10	63%	0.54	35.6	9.96	13.41	95% KM (t) UCL	13.41	2	N	Total Metals
Nickel	µg/L	D	27	6	0	0%	--	--	--	--		--	--	N	No Detection
Nickel	µg/L	T	32	10	3	30%	1.9	178	20.6	--		90.15	3	N	Low FOD
Zinc	µg/L	D	70	8	8	100%	24.8	43.6	33.4	--		43.6	≤1	N	HQ ≤ 1
Zinc	µg/L	T	74	16	14	88%	2.1	419	61	158.1	95% KM Adjusted Gamma UCL	158.1	2	N	Total Metals
SVOCs															
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	10	1	10%	12	12	12	--		12	40	N	Low FOD
Northeast Ponds															
Metals															
Cadmium	µg/L	D	0.12	14	1	7%	0.74	0.74	0.74	--		0.74	6	N	Low FOD
Cadmium	µg/L	T	0.18	14	0	0%	--	--	--	--		--	--	N	No Detection
Copper	µg/L	D	5.2	16	4	25%	2.6	6.7	4.54	--		6.7	≤1	N	HQ ≤ 1
Copper	µg/L	T	5.7	15	8	53%	2.8	9.8	7.44	6.233	95% KM (t) UCL	6.233	≤1	N	HQ ≤ 1
Lead	µg/L	D	5.4	16	0	0%	--	--	--	--		--	--	N	No Detection
Lead	µg/L	T	5.4	15	1	7%	55.2	55.2	55.2	--		55.2	10	N	Low FOD
Silver	µg/L	D	1.4	16	0	0%	--	--	--	--		--	--	N	No Detection
Silver	µg/L	T	1.4	15	1	7%	2.8	2.8	2.8	--		2.8	2	N	Low FOD
Zinc	µg/L	D	70	16	16	100%	9.1	49.2	22.8	--		49.2	≤1	N	HQ ≤ 1
Zinc	µg/L	T	74	15	15	100%	9.7	100	30.1	41.46	95% Student's-t UCL	41.46	≤1	N	HQ ≤ 1
Unnamed Ponds															
Metals															
Aluminum	µg/L	D	87	5	4	80%	122	181	143	--		181	2	N	Low FOD
Aluminum	µg/L	T	87	7	7	100%	168	12300	2220	--		12300	141	N	Total Metals
Barium	µg/L	D	220	5	5	100%	23.7	35.9	29.9	--		35.9	≤1	N	HQ ≤ 1
Barium	µg/L	T	220	7	7	100%	25.6	1000	176	--		1000	5	N	Total Metals
Cadmium	µg/L	D	0.12	13	0	0%	--	--	--	--		--	--	N	No Detection
Cadmium	µg/L	T	0.18	15	2	13%	0.66	19.2	9.93	--		19.2	107	N	Low FOD
Copper	µg/L	D	5.2	13	1	8%	4.4	4.4	4.4	--			≤1	N	HQ ≤ 1
Copper	µg/L	T	5.7	22	11	50%	3.1	366	41	50.43	95% KM (t) UCL	50.43	9	N	Total Metals
Iron	µg/L	D	300	5	5	100%	1460	4010	3110	--		4010	13	N	Nutrient
Iron	µg/L	T	300	7	7	100%	874	131000	22600	--		131000	437	N	Nutrient
Lead	µg/L	D	5.4	13	5	38%	0.52	3.9	3.6	--			≤1	N	HQ ≤ 1
Lead	µg/L	T	5.4	22	8	36%	2.2	623	86.3	83.8	KM (t) UCL	83.8	16	N	Total Metals
Manganese	µg/L	D	120	5	5	100%	27.4	199	43.9	150.7	95% Student's-t UCL	150.7	≤1	N	HQ ≤ 1
Manganese	µg/L	T	120	7	7	100%	87.7	1320	383	--		1320	11	N	Total Metals
Mercury	µg/L	D	0.77	13	0	0%	--	--	--	--		--	--	N	No Detection
Mercury	µg/L	T	0.77	22	1	5%	1.3	1.3	1.3	--		1.3	2	N	Low FOD
Nickel	µg/L	D	27	13	6	46%	1.8	3.7	2.8	--			≤1	N	HQ ≤ 1
Nickel	µg/L	T	32	15	2	13%	4.2	65.6	34.9	--		65.6	2	N	Low FOD
Selenium	µg/L	D	5	13	0	0%	--	--	--	--		--	--	N	No Detection
Selenium	µg/L	T	5	22	1	5%	25.6	25.6	25.6	--		25.6	5	N	Low FOD
Silver	µg/L	D	1.4	13	0	0%	--	--	--	--		--	--	N	No Detection
Silver	µg/L	T	1.4	22	1	5%	2	2	2	--		2	≤1	N	HQ ≤ 1
Vanadium	µg/L	D	12	5	0	0%	--	--	--	--		--	--	N	No Detection
Vanadium	µg/L	T	12	7	4	57%	2.9	62.1	18.2	--		62.1	5	N	Low FOD
Zinc	µg/L	D	70	15	15	100%	4.8	247	30.1	47.26	95% H-UCL	47.26	≤1	N	HQ ≤ 1
Zinc	µg/L	T	74	24	24	100%	6	6920	372	867.7	95% Student's-t UCL	867.7	12	N	Total Metals
Western Tributary															
Metals															
Aluminum	µg/L	D	87	10	4	40%	111	175	100	--		175	2	N	Low FOD
Aluminum	µg/L	T	87	11	8	73%	137	3120	1280	1641	95% KM (t) UCL	1641	19	N	Total Metals
Arsenic	µg/L	D	150	22	9	41%	0.62	2.5	1.85	--		2.5	≤1	N	HQ ≤ 1
Arsenic	µg/L	T	150	26	14	54%	0.86	176	24	26.35	95% KM (t) UCL	26.35	≤1	N	HQ ≤ 1
Cadmium	µg/L	D	0.12	17	0	0%	--	--	--	--		--	--	N	No Detection
Cadmium	µg/L	T	0.18	18	3	17%	0.92	3.8	2.77	1.301	95% KM (t) UCL	1.301	7	N	Low FOD
Copper	µg/L	D	5.2	22	7	32%	1.9	72.4	23.7	15.65	95% KM (t) UCL	15.65	3	**Y**	**HQ >1**
Copper	µg/L	T	5.7	26	14	54%	2.5	871	211	187.2	95% KM (t) UCL	187.2	33	N	Total Metals
Iron	µg/L	D	300	10	10	100%	74.8	5300	1540	--		5300	18	N	Nutrient
Iron	µg/L	T	300	11	11	100%	838	15000	6200	9044	95% Student's-t UCL	9044	30	N	Nutrient
Lead	µg/L	D	5.4	22	12	55%	0.18	40	4.4	9.049	95% KM (t) UCL	9.049	2	**Y**	**HQ >1**
Lead	µg/L	T	5.4	26	18	69%	0.99	3000	459	796	95% KM Adjusted Gamma UCL	796	147	N	Total Metals
Manganese	µg/L	D	120	10	10	100%	2.3	1970	87.2	1307	95% Adjusted Gamma UCL	1307	11	**Y**	**HQ >1**
Manganese	µg/L	T	120	11	11	100%	23	2070	894	1248	95% Student's-t UCL	1248	10	N	Total Metals
Mercury	µg/L	D	0.77	22	6	27%	0.069	0.32	0.1	--		0.32	≤1	N	HQ ≤ 1
Mercury	µg/L	T	0.77	26	6	23%	0.027	2.5	0.789	0.401	95% KM (t) UCL	0.401	≤1	N	HQ ≤ 1
Selenium	µg/L	D	5	22	1	5%	10.3	10.3	10	--		10.3	2	N	Low FOD
Selenium	µg/L	T	5	26	0	0%	--	--	--	--		--	--	N	No Detection
Silver	µg/L	D	1.4	22	0	0%	--	--	--	--		--	--	N	No Detection
Silver	µg/L	T	1.4	26	2	8%	11.8	12.2	12	--		12.2	9	N	Low FOD
Thallium	µg/L	D	10	22	0	0%	--	--	--	--		--	--	N	No Detection
Thallium	µg/L	T	10	26	2	8%	104	149	127	--		149	15	N	Low FOD
Vanadium	µg/L	D	12	10	0	0%	--	--	--	--		--	--	N	No Detection
Vanadium	µg/L	T	12	11	3	27%	6	15.2	9.9	--		15.2	≤1	N	HQ ≤ 1
Zinc	µg/L	D	70	23	16	70%	4.3	504	126	177.7	95% KM Adjusted Gamma UCL	177.7	3	**Y**	**HQ >1**
Zinc	µg/L	T	74	27	23	85%	5.8	7620	1090	1548	95% KM (t) UCL	1548	21	N	Total Metals

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
UCL = upper confidence level
HQ = hazard quotient
ESB = ecological screening benchmark
Y = yes
N = no
ug/L = micrograms per liter
mg/L = milligram per liter
FOD = frequency of detection
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
Screening Criteria from Ecological Screening Benchmark (ESB) Table 4-2
* only totals metal data available; screen based on total metals in this case
In cases where an ESB is only available for total metals, the dissolved metal data is screened against the total metal ESB

Table 5-3
Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Sed N - Duck Pond																
Explosives																
Nitroglycerin	µg/kg	127000		45	15	33%	3100	2700000	21	12700	174317	95% KM (t) UCL	174317	1	N	HQ<1
Metals																
Arsenic	mg/kg	6	33	45	35	78%	1.27	41.1	7	6.05	9.682	KM H-UCL	9.682	2	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	45	42	93%	0.191	4.5	8	0.736	1.085	95% KM (t) UCL	1.085	2	Y	**HQ>1**
Chromium	mg/kg	26	110	45	45	100%	8.18	106	4	15.7	21.72	95% Student's-t UCL	21.72	1	N	HQ<1
Copper	mg/kg	16	110	45	45	100%	7.67	556	35	32.6	60.97	95% H-UCL	60.97	4	Y	**HQ>1**
Lead	mg/kg	31	250	45	45	100%	4.51	851	27	88.4	195.3	95% Adjusted Gamma UCL	195.3	6	Y	**HQ>1**
Mercury	mg/kg	0.2	2	45	44	98%	0.0043	0.69	3	0.156	0.289	95% KM Adjusted Gamma UCL	0.289	1	N	HQ<1
Nickel	mg/kg	16	75	45	45	100%	3.22	151	9	11.7	20.32	95% Student's-t UCL	20.32	1	N	HQ<1
Silver	mg/kg	1		45	3	7%	0.498	1.32	1	0.777	--	Not enough data to compute meaningful or reliable statistics	1.32	1	N	Low FOD
Zinc	mg/kg	120	820	45	45	100%	32	1110	9	256	397.6	95% Adjusted Gamma UCL	397.6	3	Y	**HQ>1**
SVOCs																
2,4-Dinitrotoluene	µg/kg	14.4		27	2	7%	270	4500	313	392	--	Not enough data to compute meaningful or reliable statistics	4500	313	N	Low FOD
Acenaphthylene	µg/kg	44		27	2	7%	130	580	13	378	--	Not enough data to compute meaningful or reliable statistics	580	13	N	Low FOD
Anthracene	µg/kg	220	370,000	27	2	7%	120	560	3	377	--	Not enough data to compute meaningful or reliable statistics	560	3	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1,480,000	27	10	37%	53	1800	6	377	481.2	95% KM Adjusted Gamma UCL	481.2	2	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,440,000	27	10	37%	67	1500	4	383	424.2	95% KM (t) UCL	424.2	1	N	HQ<1
Benzo(g,h,i)perylene	µg/kg	170	320,000	27	7	26%	59	850	5	386	265.5	95% KM (t) UCL	386	2	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	27	10	37%	71	1600	7	365	394.2	95% KM (t) UCL	394.2	2	Y	**HQ>1**
Chrysene	µg/kg	340	460,000	27	12	44%	62	2000	6	403	529.9	95% KM Adjusted Gamma UCL	529.9	2	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	27	2	7%	95	240	4	362	--	Not enough data to compute meaningful or reliable statistics	240	4	N	Low FOD
Fluoranthene	µg/kg	750	1,020,000	27	14	52%	80	2000	3	424	559.4	95% KM (t) UCL	559.4	1	N	HQ<1
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	1	1	100%	270	270	1	270	--	Not enough data to compute meaningful or reliable statistics	270	1	N	Low FOD
Phenanthrene	µg/kg	560	950,000	27	5	19%	59	770	1	352	--	Not enough data to compute meaningful or reliable statistics	770	1	N	HQ<1
Pyrene	µg/kg	490	850,000	27	14	52%	85	4000	8	448	534.9	KM H-UCL	534.9	1	N	HQ<1
Sed N - Eastern Trib																
Explosives																
2,4,6-Trinitrotoluene	µg/kg	1100		8	1	13%	1200	1200	1	202	--	Not enough data to compute meaningful or reliable statistics	1200	1	N	Low FOD
Metals																
Arsenic	mg/kg	6	33	8	8	100%	1.17	11.7	2	2.83	--	Not enough data to compute meaningful or reliable statistics	11.7	2	Y	**HQ>1**
Copper	mg/kg	16	110	8	8	100%	10.4	189	12	22	--	Not enough data to compute meaningful or reliable statistics	189	12	Y	**HQ>1**
Lead	mg/kg	31	250	8	8	100%	7.63	235	8	19	--	Not enough data to compute meaningful or reliable statistics	235	8	Y	**HQ>1**
Nickel	mg/kg	16	75	8	8	100%	6.25	25.3	2	10.1	15.34	95% Student's-t UCL	15.34	1	N	HQ<1
Zinc	mg/kg	120	820	8	8	100%	32.8	294	2	93.7	190.9	95% Student's-t UCL	190.9	2	Y	**HQ>1**
SVOCs																
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	2	2	100%	150	230	1	186	--	Not enough data to compute meaningful or reliable statistics	230	1	N	Low FOD

Table 5-3
Exposure Point Concentrations for Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Sed N - Northeastern Pond																
Metals																
Aluminum	mg/kg	25500		3	3	100%	12200	38000	1	19300	--	Not enough data to compute meaningful or reliable statistics	38000	1	N	Low FOD
Arsenic	mg/kg	6	33	16	12	75%	0.64	9.7	2	4.9	5.048	95% KM (t) UCL	5.048	1	N	HQ<1
Copper	mg/kg	16	110	16	16	100%	3.6	98.7	6	23	43.55	95% Student's-t UCL	43.55	3	Y	**HQ>1**
Lead	mg/kg	31	250	16	16	100%	9.7	214	7	31.9	62.73	95% Student's-t UCL	62.73	2	Y	**HQ>1**
Mercury	mg/kg	0.2	2	16	15	94%	0.034	0.495	2	0.119	0.193	95% KM (t) UCL	0.193	1	N	HQ<1
Nickel	mg/kg	16	75	16	16	100%	1.7	17.6	1	7.54	10.61	95% Student's-t UCL	10.61	1	N	HQ<1
Silver	mg/kg	1		16	5	31%	0.813	5.06	5	0.78	--	Not enough data to compute meaningful or reliable statistics	5.06	5	Y	**HQ>1**
Zinc	mg/kg	120	820	16	16	100%	10.6	929	8	71.5	249.9	95% Adjusted Gamma UCL	249.9	2	Y	**HQ>1**
SVOCs																
Fluoranthene	µg/kg	750	1,020,000	6	3	50%	56	1100	1	85	--	Not enough data to compute meaningful or reliable statistics	1100	1	N	Low FOD
Phenanthrene	µg/kg	560	950,000	6	3	50%	49	1100	2	84.6	--	Not enough data to compute meaningful or reliable statistics	1100	2	N	Low FOD
Pyrene	µg/kg	490	850,000	6	3	50%	57	1100	2	83.6	--	Not enough data to compute meaningful or reliable statistics	1100	2	N	Low FOD
Sed N - Unnamed Pond																
Metals																
Arsenic	mg/kg	6	33	22	20	91%	1.86	111	19	6.7	21.24	KM H-UCL	21.24	4	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	17	14	82%	0.255	7.19	12	0.615	1.375	KM H-UCL	1.375	2	Y	**HQ>1**
Chromium	mg/kg	26	110	17	17	100%	4.89	48.9	2	12.4	19.14	95% Student's-t UCL	19.14	1	N	HQ<1
Copper	mg/kg	16	110	17	17	100%	3.77	357	22	26.1	84.72	95% H-UCL	84.72	5	Y	**HQ>1**
Lead	mg/kg	31	250	22	22	100%	15.9	2370	76	89.5	281	95% H-UCL	281	9	Y	**HQ>1**
Mercury	mg/kg	0.2	2	22	22	100%	0.0079	11.4	57	0.242	1.672	95% Student's-t UCL	1.672	8	Y	**HQ>1**
Nickel	mg/kg	16	75	17	17	100%	3.01	36.5	2	10.3	16.39	95% Student's-t UCL	16.39	1	N	HQ<1
Silver	mg/kg	1		17	3	18%	0.274	1.46	1	0.705	--	Not enough data to compute meaningful or reliable statistics	1.46	1	N	Low FOD
Zinc	mg/kg	120	820	22	22	100%	35.8	4500	38	145	752	95% Student's-t UCL	752	6	Y	**HQ>1**
SVOCs																
Acenaphthylene	µg/kg	44		12	2	17%	170	230	5	376	--	Not enough data to compute meaningful or reliable statistics	230	5	N	Low FOD
Anthracene	µg/kg	220	370,000	12	2	17%	230	430	2	407	--	Not enough data to compute meaningful or reliable statistics	430	2	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1,480,000	12	6	50%	81	2100	7	439	859	95% KM (t) UCL	859	3	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,440,000	12	6	50%	76	1500	4	406	641.5	95% KM (t) UCL	641.5	2	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	320,000	12	6	50%	57	1300	8	359	550	95% KM (t) UCL	550	3	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	12	5	42%	57	1700	7	393	--	Not enough data to compute meaningful or reliable statistics	1700	7	Y	**HQ>1**
Chrysene	µg/kg	340	460,000	12	6	50%	110	2900	9	541	1225	95% KM (t) UCL	1225	4	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	12	2	17%	180	180	3	371	--	Not enough data to compute meaningful or reliable statistics	180	3	N	Low FOD
Fluoranthene	µg/kg	750	1,020,000	12	8	67%	83	2200	3	445	951.9	95% KM (t) UCL	951.9	1	N	HQ<1
Phenanthrene	µg/kg	560	950,000	12	3	25%	110	230	0	351	--	Not enough data to compute meaningful or reliable statistics	230	0	N	Low FOD

Table 5-3
Exposure Point Concentrations for Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Sed N - Western Trib																
Metals																
Arsenic	mg/kg	6	33	34	29	85%	1.84	16.2	3	6.16	8.325	95% KM (t) UCL	8.325	1	N	HQ<1
Cadmium	mg/kg	0.6	10	34	33	97%	0.317	2.85	5	0.934	1.27	95% KM (t) UCL	1.27	2	Y	**HQ>1**
Chromium	mg/kg	26	110	34	34	100%	6.3	52.1	2	15.8	20.33	95% H-UCL	20.33	1	N	HQ<1
Copper	mg/kg	16	110	34	34	100%	6.85	584	37	42.1	85.94	95% H-UCL	85.94	5	Y	**HQ>1**
Lead	mg/kg	31	250	34	34	100%	18.8	2990	96	116	375.1	95% Student's-t UCL	375.1	12	Y	**HQ>1**
Mercury	mg/kg	0.2	2	34	34	100%	0.0444	2.79	14	0.445	0.946	95% Adjusted Gamma UCL	0.946	5	Y	**HQ>1**
Nickel	mg/kg	16	75	34	34	100%	3.21	16.6	1	9.83	11.33	95% Student's-t UCL	11.33	1	N	HQ<1
Selenium	mg/kg	2		2	1	50%	5.49	5.49	3	5.49	--	Not enough data to compute meaningful or reliable statistics	5.49	3	N	Low FOD
Zinc	mg/kg	120	820	34	34	100%	71.2	1000	8	200	310.3	95% Adjusted Gamma UCL	310.3	3	Y	**HQ>1**
SVOCs																
2-Methylnaphthalene	µg/kg	70		2	1	50%	130	130	2	130	--	Not enough data to compute meaningful or reliable statistics	130	2	N	Low FOD
Chrysene	µg/kg	340	460,000	3	2	67%	240	360	1	305	--	Not enough data to compute meaningful or reliable statistics	360	1	N	Low FOD
Fluorene	µg/kg	190	160,000	3	1	33%	210	210	1	250	--	Not enough data to compute meaningful or reliable statistics	210	1	N	Low FOD
Naphthalene	µg/kg	160	2,100,000	3	1	33%	170	170	1	233	--	Not enough data to compute meaningful or reliable statistics	170	1	N	Low FOD

Notes:

*The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).

Bolded values indicate a hazard quotient that is greater than 1

COPEC = constituent of potential ecological concern

LEL - lowest effects level

SEL = severe effects level

UCL = upper confidence level

HQ = hazard quotient

ESB = ecological screening benchmark

Sed N = sediment Northen drainage area

EPC = exposure point concentration (if the mean was greater than the 95UCL, the mean was used. If no 95UCL could be calculated, then the max detection was used.)

Y = yes

N = no

ug/kg = micrograms per kilogram

mg/kg = milligram per kilogram

FOD = frequency of detection

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

Table 5-4
Exposure Point Concentrations for Southern Subdrainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area / COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Frequency of Detection	Minimum Detection	Maximum Detection	Average Detection	95 UCL	Basis	EPC	HQ (EPC/ ESB)	COPEC	Rationale
Central Drainage Basin															
Explosives															
4-Amino-2,6-dinitrotoluene	ug/L	T	20	11	6	55%	0.72	21	4.93	--		21	≤1	N	HQ ≤ 1
Metals															
Copper	µg/L	D	9.9	6	0	0%	--	--	--	--		--	--	N	No Detection
Copper	µg/L	T	11	9	4	44%	2.1	12.6	6.05	--		12.6	≤1	N	HQ ≤ 1
Lead	µg/L	D	5.4	6	0	0%	--	--	--	--		--	--	N	No Detection
Lead	µg/L	T	5.4	9	5	56%	21.1	223	66.8	--		223	**41**	N	Total Metals
Thallium	µg/L	D	10	6	0	0%	--	--	--	--		--	--	N	No Detection
Thallium	µg/L	T	10	9	1	11%	10.4	10.4	10.4	--		10.4	≤1	N	HQ ≤ 1
Development Area Stream															
No COPECS															
Maintenance Dynamite East															
Metals															
Arsenic	µg/L	D	150	19	0	0%	--	--	--	--		--	--	N	No Detection
Arsenic	µg/L	T	150	21	5	24%	6	185	97.3	--		185	≤1	N	HQ ≤ 1
Copper	µg/L	D	9.9	24	6	25%	3	3.8	3.66	--		3.8	≤1	N	HQ ≤ 1
Copper	µg/L	T	11	26	11	42%	2.1	297	78.7	88.33	95% KM Adjusted Gamma UCL	88.33	**8**	N	Total Metals
Lead	µg/L	D	5.4	24	1	4%	0.32	0.32	0.32	--		0.32	≤1	N	HQ ≤ 1
Lead	µg/L	T	5.4	26	15	58%	0.15	3210	647	1048	95% KM Adjusted Gamma UCL	1048	**194**	N	Total Metals
Manganese	µg/L	T	120	1	1	100%	210	210	210	--		210	**2**	N	Low FOD
Mercury	µg/L	D	0.77	19	0	0%	--	--	--	--		--	--	N	No Detection
Mercury	µg/L	T	0.77	21	4	19%	0.03	4	1.93	--		4	**5**	N	Low FOD
Selenium	µg/L	D	5	19	2	11%	4.5	5.2	4.9	--		5.2	≤1	N	HQ ≤ 1
Selenium	µg/L	T	5	21	2	10%	10	21	15.5	--		21	**4**	N	Low FOD
Zinc	µg/L	D	133	19	9	47%	3.4	31.4	10	--		31.4	≤1	N	HQ ≤ 1
Zinc	µg/L	T	140	21	11	52%	5.2	4450	695	1461	95% KM Adjusted Gamma UCL	1461	**10**	N	Total Metals
Maintenance Dynamite West															
Metals															
Aluminum	µg/L	T*	87	2	2	100%	219	512	366	--		512	**6**	N	Low FOD
Arsenic	µg/L	D	150	19	0	0%	--	--	--	--		--	--	N	No Detection
Arsenic	µg/L	T	150	38	16	42%	2.1	469	79.6	83.69	95% KM Adjusted Gamma UCL	83.69	≤1	N	HQ ≤ 1
Cadmium	µg/L	D	0.2	17	0	0%	--	--	--	--		--	--	N	No Detection
Cadmium	µg/L	T	0.31	19	2	11%	0.84	2	1.42	--		2	**6**	N	Low FOD
Copper	µg/L	D	9.9	21	4	19%	2.5	2.8	1.2	--		2.8	≤1	N	HQ ≤ 1
Copper	µg/L	T	11	40	24	60%	2.2	2400	149	179.1	KM H-UCL	179.1	**16**	N	Total Metals
Iron	µg/L	T*	300	2	2	100%	12400	28000	20200	--		28000	**93**	N	Nutrient
Lead	µg/L	D	5.4	21	1	5%	17.5	17.5	4.4	--		17.5	**3**	N	Low FOD
Lead	µg/L	T	5.4	40	24	60%	9.2	1320	278	316	95% KM Adjusted Gamma UCL	316	**59**	N	Total Metals
Manganese	µg/L	T*	120	2	2	100%	1490	2060	1780	--		2060	**17**	N	Low FOD
Mercury	µg/L	D	0.77	21	1	5%	0.072	0.072	0.072	--		0.072	≤1	N	HQ ≤ 1
Mercury	µg/L	T	0.77	40	9	23%	0.064	13	2.02	0.269	KM H-UCL	0.269	≤1	N	HQ ≤ 1
Selenium	µg/L	D	5	19	1	5%	4.4	4.4	4.4	--		4.4	≤1	N	HQ ≤ 1
Selenium	µg/L	T	5	38	2	5%	21.8	71.9	46.9	--		71.9	**14**	N	Low FOD
Silver	µg/L	D	4.4	19	1	5%	2.1	2.1	2.1	--		2.1	≤1	N	HQ ≤ 1
Silver	µg/L	T	5.2	38	6	16%	8.4	16.2	13.2	4.178	95% KM (t) UCL	4.178	≤1	N	HQ ≤ 1
Thallium	µg/L	D	10	19	0	0%	--	--	--	--		--	--	N	No Detection
Thallium	µg/L	T	10	38	1	3%	32.1	32.1	32.1	--		32.1	**3**	N	Low FOD
Zinc	µg/L	D	133	19	17	89%	5.6	37.7	10.2	--		37.7	≤1	N	HQ ≤ 1
Zinc	µg/L	T	140	38	34	89%	6.6	2630	448	604.7	95% KM (t) UCL	604.7	**4**	N	Total Metals
SVOCs															
Benzo[a]anthracene	ug/L	T	0.025	27	1	4%	2	2	2	--		2	**80**	N	Low FOD
Benzo[a]pyrene	ug/L	T	0.014	27	2	7%	1	2	1.5	--		2	**143**	N	Low FOD
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	27	1	4%	2	2	2	--		2	**7**	N	Low FOD
Chrysene	ug/L	T	0.28	27	2	7%	1	2	1.5	--		2	**7**	N	Low FOD
Fluoranthene	ug/L	T	1.9	19	1	5%	3	3	3	--		3	**2**	N	Low FOD
Pyrene	ug/L	T	0.3	19	1	5%	3	3	3	--		3	**10**	N	Low FOD
Maintenance NG															
Metals															
Arsenic	µg/L	D	150	7	1	14%	4.4	5.3	4.67	--		5.3	≤1	N	HQ ≤ 1
Arsenic	µg/L	T	150	11	5	45%	16.4	153	56.4	--		153	≤1	N	HQ ≤ 1
Copper	µg/L	D	9.9	7	4	57%	2.4	3.2	2.9	--		3.2	≤1	N	HQ ≤ 1
Copper	µg/L	T	11	11	7	64%	2.9	1030	222	--		1030	**94**	N	Total Metals
Lead	µg/L	D	5.4	7	0	0%	--	--	--	--		--	--	N	No Detection
Lead	µg/L	T	5.4	11	7	64%	32.9	2320	481	695.5	95% KM (t) UCL	695.5	**129**	N	Total Metals
Mercury	µg/L	D	0.77	7	0	0%	--	--	--	--		--	--	N	No Detection
Mercury	µg/L	T	0.77	11	2	18%	0.44	1.9	1.17	--		1.9	**2**	N	Low FOD
Selenium	µg/L	D	5	7	0	0%	--	--	--	--		--	--	N	No Detection
Selenium	µg/L	T	5	11	1	9%	5.7	5.7	5.7	--		5.7	≤1	N	HQ ≤ 1
Zinc	µg/L	D	133	7	7	100%	14.4	89.6	27.9			89.6	≤1	N	HQ ≤ 1
Zinc	µg/L	T	140	11	10	91%	26.2	3750	878	1594	KM H-UCL	1594	**11**	N	Total Metals
Offsite Stream Lower															
Metals															
Aluminum	µg/L	T*	87	4	3	75%	148	1430	741	--		1430	**16**	N	Low FOD
Beryllium	µg/L	D	3.6	13	0	0%	--	--	--	--		--	--	N	No Detection
Beryllium	µg/L	T	3.6	17	1	6%	21.7	21.7	21.7	--		21.7	**6**	N	Low FOD
Cadmium	µg/L	D	0.2	13	0	0%	--	--	--	--		--	--	N	No Detection
Cadmium	µg/L	T	0.31	17	2	12%	1	8.6	4.85	3.936		3.936	**13**	N	Low FOD
Copper	µg/L	D	9.9	13	1	8%	11.7	11.7	11.7	--		11.7	≤1	N	HQ ≤ 1
Copper	µg/L	T	11	41	28	68%	2.2	215	36	40.41	95% KM Adjusted Gamma UCL	40.41	**4**	N	Total Metals
Iron	µg/L	T*	300	4	4	100%	926	21000	6420	--		21000	**70**	N	Nutrient
Lead	µg/L	D	5.4	13	0	0%	--	--	--	--		--	--	N	No Detection
Lead	µg/L	T	5.4	41	26	63%	0.35	1020	127	159.5	95% KM Adjusted Gamma UCL	159.5	**30**	N	Total Metals
Manganese	µg/L	T*	120	4	4	100%	416	1670	858	--		1645	**14**	N	Low FOD
Mercury	µg/L	D	0.77	13	0	0%	--	--	--	--		--	--	N	No Detection
Mercury	µg/L	T	0.77	41	12	29%	0.026	7.7	1.19	1.132	95% KM Adjusted Gamma UCL	1.132	≤1	N	HQ ≤ 1
Nickel	µg/L	D	52	13	2	15%	2	3.4	2.7	--		3.4	≤1	N	HQ ≤ 1
Nickel	µg/L	T	61	17	8	47%	2.2	91.3	16.8	17.84	95% KM (t) UCL	17.84	≤1	N	HQ ≤ 1
Selenium	µg/L	D	5	13	0	0%	--	--	--	--		--	--	N	No Detection
Selenium	µg/L	T	5	41	2	5%	7.5	28.4	18	--		28.4	**6**	N	Low FOD
Zinc	µg/L	D	133	13	10	77%	3.5	40	4.4	--		40	≤1	N	HQ ≤ 1
Zinc	µg/L	T	140	41	38	93%	2.1	3330	399	1971	KM H-UCL	1971	**14**	N	Total Metals
SVOCs															
Benzo[a]anthracene	ug/L	T	0.025	20	2	10%	0.1	0.1	0.1	--		0.1	**4**	N	Low FOD
Benzo[a]pyrene	ug/L	T	0.014	20	2	10%	0.2	0.2	0.2	--		0.2	**14**	N	Low FOD
Chrysene	ug/L	T	0.28	20	4	20%	0.2	1	0.6	--		1	**4**	N	Low FOD
Fluoranthene	ug/L	T	1.9	17	3	18%	0.3	2	0.9	--		2	≤1	N	HQ ≤ 1
Pyrene	ug/L	T	0.3	17	3	18%	0.3	2	0.9	--		2	**7**	N	Low FOD
Offsite Stream Upper															
Metals															
Cadmium	µg/L	D	0.2	11	0	0%	--	--	--	--		--	--	N	No Detection
Cadmium	µg/L	T	0.31	11	4	36%	0.66	1.4	1	--		1.4	**5**	N	Low FOD
Copper	µg/L	D	9.9	12	0	0%	--	--	--	--		--	--	N	No Detection
Copper	µg/L	T	11	21	8	38%	3.5	99	25.4	19.21	95% KM (t) UCL	19.21	**2**	N	Total Metals
Lead	µg/L	D	5.4	12	0	0%	--	--	--	--		--	--	N	No Detection
Lead	µg/L	T	5.4	21	11	52%	12.9	375	101	89.27	95% KM (t) UCL	89.27	**17**	N	Total Metals
Selenium	µg/L	D	5	12	0	0%	--	--	--	--		--	--	N	No Detection
Selenium	µg/L	T	5	21	2	10%	13.8	15.5	14.7	--		15.5	**3**	N	Low FOD
Thallium	µg/L	D	10	12	0	0%	--	--	--	--		--	--	N	No Detection
Thallium	µg/L	T	10	21	1	5%	10.9	10.9	10.9	--		10.9	≤1	N	HQ ≤ 1
Zinc	µg/L	D	133	12	9	75%	3.7	29.4	4.75	--		29.4	≤1	N	HQ ≤ 1
Zinc	µg/L	T	140	21	18	86%	3.2	910	142	289.6	95% KM Adjusted Gamma UCL	289.6	**2**	N	Total Metals
TNT-PETN-NG Ditches															
Metals															
Copper	µg/L	D	9.9	4	0	0%	--	--	--	--		--	--	N	No Detection
Copper	µg/L	T	11	8	5	63%	2.5	140	37.1	--		140	**13**	N	Total Metals
Iron	µg/L	D	300	1	1	100%	200	200	200	--		200	≤1	N	HQ ≤ 1
Iron	µg/L	T	300	1	1	100%	4940	4940	4940	--		4940	**16**	N	Nutrient
Lead	µg/L	D	5.4	4	1	25%	0.36	0.36	0.36			0.36	≤1	N	HQ ≤ 1
Lead	µg/L	T	5.4	8	7	88%	11.7	652	194	--		652	**121**	N	Total Metals
Manganese	µg/L	D	120	1	1	100%	342	342	342	--		342	**3**	N	Low FOD
Manganese	µg/L	T	120	1	1	100%	505	505	505	--		505	**4**	N	Low FOD
Selenium	µg/L	D	5	4	0	0%	--	--	--	--		--	--	N	No Detection
Selenium	µg/L	T	5	8	1	13%	5.5	5.5	5.5	--		5.5	≤1	N	Low FOD
Zinc	µg/L	D	133	4	3	75%	9.6	20.1	11.4			20.1	≤1	N	HQ ≤ 1
Zinc	µg/L	T	140	8	8	100%	8.1	407	99.5	193.1	95% Student's-t UCL	193.1	≤1	N	HQ ≤ 1

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
UCL = upper confidence level
HQ = hazard quotient
ESB = ecological screening benchmark
Y = yes
N = no
ug/L = micrograms per liter
mg/L = milligram per liter
FOD = frequency of detection
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
Screening Criteria from Ecological Screening Benchmark (ESB) Table 4-2

Table 5-5
Summary Statistics and COPEC Screen for Detected Constituents and Exposure Point Concentrations for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Sed S - Central Drainage																
Explosives																
2,4,6-Trinitrotoluene	µg/kg	1100		16	1	6%	19000	19000	17	1120	--	Not enough data to compute meaningful or reliable statistics	19000	17	N	Low FOD
Metals																
Arsenic	mg/kg	6	33	15	13	87%	2.64	97.3	16	19.1	41.46	95% KM (t) UCL	41.46	7	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	15	8	53%	0.51	2.37	4	1.73	1.497	95% KM (t) UCL	1.73	3	Y	**HQ>1**
Chromium	mg/kg	26	110	15	14	93%	10.4	46.1	2	22.5	28.19	95% KM (t) UCL	28.19	1	N	HQ<1
Cobalt	mg/kg	50		2	1	50%	2.6	2.6	0	9.8	--	Not enough data to compute meaningful or reliable statistics	2.6	0	N	Low FOD
Copper	mg/kg	16	110	15	14	93%	6.88	217	14	38.6	92.64	95% KM Adjusted Gamma UCL	92.64	6	Y	**HQ>1**
Lead	mg/kg	31	250	25	24	96%	9.43	3400	110	288	924.5	95% KM (t) UCL	924.5	30	Y	**HQ>1**
Manganese	mg/kg	630	1,100	2	2	100%	697	2400	4	1290	--	Not enough data to compute meaningful or reliable statistics	2400	4	N	Low FOD
Mercury	mg/kg	0.2	2	25	25	100%	0.0205	25.4	127	0.584	4.094	95% Student's-t UCL	4.094	20	Y	**HQ>1**
Nickel	mg/kg	16	75	15	14	93%	3.85	27.9	2	11.9	15.66	95% KM (t) UCL	15.66	1	N	HQ<1
Silver	mg/kg	1		15	3	20%	0.561	2.4	2	1.59	--	Not enough data to compute meaningful or reliable statistics	2.4	2	N	Low FOD
Zinc	mg/kg	120	820	15	15	100%	24.6	426	4	141	239.3	95% Student's-t UCL	239.3	2	Y	**HQ>1**
SVOCs																
2-Methylnaphthalene	µg/kg	70		2	1	50%	100	100	1	274	--	Not enough data to compute meaningful or reliable statistics	100	1	N	Low FOD
Acenaphthene	µg/kg	16		7	2	29%	250	140000	8750	845	--	Not enough data to compute meaningful or reliable statistics	140000	8750	N	Low FOD
Acenaphthylene	µg/kg	44		7	2	29%	340	900000	20455	1150	--	Not enough data to compute meaningful or reliable statistics	900000	20455	N	Low FOD
Anthracene	µg/kg	220	370,000	7	2	29%	200	1100000	5000	1100	--	Not enough data to compute meaningful or reliable statistics	1100000	5000	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1,480,000	7	4	57%	72	1500000	4688	1200	--	Not enough data to compute meaningful or reliable statistics	1500000	4688	N	Low FOD
Benzo(a)pyrene	µg/kg	370	1,440,000	7	4	57%	70	900000	2432	1190	--	Not enough data to compute meaningful or reliable statistics	900000	2432	N	Low FOD
Benzo(g,h,i)perylene	µg/kg	170	320,000	7	4	57%	51	470000	2765	975	--	Not enough data to compute meaningful or reliable statistics	470000	2765	N	Low FOD
Benzo(k)fluoranthene	µg/kg	240	1,340,000	7	4	57%	41	580000	2417	886	--	Not enough data to compute meaningful or reliable statistics	580000	2417	N	Low FOD
Chrysene	µg/kg	340	460,000	7	4	57%	70	1100000	3235	1280	--	Not enough data to compute meaningful or reliable statistics	1100000	3235	N	Low FOD
Dibenzo(a,h)anthracene	µg/kg	60	130,000	7	2	29%	120	180000	3000	789	--	Not enough data to compute meaningful or reliable statistics	180000	3000	N	Low FOD
Fluoranthene	µg/kg	750	1,020,000	7	6	86%	110	3500000	4667	1670	--	Not enough data to compute meaningful or reliable statistics	3500000	4667	Y	**HQ>1**
Fluorene	µg/kg	190	160,000	7	2	29%	98	1200000	6316	1010	--	Not enough data to compute meaningful or reliable statistics	1200000	6316	N	Low FOD
Naphthalene	µg/kg	160	2,100,000	7	2	29%	150	240000	1500	813	--	Not enough data to compute meaningful or reliable statistics	240000	1500	N	Low FOD
Phenanthrene	µg/kg	560	950,000	7	3	43%	240	5300000	9464	1480	--	Not enough data to compute meaningful or reliable statistics	5300000	9464	N	Low FOD
Pyrene	µg/kg	490	850,000	7	6	86%	100	2600000	5306	1480	--	Not enough data to compute meaningful or reliable statistics	2600000	5306	Y	**HQ>1**
Sed S - Development																
Metals																
Arsenic	mg/kg	6	33	15	15	100%	1.91	31.6	5	5.12	9.795	95% Student's-t UCL	9.795	2	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	15	6	40%	0.256	0.867	1	0.329	0.486	95% KM (t) UCL	0.486	1	N	HQ<1
Chromium	mg/kg	26	110	15	15	100%	5.09	52.8	2	13.1	20.5	95% H-UCL	20.5	1	N	HQ<1
Copper	mg/kg	16	110	15	15	100%	6.55	59.4	4	13.9	22.92	95% Student's-t UCL	22.92	1	N	HQ<1
Lead	mg/kg	31	250	15	15	100%	7.75	77.6	3	26.8	46.78	95% Student's-t UCL	46.78	2	Y	**HQ>1**
Mercury	mg/kg	0.2	2	15	11	73%	0.011	0.704	4	0.067	0.282	KM H-UCL	0.282	1	N	HQ<1
Silver	mg/kg	1		15	1	7%	1.17	1.17	1	0.29	--	Not enough data to compute meaningful or reliable statistics	1.17	1	N	Low FOD
Zinc	mg/kg	120	820	15	15	100%	71	237	2	146	177.3	95% Student's-t UCL	177.3	1	N	HQ<1
Sed S - Maint-Dyn East																
Explosives																
Nitrobenzene	µg/kg	145		50	1	2%	400	400	3	219	--	Not enough data to compute meaningful or reliable statistics	400	3	N	Low FOD
Metals																
Arsenic	mg/kg	6	33	43	40	93%	1.1	28.9	5	6.24	9.385	95% KM Adjusted Gamma UCL	9.385	2	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	43	11	26%	0.11	3.3	6	0.445	0.481	95% KM (t) UCL	0.481	1	N	HQ<1

Table 5-5
Exposure Point Concentrations for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Chromium	mg/kg	26	110	46	46	100%	6.42	246	9	28.3	53.84	95% Student's-t UCL	53.84	2	Y	**HQ>1**
Copper	mg/kg	16	110	43	43	100%	3.73	92.5	6	18.8	33.05	95% Adjusted Gamma UCL	33.05	2	Y	**HQ>1**
Lead	mg/kg	31	250	43	43	100%	5.25	1990	64	55.2	329.4	95% H-UCL	329.4	11	Y	**HQ>1**
Mercury	mg/kg	0.2	2	43	43	100%	0.0169	11	55	0.399	2.214	95% H-UCL	2.214	11	Y	**HQ>1**
Nickel	mg/kg	16	75	43	43	100%	2.06	28	2	7.85	11.35	95% Adjusted Gamma UCL	11.35	1	N	HQ<1
Silver	mg/kg	1		43	19	44%	0.225	13.4	13	0.432	1.713	95% KM (t) UCL	1.713	2	Y	**HQ>1**
Zinc	mg/kg	120	820	43	43	100%	26.8	1100	9	96.3	170.3	95% H-UCL	170.3	1	N	HQ<1
SVOCs																
2-Methylnaphthalene	µg/kg	70		6	2	33%	180	780	11	333	--	Not enough data to compute meaningful or reliable statistics	780	11	N	Low FOD
Acenaphthene	µg/kg	16		30	4	13%	79	480	30	109	--	Not enough data to compute meaningful or reliable statistics	480	30	N	Low FOD
Acenaphthylene	µg/kg	44		30	11	37%	35	2400	55	133	420.1	95% KM Adjusted Gamma UCL	420.1	10	Y	**HQ>1**
Anthracene	µg/kg	220	370,000	30	11	37%	60	2100	10	144	388.2	95% KM Adjusted Gamma UCL	388.2	2	Y	**HQ>1**
Benzo(a)anthracene	µg/kg	320	1,480,000	30	20	67%	49	4300	13	249	861.9	95% KM Adjusted Gamma UCL	861.9	3	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,440,000	30	20	67%	60	4200	11	262	865.9	95% KM Adjusted Gamma UCL	865.9	2	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	320,000	30	19	63%	47	2700	16	228	598.8	95% KM Adjusted Gamma UCL	598.8	4	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	30	17	57%	70	2100	9	206	482.4	95% KM Adjusted Gamma UCL	482.4	2	Y	**HQ>1**
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	7	1	14%	1400	1400	8	81.5	--	Not enough data to compute meaningful or reliable statistics	1400	8	N	Low FOD
Chrysene	µg/kg	340	460,000	30	20	67%	70	6600	19	312	1249	95% KM Adjusted Gamma UCL	1249	4	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	30	10	33%	50	560	9	122	125.2	95% KM (t) UCL	125.2	2	Y	**HQ>1**
Fluoranthene	µg/kg	750	1,020,000	30	24	80%	47	11000	15	386	2142	95% KM Adjusted Gamma UCL	2142	3	Y	**HQ>1**
Fluorene	µg/kg	190	160,000	30	7	23%	59	1500	8	128	271	95% KM Adjusted Gamma UCL	271	1	N	HQ<1
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	13	12	92%	78	2200	11	409	751.4	95% KM (t) UCL	751.4	4	Y	**HQ>1**
Naphthalene	µg/kg	160	2,100,000	30	4	13%	82	770	5	98.7	--	Not enough data to compute meaningful or reliable statistics	770	5	N	Low FOD
Phenanthrene	µg/kg	560	950,000	30	19	63%	76	9700	17	312	1767	95% KM Adjusted Gamma UCL	1767	3	Y	**HQ>1**
Pyrene	µg/kg	490	850,000	30	25	83%	47	13000	27	377	2409	95% KM Adjusted Gamma UCL	2409	5	Y	**HQ>1**
Sed S - Maint-Dyn West																
Metals																
Arsenic	mg/kg	6	33	37	34	92%	1.12	72.4	12	7.47	18.19	95% KM Adjusted Gamma UCL	18.19	3	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	37	31	84%	0.199	1.43	2	0.652	0.728	95% KM (t) UCL	0.728	1	N	HQ<1
Chromium	mg/kg	26	110	37	37	100%	6.65	43.8	2	14.5	17.99	95% Student's-t UCL	17.99	1	N	HQ<1
Copper	mg/kg	16	110	37	37	100%	3.3	195	12	18	33.6	95% H-UCL	33.6	2	Y	**HQ>1**
Lead	mg/kg	31	250	37	37	100%	6.42	1060	34	71.5	342.2	95% H-UCL	342.2	11	Y	**HQ>1**
Mercury	mg/kg	0.2	2	39	38	97%	0.0052	14.7	74	0.233	3.239	KM H-UCL	3.239	16	Y	**HQ>1**
Nickel	mg/kg	16	75	37	37	100%	3.77	29.4	2	8.18	10.99	95% Adjusted Gamma UCL	10.99	1	N	HQ<1
Silver	mg/kg	1		37	4	11%	0.504	1.45	1	0.596	--	Not enough data to compute meaningful or reliable statistics	1.45	1	N	Low FOD
Zinc	mg/kg	120	820	37	37	100%	27.6	294	2	77.3	123.6	95% Student's-t UCL	123.6	1	N	HQ<1
SVOCs																
Acenaphthene	µg/kg	16		20	2	10%	79	320	20	173	--	Not enough data to compute meaningful or reliable statistics	320	20	N	Low FOD
Acenaphthylene	µg/kg	44		20	6	30%	53	660	15	191	195.6	95% KM (t) UCL	195.6	4	Y	**HQ>1**
Anthracene	µg/kg	220	370,000	20	4	20%	160	1600	7	222	--	Not enough data to compute meaningful or reliable statistics	1600	7	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1,480,000	20	13	65%	79	6100	19	275	1022	KM H-UCL	1022	3	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,440,000	20	11	55%	78	2500	7	282	779.3	95% KM Adjusted Gamma UCL	779.3	2	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	320,000	20	10	50%	63	1200	7	234	451.1	95% KM Adjusted Gamma UCL	451.1	3	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	20	10	50%	60	2600	11	239	770.9	95% KM Adjusted Gamma UCL	770.9	3	Y	**HQ>1**
Chrysene	µg/kg	340	460,000	20	13	65%	93	6100	18	322	1274	KM H-UCL	1274	4	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	20	6	30%	62	540	9	183	165.7	95% KM (t) UCL	183	3	Y	**HQ>1**

Table 5-5
Exposure Point Concentrations for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Fluoranthene	µg/kg	750	1,020,000	20	14	70%	110	7800	10	368	1431	KM H-UCL	1431	2	Y	**HQ>1**
Fluorene	µg/kg	190	160,000	20	3	15%	66	300	2	174	--	Not enough data to compute meaningful or reliable statistics	300	2	N	Low FOD
Naphthalene	µg/kg	160	2,100,000	20	1	5%	130	130	1	170	--	Not enough data to compute meaningful or reliable statistics	130	1	N	Low FOD
Phenanthrene	µg/kg	560	950,000	20	13	65%	60	1700	3	205	476.3	KM H-UCL	476.3	1	N	HQ<1
Pyrene	µg/kg	490	850,000	20	17	85%	54	16000	33	424	2697	KM (t) UCL	2697	6	Y	**HQ>1**
Sed S - Maint-NG																
Metals																
Arsenic	mg/kg	6	33	22	21	95%	2.05	61.3	10	9.22	23.64	KM H-UCL	23.64	4	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	22	14	64%	0.256	3.8	6	0.903	1.357	95% KM Adjusted Gamma UCL	1.357	2	Y	**HQ>1**
Chromium	mg/kg	26	110	22	22	100%	7.8	29.7	1	14.8	17.69	95% Student's-t UCL	17.69	1	N	HQ<1
Copper	mg/kg	16	110	25	25	100%	13.3	979	61	56.5	145.5	95% H-UCL	145.5	9	Y	**HQ>1**
Lead	mg/kg	31	250	25	25	100%	27.9	12500	403	182	1200	95% H-UCL	1200	39	Y	**HQ>1**
Mercury	mg/kg	0.2	2	25	25	100%	0.0692	27	135	0.411	3.477	95% Student's-t UCL	3.477	17	Y	**HQ>1**
Nickel	mg/kg	16	75	22	22	100%	4.04	81.9	5	11.6	19.52	95% H-UCL	19.52	1	N	HQ<1
Silver	mg/kg	1		22	5	23%	0.294	8.68	9	0.492	--	Not enough data to compute meaningful or reliable statistics	8.68	9	Y	**HQ>1**
Zinc	mg/kg	120	820	22	22	100%	31.7	1550	13	158	378.1	95% Adjusted Gamma UCL	378.1	3	Y	**HQ>1**
SVOCs																
2,4-Dinitrotoluene	µg/kg	14.4		5	1	20%	120	560	39	147	--	Not enough data to compute meaningful or reliable statistics	560	39	N	Low FOD
2-Methylnaphthalene	µg/kg	70		2	1	50%	120	120	2	216	--	Not enough data to compute meaningful or reliable statistics	120	2	N	Low FOD
Acenaphthene	µg/kg	16		7	1	14%	98	98	6	128	--	Not enough data to compute meaningful or reliable statistics	98	6	N	Low FOD
Acenaphthylene	µg/kg	44		7	1	14%	180	180	4	128	--	Not enough data to compute meaningful or reliable statistics	180	4	N	Low FOD
Anthracene	µg/kg	220	370,000	7	3	43%	150	520	2	194	--	Not enough data to compute meaningful or reliable statistics	520	2	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1,480,000	7	5	71%	100	2800	9	273	--	Not enough data to compute meaningful or reliable statistics	2800	9	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,440,000	7	5	71%	81	2400	6	274	--	Not enough data to compute meaningful or reliable statistics	2400	6	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	320,000	7	5	71%	130	1400	8	224	--	Not enough data to compute meaningful or reliable statistics	1400	8	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	7	6	86%	99	1500	6	219	--	Not enough data to compute meaningful or reliable statistics	1500	6	Y	**HQ>1**
Chrysene	µg/kg	340	460,000	7	5	71%	120	2600	8	332	--	Not enough data to compute meaningful or reliable statistics	2600	8	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	7	2	29%	110	470	8	143	--	Not enough data to compute meaningful or reliable statistics	470	8	N	Low FOD
Fluoranthene	µg/kg	750	1,020,000	7	5	71%	180	4600	6	431	--	Not enough data to compute meaningful or reliable statistics	4600	6	Y	**HQ>1**
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	3	3	100%	170	260	1	203	--	Not enough data to compute meaningful or reliable statistics	260	1	N	Low FOD
Phenanthrene	µg/kg	560	950,000	7	5	71%	80	1700	3	263	--	Not enough data to compute meaningful or reliable statistics	1700	3	Y	**HQ>1**
Pyrene	µg/kg	490	850,000	7	6	86%	61	4900	10	383	--	Not enough data to compute meaningful or reliable statistics	4900	10	Y	**HQ>1**
Sed S - Offsite Stream Lower																
Metals																
Arsenic	mg/kg	6	33	36	21	58%	0.71	12.1	2	3.69	4.355	95% KM (t) UCL	4.355	1	N	HQ<1
Cadmium	mg/kg	0.6	10	36	23	64%	0.176	2.09	3	0.7	0.82	95% KM (t) UCL	0.82	1	N	HQ<1
Chromium	mg/kg	26	110	36	36	100%	4.99	117	5	17.9	31.27	95% H-UCL	31.27	1	N	HQ<1
Copper	mg/kg	16	110	36	36	100%	2.13	60.7	4	14.2	21.33	95% Student's-t UCL	21.33	1	N	HQ<1
Lead	mg/kg	31	250	36	36	100%	4.43	206	7	38.5	71.77	95% Student's-t UCL	71.77	2	Y	**HQ>1**
Mercury	mg/kg	0.2	2	36	31	86%	0.0133	0.37	2	0.088	0.123	95% KM (t) UCL	0.123	1	N	HQ<1
Silver	mg/kg	1		36	2	6%	0.943	1.58	2	0.762	--	Not enough data to compute meaningful or reliable statistics	1.58	2	N	Low FOD
Zinc	mg/kg	120	820	36	36	100%	18.1	340	3	70.8	109.3	95% Adjusted Gamma UCL	109.3	1	N	HQ<1
SVOCs																
Acenaphthene	µg/kg	16		20	2	10%	51	99	6	173	--	Not enough data to compute meaningful or reliable statistics	99	6	N	Low FOD
Acenaphthylene	µg/kg	44		20	8	40%	39	210	5	162	94.98	95% KM (t) UCL	162	4	Y	**HQ>1**
Anthracene	µg/kg	220	370,000	20	11	55%	37	440	2	211	179	95% KM (t) UCL	211	1	N	HQ<1

Table 5-5
Exposure Point Concentrations for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Benzo(a)anthracene	µg/kg	320	1,480,000	20	13	65%	70	1,500	5	363	521	95% KM (t) UCL	520.6	2	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,440,000	20	13	65%	90	1,500	4	380	534	95% KM (t) UCL	533.7	1	N	HQ<1
Benzo(g,h,i)perylene	µg/kg	170	320,000	20	13	65%	63	1,000	6	296	370	95% KM (t) UCL	370.1	2	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	20	13	65%	46	710	3	243	282	95% KM (t) UCL	281.8	1	N	HQ<1
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	2	1	50%	460	460	3	1270	--	Not enough data to compute meaningful or reliable statistics	460	3	N	Low FOD
Chrysene	µg/kg	340	460,000	20	15	75%	81	1,600	5	372	626	95% KM (t) UCL	626	2	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	130,000	20	8	40%	51	260	4	174	191	95% Adjusted Gamma UCL	191.3	3	Y	**HQ>1**
Fluoranthene	µg/kg	750	1,020,000	20	15	75%	130	2,600	3	549	934	95% KM (t) UCL	934.4	1	N	HQ<1
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	5	3	60%	59	310	2	366	--	Not enough data to compute meaningful or reliable statistics	310	2	N	Low FOD
Phenanthrene	µg/kg	560	950,000	20	14	70%	72	1,500	3	383	568	95% KM (t) UCL	567.8	1	N	HQ<1
Pyrene	µg/kg	490	850,000	20	15	75%	150	3,300	7	579	1,066	95% KM (t) UCL	1066	2	Y	**HQ>1**
Sed S - Offsite Stream Upper																
Explosives																
Nitrobenzene	µg/kg	145		26	2	8%	1500	1800	12	295	--	Not enough data to compute meaningful or reliable statistics	1800	12	N	Low FOD
Metals																
Arsenic	mg/kg	6	33	26	22	85%	1	31.8	5	3.2	6.737	95% KM (t) UCL	6.737	1	N	HQ<1
Cadmium	mg/kg	0.6	10	26	18	69%	0.11	2.38	4	0.431	0.634	95% KM (t) UCL	0.634	1	N	HQ<1
Chromium	mg/kg	26	110	26	26	100%	7.36	108	4	17.1	27.7	95% H-UCL	27.7	1	N	HQ<1
Copper	mg/kg	16	110	26	26	100%	3.13	47.4	3	15.2	24.41	95% Student's-t UCL	24.41	2	Y	**HQ>1**
Lead	mg/kg	31	250	31	31	100%	4.7	1580	51	65.4	439.3	95% H-UCL	439.3	14	Y	**HQ>1**
Mercury	mg/kg	0.2	2	26	25	96%	0.0229	4.14	21	0.186	1.077	95% KM Adjusted Gamma UCL	1.077	5	Y	**HQ>1**
Nickel	mg/kg	16	75	26	26	100%	1.8	21.7	1	7.13	10.09	95% Student's-t UCL	10.09	1	N	HQ<1
Silver	mg/kg	1		26	2	8%	0.31	3.9	4	0.489	--	Not enough data to compute meaningful or reliable statistics	3.9	4	N	Low FOD
Zinc	mg/kg	120	820	26	26	100%	27	311	3	74.9	118.2	95% Student's-t UCL	118.2	1	N	HQ<1
Sed S - TNT-PETN-NG Ditches																
Explosives																
2,4,6-Trinitrotoluene	µg/kg	1100		22	3	14%	840	1400	1	303	--	Not enough data to compute meaningful or reliable statistics	1400	1	N	Low FOD
Nitrobenzene	µg/kg	145		22	4	18%	250	610	4	284	--	Not enough data to compute meaningful or reliable statistics	610	4	N	Low FOD
Metals																
Arsenic	mg/kg	6	33	24	22	92%	1.67	192	32	9.17	51.66	95% KM Adjusted Gamma UCL	51.66	9	Y	**HQ>1**
Cadmium	mg/kg	0.6	10	22	7	32%	0.245	3.33	6	0.643	0.84	95% KM (t) UCL	0.84	1	N	HQ<1
Chromium	mg/kg	26	110	22	22	100%	8	43.1	2	16.4	21.26	95% Student's-t UCL	21.26	1	N	HQ<1
Copper	mg/kg	16	110	22	22	100%	8.37	57.2	4	20	28.85	95% Adjusted Gamma UCL	28.85	2	Y	**HQ>1**
Lead	mg/kg	31	250	24	24	100%	7.28	2690	87	245	861.9	95% Student's-t UCL	861.9	28	Y	**HQ>1**
Mercury	mg/kg	0.2	2	24	21	88%	0.014	7.51	38	0.215	2.03	KM H-UCL	2.03	10	Y	**HQ>1**
Nickel	mg/kg	16	75	22	22	100%	2.66	29.2	2	9.52	13.65	95% Student's-t UCL	13.65	1	N	HQ<1
Zinc	mg/kg	120	820	22	22	100%	25.2	549	5	84.6	151.1	95% Adjusted Gamma UCL	151.1	1	N	HQ<1
SVOCs																
2,4-Dinitrotoluene	µg/kg	14.4		9	2	22%	280	410	28	188	--	Not enough data to compute meaningful or reliable statistics	410	28	N	Low FOD
2,6-Dinitrotoluene	µg/kg	39.8		9	1	11%	75	75	2	133	--	Not enough data to compute meaningful or reliable statistics	75	2	N	Low FOD
Acenaphthene	µg/kg	16		10	1	10%	55	55	3	132	--	Not enough data to compute meaningful or reliable statistics	55	3	N	Low FOD
Acenaphthylene	µg/kg	44		10	1	10%	53	53	1	130	--	Not enough data to compute meaningful or reliable statistics	53	1	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1,480,000	10	8	80%	120	710	2	309	432.4	95% KM (t) UCL	432.4	1	N	HQ<1
Benzo(a)pyrene	µg/kg	370	1,440,000	10	8	80%	130	840	2	299	445	95% KM (t) UCL	445	1	N	HQ<1
Benzo(g,h,i)perylene	µg/kg	170	320,000	10	8	80%	130	610	4	248	346.2	95% KM (t) UCL	346.2	2	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1,340,000	10	8	80%	84	250	1	197	213.6	95% KM (t) UCL	213.6	1	N	HQ<1

Table 5-5
Exposure Point Concentrations for Southern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESC (LEL)	SEL	Analyses	Detections	Frequency of Detections	Minimum Detection	Maximum Detection	Max HQ	Mean	95 UCL	Basis	EPC	HQ (EPC/LEL)	COPEC	Rationale
Bis(2-Ethylhexyl)phthalate	µg/kg	182	750	1	1	100%	540	540	3	540	--	Not enough data to compute meaningful or reliable statistics	540	3	N	Low FOD
Chrysene	µg/kg	340	460,000	10	8	80%	200	650	2	347	458.9	95% KM (t) UCL	458.9	1	N	HQ<1
Dibenzo(a,h)anthracene	µg/kg	60	130,000	10	5	50%	63	290	5	151	--	Not enough data to compute meaningful or reliable statistics	290	5	Y	**HQ>1**
Fluoranthene	µg/kg	750	1,020,000	10	9	90%	230	980	1	400	655.1	95% KM (t) UCL	655.1	1	N	HQ<1
Indeno(1,2,3-cd)pyrene	µg/kg	200	320,000	2	2	100%	93	330	2	175	--	Not enough data to compute meaningful or reliable statistics	330	2	N	Low FOD
Phenanthrene	µg/kg	560	950,000	10	9	90%	140	880	2	258	451.3	95% KM (t) UCL	451.3	1	N	HQ<1
Pyrene	µg/kg	490	850,000	10	10	100%	64	1300	3	509	840	95% Student's-t UCL	840	2	Y	**HQ>1**

Notes:

*The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).

Bolded values indicate a hazard quotient that is greater than 1

COPEC = constituent of potential ecological concern

LEL - lowest effects level

SEL = severe effects level

UCL = upper confidence level

HQ = hazard quotient

ESB = ecological screening benchmark

EPC = exposure point concentration (if the mean was greater than the 95UCL, the mean was used. If no 95UCL could be calculated, then the max detection was used.)

Sed S = sediment Southern drainage area

Y = yes

N = no

ug/kg = micrograms per kilogram

mg/kg = milligram per kilogram

FOD = frequency of detection

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

Table 5-6
Bioaccumulation Factors
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Soil EPC (mg/kg)	Bioaccumulation Factors					
		BAF_{invert}	Note	BAF_{plant}	Note	BAF_{mammal}	Note
SVOCs							
2,4-Dinitrotoluene	1.0	0.0581* (Cs)	f	3.53*(Cs) [foliage]	f,g	0	h
2,6-Dinitrotoluene	0.6	0.0581* (Cs)	f	3.53*(Cs) [foliage]	f,g	0	
Benzo[a]anthracene	0.6	1.59*(Cs)	b	e^(0.5944*LN(Cs)-2.7078)	b	0	b
Benzo[a]pyrene	0.5	1.33*(Cs)	b	e^(0.975*LN(Cs)-2.0615)	b	0	b
Benzo(g,h,i)fluoranthene	0.2	2.94*(Cs)	b	e^(1.1829*LN(Cs)-0.9313)	b	0	b
Chrysene	0.6	2.29*(Cs)	b	e^(0.5944*LN(Cs)-2.7078)	b	0	b
Phenanthrene	0.8	1.72*(Cs)	b	e^(0.6203*LN(Cs)-0.1665)	b	0	b
Pesticides/PCBs							
Polychlorinated biphenyls	0.2	e^(1.7903 * ln(Cs) + 1.2909)	c	0.0045*(Cs)	i	0.025* (Cd)	i
Metals	0						
Arsenic	26	e^(0.706*LN(Cs)-1.421)	b	0.03752*(Cs)	b	e^(0.8188*LN(Cs)-4.871)	b
Cadmium	0.9	e^(0.795*LN(Cs)+2.114)	b	e^(0.546*LN(Cs)-0.475)	b	e^(0.4723*LN(Cs)-1.2571)	b
Chromium	24	0.306*(Cs)	b	0.041*(Cs)	b	e^(0.7338*LN(Cs) -1.4599)	b
Copper	135	0.515*(Cs)	b	e^(0.394*LN(Cs)+0.668)	b	e^(0.1444*LN(Cs)+2.042)	b
Lead	567	e^(0.807 * LN(Cs) - 0.218)	b	e^(0.561 * LN(Cs) - 1.328)	b	e^(0.4422 * LN(Cs) + 0.0761)	b
Mercury	9.5	e^(0.0781+0.3369*LN(Cs))	c	e^(-4.186+0.641*LN(Cs)+0.4238(pH))	d	e^(-4.0341-0.8965*LN(Cs))	e
Nickel	16	e^(7.033-1.548*LN(Cs))	c	e^(0.748*LN(Cs)-2.223)	b	e^(0.4658*LN(Cs)-0.2462)	b
Selenium	3.3	e^(0.733*LN(Cs)-0.075)	b	e^(1.104*LN(Cs)-0.677)	b	e^(0.3764*LN(Cs)-0.4158)	b
Silver	1.1	2.045*(Cs)	b	0.014*(Cs)	b	0.004*(Cs)	b
Zinc	202	e^(0.328 * LN(Cs) + 4.449)	b	e^(0.554 * LN(Cs) + 1.575)	b	e^(0.0706 * LN(Cs) + 4.3632)	b
Explosives and Energetics							
2,4,6-Trinitrotoluene	1.5	0.0581* (Cs)	f	3.53*(Cs) [foliage]	f	0	h
2-Amino-4,6-Dinitrotoluene	1.0	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
4-Amino-2,6-Dinitrotoluene	0.7	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (	30	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
Nitroglycerin	42	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h

Notes:
Average pH = 5.91.
b. USEPA 2007
c. Sample et al. 1998a
d. Bechtel Jacobs 1998
e. Sample et al. 1998b
f. CH2MHill 2005
g. Values for TNT used as a surrogate
h. Assumed to be negligible (Sunahara et al. 2009, USEPA 2007)
i. USEPA 1999

BAF = bioaccumulation factor
Cd = concentration in diet
COPEC = constituent of potential ecological concern
Cs = concentration in soil
EPC = exposure point concentration
mg/kg = milligram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
USEPA = United States Environmental Protection Agency

Table 5-7
Terrestrial Tissue Exposure Point Concentrations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Soil EPC (mg/kg)	Estimated Tissue Concentrations (mg/kg)		
		C_{invert}	C_{plant}	C_{mammal}
SVOCs				
2,4-Dinitrotoluene	1.0	0.06	0.4	0
2,6-Dinitrotoluene	0.6	0.03	0.2	0
Benzo[a]anthracene	0.6	1.0	0.05	0
Benzo[a]pyrene	0.5	0.7	0.07	0
Benzo(g,h,i)fluoranthene	0.2	0.7	0.2	0
Chrysene	0.6	1.5	0.05	0
Phenanthrene	0.8	1.4	0.7	0
Pesticides/PCBs				
Polychlorinated biphenyls	0.2	0.3	0.001	0.006
Metals				
Arsenic	26	2.4	1.0	0.1
Cadmium	0.9	7.9	0.6	0.3
Chromium	24	7.2	1.0	2.4
Copper	135	70	13	16
Lead	567	134	9.3	18
Mercury	9.5	2.3	0.8	0.002
Nickel	16	15	0.9	2.9
Selenium	3.3	2.2	1.9	1.0
Silver	1.1	2.3	0.02	0.004
Zinc	202	488	91	114
Explosives and Energetics				
2,4,6-Trinitrotoluene	1.5	0.09	5.3	0
2-Amino-4,6-Dinitrotoluene	1.0	0.06	3.7	0
4-Amino-2,6-Dinitrotoluene	0.7	0.04	2.5	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	30	1.8	106	0
Nitroglycerin	42	2.4	147	0

Notes:
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
mg/kg = milligram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound

Table 5-8
Biota-Sediment Accumulation Factors
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	$BSAF_{fish}$	Note	$BSAF_{invert}$	Note	BAF_{plant}	Note
SVOCs						
Acenaphthene	(0.051*[Cs]*flipid) / foc	a	(0.678*[Cs]*flipid) / foc	b	e^(-0.8556*LN(Cs)-5.562)	c
Acenaphthylene	(0.0182*[Cs]*flipid) / foc	a	(0.691*[Cs]*flipid) / foc	b	e^(0.791*LN(Cs)-1.144)	c
Anthracene	(0.00991*[Cs]*flipid) / foc	a	(0.502*[Cs]*flipid) / foc	b	e^(0.7784*LN(Cs)-0.9887)	c
Benzo(a)anthracene	(0.0135*[Cs]*flipid) / foc	a	(0.619*[Cs]*flipid) / foc	b	e^(0.5944*LN(Cs)-2.7078)	c
Benzo(a)pyrene	(0.0021*[Cs]*flipid) / foc	a	(0.272*[Cs]*flipid) / foc	b	e^(0.975*LN(Cs)-2.0615)	c
Benzo(g,h,i)perylene	(0.025*[Cs]*flipid) / foc	a	(0.068*[Cs]*flipid) / foc	b	e^(1.1829*LN(Cs)-0.9313)	c
Benzo(b)fluoranthene	(0.00246*[Cs]*flipid) / foc	a	(0.2*[Cs]*flipid) / foc	b	0.3108*[Cs]	c
Benzo(k)fluoranthene	(0.0023*[Cs]*flipid) / foc	a	(1.32*[Cs]*flipid) / foc	b	e^(0.8595*LN(Cs)-2.1579)	c
Chrysene	(0.01*[Cs]*flipid) / foc	a	(0.397*[Cs]*flipid) / foc	b	e^(0.5944*LN(Cs)-2.7078)	c
Dibenzo(a,h)anthracene	(0.00215*[Cs]*flipid) / foc	a	(0.148*[Cs]*flipid) / foc	b	0.13*[Cs]	c
Fluoranthene	(0.0075*[Cs]*flipid) / foc	a	(1.26*[Cs]*flipid) / foc	b	0.5*[Cs]	c
Fluorene	(0.0257*[Cs]*flipid) / foc	a	(0.865*[Cs]*flipid) / foc	b	e^(-0.8556*LN(Cs)-5.562)	c
Indeno(1,2,3-cd)pyrene	(0.0144*[Cs]*flipid) / foc	a	(0.121*[Cs]*flipid) / foc	b	0.11*[Cs]	c
Phenanthrene	(0.0308*[Cs]*flipid) / foc	a	(0.487*[Cs]*flipid) / foc	b	e^(0.6203*LN(Cs)-0.1665)	c
Pyrene	(0.0126*[Cs]*flipid) / foc	a	(0.569*[Cs]*flipid) / foc	b	0.72*[Cs]	c
Metals						
Arsenic	0.24*[Cs]	d	0.24*[Cs]	d	0.03752*[Cs]	c
Copper	2.14*[Cs]	d	2.14*[Cs]	d	e^(0.394*LN(Cs)+0.668)	c
Lead	0.331*[Cs]	d	0.331*[Cs]	d	e^(0.561 * LN(Cs) - 1.328)	c
Mercury	1.2*[Cs]	d	1.2*[Cs]	d	e^(-4.186+0.641*LN(Cs)+0.4238(pH))	d
Zinc	3.4*[Cs]	d	3.4*[Cs]	d	e^(0.554 * LN(Cs) + 1.575)	c
Explosives and Energetics						
Nitrobenzene	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g
Nitrocellulose	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g
Nitroglycerin	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g

Notes:
Average pH = 5.8.
a. BSAFs obtained from USEPA BSAF database; values are the mean values for each individual PAH across various freshwater sites for whole body fish tissue data.
b. Mean values from USACE BSAF database for all aquatic invertebrates.
c. USEPA 2007
d. Bechtel Jacobs 1998
e. USEPA 1999
f. CH2MHill 2005
g. Values for 2,4,6-trinitrotoluene used as a surrogate.

BAF = bioaccumulation factor
BSAF = biota-sediment accumulation factor
COPEC = constituent of potential ecological concern
Cs = concentration in sediment
f_{lipid} = percent lipid body composition; assumes 3% for inverts and 5% for fish
foc = fraction organic carbon; 0.13 in the Northern Drainage Area and 0.058 in the Southern Drainage Area
PAH = polycyclic aromatic hydrocarbon
SVOC = semivolatile organic compound
USACE = United States Army Corps of Engine
USEPA = United States Environmental Protecti

Table 5-9
Aquatic Tissue Exposure Point Concentrations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Sediment EPC (mg/kg)		Northern Area - Tissue EPCs[a] (mg/kg)			Southern Area - Tissue EPCs[a] (mg/kg)		
	Northern Area	Southern Area	C_{invert}	C_{fish}	C_{plant}	C_{invert}	C_{fish}	C_{plant}
SVOCs								
Acenaphthene	--	3.9	--	--	--	2.6	0.2	0.001
Acenaphthylene	--	25	--	--	--	8.9	0.4	4.1
Anthracene	--	30	--	--	--	7.9	0.3	5.3
Benzo(a)anthracene	0.3	42	0.3	0.3	0.03	13	0.5	0.6
Benzo(a)pyrene	0.4	25	0.4	0.4	0.05	3.5	0.05	3.0
Benzo(g,h,i)perylene	0.3	13	0.08	0.0002	0.09	0.5	0.3	8.4
Benzo(b)fluoranthene	--	1.6	--	--	--	0.7	0.009	0.5
Benzo(k)fluoranthene	0.3	16	0.3	0.3	0.05	11	0.03	1.3
Chrysene	0.6	31	0.2	0.002	0.05	6.3	0.3	0.5
Dibenzo(a,h)anthracene	--	5.1	--	--	--	0.4	0.009	0.7
Fluoranthene	0.5	97	0.5	0.5	0.3	63	0.6	48
Fluorene	--	33	--	--	--	15	0.7	0.0002
Indeno(1,2,3-cd)pyrene	--	0.9	--	--	--	0.06	0.01	0.1
Phenanthrene	0.2	146	0.2	0.2	0.3	37	3.9	19
Pyrene	0.6	72	0.03	0.06	0.02	21	0.8	52
Metals								
Arsenic	8.8	14	8.8	8.8	0.3	3.4	3.4	0.5
Copper	58	34	124	124	9.7	72	72	7.8
Lead	182	467	60	60	4.9	155	155	8.3
Mercury	0.6	1.3	0.7	0.7	0.1	1.6	1.6	0.2
Zinc	331	143	1124	1124	120	487	487	76
Explosives and Energetics								
Nitrobenzene	--	0.1	--	--	--	0.2	0.3	0.4
Nitrocellulose	108	124	71	118	399	81	135	459
Nitroglycerin	68	- -	81	134	250	- -	- -	- -

Notes:

a. Tissue concentrations of non-polar organic compounds calculated using the equation: $C_{tissue} = (BSAF \times C_{sed} \times f_{lipid})/f_{oc}$

where: f_{lipid} assumes an average lipid content of 3% for invertebrates; 5% for fish.

Total Organic Carbon	(mg/kg)	%	f_{oc}
Northern Drainage Area	133,000	13.3	0.13
Southern Drainage Area	58,000	5.8	0.058

- - = not applicable
% = percent
BSAF = biota-sediment accumulation factor
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
SVOC = semivolatile organic compound
mg/kg = milligram per kilogram

Table 5-10
Exposure Parameters for Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Common Name	Scientific Name	Feeding Guild	Body Weight (kg)	Note	Dietary Composition (%)			Daily Ingestion Rate (kg/day ww)	Note	Daily Ingestion Rate (kg/day dw)	Note	Soil/ Sediment Ingestion (%)	Note	Soil/ Sediment Ingestion Rate (kg/day dw)	Note
					Plants	Invertebrates	Tissue								
Aquatic Species															
Tree swallow	*Tachycineta bicolor*	Insectivorous	0.0202	a	0	100	0	0.04	a	0.01	a	0	g	0	g
Great blue heron	*Ardea herodias*	Piscivorous	2.34	b	0	0	100	0.4	b	0.1	c	2.0	f	0.003	h
Mallard duck	*Anas platyrhynchos*	Herbivorous	1.16	b	100	0	0	0.4	a	0.06	i	2.0	f	0.001	h
Little brown bat	*Myotis lucifugus*	Insectivorous	0.0090	a	0	100	0	0.01	a	0.002	a	0	g	0	g
Mink	*Mustela vison*	Piscivorous	0.8961	b	0	0	100	0.1	b	0.05	c	2.0	f	0.0009	h
Muskrat	*Ondatra zibethicus*	Herbivorous	1.174	b	100	0	0	0.4	b	0.05	c	2.0	d	0.001	h
Terrestrial Species															
American robin	*Turdus migratorius*	Insectivorous	0.081	b	0	100	0	0.10	b	0.02	c	10	d	0.002	h
Red-tailed hawk	*Buteo jamaicensis*	Carnivorous	1.13	b	0	0	100	0.1	b	0.04	c	5.7	e	0.002	h
Northern bobwhite	*Colinus virginianus*	Herbivorous	0.174	b	100	0	0	0.01	b	0.002	c	9.3	d	0.0002	h
Short-tailed shrew	*Blarina brevicauda*	Insectivorous	0.017	b	0	100	0	0.008	b	0.001	c	3.0	e	0.00004	h
Red fox	*Vulpes vulpes*	Carnivorous	4.535	b	0	0	100	0.5	b	0.2	c	2.8	d	0.005	h
White-tailed deer	*Odocoileus virginianus*	Herbivorous	56.5	b	100	0	0	1.7	b	0.3	e	2.0	d	0.005	h

Notes:

a. Nagy 2001

b. USEPA 1993

c. Daily ingestion rates converted to dry weight assuming a moisture content of the following (USEPA 2007):
Invertebrates: 84%
Tissue: 68%
Plants: 85%

d. Beyer et al. 1994 (muskrat based on values for woodchuck; robin based on values for woodcock; bobwhite based on values for wild turkey)

e. USEPA 2007

f. Conservative estimates

g. Aerial insectivore; therefore, soil/sediment ingestion assumed to be neglible (Sample and Suter 1994).

h. Calculated by multiplying the soil ingestion rate times the dry weight daily ingestion rate.

i. Calculated using the allometric equation for non-passerines from USEPA 1993.

% = percent

kg = kilogram

kg/day dw = kilogram per day dry weight

kg/day ww = kilogram per day wet weight

USEPA = United States Environmental Protection Agency

Table 6-1
Toxicity Reference Values
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Toxicity Reference Values (mg/kg/day)					
	Mammals			Birds		
	NOAEL	LOAEL	Note	NOAEL	LOAEL	Note
SVOCs						
2,6-Dinitrotoluene	0.7	7	c	0.1	1	c
SVOCs - PAHs						
Acenaphthylene	65.6	328	a	1653	16530	a
Anthracene	65.6	328	a	1653	16530	a
Benzo(a)anthracene	0.615	3.07	a	2	20	a
Benzo(a)pyrene	0.615	3.07	a	2	20	a
Benzo(g,h,i)perylene	0.615	3.07	a	2	20	a
Benzo(k)fluoranthene	0.615	3.07	a	2	20	a
Chrysene	0.615	3.07	a	2	20	a
Dibenzo(a,h)anthracene	0.615	3.07	a	2	20	a
Fluoranthene	0.615	3.07	a	2	20	a
Indeno(1,2,3-cd)pyrene	0.615	3.07	a	2	20	a
Phenanthrene	65.6	328	a	1653	16530	a
Pyrene	0.615	3.07	a	2	20	a
Metals						
Arsenic	1.04	1.66	a	2.24	3.6	a
Cadmium	0.77	7.7	a	1.47	14.7	a
Copper	5.6	9.34	a	4.05	12.1	a
Lead	4.7	8.9	a	1.63	3.3	a
Mercury	1	10	b	0.45	0.9	b
Selenium	0.143	0.215	a	0.29	0.579	a
Silver	6.02	60.2	a	2.02	20.2	a
Zinc	75.4	754	a	66.1	661	a

Notes:

a. Ecological soil screening levels (EcoSSLs) (2003-2008). EcoSSLs identify the NOAEL; the is from either the corresponding study, or is extrapolated from the NOAEL using a multiplying facto of 10. USEPA did not identify a TRV for PAHs for birds; therefore, the lowest reported effect level from the studies assigned an Evaluation Score greater than 10 was used.

b. Sample et al. 1996

c. United States Army Center for Health Promotion and Preventative Medicine

-- = not applicable

COPEC = constituent of potential ecological concern
LOAEL = lowest observed adverse effects level
mg/kg/day = milligram per kilogram per day
NOAEL = no observed adverse effects level
PAH = polycyclic aromatic hydrocarbon
SVOC = semivolatile organic compo
TRV = toxicity reference value
USEPA = United States Environmen Protection Agency

Table 7-1
Hazard Quotients for Soil Invertebrates
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
Explosives						
2,4,6-Trinitrotoluene	6	c	350	1.491	**58**	≤1
2-Amino-4,6-dinitrotoluene	80	g	290	1.042	**4**	≤1
4-Amino-2,6-dinitrotoluene	80	g	200	0.7191	**3**	≤1
Nitroglycerin	NA	--	3900	41.642	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	600	c	8500	30.16	**14**	≤1
Metals						
Antimony	78	b	1040	3.752	**13**	≤1
Arsenic	100	d	1150	26.1	**12**	≤1
Cadmium	140	b	140	0.948	1	≤1
Chromium	57	b	1010	23.55	**18**	≤1
Cobalt	1000	d	10	6.335	≤1	≤1
Copper	80	b	9520	135.4	**119**	**2**
Lead	1700	b	73600	566.9	**43**	≤1
Manganese	100	d	3700	756.8	**37**	**8**
Mercury	30	d	2940	9.488	**98**	≤1
Nickel	280	b	1380	16.48	**5**	≤1
Selenium	4.1	b	803	3.341	**196**	≤1
Silver	50	d	332	1.115	**7**	≤1
Thallium	NA	--	8.88	0.572	NA	NA
Vanadium	20	d	54.1	33.16	**3**	**2**
Zinc	120	b	5320	201.6	**44**	**2**
PCBs						
Polychlorinated biphenyls	NA	--	9.8	0.2458	NA	NA
SVOCs						
2,4-Dinitrotoluene	20	c	150	0.9521	**8**	≤1
2,6-Dinitrotoluene	7	c	180	0.5531	**26**	≤1
Benzo(g,h,i)fluoranthene	18	b	5.5	0.2404	≤1	≤1
Benzo[a]anthracene	18	b	46	0.6188	**3**	≤1
Benzo[a]pyrene	18	b	39	0.5379	**2**	≤1
Bis(2-Ethylhexyl)phthalate	200	d,e	8.1	0.1451	≤1	≤1
Butylbenzylphthalate	NA	--	23	0.1327	NA	NA
Chrysene	18	b	40	0.6357	**2**	≤1
Di-n-butylphthalate	200	d,e	190	1.071	≤1	≤1
Naphthalene	29	f	14.9	0.08037	≤1	≤1
N-Nitroso-Di-N-Propylamine	NA	--	2.84	0.029	NA	NA
N-Nitrosodiphenylamine	20	d	24	0.395	≤1	≤1
Phenanthrene	29	b	79	0.8202	**3**	≤1
VOCs						
Benzene	1000	h	8	0.08403	≤1	≤1
Bromomethane	NA	--	0.907	0.05686	NA	NA

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
b. EcoSSLs
d. Efroymson et al. 1997a
e. Based on value for dimethylphthalate
f. Value for LMW PAH used as surrogate.
g. Talmage et al. 1999 (NOEC value)
h. Ecotox database (value is LC50 for earthworm [*Eisenia fetida*] from Balhorn et al. 1984).
-- = not applicable
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
SVOCs = semivolatile organic compounds
PCBs = polychlorinated biphenyls
NA = not available
VOC = volatile organic compound

Table 7-2
Hazard Quotients for Terrestrial Plants
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
Explosives and Energetics						
2,4,6-Trinitrotoluene	6	h	350	1.5	**58**	≤1
2-Amino-4,6-Dinitrotoluene	80	i	290	1.0	**4**	≤1
4-Amino-2,6-Dinitrotoluene	80	i	200	0.7	**3**	≤1
Nitroglycerin	NA	--	3900	42	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	9341	h	8500	30	≤1	≤1
Metals						
Antimony	5	c	1040	3.8	**208**	≤1
Arsenic	18	g	1150	26	**64**	≤1
Cadmium	32	g	140	0.9	**4**	≤1
Chromium	1	c	1010	24	**1010**	**24**
Cobalt	13	g	10	6.3	≤1	≤1
Copper	70	g	9520	135	**136**	**2**
Lead	120	g	73600	567	**613**	**5**
Manganese	220	g	3700	757	**17**	**3**
Mercury	0.3	c	2940	9.5	**9800**	**32**
Nickel	38	g	1380	16	**36**	≤1
Selenium	0.52	g	803	3.3	**1544**	6
Silver	560	g	332	1.1	≤1	≤1
Thallium	1	c	8.9	0.6	**9**	≤1
Vanadium	2	c	54	33	**27**	**17**
Zinc	160	g	5320	202	**33**	≤1
PCBs						
Polychlorinated biphenyls	40	c	9.8	0.2	≤1	≤1
SVOCs						
2,4-Dinitrotoluene	6	h	150	1.0	**25**	≤1
2,6-Dinitrotoluene	5	h	180	0.6	**36**	≤1
Benzo[a]anthracene	10	b	46	0.6	**5**	≤1
Benzo[a]pyrene	10	b	39	0.5	**4**	≤1
Benzo(g,h,i)fluoranthene	10	b	5.5	0.2	≤1	≤1
Butylbenzylphthalate	NA	--	23	0.1	NA	NA
bis(2-ethylhexyl)phthalate	200	c,d	8.1	0.1	≤1	≤1
Chrysene	10	e	40	0.6	**4**	≤1
Di-n-butylphthalate	200	c	190	1.1	≤1	≤1
Naphthalene	10	c	15	0.08	≤1	≤1
N-Nitroso-Di-N-Propylamine	NA	--	2.8	0.03	NA	NA
N-Nitrosodiphenylamine	NA	--	24	0.4	NA	NA
Phenanthrene	46	f	79	0.8	**2**	≤1
VOCs						
Benzene	1000	j	8.0	0.08	≤1	≤1
Bromomethane	NA	--	0.9	0.06	NA	NA

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
b. Value for chrysene (HMW PAH) used as surrogate.
c. Efroymson et al. 1997b
d. Value for di-n-butylphthalate used as a surrogate.
e. Ecotox database (value is NOAEL for black poplar [*Populus nigra*] from Wittig et al. 2003).
f. Sverdrup et al. 2003
g. Ecological soil screening levels
h. Sunahara et al. 2009 (Table 12.5 for weathered and aged)
i. Talmage et al. 1999 (NOEC value)
j. Ecotox database (value is EC50 for common oat [*Avena sativa*] from Kordel et al. 1984).
-- = not applicable
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HMW = high molecular weight
mg/kg = milligram per kilogram
NA = not available
NOAEL = no observed adverse effects level
NOEC = no observed effect concentration
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound

Table 7-3
Hazard Quotients for American Robin
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs												
2,6-Dinitrotoluene	0.6	0.081	0.375	0.625	0.016	0.002	0.67	0.03	0.1	1	≤1	≤1
Metals												
Arsenic	26	0.081	0.375	0.625	0.016	0.002	0.67	0.5	2.24	3.6	≤1	≤1
Cadmium	0.9	0.081	0.375	0.625	0.016	0.002	0.67	0.4	1.47	14.7	≤1	≤1
Chromium	24	0.081	0.375	0.625	0.016	0.002	0.67	0.7	2.66	26.6	≤1	≤1
Copper	135	0.081	0.375	0.625	0.016	0.002	0.67	6.3	4.05	12.1	**2**	≤1
Lead	567	0.081	0.375	0.625	0.016	0.002	0.67	15	1.63	3.3	**9**	**5**
Mercury	9.5	0.081	0.375	0.625	0.016	0.002	0.67	0.3	0.45	0.9	≤1	≤1
Selenium	3.3	0.081	0.375	0.625	0.016	0.002	0.67	0.3	0.29	0.579	≤1	≤1
Zinc	202	0.081	0.375	0.625	0.016	0.002	0.67	34	66.1	661	≤1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level

Table 7-4
Hazard Quotients for Northern Bobwhite
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,6-Dinitrotoluene	0.6	0.17	1	0.002	0.0002	1	0.003	0.1	1	≤1	≤1
Metals											
Arsenic	26	0.17	1	0.002	0.0002	1	0.04	2.24	3.6	≤1	≤1
Cadmium	0.9	0.17	1	0.002	0.0002	1	0.008	1.47	14.7	≤1	≤1
Chromium	24	0.17	1	0.002	0.0002	1	0.04	2.66	26.6	≤1	≤1
Copper	135	0.17	1	0.002	0.0002	1	0.3	4.05	12.1	≤1	≤1
Lead	567	0.17	1	0.002	0.0002	1	0.7	1.63	3.3	≤1	≤1
Mercury	9.5	0.17	1	0.002	0.0002	1	0.02	0.45	0.9	≤1	≤1
Selenium	3.3	0.17	1	0.002	0.0002	1	0.03	0.29	0.579	≤1	≤1
Zinc	202	0.17	1	0.002	0.0002	1	1.3	66.1	661	≤1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level

Table 7-5
Hazard Quotients for Red-Tailed Hawk
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Mammals					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,6-Dinitrotoluene	0.6	1.13	1	0.036	0.002	0.5	0.0005	0.1	1	≤1	≤1
Metals											
Arsenic	26	1.13	1	0.036	0.002	0.5	0.03	2.24	3.6	≤1	≤1
Cadmium	0.9	1.13	1	0.036	0.002	0.5	0.005	1.47	14.7	≤1	≤1
Chromium	24	1.13	1	0.036	0.002	0.5	0.06	2.66	26.6	≤1	≤1
Copper	135	1.13	1	0.036	0.002	0.5	0.4	4.05	12.1	≤1	≤1
Lead	567	1.13	1	0.036	0.002	0.5	0.8	1.63	3.3	≤1	≤1
Mercury	9.5	1.13	1	0.036	0.002	0.5	0.009	0.45	0.9	≤1	≤1
Selenium	3.3	1.13	1	0.036	0.002	0.5	0.02	0.29	0.579	≤1	≤1
Zinc	202	1.13	1	0.036	0.002	0.5	2.0	66.1	661	≤1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
COPEC = constituent of potential ecological concern
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table 7-6
Hazard Quotients for Short-Tailed Shrew
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,6-Dinitrotoluene	0.6	0.017	1	0.001	0.00004	1	0.004	0.7	7	≤1	≤1
Metals											
Arsenic	26	0.017	1	0.001	0.00004	1	0.2	1.04	1.66	≤1	≤1
Cadmium	0.9	0.017	1	0.001	0.00004	1	0.6	0.77	7.7	≤1	≤1
Chromium	24	0.017	1	0.001	0.00004	1	0.6	2.4	24	≤1	≤1
Copper	135	0.017	1	0.001	0.00004	1	5.5	5.6	9.34	≤1	≤1
Lead	567	0.017	1	0.001	0.00004	1	11	4.7	8.9	**2**	≤1
Mercury	9.5	0.017	1	0.001	0.00004	1	0.2	1	10	≤1	≤1
Selenium	3.3	0.017	1	0.001	0.00004	1	0.2	0.143	0.215	≤1	≤1
Zinc	202	0.017	1	0.001	0.00004	1	37	75.4	754	≤1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table 7-7
Hazard Quotients for White-Tailed Deer
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,6-Dinitrotoluene	0.6	56.50	1	0.261	0.0052	0.67	0.0007	0.7	7	≤1	≤1
Metals											
Arsenic	26	56.50	1	0.261	0.0052	0.67	0.005	1.04	1.66	≤1	≤1
Cadmium	0.9	56.50	1	0.261	0.0052	0.67	0.002	0.77	7.7	≤1	≤1
Chromium	24	56.50	1	0.261	0.0052	0.67	0.004	2.4	24	≤1	≤1
Copper	135	56.50	1	0.261	0.0052	0.67	0.05	5.6	9.34	≤1	≤1
Lead	567	56.50	1	0.261	0.0052	0.67	0.06	4.7	8.9	≤1	≤1
Mercury	9.5	56.50	1	0.261	0.0052	0.67	0.003	1	10	≤1	≤1
Selenium	3.3	56.50	1	0.261	0.0052	0.67	0.006	0.143	0.215	≤1	≤1
Zinc	202	56.50	1	0.261	0.0052	0.67	0.3	75.4	754	≤1	≤1

Notes:

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table 7-8
Hazard Quotients for Red Fox
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Mammals					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,6-Dinitrotoluene	0.6	4.54	1	0.163	0.005	1	0.0006	0.7	7	≤1	≤1
Metals											
Arsenic	26	4.54	1	0.163	0.005	1	0.03	1.04	1.66	≤1	≤1
Cadmium	0.9	4.54	1	0.163	0.005	1	0.01	0.77	7.7	≤1	≤1
Chromium	24	4.54	1	0.163	0.005	1	0.1	2.4	24	≤1	≤1
Copper	135	4.54	1	0.163	0.005	1	0.7	5.6	9.34	≤1	≤1
Lead	567	4.54	1	0.163	0.005	1	1.2	4.7	8.9	≤1	≤1
Mercury	9.5	4.54	1	0.163	0.005	1	0.010	1	10	≤1	≤1
Selenium	3.3	4.54	1	0.163	0.005	1	0.04	0.143	0.215	≤1	≤1
Zinc	202	4.54	1	0.163	0.005	1	4.3	75.4	754	≤1	≤1

Notes:

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table 7-9
Summary of Hazard Quotients for Terrestrial Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	American Robin		Northern Bobwhite		Red-Tailed Hawk		Short-Tailed Shrew		White-Tailed Deer		Red Fox	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Metals												
Copper	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	**9**	**5**	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1

Notes:
Bolded values indicate HQ>1.
≤ = less than or equal to
COPEC = constituent of potential ecological concern
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl

Table 7-10
Hazard Quotients for Benthic Invertebrates in Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESB	Maximum Detection	Max HQ	95 UCL	EPC	HQ (EPC/ESB)	COPEC	Rationale
Sed N - Duck Pond									
Explosives									
Nitroglycerin	µg/kg	127000	2700000	21	174317	174317	1	N	HQ<1
Metals									
Arsenic	mg/kg	6	41.1	7	9.682	9.682	2	Y	**HQ>1**
Cadmium	mg/kg	0.6	4.5	8	1.085	1.085	2	Y	**HQ>1**
Chromium	mg/kg	26	106	4	21.72	21.72	1	N	HQ<1
Copper	mg/kg	16	556	35	60.97	60.97	4	Y	**HQ>1**
Lead	mg/kg	31	851	27	195.3	195.3	6	Y	**HQ>1**
Mercury	mg/kg	0.2	0.69	3	0.289	0.289	1	N	HQ<1
Nickel	mg/kg	16	151	9	20.32	20.32	1	N	HQ<1
Silver	mg/kg	1	1.32	1	--	1.32	1	N	Low FOD
Zinc	mg/kg	120	1110	9	397.6	397.6	3	Y	**HQ>1**
SVOCs									
2,4-Dinitrotoluene	µg/kg	14.4	4500	313	--	4500	313	N	Low FOD
Acenaphthylene	µg/kg	44	580	13	--	580	13	N	Low FOD
Anthracene	µg/kg	220	560	3	--	560	3	N	Low FOD
Benzo(a)anthracene	µg/kg	320	1800	6	481.2	481.2	2	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1500	4	424.2	424.2	1	N	HQ<1
Benzo(g,h,i)perylene	µg/kg	170	850	5	265.5	386	2	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1600	7	394.2	394.2	2	Y	**HQ>1**
Chrysene	µg/kg	340	2000	6	529.9	529.9	2	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	240	4	--	240	4	N	Low FOD
Fluoranthene	µg/kg	750	2000	3	559.4	559.4	1	N	HQ<1
Indeno(1,2,3-cd)pyrene	µg/kg	200	270	1	--	270	1	N	Low FOD
Phenanthrene	µg/kg	560	770	1	--	770	1	N	HQ<1
Pyrene	µg/kg	490	4000	8	534.9	534.9	1	N	HQ<1
Sed N - Eastern Trib									
Explosives									
2,4,6-Trinitrotoluene	µg/kg	1100	1200	1	--	1200	1	N	Low FOD
Metals									
Arsenic	mg/kg	6	11.7	2	--	11.7	2	Y	**HQ>1**
Copper	mg/kg	16	189	12	--	189	12	Y	**HQ>1**
Lead	mg/kg	31	235	8	--	235	8	Y	**HQ>1**
Nickel	mg/kg	16	25.3	2	15.34	15.34	1	N	HQ<1
Zinc	mg/kg	120	294	2	190.9	190.9	2	Y	**HQ>1**
SVOCs									
Bis(2-Ethylhexyl)phthalate	µg/kg	182	230	1	--	230	1	N	Low FOD
Sed N - Northeastern Pond									
Metals									
Aluminum	mg/kg	25500	38000	1	--	38000	1	N	Low FOD
Arsenic	mg/kg	6	9.7	2	5.048	5.048	1	N	HQ<1
Copper	mg/kg	16	98.7	6	43.55	43.55	3	Y	**HQ>1**
Lead	mg/kg	31	214	7	62.73	62.73	2	Y	**HQ>1**
Mercury	mg/kg	0.2	0.495	2	0.193	0.193	1	N	HQ<1
Nickel	mg/kg	16	17.6	1	10.61	10.61	1	N	HQ<1
Silver	mg/kg	1	5.06	5	--	5.06	5	Y	**HQ>1**
Zinc	mg/kg	120	929	8	249.9	249.9	2	Y	**HQ>1**
SVOCs									
Fluoranthene	µg/kg	750	1100	1	--	1100	1	N	Low FOD
Phenanthrene	µg/kg	560	1100	2	--	1100	2	N	Low FOD
Pyrene	µg/kg	490	1100	2	--	1100	2	N	Low FOD
Sed N - Unnamed Pond									
Metals									
Arsenic	mg/kg	6	111	19	21.24	21.24	4	Y	**HQ>1**
Cadmium	mg/kg	0.6	7.19	12	1.375	1.375	2	Y	**HQ>1**
Chromium	mg/kg	26	48.9	2	19.14	19.14	1	N	HQ<1
Copper	mg/kg	16	357	22	84.72	84.72	5	Y	**HQ>1**
Lead	mg/kg	31	2370	76	281	281	9	Y	**HQ>1**
Mercury	mg/kg	0.2	11.4	57	1.672	1.672	8	Y	**HQ>1**
Nickel	mg/kg	16	36.5	2	16.39	16.39	1	N	HQ<1
Silver	mg/kg	1	1.46	1	--	1.46	1	N	Low FOD
Zinc	mg/kg	120	4500	38	752	752	6	Y	**HQ>1**
SVOCs									
Acenaphthylene	µg/kg	44	230	5	--	230	5	N	Low FOD
Anthracene	µg/kg	220	430	2	--	430	2	N	Low FOD
Benzo(a)anthracene	µg/kg	320	2100	7	859	859	3	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1500	4	641.5	641.5	2	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	1300	8	550	550	3	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1700	7	--	1700	7	Y	**HQ>1**
Chrysene	µg/kg	340	2900	9	1225	1225	4	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	180	3	--	180	3	N	Low FOD
Fluoranthene	µg/kg	750	2200	3	951.9	951.9	1	N	HQ<1

Table 7-10
Hazard Quotients for Benthic Invertebrates in Northern Subdrainage Areas Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESB	Maximum Detection	Max HQ	95 UCL	EPC	HQ (EPC/ESB)	COPEC	Rationale
Sed N - Western Trib									
Metals									
Arsenic	mg/kg	6	16.2	3	8.325	8.325	1	N	HQ<1
Cadmium	mg/kg	0.6	2.85	5	1.27	1.27	2	Y	**HQ>1**
Chromium	mg/kg	26	52.1	2	20.33	20.33	1	N	HQ<1
Copper	mg/kg	16	584	37	85.94	85.94	5	Y	**HQ>1**
Lead	mg/kg	31	2990	96	375.1	375.1	12	Y	**HQ>1**
Mercury	mg/kg	0.2	2.79	14	0.946	0.946	5	Y	**HQ>1**
Nickel	mg/kg	16	16.6	1	11.33	11.33	1	N	HQ<1
Selenium	mg/kg	2	5.49	3	--	5.49	3	N	Low FOD
Zinc	mg/kg	120	1000	8	310.3	310.3	3	Y	**HQ>1**
SVOCs									
2-Methylnaphthalene	µg/kg	70	130	2	--	130	2	N	Low FOD
Chrysene	µg/kg	340	360	1	--	360	1	N	Low FOD
Fluorene	µg/kg	190	210	1	--	210	1	N	Low FOD
Naphthalene	µg/kg	160	170	1	--	170	1	N	Low FOD

Notes:

*The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).

Bolded values indicate a hazard quotient that is greater than 1

COPEC = constituent of potential ecological concern

UCL = upper confidence level

HQ = hazard quotient

ESB = ecological screening benchmark

Sed N = sediment Northen drainage area

EPC = exposure point concentration (if the mean was greater than the 95UCL, the mean was used. If no 95UCL could be calculated, then the max detection was used.)

Y = yes

N = no

ug/kg = micrograms per kilogram

mg/kg = milligram per kilogram

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

Table 7-11
Hazard Quotients for Aquatic Plants - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
Sed N - Duck Pond							
Metals							
Arsenic	mg/kg	18	e	41.1	9.682	2	0.54
Cadmium	mg/kg	10	e	4.5	1.085	0.45	0.11
Copper	mg/kg	70	e	556	60.97	8	0.87
Lead	mg/kg	120	e	851	195.3	7	**2**
Zinc	mg/kg	160	e	1110	397.6	7	**2**
SVOCs							
Benzo(a)anthracene	µg/kg	10000	a	1800	481.2	0.18	0.048
Benzo(g,h,i)perylene	µg/kg	10000	a	850	265.5	0.085	0.027
Benzo(k)fluoranthene	µg/kg	10000	a	1600	394.2	0.16	0.039
Chrysene	µg/kg	10000	a	2000	529.9	0.2	0.053
Sed N - Eastern Trib							
Metals							
Arsenic	mg/kg	18	e	11.7	--	0.65	--
Copper	mg/kg	70	e	189	--	**3**	--
Lead	mg/kg	120	e	235	--	**2**	--
Zinc	mg/kg	160	e	294	190.9	2	**1.2**
Sed N - Northeastern Pond							
Metals							
Copper	mg/kg	70	e	98.7	43.55	1.4	0.6
Lead	mg/kg	120	e	214	62.73	2	0.5
Silver	mg/kg	560	e	5.06	--	0.009	--
Zinc	mg/kg	160	e	929	249.9	6	**2**

Sed N - Unnamed Pond							
Metals							
Arsenic	mg/kg	6	e	111	21.24	19	**4**
Cadmium	mg/kg	10	e	7.19	1.375	0.72	0.14
Copper	mg/kg	70	e	357	84.72	5	**1.2**
Lead	mg/kg	120	e	2370	281	20	**2**
Mercury	mg/kg	0.3	b	11.4	1.672	38	**6**
Zinc	mg/kg	160	e	4500	752	28	**5**
SVOCs							
Benzo(a)anthracene	µg/kg	10000	a	2100	859	0.21	0.086
Benzo(a)pyrene	µg/kg	10000	a	1500	641.5	0.15	0.064
Benzo(g,h,i)perylene	µg/kg	10000	a	1300	550	0.13	0.055
Benzo(k)fluoranthene	µg/kg	10000	a	1700	--	0.17	--
Chrysene	µg/kg	10000	a	2900	1225	0.29	0.12
Sed N - Western Trib							
Metals							
Cadmium	mg/kg	0.6	e	2.85	1.27	5	**2**
Copper	mg/kg	70	e	584	85.94	8	**1.2**
Lead	mg/kg	120	e	2990	375.1	25	**3**
Mercury	mg/kg	0.3	b	2.79	0.946	9	**3**
Zinc	mg/kg	160	e	1000	310.3	6	**2**

Notes:

Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.

a. Value for chrysene (HMW PAH) used as surrogate.

b. Efroymson et al. 1997b

c. Ecotox database (value is NOAEL for black poplar [*Populus nigra*] from Wittig et al. 2003).

d. Sverdrup et al. 2003

e. Ecological soil screening levels

-- = dataset too small to calculate 95UCL

95UCL = 95th percentile upper confidence limit of the mean

COPEC = constituent of potential ecological concern

HMW = high molecular weight

mg/kg = milligram per kilogram

µg/kg = micrograms per kilogram

NA = not available

SVOC = semivolatile organic compound

Table 7-12
Hazard Quotients for Aquatic Invertebrates and Fish - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area / COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	Average Detection	95 UCL	HQmax	HQ95UCL	COPEC	Rationale	Fish ESB	Fish HQ (95UCL)
Duck Pond															
Metals															
Copper	ug/L	T	5.2	23	5	2.4	4.7	3.6	--	≤1	--	N	HQ ≤ 1		
Copper	ug/L	D	5.2	9	2	2.9	7.6	5.25	--	≤1	--	N	HQ ≤ 1		
Lead	ug/L	T	5.4	23	3	0.99	12.5	8.26	--	2	--	N	Low FOD		
Lead	ug/L	D	5.4	9	0	--	--	--	--	--	--	N	No Detection		
SVOCs															
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	27	1	2	2	2	--	7	--	N	Low FOD		
Eastern Tributary															
Metals															
Aluminum	ug/L	T*	87	4	2	88.1	107	97.6	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	D	5.2	8	1	2.9	2.9	2.36	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	5.7	16	7	2.7	17.5	4.61	6.231	3	≤1	N	HQ ≤ 1		
Lead	µg/L	D	5.4	8	3	8.5	10.7	6.3	--	2	--	N	Low FOD		
Lead	µg/L	T	5.4	16	10	0.54	35.6	9.96	13.41	7	2	N	Total Metals		
Nickel	µg/L	D	27	6	0	--	--	--	--	--	--	N	No Detection		
Nickel	µg/L	T	32	10	3	1.9	178	20.6	--	6	--	N	Low FOD		
Zinc	µg/L	D	70	8	8	24.8	43.6	33.4	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	T	74	16	14	2.1	419	61	158.1	6	2	N	Total Metals		
SVOCs															
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	10	1	12	12	12	--	40	--	N	Low FOD		
Northeast Ponds															
Metals															
Cadmium	µg/L	D	0.12	14	1	0.74	0.74	0.74	--	6	--	N	Low FOD		
Cadmium	µg/L	T	0.18	14	0	--	--	--	--	--	--	N	No Detection		
Copper	µg/L	D	5.2	16	4	2.6	6.7	4.54	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	5.7	15	8	2.8	9.8	7.44	6.233	2	≤1	N	HQ ≤ 1		
Lead	µg/L	D	5.4	16	0	--	--	--	--	--	--	N	No Detection		
Lead	µg/L	T	5.4	15	1	55.2	55.2	55.2	--	10	--	N	Low FOD		
Silver	µg/L	D	1.4	16	0	--	--	--	--	--	--	N	No Detection		
Silver	µg/L	T	1.4	15	1	2.8	2.8	2.8	--	2	--	N	Low FOD		
Zinc	µg/L	D	70	16	16	9.1	49.2	22.8	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	T	74	15	15	9.7	100	30.1	41.46	≤1	≤1	N	HQ ≤ 1		
Unnamed Ponds															
Metals															
Aluminum	µg/L	D	87	5	4	122	181	143	--	2	--	N	Low FOD		
Aluminum	µg/L	T	87	7	7	168	12300	2220	--	141	--	N	Total Metals		
Barium	µg/L	D	220	5	5	23.7	35.9	29.9	--	≤1	--	N	HQ ≤ 1		
Barium	µg/L	T	220	7	7	25.6	1000	176	--	5	--	N	Total Metals		
Cadmium	µg/L	D	0.12	13	0	--	--	--	--	--	--	N	No Detection		
Cadmium	µg/L	T	0.18	15	2	0.66	19.2	9.93	--	107	--	N	Low FOD		
Copper	µg/L	D	5.2	13	1	4.4	4.4	4.4	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	5.7	22	11	3.1	366	41	50.43	64	9	N	Total Metals		
Iron	µg/L	D	300	5	5	1460	4010	3110	--	13	--	N	Nutrient		
Iron	µg/L	T	300	7	7	874	131000	22600	--	437	--	N	Nutrient		
Lead	µg/L	D	5.4	13	5	0.52	3.9	3.6	--	≤1	--	N	HQ ≤ 1		
Lead	µg/L	T	5.4	22	8	2.2	623	86.3	83.8	115	16	N	Total Metals		
Manganese	µg/L	D	120	5	5	27.4	199	43.9	150.7	2	≤1	N	HQ ≤ 1		
Manganese	µg/L	T	120	7	7	87.7	1320	383	--	11	--	N	Total Metals		
Mercury	µg/L	D	0.77	13	0	--	--	--	--	--	--	N	No Detection		
Mercury	µg/L	T	0.77	22	1	1.3	1.3	1.3	--	2	--	N	Low FOD		
Nickel	µg/L	D	27	13	6	1.8	3.7	2.8	--	≤1	--	N	HQ ≤ 1		
Nickel	µg/L	T	32	15	2	4.2	65.6	34.9	--	2	--	N	Low FOD		
Selenium	µg/L	D	5	13	0	--	--	--	--	--	--	N	No Detection		
Selenium	µg/L	T	5	22	1	25.6	25.6	25.6	--	5	--	N	Low FOD		
Silver	µg/L	D	1.4	13	0	--	--	--	--	--	--	N	No Detection		
Silver	µg/L	T	1.4	22	1	2	2	2	--	≤1	--	N	HQ ≤ 1		
Vanadium	µg/L	D	12	5	0	--	--	--	--	--	--	N	No Detection		
Vanadium	µg/L	T	12	7	4	2.9	62.1	18.2	--	5	--	N	Low FOD		
Zinc	µg/L	D	70	15	15	4.8	247	30.1	47.26	4	≤1	N	HQ ≤ 1		
Zinc	µg/L	T	74	24	24	6	6920	372	867.7	94	12	N	Total Metals		
Western Tributary															
Metals															
Aluminum	µg/L	D	87	10	4	111	175	100	--	2	--	N	Low FOD		
Aluminum	µg/L	T	87	11	8	137	3120	1280	1641	36	19	N	Total Metals		
Arsenic	µg/L	D	150	22	9	0.62	2.5	1.85	--	≤1	--	N	HQ ≤ 1		
Arsenic	µg/L	T	150	26	14	0.86	176	24	26.35	≤1	≤1	N	HQ ≤ 1		
Cadmium	µg/L	D	0.12	17	0	--	--	--	--	--	--	N	No Detection		
Cadmium	µg/L	T	0.18	18	3	0.92	3.8	2.77	1.301	21	7	N	Low FOD		
Copper	µg/L	D	5.2	22	7	1.9	72.4	23.7	15.65	14	3	**Y**	**HQ >1**	8.8	**2**
Copper	µg/L	T	5.7	26	14	2.5	871	211	187.2	153	33	N	Total Metals		
Iron	µg/L	D	300	10	10	74.8	5300	1540	--	18	--	N	Nutrient		
Iron	µg/L	T	300	11	11	838	15000	6200	9044	50	30	N	Nutrient		
Lead	µg/L	D	5.4	22	12	0.18	40	4.4	9.049	7	2	**Y**	**HQ >1**	5.4	**2**
Lead	µg/L	T	5.4	26	18	0.99	3000	459	796	556	147	N	Total Metals		
Manganese	µg/L	D	120	10	10	2.3	1970	87.2	1307	16	11	**Y**	**HQ >1**	NA	--
Manganese	µg/L	T	120	11	11	23	2070	894	1248	17	10	N	Total Metals		
Mercury	µg/L	D	0.77	22	6	0.069	0.32	0.1	--	≤1	--	N	HQ ≤ 1		
Mercury	µg/L	T	0.77	26	6	0.027	2.5	0.789	0.401	3	≤1	N	HQ ≤ 1		
Selenium	µg/L	D	5	22	1	10.3	10.3	10	--	2	--	N	Low FOD		
Selenium	µg/L	T	5	26	0	--	--	--	--	--	--	N	No Detection		
Silver	µg/L	D	1.4	22	0	--	--	--	--	--	--	N	No Detection		
Silver	µg/L	T	1.4	26	2	11.8	12.2	12	--	9	--	N	Low FOD		
Thallium	µg/L	D	10	22	0	--	--	--	--	--	--	N	No Detection		
Thallium	µg/L	T	10	26	2	104	149	127	--	15	--	N	Low FOD		
Vanadium	µg/L	D	12	10	0	--	--	--	--	--	--	N	No Detection		
Vanadium	µg/L	T	12	11	3	6	15.2	9.9	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	D	70	23	16	4.3	504	126	177.7	7	3	**Y**	**HQ >1**	113	**2**
Zinc	µg/L	T	74	27	23	5.8	7620	1090	1548	103	21	N	Total Metals		

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
UCL = upper confidence level
HQ = hazard quotient
ESB = ecological screening benchmark
Y = yes
N = no
ug/L = micrograms per liter
mg/L = milligram per liter
FOD = frequency of detection
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
Screening Criteria from Ecological Screening Benchmark (ESB) Table 4-2
* only totals metal data available; screen based on total metals in this case
In cases where an ESB is only available for total metals, the dissolved metal data is screened against the total metal ESB

Table 7-13
Hazard Quotients for Tree Swallow - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)*	Note	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants								NOAEL	LOAEL	NOAEL	LOAEL
Duck Pond															
Copper	61	0.0202	0.8	0.2	38		9.9	0.0116	0	0.003	0.06	4.05	12.1	0.01	0.005
Lead	195	0.0202	0.8	0.2	2.1		5.1	0.0116	0	0.003	0.005	1.13	11.3	0.004	0.0004
Western Tributary															
Copper	86	0.0202	0.8	0.2	38		11	0.0116	0	0.003	0.06	4.05	12.1	0.01	0.005
Lead	375	0.0202	0.8	0.2	1.9		7.4	0.0116	0	0.003	0.005	1.13	11.3	0.005	0.0005
Unnamed Ponds															
Copper	85	0.0202	0.8	0.2	36		11	0.0116	0	0.003	0.05	4.05	12.1	0.01	0.004
Lead	281	0.0202	0.8	0.2	1.4	a	6.3	0.0116	0	0.003	0.004	1.13	11.3	0.004	0.0004
Northeast Ponds															
Copper	44	0.0202	0.8	0.2	39		8.6	0.0116	0	0.003	0.06	4.05	12.1	0.01	0.005
Lead	63	0.0202	0.8	0.2	1.6	a	2.7	0.0116	0	0.003	0.003	1.13	11.3	0.003	0.0003
Eastern Tributary															
Copper	189	0.0202	0.8	0.2	404	b	15	0.0116	0	0.003	0.6	4.05	12.1	0.1	0.05
Lead	235	0.0202	0.8	0.2	78	b	5.7	0.0116	0	0.003	0.1	1.13	11.3	0.10	0.010

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
*invertebrate concentration from onsite aerial insect tissue sampling max concentration identified in the northern subdrainage areas
a. Aerial insect tissue in the subdrainage area was all non-detect for this constituent; highest reporting limit was used
b. No aerial insect tissue was collected in this subdrainage area; BSAFs used instead
AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value

Table 7-14
Hazard Quotients for Great Blue Heron - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish						NOAEL	LOAEL	NOAEL	LOAEL
Duck Pond												
Copper	60.97	2.34	1	130	0.1348	0.0027	0.0245	0.3	5.6	9.34	0.05	0.03
Lead	195.30	2.34	1	418	0.1348	0.0027	0.0245	0.8	4.7	8.9	0.2	0.09
Eastern Trib												
Copper	189.00	2.34	1	404	0.1348	0.0027	0.0245	0.8	5.6	9.34	0.1	0.08
Lead	235.00	2.34	1	503	0.1348	0.0027	0.0245	1.0	4.7	8.9	0.2	0.1
Northeastern Pond												
Copper	43.55	2.34	1	93	0.1348	0.0027	0.0245	0.2	5.6	9.34	0.03	0.02
Lead	62.73	2.34	1	134	0.1348	0.0027	0.0245	0.3	4.7	8.9	0.06	0.03
Unnamed Pond												
Arsenic	21.24	2.34	1	45	0.1348	0.0027	0.0245	0.09	1.04	1.66	0.09	0.05
Copper	84.72	2.34	1	181	0.1348	0.0027	0.0245	0.4	5.6	9.34	0.06	0.04
Lead	281.00	2.34	1	601	0.1348	0.0027	0.0245	1.2	4.7	8.9	0.2	0.1
Western Tributary												
Copper	85.940	2.34	1	184	0.1348	0.0027	0.0245	0.4	5.6	9.34	0.06	0.04
Lead	375.100	2.34	1	803	0.1348	0.0027	0.0245	1.6	4.7	8.9	0.3	0.2

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value

Table 7-15
Hazard Quotients for Mallard Duck - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Plants	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d) NOAEL	TRV (mg/kg/d) LOAEL	HQ NOAEL	HQ LOAEL
Duck Pond												
Copper	60.970	1.16	1	9.7	0.0603	0.0012	0.1090	0.1	4.05	12.1	0.03	0.010
Lead	195.300	1.16	1	4.9	0.0603	0.0012	0.1090	0.2	1.63	3.3	0.1	0.07
Eastern Trib												
Copper	189.000	1.16	1	9.7	0.0603	0.0012	0.1090	0.3	4.05	12.1	0.06	0.02
Lead	235.000	1.16	1	4.9	0.0603	0.0012	0.1090	0.3	1.63	3.3	0.2	0.08
Northeastern Pond												
Copper	43.550	1.16	1	9.7	0.0603	0.0012	0.1090	0.10	4.05	12.1	0.02	0.008
Lead	62.730	1.16	1	4.9	0.0603	0.0012	0.1090	0.09	1.63	3.3	0.06	0.03
Unnamed Pond												
Copper	84.720	1.16	1	9.7	0.0603	0.0012	0.1090	0.1	4.05	12.1	0.04	0.01
Lead	281.000	1.16	1	4.9	0.0603	0.0012	0.1090	0.3	1.63	3.3	0.2	0.10
Western Tributary												
Copper	85.940	1.16	1	9.7	0.0603	0.0012	0.1090	0.1	4.05	12.1	0.04	0.01
Lead	375.100	1.16	1	4.9	0.0603	0.0012	0.1090	0.4	1.63	3.3	0.3	0.1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value

Table 7-16
Hazard Quotients for Little Brown Bat - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Invertebrates	C_{invert} (mg/kg)*	Note	Daily Ingestion Rate	Sediment Ingestion Rate	AUF	Daily Dietary Dose	TRV (mg/kg/d)		HQ	
										NOAEL	LOAEL	NOAEL	LOAEL
Duck Pond													
Copper	60.970	0.009	1	38		0.0016	0	0.25	1.7	5.6	9.34	0.3	0.2
Lead	195.300	0.009	1	2.1		0.0016	0	0.25	0.09	4.7	8.9	0.02	0.01
Eastern Trib													
Copper	189.000	0.009	1	404	b	0.0016	0	0.25	18	5.6	9.34	**3**	**2**
Lead	235.000	0.009	1	503	b	0.0016	0	0.25	22	4.7	8.9	**5**	**3**
Northeastern Pond													
Copper	43.550	0.009	1	39		0.0016	0	0.25	1.7	5.6	9.34	0.3	0.2
Lead	62.730	0.009	1	1.6	a	0.0016	0	0.25	0.07	4.7	8.9	0.02	0.008
Unnamed Pond													
Arsenic	21.240	0.009	1	45	b	0.0016	0	0.25	2.0	1.04	1.66	**2**	1
Copper	84.720	0.009	1	36		0.0016	0	0.25	1.6	5.6	9.34	0.3	0.2
Lead	281.000	0.009	1	1.4	a	0.0016	0	0.25	0.06	4.7	8.9	0.01	0.007
Western Tributary													
Copper	85.940	0.009	1	38		0.0016	0	0.25	1.7	5.6	9.34	0.3	0.2
Lead	375.100	0.009	1	1.9		0.0016	0	0.25	0.08	4.7	8.9	0.02	0.009

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

*invertebrate concentration from onsite aerial insect tissue sampling max concentration identified in the northern drainage area

a. Aerial insect tissue in the subdrainage area was all non-detect for this constituent; highest reporting limit was used

b. No aerial insect tissue was collected for this constituent in this subdrainage area; BSAFs used instead

AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value

Table 7-17
Hazard Quotients for Mink - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish						NOAEL	LOAEL	NOAEL	LOAEL
Duck Pond												
Copper	60.970	0.90	1	124	0.0452	0.0009	1	6.3	5.6	9.34	1	0.7
Lead	195.300	0.90	1	60	0.0452	0.0009	1	3.2	4.7	8.9	0.7	0.4
Eastern Trib												
Copper	189.000	0.90	1	124	0.0452	0.0009	1	6.5	5.6	9.34	1	0.7
Lead	235.000	0.90	1	60	0.0452	0.0009	1	3.3	4.7	8.9	0.7	0.4
Northeastern Pond												
Copper	43.550	0.90	1	124	0.0452	0.0009	1	6.3	5.6	9.34	1	0.7
Lead	62.730	0.90	1	60	0.0452	0.0009	1	3.1	4.7	8.9	0.7	0.3
Unnamed Pond												
Copper	84.720	0.90	1	124	0.0452	0.0009	1	6.3	5.6	9.34	1	0.7
Lead	281.000	0.90	1	60	0.0452	0.0009	1	3.3	4.7	8.9	0.7	0.4
Western Tributary												
Copper	85.940	0.90	1	124	0.0452	0.0009	1	6.3	5.6	9.34	1	0.7
Lead	375.100	0.90	1	60	0.0452	0.0009	1	3.4	4.7	8.9	0.7	0.4

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value

Table 7-18
Hazard Quotients for Muskrat - Northern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Plants	C_{plant} (mg/kg)	Daily Ingestion Rate	Sediment Ingestion Rate	AUF	Daily Dietary Dose	TRV (mg/kg/d) NOAEL	TRV (mg/kg/d) LOAEL	HQ NOAEL	HQ LOAEL
Duck Pond												
Copper	60.970	1.17	1	9.7	0.0528	0.0011	1	0.5	5.6	9.34	0.09	0.05
Lead	195.300	1.17	1	4.9	0.0528	0.0011	1	0.4	4.7	8.9	0.08	0.04
Eastern Trib												
Copper	189.000	1.17	1	9.7	0.0528	0.0011	1	0.6	5.6	9.34	0.1	0.06
Lead	235.000	1.17	1	4.9	0.0528	0.0011	1	0.4	4.7	8.9	0.09	0.05
Northeastern Pond												
Copper	43.550	1.17	1	9.7	0.0528	0.0011	1	0.5	5.6	9.34	0.08	0.05
Lead	62.730	1.17	1	4.9	0.0528	0.0011	1	0.3	4.7	8.9	0.06	0.03
Unnamed Pond												
Copper	84.720	1.17	1	9.7	0.0528	0.0011	1	0.5	5.6	9.34	0.09	0.05
Lead	281.000	1.17	1	4.9	0.0528	0.0011	1	0.5	4.7	8.9	0.1	0.05
Western Tributary												
Copper	85.940	1.17	1	9.7	0.0528	0.0011	1	0.5	5.6	9.34	0.09	0.05
Lead	375.100	1.17	1	4.9	0.0528	0.0011	1	0.6	4.7	8.9	0.1	0.06

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value
AUF = area use factor

Table 7-19
Hazard Quotients for Benthic Invertebrates in Southern Drainage Area Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESB	Maximum Detection	Max HQ	95 UCL	EPC	HQ (EPC/ESB)	COPEC	Rationale
Sed S - Central Drainage									
Metals									
Arsenic	mg/kg	6	97.3	16	41.46	41.46	7	Y	**HQ>1**
Cadmium	mg/kg	0.6	2.37	4	1.497	1.73	3	Y	**HQ>1**
Chromium	mg/kg	26	46.1	2	28.19	28.19	1	N	HQ<1
Copper	mg/kg	16	217	14	92.64	92.64	6	Y	**HQ>1**
Lead	mg/kg	31	3400	110	924.5	924.5	30	Y	**HQ>1**
Mercury	mg/kg	0.2	25.4	127	4.094	4.094	20	Y	**HQ>1**
Nickel	mg/kg	16	27.9	2	15.66	15.66	1	N	HQ<1
Zinc	mg/kg	120	426	4	239.3	239.3	2	Y	**HQ>1**
SVOCs									
Fluoranthene	µg/kg	750	3500000	4667	--	3500000	4667	Y	**HQ>1**
Pyrene	µg/kg	490	2600000	5306	--	2600000	5306	Y	**HQ>1**
Sed S - Development									
Metals									
Arsenic	mg/kg	6	31.6	5	9.795	9.795	2	Y	**HQ>1**
Cadmium	mg/kg	0.6	0.867	1	0.486	0.486	1	N	HQ<1
Chromium	mg/kg	26	52.8	2	20.5	20.5	1	N	HQ<1
Copper	mg/kg	16	59.4	4	22.92	22.92	1	N	HQ<1
Lead	mg/kg	31	77.6	3	46.78	46.78	2	Y	**HQ>1**
Mercury	mg/kg	0.2	0.704	4	0.282	0.282	1	N	HQ<1
Zinc	mg/kg	120	237	2	177.3	177.3	1	N	HQ<1
Sed S - Maint-Dyn East									
Metals									
Arsenic	mg/kg	6	28.9	5	9.385	9.385	2	Y	**HQ>1**
Cadmium	mg/kg	0.6	3.3	6	0.481	0.481	1	N	HQ<1
Chromium	mg/kg	26	246	9	53.84	53.84	2	Y	**HQ>1**
Copper	mg/kg	16	92.5	6	33.05	33.05	2	Y	**HQ>1**
Lead	mg/kg	31	1990	64	329.4	329.4	11	Y	**HQ>1**
Mercury	mg/kg	0.2	11	55	2.214	2.214	11	Y	**HQ>1**
Nickel	mg/kg	16	28	2	11.35	11.35	1	N	HQ<1
Silver	mg/kg	1	13.4	13	1.713	1.713	2	Y	**HQ>1**
Zinc	mg/kg	120	1100	9	170.3	170.3	1	N	HQ<1
SVOCs									
Acenaphthylene	µg/kg	44	2400	55	420.1	420.1	10	Y	**HQ>1**
Anthracene	µg/kg	220	2100	10	388.2	388.2	2	Y	**HQ>1**
Benzo(a)anthracene	µg/kg	320	4300	13	861.9	861.9	3	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	4200	11	865.9	865.9	2	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	2700	16	598.8	598.8	4	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	2100	9	482.4	482.4	2	Y	**HQ>1**
Chrysene	µg/kg	340	6600	19	1249	1249	4	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	560	9	125.2	125.2	2	Y	**HQ>1**
Fluoranthene	µg/kg	750	11000	15	2142	2142	3	Y	**HQ>1**
Fluorene	µg/kg	190	1500	8	271	271	1	N	HQ<1
Indeno(1,2,3-cd)pyrene	µg/kg	200	2200	11	751.4	751.4	4	Y	**HQ>1**
Phenanthrene	µg/kg	560	9700	17	1767	1767	3	Y	**HQ>1**
Pyrene	µg/kg	490	13000	27	2409	2409	5	Y	**HQ>1**
Sed S - Maint-Dyn West									
Metals									
Arsenic	mg/kg	6	72.4	12	18.19	18.19	3	Y	**HQ>1**
Cadmium	mg/kg	0.6	1.43	2	0.728	0.728	1	N	HQ<1
Chromium	mg/kg	26	43.8	2	17.99	17.99	1	N	HQ<1
Copper	mg/kg	16	195	12	33.6	33.6	2	Y	**HQ>1**
Lead	mg/kg	31	1060	34	342.2	342.2	11	Y	**HQ>1**
Mercury	mg/kg	0.2	14.7	74	3.239	3.239	16	Y	**HQ>1**
Nickel	mg/kg	16	29.4	2	10.99	10.99	1	N	HQ<1
Zinc	mg/kg	120	294	2	123.6	123.6	1	N	HQ<1
SVOCs									
Acenaphthylene	µg/kg	44	660	15	195.6	195.6	4	Y	**HQ>1**
Benzo(a)anthracene	µg/kg	320	6100	19	1022	1022	3	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	2500	7	779.3	779.3	2	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	1200	7	451.1	451.1	3	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	2600	11	770.9	770.9	3	Y	**HQ>1**
Chrysene	µg/kg	340	6100	18	1274	1274	4	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	540	9	165.7	183	3	Y	**HQ>1**
Fluoranthene	µg/kg	750	7800	10	1431	1431	2	Y	**HQ>1**
Phenanthrene	µg/kg	560	1700	3	476.3	476.3	1	N	HQ<1
Pyrene	µg/kg	490	16000	33	2697	2697	6	Y	**HQ>1**
Sed S - Maint-NG									
Metals									
Arsenic	mg/kg	6	61.3	10	23.64	23.64	4	Y	**HQ>1**
Cadmium	mg/kg	0.6	3.8	6	1.357	1.357	2	Y	**HQ>1**
Chromium	mg/kg	26	29.7	1	17.69	17.69	1	N	HQ<1
Copper	mg/kg	16	979	61	145.5	145.5	9	Y	**HQ>1**
Lead	mg/kg	31	12500	403	1200	1200	39	Y	**HQ>1**
Mercury	mg/kg	0.2	27	135	3.477	3.477	17	Y	**HQ>1**
Nickel	mg/kg	16	81.9	5	19.52	19.52	1	N	HQ<1
Silver	mg/kg	1	8.68	9	--	8.68	9	Y	**HQ>1**
Zinc	mg/kg	120	1550	13	378.1	378.1	3	Y	**HQ>1**
SVOCs									
Benzo(a)anthracene	µg/kg	320	2800	9	--	2800	9	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	2400	6	--	2400	6	Y	**HQ>1**
Benzo(g,h,i)perylene	µg/kg	170	1400	8	--	1400	8	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	1500	6	--	1500	6	Y	**HQ>1**
Chrysene	µg/kg	340	2600	8	--	2600	8	Y	**HQ>1**
Fluoranthene	µg/kg	750	4600	6	--	4600	6	Y	**HQ>1**
Phenanthrene	µg/kg	560	1700	3	--	1700	3	Y	**HQ>1**
Pyrene	µg/kg	490	4900	10	--	4900	10	Y	**HQ>1**

Table 7-19
Hazard Quotients for Benthic Invertebrates in Southern Drainage Area Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Sediment ESB	Maximum Detection	Max HQ	95 UCL	EPC	HQ (EPC/ESB)	COPEC	Rationale
Sed S - Offsite Stream Lower									
Metals									
Arsenic	mg/kg	6	12.1	2	4.355	4.355	1	N	HQ<1
Cadmium	mg/kg	0.6	2.09	3	0.82	0.82	1	N	HQ<1
Chromium	mg/kg	26	117	5	31.27	31.27	1	N	HQ<1
Copper	mg/kg	16	60.7	4	21.33	21.33	1	N	HQ<1
Lead	mg/kg	31	206	7	71.77	71.77	2	Y	**HQ>1**
Mercury	mg/kg	0.2	0.37	2	0.123	0.123	1	N	HQ<1
Zinc	mg/kg	120	340	3	109.3	109.3	1	N	HQ<1
SVOCs									
Acenaphthylene	µg/kg	44	210	5	94.98	162	4	Y	**HQ>1**
Anthracene	µg/kg	220	440	2	179	211	1	N	HQ<1
Benzo(a)anthracene	µg/kg	320	1,500	5	521	520.6	2	Y	**HQ>1**
Benzo(a)pyrene	µg/kg	370	1,500	4	534	533.7	1	N	HQ<1
Benzo(g,h,i)perylene	µg/kg	170	1,000	6	370	370.1	2	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	710	3	282	281.8	1	N	HQ<1
Chrysene	µg/kg	340	1,600	5	626	626	2	Y	**HQ>1**
Dibenzo(a,h)anthracene	µg/kg	60	260	4	191	191.3	3	Y	**HQ>1**
Fluoranthene	µg/kg	750	2,600	3	934	934.4	1	N	HQ<1
Phenanthrene	µg/kg	560	1,500	3	568	567.8	1	N	HQ<1
Pyrene	µg/kg	490	3,300	7	1,066	1066	2	Y	**HQ>1**
Sed S - Offsite Stream Upper									
Metals									
Arsenic	mg/kg	6	31.8	5	6.737	6.737	1	N	HQ<1
Cadmium	mg/kg	0.6	2.38	4	0.634	0.634	1	N	HQ<1
Chromium	mg/kg	26	108	4	27.7	27.7	1	N	HQ<1
Copper	mg/kg	16	47.4	3	24.41	24.41	2	Y	**HQ>1**
Lead	mg/kg	31	1580	51	439.3	439.3	14	Y	**HQ>1**
Mercury	mg/kg	0.2	4.14	21	1.077	1.077	5	Y	**HQ>1**
Nickel	mg/kg	16	21.7	1	10.09	10.09	1	N	HQ<1
Zinc	mg/kg	120	311	3	118.2	118.2	1	N	HQ<1
Sed S - TNT-PETN-NG Ditches									
Metals									
Arsenic	mg/kg	6	192	32	51.66	51.66	9	Y	**HQ>1**
Cadmium	mg/kg	0.6	3.33	6	0.84	0.84	1	N	HQ<1
Chromium	mg/kg	26	43.1	2	21.26	21.26	1	N	HQ<1
Copper	mg/kg	16	57.2	4	28.85	28.85	2	Y	**HQ>1**
Lead	mg/kg	31	2690	87	861.9	861.9	28	Y	**HQ>1**
Mercury	mg/kg	0.2	7.51	38	2.03	2.03	10	Y	**HQ>1**
Nickel	mg/kg	16	29.2	2	13.65	13.65	1	N	HQ<1
Zinc	mg/kg	120	549	5	151.1	151.1	1	N	HQ<1
SVOCs									
Benzo(a)anthracene	µg/kg	320	710	2	432.4	432.4	1	N	HQ<1
Benzo(a)pyrene	µg/kg	370	840	2	445	445	1	N	HQ<1
Benzo(g,h,i)perylene	µg/kg	170	610	4	346.2	346.2	2	Y	**HQ>1**
Benzo(k)fluoranthene	µg/kg	240	250	1	213.6	213.6	1	N	HQ<1
Chrysene	µg/kg	340	650	2	458.9	458.9	1	N	HQ<1
Dibenzo(a,h)anthracene	µg/kg	60	290	5	--	290	5	Y	**HQ>1**
Fluoranthene	µg/kg	750	980	1	655.1	655.1	1	N	HQ<1
Phenanthrene	µg/kg	560	880	2	451.3	451.3	1	N	HQ<1
Pyrene	µg/kg	490	1300	3	840	840	2	Y	**HQ>1**

Notes:

*The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections and a discernable distribution).

Bolded values indicate a hazard quotient that is greater than 1

COPEC = constituent of potential ecological concern

UCL = upper confidence level

HQ = hazard quotient

ESB = ecological screening benchmark

EPC = exposure point concentration (if the mean was greater than the 95UCL, the mean was used. If no 95UCL could be calculated, then the max detection was used.)

Sed S = sediment Southern drainage area

Y = yes

N = no

ug/kg = micrograms per kilogram

mg/kg = milligram per kilogram

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
Sed S - Central Drainage							
Metals							
Arsenic	mg/kg	18	f	97.3	41.46	5	**2**
Cadmium	mg/kg	32	f	2.37	1.497	0	0.047
Copper	mg/kg	70	f	217	92.64	3	**1.3**
Lead	mg/kg	120	f	3400	924.5	28	**8**
Mercury	mg/kg	0.3	b	25.4	4.094	85	**14**
Zinc	mg/kg	160	f	426	239.3	3	**1.5**
SVOCs							
Fluoranthene	µg/kg	150	e	3500000	--	23333	**--**
Pyrene	µg/kg	56	e	2600000	--	46429	**--**
Sed S - Development							
Metals							
Arsenic	mg/kg	18	f	31.6	9.795	2	0.54
Lead	mg/kg	120	f	77.6	46.78	1	0.39

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
Sed S - Maint-Dyn East							
Metals							
Arsenic	mg/kg	18	f	28.9	9.385	2	0.52
Chromium	mg/kg	1	b	246	53.84	246	**54**
Copper	mg/kg	70	f	92.5	33.05	1	0.47
Lead	mg/kg	120	f	1990	329.4	17	**3**
Mercury	mg/kg	0.3	b	11	2.214	37	**7**
Silver	mg/kg	560	f	13.4	1.713	0	0.0031
SVOCs							
Acenaphthylene	µg/kg	20	b	2400	420.1	120	**21**
Anthracene	µg/kg	20	h	2100	388.2	105	**19**
Benzo(a)anthracene	µg/kg	10	a	4300	861.9	430	**86**
Benzo(a)pyrene	µg/kg	10	a	4200	865.9	420	**87**
Benzo(g,h,i)perylene	µg/kg	10	a	2700	598.8	270	**60**
Benzo(k)fluoranthene	µg/kg	10	a	2100	482.4	210	**48**
Chrysene	µg/kg	10	a	6600	1249	660	**125**
Dibenzo(a,h)anthracene	µg/kg	10	a	560	125.2	56	**13**
Fluoranthene	µg/kg	150	e	11000	2142	73	**14**
Indeno(1,2,3-cd)pyrene	µg/kg	10	a	2200	751.4	220	**75**
Phenanthrene	µg/kg	46	e	9700	1767	211	**38**
Pyrene	µg/kg	56	e	13000	2409	232	**43**

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
Sed S - Maint-Dyn West							
Metals							
Arsenic	mg/kg	18	f	72.4	18.19	4	1
Copper	mg/kg	70	f	195	33.6	3	0.48
Lead	mg/kg	120	f	1060	342.2	9	**3**
Mercury	mg/kg	0.3	b	14.7	3.239	49	**11**
SVOCs							
Acenaphthylene	µg/kg	20	h	660	195.6	33	**10**
Benzo(a)anthracene	µg/kg	10	a	6100	1022	610	**102**
Benzo(a)pyrene	µg/kg	10	a	2500	779.3	250	**78**
Benzo(g,h,i)perylene	µg/kg	10	a	1200	451.1	120	**45**
Benzo(k)fluoranthene	µg/kg	10	a	2600	770.9	260	**77**
Chrysene	µg/kg	10	a	6100	1274	610	**127**
Dibenzo(a,h)anthracene	µg/kg	10	a	540	165.7	54	**17**
Fluoranthene	µg/kg	150	e	7800	1431	52	**10**
Pyrene	µg/kg	56	e	16000	2697	286	**48**

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
Sed S - Maint-NG							
Metals							
Arsenic	mg/kg	18	f	61.3	23.64	3	**1.3**
Cadmium	mg/kg	32	f	3.8	1.357	0	0.042
Copper	mg/kg	70	f	979	145.5	14	**2**
Lead	mg/kg	120	f	12500	1200	104	**10**
Mercury	mg/kg	0.3	b	27	3.477	90	**12**
Silver	mg/kg	560	f	8.68	--	0.016	
Zinc	mg/kg	160	f	1550	378.1	10	**2**
SVOCs							
Benzo(a)anthracene	µg/kg	10	a	2800	--	280	**--**
Benzo(a)pyrene	µg/kg	10	a	2400	--	240	**--**
Benzo(g,h,i)perylene	µg/kg	10	a	1400	--	140	**--**
Benzo(k)fluoranthene	µg/kg	10	a	1500	--	150	**--**
Chrysene	µg/kg	10	a	2600	--	260	**--**
Fluoranthene	µg/kg	150	e	4600	--	31	**--**
Phenanthrene	µg/kg	46	e	1700	--	37	**--**
Pyrene	µg/kg	56	e	4900	--	88	**--**

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
Sed S - Offsite Stream Lower							
Metals							
Lead	mg/kg	120	f	206	71.77	2	0.6
SVOCs							
Acenaphthylene	µg/kg	20	h	210	94.98	11	**5**
Benzo(a)anthracene	µg/kg	10	a	1,500	521	150	**52**
Benzo(g,h,i)perylene	µg/kg	10	a	1,000	370	100	**37**
Chrysene	µg/kg	10	a	1,600	626	160	**63**
Dibenzo(a,h)anthracene	µg/kg	10	a	260	191	26	**19**
Pyrene	µg/kg	56	e	3,300	1,066	59	**19**
Sed S - Offsite Stream Upper							
Metals							
Copper	mg/kg	70	f	47.4	24.41	1	0.35
Lead	mg/kg	120	f	1580	439.3	13	**4**
Mercury	mg/kg	0.3	b	4.14	1.077	14	**4**
Sed S - TNT-PETN-NG Ditches							
Metals							
Arsenic	mg/kg	18	f	192	51.66	11	**3**
Copper	mg/kg	70	f	57.2	28.85	1	0.41
Lead	mg/kg	120	f	2690	861.9	22	**7**
Mercury	mg/kg	0.3	b	7.51	2.03	25	**7**

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	Screening Value	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected	95UCL	Maximum Detected	95UCL
SVOCs							
Benzo(g,h,i)perylene	µg/kg	10	a	610	346.2	61	**35**
Dibenzo(a,h)anthracene	µg/kg	10	a	290	--	29	**--**
Pyrene	µg/kg	56	e	1300	840	23	**15**

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
a. Value for chrysene (HMW PAH) used as surrogate.
b. Efroymson et al. 1997b
c. Value for di-n-butylphthalate used as a surrogate.
d. Ecotox database (value is NOAEL for black poplar [*Populus nigra*] from Wittig et al. 2003).
e. Sverdrup et al. 2003
f. Ecological soil screening levels
g. Sunahara et al. 2009 (Table 12.5 for weathered and aged)
h. Value for acenaphthene used as surrogate
i. Value for TNT used as surrogate (Talmage et al. 1999)
-- = dataset too small to calculate 95UCL
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HMW = high molecular weight
mg/kg = milligram per kilogram
NA = not available
SVOC = semivolatile organic compound

Table 7-21
Hazard Quotients for Aquatic Invertebrates and Fish - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	Average Detection	95 UCL	HQmax	HQ95UCL	COPEC	Rationale	Fish ESB	Fish HQ (95UCL)**
Central Drainage Basin															
Explosives															
4-Amino-2,6-dinitrotoluene	ug/L	T	20	11	6	0.72	21	4.93	--	≤1	--	N	HQ ≤ 1		
Metals										--	--				
Copper	µg/L	D	9.9	6	0	--	--	--	--	--	--	N	No Detection		
Copper	µg/L	T	11	9	4	2.1	12.6	6.05	--	≤1	--	N	HQ ≤ 1		
Lead	µg/L	D	5.4	6	0	--	--	--	--	--	--	N	No Detection		
Lead	µg/L	T	5.4	9	5	21.1	223	66.8	--	41	--	N	Total Metals		
Thallium	µg/L	D	10	6	0	--	--	--	--	--	--	N	No Detection		
Thallium	µg/L	T	10	9	1	10.4	10.4	10.4	--	≤1	--	N	HQ ≤ 1		
Development Area Stream															
No COPECS										--	--				
Maintenance Dynamite East															
Metals															
Arsenic	µg/L	D	150	19	0	--	--	--	--	--	--	N	No Detection		
Arsenic	µg/L	T	150	21	5	6	185	97.3	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	D	9.9	24	6	3	3.8	3.66	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	11	26	11	2.1	297	78.7	88.33	27	8	N	Total Metals		
Lead	µg/L	D	5.4	24	1	0.32	0.32	0.32	--	≤1	--	N	HQ ≤ 1		
Lead	µg/L	T	5.4	26	15	0.15	3210	647	1048	594	194	N	Total Metals		
Manganese	µg/L	T	120	1	1	210	210	210	--	2	--	N	Low FOD		
Mercury	µg/L	D	0.77	19	0	--	--	--	--	--	--	N	No Detection		
Mercury	µg/L	T	0.77	21	4	0.03	4	1.93	--	5	--	N	Low FOD		
Selenium	µg/L	D	5	19	2	4.5	5.2	4.9	--	≤1	--	N	HQ ≤ 1		
Selenium	µg/L	T	5	21	2	10	21	15.5	--	4	--	N	Low FOD		
Zinc	µg/L	D	133	19	9	3.4	31.4	10	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	T	140	21	11	5.2	4450	695	1461	32	10	N	Total Metals		
Maintenance Dynamite West															
Metals															
Aluminum	µg/L	T*	87	2	2	219	512	366	--	6	--	N	Low FOD		
Arsenic	µg/L	D	150	19	0	--	--	--	--	--	--	N	No Detection		
Arsenic	µg/L	T	150	38	16	2.1	469	79.6	83.69	3	≤1	N	HQ ≤ 1		
Cadmium	µg/L	D	0.2	17	0	--	--	--	--	--	--	N	No Detection		
Cadmium	µg/L	T	0.31	19	2	0.84	2	1.42	--	6	--	N	Low FOD		
Copper	µg/L	D	9.9	21	4	2.5	2.8	1.2	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	11	40	24	2.2	2400	149	179.1	218	16	N	Total Metals		
Iron	µg/L	T*	300	2	2	12400	28000	20200	--	93	--	N	Nutrient		
Lead	µg/L	D	5.4	21	1	17.5	17.5	4.4	--	3	--	N	Low FOD		
Lead	µg/L	T	5.4	40	24	9.2	1320	278	316	244	59	N	Total Metals		
Manganese	µg/L	T*	120	2	2	1490	2060	1780	--	17	--	N	Low FOD		
Mercury	µg/L	D	0.77	21	1	0.072	0.072	0.072	--	≤1	--	N	HQ ≤ 1		
Mercury	µg/L	T	0.77	40	9	0.064	13	2.02	0.269	17	≤1	N	HQ ≤ 1		
Selenium	µg/L	D	5	19	1	4.4	4.4	4.4	--	≤1	--	N	HQ ≤ 1		
Selenium	µg/L	T	5	38	2	21.8	71.9	46.9	--	14	--	N	Low FOD		
Silver	µg/L	D	4.4	19	1	2.1	2.1	2.1	--	≤1	--	N	HQ ≤ 1		
Silver	µg/L	T	5.2	38	6	8.4	16.2	13.2	4.178	3	≤1	N	HQ ≤ 1		
Thallium	µg/L	D	10	19	0	--	--	--	--	--	--	N	No Detection		
Thallium	µg/L	T	10	38	1	32.1	32.1	32.1	--	3	--	N	Low FOD		
Zinc	µg/L	D	133	19	17	5.6	37.7	10.2	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	T	140	38	34	6.6	2630	448	604.7	19	4	N	Total Metals		
SVOCs															
Benzo[a]anthracene	ug/L	T	0.025	27	1	2	2	2	--	80	--	N	Low FOD		
Benzo[a]pyrene	ug/L	T	0.014	27	2	1	2	1.5	--	143	--	N	Low FOD		
Bis(2-Ethylhexyl)phthalate	ug/L	T	0.3	27	1	2	2	2	--	7	--	N	Low FOD		
Chrysene	ug/L	T	0.28	27	2	1	2	1.5	--	7	--	N	Low FOD		
Fluoranthene	ug/L	T	1.9	19	1	3	3	3	--	2	--	N	Low FOD		
Pyrene	ug/L	T	0.3	19	1	3	3	3	--	10	--	N	Low FOD		
Maintenance NG															
Metals															
Arsenic	µg/L	D	150	7	1	4.4	5.3	4.67	--	≤1	--	N	HQ ≤ 1		
Arsenic	µg/L	T	150	11	5	16.4	153	56.4	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	D	9.9	7	4	2.4	3.2	2.9	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	11	11	7	2.9	1030	222	--	94	--	N	Total Metals		
Lead	µg/L	D	5.4	7	0	--	--	--	--	--	--	N	No Detection		
Lead	µg/L	T	5.4	11	7	32.9	2320	481	695.5	430	129	N	Total Metals		
Mercury	µg/L	D	0.77	7	0	--	--	--	--	--	--	N	No Detection		
Mercury	µg/L	T	0.77	11	2	0.44	1.9	1.17	--	2	--	N	Low FOD		
Selenium	µg/L	D	5	7	0	--	--	--	--	--	--	N	No Detection		
Selenium	µg/L	T	5	11	1	5.7	5.7	5.7	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	D	133	7	7	14.4	89.6	27.9		≤1	≤1	N	HQ ≤ 1		
Zinc	µg/L	T	140	11	10	26.2	3750	878	1594	27	11	N	Total Metals		

Table 7-21
Hazard Quotients for Aquatic Invertebrates and Fish - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Subdrainage Area COPEC	Units	Fraction	Surface Water ESB	Analyses	Detections	Minimum Detection	Maximum Detection	Average Detection	95 UCL	HQmax	HQ95UCL	COPEC	Rationale	Fish ESB	Fish HQ (95UCL)**
Offsite Stream Lower															
Metals															
Aluminum	µg/L	T*	87	4	3	148	1430	741	--	16	--	N	Low FOD		
Beryllium	µg/L	D	3.6	13	0	--	--	--	--	--	--	N	No Detection		
Beryllium	µg/L	T	3.6	17	1	21.7	21.7	21.7	--	6	--	N	Low FOD		
Cadmium	µg/L	D	0.2	13	0	--	--	--	--	--	--	N	No Detection		
Cadmium	µg/L	T	0.31	17	2	1	8.6	4.85	3.936	28	13	N	Low FOD		
Copper	µg/L	D	9.9	13	1	11.7	11.7	11.7	--	≤1	--	N	HQ ≤ 1		
Copper	µg/L	T	11	41	28	2.2	215	36	40.41	20	4	N	Total Metals		
Iron	µg/L	T*	300	4	4	926	21000	6420	--	70	--	N	Nutrient		
Lead	µg/L	D	5.4	13	0	--	--	--	--	--	--	N	No Detection		
Lead	µg/L	T	5.4	41	26	0.35	1020	127	159.5	189	30	N	Total Metals		
Manganese	µg/L	T*	120	4	4	416	1670	858	--	14	--	N	Low FOD		
Mercury	µg/L	D	0.77	13	0	--	--	--	--	--	--	N	No Detection		
Mercury	µg/L	T	0.77	41	12	0.026	7.7	1.19	1.132	10	≤1	N	HQ ≤ 1		
Nickel	µg/L	D	52	13	2	2	3.4	2.7	--	≤1	--	N	HQ ≤ 1		
Nickel	µg/L	T	61	17	8	2.2	91.3	16.8	17.84	≤1	≤1	N	HQ ≤ 1		
Selenium	µg/L	D	5	13	0	--	--	--	--	--	--	N	No Detection		
Selenium	µg/L	T	5	41	2	7.5	28.4	18	--	6	--	N	Low FOD		
Zinc	µg/L	D	133	13	10	3.5	40	4.4	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	T	140	41	38	2.1	3330	399	1971	24	14	N	Total Metals		
SVOCs										--	--				
Benzo[a]anthracene	ug/L	T	0.025	20	2	0.1	0.1	0.1	--	4	--	N	Low FOD		
Benzo[a]pyrene	ug/L	T	0.014	20	2	0.2	0.2	0.2	--	14	--	N	Low FOD		
Chrysene	ug/L	T	0.28	20	4	0.2	1	0.6	--	4	--	N	Low FOD		
Fluoranthene	ug/L	T	1.9	17	3	0.3	2	0.9	--	≤1	--	N	HQ ≤ 1		
Pyrene	ug/L	T	0.3	17	3	0.3	2	0.9	--	7	--	N	Low FOD		
Offsite Stream Upper															
Metals															
Cadmium	µg/L	D	0.2	11	0	--	--	--	--	--	--	N	No Detection		
Cadmium	µg/L	T	0.31	11	4	0.66	1.4	1	--	5	--	N	Low FOD		
Copper	µg/L	D	9.9	12	0	--	--	--	--	--	--	N	No Detection		
Copper	µg/L	T	11	21	8	3.5	99	25.4	19.21	9	2	N	Total Metals		
Lead	µg/L	D	5.4	12	0	--	--	--	--	--	--	N	No Detection		
Lead	µg/L	T	5.4	21	11	12.9	375	101	89.27	69	17	N	Total Metals		
Selenium	µg/L	D	5	12	0	--	--	--	--	--	--	N	No Detection		
Selenium	µg/L	T	5	21	2	13.8	15.5	14.7	--	3	--	N	Low FOD		
Thallium	µg/L	D	10	12	0	--	--	--	--	--	--	N	No Detection		
Thallium	µg/L	T	10	21	1	10.9	10.9	10.9	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	D	133	12	9	3.7	29.4	4.75	--	≤1	--	N	HQ ≤ 1		
Zinc	µg/L	T	140	21	18	3.2	910	142	289.6	7	2	N	Total Metals		
TNT-PETN-NG Ditches															
Metals															
Copper	µg/L	D	9.9	4	0	--	--	--	--	--	--	N	No Detection		
Copper	µg/L	T	11	8	5	2.5	140	37.1	--	13	--	N	Total Metals		
Iron	µg/L	D	300	1	1	200	200	200	--	≤1	--	N	HQ ≤ 1		
Iron	µg/L	T	300	1	1	4940	4940	4940	--	16	--	N	Nutrient		
Lead	µg/L	D	5.4	4	1	0.36	0.36	0.36		≤1	≤1	N	HQ ≤ 1		
Lead	µg/L	T	5.4	8	7	11.7	652	194	--	121	--	N	Total Metals		
Manganese	µg/L	D	120	1	1	342	342	342	--	3	--	N	Low FOD		
Manganese	µg/L	T	120	1	1	505	505	505	--	4	--	N	Low FOD		
Selenium	µg/L	D	5	4	0	--	--	--	--	--	--	N	No Detection		
Selenium	µg/L	T	5	8	1	5.5	5.5	5.5	--	≤1	--	N	Low FOD		
Zinc	µg/L	D	133	4	3	9.6	20.1	11.4		≤1	≤1	N	HQ ≤ 1		

Notes:
Bolded values indicate a hazard quotient that is greater than 1
COPEC = constituent of potential ecological concern
UCL = upper confidence level
HQ = hazard quotient
ESB = ecological screening benchmark
Y = yes
N = no
ug/L = micrograms per liter
mg/L = milligram per liter
FOD = frequency of detection
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds
Screening Criteria from Ecological Screening Benchmark (ESB) Table 4-2
* only totals metal data available; screen based on total metals in this case
In cases where an ESB is only available for total metals, the dissolved metal data is screened against the total metal ESB
** no COPECs moved on to the fish HQ screen

Table 7-22
Hazard Quotients for Tree Swallow - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)*	Note	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants								NOAEL	LOAEL	NOAEL	LOAEL
Maintenance-Dynamite Area - West															
Copper	34	0.0202	0.8	0.2	72	b	8	0.0116	0	0.003	0.1	4.05	12.1	0.03	0.008
Lead	342	0.0202	0.8	0.2	113	b	7	0.0116	0	0.003	0.2	1.13	11.3	0.1	0.01
Maintenance-NG Area															
Copper	146	0.0202	0.8	0.2	27		14	0.0116	0	0.003	0.04	4.05	12.1	0.01	0.003
Lead	1200	0.0202	0.8	0.2	1	a	14	0.0116	0	0.003	0.007	1.13	11.3	0.006	0.0006
Maintenance-Dynamite Area - East															
Copper	33	0.0202	0.8	0.2	34		8	0.0116	0	0.003	0.05	4.05	12.1	0.01	0.004
Lead	329	0.0202	0.8	0.2	2	a	7	0.0116	0	0.003	0.005	1.13	11.3	0.004	0.0004
TNT-PETN-NG Ditches															
Copper	29	0.0202	0.8	0.2	32		7	0.0116	0	0.003	0.05	4.05	12.1	0.01	0.004
Lead	862	0.0202	0.8	0.2	2	a	12	0.0116	0	0.003	0.006	1.13	11.3	0.006	0.0006
Central Drainage Basin															
Copper	93	0.0202	0.8	0.2	26		12	0.0116	0	0.003	0.04	4.05	12.1	0.010	0.003
Lead	925	0.0202	0.8	0.2	2	a	12	0.0116	0	0.003	0.006	1.13	11.3	0.006	0.0006
Miscellaneous Offsite Streams – Upper															
Copper	24	0.0202	0.8	0.2	52	b	7	0.0116	0	0.003	0.07	4.05	12.1	0.02	0.006
Lead	439	0.0202	0.8	0.2	2	a	8	0.0116	0	0.003	0.006	1.13	11.3	0.005	0.0005
Miscellaneous Offsite Streams – Lower															
Copper	21	0.0202	0.8	0.2	46	b	7	0.0116	0	0.003	0.07	4.05	12.1	0.02	0.005
Lead	72	0.0202	0.8	0.2	24	b	3	0.0116	0	0.003	0.03	1.13	11.3	0.03	0.003
Development Area Stream															
Copper	23	0.0202	0.8	0.2	49	b	7	0.0116	0	0.003	0.07	4.05	12.1	0.02	0.006
Lead	47	0.0202	0.8	0.2	15	b	2	0.0116	0	0.003	0.02	1.13	11.3	0.02	0.002

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
*invertebrate concentration from onsite aerial insect tissue sampling max concentration identified in the southern drainage area
a. Aerial insect tissue in the subdrainage area was all non-detect for this constituent; highest reporting limit was used
b. No aerial insect tissue was collected for this constituent in this subdrainage area; BSAFs used instead

AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table 7-23
Hazard Quotients for Great Blue Heron - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	95UCL (mg/kg)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition: Fish	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d): NOAEL	TRV (mg/kg/d): LOAEL	HQ: NOAEL	HQ: LOAEL
Central Drainage													
Copper	92.64	92.64	2.34	1	30.6638	0.1348	0.0027	0.02	0.0375	1.13	11.3	0	0
Lead	924.5	924.50	2.34	1	306.0095	0.1348	0.0027	0.02	0.3738	1.13	11.3	0	0
Fluoranthene	--	3500.00	2.34	1	1158.5000	0.1348	0.0027	0.02	1.4152	1.13	11.3	1	0
Development													
Lead	46.78	46.78	2.34	1	15.4842	0.1348	0.0027	0.02	0.0189	1.13	11.3	0	0
Maint-Dyn East													
Copper	33.05	33.05	2.34	1	10.9396	0.1348	0.0027	0.02	0.0134	1.13	11.3	0	0
Lead	329.4	329.40	2.34	1	109.0314	0.1348	0.0027	0.02	0.1332	1.13	11.3	0	0
Fluoranthene	2142	2.14	2.34	1	0.7090	0.1348	0.0027	0.02	0.0009	1.13	11.3	0	0
Maint-Dyn West													
Copper	33.6	33.60	2.34	1	11.1216	0.1348	0.0027	0.02	0.0136	1.13	11.3	0	0
Lead	342.2	342.20	2.34	1	113.2682	0.1348	0.0027	0.02	0.1384	1.13	11.3	0	0
Fluoranthene	1431	1.43	2.34	1	0.4737	0.1348	0.0027	0.02	0.0006	1.13	11.3	0	0
Maint-NG													
Copper	145.5	145.50	2.34	1	48.1605	0.1348	0.0027	0.02	0.0588	1.13	11.3	0	0
Lead	1200	1200.00	2.34	1	397.2000	0.1348	0.0027	0.02	0.4852	1.13	11.3	0	0
Fluoranthene	--	4.60	2.34	1	1.5226	0.1348	0.0027	0.02	0.0019	1.13	11.3	0	0
Offsite Stream Lower													
Lead	71.77	71.77	2.34	1	23.7559	0.1348	0.0027	0.02	0.0290	1.13	11.3	0	0
Offsite Stream Upper													
Copper	24.41	24.41	2.34	1	8.0797	0.1348	0.0027	0.02	0.0099	1.13	11.3	0	0
Lead	439.3	439.30	2.34	1	145.4083	0.1348	0.0027	0.02	0.1776	1.13	11.3	0	0
TNT-PETN-NG Ditches													
Copper	28.85	28.85	2.34	1	9.5494	0.1348	0.0027	0.02	0.0117	1.13	11.3	0	0
Lead	861.9	861.90	2.34	1	285.2889	0.1348	0.0027	0.02	0.3485	1.13	11.3	0	0

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table 7-24
Exposure Model for Mallard Duck - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants						NOAEL	LOAEL	NOAEL	LOAEL
Central Drainage												
Copper	92.64	1.16	1	7.8	0.0603	0.0012	0.23	0.1	4.05	12.1	0.03	0.010
Lead	924.50	1.16	1	8.3	0.0603	0.0012	0.23	0.3	1.63	3.3	0.2	0.10
Fluoranthene	3500.00	1.16	1	48	0.0603	0.0012	0.23	1.4	2	20	0.7	0.07
Development												
Lead	46.78	1.16	1	8.3	0.0603	0.0012	0.23	0.1	1.63	3.3	0.07	0.03
Maint-Dyn East												
Copper	33.05	1.16	1	7.8	0.0603	0.0012	0.23	0.1	4.05	12.1	0.02	0.008
Lead	329.40	1.16	1	8.3	0.0603	0.0012	0.23	0.2	1.63	3.3	0.1	0.05
Fluoranthene	2.14	1.16	1	48	0.0603	0.0012	0.23	0.6	2	20	0.3	0.03
Maint-Dyn West												
Copper	33.60	1.16	1	7.8	0.0603	0.0012	0.23	0.1	4.05	12.1	0.02	0.008
Lead	342.20	1.16	1	8.3	0.0603	0.0012	0.23	0.2	1.63	3.3	0.1	0.05
Fluoranthene	1.43	1.16	1	48	0.0603	0.0012	0.23	0.6	2	20	0.3	0.03
Maint-NG												
Copper	145.50	1.16	1	7.8	0.0603	0.0012	0.23	0.1	4.05	12.1	0.03	0.01
Lead	1200.00	1.16	1	8.3	0.0603	0.0012	0.23	0.4	1.63	3.3	0.2	0.1
Fluoranthene	4.60	1.16	1	48	0.0603	0.0012	0.23	0.6	2	20	0.3	0.03
Offsite Stream Lower												
Lead	71.77	1.16	1	8.3	0.0603	0.0012	0.23	0.1	1.63	3.3	0.07	0.04
Offsite Stream Upper												
Copper	24.41	1.16	1	7.8	0.0603	0.0012	0.23	0.10	4.05	12.1	0.02	0.008
Lead	439.30	1.16	1	8.3	0.0603	0.0012	0.23	0.2	1.63	3.3	0.1	0.06
TNT-PETN-NG Ditches												
Copper	28.85	1.16	1	7.8	0.0603	0.0012	0.23	0.10	4.05	12.1	0.02	0.008
Lead	861.90	1.16	1	8.3	0.0603	0.0012	0.23	0.3	1.63	3.3	0.2	0.09

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table 7-25

Hazard Quotients for Little Brown Bat - Southern Subdrainage Areas

Ecological Risk Assessment

Kenvil Works Facility

Kenvil, New Jersey

COPEC	EPC	Body Weight (kg)	Dietary Composition: Invertebrates	C_{invert} (mg/kg)*	Note	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d): NOAEL	TRV (mg/kg/d): LOAEL	HQ: NOAEL	HQ: LOAEL
Sed S - Central Drainage													
Copper	92.64	1.16	1	26		0.0016	0	0.25	0.009	5.6	9.34	≤1	≤1
Lead	924.50	1.16	1	1.6	a	0.0016	0	0.25	0.0005	4.7	8.9	≤1	≤1
Fluoranthene	3500.00	1.16	1	0.09	a	0.0016	0	0.25	0.0000	0.615	3.07	≤1	≤1
Sed S - Development													
Lead	46.78	1.16	1	155	b	0.0016	0	0.25	0.05	4.7	8.9	≤1	≤1
Sed S - Maint-Dyn East													
Copper	33.05	1.16	1	28		0.0016	0	0.25	0.010	5.6	9.34	≤1	≤1
Lead	329.40	1.16	1	1.6	a	0.0016	0	0.25	0.0006	4.7	8.9	≤1	≤1
Fluoranthene	2.14	1.16	1	63	b	0.0016	0	0.25	0.02	0.615	3.07	≤1	≤1
Sed S - Maint-Dyn West													
Copper	33.60	1.16	1	72	b	0.0016	0	0.25	0.02	5.6	9.34	≤1	≤1
Lead	342.20	1.16	1	155	b	0.0016	0	0.25	0.05	4.7	8.9	≤1	≤1
Fluoranthene	1.43	1.16	1	63	b	0.0016	0	0.25	0.02	0.615	3.07	≤1	≤1
Sed S - Maint-NG													
Copper	145.50	1.16	1	27		0.0016	0	0.25	0.009	5.6	9.34	≤1	≤1
Lead	1200.00	1.16	1	1.4	a	0.0016	0	0.25	0.0005	4.7	8.9	≤1	≤1
Fluoranthene	4.60	1.16	1	63	b	0.0016	0	0.25	0.02	0.615	3.07	≤1	≤1
Sed S - Offsite Stream Lower													
Lead	71.77	1.16	1	155	b	0.0016	0	0.25	0.05	4.7	8.9	≤1	≤1
Sed S - Offsite Stream Upper													
Copper	24.41	1.16	1	72	b	0.0016	0	0.25	0.02	5.6	9.34	≤1	≤1
Lead	439.30	1.16	1	2.1	a	0.0016	0	0.25	0.0007	4.7	8.9	≤1	≤1
Sed S - TNT-PETN-NG Ditches													
Copper	28.85	1.16	1	32		0.0016	0	0.25	0.01	5.6	9.34	≤1	≤1
Lead	861.90	1.16	1	1.7	a	0.0016	0	0.25	0.0006	4.7	8.9	≤1	≤1

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

*invertebrate concentration from onsite aerial insect tissue sampling max concentration identified in the southern drainage area

a. Aerial insect tissue in the subdrainage area was all non-detect for this constituent; highest reporting limit was used

b. No aerial insect tissue was collected for this constituent in this subdrainage area; BSAFs used instead

AUF = area use factor

C = concentration

COPEC = constituent of potential ecological concern

EPC = exposure point concentration

HQ = hazard quotient

kg = kilogram

kg/day = kilogram per day

LOAEL = lowest observed adverse effects level

mg/kg = milligram per kilogram

mg/kg/d = milligram per kilogram per day

NA = not available

NOAEL = no observed adverse effects level

TRV = toxicity reference value

Table 7-26

Hazard Quotients for Mink - Southern Subdrainage Areas

Revised Ecological Risk Assessment

Hercules LLC, Former Kenvil Works Facility

Kenvil, New Jersey

COPEC	EPC	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish						NOAEL	LOAEL	NOAEL	LOAEL
Sed S - Central Drainage												
Copper	92.64	0.90	1	72	0.0452	0.0009	1	3.7	5.6	9.34	0.7	0.4
Lead	924.50	0.90	1	155	0.0452	0.0009	1	8.7	4.7	8.9	**2**	1
Fluoranthene	3500.00	0.90	1	0.6	0.0452	0.0009	1	3.6	0.615	3.07	**6**	1
Pyrene	2600.00	0.90	1	0.8	0.0452	0.0009	1	2.7	0.615	3.07	**4**	0.9
Sed S - Development												
Lead	46.78	0.90	1	155	0.0452	0.0009	1	7.8	4.7	8.9	**2**	0.9
Sed S - Maint-Dyn East												
Copper	33.05	0.90	1	72	0.0452	0.0009	1	3.7	5.6	9.34	0.7	0.4
Lead	329.40	0.90	1	155	0.0452	0.0009	1	8.1	4.7	8.9	**2**	0.9
Fluoranthene	2.14	0.90	1	0.6	0.0452	0.0009	1	0.03	0.615	3.07	0.05	0.01
Pyrene	2.41	0.90	1	0.8	0.0452	0.0009	1	0.04	0.615	3.07	0.07	0.01
Sed S - Maint-Dyn West												
Copper	33.60	0.90	1	72	0.0452	0.0009	1	3.7	5.6	9.34	0.7	0.4
Lead	342.20	0.90	1	155	0.0452	0.0009	1	8.1	4.7	8.9	**2**	0.9
Fluoranthene	1.43	0.90	1	0.6	0.0452	0.0009	1	0.03	0.615	3.07	0.05	0.01
Pyrene	2.70	0.90	1	0.8	0.0452	0.0009	1	0.04	0.615	3.07	0.07	0.01
Sed S - Maint-NG												
Copper	145.50	0.90	1	72	0.0452	0.0009	1	3.8	5.6	9.34	0.7	0.4
Lead	1200.00	0.90	1	155	0.0452	0.0009	1	9.0	4.7	8.9	**2**	1
Fluoranthene	4.60	0.90	1	0.6	0.0452	0.0009	1	0.04	0.615	3.07	0.06	0.01
Pyrene	4.90	0.90	1	0.8	0.0452	0.0009	1	0.04	0.615	3.07	0.07	0.01
Sed S - Offsite Stream Lower												
Lead	71.77	0.90	1	155	0.0452	0.0009	1	7.9	4.7	8.9	**2**	0.9
Pyrene	1.07	0.90	1	0.8	0.0452	0.0009	1	0.04	0.615	3.07	0.07	0.01
Sed S - Offsite Stream Upper												
Copper	24.41	0.90	1	72	0.0452	0.0009	1	3.6	5.6	9.34	0.7	0.4
Lead	439.30	0.90	1	155	0.0452	0.0009	1	8.2	4.7	8.9	**2**	0.9
Sed S - TNT-PETN-NG Ditches												
Copper	28.85	0.90	1	72	0.0452	0.0009	1	3.7	5.6	9.34	0.7	0.4
Lead	861.90	0.90	1	155	0.0452	0.0009	1	8.7	4.7	8.9	**2**	1
Pyrene	0.84	0.90	1	0.8	0.0452	0.0009	1	0.04	0.615	3.07	0.07	0.01

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

AUF = area use factor

C = concentration

COPEC = constituent of potential ecological concern

EPC = exposure point concentration

HQ = hazard quotient

kg = kilogram

kg/day = kilogram per day

LOAEL = lowest observed adverse effects level

mg/kg = milligram per kilogram

mg/kg/d = milligram per kilogram per day

NA = not available

NOAEL = no observed adverse effects level

TRV = toxicity reference value

Table 7-27
Hazard Quotients Model for Muskrat - Southern Subdrainage Areas
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants						NOAEL	LOAEL	NOAEL	LOAEL
Sed S - Central Drainage												
Copper	92.64	1.17	1	7.8	0.0528	0.0011	1	0.4	5.6	9.34	≤1	≤1
Lead	924.50	1.17	1	8.3	0.0528	0.0011	1	1.2	4.7	8.9	≤1	≤1
Fluoranthene	3500.00	1.17	1	48	0.0528	0.0011	1	5.3	0.615	3.07	**9**	**2**
Pyrene	2600.00	1.17	1	52	0.0528	0.0011	1	4.7	0.615	3.07	**8**	**2**
Sed S - Development												
Lead	46.78	1.17	1	8.3	0.0528	0.0011	1	0.4	4.7	8.9	≤1	≤1
Sed S - Maint-Dyn East												
Copper	33.05	1.17	1	7.8	0.0528	0.0011	1	0.4	5.6	9.34	≤1	≤1
Lead	329.40	1.17	1	8.3	0.0528	0.0011	1	0.7	4.7	8.9	≤1	≤1
Fluoranthene	2.14	1.17	1	48	0.0528	0.0011	1	2.2	0.615	3.07	**4**	≤1
Pyrene	2.41	1.17	1	52	0.0528	0.0011	1	2.3	0.615	3.07	**4**	≤1
Sed S - Maint-Dyn West												
Copper	33.60	1.17	1	7.8	0.0528	0.0011	1	0.4	5.6	9.34	≤1	≤1
Lead	342.20	1.17	1	8.3	0.0528	0.0011	1	0.7	4.7	8.9	≤1	≤1
Fluoranthene	1.43	1.17	1	48	0.0528	0.0011	1	2.2	0.615	3.07	**4**	≤1
Pyrene	2.70	1.17	1	52	0.0528	0.0011	1	2.3	0.615	3.07	**4**	≤1
Sed S - Maint-NG												
Copper	145.50	1.17	1	7.8	0.0528	0.0011	1	0.5	5.6	9.34	≤1	≤1
Lead	1200.00	1.17	1	8.3	0.0528	0.0011	1	1.5	4.7	8.9	≤1	≤1
Fluoranthene	4.60	1.17	1	48	0.0528	0.0011	1	2.2	0.615	3.07	**4**	≤1
Pyrene	4.90	1.17	1	52	0.0528	0.0011	1	2.3	0.615	3.07	**4**	1
Sed S - Offsite Stream Lower												
Lead	71.77	1.17	1	8.3	0.0528	0.0011	1	0.4	4.7	8.9	≤1	≤1
Pyrene	1.07	1.17	1	52	0.0528	0.0011	1	2.3	0.615	3.07	**4**	1
Sed S - Offsite Stream Upper												
Copper	24.41	1.17	1	7.8	0.0528	0.0011	1	0.4	5.6	9.34	≤1	≤1
Lead	439.30	1.17	1	8.3	0.0528	0.0011	1	0.8	4.7	8.9	≤1	≤1
Sed S - TNT-PETN-NG Ditches												
Copper	28.85	1.17	1	7.8	0.0528	0.0011	1	0.4	5.6	9.34	≤1	≤1
Lead	861.90	1.17	1	8.3	0.0528	0.0011	1	1.2	4.7	8.9	≤1	≤1
Pyrene	0.84	1.17	1	52	0.0528	0.0011	1	2.3	0.615	3.07	**4**	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
AUF = area use factor
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table 7-28
Summary of Hazard Quotients for Aquatic Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Tree Swallow		Great Blue Heron		Mallard		Little Brown Bat		Mink		Muskrat	
	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL
Northern Drainage Area												
Duck Pond												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Eastern Trib												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	**3**	**2**	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	**5**	**3**	≤1	≤1	≤1	≤1
Northeastern Pond												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Unnamed Pond												
Arsenic	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Western Tributary												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Southern Drainage Area												
Central Drainage												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**6**	≤1	**9**	**2**
Pyrene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1	**8**	**2**
Development												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Maint-Dyn East												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Pyrene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Maint-Dyn West												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Pyrene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Maint-NG												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Fluoranthene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Pyrene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Offsite Stream Lower												
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Pyrene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1
Offsite Stream Upper												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
TNT-PETN-NG Ditches												
Copper	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Lead	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1
Pyrene	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**4**	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
COPEC = constituent of potential ecological concern
NOAEL = no observed adverse effects level
LOAEL = lowest observed adverse effects level
SVOC = semivolatile organic compound
NA = not applicable; not evaluated

Appendix A

NJDEP's 8 July 2019 Comments & Hercules' Response Matrix

Comment Number	Report Section	Comment	Resolution
General Comment A:	The EE/ERA (RIR Volume F) takes a facility-wide approach in its evaluation of potential COPEC impacts to terrestrial (Section 3.3.3.1, page 31 and Figure 3-2, e-page 215) and aquatic (Section 3.3.3.2, page 32 and Figure 3-3, e-page 216) receptors. This approach does not consider (a) the size of specific habitat patches on the site relative to the home ranges of the receptor species using those patches, (b) specific Environmentally Sensitive Natural Resources (ESNRs) with elevated COPEC (greater than the 95UCL) concentrations, and (c) other specific areas with elevated COPEC concentrations (greater than the 95UCL) that could potentially impact ESNRs. To evaluate the appropriateness of this approach, please note the following comments –		The updated ERA reflects additional work done following submission of the 2016 EE/ERA to refine the risk characterization in specific terrestrial and aquatic habitats. Consistent with NJDEP's July 2019 comments, this work included breaking down the aquatic drainage areas into subdrainage areas (**Section 3.2.4.2 & Attachment 10 –** Aquatic ERA Supplemental Sampling Memorandum), and refining terrestrial area risk estimates via the identification of areas (**Attachment 8** – Terrestrial Lead Work Plan). The updated ERA also refines the exposure areas and area use factors such that upper trophic level models account for home range size, migratory patterns, and habitat preferences (**Section 5.1.2**). **Section 5.1.1.1.1.2** introduces spatial weighting and surface-area weighted average concentrations for certain COPECs to identify samples or clusters of samples with the potential to drive risk at a localized level (including in or proximate to ESNRs), recommendations for additional ERA activities presented in **Section 9.2** build upon this approach. The updated ERA assesses risk across the same geographic footprint as the 2016 EE/ERA, and identifies areas of habitat that meet the definition of ESNRs within the exposure areas. Where appropriate, interpretation of HQs and recommended activities consider habitat quality, ESNR status, and the potential presence of T&E species.
1		The EE/ERA (RIR Volume F) and the RIR Summary (Volume A) do not identify and discuss potential impacts to specific Environmentally Sensitive Natural Resources (ESNRs) on and adjacent to the site as required by NJAC 7:26E-1.16(a), and as specified in Section 5.2.1 of the NJDEP Site Remediation and Waste Management Program Ecological Evaluation Technical Guidance (EETG; Version 2.0, August 2018). RIR Summary (Volume A) Figure A-6 (e-page 101) and RIR Volume F (EE/ERA) Figure 2-2 (e-page 213) provide mapping of selected types of habitat present on the site (including forest, wetlands, and aquatic areas – but not vernal pools). However, RIR Summary (Volume A) Section 2.3.2 (page 2-4) provides a very cursory overview (or none at all) of these habitats; RIR Volume F (EE/ERA) Section 2.6 (and sub-sections; pages 10-15) describes various types of terrestrial, aquatic, and wetlands habitats on the site but does not identify specific ESNRs. RIR Volume F (EE/ERA) Section 2.5 (page 9) discusses the presence of State and federal Threatened and Endangered (T/E) species on the site and states that "[n]one of the T & E species listed as possibly present on or near the Facility have been identified onsite[sic]". However, potential habitat for bog turtle (*Glyptemys muhlenbergii)* has been identified on-site, and species-specific surveys for other T/E species that may be present on the site have apparently not been conducted.	The updated ERA identifies specific ESNRs and migration pathways from general habitat areas to ESNRs as part of conceptual site model (**Section 3.2**). The ERAWP included as an appendix to the 2016 EE/ERA separated the two large aquatic drainage areas into 13 subdrainage areas. The updated ERA identifies these subdrainage areas as specific ESNRs (e.g., surface waters, wetlands), and evaluates risk considering the sensitivity of these habitats and the potential receptors using them. Facility conditions do not influence areas offsite (ESNRs or otherwise). The results of the 2017 Phase I Bog Turtle Habitat Assessment are incorporated into the wetland resource value classification established by NJDEP and inform the identification of ESNRs in the updated ERA (**Section 3.2.1.3.1**).

Comment Number	Report Section	Comment	Resolution
2	RIR Volume F (EE/ERA) Section 3.3.3.1 (page 31):	states the "formerly developed portion of the Facility (the Remedial Area) provides patches of habitat for ecological receptors. Upper-trophic-level [sic] ecological receptors using onsite [sic] terrestrial habitats are likely to move among the habitat patches that share a common list of Facility-related constituents, as well as similarities in habitat type and composition". However, it could be expected that the distribution of lower trophic level receptors/prey would be limited to smaller habitat patches with a variety and range of COPEC concentrations (potentially including concentrations greater than the 95UCL).	**Section 5.1.1.1.1.2** introduces spatial weighting and surface-area weighted average concentrations for certain COPECs to identify samples or clusters of samples with the potential to exceed the 95UCL at a localized level, recommendations for additional ERA activities presented in **Section 9.2** build upon this approach. Please see the discussion of home ranges and area use factors above. The estimation of prey item concentrations across upper trophic level receptor home ranges is discussed in the Updated ERA (**Section 5.1.2.1.6**).
3	RIR Summary (Volume A) Section 4.2.2 (page 4-8):	notes that "natural succession of flora and fauna growth has been allowed to progress uninhibited with vegetative communities expanding" since the completion of facility demolition activities in 2003. RIR Summary (Volume A) Section 5.3.3 (page 5-17) further states that the "combination of increased habitat and decreased activity and disturbance likely increased the number and variety of ecological receptors using the Facility". It appears that field surveys of the site were last conducted in July 2010 and May-July 2011 (RIR Volume F [EE/ERA] Section 2.6, page 10); given the age of these surveys and continuing post-demolition secondary succession occurring on-site, it may be appropriate to conduct additional surveys to develop an updated habitat characterization.	Remediation activities at the site have resulted in a near-continuous presence of staff onsite and associated habitat and wildlife observations. These qualitative observations inform receptor selection in the updated ERA. Habitat succession is ongoing, and the updated ERA incorporates updated mapping based on remote sensing data as well as field verification surveys (**Section 3.2.1**).

General Comment B:	RIR Volume F (EE/ERA) Section 3.3.4.1 (page 33) and Figure 3-2 (e-page 215) identify terrestrial "Areas of Presumed Remedial Action" (including areas where ecological risk is likely/very likely; Executive Summary, page ES-2) that have been excluded from the EE/ERA terrestrial ecological risk evaluations. However, these areas have not been otherwise so identified for remediation in the Phase II RIR. See Comments #4-#8 below – based on these conclusions and recommendations of the Phase II RIR, it appears to be premature/inappropriate for the EE/ERA to identify terrestrial "Areas of Presumed Remedial Action". Further, such a designation appears to potentially pre-judge future decisions regarding the need to conduct remedial activities on the site.		Please refer to **Section 3.4.1, Appendix B, and Attachment 2** Hercules is committed to active remediation in areas where historical operational influences have resulted in conditions that are not protective of human health and/or the environment. In the time elapsed since submission of the Phase II RIR, Hercules has initiated remedial actions in certain Areas of Presumed Remedial Action, implemented pre-design investigations that have refined the spatial extents of certain Areas of Presumed Remedial Action, and conducted ecological field studies to identify additional Areas of Presumed Remedial Action (based in part on the terrestrial risk characterization results of the ERA). The collective progress toward remediation of areas overtly influenced by historical Facility operations is summarized in the updated ERA. With regards to NJDEP comment regarding pre-judging, the identification of Areas of Presumed Remedial Action represents an initial step toward remediation and is based on field observations and the existing dataset. Consistent with NJDEP comments #4 through #8 below, Hercules anticipated completing further work to refine the extents of Facility-related influences and inform the selection and design of the most appropriate remedy for these areas. Additional information generated during these pre-design efforts will provide data at a spatial scale commensurate with the APRA being evaluated, and supplement the larger scale SI/RI dataset used to identify the APRA. Hercules recognizes that, if remedial design activities associated with an Area of Presumed Remedial Action refine its extents (possible) or demonstrates that there is not a need for an active remedy (unlikely), an ERA of that area will need to be conducted to support AOC closure (along with appropriate comparison to SRS protective of human health). Hercules also acknowledges that the list of Areas of Presumed Remedial Action represents a subset of the total area onsite requiring remediation to comply with the TRSR. Hercules intends to rely on the tiered system of prioritized action in Areas of Presumed remedial Action to guide remediation activities onsite. This system prioritizes addressing historical facility-related influences that have potential migration pathways to receptors (i.e., TNT groundwater plume migration), maintaining protection of human health and the environment as a top priority and making the most efficient use of time and resources dedicated to the remediation of the Facility.
4	RIR Volume F (EE/ERA) Section 3.3.4.1 (page 33):	prioritizes the "Areas of Presumed Remedial Action" using a tiered system "to guide the feasibility study process". This tiered system is "based (in part) on elements such as complexity of the remedy, severity of the effects, duration of remedy implementation, and/or alignment with Facility redevelopment planning". This tiered priority system, and the associated data and evaluations used to implement it, were not included in the Phase II RIR. Table 3-1 (e-page 138) of RIR Volume F (EE/ERA) summarizes the "History", "Fate and Transport", and "Remedial Objective" (including presumptive remedies, additional investigations, and the need to conduct additional evaluations during the feasibility study process) for each of the areas. RIR Volume F (EE/ERA) Section 3.2.2 (page 23) notes that "[p]re-design investigations are underway in these areas to support remedy selection and design"; also see the descriptions of these areas in RIR Volume F (EE/ERA) Appendix B, e-page 1984.	See response to General Comment above. **Appendix B** and **Attachment 2** updated the current status of the ARPAs and articulate how Hercules is approaching active remediation in support of AOC closure at the Facility. The EE/ERA is Volume F of the Phase II RIR. As such, statements and conclusions made in the EE/ERA are part of the Phase II RIR. Hercules acknowledges that the level of specificity with which the APRAs were discussed in the EE/ERA was not carried through to the Phase II RIR Summary – Volume A.

5		The Phase II RIR concludes (RIR Summary [Volume A] Section 6, page 6-1) that "refining the extent of certain constituents on an area- or constituent-specific basis is necessary to develop appropriate remedies protective of human health and the environment". Further, additional investigations are recommended that "would inform the preparation of a soil management plan and remedial action selection report (feasibility study), and ultimately remedial action design and implementation. Hercules believes a document focused on remedial action selection … represents a meaningful step in the remedy process given the scale and complexity of the Facility"	See response to General Comment above.
6	RIR Volume B (Soil) Section 6.4 (page 47):	also states "refining the extent of certain constituents on an area- or constituent-specific basis is necessary to develop appropriate remedies protective of human health and the environment". Further, "additional data should be collected as part of pre-design investigation[s] supporting the feasibility study/remedial design process, as they may reduce the footprint and/or quantity of soil subject to remediation and reduce disturbance to ecologically sensitive areas".	See response to General Comment above.
7	RIR Volume D (Sediment) Section 6.4 (page 44):	states the EE/ERA "acknowledges that remedial action is necessary in certain areas of the Facility, prioritizes these areas based on complexity and severity, and outlines presumptive remedies with each area … Hercules is committed to addressing these areas, and other areas identified via ongoing risk assessment activities. Comprehensive remedies addressing both upland source areas and related sediment influences will be developed to address protection of both human health and [the] environment".	See response to General Comment above.
8	RIR Volume E (Surface Water) Section 6.4 (page 30):	states that Hercules will (a) "[c]ollectively evaluate remedial actions related to soil and sediment to identify their influence on surface water quality and incorporate surface water quality remedial goals into the design process", and (b) "[e]valuate Facility-related influences on surface water quality that do not coincide with soil and/or sediment remedies as part of the remedial design process". Further, the "results of the EE/ERA (Volume F) will also influence remedial decision making with respect to ecological endpoints".	See response to General Comment above.
9	RIR Volume F (EE/ERA) Section 3.3.3.2, page 32 and Figure 3-3, e-page 216:	The Southern Drainage Aquatic Exposure Area includes areas/ditches along Route 46 and the southeastern boundary of the site that are outside the established Remedial Area Boundary, but "receive surface water and suspended sediment from the southern wetland complex (within the Remedial Area boundary) that drains operational areas of the Facility. These drainage channels also receive runoff from Howard Boulevard and Route 46". *Are terrestrial/upland parcels in this area also impacted by these discharges?*	Two subdrainage exposure areas (Misc. Offsite Streams – Upper and Misc. Offsite Streams – Lower) were evaluated to address the southern wetland complex. See **Sections 2.4.2**, **3.2.1.1**, & **3.2.4.2.2.** Adjacent upland areas are not influenced by the drainage channels flowing through the southern wetland complex. The flood modeling conducted in association with permitting the TNT bioremediation project resulted in a FHA boundary generally consistent with the wetland/water boundaries delineated in the 2021 Freshwater Wetlands Letter of Interpretation. See **Section 3.2** of the updated ERA.

10		A review and comparison of RIR Volume F (EE/ERA) Figure 3-2 (e-page 215) and RIR Summary (Volume A) Figure A-6 (e-page 101) indicates that the boundaries of the terrestrial "Areas of Presumed Remedial Action" include streams/ditches (particularly in the TNT Area; areas denoted "1" on EE/ERA Figure 3-2), and thus potentially riparian areas and wetlands associated with these waterbodies. Have the extent of wetlands and riparian areas on the site been verified by a NJDEP Land Use Regulation Program Letter of Interpretation? RIR Volume F (EE/ERA) Section 2.6 (page 10) notes that a Facility-wide wetlands assessment was conducted in May-July 2011. Please provide the following information concerning these "Areas of Presumed Remedial Action": (a) the basis for concluding (and prioritizing – see Comment #1 above) that remedial action is needed in these areas, (b) the status/schedule of remedial actions in these areas, (c) the type of remedial actions (to be) completed in these areas, and (d) an evaluation of the potential effects of these remedial actions to eliminate/reduce potential COPEC-related impacts to terrestrial and aquatic receptors (it appears that these areas are within/adjacent to wetlands and/or surface waterbodies).	The updated ERA incorporates delineated wetland boundaries Facility-wide established via a November 2021 FWW Letter of Interpretation, and FHA Verification information developed as part of permitting the TNT remediation project (TNT Area APRA). Hercules' December request for a remedial timeframe extension 2023 (**Attachment 2**) includes information on APRAs, including scope and anticipated schedule. This information has been incorporated into the updated ERA (**Section 3.4.1 & Appendix B**). While the need for a remedy has been identified in APRAs, in certain cases, the type of remedy has not been selected at present. The pre-design investigation and/or remedial action selection/feasibility study processes will inform definition of a remedy protective of human health and the environment that minimizes disturbances to sensitive areas (e.g., ESNRs).
General Comment C:	RIR Volume F (EE/ERA) Section 3.3.4.2 (page 34) discusses "Areas Beyond the Remedial Area Boundary", and notes that these areas were identified in the Site Investigation/Phase I RI by comparing sample results to "criteria protective of human health (i.e., soil remediation goals)". It is also stated that "sample results from the undeveloped areas around the margins of the Facility (outside the Remedial Area) were evaluated in the context of potential ecological risk". This analysis was conducted in RIR Volume F (EE/ERA) Appendix C (e-page 2133) in which the 95UCL of the mean for each COPEC was compared to ecological screening benchmarks. Those COPECs with an HQ $\geq$ 1 that also bioaccumulate were then further evaluated using a food web model to estimate potential impacts to upper trophic level species.		As indicated in **Section 9** of the updated ERA, additional data collection is ongoing in the Areas Beyond the Remedial Area Boundary exposure area, with a sampling event scheduled for Fall 2025 to complete delineation of constituents present at concentrations greater than NJDEP's migration to groundwater soil remediation standards. Following completion of delineation, the ERA of this area will be updated as follows: A), COPEC screen using the updated dataset, B) evaluating discontinuous areas as individual exposure areas (e.g., uplands along Rt 46, western ridgeline, eastern ridgeline, northern undeveloped area), C) assessing dataset composition (e.g., outliers) for each exposure area, and D) providing recommendations on an area-by-area basis to address potential ecological risks (e.g., HQ>1), if identified.
	Table C-1, e-page 2140:	A review of the soil data used in this analysis (indicates that for a number of the COPECs – particularly arsenic, beryllium, chromium, cobalt, copper, lead, manganese, nickel, selenium, zinc, and nitroglycerin – the maximum detected concentration in the soil samples is substantially greater than its 95UCL. Thus, there may be locations in the "Areas Beyond the Remedial Area Boundary" where elevated COPEC concentrations potentially result in adverse ecological impacts.	See response to General Comment C above. This specific comment will be addressed in the updated evaluation.
	RIR Volume F (EE/ERA) Appendix C, Section 3.1, page 2:	identifies seven (7) metals with 95UCL concentrations with an HQ $\geq$ 1 for potential impacts to terrestrial plants and soil invertebrates. However, the conclusions of this evaluation (Section 4, page 3) appear to disregard these results when stating that "potential ecological risks beyond the Remedial Area are unlikely".	See response to General Comment C above. This specific comment will be addressed in the updated evaluation.
	RIR Volume F (EE/ERA) Appendix C, Figure C-1 (e-page 2148):	a wetlands area in the southern portion of the site along Route 46 is included in the "Areas Beyond the Remedial Area Boundary". However, the evaluation of the soil/sediment data collected in this area did not include comparisons to the NJDEP Freshwater Sediment Ecological Screening Criteria to calculate HQs.	See response to General Comment C above. This specific comment will be addressed in the updated evaluation.

General Comment D:	Section 5.3.3.1 of the NJDEP Site Remediation and Waste Management Program Ecological Evaluation Technical Guidance (EETG; Version 2.0, August 2018) specifies that soil (and sediment) samples should be collected from the 0 to 6-inch below ground surface (bgs) depth interval (except for those to be analyzed for VOCs). A cursory review of the collected soil data (RIR Volume B [Soil] Appendix F, e-page 22028), and previous NJDEP November 18, 2010 comments on the Phase I Remedial Investigation (RI; noted below), indicate that very few of the soil samples collected during the Site Investigation (SI), Phase I RI, and Phase II RI work were collected from the 0-6 inch bgs depth interval. The requirement to collect soil (and sediment) samples at this depth interval was previously identified in the following NJDEP November 18, 2010 comments (RIR Volume A-Summary, Attachment 2, e-page 230)		Please see responses to specific comments Nos. 11 through 14 below.
11	Volume B – No. 2: Section 2.4	Soil Sampling" stated "[t]ables indicate that most surface soil samples were collected from [the 6-12 inch interval below ground surface]. This is deficient according to NJAC 7:26E-3.6(a)3 which states that initial characterization of soil samples (except VOC samples) shall be collected at 0-6 inches below grade … ";	This comment pertained to the SI and Phase I RIR soil sampling. Work plans for these efforts were approved by NJDEP and scoping and implementation of the Phase I RI was conducted in cooperation with NJDEP via the triad approach. The deficiency noted in this comment on the Phase I RIR was addressed via sampling conducted in the Phase II RI – see response to comment 14 below. Hercules also notes that the cited text comes from NJDEP's Specific Comments – Volume B – Soil - Comment No. 1 titled Section 2.4 Soil Sampling, rather than No. 2 as indicated.
12	Volume B – No.3: Section 2.4.1.3	stated that "no (0-6") [soil samples] were collected from any of the AOCs";	The referenced comment from NJDEP's 18 November 2010 comments pertains to sampling conducted at 44 areas of concern reserved for the RI during the SI phase. The decisions to reserve these areas for the RI was based on SI analytical data and/or observations indicating that soil in these AOCs would likely exceed NJDEP remediation standards and require remediation. This rationale aligns with the APRA approach used in the ERA (**Table 2-1**), as evidenced by the fact that 35 of the 44 AOCs reserved for the RI occur within APRAs. The data collected and locations assessed occur primarily within APRAs and thus have negligible influence or bias on the dataset used in the ERA. Any sampling necessary to fill data gaps in these areas will be addressed when scoping pre-design investigation activities for APRAs. The remaining nine areas occur in the central core of the Facility where redevelopment planning is occurring. Redevelopment is anticipated to address potential ecological risk by rendering exposure pathways incomplete.
13	Volume A – No. 14 - Section 8.0	Future Actions" (Bullet #3) stated that additional "surface soil sampling from the 0-6" interval from various AOCs throughout the site, particularly … [in] areas where surface discharges may have occurred" may be required;	Hercules has addressed the six bullets associated with the referenced comment from NJDEP's 18 November 2010 comments on the Phase I RIR. Specifically, Hercules has: A) designated the AOCs noted in the first two bullets as APRAs (**Table 2-1**) and is conducting pre-remedial design investigations in these areas, B) conducted supplemental surface soil sampling during the Phase II RI in former burning areas referenced in the third and fourth bullets (**Section 7.3**), C) collected nearly 500 additional soil samples in associated with refined delineation in the TNT area to define excavation areas being addressed in the ongoing TNT soil bioremediation remedy (**Appendix B of the TNT RAWP** [Hercules 2020]) as referenced in the fifth and sixth bullets. With the exception of a potential former burning area assessed during the Phase II RI, the areas identified in the referenced comments occur within APRAs excluded from the risk characterization presented in the updated ERA.
14		In addition, it appears that many/most of the Phase II RI soil samples were not collected at the 0-6 inches below ground surface depth interval (for example, see RIR Volume B (Soil Remedial Investigation), Figure B-3, e-page 163).	The surface sample intervals from samples collected during the Phase II RI reflect the surface of soil and 0.5 ft immediately below. When a sample interval is denoted as 0.3 – 0.8 ft bgs, that is an indication that 0.3 ft of leaf litter, organic debris, gravel, asphalt, or other non-soil material was cleared from the ground surface prior to collecting the sample. The associated analytical data is representative of the first 0.5 ft of soil that an ecological receptor would encounter. Soil boring logs for Phase II RI borings were included as **Appendix B of the Phase II Soil RIR – Volume B** (Hercules 2016).

	Section 3.3.1.1 (page 26 – Footnote 3) of RIR Volume F (EE/ERA)	states that the soil samples used in the EE/ERA were collected "with a starting depth of 0 to 1 foot [bgs] and an end depth of no more than 3 feet bgs … and includes intervals spanning the biologically active zone (BAZ)". However, the EE/ERA (RIR Volume F) soil (and sediment) dataset included samples collected from the 0-12 inch bgs interval, including samples that included any portion of the 0-12 inch bgs interval (Volume F [EE/ERA] Section 4.1.1, page 38). Table 4-1 (e-page 141) of RIR Volume F (EE/ERA) provides a summary of the collected soil (and sediment) data. Of the forty-five (45) depth intervals listed, only four (4) solely encompass the 0-6 inch (0.5 feet) bgs depth interval, with an additional nine (9) depth intervals of 0-12 inches (1.0 foot) bgs and seven (7) depth intervals within the 0-12 inch bgs interval. Thus, twenty-five of the soil sample depth intervals listed extend deeper than the 0-12 inch bgs depth of the BAZ.	As discussed in **Section 4.1.1** of the updated ERA, the sample depths included in the ERA dataset have been revised to be more restrictive and focused on shallow soil/sediment intervals. This approach reduces the number of samples in the dataset in favor of a shallower average depth more reflective of the interval where exposures are expected to occur. Specifically, the dataset has been revised so samples with over 50% of their depth interval within the 0 to 12 inch bss interval were included in the EE/ERA dataset. The dataset was specifically filtered to include samples with a start depth of 0-6 inch bss and an end depth of 0-18 in bss.
15		In order to evaluate the suitability of the soil (and sediment) data used in the EE/ERA, Table 4-1 (e-page 141) of RIR Volume F (EE/ERA) should be revised to indicate (a) the total number of soil (and sediment) samples collected in each of the listed depth intervals, and (b) the total number of samples collected in each of the listed depth intervals within each of the 13 soil AOCs	**Table 4-1** has been revised to show the total number of soil samples collected for each method type in each listed depth interval.
16		In addition, to further evaluate the suitability of the soil (and sediment) data used in the EE/ERA: within each of the 13 soil AOCs, an analysis should be conducted – where the appropriate data are available – comparing COPEC concentrations in samples collected within the 0-12 inch bgs depth interval (i.e., the twenty (20) intervals noted above) with those collected at deeper depths to verify that COPEC concentrations are not elevated in the 0-12 bgs depth interval samples compared to those in the other (i.e., "deeper") depth interval samples. If that were the case, inclusion of these deeper samples in the calculations of the mean, 95UCL, etc. statistics would result in underestimates of the COPEC concentrations in the biologically active zone (0-12 inches bgs).	As discussed in **Section 4.1.1** of the updated ERA, the sample depths included in the ERA dataset have been revised to be more restrictive and focused on shallow soil/sediment intervals. This approach reduces the number of samples in the dataset in favor of a shallower average depth more reflective of the interval where exposures are expected to occur. Specifically, the dataset has been revised so samples with over 50% of their depth interval within the 0 to 12 inch bss interval were included in the EE/ERA dataset. The dataset was specifically filtered to include samples with a start depth of 0-6 inch bss and an end depth of 0-18 in bss.
17		Samples collected outside the 0-12 in bgs depth interval (i.e., three (3) intervals listed in EE/ERA Table 4-1 of 1-1.5 ft bgs, 1-1.6 ft bgs, and 1.08-1.58 ft bgs) are outside what is generally considered to be the biologically active zone and therefore should not be used in the EE/ERA. In addition, some samples (5 depth intervals) were collected to depths extending beyond 3 feet bgs (up to 10 ft bgs) as stated in Section 3.3.1.1 (page 26 – Footnote 3) of RIR Volume F (EE/ERA).	As discussed in **Section 4.1.1** of the updated ERA, the sample depths included in the ERA dataset have been revised to be more restrictive and focused on shallow soil/sediment intervals. This approach reduces the number of samples in the dataset in favor of a shallower average depth more reflective of the interval where exposures are expected to occur. Specifically, the dataset has been revised so samples with over 50% of their depth interval within the 0 to 12 inch bss interval were included in the EE/ERA dataset. The dataset was specifically filtered to include samples with a start depth of 0-6 inch bss and an end depth of 0-18 in bss.
General Comment E:	see General Comment D. RIR Volume F (EE/ERA) Table 4-1 (e-page 141) includes sediment samples collected at a depth interval of 1-1.5 feet bgs; these samples are outside what is generally considered to be the biologically active zone (0-12 inches bgs) and therefore should not be used in the EE/ERA. In addition -		As discussed in **Section 4.1.1** of the updated ERA, the sample depths included in the ERA dataset have been revised to be more restrictive and focused on shallow soil/sediment intervals. This approach reduces the number of samples in the dataset in favor of a shallower average depth more reflective of the interval where exposures are expected to occur. Specifically, the dataset has been revised so samples with over 50% of their depth interval within the 0 to 12 inch bss interval were included in the EE/ERA dataset. The dataset was specifically filtered to include samples with a start depth of 0-6 inch bss and an end depth of 0-18 in bss.

18		A cursory review of the data presented in RIR Volume D (Sediment) Appendix G (e-page 9667) indicates that all of the previous SI and Phase I RI sediment samples were collected at depth intervals of 0.5-1 ft bgs, 1-1.5 ft bgs, and 1.5-2 ft bgs. RIR Volume F (EE/ERA) Table 4-1 (e-page 141) includes sediment samples collected at a depth interval of 0.0-0.5 ft bgs; are these limited to the Phase II RIR sediment samples?	**Appendix E** Fourteen field duplicate sediment samples were collected at the 0.0-0.5 ft bgs depth interval during the SI for VOCs only. All other sediment samples in the 0.0-0.5 ft bgs depth interval were collected in 2013 (Phase II RI) or later. Following submission of the EE/ERA in 2016, Hercules implemented the ERAWP included as an appendix to the EE/ERA. The ERAWP concluded that in aquatic areas, additional evaluation of sediment and surface water and aerial insect tissue sample collection was needed within distinct subareas of aquatic exposure areas to validate and refine modeled dietary exposures. Additional sediment samples were collected from every subdrainage area at the 0-0.5 ft depth interval, to target the biologically active zone. Sample locations are presented in **Figures 4-2** through **4-14**, as well as in **Attachment 10**.
General Comment F:	RIR Volume F (EE/ERA), Section 7, page 66:	for HQ calculation and ecological risk characterization purposes, concludes that the HQ-LOAEL "provides a more representative indicator of potential ecological risk to upper-trophic-level [sic] receptors than the HQ-NOAEL"; also see Section 7.4, page 75. Section 6.1.33 of the NJDEP EETG states that both "NOAEL-based and LOAEL-based HQs should be developed to bound the risk estimates". Tables 7-3 to 7-9 (e-pages 181-186), Tables 7-13 to 7-18 (e-pages 191-196), and Tables 7-22 to 7-28 (e-pages 201-207) include HQs calculated using both NOAELs and LOAELs. Section 7.1.3 (and subsections; pages 68-69) should also present and discuss the NOAEL-based HQs.	**Section 7** of the updated ERA discusses HQ interpretation across the bounded range provided by the NOAEL- and LOAEL-based HQs. Tables continue to provide both NOAEL- and LOAEL-based HQs, consistent with the 2016 EE/ERA.

Appendix B

Areas of Presumed Remedial Action – Area Descriptions

Appendix B: Areas of Presumed Remedial Action

Based on a review of the CSM, historical Facility information, and current analytical data, several process/disposal areas within the Remedial Area were identified as areas where remedial action is warranted, irrespective of the outcome of the EE/ERA. The locations, composition, and/or constituents present in these areas align with historical Facility practices and records from the Facility (e.g., disposal areas, explosions).

In the time elapsed since submission of the Phase II RIR, Hercules has initiated remedial actions in certain Areas of Presumed Remedial Action (APRA), implemented pre-design investigations that have refined the spatial extents of certain Areas of Presumed Remedial Action, and conducted field studies to identify additional APRAs (based in part on the terrestrial risk characterization results of the EE/ERA).

The purpose of this appendix is to summarize each of the APRAs that have been omitted from evaluation since identification in the EE/ERA or identified as new APRAs since submittal of the EE/ERA. The ensuing sections address each of the APRAs and provide a brief status update in the form of:

- Relevant background information.
- Action taken up to the present time that contribute to remedy development.
- An outline of the planned remedial approach and estimated timeframe within which it will occur given the current status of the Facility (i.e., redevelopment timeframe, other ongoing remedial actions that may expedite or impede progress of the remedy).

Similarly, the Remedial Timeframe Notification Form includes information on APRAs and is included in **Attachment 2** of the ERA.

Acknowledging the assumed remedial actions in these APRAs, data from these areas are not included in this EE/ERA. **Table 2-1** provides information regarding the history, constituent fate and transport, and presumptive remedy for each area. **Figure 3-2** notes these areas on a site plan. The following sections provide detail on each APRA.

1.1 TNT Area – TNT Soil Bioremediation Project Area

The TNT Area is the largest independent project area (80 acres) within the Facility (**Figure 3-2**) and presents the greatest source of target constituent[1] mass in soil (approximately 69,000 cubic yards) resulting in ongoing impacts to groundwater.

Historically, the TNT Area produced explosives from 1917 to 1919. Processing and operational activities, movement of materials throughout the Facility, incidental releases (e.g., explosions, spills), and ground surface leveling (i.e., demolition of facility buildings) and reconstruction of new facility buildings contributed to the presence of visible TNT in shallow surface soil.

Since 2014, a series of steps have been taken to develop the remedial strategy for the TNT Area. These steps, presented in more detail in the *TNT Project Area Soil Remedial Action Work Plan* (RAWP) (KJ 2020), include:

[1] Target constituents refers to TNT, 2,4-dinitrotoluene (2,4-DNT), 2,6-DNT, 2-amino-4,6-DNT (2-ADNT), and 4-amino-2,6-DNT (4-ADNT)

- Bench scale treatability study [2014].
- Field scale pilot study [2015].
- Refined delineation soil sampling [2017].

In general, these steps allowed for the evaluation of the feasibility and effectiveness of enhanced ex-situ bioremediation as a remedy for target constituents in TNT Area soil. Study results informed the design of a multi-phase remedy involving three primary processes with the following objectives:

- Soil processing (i.e., excavation, blending, and processing in a soil processing plant) to make target constituent source mass present in crystalline forms accessible and amenable to bioremediation (increased surface area-to-volume ratio).
- Ex-situ enhanced bioremediation in constructed treatment cells (bio cells) to degrade target constituent mass (greater than 95 percent [%] reduction in concentrations) over a short period of time (8 to 12 months) to at or less than their respective NJDEP Non-Residential Direct Contact Soil Remediation Standards (DCSRS) via ex-situ bioremediation.
- In-situ biodegradation addresses residual target constituent mass (over approximately 5 years) to facilitate corresponding target constituent concentration reductions in groundwater supporting a monitored natural attenuation groundwater remedy.

The complete remedy development and design is presented in the *TNT Project Area Soil RAWP* (KJ 2020).

As an APRA, ERA activities were incorporated into the TNT Area remedial design to ensure that the proposed remedy remained protective of ecological receptors. ERA findings associated with the *TNT Project Area Soil RAWP* (KJ 2020) identify that the proposed remedy is protective of ecological receptors currently exposed to target constituents in the TNT Area soil. Appendix A of the *TNT Project Area Soil RAWP* (KJ 2020) presents the complete TNT Project Area ERA and its findings in more detail.

Excavation and treatment of TNT Area soil in accordance with the RAWP began in 2024 and will require 5 years to complete the ex-situ treatment phase. In 2029, following the estimated 5 years of annual treatment cycles and backfilling of excavation areas, long term monitoring will begin to document the continued degradation of residuals in soil under in-situ conditions and the anticipated reduction in constituent concentrations in groundwater over time absent a constituent source in soil. Long term monitoring of soil is expected to occur over 5 years (2029 through 2033), with groundwater monitoring to support a monitored natural attenuation (MNA) remedy occurring concurrent with this phase of soil monitoring. Hercules anticipates submitting a TNT Area RAR, updated CEA, and groundwater RAP application in 2034.

1.2 Ammonium Nitrate Area – Former Burning Ground

Historically, the Ammonium Nitrate Area - Former Burning Ground and intervening AOCs [H12-237, H13-1, H13-7] (referred to herein as Former Burning Ground) supported the incineration of off-specification and residual materials. These activities resulted in residual chemical concentrations and physical debris (e.g., ceramic, metal) in surface soil and the observation of only sparse vegetation present within the Former Burning Ground.

In 2013, Hercules initiated pre-design investigation (PDI) activities for the purpose of refining vertical and horizontal extent of debris materials related to historical incineration activities in the Former Burning Ground. Test pits were excavated at approximately 50-foot intervals along the

perimeter and within the Former Burning Ground vicinity in 1-foot lifts, to allow for adequate inspection, to a maximum depth of 10 feet bgs. Test pit locations were biased toward field observations (i.e., visible surface debris, areas of sparse vegetation). PDI activities concluded that debris and constituent (i.e., metals, PAHs, energetics, and dioxins/furans) impacts are limited to surface soil. Such surface soil impacted by debris and constituent concentrations is estimated to measure approximately 1,600 cubic yards in volume. Soil investigated in the Former Burning Ground was found to be non-hazardous. No influence on groundwater quality was observed..

Additional investigation and delineation of dioxins/furans in the Former Burning Ground was completed in 2024. Remedial approach will be assessed in the context of Facility redevelopment in 2026 and will likely involve capping of impacted soil.

1.3 B-Line Area – WWII Disposal Area (M8-1)

The B-Line Area - World War II (WWII) Disposal Area (referred to herein as the WWII Disposal Area) was used as a historical disposal area for drum carcasses, large concrete debris (e.g., block, slab, footings), and other solid waste materials during the period of increased production surrounding WWII. As a result of these activities, the WWII Disposal Area consists of visible surface debris with only moderate to sparse vegetation present on the ground surface. Historic fill is also present throughout the WWII Disposal Area, used as fill to level the debris surface and facilitate debris placement in wet areas. The WWII Disposal Area occupies approximately 6.5 acres between Duck Pond and an emergent/forested freshwater wetland. Freshwater wetlands and associated transition areas make up the majority of the WWII Disposal Area. This designation makes intrusive investigation and remediation activities complex.

Environmental investigations (SI/RI and PDI activities) focused on identifying the composition of the debris, characterizing related chemicals in soil (e.g., energetics, metals, PAHs, PCBs), and defining horizontal and vertical extent of debris in soil. A geophysical survey and test pitting revealed production-related debris (e.g., drum carcasses and pipes) present from 0.0 to 3.5 feet bgs, generally. The production-related debris material was estimated to occupy an estimated volume of 16,000 cubic yards of debris covered with soil. WWII Disposal area soil was found to be non-hazardous. Debris was emplaced both at and below the groundwater table; however, groundwater monitoring sampling results in proximity to the WWII Disposal Area indicate that these solid materials are not impacting groundwater quality.

The remedial approach for the WWII Disposal Area involves debris removal and/or consolidation in combination with capping. This approach provides the least intrusive remedy to address constituents identified in soil and historic fill material while also enhancing/expanding freshwater wetlands. Additional investigation and remediation of the debris material in this area and adjacent wetland areas is anticipated to occur between 2026 and 2030.

1.4 Development Area – Old Burning Ground (M5-3 and AOCs to the Southwest)

Historically, the Development Area - Old Burning Ground and AOCs to the southwest [M5-3, L5-2313, L5-10, L5-2275, L5-539] (referred to herein as Old Burning Ground) was used to incinerate off-speciation product and residual energetic materials. The Old Burning Ground occupies 5.5 acres in a low-lying area that abuts Duck Pond. Old Burning Ground and an adjacent bulk lead processing

operation both drain directly into Duck Pond, which provided a source of water to control burning activities in Old Burning Ground. Incomplete combustion and comingled non-combustible materials resulted in residual chemical constituents as well as physical debris (e.g., ceramic, metal) in surface and shallow subsurface soil. Currently, there is only sparse vegetation present and non-combustible waste materials visible on the ground surface. The former operation area is an open Resource Conservation and Recovery Act (RCRA) Operable Unit (OU).

Environmental investigations identified debris in soil to a depth of approximately 7 feet bgs and COCs (e.g., lead, DNT, PCBs, etc.) in soil to a depth of approximately 10 feet bgs. While soil conditions in Old Burning Ground do not influence nearby surface-water quality, erosion of surface soil from the unvegetated ground surface in Old Burning Ground into surface water and subsequent deposition influenced adjected Duck Pond sediment. And although historical groundwater sampling identified lead in shallow groundwater at concentrations greater than NJDEP GWQS, more recent sampling results do not indicate an influence on groundwater.

Remediation of Toxic Substances Control Act (TSCA)-regulated polychlorinated biphenyls (PCBs) was completed in 2022 in the Old Burning Ground via excavation as part of a sitewide PCB remediation.

PDI work plan development, implementation and remedial design is projected to occur in 2026 through 2028. Remedy implementation will consider that Old Burning Ground is an open RCRA OU, managing the corrective action and closure of this OU.

1.5 Storage Area – WWI Disposal Area (N6-1)

The Storage Area – Disposal Area (N6-1) (referred to herein as World War I [WWI] Disposal Area) occupies approximately 6.5 acres in the Storage Area and was used for disposal during the period of increased production associated with WWI and subsequent years. This area contained materials and solid debris such as steel process vessels, drum carcasses, and large reinforced concrete block. Removal of large metal debris occurred concurrent with Facility demolition. Although WWI Disposal Area mostly revegetated, some debris remains visible at the ground surface.

Hercules has completed environmental investigations and geophysical surveys to characterize debris and soil conditions. The remedial approach will likely include debris consolidation and capping and begin with further environmental investigation and remedial design occurring in 2027 through 2030.

1.6 B-Line Area – South (conglomerate of AOCs)

Historically, various facility process-related buildings and structures (e.g., basins, sheds) stood at the southern end of the B-Line Area near the terminus of Powder Mill Road (**Figure 3-2**). During decommissioning and demolition activities, residual product (e.g., concrete slab) was observed in surface and shallow subsurface soil at various locations in this area. As such, interim remedial measures (e.g., excavation) were implemented.

Currently, the southern end of the B-Line Area is densely vegetated and likely minimizes localized erosion and transport of surface soil and associated constituents into other abutting areas of the Facility.

Hercules will address the removal and/or containment of these materials during the FS process. Additional evaluation and assessment of this area is required to refine the extent of Facility related influences and select an appropriate remedy (where applicable). FS activities are expected to occur in 2027-2030.

1.7 A-Line Area – Northwest (conglomerate of AOCs)

Initially, the A-Line Area – Northwest (referred to herein as the A-Line Area) was used as a dynamite packaging area but was converted to manufacture nitrocellulose-based smokeless powder during Facility expansion in WWI. The A-Line Area was also the origin of a large explosion in 1940. As such, decommissioning/demolition and SI/RI activities identified physical debris, residual source material and explosives in soil surrounding the former building locations. Further environmental investigations indicated that COCs (E&E compounds, metals, PAHs, and SVOCs) occur primarily in surface soil and do not appear mobile in groundwater.

Remedy development includes ongoing AOC closure assessment activities and a refined delineation work plan to refine the extent of potential E&E compounds in the A-Line Area. These activities have been in progress since 2019. Delineation and removal of residual source material is the next step in the remedial approach with final action (i.e., capping) to be assessed and completed in the context of Facility redevelopment in 2026.

1.8 Development Area – Ballistics Range

The Development Area - Ballistics Range (referred to herein as Ballistics Range) was composed of structures associated with testing propellant (i.e., smokeless powder) formulations to achieve manufacturer-specified projectile velocities. These activities resulted in the lead enrichment of Ballistics Range soil via the introduction of lead shot and bullets to surface soil in discrete areas.

Environmental investigations identified lead in soil at concentrations requiring active remediation. Lead pieces are present in surface soil as a solid debris (e.g., projectile fragments). The *Ecological Risk Assessment: Terrestrial Lead Work Plan* (KJ 2018) assesses the physical size of lead particles present in surface soil, nature and extent, and mobility and bioavailability to ecological receptors. Results of this investigation show potential excess risk to upper trophic level avian receptors (e.g., American Robin) via ingestion of lead particles in surface soil. These results were presented to NJDEP during a technical consultation in 2019. Groundwater sampling results support the fate and transport model indicating that elemental lead in surface soil is insoluble and not influencing groundwater.

The remedial approach will target source material removal including soil screening to remove large lead particles, followed by the amendment of remaining soil to bind lead and reduce mobility in the soil column. Further remedial action (i.e., capping) will be assessed in the context of Facility redevelopment. Additional investigation and remediation of soil in this area is anticipated between 2027 and 2029.

1.9 Development Area - Experimental Dynamite Production Area

The Experimental Dynamite Production Area (EDPA) produced and tested formulations of dynamite within the Development Area. NG, a component of dynamite, was manufactured in the NG Area and transported in small batches to the EDPA. EDPA structures supporting formulation and mixing of dynamite were known to have lead floors, conveyances and equipment.

Environmental investigations identified lead in soil at concentrations requiring active remediation. Lead pieces are present in surface soil as a solid debris. The *Ecological Risk Assessment: Terrestrial Lead Work Plan* (KJ 2018) assesses the physical size of lead particles present in surface soil, nature and extent, and mobility and bioavailability to ecological receptors. Results of this investigation show potential excess risk to upper trophic level avian receptors (e.g., American Robin) via ingestion of lead particles in surface soil. These results were presented to NJDEP during a technical consultation in 2019.

Environmental investigations also identified similar constituents in the sediment of an isolated pond adjacent to the area. Additional investigation and remediation of soil in this area is anticipated to occur between 2026 and 2029, with components of the work potentially coordinated with the closure of the Old Burning Ground.

1.10 PETN/NG Area – Acid Recovery

The PETN/NG Area - Acid Recovery (referred to herein as Acid Recovery) was composed of structures associated with the production of NG, and later PETN, from site development in 1871 through Facility closure. Both NG and PETN production processes relied heavily on concentrated nitric acid solutions. Given the sensitivity of NG to static electrical charges, building floors, process equipment and conveyances were typically lined with lead.

Previous environmental investigations discovered lead sheeting and lead debris on the ground surface of the Acid Recovery (AOC B11-11) and areas of stressed vegetation (AOCs C11-4, C11-8, D10-1).

Based on field observations and Facility knowledge, lead exists in the Acid Recovery area in both solid and potentially dissolved forms (e.g., mobile lead particulates entrained in spend acid). During a 2006 sampling event, groundwater samples were collected from an adjacent monitoring well (MW-38) and two addition wells in the NG Area (MW-39 and MW-43). Total lead was not detected in these historical samples. During a 2016 sampling event, one groundwater samples was collected from MW-38. Total lead was detected above NJDEP Groundwater Quality Standards (GWQS).

Hercules anticipates focused removal and/or stabilization of lead in soil in the NG Area. Additional investigation and remediation of soil in this area is anticipated between 2026 and 2028

1.11 Maintenance Area – PCBs

The Maintenance Area – PCBs (referred to herein as Maintenance Area), located in an area of relatively flat topography at the geographic center of the Facility, was optimally located to provide operational support (i.e., power generation, maintenance shops) to the entire Facility. Historically, PCB use at the Facility was limited to dielectric fluids contained in electrical transformers and equipment. The majority of PCB detections in soil occur throughout an approximately 13-acre area in the northeastern portion of the Maintenance Area adjacent to the former powerhouse where the majority of electrical transformers were located. Therefore, PCB impacts in the Maintenance Area soil are thought to be associated with historical maintenance, power generation, and power transmission activities, and regrading/distribution of soil following plant explosions and/or production line retrofits.

Environmental investigations identified total PCB concentrations in soil to generally range between 0.2 and 10 milligrams per kilogram [mg/kg], with three detections in close proximity to each other exceeding TSCA's high-occupancy use threshold concentration (10 mg/kg). Refined delineation

activities occurred between 2018 and 2020 (under a self-implementing plan [SIP] and RAWP) to define those areas where PCBs in soil exceed TSCA's high-occupancy use threshold concentration. Source material (PCB concentrations greater than 10 mg/kg) has been removed, and remaining concentrations do not appear mobile based on recent groundwater quality data. Soil and associated constituents in this area appear stable and generally immobile.

PCB-containing soil (with impacts below TSCA-regulated concentrations) have been delineated and will be capped in the context of future Facility redevelopment.

1.12 Maintenance Area – Acid Production Plant

The Maintenance Area – Acid Production Plant produced sulfuric and nitric acids used to support various manufacturing processes onsite, as well as supply other nearby manufacturing installations.

Environmental investigations identified lead in soil at concentrations requiring active remediation, however lead debris has not been observed on the ground surface. The *Ecological Risk Assessment: Terrestrial Lead Work Plan* (KJ 2018) assesses the physical size of lead particles present in surface soil, nature and extent, and mobility and bioavailability to ecological receptors. Results of this investigation show potential excess risk to upper trophic level avian receptors (e.g., American Robin) via ingestion of lead particles in surface soil. These results were presented to NJDEP during a technical consultation in 2019. Despite this, dissolved lead has been detected at concentrations less than the NJDEP groundwater quality standards in downgradient groundwater monitoring wells.

The remedial approach for this area will include confirmation and delineation sampling to refine the nature and extent of lead in soil. Further remedial action (i.e., capping) will be assessed in the context of Facility redevelopment. Additional investigation and remediation of soil in this area is anticipated between 2027 and 2029.

1.13 NG Area – Former Ponds

The remnant stormwater management features that occupy an area at the base of the hillside on which the NG and PETN production lines sat. Particulates present in stormwater runoff from these manufacturing areas accumulated and settled in the Stormwater Catchment Area. Site demolition altered the drainage and conveyances, and this feature no longer functions as a stormwater catchment.

The *Ecological Risk Assessment: Terrestrial Lead Work Plan* (KJ 2018) assessed the physical size of lead particles present in surface soil, nature and extent, and mobility and bioavailability to ecological receptors. Results of this investigation show potential excess risk to upper trophic level avian receptors (e.g., American Robin) via ingestion of lead particles in surface soil. These results were presented to NJDEP during a technical consultation in 2019.

Environmental investigations identified lead in soil at concentrations requiring active remediation in this feature. Additional investigation and remediation of this feature is anticipated between 2027 and 2029 and will potentially be coordinated with Former Acid Recovery remediation.

1.14 References

KJ. 2018. Ecological Risk Assessment: Terrestrial Lead Work Plan. Kenvil Works Facility. Prepared on behalf of Hercules, Inc. Revised November 2018.

KJ. 2020. TNT Project Area Soil Remedial Action Work Plan. Kenvil Works Facility. Prepared on behalf of Hercules, Inc. August.

Appendix C

Aquatic Ecological Risk Assessment Supplemental Sampling
Memo Implementation

Appendix C: Aquatic ERASSM Implementation

This document, included as an appendix to the Ecological Risk Assessment (ERA), presents and evaluates environmental data collected during implementation of the *Aquatic ERA Supplemental Sampling Memo (ERASSM)* (**Attachment 10** to the ERA) at the Hercules Kenvil Works Facility, located in Kenvil, Morris County, New Jersey (the Facility; **Figure 1-1**). Aquatic ERASSM implementation occurred in July and August 2019 following initial ERAWP implementation and characterization activities in 2016 and 2018.

1.1 Sampling Plan Objectives

The objective of the Aquatic ERASSM field sampling plan was to provide additional lines of evidence (LOEs) in the evaluation of potential risks to benthic invertebrate communities in the seven subdrainage areas where risk remained uncertain following ERAWP implementation. The Aquatic ERASSM (**Attachment 10** to the ERA) targeted seven subdrainage areas of the Facility for supplemental sampling, including additional collection and analyses of sediment, surface water, and/or benthic invertebrate community composition to support refined risk characterization.

Sediment sampling provided:

- Polycyclic aromatic hydrocarbon (PAH) data (list of 34 parent PAHs and alkylated families) for the calculation of equilibrium partitioning sediment benchmark toxicity units (ESBTUs) to evaluate the bioavailability and potential toxicity of PAHs in subdrainage area sediment

- Chromium speciation data to evaluate the mobility and toxicity of chromium in subdrainage area sediment

Surface water sampling provided an additional LOE regarding the form and bioavailability of mercury (Hg) in two subdrainage areas.

Benthic community surveys were conducted in five subdrainage areas. Sample locations were compared to applicable reference locations to help refine understanding of potential risks to benthic invertebrate communities.

The following table outlines sample locations proposed in the ERASSM (**Attachment 10** to the ERA) and constituents of potential ecological concern (COPECs) within each targeted subdrainage area.

Drainage Area	Subdrainage Area	COPEC	Sample Type	No. of Locations	Appendix Figure
NDA	Unnamed Ponds	Hg	• Benthic community survey • Surface water	3	Fig C.1
	Maintenance – Dynamite Area - West	PAHs, Hg	• Benthic community survey • Sediment • Surface water	2	Fig C.2
	Maintenance – Dynamite Area - East	Metals, PAHs	• Sediment	3	Fig C.3
	Maintenance - NG Area	Hg, Ag	• Benthic community survey	2	Fig C.4
	TNT-PETN-NG Ditches	Hg, DNT	• Benthic community survey	3	Fig C.5
	Misc. Offsite Steams - Lower	PAHs	• Sediment	2	Fig C.6
	Central Drainage Basin	Hg	• Benthic community survey	2	Fig C.7
	Development Area Stream	--	• Benthic community survey (reference location)	2	Fig C.9
SDA	Northeast Ponds	--	• Benthic community survey (reference location)	2	Fig C.8

1.2 Sampling Plan Implementation

KJ implemented Aquatic ERASSM field sampling activities from 30 July to 1 August 2019. The following sections detail implementation of and deviations from the Aquatic ERASSM field sampling plan (**Attachment 10** to the ERA).

1.2.1 Sampling Plan Deviations

During Aquatic ERASSM implementation, samples were collected from the most downstream sampling locations to upstream. Locations were geolocated by the field team using a handheld GPS unit.

Sample collection, processing, and analysis followed the procedures outlined in the Aquatic ERASSM (**Attachment 10** to the ERA) with the following noted exceptions:

1. One sediment sample in the Miscellaneous Offsite Streams – Lower (i.e., SD-ERA-C15-MOSL-01[0.0-0.5]) could not be collected at the proposed location due to deep sediment/surface water up to the sampler's waist. This sample was re-located near the proposed location and is identified in **Figure C.6**.

2. One benthic invertebrate community sample in the Central Drainage Basin (i.e., BC-ERA-D14-CDB-01) could not be collected at the proposed location due to deep open water. This sample was re-located and is identified as BC-ERA-D14-CDB-01A in **Figure C.7**.

3. One proposed benthic invertebrate community sample in the TNT-PETN-NG Ditches (i.e., BC-ERA-C12-TPND-01) could not be collected at the proposed location due to a lack of water/habitat. A second attempt was made at sediment sampling location SD-R-C11-04, but the sample could not be collected again due to a lack of water/habitat. A third attempt was made at sampling location SD-R-D13-11, but this location could not be accessed to dense vegetation and poison ivy.

1.2.2 Surface Water Sampling

Five surface water samples, one field blank, and one field duplicate were collected from two subdrainage areas in accordance with NJDEP Field Sampling Procedures Manual (FSPM) (NJDEP 2005) and including:

- Unnamed Ponds (**Figure C.1**)
- Maintenance Dynamite Area – West (**Figure C.2**)

Surface water samples were collected via bottle transfer. Surface water sample locations were collocated with proposed sediment and/or benthic community samples in each area and represented locations where methylmercury (MeHg) analysis was proposed in 2017 but not conducted due to an analytical laboratory error.

Prior to sample collection, in-situ water quality parameters were recorded from six inches above the sediment surface at each sample location. In-situ parameters included temperature, pH, dissolved oxygen, oxidation-reduction potential, turbidity, conductivity, and salinity and results were documented in the field book.

Surface water samples were collected and submitted to Eurofins Lancaster Laboratories Environmental (Eurofins) in Lancaster, PA, a New Jersey Environmental Laboratory Accreditation Program (NJELAP)-accredited laboratory.

1.2.3 Sediment Sampling

Seven sediment samples, two field blanks, and one field duplicate were collected from three subdrainage areas in accordance with the NJDEP FSPM (NJDEP 2005) and including:

- Maintenance Dynamite Area – West (**Figure C.2**)
- Maintenance Dynamite Area – East (**Figure C.3**)
- Miscellaneous Offsite Streams – Lower (**Figure C.6**)

Samples were collected from 0-0.5 ft below ground surface [bgs] after recording in-situ water quality parameters from six inches above the sediment surface. In-situ parameters included temperature, pH, dissolved oxygen, oxidation-reduction potential, turbidity, conductivity, and salinity, and results were documented in the field book.

Sediment samples were collected by driving polycarbonate tubing to desired collection depth using manual techniques (i.e., rubber mallet). At each sediment sampling location, water depth, sediment core recovery and description were measured and recorded in the field book.

Sediment samples were submitted to Eurofins in Lancaster, PA, a NJELAP-accredited laboratory and analyzed for pH, grain size, TOC, and PAHs using USEPA Methods 9040C, D422 ASTM, Lloyd Kahn, and 8270SIM, respectively. AVS/SEM and chromium speciation analyses were conducted in accordance with EPA-821-R-100 and USEPA Methods 6010D and 7196A, respectively.

1.2.4 Benthic Community Sampling

Flowing and/or non-flowing aquatic habitat in five Southern subdrainage areas were targeted for benthic invertebrate community sampling. Target subdrainage areas are as follows:

- Unnamed Ponds (**Fig C.1**)
- Maintenance – Dynamite Area – West (**Fig C.2**)
- Maintenance - NG Area (**Fig C.4**)
- TNT-PETN-NG Ditches (**Fig C.5**)
- Central Drainage Basin (**Fig C.7**)

In addition, two samples were collected from each of two on-site reference locations in the Development Area and Northeast Ponds (**Figures C.8 and C.9**, respectively). These locations occur near the perimeter of the Facility and represent local, ambient conditions beyond the influence of former Facility operations. Reference sample locations targeted similar substrate types and hydrological conditions as the sample locations in the five subdrainage areas.

A Petite Ponar dredge was used due to slow moving and/or standing water habitat with soft sediment or hard bottom (i.e. sand, clay) substrates.

Three replicates per sample were collected at each sampling location from the biologically active zone (BAZ) and composited to create a single sample to reduce biases attributable to spatial variability within the sampling area. The area and volume of each sampler was recorded such that community metrics could be calculated on a per square meter basis to facilitate comparison.

Samples were preserved using isopropyl alcohol and transferred under chain-of-custody procedures to Normandeau Associates in Stowe, Pennsylvania for identification to the lowest practicable taxon and enumeration.

1.3 Data Summary and Results

The following sections present a summary of ERASSM implementation results. Analytical results of sediment and surface water analyses are provided in **Tables C.1 and C.2**, respectively. **Attachment C.1** presents the case narrative and benthic invertebrate identification and enumeration results as prepared by Normandeau. Analytical laboratory reports are provided in **Attachment C.2**.

1.3.1 Methylmercury

In subdrainage areas where potential risk from mercury remained uncertain following ERAWP implementation, supplemental surface water samples were collected and analyzed for total and dissolved MeHg. These subdrainage areas include:

- Unnamed Ponds (**Figure C.1**)
- Maintenance Dynamite Area – West (**Figure C.2**)
- Maintenance Dynamite Area – East (**Figure C.3**)

Results of total and dissolved MeHg analyses in surface water are provided in **Table C.2** and summarized in the table below.

Drainage Area	Subdrainage Area	Methylmercury (ng/L)			
		Total		Dissolved	
		Min.	Max.	Min.	Max.
NDA	Unnamed Ponds	0.49	3.1	ND	0.24
SDA	Maintenance – Dynamite Area – West	0.17	0.38	ND	
	Maintenance – Dynamite Area - East	0.05		ND	

As shown above, total MeHg across subdrainage areas ranged from 0.05 to 3.1 ng/L. Dissolved MeHg was not detected above reporting limits apart from one sample (0.24 ng/L) in Unnamed Ponds, suggesting low potential MeHg mobility and bioavailability to aquatic life in Maintenance – Dynamite Areas – East and West.

While no formal MeHg ESC are available for direct comparison, NJDEP's surface water ESC of 0.77 µg/L for total mercury is greater than three orders of magnitude above the sample result and represents a bioavailable MeHg fraction (dissolved:total MeHg) of approximately half (49.3%), as compared to its paired total MeHg sample. Alternatively, while total and dissolved MeHg in overlying water provides an additional LOE regarding potential risk to aquatic and benthic invertebrates, uncertainty arises when translating potential benthic risk from dissolved concentrations in overlying water to potential risk from direct porewater exposure. Thus, additional investigation of mercury in Unnamed Ponds is recommended despite this LOE.

1.3.2 Chromium Speciation

Potential risk to benthic invertebrates from sediment chromium remained uncertain (i.e., HQ_{LEL} greater than 1) in Maintenance - Dynamite Area - East following ERAWP implementation. Three sediment samples were collected and analyzed in July 2019 for total, trivalent [Cr(III)], and hexavalent chromium [Cr(VI)] in this subdrainage area (**Fig C.3**). Chromium toxicity to aquatic life is dependent on valence state, with Cr(VI) being considerably more toxic and bioavailable.

As shown in **Table C.1**, Sediment Cr(III) concentrations (range: 6.42 – 31.6 mg/kg) were equivalent to total chromium and Cr(VI) was not detected. Results of chromium speciation analysis indicated that sediment conditions in Maintenance - Dynamite Area – East favor the less toxic and less mobile Cr(III). As such, no further investigation of chromium is warranted in this subdrainage area.

1.3.3 Polycyclic Aromatic Hydrocarbons

Consistent with *Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures* (USEPA 2003), equilibrium partitioning (EQP) analysis was used to evaluate the bioavailability of PAHs in sediment under given sediment conditions. EQP analysis requires analysis of 17 parent and 17 alkylated family

PAHs (34 total constituents) to develop ESB toxic units (ESBTUs) to predict constituent concentrations in sediment interstitial (pore) water based on equilibrium partitioning between sediment organic carbon and water (USEPA 2003).

The 34-PAH ESBTU is calculated as follows:

$$\sum ESBTU_{FCV} = \sum_{i} \frac{C_{OC,PAHi}}{C_{OC,PAHi,FCVi}}$$

Where,

FCV = Final Chronic Value

$C_{OC,PAHi}$ = organic carbon-normalized concentration of an individual PAH in sediment

$C_{OC,FCVi}$ = the critical organic carbon-normalized concentration of a PAH in sediment, as determined by the FCV

FCVs presented in USEPA (2003) represent ESB toxicity endpoints for PAHs derived using National Water Quality Criteria Guidelines (Stephan et al. 1985).

The historical SI/RI dataset contained results only for 13 priority pollutant PAHs (parent PAHs) and required the application of a 95% uncertainty factor (95%UF) to calculate ESBTUs in eight subdrainage areas targeted for further evaluation in the ERAWP (KJ 2016a).

The 95%UF of 11.5 (Table 6-1 of USEPA 2003) used in the 13-PAH ESBTUs is calculated as follows:

$$\frac{\Sigma ESBTU_{FCV,TOT}}{\Sigma ESTBTU_{FCV,13}}$$

Where,

$\sum ESBTU_{FCV,TOT}$ = the summation of FCV-based ESBTUs for a 34-PAH (total) mixture

$\sum ESBTU_{FCV,13}$ = the summation of FCV-based ESBTUs for a 13-PAH mixture

ESBTUs calculated using the 95%UF are presented in the Updated SSRP (**Attachment 9**).

Further, the Updated SSRP back-calculated a 13-PAH ESBTU benchmark of 8.83 that equated to a 34-PAH ESBTU of 1. This value was initially calculated through comparison to the Central Drainage Basin 34-PAH dataset. Initial PAH ESBTUs calculated using the SI/RI dataset were compared to ESBTUs calculated for the Central Drainage Basin, where ESBTUs were calculated using both the full 34 PAH dataset and the 13 PAH dataset with 95%UF to provide context and account for the overestimation of the 95%UF.

During ERASSM implementation, sediment samples were collected for analysis of 34 PAHs to refine PAH speciation and exposure estimates within subdrainage areas identified to have uncertain risk in the Updated SSRP. Supplemental sediment sampling for 34-PAH analysis was performed in three Southern subdrainage areas targeted for risk refinement, including:

- Maintenance – Dynamite Area – East (**Fig C.3**)
- Maintenance – Dynamite Area – West (**Fig C.2**)

- Miscellaneous Offsite Streams – Lower (**Fig C.6**)

These samples were used to confirm the benchmark value calculated for the Central Drainage Basin. In subdrainage areas where samples for 34-PAH analysis were not collected, the 13-PAH ESBTU benchmark value is used.

Results of this evaluation are presented in **Tables C.3 through C.5** and summarized in the table below.

Aquatic Exposure Areas Sediment PAHs Equilibrium-Partitioning Ecological Screening Benchmark Toxic Unit (ESBTU)			
Drainage Area	**Subdrainage Area**	**ESBTU Benchmark[a]**	**Maximum ESBTU**
SDA	Central Drainage Basin (ESBTU Benchmark Reference)	8.83 / 1	NA
	Maintenance Dynamite Area - East	1	0.01
	Maintenance Dynamite Area - West	1	0.37
	Miscellaneous Offsite Streams – Lower	1	**1.26**

As shown above, results of EqP PAH mixtures analyses indicate that potential risk to benthic invertebrates is possible (i.e., 34-PAH ESBTU greater than 1) in Miscellaneous Offsite Streams – Lower. A dataset evaluation was completed for Miscellaneous Offsite Streams – Lower to better understand the basis for this ESBTU. Two 34-PAH samples were collected within this subdrainage area – one at SD-ERA-B16-MOSL-01 with an ESBTU of 1.26, and one at SD-ERA-C15-MOSL-01 with an ESBTU of 0.01. SD-ERA-B16-MOSL-01 is located adjacent to Rt 46, and the elevated ESBTU appears attributable to run-on from offsite sources. Therefore, this localized elevated ESBTU is attributable to offsite sources and PAHs in sediment throughout the Miscellaneous Offsite Streams – Lower subdrainage area do not warrant further evaluation.

1.3.4 AVS/SEM

In the presence of adequate quantities of sulfide, divalent metals (i.e., Cd, Cu, Pb, Ni, Zn) bind in sulfide complexes and are not bioavailable. In the absence of sufficient sulfide (or excess metals), metals will bind to organic carbon as well. A comparison of sulfide and organic carbon content relative to divalent metals concentrations can be used as an indicator of potential bioavailability, and toxicity, to benthic communities (ITRC 2011). This method gives a better indication of sediment toxicity to benthic organisms than total metals sampling by measuring the bioavailable fraction of metals present. Ratios less than 130 micromoles per gram organic carbon (µmoles/gOC) indicate that toxicity to the benthic community is unlikely; between 130 and 3,000 µmoles/gOC indicate that toxicity is possible, and over 3,000 µmoles/g indicate that toxicity is likely (USEPA 2005).

During the July 2019 sampling event, three sediment samples and one duplicate sample in the Maintenance Dynamite Area – East were analyzed for AVS/SEM. Results of AVS/SEM analysis are provided in **Tables C.1 and C.6** and summarized in the table below.

Sediment Acid-Volatile Sulfide/Simultaneously Extracted Metals Summary		
Drainage Area	Subdrainage Area	Maximum (∑SEM-AVS)/fOC
		µM/gOC
Southern	Maintenance Dynamite Area - East	43.5

Notes: µM/gOC - micromoles per gram organic carbon, fOC – fraction organic carbon

Results of AVS/SEM analysis provide an additional LOE regarding potential risk to benthic invertebrate communities in Maintenance Dynamite Area – East, indicating that potential toxicity to benthic communities is unlikely in this subdrainage area. Thus, no further evaluation is warranted.

1.3.5 Benthic Invertebrate Community Diversity Indices

Benthic community analysis of flowing and non-flowing aquatic habitat relied on common statistical metrics and the NJDEP's high gradient macroinvertebrate index (HGMI). Specific information regarding each analysis follows:

- Shannon-Weiner Diversity Index (H') – measures diversity within the benthic invertebrate community. Typical H' values fall between 1.5 and 3.5 and increase as both the richness and the evenness of the community increases. A lower (closer to 0) H' value indicates a lower level of diversity. Inversely, a higher H' value indicates a greater number of species within the community and a more even distribution of the number of individuals across species.

- Pielou's Species Evenness Index (J') – measures evenness within the benthic invertebrate community. The J' value is constrained between 0 and 1. A lower J' value (closer to 0) indicates less evenness between species in communities and the likely presence of a dominant species. A higher J' (closer to 1) value indicates less variation, and thus greater continuity or evenness, in communities between the species.

- Abundance – measures the number of individuals in each benthic invertebrate community sample. In this case, abundance is calculated by averaging the number of individuals in the replicates across each individual sample location.

- Effective Number of Species (ENS) – measures the number of equally-common species within a community. The ENS represents the real biodiversity and allows for comparison of biodiversity with other communities

The following metrics (Ludwig & Reynolds 1988) were calculated for each benthic invertebrate community sample location as follows:

$$H' = -\sum_{i=1}^{m} (n/N) * \ln(n/N)$$

Where,

n = number of individuals per taxon
N = total number of individuals
m = number of taxa

$$J' = H'/\ln(S)$$

Where,

S = number of species in the benthic invertebrate community sample

And,

$$ENS = e^{H'}$$

The HGMI was calculated at each sample location according to NJDEP's *Standard Operating Procedures Ambient Biological Monitoring Using Benthic Macroinvertebrates* (2007). The HGMI is an indication of water quality that is based on richness and abundance of pollution intolerant and tolerant species. As such, the greater the HGMI score, the higher the quality of the waterbody is expected to be. The assessment rating system is as follows:

HGMI Assessment Rating	Score
Excellent	≥63
Good	<63 - 42
Fair	<42 - 21
Poor	<21

Calculated benthic invertebrate biodiversity indices for flowing and non-flowing aquatic habitat are provided in **Tables C.7 and C.8**, respectively. The table below presents benthic invertebrate community metrics and HGMI scores for flowing and non-flowing aquatic habitat, as applicable**.**

Benthic Invertebrate Biodiversity Indices						
Drainage Area	Subdrainage Area	HGBI	H'	J'	ENS	Abundance
		Lower Bound				
Flowing Aquatic Habitat						
SDA	Development Area Stream (Reference)	20.1	3.52	0.68	34.0	32.0
	Central Drainage Basin	25.2	**1.45**	**0.35**	**4.26**	65.0
	Maintenance Dynamite Area - West	22.0	**2.46**	**0.57**	**11.6**	178.3
	Maintenance NG Area	**14.1**	**1.64**	**0.39**	**5.22**	74.0
	TNT-PETN-NG Ditches	26.4	3.60	0.77	36.4	54.0
Non-flowing Aquatic Habitat						
NDA	Northeast Ponds (Reference)	19.5	1.93	0.48	6.86	181.7
SDA	**Unnamed Ponds**	**7.65**	**1.72**	**0.37**	**5.59**	**37**
	Central Drainage Basin	25.2	**1.45**	**0.35**	**4.26**	**65**

Notes: Bolded values indicate biodiversity indices below Facility-specific flowing or non-flowing habitat reference lower bound.

Comparison of benthic invertebrate samples identified benthic invertebrate communities with Shannon-Weiner Diversity Index scores lower than those represented by reference locations, including flowing aquatic habitat samples in the Maintenance NG Area, Maintenance Dynamite Area – West, and Central Drainage Basin) and non-flowing aquatic habitat samples in the Central

Drainage Basin and Unnamed Ponds, though HGBI scores were lower than reference locations only at Maintenance NG Area within the flowing aquatic habitat. These results provide an additional LOE regarding potential risk to benthic invertebrates.

1.4 Conclusions

Results of the 2016 EE/ERA (Hercules 2016a), ERAWP desktop evaluation (Hercules 2016b), and Updated SSRP (**Attachment 9** to the ERA) guided development of the Aquatic ERASSM (**Attachment 10** to the ERA) and subsequent implementation. As such, results of Aquatic ERASSM implementation supplemented multiple LOEs regarding potential risk to benthic invertebrates. Lines of evidence evaluated from 2016 to 2025 are incorporated in EE/ERA exposure assumptions, where applicable (see Section 5 of the EE/ERA), and risk characterization of benthic invertebrate communities (see Section 7 of the EE/ERA).

Tables 4-10 and 4-11 of the EE/ERA track COPEC progression through the various evaluation methods and the weight-of-evidence (WOE) for risk to benthic invertebrate communities in each subdrainage area are summarized in the following sections.

1.4.1 Northern Subdrainage Area Results Summary

The table below summarizes the results of multiple LOEs for each NDA subdrainage area.

NDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation						
Risk Evaluation Method	**Notes**	**Unnamed Ponds**	**Duck Pond**	**Eastern Tributary**	**Western Tributary**	**Northeast Ponds**
ESC Screen	a	+	+	+	+	+
Background Arsenic Threshold	c	+	-	NA	NA	NA
Mercury Study Comparison	c	+	-	NA	-	NA
Total and Dissolved MeHg	b	+	NA	NA	NA	NA
EqP PAH Analysis	b,c	-	-	NA	NA	-
AVS/SEM and Surrogate TOC%	b,c	-	-	-	-	-
Biological Community Indices	b	+	NA	NA	NA	R
Risk Drivers	-	As, Hg	None	None	None	None
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**N**	**N**

+ = potential unacceptable risk, retained as a COPEC; - = acceptable risk, not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Hg = mercury; MeHg = methylmercury
[a]Evaluated in Appendix F of KJ (2016) (**Attachment 1**)
[b]Evaluated during ERASSM implementation
[c]Evaluated in Updated SSRP (**Attachment 9**)

As shown above, the WOE in the NDA subdrainage areas indicates acceptable risk within four subdrainage areas. Alternatively, the WOE for the Unnamed Ponds indicates potential unacceptable risk for arsenic and mercury in sediment. Additional investigation into Unnamed Ponds for these COPECs is recommended.

1.4.2 Southern Subdrainage Area Results Summary

The table below summarizes the results of supplemental LOEs for each SDA subdrainage area.

SDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation					
Risk Evaluation Method	**Notes**	**Central Drainage Basin**	**Development Area Stream**	**Maintenance Dynamite Area - East**	**Maintenance Dynamite Area - West**
ESC Screen	a	+	+	+	+
Background Arsenic Threshold	c	+	-	NA	+
Mercury Study Comparison	c	+	-	-	+
Total and Dissolved MeHg	b	NA	NA	-	-
Chromium Speciation	b	NA	NA	-	NA
EqP PAH Analysis	b,c	R	-	-	-
AVS/SEM and Surrogate TOC%	b,c	-	-	-	-
Biological Community Indices	b	+	R	NA	+
Risk Drivers	-	As, Pb, Hg	None	None	As, Pb, Hg
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**Y**

+ = potential unacceptable risk, retained as a COPEC; - = acceptable risk, not retained as a COPEC; NA = not analyzed; R = reference location; As = arsenic; Pb = lead; Hg = mercury; MeHg = methylmercury
[a]Evaluated in Appendix F of KJ (2016) (**Attachment 1** to the ERA)
[b]Evaluated during ERASSM implementation
[c]Evaluated in Updated SSRP (**Attachment 9** to the ERA)

SDA Subdrainage Areas - Benthic Invertebrate Risk Evaluation Cont.					
Risk Evaluation Method	**Notes**	**Maintenance NG Area**	**Misc. Offsite Streams - Lower**	**Misc. Offsite Streams - Upper**	**TNT-PETN-NG Ditches**
ESC Screen	a	+	+	+	+
Background Arsenic Threshold	c	+	NA	-	+
Mercury Study Comparison	c	+	NA	-	-
EqP PAH Analysis	b,c	-	-	NA	-
AVS/SEM and Surrogate TOC%	b,c	-	-	-	-
Biological Community Indices	b	+	NA	NA	-
Risk Drivers	-	As, Ag, Hg	None	None	None
Additional Investigation? (Y/N)	**-**	**Y**	**N**	**N**	**N**

+ = potential unacceptable risk, retained as a COPEC; - = acceptable risk, not retained as a COPEC; NA = not analyzed; As = arsenic; Ag = silver; Pb = lead; Hg = mercury; MeHg = methylmercury
[a]Evaluated in Appendix F of KJ (2016) (**Attachment 1** to the ERA)
[b]Evaluated during ERASSM implementation
[c]Evaluated in Updated SSRP (**Attachment 9** to the ERA)

The WOE in SDA subdrainage areas indicates acceptable risk within five subdrainage areas. Alternatively, the WOE for the Central Drainage Basin, Maintenance NG Area, and Maintenance – Dynamite Area - West indicates potential unacceptable risk for arsenic, lead, mercury, and/or silver

in sediment. Additional investigation into these SDA subdrainage areas for these COPECs is recommended.

References

KJ. 2016a. Ecological Evaluation/Ecological Risk Assessment. Phase II Remedial Investigation Report – Volume F. Prepared for Hercules Incorporated. Simmonds Precision Incorporated Site. Chester, New Jersey. Prepared on behalf of Hercules Inc. June.

KJ. 2016b. Ecological Risk Assessment Work Plan. Appendix F of Phase II Remedial Investigation Report – Volume F. Prepared for Hercules Incorporated. Simmonds Precision Incorporated Site. Chester, New Jersey. Prepared on behalf of Hercules Inc. June.

Ludwig J. and Reynolds J. 1988. Statistical Ecology: A Primer on Methods and Computing. John Wiley & Sons, Inc. ISBN 0-471-83235-9.

NJDEP. 2005. Field Sampling Procedures Manual. August.

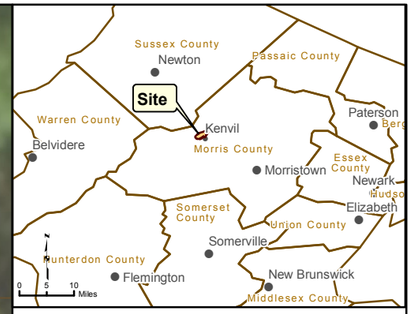
NJDEP. 2007. NJDEP's Standard Operating Procedures Ambient Biological Monitoring Using Benthic Macroinvertebrates. Document No. BMNJ2. Revised December 2007.

ITRC. 2011. Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites. CS-1. Washington, D.C.: Interstate Technology & Regulatory Council, Contaminated Sediments Team. www.itrcweb.org.

USEPA. 2003. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures. EPA-600-R-02-013. Office of Research and Development. Washington, DC 20460. November.

Stephan, C.E., Mount, D.I., Hansen, D.J., Gentile, J.H., Chapman, G.A., and W.A. Brungs. 1985. Guidelines for deriving numerical national water quality criteria for the protection of aquatic organisms and their uses. PB85- 227049. National Technical Information Service, Springfield, VA.

Figures



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road

2017 Sample Locations

- Colocated Sediment and Surface Water Sample
- Tissue - Composited Samples

2019 Sample Locations

- Colocated benthic community & surface water sample

N

0 10 20 40
Feet

HERCULES LLC
KENVIL WORKS FACILITY KENVIL, NEW JERSEY

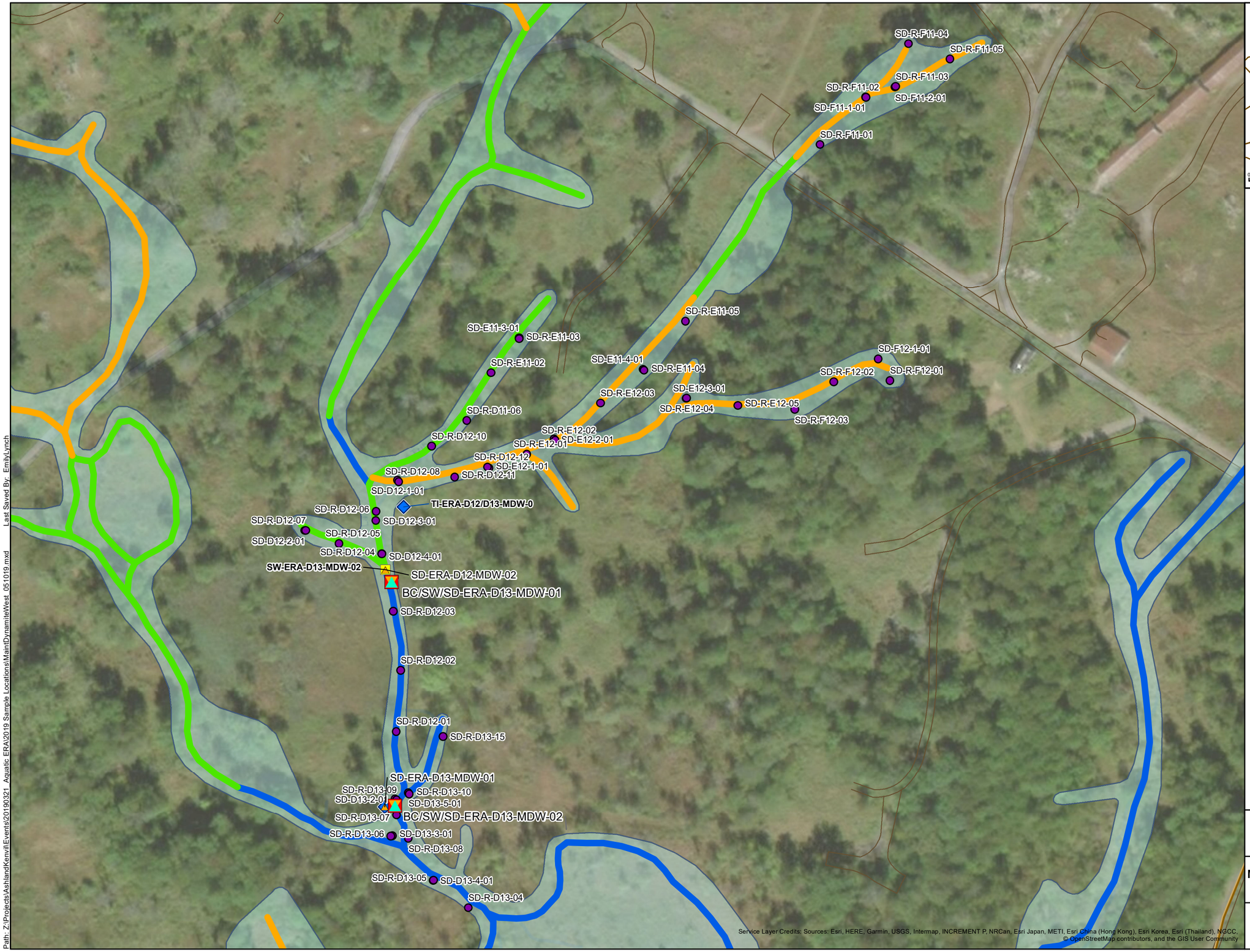
AQUATIC ERASSM IMPLEMENTATION

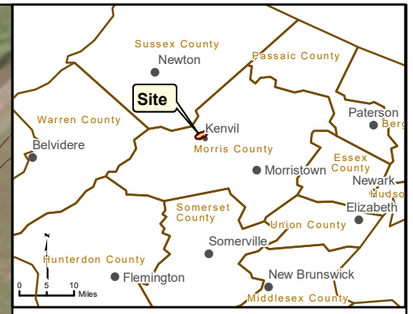
UNNAMED PONDS SAMPLE LOCATIONS

HERCULES

FIGURE
C.1

Path: Z:\Projects\Ashland\KenvilEvents\20190321_Aquatic ERA\2019 Sample Locations\UnnamedPonds_051019.mxd Last Saved By: EmilyLynch





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Surface Water Samples
- Tissue - Composited Samples
- 2017 Sediment Samples

2019 Sample Locations

- Colocated benthic community, surface water, and sediment sample

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 40 80 160
Feet

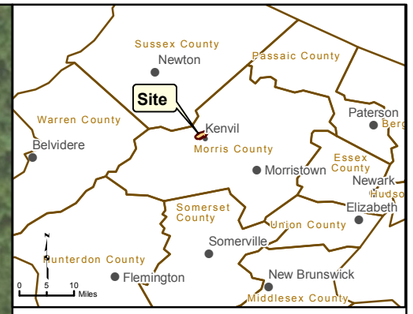
HERCULES LLC
KENVIL WORKS FACILITY KENVIL, NEW JERSEY
AQUATIC ERASSM IMPLEMENTATION

MAINTENANCE - DYNAMITE AREA - WEST SAMPLE LOCATIONS

HERCULES

FIGURE
C.2

Path: Z:\Projects\AshlandKenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\MaintDynamiteWest_051019.mxd Last Saved By: EmilyLynch



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Surface Water Samples
- Tissue - Composited Samples
- Tissue - Non-Composited Samples

2019 Sample Locations

- Sediment

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 50 100 200
Feet

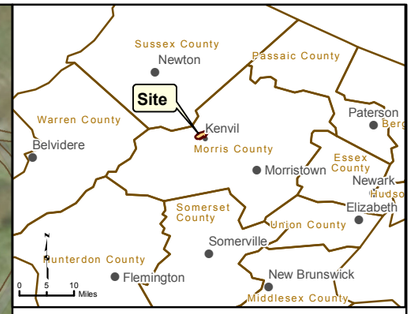
HERCULES LLC
KENVIL WORKS FACILITY KENVIL, NEW JERSEY
AQUATIC ERASSM IMPLEMENTATION

MAINTENANCE - DYNAMITE AREA - EAST SAMPLE LOCATIONS

HERCULES

FIGURE
C.3

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\Maint\DynamiteEast_051019.mxd Last Saved By: EmilyLynch



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Sediment Samples
- Tissue - Non Composited Samples

2019 Sample Locations

- Benthic Community

Stream Channels

- Flowing Water
- Intermittent
- Dry

0 35 70 140
Feet

HERCULES LLC
KENVIL WORKS FACILITY KENVIL, NEW JERSEY

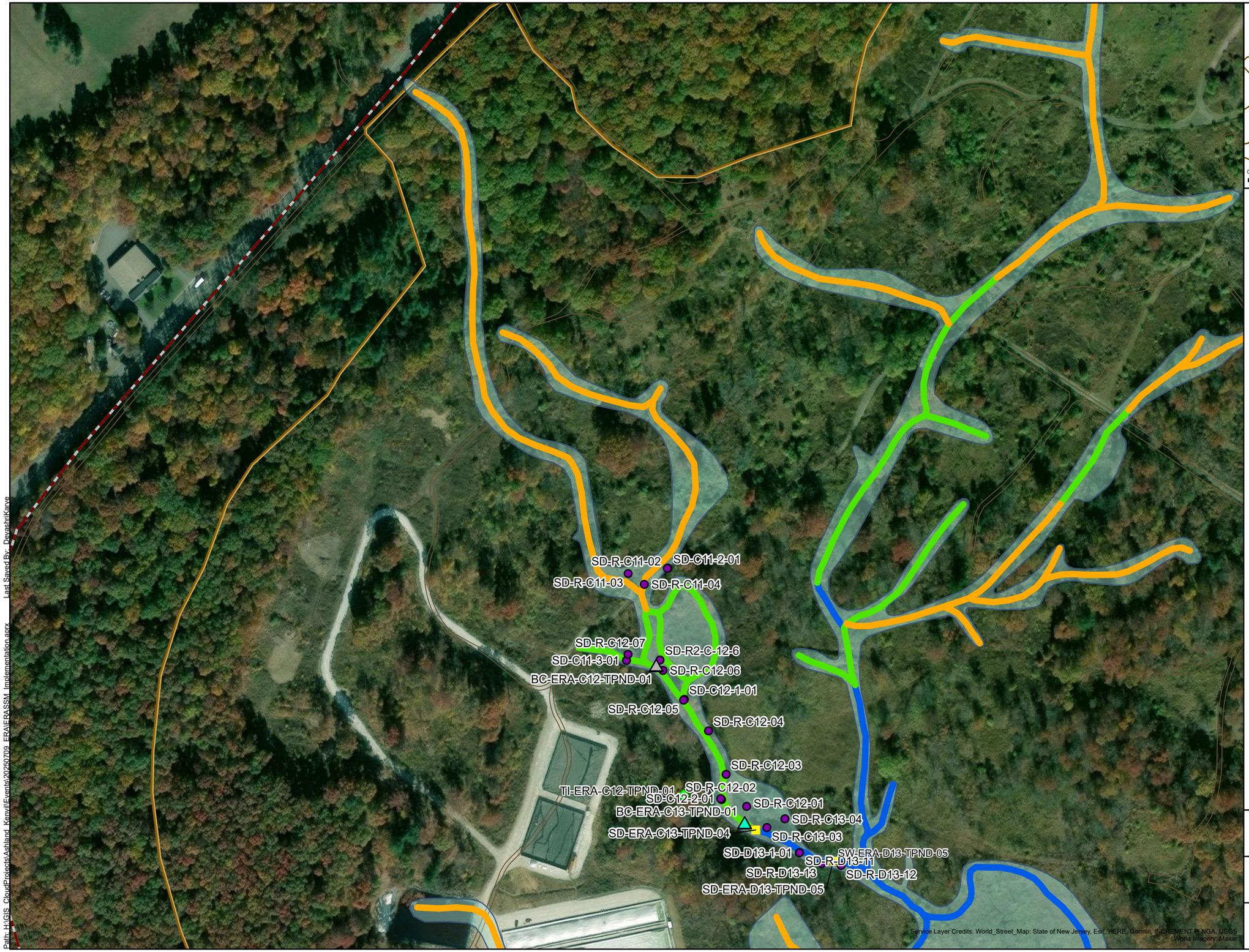
AQUATIC ERASSM IMPLEMENTATION

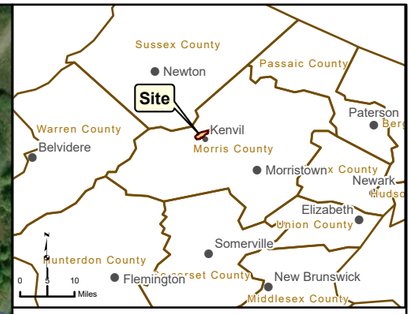
MAINTENANCE-NG AREA SAMPLE LOCATIONS

HERCULES

FIGURE
C.4

Path: Z:\Projects\AshlandKenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\MaintenanceNGArea_051019.mxd Last Saved By: EmilyLynch





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Road
- Stream/Water Feature
- Historical Sediment Samples

2017 Sample Locations

- Surface Water Samples
- Tissue - Non-Composited Samples
- Sediment Samples

2019 Sample Locations

- Not Sampled
- Benthic Community

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 60 120 240
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

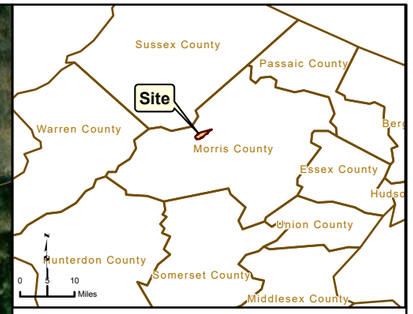
AQUATIC ERASSM IMPLEMENTATION

TNT - PETN - NG DITCHES SAMPLE LOCATIONS

HERCULES

FIGURE
C.5

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERASSM_Implementation.aprx Last Saved By: DevashriKarve



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2019 Sample Locations

- Sediment

Stream Channels

Category

- Flowing Water
- Intermittent
- Dry

N

0 50 100 200

Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

AQUATIC ERASSM IMPLEMENTATION

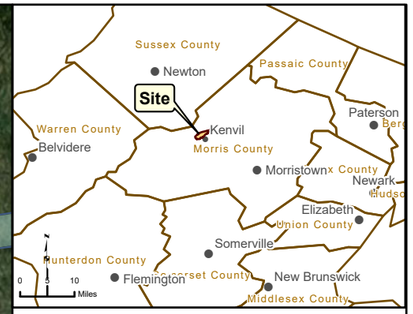
MISCELLANEOUS OFFSITE STREAMS - LOWER

HERCULES

FIGURE
C.6

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERASSM_Implementation.aprx Last Saved By: DevashriKarve

SD-R-D13-14
SD-ERA-D13-CDB-03
SD-D13-6-01
SD-R-D13-03
BC-ERA-E13-CDB-01
TI-ERA-D13-CDB-01
SD-ERA-D13-CDB-02
SD-ERA-E13-CDB-04
SD-R-D13-01
SD-R-D13-02
BC-ERA-D14-CBD-01A
SD-ERA-E14-CDB-05
SD-R-E14-04
SD-ERA-E14-CDB-07
SD-R2-D-14-1
BC-ERA-D14-CDB-01
SD-D14-2-01
SD-ERA-E14-CDB-06
SD-ERA-D14-CDB-01
SD-R-D14-05
SD-R-D14-01
SD-D14-1-01
TI-ERA-E14-CDB-02
SD-R-D14-06
SD-R-E14-03
SD-ERA-D14-CDB-08
SD-R-D14-04
SD-R-D14-02
SD-R-E14-02
TI-ERA-D14-CDB-03
SD-ERA-D14-CDB-09
SD-R-D14-03
SD-ERA-E14-CDB-10
SD-R-E14-01
SD-E14-1-01
SD-R2-E-13-1



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Road
- Stream/Water Feature
- Historical Sediment Samples

2019 Sample Locations

- Benthic Community
- Not Sampled

2017 Sample Locations

- Sediment Samples
- Tissue - Non-Composited-Samples
- Tissue - Composited Samples

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 25 50 100
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

AQUATIC ERASSM IMPLEMENTATION

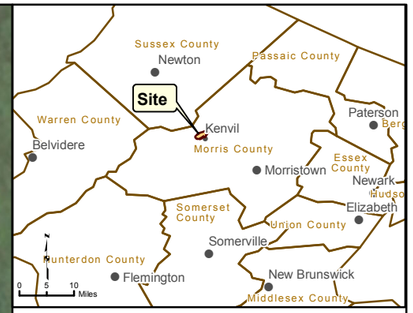
CENTRAL DRAINAGE BASIN SAMPLE LOCATIONS

HERCULES

FIGURE
C.7

Service Layer Credits: World_Street_Map: State of New Jersey, Esri, HERE, Garmin, INCREMENT P, NGA, USGS | World Imagery: Maxar, Microsoft

Path: H:\GIS_Cloud\Projects\Ashland_Kenvil\Events\20250709_ERA\ERASSM_Implementation.aprx Last Saved By: DevashriKarve



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Historical Sediment Samples

2019 Sample Locations

- Benthic Community Reference Samples

N

0 40 80 160
Feet

HERCULES LLC
KENVIL WORKS FACILITY KENVIL, NEW JERSEY

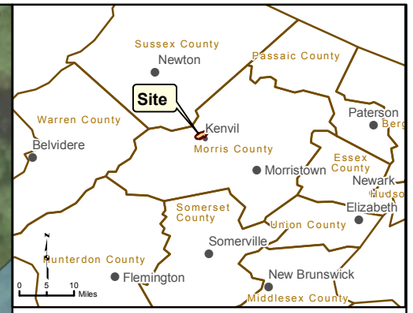
AQUATIC ERASSM IMPLEMENTATION

NORTHEAST PONDS SAMPLE LOCATIONS

HERCULES

FIGURE
C.8

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\NortheastPondsREF_051019.mxd Last Saved By: EmilyLynch



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Pond
- Road
- Historical Sediment Samples

2019 Sample Locations

- Benthic Community Reference Samples

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 35 70 140
Feet

HERCULES LLC
KENVIL WORKS FACILITY KENVIL, NEW JERSEY
AQUATIC ERASSM IMPLEMENTATION

DEVELOPMENT AREA STREAM

HERCULES

FIGURE
C.9

Path: Z:\Projects\Ashland\Kenvil\Events\20190321 Aquatic ERA\2019 Sample Locations\DevAreaStreamREF 051019.mxd Last Saved By: EmilyLynch

Tables

Table C.1
Sediment Analytical Results - August 2019
Kenvil Works Facility
Kenvil, New Jersey

			Location	SD-ERA-B16-MOSL-01	SD-ERA-C15-MOSL-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-02	SD-ERA-F13-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-G12-MDE-01
			Sample Date	7/31/2019	7/31/2019	7/30/2019	7/30/2019	7/31/2019	7/31/2019	7/31/2019	7/31/2019
			Sample Depth	0.0-0.5 ft bgs	0.0-0.5 ft bgs	0.0-0.5 ft bgs	0.0-0.5 ft bgs	0.0-0.5 ft bgs	0.0-0.5 ft bgs	0.0-0.5 ft bgs	0.0-0.5 ft bgs
			Sample ID	SD-ERA-B16-MOSL-01(00.0-00.5)	SD-ERA-C15-MOSL-01(00.0-00.5)	SD-ERA-D13-MDW-01(00.0-00.5)	SD-ERA-D13-MDW-02(00.0-00.5)	SD-ERA-F13-MDE-01(00.0-00.5)	BD073119	SD-ERA-F14-MDE-01(00.0-00.5)	SD-ERA-G12-MDE-01(00.0-00.5)
			Parent ID						SD-ERA-F14-MDE-01(00.0-00.5)		
			Notes	MISC OFFSITE STREAM - LOWER	MISC OFFSITE STREAM - LOWER	MAINT-DYNAMITE AREA - WEST	MAINT-DYNAMITE AREA - WEST	MAINT-DYNAMITE AREA - EAST	MAINT-DYNAMITE AREA - EAST	MAINT-DYNAMITE AREA - EAST	MAINT-DYNAMITE AREA - EAST
Chemical	Units	ESC									
CALC											
Percent Moisture	%			22	63.7	76.3	78.8	82.5	15.7	18.8	55.2
Field											
pH	SU			7.15	7.26	6.84	6.79	6.61	7.99	7.77	7.31
GenChem											
Acid Volatile Sulfide	umol/g			NA	NA	NA	NA	26	< 0.63 U	< 0.63 U	< 0.63 U
Grain Size											
Sieve Size 0.001 mm	% PASSING			1	2	1	4	NA	NA	1	3
Sieve Size 0.002 mm	% PASSING			1	2	3	5	NA	NA	1	4
Sieve Size 0.005 mm	% PASSING			1	2	6	17	NA	NA	1	5
Sieve Size 0.02 mm	% PASSING			1	7	8	13	NA	NA	1	10
Sieve Size 0.05 mm	% PASSING			4.5	14	13	20	NA	NA	1	11
Sieve Size 0.064 mm	% PASSING			10	18	18	29	NA	NA	0.5	10
Sieve Size 0.075 mm	% PASSING			11.9	20.6	20.2	33.7	NA	NA	0.54	10.8
Sieve Size 0.15 mm	% PASSING			14.5	29.6	40.5	55.4	NA	NA	0.65	20.9
Sieve Size 0.3 mm	% PASSING			27.2	46.6	66.5	78.3	NA	NA	5.2	48.9
Sieve Size 0.6 mm	% PASSING			45.6	72.6	78.9	92.5	NA	NA	20.3	71.8
Sieve Size 1.18 mm	% PASSING			63.6	94	83.5	98.7	NA	NA	39.2	85.9
Sieve Size 19 mm	% PASSING			100	100	100	100	NA	NA	100	100
Sieve Size 2.36 mm	% PASSING			85.1	99.8	85.5	100	NA	NA	78.8	86.7
Sieve Size 3.35 mm	% PASSING			91	100	89.2	100	NA	NA	86.8	86.8
Sieve Size 37.5 mm	% PASSING			100	100	100	100	NA	NA	100	100
Sieve Size 4.75 mm	% PASSING			95.3	100	92.9	100	NA	NA	93.8	87
Sieve Size 75 mm	% PASSING			100	100	100	100	NA	NA	100	100
Metals											
Cadmium	µmol/g			NA	NA	NA	NA	0.00325 B	0.000454 B	0.000706 B	0.00199
Chromium	mg/kg	26		NA	NA	NA	NA	31.6	7.41	6.42	17.5
Chromium III	mg/kg			NA	NA	NA	NA	31.6	7.4	6.4	17.5
Chromium, Hexavalent	mg/kg			NA	NA	NA	NA	< 0.80 U	< 0.17 U	< 0.17 U	< 1.6 U
Copper	µmol/g			NA	NA	NA	NA	0.102	0.0125	0.141	0.145
Lead	µmol/g			NA	NA	NA	NA	0.77	0.0787	0.0912	0.624
Mercury	µmol/g			NA	NA	NA	NA	< 0.000023 U	0.000139	0.000128	0.00016
Nickel	µmol/g			NA	NA	NA	NA	0.0782	0.00973	0.674	0.0396
Zinc	µmol/g			NA	NA	NA	NA	1.39	0.249	0.283	0.383
SVOCs - SIM											
Acenaphthene	µg/kg	16		34	< 0.7 U	< 2.8 U	5.2 J	7.0 J	< 7.9 U	0.9 J	48
Acenaphthylene	µg/kg	44		43	1.4 J	4.3 J	8	37	< 7.9 U	9.5	150
Anthracene	µg/kg	220		110	1.7	5.9 J	14	73	12 J	11	280
Benzo(e)pyrene	µg/kg	320		360	7.2	16	28	300	20	17	600
Benzo[a]anthracene	µg/kg	370		520	7.9	20	38	220	33	26	1000
Benzo[a]pyrene	µg/kg	10,400		490	8.4	18	77	260	28	23	820
Benzo[b]fluoranthene	µg/kg			420	8.8	19	38	430	20	19	740
Benzo[g,h,i]perylene	µg/kg	170		350	7.4	15	24	180	16 J	15	540
Benzo[k]fluoranthene	µg/kg	240		420	7.4	18	31	300	28	20	800
C1-Benzanthrene/chrysenes	µg/kg			400	6.5	17	34	210	26	24	730
C1-Fluoranthrenes/pyrenes	µg/kg			520	7.8	< 2.8 U	24	280	42	30	970
C1-Fluorenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	< 0.8 U	91
C1-Naphthalenes	µg/kg			13 J	1.0 J	3.3 J	11	16	< 7.9 U	5	51
C1-Phenanthrenes/anthracenes	µg/kg			290	4.3	< 2.8 U	< 3.1 U	< 3.8 U	38	33	1100
C2-Benzanthrene/chrysenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	17	< 3.8 U	< 7.9 U	< 0.8 U	< 15 U
C2-Fluorenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	< 0.8 U	< 15 U
C2-Naphthalenes	µg/kg			32	1.9	5.3 J	14	< 3.8 U	10 J	11	150
C2-Phenanthrenes/anthracenes	µg/kg			270	4.2	18	< 3.1 U	100	29	28	680
C3-Benzanthrene/chrysenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	< 0.8 U	< 15 U
C3-Fluorenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	< 0.8 U	< 15 U
C3-Naphthalenes	µg/kg			45	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	16	180
C3-Phenanthrenes/anthracenes	µg/kg			130	< 0.7 U	11	< 3.1 U	57	15 J	14	280
C4-Benzanthrene/chrysenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	< 0.8 U	< 15 U
C4-Naphthalenes	µg/kg			42	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	8.6	87
C4-Phenanthrenes/anthracenes	µg/kg			< 8.5 U	< 0.7 U	< 2.8 U	< 3.1 U	< 3.8 U	< 7.9 U	< 0.8 U	< 15 U
Chrysene	µg/kg	340		630	11	23	45	450	39	31	1200
Dibenzo[a,h]anthracene	µg/kg	60		83	1.6 J	4.1 J	7.1 J	54	< 7.9 U	3.9	150
Fluoranthene	µg/kg	750		1000	13	32	64	360	66	40	2000
Fluorene	µg/kg	190		36	< 0.7 U	< 2.8 U	< 3.1 U	8.8 J	< 7.9 U	1.2 J	110
Indeno[1,2,3-cd]pyrene	µg/kg	200		370	7.7	16	26	210	19 J	16	630
Naphthalene	µg/kg			16 J	2.9	4.4 J	14	380	< 7.9 U	3	37 J
Perylene	µg/kg			120	5.9	8.5	14	82	< 7.9 U	5.6	210
Phenanthrene	µg/kg	560		430	7.3	11	27	120	41	26	1500
Pyrene	µg/kg	490		950	12	26	65	380	62	39	1800
Total Organic Carbon											
Total Organic Carbon	mg/kg			8310	19700	113000	85200	184000	5460	20100	61000

Notes:
% = percent
µmol/g = micromole per gram
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
Shaded concentrations exceed NJDEP Sediment Ecological Screening Criteria (ESC)
Lab Qualifier:
B = Estimated value; the result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
J = Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.

Table C.2
Surface Water Analytical Results - August 2019
Kenvil Works Facility
Kenvil, New Jersey

		Sample ID	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-ERA-N7-UP-02	BD073019A	SW-ERA-N7-UP-05	SW-ERA-M7-UP-01
		Sample Date	7/30/2019	7/30/2019	7/30/2019	7/30/2019	7/30/2019	7/30/2019
		Parent ID				SW-ERA-N7-UP-02		
		Notes	MAINT-DYNAMITE AREA - WEST	MAINT-DYNAMITE AREA - WEST	UNNAMED PONDS	UNNAMED PONDS	UNNAMED PONDS	MAINT-DYNAMITE AREA - EAST
Chemical	ESC	Units						
Metals								
Methylmercury	0.77	ng/L	0.378	0.165	2.03	3.11	0.486	0.051
Methylmercury, dissolved	0.77	ng/L	<0.05 U	<0.05 U	<0.05 U	<0.05 U	0.24	<0.05 U

Notes:
% = percent
µmol/g = micromole per gram
µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
ESC = NJDEP Ecological Screening Criteria
*No formal MeHg ESC are available for direct comparison, so NJDEP's surface water ESC of 0.77 µg/L for total mercury was used for comparison
Shaded concentrations exceed ESC

Lab Qualifier:
U = Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.

Table C.7
Benthic Invertebrate Biodiversity Indices - Flowing Aquatic Habitat
Kenvil Works Facility
Kenvil, New Jersey

Drainage Area	Subdrainage Area	Sample ID	HGMI	H'	J'	ENS	Abundance
Southern	Development Area Stream (Reference Location)	BC-ERA-I5-REF-01	36.2	3.52	0.68	33.9	112.7
Southern	Development Area Stream (Reference Location)	BC-ERA-I5-REF-02	20.1	3.53	0.78	34.0	32
Southern	**Central Drainage Basin**	BC-ERA-D14-CDB-01A	26.7	**1.45**	**0.35**	**4.26**	88
Southern	Central Drainage Basin	BC-ERA-E13-CDB-01	25.2	3.76	0.74	42.8	65
Southern	Maintenance - Dynamite Area - West	BC-ERA-D13-MDW-01	22.5	3.58	0.74	35.8	178.3
Southern	**Maintenance - Dynamite Area - West**	BC-ERA-D13-MDW-02	22.0	**2.46**	**0.57**	**11.6**	387.3
Southern	**Maintenance - NG Area**	BC-ERA-E10-MNG-01	**14.1**	**1.65**	**0.39**	**5.22**	81.3
Southern	**Maintenance - NG Area**	BC-ERA-E10-MNG-02	**19.6**	**2.36**	**0.54**	**10.6**	74
Southern	TNT-PETN-NG Ditches	BC-ERA-C13-TPND-01	26.4	3.6	0.77	36.4	54

Notes:

Bolded values indicate biodiversity indices below Facility-specific non-flowing habitat reference lower bound.

HGMI = High Gradient Benthic Index

H' = Shannon-Weiner Diversity Index

J' = Pielou's Species Evenness Index

ENS = Effective Number of Species

HGMI Assessment Rating:

Table C.8
Benthic Invertebrate Biodiversity Indices - Non-flowing Aquatic Habitat
Kenvil Works Facility
Kenvil, New Jersey

Drainage Area	Subdrainage Area	Sample ID	HGMI	H'	J'	ENS	Abundance
Northern	Northeast Ponds (Reference Location)	BC-ERA-Q4-REF-01	19.52	2.13	0.58	8.46	181.67
Northern	Northeast Ponds (Reference Location)	BC-ERA-R4-REF-01	24.09	1.93	0.48	6.86	209.33
Northern	**Unnamed Ponds**	BC-ERA-M7-UP-01	**7.65**	2.66	0.59	14.35	**37**
Northern	**Unnamed Ponds**	BC-ERA-N7-UP-02	25.25	**1.72**	**0.37**	**5.59**	328
Northern	Unnamed Ponds	BC-ERA-N7-UP-05	22.29	2.14	0.51	8.53	350.33
Southern	**Central Drainage Basin**	BC-ERA-D14-CDB-01A	26.66	**1.45**	**0.35**	**4.26**	**88**
Southern	**Central Drainage Basin**	BC-ERA-E13-CDB-01	25.24	3.76	0.74	42.82	**65**

Notes:

Bolded values indicate biodiversity indices below Facility-specific non-flowing habitat reference lower bound.

HGMI = High Gradient Benthic Index

H' = Shannon-Weiner Diversity Index

J' = Pielou's Species Evenness Index

ENS = Effective Number of Species

Attachments

NORMANDEAU ASSOCIATES, INC.

10 September 2019

Ms. Lora Sterner
Kennedy/Jenks Consultants, Inc.
214 Carnegie Center, Suite 103
Princeton, New Jersey 08530

CASE NARRATIVE

SUBJECT: Benthic Macroinvertebrate Sample Analysis: Hercules LLC-Kenvil Works Facility Project
(Normandeau Associates, Inc. Project Number 24368.000)

Dear Ms. Sterner:

On 5 August 2019 Normandeau Associate's Stowe, Pennsylvania Laboratory received a set of 42 sediment samples collected by Kennedy/Jenks for a benthic macroinvertebrate taxonomic analysis. Quantitative samples were collected with a Petite Ponar Grab, from a series of ponds and streams near the Kenvil Works Site in New Jersey. Fourteen sample locations were visited and three replicate grabs were taken from each location. These were analyzed under an Analytical Subcontractor Agreement dated: July 15,2019 (K/J Project No.: 1540001*64).

Methodology

The samples were analyzed according to Normandeau procedures:

- EA 5 – *Sorting of Macroinvertebrates from Sample Residue.*
- EA 6 – *Identification and Enumeration of Macroinvertebrates.*
- EA 9 – *Macroinvertebrate Subsampling.*

In the lab the sample matrices were rinsed through a 500-micron sieve and distributed into a gridded pan partially filled with water. Invertebrate specimens were then removed from the matrices under magnification and sorted by type into glass vials.

The sample matrices was processed in entirety and any sub-sampling required limited to abundant (i.e., > 100 individuals) taxonomic groups. To accomplish this, the matrices were first processed in entirety to remove specimens from all non-abundant taxa. Following this, the matrices were placed into a Folsom Splitter and divided into quarter fractions. A fraction was selected at random and specimens from abundant taxa also removed. The counts for abundant taxa were then estimated according to the amount of matrix re-processed.

The invertebrates were identified to the genus/species taxonomic end point, as their age and condition allowed using dissecting and compound microscopes. Results were entered into report-ready data tables in Excel and submitted to Kennedy/Jenks for review.

Quality Assurance/Quality Control

According to protocol, Quality Assurance/Quality Control was applied to selected samples for both the processing and taxonomic identification phases of the analysis.

For processing, randomly selected samples were independently re-sorted to determine the efficiency of both taxa and specimen removal. The results were considered acceptable if a standard of 90 percent was attained. Quality Control results are shown below:

Sample Processing (sorting):

Sample	Sample Date	Taxa	Specimens
BC-ERA-I5-REF-02-02	29 July 2019	100.0%	100.2%
BC-ERA-Q4-REF-01-01	29 July 2019	100.0%	93.8%

In addition, a Quality Assurance check was applied to nine samples where sub-sampling was conducted. This was accomplished by tallying any specimens found within non-abundant groups, from the re-sorted fraction, and then estimating the number of taxa and specimens missed according to the amount of matrix re-processed. Quality Assurance results are shown here:

Sample Processing:

Sample	Sample Date	Taxa	Specimens
BC-ERA-D13-MDW-01-01	30 July 2019	100.0%	98.3%
BC-ERA-D13-MDW-02-01	30 July 2019	100.0%	96.4%
BC-ERA-N7-UP-02-01	30 July 2019	100.0%	100.0%
BC-ERA-N7-UP-02-03	30 July 2019	100.0%	95.9%
BC-ERA-N7-UP-05-01	30 July 2019	90.9%	96.1%
BC-ERA-N7-UP-05-02	30 July 2019	100.0%	94.1%
BC-ERA-N7-UP-05-02	30 July 2019	100,0%	97.5%
BC-ERA-Q4-REF-01-02	29 July 2019	100.0%	98.0%
BC-ERA-R4-REF-01-03	29 July 2019	100.0%	100.0%

For taxonomy, selected samples were re-analyzed by a second Biologist to determine the accuracy of the identifications. The results were considered acceptable if 90 percent or more of the identifications were confirmed. Quality Control results are given here:

Sample Analysis (taxonomy):

Sample	Sample Date	Taxa	Gross Count
BC-ERA-D13-MDW-01-01	30 July 2019	100.0%	98.3%
BC-ERA-E13-CDB-01-02	1 Aug. 2019	94.7%	97.4%
BC-ERA-I5-REF-01-02	29 July 2019	100.0%	96.3%

Normandeau taxonomists are certified by the Society for Freshwater Science.

Results

A cumulative total of 120 discrete taxa was identified from the sample set (all stations/reps. combined). The data from individual stations were condensed to three metrics: 1) Richness; 2) Density; and 3) Shannon Diversity (base e).

The metric calculations produced the following ranges at individual stations (three reps. combined):

- Richness: 12 taxa at Station BC-ERA-M7-UP-01 to 37 taxa at Station BC-ERA-I5-REF-01.
- Density: 1,391/m^2 at Sta. BC-ERA-I5-REF-02 to 16,841/m^2 at Sta.BC-ERA-D13-MDW-02.
- Diversity: 0.93 at Sta. BC-ERA-D14-CDB-01A to 2.49 at Sta. BC-ERA-C13-TPND-01.

Respectively Submitted,

George M. Christian
(Senior Scientist/Laboratory Manager)

cc. file

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-C13-TPND-01**						
Sample Date:	**August 1, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
			Replicate			Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Tubificida							
Lumbriculidae							
Stylodrilus heringianus	earth worm			1	1	14	0.6%
Naididae							
Dero sp.	naiad worm			1	1	14	0.6%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	9	4	1	14	203	8.6%
Gastropoda							
Physidae							
Physella sp.	pouch snail		1	4	5	72	3.1%
Planorbidae							
Planorbella sp.	rams-horn snail	1			1	14	0.6%
Amphipoda							
Crangonyctidae							
Crangonyx sp.	side swimmer	3	3	4	10	145	6.2%
Coleoptera							
Dytiscidae	diving beetle		1		1	14	0.6%
Hydrophilidae	scavenger beetle			4	4	58	2.5%
Scirtidae							
Scirtes sp.	marsh beetle		2		2	29	1.2%
Diptera							
Cecidomyiidae	gall gnat			1	1	14	0.6%
Ceratopogonidae							
Atrichopogon sp.	sand fly		1	1	2	29	1.2%
Dasyhelea sp.	sand fly		1	1	2	29	1.2%
Palpomyia gr.	sand fly		2		2	29	1.2%
Culicidae							
Culex sp.	mosquito		1	1	2	29	1.2%
Mansonia perturbans	mosquito		15	24	39	565	24.1%
Chironomidae							
Chironomus decorus gr.	midge	3	9	5	17	246	10.5%
Chironomus plumulosus	midge			2	2	29	1.2%
Lymnophyes sp.	midge		1		1	14	0.6%
Natarsia sp.	midge			1	1	14	0.6%
Polypedilum illinoense gr.	midge	2	2	14	18	261	11.1%
Polypedilum tritum	midge		4	3	7	101	4.3%
Pseudosmittia sp.	midge		21	4	25	362	15.4%
Ephydridae	shore fly			2	2	29	1.2%
Psychodidae							
Psychoda sp.	moth fly			1	1	14	0.6%
Tipulidae							
Antocha sp.	crane fly		1		1	14	0.6%
Total Taxa		5	16	19	**25**		100.0%
Total Specimens		18	69	75	162		
Total Density (no./m^2)		783	3,000	3,261		**2,348**	
Shannon Weaver Diversity (base e)		-	-	-		**2.49**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-D13-MDW-01**						
Sample Date:	**July 30, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Tricladida							
Planariidae							
Dugesia tigrina	flat worm	1			1	14	0.2%
Megadrili	earth worm		1		1	14	0.2%
Tubificida							
Enchytraeidae	earth worm	4	1	1	6	87	1.1%
Naididae							
Nais sp.	naiad worm			1	1	14	0.2%
Tubificinae							
Aulodrilus pleuriseta	tubeworm	12	3	17	32	464	6.0%
Ilyodrilus templetoni	tubeworm	36			36	522	6.7%
Limnodrilus sp.	tubeworm		9	1	10	145	1.9%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	39	8	33	80	1,159	15.0%
Gastropoda							
Lymnaeidae							
Galba sp.	pond snail			1	1	14	0.2%
Physidae							
Physella sp.	pouch snail		2		2	29	0.4%
Amphipoda							
Gammaridae							
Gammaraus fasciatus	side swimmer	27	30	2	59	855	11.0%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	58	40	30	128	1,855	23.9%
Megaloptera							
Sialidae							
Sialis sp.	alderfly	2		2	4	58	0.7%
Trichoptera							
Limnephilidae							
Limnephilus sp.	caddisfly	4	1		5	72	0.9%
Phryganeidae							
Ptilostomis sp.	caddisfly			1	1	14	0.2%
Diptera							
Chironomidae							
Absectrotanypus johnsoni	midge			2	2	29	0.4%
Cryptochironomus fulvus gr.	midge	4			4	58	0.7%
Heterotrissocladius marcidus	midge	16		2	18	261	3.4%
Micropsectra sp.	midge	20		8	28	406	5.2%
Natarsia sp.	midge		1	1	2	29	0.4%
Orthocladiinae	midge			2	2	29	0.4%
Paratendipes albimanus	midge	28	5	14	47	681	8.8%
Prodiamesa olivacea	midge	4		2	6	87	1.1%
Thienemannimyia gr.	midge	16		9	25	362	4.7%
Tribelos jacundum	midge	26		5	31	449	5.8%
Empididae							
Chelifera sp.	dance fly			1	1	14	0.2%
Ephydridae	shore fly			1	1	14	0.2%
Tabanidae							
Chrysops sp.	deer fly		1		1	14	0.2%
Total Taxa		16	12	21	**28**		100.0%
Total Specimens		297	102	136	535		
Total Density (no./m^2)		12,913	4,435	5,913		**7,754**	
Shannon Weaver Diversity (base e)		-	-	-		**2.48**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-D13-MDW-02**						
Sample Date:	**July 30, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm		1		1	14	0.1%
Tubificinae							
Aulodrilus pleuriseta	tubeworm	28	16	20	64	928	5.5%
Limnodrilus sp.	tubeworm	20	9	26	55	797	4.7%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	20	44	68	132	1,913	11.4%
Gastropoda							
Physidae							
Physella sp.	pouch snail		3	2	5	72	0.4%
Amphipoda							
Gammaridae							
Gammaraus fasciatus	side swimmer	18		6	24	348	2.1%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	40		34	74	1,072	6.4%
Diptera							
Ceratopogonidae			1		1	14	0.1%
Chironomidae							
Macropelopia decedens	midge	4	12	6	22	319	1.9%
Micropsectra sp.	midge	16	40	36	92	1,333	7.9%
Microtendipes pedellus gr.	midge		13	12	25	362	2.2%
Prodiamesa olivacea	midge	12	9	4	25	362	2.2%
Tanypodinae	midge	8			8	116	0.7%
Thienemannimyia gr.	midge	4		2	6	87	0.5%
Tribelos jacundum	midge	236	254	134	624	9,043	53.7%
Zavrelimyia sp.	midge		1		1	14	0.1%
Tabanidae							
Chrysops sp.	deer fly			2	2	29	0.2%
Tipulidae							
Rhabdomastix sp.	crane fly		1		1	14	0.1%
Total Taxa		11	13	13	**18**		100.0%
Total Specimens		406	404	352	1162		
Total Density (no./m^2)		17,652	17,565	15,304		**16,841**	
Shannon Weaver Diversity (base e)		-	-	-		**1.70**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-D14-CDB-01A**						
Sample Date:	**August 1, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm	2	2	1	5	72	1.9%
Tubificida							
Naididae							
Dero sp.	naiad worm	1			1	14	0.4%
Tubificinae							
Limnodrilus sp.	tubeworm	2	2	1	5	72	1.9%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	18	7	5	30	435	11.4%
Gastropoda							
Physidae							
Physella sp.	pouch snail		2		2	29	0.8%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	1			1	14	0.4%
Ephemeroptera							
Baetidae							
Baetis sp.	mayfly	1			1	14	0.4%
Odonata							
Libellulidae	dragonfly	1			1	14	0.4%
Coleoptera							
Dytiscidae							
Neoporus sp.	diving beetle	1			1	14	0.4%
Diptera							
Cecidomyiidae	gall gnat	2			2	29	0.8%
Culicidae							
Mansonia perturbans	mosquito		2	1	3	43	1.1%
Chironomidae							
Chironomus decorus gr.	midge	105	38	60	203	2,942	76.9%
Kiefferulus sp.	midge			2	2	29	0.8%
Larsia sp.	midge			1	1	14	0.4%
Paramerina sp.	midge	2			2	29	0.8%
Tribelos jacundum	midge		1		1	14	0.4%
Ephydridae	shore fly	2			2	29	0.8%
Tabanidae							
Chrysops sp.	deer fly	1			1	14	0.4%
Total Taxa		13	7	7	**18**		100.0%
Total Specimens		139	54	71	264		
Total Density (no./m^2)		6,043	2,348	3,087		**3,826**	
Shannon Weaver Diversity (base e)		-	-	-		**0.93**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-E10-MNG-01**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Tubificida							
Lumbriculidae							
Stylodrilus heringianus	earth worm	2	1	1	4	58	1.6%
Naididae							
Pristinella osborni	naiad worm	2			2	29	0.8%
Tubificinae							
Aulodrilus pleuriseta	tubeworm			2	2	29	0.8%
Limnodrilus sp.	tubeworm	3			3	43	1.2%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	45	17	125	187	2,710	76.6%
Amphipoda							
Crangonyctidae							
Crangonyx sp.	side swimmer	5	2	5	12	174	4.9%
Trichoptera							
Phryganeidae							
Ptilostomis sp.	caddisfly			1	1	14	0.4%
Diptera							
Cecidomyiidae	gall gnat		2		2	29	0.8%
Chironomidae							
Chaetocladius sp.	midge			1	1	14	0.4%
Chironomus decorus gr.	midge	3	1	1	5	72	2.0%
Cryptochironomus fulvus gr.	midge	3		1	4	58	1.6%
Micropsectra sp.	midge	1			1	14	0.4%
Paratendipes albimanus	midge	1	3		4	58	1.6%
Phaenopsectra punctipes gr.	midge	1			1	14	0.4%
Procladius sp.	midge			1	1	14	0.4%
Prodiamesa olivacea	midge	2		3	5	72	2.0%
Pseudosmittia sp.	midge		1		1	14	0.4%
Thienemannimyia gr.	midge	3	2	2	7	101	2.9%
Tribelos jucundum	midge			1	1	14	0.4%
Total Taxa		12	8	12	**19**		100.0%
Total Specimens		71	29	144	244		
Total Density (no./m^2)		3,087	1,261	6,261		**3,536**	
Shannon Weaver Diversity (base e)		-	-	-		**1.15**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-E10-MNG-02**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm	2	8	1	11	159	5.0%
Tubificida							
Enchytraeidae	earth worm	1	5		6	87	2.7%
Tubificinae							
Aulodrilus pleuriseta	tubeworm	4	1		5	72	2.3%
Limnodrilus sp.	tubeworm		1	1	2	29	0.9%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	36	59	46	141	2,043	63.5%
Amphipoda							
Crangonyctidae							
Crangonyx sp.	side swimmer	1		1	2	29	0.9%
Gammaridae							
Gammaraus fasciatus	side swimmer		1		1	14	0.5%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	3	4	1	8	116	3.6%
Sialidae							
Sialis sp.	alderfly		5		5	72	2.3%
Diptera							
Cecidomyiidae	gall gnat		2		2	29	0.9%
Chironomidae							
Chironomus decorus gr.	midge		1		1	14	0.5%
Heterotrissocladius marcidus	midge			2	2	29	0.9%
Natarsia sp.	midge	3	3	3	9	130	4.1%
Paratendipes albimanus	midge		1	2	3	43	1.4%
Polypedilum scalaenum gr.	midge		2	1	3	43	1.4%
Prodiamesa olivacea	midge	4	8		12	174	5.4%
Pseudosmittia sp.	midge		2		2	29	0.9%
Thienemannimyia gr.	midge		1		1	14	0.5%
Tribelos jucundum	midge	3	1		4	58	1.8%
Trissopelopia ogemawi	midge		1		1	14	0.5%
Ephydridae	shore fly			1	1	14	0.5%
Total Taxa		9	18	10	**21**		100.0%
Total Specimens		57	106	59	222		
Total Density (no./m^2)		2,478	4,609	2,565		**3,217**	
Shannon Weaver Diversity (base e)		-	-	-		**1.49**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-E13-CDB-01**						
Sample Date:	**August 1, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
			Replicate			Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm	4	1	2	7	101	3.6%
Megadrili	earth worm	4			4	58	2.1%
Tubificida							
Enchytraeidae	earth worm		1		1	14	0.5%
Lumbriculidae							
Stylodrilus heringianus	earth worm			1	1	14	0.5%
Tubificinae							
Limnodrilus sp.	tubeworm	1			1	14	0.5%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	27	21	4	52	754	26.7%
Gastropoda							
Physidae							
Physella sp.	pouch snail	5	1	3	9	130	4.6%
Coleoptera							
Dytiscidae							
Hydroporini	diving beetle	3			3	43	1.5%
Neoporus sp.	diving beetle		1		1	14	0.5%
Hydrophilidae							
Cymbiodyta sp.	scavenger beetle			1	1	14	0.5%
Scirtidae							
Cyphon sp.	marsh beetle		2		2	29	1.0%
Scirtes sp.	marsh beetle	1	5	1	7	101	3.6%
Diptera							
Ceratopogonidae							
Culicoides sp.	sand fly		1		1	14	0.5%
Dasyhelea sp.	sand fly	1	2		3	43	1.5%
Palpomyia gr.	sand fly		1		1	14	0.5%
Corathrellidae							
Corethrella sp.	phantom midge		1		1	14	0.5%
Culicidae	mosquito		1		1	14	0.5%
Anopheles sp.	mosquito	2	3	1	6	87	3.1%
Culex sp.	mosquito	4	6	2	12	174	6.2%
Mansonia perturbans	mosquito	1	5	3	9	130	4.6%
Chironomidae							
Chironomini	midge	1			1	14	0.5%
Chironomus decorus gr.	midge		7	14	21	304	10.8%
Corynoneura sp.	midge			1	1	14	0.5%
Kiefferulus sp.	midge	2			2	29	1.0%
Micropsectra sp.	midge			4	4	58	2.1%
Paramerina sp.	midge		1		1	14	0.5%
Polypedilum scalaenum gr.	midge			3	3	43	1.5%
Polypedilum tritum	midge		1		1	14	0.5%
Zavrelimyia sp.	midge	5	15	14	34	493	17.4%
Dolichopodidae	long-legged fly			1	1	14	0.5%
Ephydridae	shore fly			1	1	14	0.5%
Tabanidae							
Chrysops sp.	deer fly			1	1	14	0.5%
Tipulidae							
Pseudolimnophila sp.	crane fly		1		1	14	0.5%
Total Taxa		14	20	17	**33**		100.0%
Total Specimens		61	77	57	195		
Total Density (no./m^2)		2,652	3,348	2,478		**2,826**	
Shannon Weaver Diversity (base e)		-	-	-		**2.48**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-M7-UP-01**						
Sample Date:	**July 30, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Tubificida							
Naididae							
Dero sp.	naiad worm	6	29		35	507	31.5%
Nais sp.	naiad worm	1			1	14	0.9%
Pristinella osborni	naiad worm		2		2	29	1.8%
Tubificinae							
Ilyodrilus templetoni	tubeworm	1	11	1	13	188	11.7%
Limnodrilus sp.	tubeworm	2	1		3	43	2.7%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam			1	1	14	0.9%
Gastropoda							
Planorbidae							
Gyraulus sp.	orb snail	4	15	13	32	464	28.8%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	6	2	1	9	130	8.1%
Coleoptera							
Dytiscidae							
Neoporus sp.	diving beetle		1		1	14	0.9%
Diptera							
Chironomidae							
Chironomini	midge	1			1	14	0.9%
Chironomus decorus gr.	midge		5		5	72	4.5%
Omisus sp.	midge	2	4	2	8	116	7.2%
Total Taxa		8	9	5	**12**		100.0%
Total Specimens		23	70	18	111		
Total Density (no./m^2)		1,000	3,043	783		**1,609**	
Shannon Weaver Diversity (base e)		-	-	-		**1.85**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-N7-UP-02**						
Sample Date:	**July 30, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm	1	1	1	3	43	0.3%
Hirudinida							
Glossiphoniidae							
Helobdella stagnalis	leech	1			1	14	0.1%
Pisicolidae							
Myzobdella lugubris	leech			1	1	14	0.1%
Naididae							
Dero nivea	naiad worm	44	17	20	81	1,174	8.2%
Nais sp.	naiad worm		3	4	7	101	0.7%
Tubificinae							
Ilyodrilus templetoni	tubeworm	88	3		91	1,319	9.2%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	1		3	4	58	0.4%
Gastropoda							
Planorbidae							
Ferrissia rivularis	limpet snail	8	1	1	10	145	1.0%
Gyraulus sp.	orb snail	268	156	285	709	10,275	72.1%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	1	1		2	29	0.2%
Odonata							
Coenagrionidae							
Enallagma sp.	damselfly	1		3	4	58	0.4%
Megaloptera							
Corydalidae							
Chauloides sp.	fishfly		1		1	14	0.1%
Trichoptera							
Leptoceridae							
Oecetis sp.	caddisfly	3		5	8	116	0.8%
Coleoptera							
Dytiscidae							
Neoporus sp.	diving beetle	3	1		4	58	0.4%
Haliplidae							
Haliplus so.	crawling beetle			1	1	14	0.1%
Hydrophilidae	scavenger beetle	7			7	101	0.7%
Diptera							
Ceratopogonidae							
Palpomyia gr.	sand fly	1		2	3	43	0.3%
Chironomidae							
Karelia sp.	midge	5	2		7	101	0.7%
Kiefferulus sp.	midge		1	7	8	116	0.8%
Laterborniella sp.	midge		2	1	3	43	0.3%
Lymnophyes sp.	midge			7	7	101	0.7%
Omisus sp.	midge	1	4		5	72	0.5%
Polypedilum tritum	midge	3	3	9	15	217	1.5%
Empididae							
Hemerodromia sp.	dance fly	1			1	14	0.1%
Tabanidae							
Chrysops sp.	deer fly			1	1	14	0.1%
Total Taxa		17	14	16	**25**		100.0%
Total Specimens		437	196	351	984		
Total Density (no./m^2)		19,000	8,522	15,261		**14,261**	
Shannon Weaver Diversity (base e)		-	-	-		**1.18**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-N7-UP-05**						
Sample Date:	**July 30, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Tubificida							
Naididae							
Bratislavia sp.	naiad worm		8		8	116	0.8%
Dero sp.	naiad worm	248	176	136	560	8,116	53.3%
Pristina sp.	naiad worm		4		4	58	0.4%
Pristinella osborni	naiad worm		4	4	8	116	0.8%
Tubificinae							
Ilyodrilus templetoni	tubeworm	4	4	4	12	174	1.1%
Planorbidae							
Gyraulus sp.	orb snail	71	56	30	157	2,275	14.9%
Odonata							
Aeschnidae							
Boyeria vinosa	dragonfly	1			1	14	0.1%
Trichoptera							
Leptoceridae							
Oecetis sp.	caddisfly	1			1	14	0.1%
Coleoptera							
Dytiscidae	diving beetle	1			1	14	0.1%
Neoporus sp.	diving beetle	1	3	1	5	72	0.5%
Haliplidae							
Peltodytes sp.	crawling beetle	1			1	14	0.1%
Hydrophilidae					0	0	0.0%
Enochrus sp.	scavenger beetle	1			1	14	0.1%
Scirtidae							
Scirtes sp.	marsh beetle		1		1	14	0.1%
Diptera							
Ceratopogonidae							
Palpomyia gr.	sand fly		1		1	14	0.1%
Chironomidae							
Chironomus decorus gr.	midge			17	17	246	1.6%
Kiefferulus sp.	midge		42	89	131	1,899	12.5%
Omisus sp.	midge	18	36	70	124	1,797	11.8%
Polypedilum tritum	midge	18			18	261	1.7%
Total Taxa		11	11	8	**19**		100.0%
Total Specimens		365	335	351	1,051		
Total Density (no./m^2)		15,870	14,565	15,261		**15,232**	
Shannon Weaver Diversity (base e)		-	-	-		**1.49**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-I5-REF-01**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm	2	2	1	5	72	1.5%
Hirudinida							
Glossiphoniidae							
Helobdella elongata	leech		1		1	14	0.3%
Megadrili	earth worm		2		2	29	0.6%
Tubificida							
Naididae							
Dero sp.	naiad worm	5			5	72	1.5%
Tubificinae							
Aulodrilus pleuriseta	tubeworm			2	2	29	0.6%
Bothriomeurun vejdovskyanum	tubeworm		5	3	8	116	2.4%
Limnodrilus sp.	tubeworm		2		2	29	0.6%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	5	62	64	131	1,899	38.8%
Gastropoda							
Physidae							
Physella sp.	pouch snail		1		1	14	0.3%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	3	22	2	27	391	8.0%
Acari							
Hygrobatidae							
Hygrobates sp.	water mite	1	2		3	43	0.9%
Odonata							
Aeschnidae							
Aeshna umbrosa	dragonfly		1		1	14	0.3%
Plecoptera							
Capniidae							
Allocapnia sp.	stonefly		4		4	58	1.2%
Trichoptera							
Hydropsychidae							
Cheumatopsyche sp.	caddisfly	36	1		37	536	10.9%
Hydropsyche betteni	caddisfly	1		1	2	29	0.6%
Coleoptera							
Elmidae							
Optioservus sp.	riffle beetle		1		1	14	0.3%
Oulimnius latiusculus	riffle beetle	1			1	14	0.3%
Stenelmis crenata gr.	riffle beetle	11	1		12	174	3.6%
Diptera							
Dasyhelea sp.	sand fly			1	1	14	0.3%
Chironomidae							
Chaetocladius sp.	midge	3			3	43	0.9%
Cryptochironomus fulvus gr.	midge	4	4	4	12	174	3.6%
Microtendipes pedellus gr.	midge		1		1	14	0.3%
Orthocladiinae	midge	1		4	5	72	1.5%
Paracladopelma sp.	midge	1			1	14	0.3%
Parametriocnemus sp.	midge	3			3	43	0.9%

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-I5-REF-01**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Diptera							
Chironomidae (continued)							
Paratendipes albimanus	midge		1	1	2	29	0.6%
Polypedilum aviceps	midge	4	1		5	72	1.5%
Polypedilum scalaenum gr.	midge			2	2	29	0.6%
Rheotanytarsus exiguus gr.	midge	4	7	1	12	174	3.6%
Tanytarsus sp.	midge	2	3		5	72	1.5%
Thienemannimyia gr.	midge	21	8		29	420	8.6%
Dolichopodidae	long-legged fly		1		1	14	0.3%
Empididae							
Chelifera sp.	dance fly		1		1	14	0.3%
Hemerodromia sp.	dance fly	1			1	14	0.3%
Ephydridae	shore fly	1			1	14	0.3%
Tabanidae							
Chrysops sp.	deer fly		5	2	7	101	2.1%
Tipulidae							
Dicranota sp.	crane fly			1	1	14	0.3%
Total Taxa		20	24	14	**37**		100.0%
Total Specimens		110	139	89	338		
Total Density (no./m^2)		4,783	6,043	3,870		**4,899**	
Shannon Weaver Diversity (base e)		-	-	-		**2.38**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-I5-REF-02**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Nematoda	round worm	1	1	2	4	58	4.2%
Tubificida							
Lumbriculidae							
Stylodrilus heringianus	earth worm			1	1	14	1.0%
Tubificinae							
Aulodrilus pleuriseta	tubeworm	1	1		2	29	2.1%
Bothriomeurun vejdovskyanum	tubeworm	1		10	11	159	11.5%
Limnodrilus sp.	tubeworm			3	3	43	3.1%
Bivalvia							
Sphaeriidae							
Pisidium casertanum	pill clam	17	5	13	35	507	36.5%
Gastropoda							
Physidae							
Physella sp.	pouch snail	2		3	5	72	5.2%
Planorbidae							
Gyraulus sp.	orb snail	1		1	2	29	2.1%
Planorbella sp.	rams-horn snail		1		1	14	1.0%
Isopoda							
Asellidae							
Caecidotea sp.	water slater	5		1	6	87	6.3%
Megaloptera							
Sialidae							
Sialis sp.	alderfly			1	1	14	1.0%
Trichoptera							
Hydropsychidae							
Cheumatopsyche sp.	caddisfly	1			1	14	1.0%
Coleoptera							
Elmidae							
Optioservus sp.	riffle beetle	1			1	14	1.0%
Oulimnius latiusculus	riffle beetle	1			1	14	1.0%
Stenelmis crenata gr.	riffle beetle			4	4	58	4.2%
Diptera							
Chironomidae							
Microtendipes pedellus gr.	midge		2	1	3	43	3.1%
Orthocladius sp.	midge		1	3	4	58	4.2%
Polypedilum illinoense gr.	midge	1			1	14	1.0%
Rheotanytarsus exiguus gr.	midge	1		2	3	43	3.1%
Tanytarsus sp.	midge		2		2	29	2.1%
Thienemannimyia gr.	midge			1	1	14	1.0%
Tvetenia bavarica gr.	midge	1		2	3	43	3.1%
Tipulidae							
Antocha sp.	crane fly	1			1	14	1.0%
Total Taxa		14	7	15	**23**		100.0%
Total Specimens		35	13	48	96		
Total Density (no./m^2)		1,522	565	2,087		**1,391**	
Shannon Weaver Diversity (base e)		-	-	-		**2.31**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-Q4-REF-01**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Naididae							
Dero sp.	naiad worm	87	51	38	176	2,551	32.3%
Pristina sp.	naiad worm	2			2	29	0.4%
Pristinella osborni	naiad worm	8			8	116	1.5%
Tubificinae							
Ilyodrilus templetoni	tubeworm	21	44	35	100	1,449	18.3%
Isopoda							
Asellidae							
Caecidotea sp.	water slater		4	1	5	72	0.9%
Hemiptera							
Veliidae							
Microvelia sp.	water strider			1	1	14	0.2%
Coleoptera							
Dytiscidae							
Neoporus sp.	diving beetle	1	1	4	6	87	1.1%
Scirtidae							
Scirtes sp.	marsh beetle			1	1	14	0.2%
Diptera							
Chironomidae							
Kiefferulus sp.	midge	2	196	12	210	3,043	38.5%
Microtendipes pedellus gr.	midge	2			2	29	0.4%
Omisus sp.	midge		4		4	58	0.7%
Polypedilum tritum	midge	4		22	26	377	4.8%
Tabanidae							
Chrysops sp.	deer fly	3	1		4	58	0.7%
Total Taxa		9	7	8	**13**		100.0%
Total Specimens		130	301	114	545		
Total Density (no./m^2)		5,652	13,087	4,957		**7,899**	
Shannon Weaver Diversity (base e)		-	-	-		**1.48**	

Benthic Macroinvertebrte collected by Kennedy/Jenks Consultants, Inc. for the Hercules LLC - Kenvil Works Facility Project

Sample Location:	**BC-ERA-R4-REF-01**						
Sample Date:	**July 29, 2019**						
Gear:	Ponar Grab (0.023 m^2)						
		Replicate				Density	
Taxon	Common Name	01	02	03	Total	(no./m^2)	Pct.
Tubificida							
Enchytraeidae	earth worm		1		1	14	0.2%
Naididae							
Dero nivea	naiad worm			8	8	116	1.3%
Dero sp.	naiad worm	24	7		31	449	4.9%
Tubificinae							
Ilyodrilus templetoni	tubeworm	47	56	168	271	3,928	43.2%
Isopoda							
Asellidae							
Caecidotea sp.	water slater		2	1	3	43	0.5%
Acari							
Pionidae							
Piona sp.	water mite		1		1	14	0.2%
Odonata							
Aeschnidae							
Aeshna sp.	dragonfly		1		1	14	0.2%
Libellulidae							
Libellula sp.	dragonfly		1		1	14	0.2%
Hemiptera							
Saldidae	shore bug	2			2	29	0.3%
Megaloptera							
Corydalidae							
Chauloides sp.	fishfly	1			1	14	0.2%
Diptera							
Chironomidae							
Kiefferulus sp.	midge	38	16	198	252	3,652	40.1%
Omisus sp.	midge	14	2	6	22	319	3.5%
Polypedilum illinoense gr.	midge	2			2	29	0.3%
Polypedilum tritum	midge	2	15	12	29	420	4.6%
Ephydridae	shore fly		1		1	14	0.2%
Tabanidae							
Chrysops sp.	deer fly		1	1	2	29	0.3%
Total Taxa		8	12	7	**16**		100.0%
Total Specimens		130	104	394	628		
Total Density (no./m^2)		5,652	4,522	17,130		**9,101**	
Shannon Weaver Diversity (base e)		-	-	-		**1.33**	

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Hercules Incorporated
Accounts Payable Dept.
PO Box 2219
Columbus OH 43016-0381

Report Date: August 22, 2019 12:14

Project: Kenvil Aquatic ERA

Account #: 06716
Group Number: 2056384
PO Number: 808365
Release Number: KENVIL

Electronic Copy To Kennedy/Jenks Attn: Lora Sterner

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SW-ERA-D13-MDW-01 Water	07/30/2019 10:20	1114144
SW-ERA-D13-MDW-01 MS Water	07/30/2019 10:20	1114145
SW-ERA-D13-MDW-01 MSD Water	07/30/2019 10:20	1114146
SW-ERA-D13-MDW-02 Water	07/30/2019 08:15	1114147
SW-ERA-N7-UP-02 Water	07/30/2019 13:45	1114148
SW-ERA-N7-UP-05 Water	07/30/2019 15:00	1114149
SW-ERA-M7-UP-01 Water	07/30/2019 13:00	1114150
BD073019A Water	07/30/2019	1114151
FB073019A Water	07/30/2019 11:45	1114152

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-D13-MDW-01 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 10:20

Hercules Incorporated
ELLE Sample #: **WW 1114144**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-D13-MDW-01 MS Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 10:20

Hercules Incorporated
ELLE Sample #: **WW 1114145**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-D13-MDW-01 MSD Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 10:20

Hercules Incorporated
ELLE Sample #: **WW 1114146**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-D13-MDW-02 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 08:15

Hercules Incorporated
ELLE Sample #: **WW 1114147**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-N7-UP-02 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 13:45

Hercules Incorporated
ELLE Sample #: **WW 1114148**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-N7-UP-05 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 15:00

Hercules Incorporated
ELLE Sample #: **WW 1114149**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SW-ERA-M7-UP-01 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 13:00

Hercules Incorporated
ELLE Sample #: **WW 1114150**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BD073019A Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019

Hercules Incorporated
ELLE Sample #: **WW 1114151**
ELLE Group #: **2056384**

Sample Comments

The analysis for total methyl mercury was subcontracted to another laboratory.

This sample was received unpreserved for dissolved methyl mercury and could not be preserved within the 48 hour holding time.
The client chose to void the dissolved methyl mercury on this sample.

See Attached Reports.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **FB073019A Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:45

Hercules Incorporated
ELLE Sample #: **WW 1114152**
ELLE Group #: **2056384**

Sample Comments

The analysis for total and dissolved methyl mercury was subcontracted to another laboratory.

See Attached Reports.

6716 | 2056384 | 1114144-52

Chain of Custody Record & Laboratory Analysis Request: Air, Water, Sediments, Plant and Animal Tissue, Hydrocarbon & Other Samples

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@frontiergs.com
http://www.frontiergs.com

Client: Ashland	Contact: Lora Sterner
Address:	Phone: (610) 762-9251 Fax:
	E-mail: lorasterner@kennedyjenks.com
Project Name: Kenvil	Contract/PO:
Report To: Lora Sterner	Invoice To: Ed Meckes
Address: 214 Carnegie Center Suite 103 Princeton, NJ	Address: 500 Hercules Rd Building 6141, Wilmington, DE
Phone: (609) 895-2623 Fax:	Phone: Fax: (302) 594-5480
E-mail: lorasterner@kennedyjenks.com	E-mail: edmeckes@ashland.com

EFGS PM: Lynn Fredericksen
Date: 7/30/19
TAT (business days): (20) (std)
15 10 5 4 3 2 24 hrs.
(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)
Saturday delivery? ☐ Y ☑ N
(If yes, please contact PM)
EDD ☑ Y ☐ N
QA ☑ Standard ☐ High

No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved: HNO_3 HCl BrCl Other (%)	Analyses Requested: Total Metals (Field Filt)	Dissolved Metals (Field Filt)	ms lmsd				Comments
1		SW-ERA-D13-MDW-01	2	FW	7/30/19 1020	LES	Y N	HCL	X	X	X				Collected by L. Sterner LF593 8/1/19
2		SW-ERA-D13-MDW-02	2	FW	7/30/19 0815	LES	Y N	HCL	X	X					
3		SW-ERA-N7-UP-02	2	FW	7/30/19 1345	LES	Y N	HCL	X	X					
4		SW-ERA-N7-UP-03	2	FW	7/30/19 1500	LES	Y N	HCL	X	X					
5		SW-ERA-M7-UP-01	2	FW	7/30/19 1300	LES	Y N	HCL	X	X					
6		BD073019A	2	FW	7/30/19 -	LES	Y N	HCL	X	X					
7		FB073019A	2	FW	7/30/19 1145	LES	Y N	HCL	X	X					
8															
9															
10															
11															
12															

For Laboratory Use Only	
COC Seal:	Comments:
Cooler Temp:	
Carrier:	
VTSR:	
# of Coolers:	

Matrix Codes:
FW: Fresh Water
WW: Waste Water
SB: Sea and Brackish Water
SS: Soil and Sediment
TS: Plant and Animal Tissue
HC: Hydrocarbons
TR: Trap
OT: Other

Relinquished By:	Received By:	Received By:
Name: Lora Sterner	Name: Jack Showalter	Name:
Organization: Kennedy Jenks	Organization: Eurofins	Organization:
Date & Time: 7/30/19 17:00	Date & Time: 7/30/19 17:00	Date & Time:
Tracking number:		

Sample Disposal:
☐ Return (shipping fees may apply)
☑ Standard Disposal – 30 Days after report
☐ Retain for ____ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: _____ Date: 7/30/19

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 255416

Group Number(s): 2056384

Client: Ashland

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	07/30/2019 19:55
Number of Packages:	1	Number of Projects:	2
State/Province of Origin:	NJ		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Darian Jaynes (29 952) at 21:27 on 07/30/2019

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	192099059	2.0	IR	Wet	Y	Loose	N

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
SW-ERA-N7-UP-02	7/30/2019 14:15	1345 on COC > COC is correct per L. Sterner. LF593 8/1/19
SW-ERA-N7-UP-05	7/30/2019 15:05	1500 on COC

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.co

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

21 August 2019

Hannah Cottman
Eurofins Lancaster Environmental, LLC
2425 New Holland Pike
Lancaster, PA 17601

RE: Low Level Mercury

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Amy Goodall
Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-ERA-D13-MDW-01	9H00033-01	Water	30-Jul-19 10:20	02-Aug-19 11:25
SW-ERA-D13-MDW-01 Dissolved	9H00033-02	Water	30-Jul-19 10:20	02-Aug-19 11:25
SW-ERA-D13-MDW-02	9H00033-07	Water	30-Jul-19 08:15	02-Aug-19 11:25
SW-ERA-D13-MDW-02 Dissolved	9H00033-08	Water	30-Jul-19 08:15	02-Aug-19 11:25
SW-ERA-N7-UP-02	9H00033-09	Water	30-Jul-19 13:45	02-Aug-19 11:25
SW-ERA-N7-UP-02 Dissolved	9H00033-10	Water	30-Jul-19 13:45	02-Aug-19 11:25
SW-ERA-N7-UP-05	9H00033-11	Water	30-Jul-19 15:00	02-Aug-19 11:25
SW-ERA-N7-UP-05 Dissolved	9H00033-12	Water	30-Jul-19 15:00	02-Aug-19 11:25
SW-ERA-M7-UP-01	9H00033-13	Water	30-Jul-19 13:00	02-Aug-19 11:25
SW-ERA-M7-UP-01 Dissolved	9H00033-14	Water	30-Jul-19 13:00	02-Aug-19 11:25
BD073019A	9H00033-15	Water	30-Jul-19 00:00	02-Aug-19 11:25
BD073019A Dissolved	9H00033-16	Water	30-Jul-19 00:00	02-Aug-19 11:25
FB073019A	9H00033-17	Water	30-Jul-19 11:45	02-Aug-19 11:25
FB073019A Dissolved	9H00033-18	Water	30-Jul-19 11:45	02-Aug-19 11:25

Eurofins Frontier Global Sciences, LLC

Amy Goodall, Project Manager

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 02-Aug-19 11:25. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	0.4

Sample 9H00033-16, 'BD073019A Dissolved' was received unpreserved. Sample was preserved on the day of receipt, but it was preserved outside the 48 hour holding time. Client was notified via email.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS-070). Samples 9H00033-01 and 9H00033-02 were used as the source QC samples for the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD).

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

eurofins | Frontier Global Sciences

Sample Receipt Checklist

Client: Eurofins Lancaster Date & Time Received: 8/2/19 11:25 Date Labeled: 8/2/19 Labeled By:

Project: Received By: Label Verified By: DH

# of Coolers Received: 1 Samples Arrived By: ✓ Shipping Service ____ Courier ____ Hand ____ Other (Specify:____)

Coolant: ☐ None/Ambient ☒ Loose Ice ☐ Gel Ice ☐ Dry Ice Coolant Required: (Y) / N Temp Blank Used: (Y)/N for Cooler(s):____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/(N)

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	N/A	
Custody seals signed:	N/A	

TID: 18113978	CF: 0.4 °C		Date/time: 8/2/19 11:25	By: IR	
Cooler 1: 0.0 °C	w/ CF: 0.4 °C		Cooler 4: °C	w/ CF: °C	
Cooler 2: °C	w/ CF: °C		Cooler 5: °C	w/ CF: °C	
Cooler 3: °C	w/ CF: °C		Cooler 6: °C	w/ CF: °C	

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

9H00033

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # 2056384 Sample # 1114144-1114152

Subcontractor:	Eurofins Frontier		
Project Name/#:	2056384	Site ID #:	
Requestor	Hannah Cottman	P.O. #:	NA
Sampler:	LS	PWSID #:	
Phone #:	717-656-2300 x1896	Quote #:	
State where samples were collected:	NJ	For Compliance: Yes ☐ No ☑	

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☐	Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐	Other:	Total # of Containers	Analyses Requested: Total and Field-filtered Dissolved Methyl Mercury Method 1630	Remarks
SW-ERA-D13-MDW-01	7/30/2019	1020	X			X		2	X	1114144
SW-ERA-D13-MDW-01 MS	7/30/2019	1020	X			X		2	X	1114145
SW-ERA-D13-MDW-01 MSD	7/30/2019	1020	X			X		2	X	1114146
SW-ERA-D13-MDW-02	7/30/2019	0815	X			X		2	X	1114147
SW-ERA-N7-UP-02	7/30/2019	1345	X			X		2	X	1114148
SW-ERA-N7-UP-05	7/30/2019	1500	X			X		2	X	1114149
SW-ERA-M7-UP-01	7/30/2019	1300	X			X		2	X	1114150
BD073019A	7/30/2019	0000	X			X		2	X	1114151
FB073019A	7/30/2019	1145	X			X		2	X	1114152

Preservation and Filtration Codes

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 P = H_3PO_4
F = Field Filtered O = Other

Turnaround Time Requested (TAT) (please check): Standard ☐ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: ENVsubcontracting@EurofinsUS.com

Phone: 717-656-2300 Ext 1896

Data Package Options (please check if required) ☐ Full Data Package

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☑ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: _EQuIS-EQ3-KJ_v1

Relinquished by:	Date	Time	Received by:	Date	Time
	8/1/19	1535		8/2/19	11:25
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-D13-MDW-01

9H00033-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**0.378**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-D13-MDW-01 Dissolved

9H00033-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-D13-MDW-02

9H00033-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**0.165**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

Eurofins Frontier Global Sciences, LLC

Amy Goodall, Project Manager

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-D13-MDW-02 Dissolved

9H00033-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-N7-UP-02

9H00033-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**2.03**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-N7-UP-02 Dissolved

9H00033-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-N7-UP-05

9H00033-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**0.486**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-N7-UP-05 Dissolved

9H00033-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**0.240**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-M7-UP-01

9H00033-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**0.051**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

Eurofins Frontier Global Sciences, LLC

Amy Goodall, Project Manager

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

SW-ERA-M7-UP-01 Dissolved

9H00033-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

BD073019A

9H00033-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	**3.11**	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	

Eurofins Frontier Global Sciences, LLC

Amy Goodall, Project Manager

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

BD073019A Dissolved

9H00033-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

Amy Goodall

Amy Goodall, Project Manager

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

FB073019A

9H00033-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

FB073019A Dissolved

9H00033-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water											
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L	1.25	F908195	09-Aug-19	9H12011	09-Aug-19	EPA 1630	U

Eurofins Frontier Global Sciences, LLC

Amy Goodall

Amy Goodall, Project Manager

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F908195 - EFGS SOP2797 Methyl Hg Distillation for Water											
Blank (F908195-BLK1)					Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L							U
Blank (F908195-BLK2)					Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L							U
Blank (F908195-BLK3)					Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	ND	-	0.050	ng/L							U
LCS (F908195-BS1)					Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	1.026	-	0.050	ng/L	1.0000		103	70-130			
LCS Dup (F908195-BSD1)					Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	0.982	-	0.050	ng/L	1.0000		98.2	70-130	4.37	35	
Duplicate (F908195-DUP1)		**Source: 9H00064-02**			Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	1.405	-	0.050	ng/L		1.652			16.2	35	
Matrix Spike (F908195-MS1)		**Source: 9H00033-01**			Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	0.612	-	0.050	ng/L	1.0000	0.378	23.4	65-130			QM-07
Matrix Spike (F908195-MS2)		**Source: 9H00033-02**			Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	0.942	-	0.050	ng/L	1.0000	ND	94.2	65-130			
Matrix Spike Dup (F908195-MSD1)		**Source: 9H00033-01**			Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	0.586	-	0.050	ng/L	1.0000	0.378	20.8	65-130	4.39	35	QM-07
Matrix Spike Dup (F908195-MSD2)		**Source: 9H00033-02**			Prepared & Analyzed: 09-Aug-19						
Methyl Mercury (as Mercury)	0.947	-	0.050	ng/L	1.0000	ND	94.7	65-130	0.560	35	

eurofins | Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Eurofins Lancaster Environmental, LLC	Project: Low Level Mercury	
2425 New Holland Pike	Project Number: 2056384	**Reported:**
Lancaster PA, 17601	Project Manager: Hannah Cottman	21-Aug-19 10:10

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

eurofins | Lancaster Laboratories Environmental

Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Hercules Incorporated
Accounts Payable Dept.
PO Box 2219
Columbus OH 43016-0381

Report Date: September 17, 2019 16:37

Project: Kenvil Aquatic ERA

Account #: 06716
Group Number: 2056219
SDG: KVN46
PO Number: 808365
Release Number: KENVIL
State of Sample Origin: NJ

Electronic Copy To Kennedy/Jenks Attn: Lora Sterner

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SD-ERA-D13-MDW-02(00.0-00.5) Grab Sediment	07/30/2019 08:45	1113276
SD-ERA-D13-MDW-01(00.0-00.5) Grab Sediment	07/30/2019 11:00	1113277
FB073019A Water	07/30/2019 11:45	1113278

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **SD-ERA-D13-MDW-02(00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 08:45
SDG#: KVN46-01

Hercules Incorporated
ELLE Sample #: SW 1113276
ELLE Group #: 2056219
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	5.2 J	3.1	7.8	1
10242	Acenaphthylene[1]	208-96-8	8.0	3.1	7.8	1
10242	Anthracene[1]	120-12-7	14	3.1	7.8	1
10242	Benzo(a)anthracene[1]	56-55-3	38	3.1	7.8	1
10242	Benzo(a)pyrene[1]	50-32-8	77	3.1	7.8	1
10242	Benzo(b)fluoranthene[1]	205-99-2	38	3.1	7.8	1
10242	Benzo(e)pyrene[1]	192-97-2	28	3.1	7.8	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	24	3.1	7.8	1
10242	Benzo(k)fluoranthene[1]	207-08-9	31	3.1	7.8	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	34	3.1	7.8	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	24	3.1	7.8	1
10242	C1-Fluorenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C1-Naphthalenes[1]	n.a.	11	3.1	7.8	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	17	3.1	7.8	1
10242	C2-Fluorenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C2-Naphthalenes[1]	n.a.	14	3.1	7.8	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C3-Fluorenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C3-Naphthalenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C4-Naphthalenes[1]	n.a.	N.D.	3.1	7.8	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.1	7.8	1
10242	Chrysene[1]	218-01-9	45	3.1	7.8	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	7.1 J	3.1	7.8	1
10242	Fluoranthene[1]	206-44-0	64	3.1	7.8	1
10242	Fluorene[1]	86-73-7	N.D.	3.1	7.8	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	26	3.1	7.8	1
10242	Naphthalene[1]	91-20-3	14	3.1	7.8	1
10242	Perylene[1]	198-55-0	14	3.1	7.8	1
10242	Phenanthrene[1]	85-01-8	27	3.1	7.8	1
10242	Pyrene[1]	129-00-0	65	3.1	7.8	1
Trial ID: RE						
10242	Acenaphthene[1]	83-32-9	15	3.1	7.7	1
10242	Acenaphthylene[1]	208-96-8	12	3.1	7.7	1
10242	Anthracene[1]	120-12-7	18	3.1	7.7	1
10242	Benzo(a)anthracene[1]	56-55-3	73	3.1	7.7	1
10242	Benzo(a)pyrene[1]	50-32-8	56	3.1	7.7	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-D13-MDW-02(00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 08:45
SDG#: KVN46-01

Hercules Incorporated
ELLE Sample #: SW 1113276
ELLE Group #: 2056219
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Benzo(b)fluoranthene[1]	205-99-2	62	3.1	7.7	1
10242	Benzo(e)pyrene[1]	192-97-2	49	3.1	7.7	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	35	3.1	7.7	1
10242	Benzo(k)fluoranthene[1]	207-08-9	64	3.1	7.7	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	53	3.1	7.7	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	54	3.1	7.7	1
10242	C1-Fluorenes[1]	n.a.	N.D.	3.1	7.7	1
10242	C1-Naphthalenes[1]	n.a.	21	3.1	7.7	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	50	3.1	7.7	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.1	7.7	1
10242	C2-Fluorenes[1]	n.a.	N.D.	3.1	7.7	1
10242	C2-Naphthalenes[1]	n.a.	76	3.1	7.7	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	46	3.1	7.7	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.1	7.7	1
10242	C3-Fluorenes[1]	n.a.	N.D.	3.1	7.7	1
10242	C3-Naphthalenes[1]	n.a.	44	3.1	7.7	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	37	3.1	7.7	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.1	7.7	1
10242	C4-Naphthalenes[1]	n.a.	20	3.1	7.7	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.1	7.7	1
10242	Chrysene[1]	218-01-9	75	3.1	7.7	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	11	3.1	7.7	1
10242	Fluoranthene[1]	206-44-0	83	3.1	7.7	1
10242	Fluorene[1]	86-73-7	7.4 J	3.1	7.7	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	40	3.1	7.7	1
10242	Naphthalene[1]	91-20-3	10	3.1	7.7	1
10242	Perylene[1]	198-55-0	31	3.1	7.7	1
10242	Phenanthrene[1]	85-01-8	27	3.1	7.7	1
10242	Pyrene[1]	129-00-0	79	3.1	7.7	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	85,200	6,810	20,400	1
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	75 mm[1]	n.a.	100	0.50	0.50	1
07103	37.5 mm[1]	n.a.	100	0.50	0.50	1
07103	19 mm[1]	n.a.	100	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-D13-MDW-02(00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 08:45
SDG#: KVN46-01

Hercules Incorporated
ELLE Sample #: SW 1113276
ELLE Group #: 2056219
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	4.75 mm[1]	n.a.	100	0.50	0.50	1
07103	3.35 mm[1]	n.a.	100	0.50	0.50	1
07103	2.36 mm[1]	n.a.	100	0.50	0.50	1
07103	1.18 mm[1]	n.a.	98.7	0.50	0.50	1
07103	0.6 mm[1]	n.a.	92.5	0.50	0.50	1
07103	0.3 mm[1]	n.a.	78.3	0.50	0.50	1
07103	0.15 mm[1]	n.a.	55.4	0.50	0.50	1
07103	0.075 mm[1]	n.a.	33.7	0.50	0.50	1
07103	0.064 mm[1]	n.a.	29.0	0.50	0.50	1
07103	0.05 mm[1]	n.a.	20.0	0.50	0.50	1
07103	0.02 mm[1]	n.a.	13.0	0.50	0.50	1
07103	0.005 mm[1]	n.a.	17.0	0.50	0.50	1
07103	0.002 mm[1]	n.a.	5.0	0.50	0.50	1
07103	0.001 mm[1]	n.a.	4.0	0.50	0.50	1
Wet Chemistry	**SW-846 9045D Nov 2004**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	6.79	0.0100	0.0100	1
	The pH was measured in water at 20.3 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1]	n.a.	78.8	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270D SIM Modified	1	19221SLA026	08/23/2019 10:51	Joseph M Gambler	1
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270D SIM Modified	2-RE	19239SLC026	08/28/2019 06:24	Joseph M Gambler	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	2	19239SLC026	08/27/2019 16:45	Osvaldo R Sanchez	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/05/2019 20:49	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	19225710301A	08/13/2019 02:45	Luz M Groff	1

*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SD-ERA-D13-MDW-02(00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 08:45
SDG#: KVN46-01

Hercules Incorporated
ELLE Sample #: SW 1113276
ELLE Group #: 2056219
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	pH	SW-846 9045D Nov 2004	1	19225039404A	08/13/2019 18:45	Jeremy L Bolf	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19213820003A	08/02/2019 10:49	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-D13-MDW-01(00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:00
SDG#: KVN46-02

Hercules Incorporated
ELLE Sample #: SW 1113277
ELLE Group #: 2056219
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	N.D.	2.8	6.9	1
10242	Acenaphthylene[1]	208-96-8	4.3 J	2.8	6.9	1
10242	Anthracene[1]	120-12-7	5.9 J	2.8	6.9	1
10242	Benzo(a)anthracene[1]	56-55-3	20	2.8	6.9	1
10242	Benzo(a)pyrene[1]	50-32-8	18	2.8	6.9	1
10242	Benzo(b)fluoranthene[1]	205-99-2	19	2.8	6.9	1
10242	Benzo(e)pyrene[1]	192-97-2	16	2.8	6.9	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	15	2.8	6.9	1
10242	Benzo(k)fluoranthene[1]	207-08-9	18	2.8	6.9	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	17	2.8	6.9	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C1-Fluorenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C1-Naphthalenes[1]	n.a.	3.3 J	2.8	6.9	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C2-Fluorenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C2-Naphthalenes[1]	n.a.	5.3 J	2.8	6.9	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	18	2.8	6.9	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C3-Fluorenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C3-Naphthalenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	11	2.8	6.9	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C4-Naphthalenes[1]	n.a.	N.D.	2.8	6.9	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	2.8	6.9	1
10242	Chrysene[1]	218-01-9	23	2.8	6.9	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	4.1 J	2.8	6.9	1
10242	Fluoranthene[1]	206-44-0	32	2.8	6.9	1
10242	Fluorene[1]	86-73-7	N.D.	2.8	6.9	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	16	2.8	6.9	1
10242	Naphthalene[1]	91-20-3	4.4 J	2.8	6.9	1
10242	Perylene[1]	198-55-0	8.5	2.8	6.9	1
10242	Phenanthrene[1]	85-01-8	11	2.8	6.9	1
10242	Pyrene[1]	129-00-0	26	2.8	6.9	1
Trial ID: RE						
10242	Acenaphthene[1]	83-32-9	N.D.	2.8	7.0	1
10242	Acenaphthylene[1]	208-96-8	21	2.8	7.0	1
10242	Anthracene[1]	120-12-7	42	2.8	7.0	1
10242	Benzo(a)anthracene[1]	56-55-3	83	2.8	7.0	1
10242	Benzo(a)pyrene[1]	50-32-8	72	2.8	7.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-D13-MDW-01(00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:00
SDG#: KVN46-02

Hercules Incorporated
ELLE Sample #: SW 1113277
ELLE Group #: 2056219
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Benzo(b)fluoranthene[1]	205-99-2	76	2.8	7.0	1
10242	Benzo(e)pyrene[1]	192-97-2	78	2.8	7.0	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	53	2.8	7.0	1
10242	Benzo(k)fluoranthene[1]	207-08-9	79	2.8	7.0	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	69	2.8	7.0	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	82	2.8	7.0	1
10242	C1-Fluorenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C1-Naphthalenes[1]	n.a.	20	2.8	7.0	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	80	2.8	7.0	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C2-Fluorenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C2-Naphthalenes[1]	n.a.	46	2.8	7.0	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	77	2.8	7.0	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C3-Fluorenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C3-Naphthalenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	46	2.8	7.0	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	2.8	7.0	1
10242	C4-Naphthalenes[1]	n.a.	24	2.8	7.0	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	2.8	7.0	1
10242	Chrysene[1]	218-01-9	98	2.8	7.0	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	17	2.8	7.0	1
10242	Fluoranthene[1]	206-44-0	120	2.8	7.0	1
10242	Fluorene[1]	86-73-7	3.8 J	2.8	7.0	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	55	2.8	7.0	1
10242	Naphthalene[1]	91-20-3	17	2.8	7.0	1
10242	Perylene[1]	198-55-0	64	2.8	7.0	1
10242	Phenanthrene[1]	85-01-8	47	2.8	7.0	1
10242	Pyrene[1]	129-00-0	120	2.8	7.0	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	113,000	6,830	20,500	1
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	75 mm[1]	n.a.	100	0.50	0.50	1
07103	37.5 mm[1]	n.a.	100	0.50	0.50	1
07103	19 mm[1]	n.a.	100	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-D13-MDW-01(00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:00
SDG#: KVN46-02

Hercules Incorporated
ELLE Sample #: SW 1113277
ELLE Group #: 2056219
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	4.75 mm[1]	n.a.	92.9	0.50	0.50	1
07103	3.35 mm[1]	n.a.	89.2	0.50	0.50	1
07103	2.36 mm[1]	n.a.	85.5	0.50	0.50	1
07103	1.18 mm[1]	n.a.	83.5	0.50	0.50	1
07103	0.6 mm[1]	n.a.	78.9	0.50	0.50	1
07103	0.3 mm[1]	n.a.	66.5	0.50	0.50	1
07103	0.15 mm[1]	n.a.	40.5	0.50	0.50	1
07103	0.075 mm[1]	n.a.	20.2	0.50	0.50	1
07103	0.064 mm[1]	n.a.	18.0	0.50	0.50	1
07103	0.05 mm[1]	n.a.	13.0	0.50	0.50	1
07103	0.02 mm[1]	n.a.	8.0	0.50	0.50	1
07103	0.005 mm[1]	n.a.	6.0	0.50	0.50	1
07103	0.002 mm[1]	n.a.	3.0	0.50	0.50	1
07103	0.001 mm[1]	n.a.	1.0	0.50	0.50	1
Wet Chemistry	**SW-846 9045D Nov 2004**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	6.84	0.0100	0.0100	1
	The pH was measured in water at 20.4 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1]	n.a.	76.3	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270D SIM Modified	1	19221SLA026	08/23/2019 11:33	Joseph M Gambler	1
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270D SIM Modified	2-RE	19239SLC026	08/28/2019 09:13	Joseph M Gambler	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	2	19239SLC026	08/27/2019 16:45	Osvaldo R Sanchez	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/05/2019 21:02	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	19225710301A	08/13/2019 02:45	Luz M Groff	1

*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SD-ERA-D13-MDW-01(00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:00
SDG#: KVN46-02

Hercules Incorporated
ELLE Sample #: SW 1113277
ELLE Group #: 2056219
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	pH	SW-846 9045D Nov 2004	1	19225039404A	08/13/2019 18:45	Jeremy L Bolf	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19213820003A	08/02/2019 10:49	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **FB073019A Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:45
SDG#: KVN46-03FB

Hercules Incorporated
ELLE Sample #: WW 1113278
ELLE Group #: 2056219
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene[1]	83-32-9	N.D.	0.04	0.1	1
10262	Acenaphthylene[1]	208-96-8	N.D.	0.04	0.1	1
10262	Anthracene[1]	120-12-7	N.D.	0.04	0.1	1
10262	Benzo(a)anthracene[1]	56-55-3	N.D.	0.04	0.1	1
10262	Benzo(a)pyrene[1]	50-32-8	N.D.	0.04	0.1	1
10262	Benzo(b)fluoranthene[1]	205-99-2	N.D.	0.04	0.1	1
10262	Benzo(e)pyrene[1]	192-97-2	N.D.	0.04	0.1	1
10262	Benzo(g,h,i)perylene[1]	191-24-2	N.D.	0.04	0.1	1
10262	Benzo(k)fluoranthene[1]	207-08-9	N.D.	0.04	0.1	1
10262	C1-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Fluoranthrenes/pyrenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Fluorenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Fluorenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Fluorenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C4-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	Chrysene[1]	218-01-9	N.D.	0.04	0.1	1
10262	Dibenz(a,h)anthracene[1]	53-70-3	N.D.	0.04	0.1	1
10262	Fluoranthene[1]	206-44-0	N.D.	0.04	0.1	1
10262	Fluorene[1]	86-73-7	N.D.	0.04	0.1	1
10262	Indeno(1,2,3-cd)pyrene[1]	193-39-5	N.D.	0.04	0.1	1
10262	Naphthalene[1]	91-20-3	N.D.	0.04	0.1	1
10262	Perylene[1]	198-55-0	N.D.	0.04	0.1	1
10262	Phenanthrene[1]	85-01-8	N.D.	0.04	0.1	1
10262	Pyrene[1]	129-00-0	N.D.	0.04	0.1	1

The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The LCS/LCSD surrogate(s) recovery is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Wet Chemistry	**SM 5310 C-2011**		**mg/l**	**mg/l**	**mg/l**	

*=This limit was used in the evaluation of the final result

Sample Description: **FB073019A Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/30/2019 19:55
Collection Date/Time: 07/30/2019 11:45
SDG#: KVN46-03FB

Hercules Incorporated
ELLE Sample #: WW 1113278
ELLE Group #: 2056219
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Wet Chemistry	**SM 5310 C-2011**		**mg/l**	**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	N.D.	0.50	1.0	1
Wet Chemistry	**SM 2550 B-2010**		**Degrees C**	**Degrees C**	**Degrees C**	
12151	Temperature of pH[1]	n.a.	23.8	0.010	0.010	1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	
12152	pH[1]	n.a.	7.7	0.010	0.010	1

The 40 CFR Part 136 requires that this analysis be performed immediately (within 15 minutes) upon sample collection. Because this was not possible, the result may not be used for reporting purposes.

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270D SIM Modified	1	19218WAL026	08/23/2019 09:26	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	19218WAL026	08/06/2019 21:50	Karen L Beyer	1
00273	Total Organic Carbon	SM 5310 C-2011	1	19213667601B	08/02/2019 03:22	Drew M Gerhart	1
12151	Temperature of pH	SM 2550 B-2010	1	19220003102A	08/08/2019 17:00	Jeremy L Bolf	1
12152	pH	SW-846 9040C	1	19220003102A	08/08/2019 17:00	Jeremy L Bolf	1

*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Quality Control Summary

Client Name: Hercules Incorporated
Group Number: 2056219
Reported: 09/17/2019 16:37

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/kg	ug/kg	ug/kg
Batch number: 19221SLA026	Sample number(s): 1113276-1113277		
Acenaphthene	N.D.	0.7	1.7
Acenaphthylene	N.D.	0.7	1.7
Anthracene	N.D.	0.7	1.7
Benzo(a)anthracene	N.D.	0.7	1.7
Benzo(a)pyrene	N.D.	0.7	1.7
Benzo(b)fluoranthene	N.D.	0.7	1.7
Benzo(e)pyrene	N.D.	0.7	1.7
Benzo(g,h,i)perylene	N.D.	0.7	1.7
Benzo(k)fluoranthene	N.D.	0.7	1.7
C1-Benzanthrene/chrysenes	N.D.	0.7	1.7
C1-Fluoranthrenes/pyrenes	N.D.	0.7	1.7
C1-Fluorenes	N.D.	0.7	1.7
C1-Naphthalenes	N.D.	0.7	1.7
C1-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C2-Benzanthrene/chrysenes	N.D.	0.7	1.7
C2-Fluorenes	N.D.	0.7	1.7
C2-Naphthalenes	N.D.	0.7	1.7
C2-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C3-Benzanthrene/chrysenes	N.D.	0.7	1.7
C3-Fluorenes	N.D.	0.7	1.7
C3-Naphthalenes	N.D.	0.7	1.7
C3-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C4-Benzanthrene/chrysenes	N.D.	0.7	1.7
C4-Naphthalenes	N.D.	0.7	1.7
C4-Phenanthrenes/anthracenes	N.D.	0.7	1.7
Chrysene	N.D.	0.7	1.7
Dibenz(a,h)anthracene	N.D.	0.7	1.7
Fluoranthene	N.D.	0.7	1.7
Fluorene	N.D.	0.7	1.7
Indeno(1,2,3-cd)pyrene	N.D.	0.7	1.7
Naphthalene	N.D.	0.7	1.7
Perylene	N.D.	0.7	1.7
Phenanthrene	N.D.	0.7	1.7
Pyrene	N.D.	0.7	1.7
Batch number: 19239SLC026	Sample number(s): 1113276-1113277		
Acenaphthene	N.D.	0.7	1.7
Acenaphthylene	N.D.	0.7	1.7
Anthracene	N.D.	0.7	1.7

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:37

Group Number: 2056219

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/kg	ug/kg	ug/kg
Benzo(a)anthracene	N.D.	0.7	1.7
Benzo(a)pyrene	N.D.	0.7	1.7
Benzo(b)fluoranthene	N.D.	0.7	1.7
Benzo(e)pyrene	N.D.	0.7	1.7
Benzo(g,h,i)perylene	N.D.	0.7	1.7
Benzo(k)fluoranthene	N.D.	0.7	1.7
C1-Benzanthrene/chrysenes	N.D.	0.7	1.7
C1-Fluoranthrenes/pyrenes	N.D.	0.7	1.7
C1-Fluorenes	N.D.	0.7	1.7
C1-Naphthalenes	N.D.	0.7	1.7
C1-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C2-Benzanthrene/chrysenes	N.D.	0.7	1.7
C2-Fluorenes	N.D.	0.7	1.7
C2-Naphthalenes	N.D.	0.7	1.7
C2-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C3-Benzanthrene/chrysenes	N.D.	0.7	1.7
C3-Fluorenes	N.D.	0.7	1.7
C3-Naphthalenes	N.D.	0.7	1.7
C3-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C4-Benzanthrene/chrysenes	N.D.	0.7	1.7
C4-Naphthalenes	N.D.	0.7	1.7
C4-Phenanthrenes/anthracenes	N.D.	0.7	1.7
Chrysene	N.D.	0.7	1.7
Dibenz(a,h)anthracene	N.D.	0.7	1.7
Fluoranthene	N.D.	0.7	1.7
Fluorene	N.D.	0.7	1.7
Indeno(1,2,3-cd)pyrene	N.D.	0.7	1.7
Naphthalene	N.D.	0.7	1.7
Perylene	N.D.	0.7	1.7
Phenanthrene	N.D.	0.7	1.7
Pyrene	N.D.	0.7	1.7
	ug/l	ug/l	ug/l
Batch number: 19218WAL026	Sample number(s): 1113278		
Acenaphthene	N.D.	0.02	0.05
Acenaphthylene	N.D.	0.02	0.05
Anthracene	N.D.	0.02	0.05
Benzo(a)anthracene	N.D.	0.02	0.05
Benzo(a)pyrene	N.D.	0.02	0.05
Benzo(b)fluoranthene	N.D.	0.02	0.05
Benzo(e)pyrene	N.D.	0.02	0.05
Benzo(g,h,i)perylene	N.D.	0.02	0.05
Benzo(k)fluoranthene	N.D.	0.02	0.05
C1-Benzanthrene/chrysenes	N.D.	0.02	0.05
C1-Fluoranthrenes/pyrenes	N.D.	0.02	0.05

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:37

Group Number: 2056219

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
C1-Fluorenes	N.D.	0.02	0.05
C1-Naphthalenes	N.D.	0.02	0.05
C1-Phenanthrenes/anthracenes	N.D.	0.02	0.05
C2-Benzanthrene/chrysenes	N.D.	0.02	0.05
C2-Fluorenes	N.D.	0.02	0.05
C2-Naphthalenes	N.D.	0.02	0.05
C2-Phenanthrenes/anthracenes	N.D.	0.02	0.05
C3-Benzanthrene/chrysenes	N.D.	0.02	0.05
C3-Fluorenes	N.D.	0.02	0.05
C3-Naphthalenes	N.D.	0.02	0.05
C3-Phenanthrenes/anthracenes	N.D.	0.02	0.05
C4-Benzanthrene/chrysenes	N.D.	0.02	0.05
C4-Naphthalenes	N.D.	0.02	0.05
C4-Phenanthrenes/anthracenes	N.D.	0.02	0.05
Chrysene	N.D.	0.02	0.05
Dibenz(a,h)anthracene	N.D.	0.02	0.05
Fluoranthene	N.D.	0.02	0.05
Fluorene	N.D.	0.02	0.05
Indeno(1,2,3-cd)pyrene	N.D.	0.02	0.05
Naphthalene	N.D.	0.02	0.05
Perylene	N.D.	0.02	0.05
Phenanthrene	N.D.	0.02	0.05
Pyrene	N.D.	0.02	0.05
	mg/kg	mg/kg	mg/kg
Batch number: 19217667631A	Sample number(s): 1113276-1113277		
TOC by Lloyd Kahn	N.D.	100	300
	mg/l	mg/l	mg/l
Batch number: 19213667601B	Sample number(s): 1113278		
Total Organic Carbon	N.D.	0.50	1.0

LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19221SLA026	Sample number(s): 1113276-1113277								
Acenaphthene	33.33	28.17			85		70-130		
Acenaphthylene	33.33	29.43			88		70-130		
Anthracene	33.33	33.39			100		70-130		
Benzo(a)anthracene	33.33	37.98			114		70-130		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:37

Group Number: 2056219

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(a)pyrene	33.33	29.46			88		70-130		
Benzo(b)fluoranthene	33.33	31.18			94		70-130		
Benzo(e)pyrene	33.33	32.09			96		70-130		
Benzo(g,h,i)perylene	33.33	34.4			103		70-130		
Benzo(k)fluoranthene	33.33	30.01			90		70-130		
Chrysene	33.33	34.85			105		70-130		
Dibenz(a,h)anthracene	33.33	32.89			99		70-130		
Fluoranthene	33.33	32.67			98		70-130		
Fluorene	33.33	29.4			88		70-130		
Indeno(1,2,3-cd)pyrene	33.33	35.77			107		70-130		
Naphthalene	33.33	32			96		70-130		
Perylene	33.33	35.78			107		70-130		
Phenanthrene	33.33	32.8			98		70-130		
Pyrene	33.33	30.67			92		70-130		
Batch number: 19239SLC026	Sample number(s): 1113276-1113277								
Acenaphthene	33.33	26.32			79		70-130		
Acenaphthylene	33.33	27.06			81		70-130		
Anthracene	33.33	33.08			99		70-130		
Benzo(a)anthracene	33.33	35.72			107		70-130		
Benzo(a)pyrene	33.33	27.66			83		70-130		
Benzo(b)fluoranthene	33.33	29.56			89		70-130		
Benzo(e)pyrene	33.33	30.81			92		70-130		
Benzo(g,h,i)perylene	33.33	31.47			94		70-130		
Benzo(k)fluoranthene	33.33	29.46			88		70-130		
Chrysene	33.33	33.95			102		70-130		
Dibenz(a,h)anthracene	33.33	30.25			91		70-130		
Fluoranthene	33.33	31.15			93		70-130		
Fluorene	33.33	27.77			83		70-130		
Indeno(1,2,3-cd)pyrene	33.33	32.42			97		70-130		
Naphthalene	33.33	28.25			85		70-130		
Perylene	33.33	33.7			101		70-130		
Phenanthrene	33.33	38.25			115		70-130		
Pyrene	33.33	33.59			101		70-130		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19218WAL026	Sample number(s): 1113278								
Acenaphthene	1.00	0.746	1.00	0.210	75	21*	64-118	112*	30
Acenaphthylene	1.00	0.803	1.00	0.223	80	22*	64-107	113*	30
Anthracene	1.00	0.863	1.00	0.257	86	26*	68-112	108*	30
Benzo(a)anthracene	1.00	1.04	1.00	0.300	104	30*	68-116	111*	30
Benzo(a)pyrene	1.00	0.771	1.00	0.229	77	23*	67-124	108*	30
Benzo(b)fluoranthene	1.00	0.802	1.00	0.245	80	24*	67-123	106*	30
Benzo(e)pyrene	1.00	0.893	1.00	0.267	89	27*	69-109	108*	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:37

Group Number: 2056219

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(g,h,i)perylene	1.00	0.936	1.00	0.273	94	27*	62-125	110*	30
Benzo(k)fluoranthene	1.00	0.851	1.00	0.247	85	25*	64-123	110*	30
Chrysene	1.00	0.951	1.00	0.276	95	28*	63-116	110*	30
Dibenz(a,h)anthracene	1.00	0.876	1.00	0.255	88	26*	66-127	110*	30
Fluoranthene	1.00	0.750	1.00	0.274	75	27*	67-117	93*	30
Fluorene	1.00	0.774	1.00	0.225	77	22*	65-120	110*	30
Indeno(1,2,3-cd)pyrene	1.00	0.964	1.00	0.276	96	28*	66-129	111*	30
Naphthalene	1.00	0.876	1.00	0.233	88	23*	55-110	116*	30
Perylene	1.00	0.947	1.00	0.273	95	27*	68-146	110*	30
Phenanthrene	1.00	0.881	1.00	0.254	88	25*	61-121	110*	30
Pyrene	1.00	0.807	1.00	0.282	81	28*	61-118	97*	30
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 19217667631A	Sample number(s): 1113276-1113277								
TOC by Lloyd Kahn	3280	2980.77			91		47-143		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 19213667601B	Sample number(s): 1113278								
Total Organic Carbon	25	25.43			102		91-113		
	Std. Units	**Std. Units**	**Std. Units**	**Std. Units**					
Batch number: 19220003102A	Sample number(s): 1113278								
pH	7.00	7.01			100		95-105		
Batch number: 19225039404A	Sample number(s): 1113276-1113277								
pH	7.00	7.01			100		95-105		
	%	**%**	**%**	**%**					
Batch number: 19213820003A	Sample number(s): 1113276-1113277								
Moisture	89.5	89.42			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19239SLC026	Sample number(s): 1113276-1113277 UNSPK: 1113277									
Acenaphthene	N.D.	33.22	23.74	33.22	22.07	71	66*	70-130	7	30
Acenaphthylene	5.06	33.22	30.87	33.22	26.42	78	64*	70-130	16	30
Anthracene	9.93	33.22	42.84	33.22	30.96	99	63*	70-130	32*	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:37

Group Number: 2056219

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Benzo(a)anthracene	19.77	33.22	58.88	33.22	45.08	118	76	70-130	27	30
Benzo(a)pyrene	16.95	33.22	47.19	33.22	35.27	91	55*	70-130	29	30
Benzo(b)fluoranthene	18.03	33.22	51.53	33.22	40.78	101	68*	70-130	23	30
Benzo(e)pyrene	18.43	33.22	51.51	33.22	39.41	100	63*	70-130	27	30
Benzo(g,h,i)perylene	12.49	33.22	1.99	33.22	34.06	-31*	65*	70-130	178*	30
Benzo(k)fluoranthene	18.75	33.22	53.3	33.22	37.69	104	57*	70-130	34*	30
Chrysene	23.26	33.22	63.5	33.22	48.08	121	75	70-130	28	30
Dibenz(a,h)anthracene	3.96	33.22	29.76	33.22	28.46	78	74	70-130	4	30
Fluoranthene	28.68	33.22	70.99	33.22	46.43	127	53*	70-130	42*	30
Fluorene	0.911	33.22	26.31	33.22	24.41	76	71	70-130	7	30
Indeno(1,2,3-cd)pyrene	12.95	33.22	44.04	33.22	36.15	94	70	70-130	20	30
Naphthalene	3.91	33.22	29.59	33.22	26.66	77	68*	70-130	10	30
Perylene	15.24	33.22	51.58	33.22	40.3	109	75	70-130	25	30
Phenanthrene	11.14	33.22	45.48	33.22	36.5	103	76	70-130	22	30
Pyrene	29.39	33.22	72.54	33.22	44.48	130	45*	70-130	48*	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Alkyl PAHs in Water by GC/MS
Batch number: 19218WAL026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1113278	68	61	71
Blank	58*	55	60
LCS	59*	61	69
LCSD	19*	18*	19*
Limits:	61-117	49-104	53-109

Analysis Name: Alkyl PAHs in Soil by GC/MS
Batch number: 19221SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1113276	47*	39*	63
1113277	35*	29*	53
Blank	72	67	78
LCS	67	69	78
Limits:	49-132	45-142	44-130

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:37

Group Number: 2056219

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Alkyl PAHs in Soil by GC/MS
Batch number: 19239SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1113276RE	51	56	57
1113277RE	57	56	62
Blank	78	70	74
LCS	67	65	70
MS	66	59	64
MSD	57	59	62
Limits:	49-132	45-142	44-130

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6716 Group # 2056219 Sample # 1113276-78

COC #588629

Client Information

Client: Kennedy Jenks	Acct. #:
Project Name/#: Ashland Kenvil	PWSID #:
Project Manager: Lora Sterner	P.O. #:
Sampler: LES	Quote #:
State where samples were collected: NJ	For Compliance: Yes ☐ No ☑

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☒ Water ☐ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other:	Total # of Containers	Analysis Requested: TOC, PH, PAHs	grain size	SPLP PAHs	
SD-ERA-D13-MDW-02(00.0-00.5)	7/30/19	0845	X		X	2	X	X		
SD-ERA-D13-MDW-01(00.0-00.5	7/30/19	1100	X		X	2	X	X		
FB073019A	7/30/19	1145			X	5	X	~~X~~		

Preservation and Filtration Codes

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

For Lab Use Only

FSC:

SCR#: 246631

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: lorasterner@kennedyjenks.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	7/29/19	11:00			
	7/30/19	17:00		7/30/19	17:00
	7/30/19	19:53			
			Marion Haynes (Express)	7/30/19	1955

EDD Required? Yes No

If yes, format: KI EDD

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other ✓

Temperature upon receipt 2.0 °C

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 255416

Group Number(s): 2056219

Client: Ashland

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	07/30/2019 19:55
Number of Packages:	1	Number of Projects:	2
State/Province of Origin:	NJ		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Darian Jaynes (29 952) at 21:27 on 07/30/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	192099059	2.0	IR	Wet	Y	Loose	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.co

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

eurofins | Lancaster Laboratories Environmental

Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Hercules Incorporated
Accounts Payable Dept.
PO Box 2219
Columbus OH 43016-0381

Report Date: September 17, 2019 16:36

Project: Kenvil Aquatic ERA

Account #: 06716
Group Number: 2056546
SDG: KVN47
PO Number: 808365
Release Number: KENVIL
State of Sample Origin: NJ

Electronic Copy To Kennedy/Jenks Attn: Lora Sterner

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
FB073119 Water	07/31/2019 14:45	1115065
BD073119 Grab Sediment	07/31/2019	1115066
BD073119 Grab Sediment	07/31/2019	1115067
SD-ERA-C15-MOSL-01 (00.0-00.5) Grab Sediment	07/31/2019 09:30	1115068
SD-ERA-B16-MOSL-01 (00.0-00.5) Grab Sediment	07/31/2019 10:00	1115069
SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment	07/31/2019 13:00	1115070
SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment	07/31/2019 13:00	1115071
SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment	07/31/2019 13:44	1115072
SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment	07/31/2019 13:44	1115073
SD-ERA-G12-MDE-01 (00.0-00.5) Grab Sediment	07/31/2019 14:30	1115074
SD-ERA-G12-MDE-01 (00.0-00.5) MS Grab Sediment	07/31/2019 14:30	1115075
SD-ERA-G12-MDE-01 (00.0-00.5) MSD Grab Sediment	07/31/2019 14:30	1115076
SD-ERA-G12-MDE-01 (00.0-00.5) DUP Grab Sediment	07/31/2019 14:30	1115077
SD-ERA-G12-MDE-01 (00.0-00.5) Grab Sediment	07/31/2019 14:30	1115078
SD-ERA-G12-MDE-01 (00.0-00.5) MS Grab Sediment	07/31/2019 14:30	1115079
SD-ERA-G12-MDE-01 (00.0-00.5) MSD Grab Sediment	07/31/2019 14:30	1115080

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **FB073119 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:45
SDG#: KVN47-01FB

Hercules Incorporated
ELLE Sample #: **WW 1115065**
ELLE Group #: **2056546**
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene[1]	83-32-9	N.D.	0.04	0.1	1
10262	Acenaphthylene[1]	208-96-8	N.D.	0.04	0.1	1
10262	Anthracene[1]	120-12-7	N.D.	0.04	0.1	1
10262	Benzo(a)anthracene[1]	56-55-3	N.D.	0.04	0.1	1
10262	Benzo(a)pyrene[1]	50-32-8	N.D.	0.04	0.1	1
10262	Benzo(b)fluoranthene[1]	205-99-2	N.D.	0.04	0.1	1
10262	Benzo(e)pyrene[1]	192-97-2	N.D.	0.04	0.1	1
10262	Benzo(g,h,i)perylene[1]	191-24-2	N.D.	0.04	0.1	1
10262	Benzo(k)fluoranthene[1]	207-08-9	N.D.	0.04	0.1	1
10262	C1-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Fluoranthrenes/pyrenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Fluorenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C1-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Fluorenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C2-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Fluorenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C3-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C4-Naphthalenes[1]	n.a.	N.D.	0.04	0.1	1
10262	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.04	0.1	1
10262	Chrysene[1]	218-01-9	N.D.	0.04	0.1	1
10262	Dibenz(a,h)anthracene[1]	53-70-3	N.D.	0.04	0.1	1
10262	Fluoranthene[1]	206-44-0	N.D.	0.04	0.1	1
10262	Fluorene[1]	86-73-7	N.D.	0.04	0.1	1
10262	Indeno(1,2,3-cd)pyrene[1]	193-39-5	N.D.	0.04	0.1	1
10262	Naphthalene[1]	91-20-3	N.D.	0.04	0.1	1
10262	Perylene[1]	198-55-0	N.D.	0.04	0.1	1
10262	Phenanthrene[1]	85-01-8	N.D.	0.04	0.1	1
10262	Pyrene[1]	129-00-0	N.D.	0.04	0.1	1

The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The LCS/LCSD surrogate(s) recovery is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

*=This limit was used in the evaluation of the final result

Sample Description: **FB073119 Water**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:45
SDG#: KVN47-01FB

Hercules Incorporated
ELLE Sample #: WW 1115065
ELLE Group #: 2056546
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0053	0.0150	1
02828	Trivalent Chromium waters[1]	16065-83-1	N.D.	0.010	0.030	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.					
Wet Chemistry	**SM 5310 C-2011**		**mg/l**	**mg/l**	**mg/l**	
00273	Total Organic Carbon	n.a.	N.D.	0.50	1.0	1
	SM 2550 B-2010		**Degrees C**	**Degrees C**	**Degrees C**	
12151	Temperature of pH[1]	n.a.	23.7	0.010	0.010	1
	SW-846 7196A		**mg/l**	**mg/l**	**mg/l**	
00276	Hexavalent Chromium	18540-29-9	N.D.	0.010	0.030	1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	
12152	pH[1]	n.a.	7.3	0.010	0.010	1
	The 40 CFR Part 136 requires that this analysis be performed immediately (within 15 minutes) upon sample collection. Because this was not possible, the result may not be used for reporting purposes.					

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	19218WAL026	08/23/2019 10:09	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	19218WAL026	08/06/2019 21:50	Karen L Beyer	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	192141404402	08/06/2019 20:02	Elaine F Stoltzfus	1
02828	Trivalent Chromium waters	SW-846 6010D Rev.4, July 2014	1	192190282801	08/07/2019 20:27	Katlin N Burkholder	1
14044	ICP-WW, 3005A (tot rec) - U345	SW-846 3005A	1	192141404402	08/05/2019 18:00	Barbara A Kane	1
00273	Total Organic Carbon	SM 5310 C-2011	1	19218304502A	08/07/2019 03:24	Bethany Sandone	1
12151	Temperature of pH	SM 2550 B-2010	1	19220003102A	08/08/2019 17:05	Jeremy L Bolf	1
00276	Hexavalent Chromium	SW-846 7196A	1	19213027601A	08/01/2019 10:25	Kristen Wroblewski	1
12152	pH	SW-846 9040C	1	19220003102A	08/08/2019 17:05	Jeremy L Bolf	1

*=This limit was used in the evaluation of the final result

Sample Description: **BD073119 Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019
SDG#: KVN47-02FD

Hercules Incorporated
ELLE Sample #: **SW 1115066**
ELLE Group #: **2056546**
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**		**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	N.D.		7.9	20	10
10242	Acenaphthylene[1]	208-96-8	N.D.		7.9	20	10
10242	Anthracene[1]	120-12-7	12	J	7.9	20	10
10242	Benzo(a)anthracene[1]	56-55-3	33		7.9	20	10
10242	Benzo(a)pyrene[1]	50-32-8	28		7.9	20	10
10242	Benzo(b)fluoranthene[1]	205-99-2	20		7.9	20	10
10242	Benzo(e)pyrene[1]	192-97-2	20		7.9	20	10
10242	Benzo(g,h,i)perylene[1]	191-24-2	16	J	7.9	20	10
10242	Benzo(k)fluoranthene[1]	207-08-9	28		7.9	20	10
10242	C1-Benzanthrene/chrysenes[1]	n.a.	26		7.9	20	10
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	42		7.9	20	10
10242	C1-Fluorenes[1]	n.a.	N.D.		7.9	20	10
10242	C1-Naphthalenes[1]	n.a.	N.D.		7.9	20	10
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	38		7.9	20	10
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.		7.9	20	10
10242	C2-Fluorenes[1]	n.a.	N.D.		7.9	20	10
10242	C2-Naphthalenes[1]	n.a.	10	J	7.9	20	10
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	29		7.9	20	10
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.		7.9	20	10
10242	C3-Fluorenes[1]	n.a.	N.D.		7.9	20	10
10242	C3-Naphthalenes[1]	n.a.	N.D.		7.9	20	10
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	15	J	7.9	20	10
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.		7.9	20	10
10242	C4-Naphthalenes[1]	n.a.	N.D.		7.9	20	10
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.		7.9	20	10
10242	Chrysene[1]	218-01-9	39		7.9	20	10
10242	Dibenz(a,h)anthracene[1]	53-70-3	N.D.		7.9	20	10
10242	Fluoranthene[1]	206-44-0	66		7.9	20	10
10242	Fluorene[1]	86-73-7	N.D.		7.9	20	10
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	19	J	7.9	20	10
10242	Naphthalene[1]	91-20-3	N.D.		7.9	20	10
10242	Perylene[1]	198-55-0	N.D.		7.9	20	10
10242	Phenanthrene[1]	85-01-8	41		7.9	20	10
10242	Pyrene[1]	129-00-0	62		7.9	20	10

Reporting limits were raised due to interference from the sample matrix.

The stated Laboratory Control Spike limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: **BD073119 Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019
SDG#: KVN47-02FD

Hercules Incorporated
ELLE Sample #: SW 1115066
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	7.41	0.166	1.19	1
02829	Trivalent Chromium soils[1]	16065-83-1	7.4	0.17	1.2	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.					
Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	5,460	1,530	4,600	1
	SW-846 7196A		**mg/kg**	**mg/kg**	**mg/kg**	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.17	0.50	1
	SW-846 9045D Nov 2004		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	7.99	0.0100	0.0100	1
	The pH was measured in water at 20.1 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1]	n.a.	15.7	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/23/2019 12:15	Joseph M Gambler	10
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192171404901	08/06/2019 23:32	Elaine F Stoltzfus	1
02829	Trivalent Chromium soils	SW-846 6010D Rev.4, July 2014	1	192310282902	08/19/2019 13:27	Katlin N Burkholder	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192171404901	08/05/2019 06:15	Annamaria Kuhns	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/06/2019 13:17	Drew M Gerhart	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1

*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **BD073119 Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019
SDG#: KVN47-02FD

Hercules Incorporated
ELLE Sample #: SW 1115066
ELLE Group #: 2056546
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	pH	SW-846 9045D Nov 2004	1	19234039405A	08/22/2019 20:05	Jeremy L Bolf	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19218820009A	08/07/2019 12:09	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **BD073119 Grab Sediment**
AVS/SEM
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019
SDG#: KVN47-03FD

Hercules Incorporated
ELLE Sample #: SW 1115067
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**umoles/g**	**umoles/g**	**umoles/g**	
06949	Cadmium	7440-43-9	0.000454 B	0.000217	0.00109	1
06953	Copper	7440-50-8	0.0125	0.00192	0.00769	1
06955	Lead	7439-92-1	0.0787	0.000708	0.00177	1
06961	Nickel	7440-02-0	0.00973	0.000873	0.00416	1
06972	Zinc	7440-66-6	0.249	0.00149	0.00747	1
	The prep blank read 18.77025 umoles/g. The limit is 0.5 umoles/g.					
	SW-846 7471B		**umoles/g**	**umoles/g**	**umoles/g**	
00159	Mercury	7439-97-6	0.000139	0.000023	0.0000975	1
Wet Chemistry	**EPA-821-R-91-100**		**umoles/g**	**umoles/g**	**umoles/g**	
01630	Acid Volatile Sulfide[1]	1313-84-4	N.D.	0.63	2.0	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

B (for Inorganic tests) = estimated value: The result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
Note: LOQ = PQL

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:46	Lisa J Cooke	1
06953	Copper	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 13:05	Lisa J Cooke	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:46	Lisa J Cooke	1
06961	Nickel	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:46	Lisa J Cooke	1
06972	Zinc	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 13:05	Lisa J Cooke	1
00159	Mercury	SW-846 7471B	1	192251486201	08/14/2019 08:12	Damary Valentin	1
14862	Non-digest metals - U345	EPA-821-R-91-100	1	192251486201	08/08/2019 08:55	Lisa J Cooke	1
01630	Acid Volatile Sulfide	EPA-821-R-91-100	1	19220163001A	08/08/2019 08:55	Susan E Hibner	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-C15-MOSL-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 09:30
SDG#: KVN47-04

Hercules Incorporated
ELLE Sample #: SW 1115068
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	N.D.	0.7	1.6	1
10242	Acenaphthylene[1]	208-96-8	1.4 J	0.7	1.6	1
10242	Anthracene[1]	120-12-7	1.7	0.7	1.6	1
10242	Benzo(a)anthracene[1]	56-55-3	7.9	0.7	1.6	1
10242	Benzo(a)pyrene[1]	50-32-8	8.4	0.7	1.6	1
10242	Benzo(b)fluoranthene[1]	205-99-2	8.8	0.7	1.6	1
10242	Benzo(e)pyrene[1]	192-97-2	7.2	0.7	1.6	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	7.4	0.7	1.6	1
10242	Benzo(k)fluoranthene[1]	207-08-9	7.4	0.7	1.6	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	6.5	0.7	1.6	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	7.8	0.7	1.6	1
10242	C1-Fluorenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C1-Naphthalenes[1]	n.a.	1.0 J	0.7	1.6	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	4.3	0.7	1.6	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C2-Fluorenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C2-Naphthalenes[1]	n.a.	1.9	0.7	1.6	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	4.2	0.7	1.6	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C3-Fluorenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C3-Naphthalenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C4-Naphthalenes[1]	n.a.	N.D.	0.7	1.6	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.7	1.6	1
10242	Chrysene[1]	218-01-9	11	0.7	1.6	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	1.6 J	0.7	1.6	1
10242	Fluoranthene[1]	206-44-0	13	0.7	1.6	1
10242	Fluorene[1]	86-73-7	N.D.	0.7	1.6	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	7.7	0.7	1.6	1
10242	Naphthalene[1]	91-20-3	2.9	0.7	1.6	1
10242	Perylene[1]	198-55-0	5.9	0.7	1.6	1
10242	Phenanthrene[1]	85-01-8	7.3	0.7	1.6	1
10242	Pyrene[1]	129-00-0	12	0.7	1.6	1
Trial ID: RE						
10242	Acenaphthene[1]	83-32-9	6.2	0.7	1.7	1
10242	Acenaphthylene[1]	208-96-8	8.8	0.7	1.7	1
10242	Anthracene[1]	120-12-7	23	0.7	1.7	1
10242	Benzo(a)anthracene[1]	56-55-3	51	0.7	1.7	1
10242	Benzo(a)pyrene[1]	50-32-8	52	0.7	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-C15-MOSL-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 09:30
SDG#: KVN47-04

Hercules Incorporated
ELLE Sample #: SW 1115068
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Benzo(b)fluoranthene[1]	205-99-2	55	0.7	1.7	1
10242	Benzo(e)pyrene[1]	192-97-2	46	0.7	1.7	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	40	0.7	1.7	1
10242	Benzo(k)fluoranthene[1]	207-08-9	50	0.7	1.7	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	37	0.7	1.7	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	60	0.7	1.7	1
10242	C1-Fluorenes[1]	n.a.	N.D.	0.7	1.7	1
10242	C1-Naphthalenes[1]	n.a.	5.4	0.7	1.7	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	84	0.7	1.7	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.7	1.7	1
10242	C2-Fluorenes[1]	n.a.	N.D.	0.7	1.7	1
10242	C2-Naphthalenes[1]	n.a.	87	0.7	1.7	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	40	0.7	1.7	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.7	1.7	1
10242	C3-Fluorenes[1]	n.a.	N.D.	0.7	1.7	1
10242	C3-Naphthalenes[1]	n.a.	11	0.7	1.7	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	23	0.7	1.7	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.7	1.7	1
10242	C4-Naphthalenes[1]	n.a.	10	0.7	1.7	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.7	1.7	1
10242	Chrysene[1]	218-01-9	74	0.7	1.7	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	9.6	0.7	1.7	1
10242	Fluoranthene[1]	206-44-0	120	0.7	1.7	1
10242	Fluorene[1]	86-73-7	5.2	0.7	1.7	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	43	0.7	1.7	1
10242	Naphthalene[1]	91-20-3	4.7	0.7	1.7	1
10242	Perylene[1]	198-55-0	76	0.7	1.7	1
10242	Phenanthrene[1]	85-01-8	90	0.7	1.7	1
10242	Pyrene[1]	129-00-0	110	0.7	1.7	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	19,700	1,140	3,430	1
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	75 mm[1]	n.a.	100	0.50	0.50	1
07103	37.5 mm[1]	n.a.	100	0.50	0.50	1
07103	19 mm[1]	n.a.	100	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-C15-MOSL-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 09:30
SDG#: KVN47-04

Hercules Incorporated
ELLE Sample #: SW 1115068
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	4.75 mm[1]	n.a.	100	0.50	0.50	1
07103	3.35 mm[1]	n.a.	100	0.50	0.50	1
07103	2.36 mm[1]	n.a.	99.8	0.50	0.50	1
07103	1.18 mm[1]	n.a.	94.0	0.50	0.50	1
07103	0.6 mm[1]	n.a.	72.6	0.50	0.50	1
07103	0.3 mm[1]	n.a.	46.6	0.50	0.50	1
07103	0.15 mm[1]	n.a.	29.6	0.50	0.50	1
07103	0.075 mm[1]	n.a.	20.6	0.50	0.50	1
07103	0.064 mm[1]	n.a.	18.0	0.50	0.50	1
07103	0.05 mm[1]	n.a.	14.0	0.50	0.50	1
07103	0.02 mm[1]	n.a.	7.0	0.50	0.50	1
07103	0.005 mm[1]	n.a.	2.0	0.50	0.50	1
07103	0.002 mm[1]	n.a.	2.0	0.50	0.50	1
07103	0.001 mm[1]	n.a.	2.0	0.50	0.50	1
Wet Chemistry	**SW-846 9045D Nov 2004**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	7.26	0.0100	0.0100	1
	The pH was measured in water at 20 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1]	n.a.	63.7	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/23/2019 12:57	Joseph M Gambler	1
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	2-RE	19239SLC026	08/28/2019 07:06	Joseph M Gambler	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	2	19239SLC026	08/27/2019 16:45	Osvaldo R Sanchez	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/05/2019 21:54	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	19225710301A	08/13/2019 02:45	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-C15-MOSL-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 09:30
SDG#: KVN47-04

Hercules Incorporated
ELLE Sample #: SW 1115068
ELLE Group #: 2056546
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	pH	SW-846 9045D Nov 2004	1	19234039405A	08/22/2019 20:05	Jeremy L Bolf	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19218820009A	08/07/2019 12:09	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-B16-MOSL-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 10:00
SDG#: KVN47-05

Hercules Incorporated
ELLE Sample #: SW 1115069
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	34	8.5	21	10
10242	Acenaphthylene[1]	208-96-8	43	8.5	21	10
10242	Anthracene[1]	120-12-7	110	8.5	21	10
10242	Benzo(a)anthracene[1]	56-55-3	520	8.5	21	10
10242	Benzo(a)pyrene[1]	50-32-8	490	8.5	21	10
10242	Benzo(b)fluoranthene[1]	205-99-2	420	8.5	21	10
10242	Benzo(e)pyrene[1]	192-97-2	360	8.5	21	10
10242	Benzo(g,h,i)perylene[1]	191-24-2	350	8.5	21	10
10242	Benzo(k)fluoranthene[1]	207-08-9	420	8.5	21	10
10242	C1-Benzanthrene/chrysenes[1]	n.a.	400	8.5	21	10
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	520	8.5	21	10
10242	C1-Fluorenes[1]	n.a.	N.D.	8.5	21	10
10242	C1-Naphthalenes[1]	n.a.	13 J	8.5	21	10
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	290	8.5	21	10
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	8.5	21	10
10242	C2-Fluorenes[1]	n.a.	N.D.	8.5	21	10
10242	C2-Naphthalenes[1]	n.a.	32	8.5	21	10
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	270	8.5	21	10
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	8.5	21	10
10242	C3-Fluorenes[1]	n.a.	N.D.	8.5	21	10
10242	C3-Naphthalenes[1]	n.a.	45	8.5	21	10
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	130	8.5	21	10
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	8.5	21	10
10242	C4-Naphthalenes[1]	n.a.	42	8.5	21	10
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	8.5	21	10
10242	Chrysene[1]	218-01-9	630	8.5	21	10
10242	Dibenz(a,h)anthracene[1]	53-70-3	83	8.5	21	10
10242	Fluoranthene[1]	206-44-0	1,000	8.5	21	10
10242	Fluorene[1]	86-73-7	36	8.5	21	10
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	370	8.5	21	10
10242	Naphthalene[1]	91-20-3	16 J	8.5	21	10
10242	Perylene[1]	198-55-0	120	8.5	21	10
10242	Phenanthrene[1]	85-01-8	430	8.5	21	10
10242	Pyrene[1]	129-00-0	950	8.5	21	10

Reporting limits were raised due to interference from the sample matrix.

The stated Laboratory Control Spike limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	8,310	332	996	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-B16-MOSL-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 10:00
SDG#: KVN47-05

Hercules Incorporated
ELLE Sample #: SW 1115069
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	75 mm[1]	n.a.	100	0.50	0.50	1
07103	37.5 mm[1]	n.a.	100	0.50	0.50	1
07103	19 mm[1]	n.a.	100	0.50	0.50	1
07103	4.75 mm[1]	n.a.	95.3	0.50	0.50	1
07103	3.35 mm[1]	n.a.	91.0	0.50	0.50	1
07103	2.36 mm[1]	n.a.	85.1	0.50	0.50	1
07103	1.18 mm[1]	n.a.	63.6	0.50	0.50	1
07103	0.6 mm[1]	n.a.	45.6	0.50	0.50	1
07103	0.3 mm[1]	n.a.	27.2	0.50	0.50	1
07103	0.15 mm[1]	n.a.	14.5	0.50	0.50	1
07103	0.075 mm[1]	n.a.	11.9	0.50	0.50	1
07103	0.064 mm[1]	n.a.	10.0	0.50	0.50	1
07103	0.05 mm[1]	n.a.	4.5	0.50	0.50	1
07103	0.02 mm[1]	n.a.	1.0	0.50	0.50	1
07103	0.005 mm[1]	n.a.	1.0	0.50	0.50	1
07103	0.002 mm[1]	n.a.	1.0	0.50	0.50	1
07103	0.001 mm[1]	n.a.	1.0	0.50	0.50	1
Wet Chemistry	**SW-846 9045D Nov 2004**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH The pH was measured in water at 20.3 C.	n.a.	7.15	0.0100	0.0100	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1] Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	22.0	0.50	0.50	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/23/2019 13:39	Joseph M Gambler	10
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/05/2019 22:07	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	19225710301A	08/13/2019 02:45	Luz M Groff	1

*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **SD-ERA-B16-MOSL-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 10:00
SDG#: KVN47-05

Hercules Incorporated
ELLE Sample #: SW 1115069
ELLE Group #: 2056546
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	pH	SW-846 9045D Nov 2004	1	19234039405A	08/22/2019 20:05	Jeremy L Bolf	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19218820009A	08/07/2019 12:09	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:00
SDG#: KVN47-06

Hercules Incorporated
ELLE Sample #: SW 1115070
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	0.9 J	0.8	2.1	1
10242	Acenaphthylene[1]	208-96-8	9.5	0.8	2.1	1
10242	Anthracene[1]	120-12-7	11	0.8	2.1	1
10242	Benzo(a)anthracene[1]	56-55-3	26	0.8	2.1	1
10242	Benzo(a)pyrene[1]	50-32-8	23	0.8	2.1	1
10242	Benzo(b)fluoranthene[1]	205-99-2	19	0.8	2.1	1
10242	Benzo(e)pyrene[1]	192-97-2	17	0.8	2.1	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	15	0.8	2.1	1
10242	Benzo(k)fluoranthene[1]	207-08-9	20	0.8	2.1	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	24	0.8	2.1	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	30	0.8	2.1	1
10242	C1-Fluorenes[1]	n.a.	N.D.	0.8	2.1	1
10242	C1-Naphthalenes[1]	n.a.	5.0	0.8	2.1	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	33	0.8	2.1	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.8	2.1	1
10242	C2-Fluorenes[1]	n.a.	N.D.	0.8	2.1	1
10242	C2-Naphthalenes[1]	n.a.	11	0.8	2.1	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	28	0.8	2.1	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.8	2.1	1
10242	C3-Fluorenes[1]	n.a.	N.D.	0.8	2.1	1
10242	C3-Naphthalenes[1]	n.a.	16	0.8	2.1	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	14	0.8	2.1	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.8	2.1	1
10242	C4-Naphthalenes[1]	n.a.	8.6	0.8	2.1	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.8	2.1	1
10242	Chrysene[1]	218-01-9	31	0.8	2.1	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	3.9	0.8	2.1	1
10242	Fluoranthene[1]	206-44-0	40	0.8	2.1	1
10242	Fluorene[1]	86-73-7	1.2 J	0.8	2.1	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	16	0.8	2.1	1
10242	Naphthalene[1]	91-20-3	3.0	0.8	2.1	1
10242	Perylene[1]	198-55-0	5.6	0.8	2.1	1
10242	Phenanthrene[1]	85-01-8	26	0.8	2.1	1
10242	Pyrene[1]	129-00-0	39	0.8	2.1	1
Trial ID: RE						
10242	Acenaphthene[1]	83-32-9	0.9 J	0.8	2.0	1
10242	Acenaphthylene[1]	208-96-8	9.9	0.8	2.0	1
10242	Anthracene[1]	120-12-7	15	0.8	2.0	1
10242	Benzo(a)anthracene[1]	56-55-3	30	0.8	2.0	1
10242	Benzo(a)pyrene[1]	50-32-8	34	0.8	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:00
SDG#: KVN47-06

Hercules Incorporated
ELLE Sample #: SW 1115070
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Benzo(b)fluoranthene[1]	205-99-2	36	0.8	2.0	1
10242	Benzo(e)pyrene[1]	192-97-2	35	0.8	2.0	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	30	0.8	2.0	1
10242	Benzo(k)fluoranthene[1]	207-08-9	42	0.8	2.0	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	29	0.8	2.0	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	35	0.8	2.0	1
10242	C1-Fluorenes[1]	n.a.	2.5	0.8	2.0	1
10242	C1-Naphthalenes[1]	n.a.	3.9	0.8	2.0	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	40	0.8	2.0	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.8	2.0	1
10242	C2-Fluorenes[1]	n.a.	N.D.	0.8	2.0	1
10242	C2-Naphthalenes[1]	n.a.	7.1	0.8	2.0	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	33	0.8	2.0	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.8	2.0	1
10242	C3-Fluorenes[1]	n.a.	N.D.	0.8	2.0	1
10242	C3-Naphthalenes[1]	n.a.	N.D.	0.8	2.0	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	18	0.8	2.0	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	0.8	2.0	1
10242	C4-Naphthalenes[1]	n.a.	7.1	0.8	2.0	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	0.8	2.0	1
10242	Chrysene[1]	218-01-9	46	0.8	2.0	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	8.4	0.8	2.0	1
10242	Fluoranthene[1]	206-44-0	52	0.8	2.0	1
10242	Fluorene[1]	86-73-7	1.4 J	0.8	2.0	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	31	0.8	2.0	1
10242	Naphthalene[1]	91-20-3	18	0.8	2.0	1
10242	Perylene[1]	198-55-0	7.8	0.8	2.0	1
10242	Phenanthrene[1]	85-01-8	34	0.8	2.0	1
10242	Pyrene[1]	129-00-0	50	0.8	2.0	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	6.42	0.180	1.28	1
02829	Trivalent Chromium soils[1]	16065-83-1	6.4	0.18	1.3	1

The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.

Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:00
SDG#: KVN47-06

Hercules Incorporated
ELLE Sample #: SW 1115070
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn		n.a.	20,100	1,190	3,580	1
Wet Chemistry		**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	75 mm¹		n.a.	100	0.50	0.50	1
07103	37.5 mm¹		n.a.	100	0.50	0.50	1
07103	19 mm¹		n.a.	100	0.50	0.50	1
07103	4.75 mm¹		n.a.	93.8	0.50	0.50	1
07103	3.35 mm¹		n.a.	86.8	0.50	0.50	1
07103	2.36 mm¹		n.a.	78.8	0.50	0.50	1
07103	1.18 mm¹		n.a.	39.2	0.50	0.50	1
07103	0.6 mm¹		n.a.	20.3	0.50	0.50	1
07103	0.3 mm¹		n.a.	5.2	0.50	0.50	1
07103	0.15 mm¹		n.a.	0.65	0.50	0.50	1
07103	0.075 mm¹		n.a.	0.54	0.50	0.50	1
07103	0.064 mm¹		n.a.	0.50	0.50	0.50	1
07103	0.05 mm¹		n.a.	1.0	0.50	0.50	1
07103	0.02 mm¹		n.a.	1.0	0.50	0.50	1
07103	0.005 mm¹		n.a.	1.0	0.50	0.50	1
07103	0.002 mm¹		n.a.	1.0	0.50	0.50	1
07103	0.001 mm¹		n.a.	1.0	0.50	0.50	1
Wet Chemistry		**SW-846 7196A**		**mg/kg**	**mg/kg**	**mg/kg**	
00425	Hexavalent Chromium (SOLIDS)		18540-29-9	N.D.	0.17	0.52	1
		SW-846 9045D Nov 2004		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH		n.a.	7.77	0.0100	0.0100	1
	The pH was measured in water at 20.1 C.						
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture¹		n.a.	18.8	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

State of New Jersey Lab Certification No. PA011

¹ = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:00
SDG#: KVN47-06

Hercules Incorporated
ELLE Sample #: SW 1115070
ELLE Group #: 2056546
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/23/2019 14:21	Joseph M Gambler	1
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	2-RE	19239SLC026	08/28/2019 07:48	Joseph M Gambler	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	2	19239SLC026	08/27/2019 16:45	Osvaldo R Sanchez	1
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192171404901	08/06/2019 14:12	Cindy M Gehman	1
02829	Trivalent Chromium soils	SW-846 6010D Rev.4, July 2014	1	192310282902	08/19/2019 13:27	Katlin N Burkholder	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192171404901	08/05/2019 06:15	Annamaria Kuhns	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/06/2019 13:30	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	19225710301A	08/13/2019 02:45	Luz M Groff	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1
00394	pH	SW-846 9045D Nov 2004	1	19234039405A	08/22/2019 20:05	Jeremy L Bolf	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19218820009A	08/07/2019 12:09	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F14-MDE-01 (00.0-00.5) Grab Sediment**
AVS/SEM
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:00
SDG#: KVN47-07

Hercules Incorporated
ELLE Sample #: SW 1115071
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**umoles/g**	**umoles/g**	**umoles/g**	
06949	Cadmium	7440-43-9	0.000706 B	0.000213	0.00106	1
06953	Copper	7440-50-8	0.141	0.00188	0.00752	1
06955	Lead	7439-92-1	0.0912	0.000692	0.00173	1
06961	Nickel	7440-02-0	0.674	0.000854	0.00407	1
06972	Zinc	7440-66-6	0.283	0.00146	0.00731	1
	The prep blank read 18.77025 umoles/g. The limit is 0.5 umoles/g.					
	SW-846 7471B		**umoles/g**	**umoles/g**	**umoles/g**	
00159	Mercury	7439-97-6	0.000128	0.000022	0.0000953	1
Wet Chemistry	**EPA-821-R-91-100**		**umoles/g**	**umoles/g**	**umoles/g**	
01630	Acid Volatile Sulfide[1]	1313-84-4	N.D.	0.63	2.0	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

B (for Inorganic tests) = estimated value: The result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
Note: LOQ = PQL

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:48	Lisa J Cooke	1
06953	Copper	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:48	Lisa J Cooke	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:48	Lisa J Cooke	1
06961	Nickel	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:48	Lisa J Cooke	1
06972	Zinc	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 13:08	Lisa J Cooke	1
00159	Mercury	SW-846 7471B	1	192251486201	08/14/2019 08:14	Damary Valentin	1
14862	Non-digest metals - U345	EPA-821-R-91-100	1	192251486201	08/08/2019 08:55	Lisa J Cooke	1
01630	Acid Volatile Sulfide	EPA-821-R-91-100	1	19220163001A	08/08/2019 08:55	Susan E Hibner	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:44
SDG#: KVN47-08

Hercules Incorporated
ELLE Sample #: SW 1115072
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	7.0 J	3.8	9.4	1
10242	Acenaphthylene[1]	208-96-8	37	3.8	9.4	1
10242	Anthracene[1]	120-12-7	73	3.8	9.4	1
10242	Benzo(a)anthracene[1]	56-55-3	220	3.8	9.4	1
10242	Benzo(a)pyrene[1]	50-32-8	260	3.8	9.4	1
10242	Benzo(b)fluoranthene[1]	205-99-2	430	3.8	9.4	1
10242	Benzo(e)pyrene[1]	192-97-2	300	3.8	9.4	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	180	3.8	9.4	1
10242	Benzo(k)fluoranthene[1]	207-08-9	300	3.8	9.4	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	210	3.8	9.4	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	280	3.8	9.4	1
10242	C1-Fluorenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C1-Naphthalenes[1]	n.a.	16	3.8	9.4	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C2-Fluorenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C2-Naphthalenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	100	3.8	9.4	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C3-Fluorenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C3-Naphthalenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	57	3.8	9.4	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C4-Naphthalenes[1]	n.a.	N.D.	3.8	9.4	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	3.8	9.4	1
10242	Chrysene[1]	218-01-9	450	3.8	9.4	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	54	3.8	9.4	1
10242	Fluoranthene[1]	206-44-0	360	3.8	9.4	1
10242	Fluorene[1]	86-73-7	8.8 J	3.8	9.4	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	210	3.8	9.4	1
10242	Naphthalene[1]	91-20-3	380	3.8	9.4	1
10242	Perylene[1]	198-55-0	82	3.8	9.4	1
10242	Phenanthrene[1]	85-01-8	120	3.8	9.4	1
10242	Pyrene[1]	129-00-0	380	3.8	9.4	1
Trial ID: RE						
10242	Acenaphthene[1]	83-32-9	56	3.8	9.5	1
10242	Acenaphthylene[1]	208-96-8	170	3.8	9.5	1
10242	Anthracene[1]	120-12-7	470	3.8	9.5	1
10242	Benzo(a)anthracene[1]	56-55-3	1,000	3.8	9.5	1
10242	Benzo(a)pyrene[1]	50-32-8	1,400	3.8	9.5	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:44
SDG#: KVN47-08

Hercules Incorporated
ELLE Sample #: SW 1115072
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Benzo(b)fluoranthene[1]	205-99-2	7.1 J	3.8	9.5	1
10242	Benzo(e)pyrene[1]	192-97-2	12	3.8	9.5	1
10242	Benzo(g,h,i)perylene[1]	191-24-2	880	3.8	9.5	1
10242	Benzo(k)fluoranthene[1]	207-08-9	1,400	3.8	9.5	1
10242	C1-Benzanthrene/chrysenes[1]	n.a.	1,300	3.8	9.5	1
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	1,500	3.8	9.5	1
10242	C1-Fluorenes[1]	n.a.	N.D.	3.8	9.5	1
10242	C1-Naphthalenes[1]	n.a.	63	3.8	9.5	1
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	1,100	3.8	9.5	1
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.8	9.5	1
10242	C2-Fluorenes[1]	n.a.	N.D.	3.8	9.5	1
10242	C2-Naphthalenes[1]	n.a.	460	3.8	9.5	1
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	2,500	3.8	9.5	1
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.8	9.5	1
10242	C3-Fluorenes[1]	n.a.	N.D.	3.8	9.5	1
10242	C3-Naphthalenes[1]	n.a.	200	3.8	9.5	1
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	2,200	3.8	9.5	1
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	3.8	9.5	1
10242	C4-Naphthalenes[1]	n.a.	200	3.8	9.5	1
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	1,500	3.8	9.5	1
10242	Chrysene[1]	218-01-9	1,800	3.8	9.5	1
10242	Dibenz(a,h)anthracene[1]	53-70-3	260	3.8	9.5	1
10242	Fluoranthene[1]	206-44-0	1,300	3.8	9.5	1
10242	Fluorene[1]	86-73-7	41	3.8	9.5	1
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	970	3.8	9.5	1
10242	Naphthalene[1]	91-20-3	99	3.8	9.5	1
10242	Perylene[1]	198-55-0	470	3.8	9.5	1
10242	Phenanthrene[1]	85-01-8	500	3.8	9.5	1
10242	Pyrene[1]	129-00-0	37	3.8	9.5	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	31.6	0.828	5.91	1
02829	Trivalent Chromium soils[1]	16065-83-1	31.6	0.83	5.9	1

The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.

Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:44
SDG#: KVN47-08

Hercules Incorporated
ELLE Sample #: SW 1115072
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	184,000	8,740	26,200	1
Wet Chemistry	**SW-846 7196A**		**mg/kg**	**mg/kg**	**mg/kg**	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.80	2.4	1
	SW-846 9045D Nov 2004		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	6.61	0.0100	0.0100	1
	The pH was measured in water at 20.1 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1]	n.a.	82.5	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

State of New Jersey Lab Certification No. PA011

Grain Size could not be performed on this sample. There was insufficient sample remaining after the drying and sieving step.

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/23/2019 15:03	Joseph M Gambler	1
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	2-RE	19239SLC026	08/28/2019 08:30	Joseph M Gambler	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
10481	Alkyl PAH Microwave Soils	SW-846 3546	2	19239SLC026	08/27/2019 16:45	Osvaldo R Sanchez	1
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192141404910	08/06/2019 15:40	Patrick J Engle	1
02829	Trivalent Chromium soils	SW-846 6010D Rev.4, July 2014	1	192310282902	08/19/2019 13:27	Katlin N Burkholder	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192141404910	08/05/2019 05:45	Annamaria Kuhns	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/05/2019 22:33	Drew M Gerhart	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1
00394	pH	SW-846 9045D Nov 2004	1	19234039405A	08/22/2019 20:05	Jeremy L Bolf	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:44
SDG#: KVN47-08

Hercules Incorporated
ELLE Sample #: SW 1115072
ELLE Group #: 2056546
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19218820009A	08/07/2019 12:09	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-F13-MDE-01 (00.0-00.5) Grab Sediment**
AVS/SEM
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 13:44
SDG#: KVN47-09

Hercules Incorporated
ELLE Sample #: SW 1115073
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**umoles/g**	**umoles/g**	**umoles/g**	
06949	Cadmium	7440-43-9	0.00325 B	0.00110	0.00550	5
06953	Copper	7440-50-8	0.102	0.00973	0.0389	5
06955	Lead	7439-92-1	0.770	0.00358	0.00896	5
06961	Nickel	7440-02-0	0.0782	0.00442	0.0211	5
06972	Zinc	7440-66-6	1.39	0.00757	0.0378	5
	The prep blank read 18.77025 umoles/g. The limit is 0.5 umoles/g.					
	SW-846 7471B		**umoles/g**	**umoles/g**	**umoles/g**	
00159	Mercury	7439-97-6	N.D.	0.000023	0.0000987	1
Wet Chemistry	**EPA-821-R-91-100**		**umoles/g**	**umoles/g**	**umoles/g**	
01630	Acid Volatile Sulfide[1]	1313-84-4	26.0	0.63	2.0	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

B (for Inorganic tests) = estimated value: The result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
Note: LOQ = PQL

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010D Rev.4, July 2014	1	192251486201	08/15/2019 12:55	Lisa J Cooke	5
06953	Copper	SW-846 6010D Rev.4, July 2014	1	192251486201	08/15/2019 12:55	Lisa J Cooke	5
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192251486201	08/15/2019 09:11	Lisa J Cooke	5
06961	Nickel	SW-846 6010D Rev.4, July 2014	1	192251486201	08/15/2019 09:11	Lisa J Cooke	5
06972	Zinc	SW-846 6010D Rev.4, July 2014	1	192251486201	08/15/2019 12:55	Lisa J Cooke	5
00159	Mercury	SW-846 7471B	1	192251486201	08/14/2019 08:16	Damary Valentin	1
14862	Non-digest metals - U345	EPA-821-R-91-100	1	192251486201	08/08/2019 08:55	Lisa J Cooke	1
01630	Acid Volatile Sulfide	EPA-821-R-91-100	1	19220163001A	08/08/2019 08:55	Susan E Hibner	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10BKG

Hercules Incorporated
ELLE Sample #: SW 1115074
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**		**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	48		15	37	10
10242	Acenaphthylene[1]	208-96-8	150		15	37	10
10242	Anthracene[1]	120-12-7	280		15	37	10
10242	Benzo(a)anthracene[1]	56-55-3	1,000		15	37	10
10242	Benzo(a)pyrene[1]	50-32-8	820		15	37	10
10242	Benzo(b)fluoranthene[1]	205-99-2	740		15	37	10
10242	Benzo(e)pyrene[1]	192-97-2	600		15	37	10
10242	Benzo(g,h,i)perylene[1]	191-24-2	540		15	37	10
10242	Benzo(k)fluoranthene[1]	207-08-9	800		15	37	10
10242	C1-Benzanthrene/chrysenes[1]	n.a.	730		15	37	10
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	970		15	37	10
10242	C1-Fluorenes[1]	n.a.	91		15	37	10
10242	C1-Naphthalenes[1]	n.a.	51		15	37	10
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	1,100		15	37	10
10242	C2-Benzanthrene/chrysenes[1]	n.a.	N.D.		15	37	10
10242	C2-Fluorenes[1]	n.a.	N.D.		15	37	10
10242	C2-Naphthalenes[1]	n.a.	150		15	37	10
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	680		15	37	10
10242	C3-Benzanthrene/chrysenes[1]	n.a.	N.D.		15	37	10
10242	C3-Fluorenes[1]	n.a.	N.D.		15	37	10
10242	C3-Naphthalenes[1]	n.a.	180		15	37	10
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	280		15	37	10
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.		15	37	10
10242	C4-Naphthalenes[1]	n.a.	87		15	37	10
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.		15	37	10
10242	Chrysene[1]	218-01-9	1,200		15	37	10
10242	Dibenz(a,h)anthracene[1]	53-70-3	150		15	37	10
10242	Fluoranthene[1]	206-44-0	2,000		15	37	10
10242	Fluorene[1]	86-73-7	110		15	37	10
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	630		15	37	10
10242	Naphthalene[1]	91-20-3	37	J	15	37	10
10242	Perylene[1]	198-55-0	210		15	37	10
10242	Phenanthrene[1]	85-01-8	1,500		15	37	10
10242	Pyrene[1]	129-00-0	1,800		15	37	10

Reporting limits were raised due to interference from the sample matrix.

The stated Laboratory Control Spike limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010D Rev.4, July 2014**	**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10BKG

Hercules Incorporated
ELLE Sample #: SW 1115074
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	17.5	0.434	3.10	1
02829	Trivalent Chromium soils[1]	16065-83-1	17.5	1.6	4.7	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.					
Wet Chemistry	**Lloyd Kahn**		**mg/kg**	**mg/kg**	**mg/kg**	
00383	TOC by Lloyd Kahn	n.a.	61,000	223	670	1
	The sample was analyzed in quadruplicate; the reported result is the average of the four trials.					

	Raw Result(mg C)	Weight(mg)	Calculated Result(mg/kg)
Trial 1:	1.626	45.3	35900
Trial 2:	1.065	38.8	27400
Trial 3:	1.160	46.5	24900
Trial 4:	0.969	45.9	21100

Wet Chemistry	**ASTM D422**		**% Passing**	**% Passing**	**% Passing**	
07103	75 mm[1]	n.a.	100	0.50	0.50	1
07103	37.5 mm[1]	n.a.	100	0.50	0.50	1
07103	19 mm[1]	n.a.	100	0.50	0.50	1
07103	4.75 mm[1]	n.a.	87.0	0.50	0.50	1
07103	3.35 mm[1]	n.a.	86.8	0.50	0.50	1
07103	2.36 mm[1]	n.a.	86.7	0.50	0.50	1
07103	1.18 mm[1]	n.a.	85.9	0.50	0.50	1
07103	0.6 mm[1]	n.a.	71.8	0.50	0.50	1
07103	0.3 mm[1]	n.a.	48.9	0.50	0.50	1
07103	0.15 mm[1]	n.a.	20.9	0.50	0.50	1
07103	0.075 mm[1]	n.a.	10.8	0.50	0.50	1
07103	0.064 mm[1]	n.a.	10.0	0.50	0.50	1
07103	0.05 mm[1]	n.a.	11.0	0.50	0.50	1
07103	0.02 mm[1]	n.a.	10.0	0.50	0.50	1
07103	0.005 mm[1]	n.a.	5.0	0.50	0.50	1
07103	0.002 mm[1]	n.a.	4.0	0.50	0.50	1
07103	0.001 mm[1]	n.a.	3.0	0.50	0.50	1

The grain size percent passing results are anomalous for particle sizes 0.075 mm, 0.064 mm and 0.05 mm due to matrix interference.

Wet Chemistry	**SW-846 7196A**		**mg/kg**	**mg/kg**	**mg/kg**	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	1.6	4.7	5
	Reporting limits were raised due to interference from the sample matrix.					
	SW-846 9045D Nov 2004		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	7.31	0.0100	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10BKG

Hercules Incorporated
ELLE Sample #: SW 1115074
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SW-846 9045D Nov 2004**		**Std. Units**	**Std. Units**	**Std. Units**	
	The pH was measured in water at 20.1 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00111	Moisture[1]	n.a.	55.2	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/23/2019 15:45	Joseph M Gambler	10
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192171404901	08/06/2019 13:52	Cindy M Gehman	1
02829	Trivalent Chromium soils	SW-846 6010D Rev.4, July 2014	1	192310282902	08/19/2019 13:27	Katlin N Burkholder	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192171404901	08/05/2019 06:15	Annamaria Kuhns	1
00383	TOC by Lloyd Kahn	Lloyd Kahn	1	19217667631A	08/06/2019 13:43	Drew M Gerhart	1
07103	Grain Size to 1 um	ASTM D422	1	19242710301A	08/30/2019 18:00	Luz M Groff	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	5
00394	pH	SW-846 9045D Nov 2004	1	19234039405B	08/22/2019 20:05	Jeremy L Bolf	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	2	19220820004A	08/09/2019 10:45	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) MS Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10MS

Hercules Incorporated
ELLE Sample #: SW 1115075
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**		**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	62		15	37	10
10242	Acenaphthylene[1]	208-96-8	110		15	37	10
10242	Anthracene[1]	120-12-7	130		15	37	10
10242	Benzo(a)anthracene[1]	56-55-3	280		15	37	10
10242	Benzo(a)pyrene[1]	50-32-8	230		15	37	10
10242	Benzo(b)fluoranthene[1]	205-99-2	240		15	37	10
10242	Benzo(e)pyrene[1]	192-97-2	200		15	37	10
10242	Benzo(g,h,i)perylene[1]	191-24-2	180		15	37	10
10242	Benzo(k)fluoranthene[1]	207-08-9	210		15	37	10
10242	C1-Benzanthrene/chrysenes[1]	n.a.	200		15	37	10
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	280		15	37	10
10242	C1-Fluorenes[1]	n.a.	31	J	15	37	10
10242	C1-Naphthalenes[1]	n.a.	130		15	37	10
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	370		15	37	10
10242	C2-Benzanthrene/chrysenes[1]	n.a.	98		15	37	10
10242	C2-Fluorenes[1]	n.a.	92		15	37	10
10242	C2-Naphthalenes[1]	n.a.	150		15	37	10
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	230		15	37	10
10242	C3-Benzanthrene/chrysenes[1]	n.a.	45		15	37	10
10242	C3-Fluorenes[1]	n.a.	N.D.		15	37	10
10242	C3-Naphthalenes[1]	n.a.	160		15	37	10
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	130		15	37	10
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.		15	37	10
10242	C4-Naphthalenes[1]	n.a.	67		15	37	10
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.		15	37	10
10242	Chrysene[1]	218-01-9	330		15	37	10
10242	Dibenz(a,h)anthracene[1]	53-70-3	83		15	37	10
10242	Fluoranthene[1]	206-44-0	550		15	37	10
10242	Fluorene[1]	86-73-7	88		15	37	10
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	190		15	37	10
10242	Naphthalene[1]	91-20-3	93		15	37	10
10242	Perylene[1]	198-55-0	100		15	37	10
10242	Phenanthrene[1]	85-01-8	420		15	37	10
10242	Pyrene[1]	129-00-0	550		15	37	10

Reporting limits were raised due to interference from the sample matrix.

The stated Laboratory Control Spike limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**		**mg/kg**	**mg/kg**

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) MS Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10MS

Hercules Incorporated
ELLE Sample #: SW 1115075
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	46.0	0.401	2.86	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00118	Moisture[1]	n.a.	55.2	0.50	0.50	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/26/2019 07:37	Joseph M Gambler	10
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192171404901	08/06/2019 14:01	Cindy M Gehman	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192171404901	08/05/2019 06:15	Annamaria Kuhns	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	2	19220820004A	08/09/2019 10:45	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) MSD Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10MSD

Hercules Incorporated
ELLE Sample #: SW 1115076
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/kg**	**ug/kg**	**ug/kg**	
10242	Acenaphthene[1]	83-32-9	230	15	37	10
10242	Acenaphthylene[1]	208-96-8	310	15	37	10
10242	Anthracene[1]	120-12-7	930	15	37	10
10242	Benzo(a)anthracene[1]	56-55-3	2,500	15	37	10
10242	Benzo(a)pyrene[1]	50-32-8	1,900	15	37	10
10242	Benzo(b)fluoranthene[1]	205-99-2	1,600	15	37	10
10242	Benzo(e)pyrene[1]	192-97-2	1,800	15	37	10
10242	Benzo(g,h,i)perylene[1]	191-24-2	1,300	15	37	10
10242	Benzo(k)fluoranthene[1]	207-08-9	1,700	15	37	10
10242	C1-Benzanthrene/chrysenes[1]	n.a.	2,800	15	37	10
10242	C1-Fluoranthrenes/pyrenes[1]	n.a.	1,600	15	37	10
10242	C1-Fluorenes[1]	n.a.	280	15	37	10
10242	C1-Naphthalenes[1]	n.a.	250	15	37	10
10242	C1-Phenanthrenes/anthracenes[1]	n.a.	2,000	15	37	10
10242	C2-Benzanthrene/chrysenes[1]	n.a.	1,700	15	37	10
10242	C2-Fluorenes[1]	n.a.	570	15	37	10
10242	C2-Naphthalenes[1]	n.a.	510	15	37	10
10242	C2-Phenanthrenes/anthracenes[1]	n.a.	1,100	15	37	10
10242	C3-Benzanthrene/chrysenes[1]	n.a.	740	15	37	10
10242	C3-Fluorenes[1]	n.a.	N.D.	15	37	10
10242	C3-Naphthalenes[1]	n.a.	530	15	37	10
10242	C3-Phenanthrenes/anthracenes[1]	n.a.	450	15	37	10
10242	C4-Benzanthrene/chrysenes[1]	n.a.	N.D.	15	37	10
10242	C4-Naphthalenes[1]	n.a.	230	15	37	10
10242	C4-Phenanthrenes/anthracenes[1]	n.a.	N.D.	15	37	10
10242	Chrysene[1]	218-01-9	3,100	15	37	10
10242	Dibenz(a,h)anthracene[1]	53-70-3	580	15	37	10
10242	Fluoranthene[1]	206-44-0	4,600	15	37	10
10242	Fluorene[1]	86-73-7	490	15	37	10
10242	Indeno(1,2,3-cd)pyrene[1]	193-39-5	1,500	15	37	10
10242	Naphthalene[1]	91-20-3	160	15	37	10
10242	Perylene[1]	198-55-0	570	15	37	10
10242	Phenanthrene[1]	85-01-8	4,200	15	37	10
10242	Pyrene[1]	129-00-0	3,700	15	37	10

Reporting limits were raised due to interference from the sample matrix.

The stated Laboratory Control Spike limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010D Rev.4, July 2014**	**mg/kg**	**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) MSD Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10MSD

Hercules Incorporated
ELLE Sample #: SW 1115076
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	43.8	0.319	2.28	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00118	Moisture[1]	n.a.	55.2	0.50	0.50	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10242	Alkyl PAHs in Soil by GC/MS	SW-846 8270C SIM Modified	1	19221SLA026	08/26/2019 08:19	Joseph M Gambler	10
10481	Alkyl PAH Microwave Soils	SW-846 3546	1	19221SLA026	08/09/2019 17:30	Osvaldo R Sanchez	1
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192171404901	08/06/2019 14:04	Cindy M Gehman	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192171404901	08/05/2019 06:15	Annamaria Kuhns	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	2	19220820004A	08/09/2019 10:45	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) DUP Grab Sediment Kenvil - NJ**

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10DUP

Hercules Incorporated
ELLE Sample #: SW 1115077
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/kg**	**mg/kg**	**mg/kg**	
06951	Chromium	7440-47-3	12.0	0.342	2.44	1
02829	Trivalent Chromium soils[1]	16065-83-1	12.0	1.6	4.7	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.					
Wet Chemistry	**SW-846 7196A**		**mg/kg**	**mg/kg**	**mg/kg**	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	1.6	4.7	5
	Reporting limits were raised due to interference from the sample matrix.					
	SW-846 9045D Nov 2004		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	7.36	0.0100	0.0100	1
	The pH was measured in water at 20.1 C.					
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	**%**	
00118	Moisture[1]	n.a.	55.2	0.50	0.50	1
00121	Moisture Duplicate[1]	n.a.	56.0	0.50	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.					

Sample Comments

State of New Jersey Lab Certification No. PA011

This is a laboratory QC batch duplicate (not a field duplicate).

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06951	Chromium	SW-846 6010D Rev.4, July 2014	1	192171404901	08/06/2019 13:58	Cindy M Gehman	1
02829	Trivalent Chromium soils	SW-846 6010D Rev.4, July 2014	1	192310282902	08/19/2019 13:27	Katlin N Burkholder	1
14049	ICP/ICPMS-SW, 3050B - U345	SW-846 3050B	1	192171404901	08/05/2019 06:15	Annamaria Kuhns	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	5
00394	pH	SW-846 9045D Nov 2004	1	19234039405B	08/22/2019 20:05	Jeremy L Bolf	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	19226042501A	08/14/2019 19:25	Daniel S Smith	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) DUP Grab Sediment**
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-10DUP

Hercules Incorporated
ELLE Sample #: SW 1115077
ELLE Group #: 2056546
Matrix: Sediment

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	2	19220820004A	08/09/2019 10:45	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	2	19220820004A	08/09/2019 10:45	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) Grab Sediment**
AVS/SEM
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-11BKG

Hercules Incorporated
ELLE Sample #: SW 1115078
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**umoles/g**	**umoles/g**	**umoles/g**	
06949	Cadmium	7440-43-9	0.00199	0.000220	0.00110	1
06953	Copper	7440-50-8	0.145	0.00195	0.00779	1
06955	Lead	7439-92-1	0.624	0.000717	0.00179	1
06961	Nickel	7440-02-0	0.0396	0.000885	0.00422	1
06972	Zinc	7440-66-6	0.383	0.00151	0.00757	1
	The prep blank read 18.77025 umoles/g. The limit is 0.5 umoles/g.					
	SW-846 7471B		**umoles/g**	**umoles/g**	**umoles/g**	
00159	Mercury	7439-97-6	0.000160	0.000023	0.0000988	1
Wet Chemistry	**EPA-821-R-91-100**		**umoles/g**	**umoles/g**	**umoles/g**	
01630	Acid Volatile Sulfide[1]	1313-84-4	N.D.	0.63	2.0	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

B (for Inorganic tests) = estimated value: The result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
Note: LOQ = PQL

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:31	Lisa J Cooke	1
06953	Copper	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:31	Lisa J Cooke	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:31	Lisa J Cooke	1
06961	Nickel	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:31	Lisa J Cooke	1
06972	Zinc	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 12:46	Lisa J Cooke	1
00159	Mercury	SW-846 7471B	1	192251486201	08/14/2019 08:01	Damary Valentin	1
14862	Non-digest metals - U345	EPA-821-R-91-100	1	192251486201	08/08/2019 08:55	Lisa J Cooke	1
01630	Acid Volatile Sulfide	EPA-821-R-91-100	1	19220163001A	08/08/2019 08:55	Susan E Hibner	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) MS Grab Sediment**
AVS/SEM
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-11MS

Hercules Incorporated
ELLE Sample #: SW 1115079
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**umoles/g**	**umoles/g**	**umoles/g**	
06949	Cadmium	7440-43-9	0.0106	0.000220	0.00110	1
06953	Copper	7440-50-8	0.232	0.00194	0.00778	1
06955	Lead	7439-92-1	0.652	0.000716	0.00179	1
06961	Nickel	7440-02-0	0.213	0.000883	0.00421	1
06972	Zinc	7440-66-6	0.585	0.00151	0.00756	1
	The prep blank read 18.77025 umoles/g. The limit is 0.5 umoles/g.					
	SW-846 7471B		**umoles/g**	**umoles/g**	**umoles/g**	
00159	Mercury	7439-97-6	0.000147	0.000023	0.0000986	1
Wet Chemistry	**EPA-821-R-91-100**		**umoles/g**	**umoles/g**	**umoles/g**	
01630	Acid Volatile Sulfide[1]	1313-84-4	32.9	0.63	2.0	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

B (for Inorganic tests) = estimated value: The result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
Note: LOQ = PQL

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:38	Lisa J Cooke	1
06953	Copper	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:38	Lisa J Cooke	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:38	Lisa J Cooke	1
06961	Nickel	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:38	Lisa J Cooke	1
06972	Zinc	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 12:55	Lisa J Cooke	1
00159	Mercury	SW-846 7471B	1	192251486201	08/14/2019 08:07	Damary Valentin	1
14862	Non-digest metals - U345	EPA-821-R-91-100	1	192251486201	08/08/2019 08:55	Lisa J Cooke	1
01630	Acid Volatile Sulfide	EPA-821-R-91-100	1	19220163001A	08/08/2019 08:55	Susan E Hibner	1

*=This limit was used in the evaluation of the final result

Sample Description: **SD-ERA-G12-MDE-01 (00.0-00.5) MSD Grab Sediment**
AVS/SEM
Kenvil - NJ

Project Name: **Kenvil Aquatic ERA**

Submittal Date/Time: 07/31/2019 19:16
Collection Date/Time: 07/31/2019 14:30
SDG#: KVN47-11MSD

Hercules Incorporated
ELLE Sample #: SW 1115080
ELLE Group #: 2056546
Matrix: Sediment

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010D Rev.4, July 2014**		**umoles/g**	**umoles/g**	**umoles/g**	
06949	Cadmium	7440-43-9	0.0108	0.000219	0.00109	1
06953	Copper	7440-50-8	0.227	0.00193	0.00774	1
06955	Lead	7439-92-1	0.581	0.000712	0.00178	1
06961	Nickel	7440-02-0	0.214	0.000879	0.00419	1
06972	Zinc	7440-66-6	0.563	0.00150	0.00752	1
	The prep blank read 18.77025 umoles/g. The limit is 0.5 umoles/g.					
	SW-846 7471B		**umoles/g**	**umoles/g**	**umoles/g**	
00159	Mercury	7439-97-6	0.000359	0.000023	0.0000981	1
Wet Chemistry	**EPA-821-R-91-100**		**umoles/g**	**umoles/g**	**umoles/g**	
01630	Acid Volatile Sulfide[1]	1313-84-4	31.8	0.63	2.0	1

Sample Comments

State of New Jersey Lab Certification No. PA011

[1] = This analyte was not on the laboratory's NJ DEP Scope of Accreditation at the time of analysis.

B (for Inorganic tests) = estimated value: The result is >/= the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
Note: LOQ = PQL

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:41	Lisa J Cooke	1
06953	Copper	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:41	Lisa J Cooke	1
06955	Lead	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:41	Lisa J Cooke	1
06961	Nickel	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 04:41	Lisa J Cooke	1
06972	Zinc	SW-846 6010D Rev.4, July 2014	1	192251486201	08/14/2019 12:59	Lisa J Cooke	1
00159	Mercury	SW-846 7471B	1	192251486201	08/14/2019 08:10	Damary Valentin	1
14862	Non-digest metals - U345	EPA-821-R-91-100	1	192251486201	08/08/2019 08:55	Lisa J Cooke	1
01630	Acid Volatile Sulfide	EPA-821-R-91-100	1	19220163001A	08/08/2019 08:55	Susan E Hibner	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Hercules Incorporated Group Number: 2056546
Reported: 09/17/2019 16:36

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/kg	ug/kg	ug/kg
Batch number: 19221SLA026	Sample number(s): 1115066,1115068-1115070,1115072,1115074-1115076		
Acenaphthene	N.D.	0.7	1.7
Acenaphthylene	N.D.	0.7	1.7
Anthracene	N.D.	0.7	1.7
Benzo(a)anthracene	N.D.	0.7	1.7
Benzo(a)pyrene	N.D.	0.7	1.7
Benzo(b)fluoranthene	N.D.	0.7	1.7
Benzo(e)pyrene	N.D.	0.7	1.7
Benzo(g,h,i)perylene	N.D.	0.7	1.7
Benzo(k)fluoranthene	N.D.	0.7	1.7
C1-Benzanthrene/chrysenes	N.D.	0.7	1.7
C1-Fluoranthrenes/pyrenes	N.D.	0.7	1.7
C1-Fluorenes	N.D.	0.7	1.7
C1-Naphthalenes	N.D.	0.7	1.7
C1-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C2-Benzanthrene/chrysenes	N.D.	0.7	1.7
C2-Fluorenes	N.D.	0.7	1.7
C2-Naphthalenes	N.D.	0.7	1.7
C2-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C3-Benzanthrene/chrysenes	N.D.	0.7	1.7
C3-Fluorenes	N.D.	0.7	1.7
C3-Naphthalenes	N.D.	0.7	1.7
C3-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C4-Benzanthrene/chrysenes	N.D.	0.7	1.7
C4-Naphthalenes	N.D.	0.7	1.7
C4-Phenanthrenes/anthracenes	N.D.	0.7	1.7
Chrysene	N.D.	0.7	1.7
Dibenz(a,h)anthracene	N.D.	0.7	1.7
Fluoranthene	N.D.	0.7	1.7
Fluorene	N.D.	0.7	1.7
Indeno(1,2,3-cd)pyrene	N.D.	0.7	1.7
Naphthalene	N.D.	0.7	1.7
Perylene	N.D.	0.7	1.7
Phenanthrene	N.D.	0.7	1.7
Pyrene	N.D.	0.7	1.7
Batch number: 19239SLC026	Sample number(s): 1115068,1115070,1115072		
Acenaphthene	N.D.	0.7	1.7
Acenaphthylene	N.D.	0.7	1.7
Anthracene	N.D.	0.7	1.7

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/kg	ug/kg	ug/kg
Benzo(a)anthracene	N.D.	0.7	1.7
Benzo(a)pyrene	N.D.	0.7	1.7
Benzo(b)fluoranthene	N.D.	0.7	1.7
Benzo(e)pyrene	N.D.	0.7	1.7
Benzo(g,h,i)perylene	N.D.	0.7	1.7
Benzo(k)fluoranthene	N.D.	0.7	1.7
C1-Benzanthrene/chrysenes	N.D.	0.7	1.7
C1-Fluoranthrenes/pyrenes	N.D.	0.7	1.7
C1-Fluorenes	N.D.	0.7	1.7
C1-Naphthalenes	N.D.	0.7	1.7
C1-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C2-Benzanthrene/chrysenes	N.D.	0.7	1.7
C2-Fluorenes	N.D.	0.7	1.7
C2-Naphthalenes	N.D.	0.7	1.7
C2-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C3-Benzanthrene/chrysenes	N.D.	0.7	1.7
C3-Fluorenes	N.D.	0.7	1.7
C3-Naphthalenes	N.D.	0.7	1.7
C3-Phenanthrenes/anthracenes	N.D.	0.7	1.7
C4-Benzanthrene/chrysenes	N.D.	0.7	1.7
C4-Naphthalenes	N.D.	0.7	1.7
C4-Phenanthrenes/anthracenes	N.D.	0.7	1.7
Chrysene	N.D.	0.7	1.7
Dibenz(a,h)anthracene	N.D.	0.7	1.7
Fluoranthene	N.D.	0.7	1.7
Fluorene	N.D.	0.7	1.7
Indeno(1,2,3-cd)pyrene	N.D.	0.7	1.7
Naphthalene	N.D.	0.7	1.7
Perylene	N.D.	0.7	1.7
Phenanthrene	N.D.	0.7	1.7
Pyrene	N.D.	0.7	1.7
	ug/l	ug/l	ug/l
Batch number: 19218WAL026	Sample number(s): 1115065		
Acenaphthene	N.D.	0.02	0.05
Acenaphthylene	N.D.	0.02	0.05
Anthracene	N.D.	0.02	0.05
Benzo(a)anthracene	N.D.	0.02	0.05
Benzo(a)pyrene	N.D.	0.02	0.05
Benzo(b)fluoranthene	N.D.	0.02	0.05
Benzo(e)pyrene	N.D.	0.02	0.05
Benzo(g,h,i)perylene	N.D.	0.02	0.05
Benzo(k)fluoranthene	N.D.	0.02	0.05
C1-Benzanthrene/chrysenes	N.D.	0.02	0.05
C1-Fluoranthrenes/pyrenes	N.D.	0.02	0.05

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
C1-Fluorenes	N.D.	0.02	0.05
C1-Naphthalenes	N.D.	0.02	0.05
C1-Phenanthrenes/anthracenes	N.D.	0.02	0.05
C2-Benzanthrene/chrysenes	N.D.	0.02	0.05
C2-Fluorenes	N.D.	0.02	0.05
C2-Naphthalenes	N.D.	0.02	0.05
C2-Phenanthrenes/anthracenes	N.D.	0.02	0.05
C3-Benzanthrene/chrysenes	N.D.	0.02	0.05
C3-Fluorenes	N.D.	0.02	0.05
C3-Naphthalenes	N.D.	0.02	0.05
C3-Phenanthrenes/anthracenes	N.D.	0.02	0.05
C4-Benzanthrene/chrysenes	N.D.	0.02	0.05
C4-Naphthalenes	N.D.	0.02	0.05
C4-Phenanthrenes/anthracenes	N.D.	0.02	0.05
Chrysene	N.D.	0.02	0.05
Dibenz(a,h)anthracene	N.D.	0.02	0.05
Fluoranthene	N.D.	0.02	0.05
Fluorene	N.D.	0.02	0.05
Indeno(1,2,3-cd)pyrene	N.D.	0.02	0.05
Naphthalene	N.D.	0.02	0.05
Perylene	N.D.	0.02	0.05
Phenanthrene	N.D.	0.02	0.05
Pyrene	N.D.	0.02	0.05
	mg/kg	mg/kg	mg/kg
Batch number: 192141404910	Sample number(s): 1115072		
Chromium	N.D.	0.210	1.50
Batch number: 192171404901	Sample number(s): 1115066,1115070,1115074-1115077		
Chromium	N.D.	0.210	1.50
	mg/l	mg/l	mg/l
Batch number: 192141404402	Sample number(s): 1115065		
Chromium	N.D.	0.0053	0.0150
	umoles/g	umoles/g	umoles/g
Batch number: 192251486201	Sample number(s): 1115067,1115071,1115073,1115078-1115080		
Cadmium	N.D.	0.000223	0.00111
Copper	N.D.	0.00197	0.00787
Lead	N.D.	0.000725	0.00181
Mercury	N.D.	0.000023	0.0000998
Nickel	0.00182 B	0.000894	0.00426
Zinc	0.287	0.00153	0.00765
	mg/kg	mg/kg	mg/kg
Batch number: 19217667631A	Sample number(s): 1115066,1115068-1115070,1115072,1115074		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
TOC by Lloyd Kahn	N.D.	100	300
	mg/l	mg/l	mg/l
Batch number: 19218304502A	Sample number(s): 1115065		
Total Organic Carbon	N.D.	0.50	2.0
	mg/kg	mg/kg	mg/kg
Batch number: 19226042501A	Sample number(s): 1115066,1115070,1115072,1115074,1115077		
Hexavalent Chromium (SOLIDS)	N.D.	0.14	0.42
	mg/l	mg/l	mg/l
Batch number: 19213027601A	Sample number(s): 1115065		
Hexavalent Chromium	N.D.	0.010	0.030
	umoles/g	umoles/g	umoles/g
Batch number: 19220163001A	Sample number(s): 1115067,1115071,1115073,1115078-1115080		
Acid Volatile Sulfide	N.D.	0.63	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19221SLA026	Sample number(s): 1115066,1115068-1115070,1115072,1115074-1115076								
Acenaphthene	33.33	28.17			85		70-130		
Acenaphthylene	33.33	29.43			88		70-130		
Anthracene	33.33	33.39			100		70-130		
Benzo(a)anthracene	33.33	37.98			114		70-130		
Benzo(a)pyrene	33.33	29.46			88		70-130		
Benzo(b)fluoranthene	33.33	31.18			94		70-130		
Benzo(e)pyrene	33.33	32.09			96		70-130		
Benzo(g,h,i)perylene	33.33	34.4			103		70-130		
Benzo(k)fluoranthene	33.33	30.01			90		70-130		
Chrysene	33.33	34.85			105		70-130		
Dibenz(a,h)anthracene	33.33	32.89			99		70-130		
Fluoranthene	33.33	32.67			98		70-130		
Fluorene	33.33	29.4			88		70-130		
Indeno(1,2,3-cd)pyrene	33.33	35.77			107		70-130		
Naphthalene	33.33	32			96		70-130		
Perylene	33.33	35.78			107		70-130		
Phenanthrene	33.33	32.8			98		70-130		
Pyrene	33.33	30.67			92		70-130		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19239SLC026	Sample number(s): 1115068,1115070,1115072								
Acenaphthene	33.33	26.32			79		70-130		
Acenaphthylene	33.33	27.06			81		70-130		
Anthracene	33.33	33.08			99		70-130		
Benzo(a)anthracene	33.33	35.72			107		70-130		
Benzo(a)pyrene	33.33	27.66			83		70-130		
Benzo(b)fluoranthene	33.33	29.56			89		70-130		
Benzo(e)pyrene	33.33	30.81			92		70-130		
Benzo(g,h,i)perylene	33.33	31.47			94		70-130		
Benzo(k)fluoranthene	33.33	29.46			88		70-130		
Chrysene	33.33	33.95			102		70-130		
Dibenz(a,h)anthracene	33.33	30.25			91		70-130		
Fluoranthene	33.33	31.15			93		70-130		
Fluorene	33.33	27.77			83		70-130		
Indeno(1,2,3-cd)pyrene	33.33	32.42			97		70-130		
Naphthalene	33.33	28.25			85		70-130		
Perylene	33.33	33.7			101		70-130		
Phenanthrene	33.33	38.25			115		70-130		
Pyrene	33.33	33.59			101		70-130		
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 19218WAL026	Sample number(s): 1115065								
Acenaphthene	1.00	0.746	1.00	0.210	75	21*	64-118	112*	30
Acenaphthylene	1.00	0.803	1.00	0.223	80	22*	64-107	113*	30
Anthracene	1.00	0.863	1.00	0.257	86	26*	68-112	108*	30
Benzo(a)anthracene	1.00	1.04	1.00	0.300	104	30*	68-116	111*	30
Benzo(a)pyrene	1.00	0.771	1.00	0.229	77	23*	67-124	108*	30
Benzo(b)fluoranthene	1.00	0.802	1.00	0.245	80	24*	67-123	106*	30
Benzo(e)pyrene	1.00	0.893	1.00	0.267	89	27*	69-109	108*	30
Benzo(g,h,i)perylene	1.00	0.936	1.00	0.273	94	27*	62-125	110*	30
Benzo(k)fluoranthene	1.00	0.851	1.00	0.247	85	25*	64-123	110*	30
Chrysene	1.00	0.951	1.00	0.276	95	28*	63-116	110*	30
Dibenz(a,h)anthracene	1.00	0.876	1.00	0.255	88	26*	66-127	110*	30
Fluoranthene	1.00	0.750	1.00	0.274	75	27*	67-117	93*	30
Fluorene	1.00	0.774	1.00	0.225	77	22*	65-120	110*	30
Indeno(1,2,3-cd)pyrene	1.00	0.964	1.00	0.276	96	28*	66-129	111*	30
Naphthalene	1.00	0.876	1.00	0.233	88	23*	55-110	116*	30
Perylene	1.00	0.947	1.00	0.273	95	27*	68-146	110*	30
Phenanthrene	1.00	0.881	1.00	0.254	88	25*	61-121	110*	30
Pyrene	1.00	0.807	1.00	0.282	81	28*	61-118	97*	30
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 192141404910	Sample number(s): 1115072								
Chromium	20	19.95			100		90-110		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192171404901	Sample number(s): 1115066,1115070,1115074-1115077								
Chromium	20	18.73			94		90-110		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 192141404402	Sample number(s): 1115065								
Chromium	0.200	0.195			97		87-110		
	umoles/g	**umoles/g**	**umoles/g**	**umoles/g**					
Batch number: 192251486201	Sample number(s): 1115067,1115071,1115073,1115078-1115080								
Cadmium	0.0111	0.0118			106		80-120		
Copper	0.0984	0.108			109		80-120		
Lead	0.0181	0.0185			102		80-120		
Mercury	0.000499	0.000460			92		60-130		
Nickel	0.213	0.226			106		80-120		
Zinc	0.191	0.203			106		80-120		
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 19217667631A	Sample number(s): 1115066,1115068-1115070,1115072,1115074								
TOC by Lloyd Kahn	3280	2980.77			91		47-143		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 19218304502A	Sample number(s): 1115065								
Total Organic Carbon	25	23.52			94		91-113		
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 19226042501A	Sample number(s): 1115066,1115070,1115072,1115074,1115077								
Hexavalent Chromium (SOLIDS)	5.00	5.09			102		80-120		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 19213027601A	Sample number(s): 1115065								
Hexavalent Chromium	0.200	0.202	0.200	0.201	101	100	90-110	1	4
	Std. Units	**Std. Units**	**Std. Units**	**Std. Units**					
Batch number: 19220003102A	Sample number(s): 1115065								
pH	7.00	7.01			100		95-105		
Batch number: 19234039405A	Sample number(s): 1115066,1115068-1115070,1115072								
pH	7.00	6.97			100		95-105		
Batch number: 19234039405B	Sample number(s): 1115074,1115077								
pH	7.00	6.97			100		95-105		
	umoles/g	**umoles/g**	**umoles/g**	**umoles/g**					
Batch number: 19220163001A	Sample number(s): 1115067,1115071,1115073,1115078-1115080								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

LCS/LCSD (continued)

Analysis Name	LCS Spike Added umoles/g	LCS Conc umoles/g	LCSD Spike Added umoles/g	LCSD Conc umoles/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acid Volatile Sulfide	50	38.3			77		57-108		
	%	%	%	%					
Batch number: 19218820009A	Sample number(s): 1115066,1115068-1115070,1115072								
Moisture	89.5	89.41			100		99-101		
Batch number: 19220820004A	Sample number(s): 1115074-1115077								
Moisture	89.5	89.41			100		99-101		
Moisture	89.5	89.41			100		99-101		
Moisture Duplicate	89.5	89.41			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19221SLA026	Sample number(s): 1115066,1115068-1115070,1115072,1115074-1115076 UNSPK: 1115074									
Acenaphthene	21.63	33.23	27.83	33.3	103.86	19*	247*	70-130	115*	30
Acenaphthylene	68.47	33.23	50.98	33.3	140.87	-52*	217*	70-130	94*	30
Anthracene	125.72	33.23	56.24	33.3	418.68	-208*	880*	70-130	153*	30
Benzo(a)anthracene	466.69	33.23	123.23	33.3	1100.09	-1032 (2)	1902 (2)	70-130	160*	30
Benzo(a)pyrene	367.83	33.23	103.71	33.3	873.11	-794 (2)	1517 (2)	70-130	158*	30
Benzo(b)fluoranthene	331.31	33.23	107.23	33.3	713.26	-673 (2)	1147 (2)	70-130	148*	30
Benzo(e)pyrene	269.08	33.23	89.83	33.3	811.79	-538 (2)	1630 (2)	70-130	160*	30
Benzo(g,h,i)perylene	241.16	33.23	79.11	33.3	600.91	-487 (2)	1080 (2)	70-130	153*	30
Benzo(k)fluoranthene	358.1	33.23	95.05	33.3	781.23	-791 (2)	1271 (2)	70-130	157*	30
Chrysene	534.31	33.23	149.1	33.3	1409.42	-1158 (2)	2628 (2)	70-130	162*	30
Dibenz(a,h)anthracene	66.34	33.23	37.08	33.3	260.76	-87*	584*	70-130	150*	30
Fluoranthene	879.73	33.23	247.85	33.3	2055.53	-1900 (2)	3531 (2)	70-130	157*	30
Fluorene	50.7	33.23	39.46	33.3	218.45	-33*	504*	70-130	139*	30
Indeno(1,2,3-cd)pyrene	280.17	33.23	86.11	33.3	661.07	-583 (2)	1144 (2)	70-130	154*	30
Naphthalene	16.46	33.23	41.59	33.3	71.41	76	165*	70-130	53*	30
Perylene	92.68	33.23	44.74	33.3	254.87	-143*	487*	70-130	140*	30
Phenanthrene	670.98	33.23	187.85	33.3	1882.75	-1453 (2)	3639 (2)	70-130	164*	30
Pyrene	788.52	33.23	245.92	33.3	1661.08	-1632 (2)	2620 (2)	70-130	148*	30
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 192171404901	Sample number(s): 1115066,1115070,1115074-1115077 UNSPK: 1115074									
Chromium	7.85	17.09	20.6	13.61	19.64	75	87	75-125	5	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc umoles/g	MS Spike Added umoles/g	MS Conc umoles/g	MSD Spike Added umoles/g	MSD Conc umoles/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 192251486201	Sample number(s): 1115067,1115071,1115073,1115078-1115080 UNSPK: 1115078									
Cadmium	0.00199	0.0110	0.0106	0.0109	0.0108	78	81	75-125	2	20
Copper	0.145	0.0972	0.232	0.0967	0.227	90	85	75-125	2	20
Lead	0.624	0.0179	0.652	0.0178	0.581	157 (2)	-241 (2)	75-125	12	20
Mercury	0.000160	0.000123	0.000147	0.000123	0.000359	-11*	162*	60-130	84*	20
Nickel	0.0396	0.210	0.213	0.209	0.214	83	83	75-125	0	20
Zinc	0.383	0.189	0.585	0.188	0.563	107	96	75-125	4	20
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 19226042501A	Sample number(s): 1115066,1115070,1115072,1115074,1115077 UNSPK: 1115074									
Hexavalent Chromium (SOLIDS)	N.D.	40.3	32.03			79		75-125		
	umoles/g	**umoles/g**	**umoles/g**	**umoles/g**	**umoles/g**					
Batch number: 19220163001A	Sample number(s): 1115067,1115071,1115073,1115078-1115080 UNSPK: 1115078									
Acid Volatile Sulfide	N.D.	46	32.94	45.8	31.78	72	69	57-108	4	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/kg	**mg/kg**		
Batch number: 192171404901	Sample number(s): 1115066,1115070,1115074-1115077 BKG: 1115074			
Chromium	7.85	5.38	37* (1)	20
	umoles/g	**umoles/g**		
Batch number: 192251486201	Sample number(s): 1115067,1115071,1115073,1115078-1115080 BKG: 1115078			
Cadmium	0.00199	0.00204	2 (1)	20
Copper	0.145	0.258	56*	20
Lead	0.624	0.582	7	20
Mercury	0.000160	0.000121	27* (1)	20
Nickel	0.0396	1.36	189*	20
Zinc	0.383	0.350	9	20
	mg/kg	**mg/kg**		
Batch number: 19226042501A	Sample number(s): 1115066,1115070,1115072,1115074,1115077 BKG: 1115074			
Hexavalent Chromium (SOLIDS)	N.D.	N.D.	0 (1)	20
	Std. Units	**Std. Units**		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	Std. Units	Std. Units		
Batch number: 19234039405B	Sample number(s): 1115074,1115077 BKG: 1115074			
pH	7.31	7.36	1	3
	umoles/g	umoles/g		
Batch number: 19220163001A	Sample number(s): 1115067,1115071,1115073,1115078-1115080 BKG: 1115078			
Acid Volatile Sulfide	N.D.	N.D.	0 (1)	20
	%	%		
Batch number: 19218820009A	Sample number(s): 1115066,1115068-1115070,1115072 BKG: 1115074			
Moisture	62.68	53.08	17*	5
Batch number: 19220820004A	Sample number(s): 1115074-1115077 BKG: 1115074			
Moisture	55.23	55.97	1	5
Moisture	55.23	55.97	1	5
Moisture Duplicate	55.23	55.97	1	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Alkyl PAHs in Water by GC/MS
Batch number: 19218WAL026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1115065	65	59	70
Blank	58*	55	60
LCS	59*	61	69
LCSD	19*	18*	19*
Limits:	61-117	49-104	53-109

Analysis Name: Alkyl PAHs in Soil by GC/MS
Batch number: 19221SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1115066	61	41*	69
1115068	35*	30*	50
1115069	76	55	69
1115070	56	44*	70
1115072	35*	29*	48
1115074	55	36*	62
1115075	65	53	71

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Hercules Incorporated
Reported: 09/17/2019 16:36

Group Number: 2056546

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Alkyl PAHs in Soil by GC/MS
Batch number: 19221SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1115076	59	45	68
Blank	72	67	78
LCS	67	69	78
MS	65	53	71
MSD	59	45	68
Limits:	49-132	45-142	44-130

Analysis Name: Alkyl PAHs in Soil by GC/MS
Batch number: 19239SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
1115068RE	59	48	53
1115070RE	66	67	65
1115072RE	68	57	48
Blank	78	70	74
LCS	67	65	70
Limits:	49-132	45-142	44-130

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6716 Group # 2056546 Sample # 1115065-00

COC #589699

Client Information

Client: Ashland-Hercules | Acct. #:

Project Name/#: Kenvil Aquatz ERA | PWSID #:

Project Manager: Lora Sterner | P.O. #: 1540001*60

Sampler: SAA | Quote #:

State where samples were collected: NJ | For Compliance: Yes ☐ No ☑

Matrix

Soil ☐ Sediment ☐ Tissue ☒ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other:

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	TOC	pH	AVS/SEM	Chromium Speciation	PAHs - SIM	Grain size	MS/MSD
FB073119	7/31/19	1445	X		8	X	X	X	X	X		
BD073119	7/31/19	—	X		2	X	X	X	X	X		
SD-ERA-C15-MOSL-01(00.0-00.5)	↓	930	X		2	X	X			X	X	
SD-ERA-B16-MOSL-01(00.0-00.5)		1000	X		2	X	X			X	X	
SD-ERA-F14-MDE-01(00.0-00.5)		1300	X		3	X	X	X	X	X	X	
SD-ERA-F13-MDE-01(00.0-00.5)		1344	X		2	X	X	X	X	X	X	
SD-ERA-G12-MDE-01(00.0-00.5)		1430	X		4	X	X	X	X	X	X	X

For Lab Use Only

FSC:

SCR#: 246 777

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

⊗ No AVS/SEM on FB and no Grain size on MS/MSD per L. Sterner LFS93 8/2/19

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: lora.sterner@kennedyjenks.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/30/19	17:00	[signature]	7/30/19	17:00
[signature]	7/31/19		[signature]	7-31-19	16:12
[signature]	7-30-19	1916			
			[signature]	7/31/19	1916

EDD Required? Yes No

If yes, format: KI EDD

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.9 °C

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 255556

Group Number(s): 2056546

Client: Hercules

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	07/31/2019 19:16
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NJ		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10 469) at 21:19 on 07/31/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	192099060	0.9	IR	Wet	Y	Loose	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

eurofins | Lancaster Laboratories Environmental

Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Appendix D

Terrestrial Lead Work Plan Implementation

Appendix D: Terrestrial Lead Work Plan Implementation

This document, included as an appendix of the Ecological Risk Assessment (ERA), presents and evaluates environmental data collected during implementation of the *Terrestrial Lead Work Plan* (TWLP) (**Attachment 8**) at the Hercules Kenvil Works Facility, located in Kenvil, Morris County, New Jersey (the Facility; Figure 1-1). TLWP implementation activities occurred in December 2018.

D.1 Field Sampling Plan Objectives

The TLWP established a field sampling program to refine existing conclusions regarding lead in Facility soil and its potential risk to terrestrial receptors (i.e., American Robin) and provide additional lines of evidence related to terrestrial assessment endpoints.

The objective of the TLWP field sampling plan was to evaluate bioavailability, chemical speciation, and physical form of lead in soil of areas of enrichment (AoEs) and the potential for upper trophic level receptor prey items to bioaccumulate lead.

D.2 Areas of Enrichment

Historical information regarding uses of lead during operations at the Facility indicates that lead was most commonly used in elemental form as an anti-static, non-sparking material in various stages/structures in manufacturing processes. Based on operational layout and specific process-related uses, lead was limited to distinct areas where raw, intermediate, and final products remained sensitive to electrical charges and/or concentrated acids were used in the production processes.

Acknowledging that lead was used in discrete areas, the TLWP identified five AoEs where lead concentrations in surface soil (i.e., samples with all or a portion of the sample interval between 0 and 2 feet below ground surface [ft bgs]) disproportionately influenced potential ecological risk and merit further evaluation.

These targeted AoEs included:

- **AoE-1** - Development Area – Experimental Dynamite Production Area [EDPA]
- **AoE-2** - Development Area – Ballistics Range
- **AoE-3** - PETN/NG Area – Acid Recovery
- **AoE-4** - NG Area – Former Ponds
- **AoE-5** - Maintenance Area – Acid Production Plant

The boundaries of these AoEs are presented in **Figure 3-2** of the ERA.

In the ERAWP (KJ 2016) and TLWP (**Attachment 8**), approximately 210 acres of the Facility were targeted for redevelopment during TLWP development and implementation. During this period, AoE-5 occurred within the redevelopment footprint, and an engineering control (i.e., remedial cap)

was planned that would eliminate potential ecological exposure pathways in this AoE. Thus, AoE-5 was not included in 2018 field sampling plan.

The following sections detail implementation of and deviations from the TLWP field sampling plan (KJ 2018). Results of TLWP implementation relevant to the portions of the Remedial Area where the potential for ecological risk is uncertain are incorporated in the ERA as follows:

Section 5.1.1.1.1.1 - Sequential Extraction Procedure (SEP) Analysis Results.

D.3 Field Sampling Plan Implementation

KJ implemented TLWP field sampling activities in December 2018. Proposed sample locations in each AoE were focused on historical site investigation/remedial investigation [SI/RI] sample locations with elevated lead concentrations. In general, the primary sample location was that of the historical SI/RI sample and step-out locations (eight total) were collected, where possible (see Section D.3), at 15 and 30 feet [ft] from the primary sample location in four cardinal directions. The sample location selection process and rationale are detailed in the TLWP (**Attachment 8**).

Soil samples were collected from the top 6-inch interval (0 to 0.5 ft bgs) via stainless steel hand trowel, dried and sieved in accordance with the TLWP.

Figures D.1 through D.3 illustrate primary and step-out sample locations in each of three AoEs, distinguishing them by color based on status (i.e., sampled/not sampled, analyzed/not analyzed). The following table summarizes the number of samples collected and analyzed within each AoE.

Area of Enrichment	No. of Sample Locations					
	Primary		Step-Out		Total	
	Collected	Analyzed	Collected	Analyzed	Collected	Analyzed
AoE-1	5	2	38	5	43	7
AoE-2	4	2	29	4	33	6
AoE-3	4	2	31	4	35	6

D.4 Field Sampling Plan Deviations

As mentioned above, sample collection, processing, and analysis followed the procedures outlined in the TLWP with the following noted exceptions:

1. During TLWP implementation, AoE-4 (i.e., NG Area – Former Ponds) contained standing water and therefore prohibited terrestrial investigation. AoE-4 is known to be a transitional habitat (terrestrial and aquatic depending on the time of year, seasonal rainfall, etc.). Due to the inaccessibility of the area and the known high lead concentrations in soil and sediment, NG Area – Former Ponds was designated as an Area of Presumed Remedial Action (APRA; **Appendix B**) and does not require additional investigation as part of the TLWP.

2. Although eight step-out locations were proposed around each primary sample location, a total of six step-out locations were inaccessible due to field conditions (e.g., concrete piles, uneven terrain, vegetation) and therefore not sampled. The total number of step-out

samples taken around each primary sample location is shown in the in-text table above and sample locations are presented in **Figures D.1** through **D.3**.

D.5 Laboratory Analysis

Dried and sieved samples were screened for the presence of lead via X-ray fluorescence spectrophotometry (XRF) analysis. Samples selected for laboratory analysis based on XRF-screening results were then shipped to Eurofins Lancaster Laboratories Environmental (ELLE) consistent with procedures outlined in the TLWP. Soil sample locations selected for analysis based on XRF-screening were analyzed for the following:

- Lead via USEPA SW 846 Method 6020A
- pH via USEPA SW 846 Method 9040C
- Total Organic Carbon (TOC) via USEPA SW 846 Method 5310C
- Grain size via ASTM International Method D422

Upon receipt of sample analytical results from ELLE, total lead results from laboratory confirmation samples were evaluated to identity samples on which to perform sequential extraction procedure (SEP) analysis. Samples with total lead concentrations less than site specific environmental screening criteria of 488 mg/kg were not considered for SEP analysis (**Attachment 8**). For remaining samples with total lead concentrations exceeding 488 mg/kg, three samples from each AoE were selected. The selected samples represent the maximum detected concentration, lowest concentration exceeding 488 mg/kg, and a sample nearest to the arithmetic average of those two samples. The sample selection process and rationale for SEP analysis are shown in **Table D.1.**

SEP reports the concentration of lead partitioned across seven fractions. Extractants are applied in a stepwise process so that each successive fraction obtained corresponds to trace lead associated with lesser mobility fractions. In general, this analysis provides detailed information about mobility and bioavailability of lead in solid samples to upper trophic level receptors.

Selected samples were shipped to TestAmerica in Knoxville, Tennessee for SEP analysis via USEPA 6010B. Analytical laboratory reports are provided in **Attachment D.1**.

D.6 Data Summary and Results

Table D.1 provides a results summary indicating good correlation between field XRF-screening results and confirmation samples analyzed for total lead via USEPA SW 846 Method 6020A.

Nineteen soil samples were submitted to ELLE for analysis of total lead, pH, TOC, and grain size. Associated analytical results are not incorporated into the ERA dataset as they represent areas of presumed remedial action (APRAs). However, results of SEP analysis (as discussed below) are incorporated into the ERA exposure assumptions of lead bioavailability.

General chemistry and total lead results of samples selected for SEP analyses are presented in **Table D.2** for reference. Laboratory data packages and confirmation of electronic data deliverable (EDD) submittals is included in **Attachment D.1**.

Interpretation of the SEP results relies on the following information about each step and the associated complexation/binding of lead.

Step 1 - Exchangeable Phase: This extraction includes trace elements that are reversibly sorbed to soil minerals, amorphous solids, and/or organic material by electrostatic forces.

Step 2 - Carbonate Phase: This extraction targets trace elements that are sorbed or otherwise bound to carbonate minerals.

Step 3 – Non-Crystalline Materials Phase: This extraction targets trace elements that are complexed by amorphous minerals (e.g. iron).

Step 4 - Metal Hydroxide Phase: Trace elements bound to hydroxides of iron, manganese, and/or aluminum.

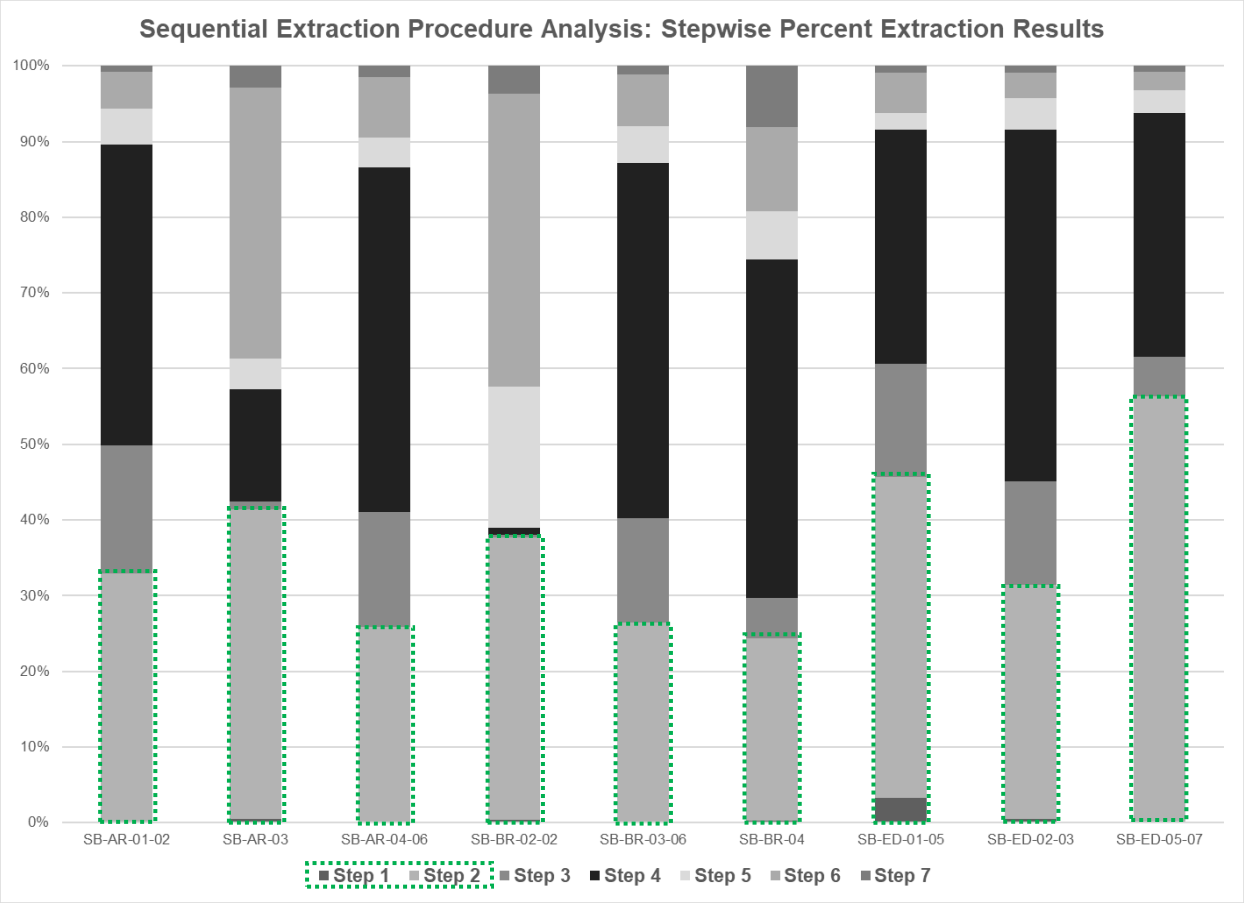
Step 5 - Organic Phase: This extraction targets trace elements strongly bound via chemisorption to organic material.

Step 6 - Acid/Sulfide Fraction: The extraction is used to identify trace elements precipitated as sulfide minerals.

Step 7 - Residual Fraction: Trace elements remaining in the soil after the previous extractions will be distributed between silicates, phosphates, and refractory oxides.

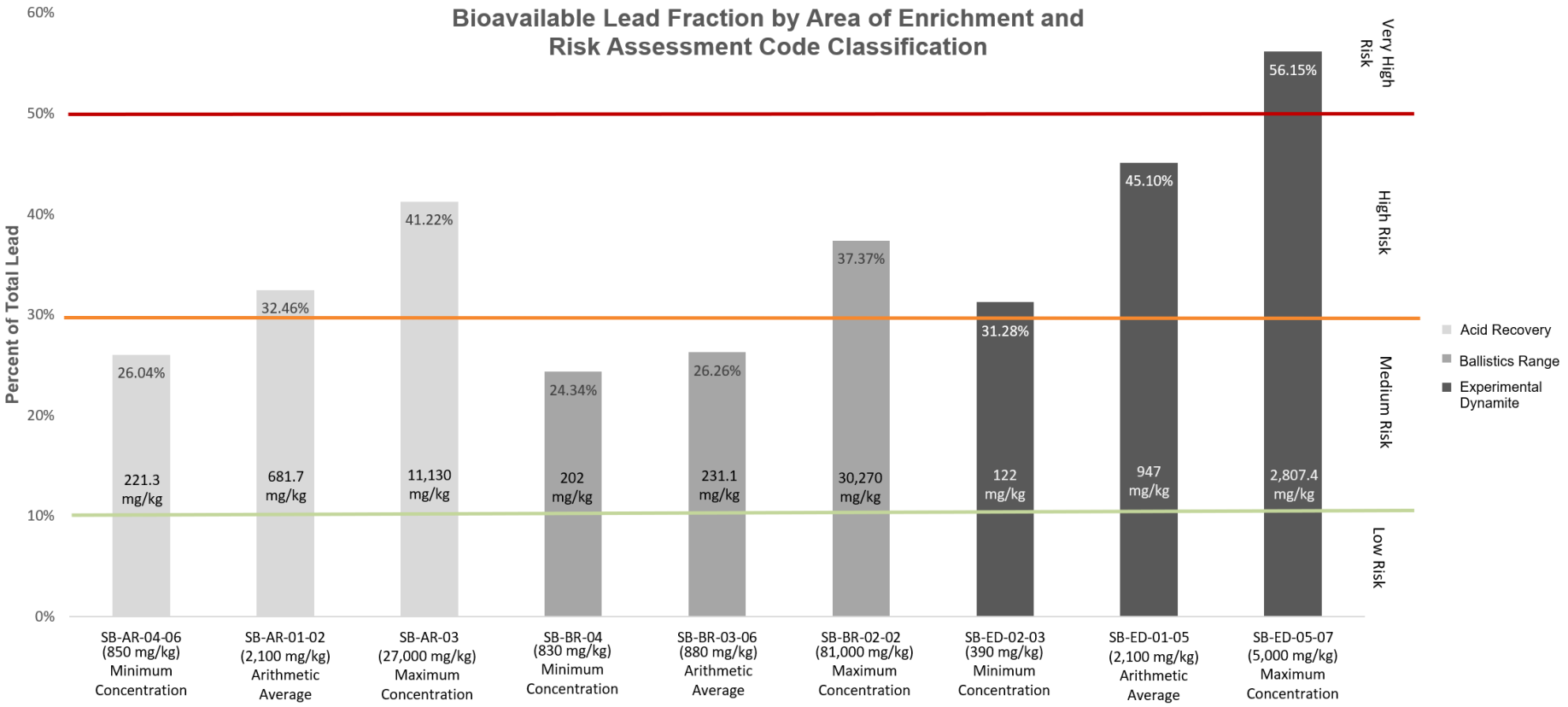
The chart below presents SEP analysis results broken down by stepwise percent extraction.

Table D.2 provides analytical results of SEP analysis. The chart below presents SEP analysis results broken down by stepwise percent extraction.



The fraction of total lead extracted in Steps 1 and 2 of SEP analysis represent the exchangeable and carbonate phases, respectively. The exchangeable phase is associated with the potentially bioavailable fraction where variations in soil chemistry can influence sorption and desorption. The carbonate phase represents a fraction where lead is associated with carbonates, whereby bioavailability and mobility are a function of pH. These two phases collectively comprise the weakly bound fraction of lead (Tessier et al. 1979) and are most readily bioavailable to ecological receptors. As such, results of SEP analysis indicate that 24 to 56% of total lead concentrations in soil are weakly bound and potentially bioavailable.

As presented in the following chart, percent bioavailable fractions were evaluated using Risk Assessment Code (RAC) classifications developed by Perin et al. (1985), where 1-10% indicates low risk, 11-30% indicates medium risk, 31-50% indicates high risk, and greater than 50% indicates very high risk. Results of SEP analysis and RAC classification indicate that areas within AoE-1, AoE-2, and AoE-3 are likely to present unacceptable risk to ecological receptors, driven by bioavailable fractions of total lead in soil, and merit remediation. Consistent with the Facility-specific approach (as detailed in Section 1.2 of the ERA), these AoEs are designated as APRAs and will not be proposed for terrestrial invertebrate tissue sampling in accordance with the TLWP or further evaluated in the ERA (**Appendix B**).


Bioavailable Lead Fraction by Area of Enrichment and Risk Assessment Code Classification
Percent of Total Lead
60%
50%
40%
30%
20%
10%
0%
Very High Risk
High Risk
Medium Risk
Low Risk
26.04%
221.3 mg/kg
32.46%
681.7 mg/kg
41.22%
11,130 mg/kg
24.34%
202 mg/kg
26.26%
231.1 mg/kg
37.37%
30,270 mg/kg
31.28%
122 mg/kg
45.10%
947 mg/kg
56.15%
2,807.4 mg/kg
SB-AR-04-06 (850 mg/kg) Minimum Concentration
SB-AR-01-02 (2,100 mg/kg) Arithmetic Average
SB-AR-03 (27,000 mg/kg) Maximum Concentration
SB-BR-04 (830 mg/kg) Minimum Concentration
SB-BR-03-06 (880 mg/kg) Arithmetic Average
SB-BR-02-02 (81,000 mg/kg) Maximum Concentration
SB-ED-02-03 (390 mg/kg) Minimum Concentration
SB-ED-01-05 (2,100 mg/kg) Arithmetic Average
SB-ED-05-07 (5,000 mg/kg) Maximum Concentration
Acid Recovery
Ballistics Range
Experimental Dynamite

D.7 Lead Bioavailability in the Terrestrial Exposure Area

In the ERA terrestrial exposure area where the potential risk from lead is uncertain, potential risk to lower- and upper-trophic-level receptors were evaluated under three bioavailability assumptions (24, 56, and 100%) to illustrate the influence on soil direct contact exposure point concentrations (EPCs) and terrestrial food web modeling (as detailed below).

Terrestrial lead bioaccumulation factors (BAFs) are presented in **Table D.3**; the resulting estimated tissue concentrations of total lead and upper and lower bound bioavailable lead fractions are presented in **Table D.4**.

Table D.5 presents HQs based on maximum detected total lead concentrations and upper and lower bound bioavailable lead fractions and 95% upper confidence limit of the mean (95UCL) EPCs estimating potential risk to soil invertebrates. Based on the 95UCL, HQs for soil invertebrates are less than or equal to 1 under 24, 56, and 100% bioavailability assumptions.

Table D.6 presents HQs based on maximum detected total lead concentrations and upper and lower bound bioavailable lead fractions and 95UCL EPCs estimating potential risk to terrestrial plants. The following table summarizes terrestrial plant HQs greater than or equal to 1.

COPEC	Bioavailable Fraction (%)	Terrestrial Plants
		$HQ95_{UCL}$
Lead	24	≤1
	56	**3**
	100	**5**

Table D.7 presents selected exposure parameters for upper-trophic-level terrestrial receptor species. Potential ecological risk from total lead concentrations and upper and lower bound bioavailable lead fractions were evaluated for three avian receptors (**Tables D.7, D.8, and D.9**) and three mammalian receptors (**Tables D.10, D.11, and D.12**) in the terrestrial exposure area.

Table D.13 summarizes the no observed adverse effect level [NOAEL-] and lowest observed adverse effect level [LOAEL]-based HQs (HQ_{NOAELs} and HQ_{LOAELs}, respectively) for total lead and upper and lower bound bioavailable lead fractions. The following table summarizes upper-trophic-level terrestrial receptor HQs greater than or equal to 1.

COPEC	Bioavailable Fraction (%)	American Robin		Short-Tailed Shrew	
		HQ_{NOAEL}	HQ_{LOAEL}	HQ_{NOAEL}	HQ_{LOAEL}
Lead	24	**3**	**1**	≤1	≤1
	56	**5**	**3**	≤1	≤1
	100	**9**	**5**	**2**	≤1

Results of this comparative risk analysis are incorporated in terrestrial risk characterization in Section 7.1 of the ERA.

References

KJ. 2016. Ecological Risk Assessment Work Plan. Phase II Remedial Investigation Report – Volume F. Prepared for Hercules Incorporated. Simmonds Precision Incorporated Site. Chester, New Jersey. Prepared on behalf of Hercules Inc. June.

KJ. 2018. Terrestrial Lead Work Plan. Prepared for Hercules Incorporated. Simmonds Precision Incorporated Site. Chester, New Jersey. Prepared on behalf of Hercules Inc.

Perin, L., Craboledda, L., Lucchese, M., Cirillo, R., Dotta, L., Zanette, M.L. and Orio, A.A. 1985. Heavy metal speciation in the sediments Northern Adriatic sea: A new approach for environmental toxicity determination. Heavy Met. Environ. 2, 454–456. https://doi.org/10.1080/15320383.2014.914465

Tessier A., Campbell, P.G., and M. Bisson. 1979. Sequential extraction procedure for the speciation of particulate trace metals. Analytical Chemistry, 51(7) 844-851. https://doi.org/10.1021/ac50043a017

Figures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SB-ED-01-05
SB-ED-01-04
SB-ED-02-01
SB-ED-02-03
SB-ED-05

Legend

Pre selected sample locations

- Not analyzed
- Analyzed
- Pre selected sample locations not collected

Step out sample locations

- Not analyzed
- Analyzed
- Step out locations not collected

Historical Lead in Soil (0-2ft)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg
- Areas of Lead Enrichment
- Facility Boundary
- Pond
- Road
- Former building outline

N

0 50 100
Scale: Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Kenvil, New Jersey
Terrestrial Lead Work Plan Implementation

Terrestrial Lead - Development Area
Experimental Dynamite Production Area

Figure D.1

Z:\Projects\AshlandKenvil\Events\20170310_TerrestrialLead\TerrestrialLeadSampleLocs_enl_2019.mxd Date: 1/23/2019 Printed by: EmilyLynch

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SB-BR-03-0
SB-BR-02-03
SB-BR-02-02

Z:\Projects\AshlandKenvil\Events\20170310_TerrestrialLead\TerrestrialLeadSampleLocs_enl_2019.mxd Date: 1/23/2019 Printed by: EmilyLynch

Legend

Pre selected sample locations

- Not analyzed
- Analyzed
- Pre selected sample locations not collected

Step out sample locations

- Not analyzed
- Analyzed
- Step out locations not collected

Historical Lead in Soil (0-2ft)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

- Areas of Lead Enrichment
- Facility Boundary
- Pond
- Road
- Former building outline

N

0 50 100
Scale: Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Kenvil, New Jersey
Terrestrial Lead Work Plan Implementation

Terrestrial Lead - Development Area Ballistics Range

Figure D.2

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SB-AR-04-06

SB-AR-01-02

SB-AR-01-07

Z:\Projects\AshlandKenvilEvents\20170310_TerrestrialLeadTerrestrialLeadSampleLocs_enl_2019.mxd Date: 1/23/2019 Printed by: EmilyLynch

Legend

Pre selected sample locations

- Not analyzed
- Analyzed
- Pre selected sample locations not collected

Step out sample locations

- Not analyzed
- Analyzed
- Step out locations not collected

Historical Lead in Soil (0-2ft)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

- Areas of Lead Enrichment
- Road
- Former building outline

N

0 50 100

Scale: Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Kenvil, New Jersey
Terrestrial Lead Work Plan Implementation

Terrestrial Lead - PETN/NG Area Acid Recovery and Former Ponds

Figure D.3

Tables

Table D.1: Sequential Extraction Procedure Sample Selection Process and Rationale
Hercules Former Kenvil Works Facility
Kenvil, New Jersey

Area of Enrichment	Location ID	Location Description	Total Lead[a] (mg/kg)	XRF Target[b] (mg/kg)	% Difference (Lab/Target)	XRF Fine[c] (mg/kg)	% Difference (Lab/Target)	Rationale
EPDA (AoE-1)	ED-04	Former building footprint,disturbed/storehouse #4	190	212	-10%	267	-29%	Below 488, not considered for SEP analysis
EPDA (AoE-1)	ED-02-03	Moose neck lake	530	544	-3%	721	-26%	Lowest concentration exceeding 488, targeted for SEP analysis
EPDA (AoE-1)	ED-01-04	Testing Area/stressed vegetation	900	1100	-18%	953	-6%	Below the arithmetic mean for the highest and lowest samples, not considered for SEP analysis
EPDA (AoE-1)	ED-02-01	Moose neck lake	1600	1006	59%	1231	30%	Below the arithmetic mean for the highest and lowest samples, not considered for SEP analysis
EPDA (AoE-1)	ED-01-05	Testing Area/stressed vegetation	2400	3739	-36%	4134	-42%	Closest to arithmetic average of lowest and max concentrations in an area without SEP analysis being conducted
EPDA (AoE-1)	ED-03	Drum disposal area/debris pile	2900	3347	-13%	4360	-33%	Closest to arithmetic average of lowest and max concentrations in an area already targeted for SEP analysis, will not run
EPDA (AoE-1)	ED-05-07	old decon oven area	8600	9863	-13%	15800	-46%	Maximum concentration, targeted for SEP analysis
Development Area - Ballistics Range (AoE-2)	BR-04-06	Partially vegetated/stressed soil area	230	283	-19%	310	-26%	Below 488, not considered for SEP analysis
Development Area - Ballistics Range (AoE-2)	BR-03	Former ballistics building footprint/vegetated	460	666	-31%	1251	-63%	Below 488, not considered for SEP analysis
Development Area - Ballistics Range (AoE-2)	BR-04	Partially vegetated/stressed soil area	1400	1715	-18%	2438	-43%	Lowest concentration exceeding 488, targeted for SEP analysis
Development Area - Ballistics Range (AoE-2)	BR-03-06	Former ballistics building footprint/vegetated	6300	1014	521%	1233	411%	Closest to arithmetic average of lowest and max concentrations in an area without SEP analysis being conducted
Development Area - Ballistics Range (AoE-2)	BR-02-03	Bullet Kiln/distressed vegetation	7300	8238	-11%	13900	-47%	Closest to arithmetic average of lowest and max concentrations in an area already targeted for SEP analysis, will not run
Development Area - Ballistics Range (AoE-2)	BR-02-02	Bullet Kiln/distressed vegetation	54000	91900	-41%	148300	-64%	Maximum concentration, targeted for SEP analysis
PETN/NG Area - Acid Recovery (AoE-3)	AR-02	Vegetated field/former Neutralizer #3 area	160	258	-38%	244	-34%	Below 488, not considered for SEP analysis
PETN/NG Area - Acid Recovery (AoE-3)	AR-01-07	Disturbed area on the hillside/partially vegetated	350	477	-27%	744	-53%	Below 488, not considered for SEP analysis
PETN/NG Area - Acid Recovery (AoE-3)	AR-04-06	Former building footprint, disturbed, vegetated	870	1179	-26%	1284	-32%	Lowest concentration exceeding 488, targeted for SEP analysis
PETN/NG Area - Acid Recovery (AoE-3)	AR-01-02	Disturbed area on the hillside/partially vegetated	2100	2565	-18%	2499	-16%	Closest to arithmetic average of lowest and max concentrations in an area without SEP analysis being conducted
PETN/NG Area - Acid Recovery (AoE-3)	AR-04-03	Former building footprint, disturbed, vegetated	5200	6123	-15%	4969	5%	Closest to arithmetic average of lowest and max concentrations in an area already targeted for SEP analysis, will not run
PETN/NG Area - Acid Recovery (AoE-3)	AR-03	No vegetation, large lead fragments at the surfac	32000	26000	23%	42400	-25%	Maximum concentration, targeted for SEP analysis

Notes:

Blue highlighted rows indicate selection for analysis by sequential extraction procedure (SEP)

[a]USEPA SW 846 Method 6020A

[a]USEPA SW 846 Method 6020A

[a]USEPA SW 846 Method 6020A

XRF - X-ray fluorescence

mg/kg - milligrams per kilogram

% - percent

AoE - area of enrichment

EPDA - Experimental Dynamite Production Area

Table D.2
Terrestrial Lead - 2018 Analytical Results of Samples Used for Sequential Extraction Procedure Analysis
Kenvil Works Facility
Kenvil, New Jersey

			Location	SB-AR-01-02	SB-AR-03	SB-AR-04-06	SB-BR-02-02	SB-BR-03-06	SB-BR-04	SB-ED-01-05	SB-ED-02-03	SB-ED-05-07
			Date	11/29/2018	11/29/2018	11/29/2018	11/28/2018	11/28/2018	11/28/2018	11/27/2018	11/27/2018	11/27/2018
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	SB-AR-01-02(00.0-00.5)	SB-AR-03(00.0-00.5)	SB-AR-04-06(00.0-00.5)	SB-BR-02-02(00.0-00.5)	SB-BR-03-06(00.0-00.5)	SB-BR-04(00.0-00.5)	SB-ED-01-05(00.0-00.5)	SB-ED-02-03(00.0-00.5)	SB-ED-05-07(00.0-00.5)
			Note	Acid Recovery (AoE-3)	Acid Recovery (AoE-3)	Acid Recovery (AoE-3)	Ballistics Range (AoE-2)	Ballistics Range (AoE-2)	Ballistics Range (AoE-2)	EPDA (AoE-1)	EPDA (AoE-1)	EPDA (AoE-1)
Chemical	CAS Number	Analytic Method	Unit									
Field												
pH	PH	SW9045D	SU	7.4	6.3	7.9	9.2	7.6	7.8	4.8	8.8	7.8
Metals												
Lead	7439-92-1	SW6010B-SEP Step 1	mg/kg	1.7 J	130	1.3 J	270	1.1 J	< 2.0 U	67	< 2.0 U	7.4
Lead	7439-92-1	SW6010B-SEP Step 2	mg/kg	680	11000	220	30000	230	200	880	120	2800
Lead	7439-92-1	SW6010B-SEP Step 3	mg/kg	350 *	260 *	130 *	300 *	120 *	44 *	310 *	53 *	260 *
Lead	7439-92-1	SW6010B-SEP Step 4	mg/kg	820	4000	390	740	410	370	640	180	1600
Lead	7439-92-1	SW6010B-SEP Step 5	mg/kg	100 B *	1100 B *	34 B *	15000 B *	43 B *	53 B *	47 B *	16 B *	150 B *
Lead	7439-92-1	SW6010B-SEP Step 6	mg/kg	99	9600	68	31000	60	92	110	13	120
Lead	7439-92-1	SW6010B-SEP Step 7	mg/kg	17	780	13	3000	9.5	67	18	3.6	42
Lead	7439-92-1	SW6010B-SEP Sum	mg/kg	2100	27000	850	81000	880	830	2100	390	5000
Lead	7439-92-1	SW6010B-SEP Total/NA	mg/kg	2100 B	26000 B	840 B	69000 B	760 B	960 B	2100 B	370 B	4400 B
Total Lead	7439-92-1	SW6020A	mg/kg	2100	32000	870	54000	6300	1400	2400	530	8600
Total Organic Carbon												
Total Organic Carbon	TOC	LLOYD KAHN	mg/kg	9900	10000	9100	19000	22000	82000	5900	22000	13000

Notes:
SU = standard unit
mg/kg = milligrams per kilogram
TOC = total organic carbon
Laboratory Qualifiers:
B = Compound was found in the blank and sample.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
* = Laboratory control sample or laboratory control sample duplicate is outside acceptance limits.

Table D.3
Bioaccumulation Factors
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	Soil EPC (mg/kg)	Bioaccumulation Factors					
			BAF_{invert}	Note	BAF_{plant}	Note	BAF_{mammal}	Note
Lead	24	136.1	e^(0.807 * LN(Cs) - 0.218)	a	e^(0.561 * LN(Cs) - 1.328)	a	e^(0.4422 * LN(Cs) + 0.0761)	a
	56	317.5	e^(0.807 * LN(Cs) - 0.218)	a	e^(0.561 * LN(Cs) - 1.328)	a	e^(0.4422 * LN(Cs) + 0.0761)	a
	100	566.9	e^(0.807 * LN(Cs) - 0.218)	a	e^(0.561 * LN(Cs) - 1.328)	a	e^(0.4422 * LN(Cs) + 0.0761)	a

Notes:

Average pH = 5.91.

a. USEPA 2007

BAF = bioaccumulation factor

Cd = concentration in diet

COPEC = constituent of potential ecological concern

Cs = concentration in soil

EPC = exposure point concentration

mg/kg = milligram per kilogram

USEPA = United States Environmental Protection Agency

Table D.4
Terrestrial Tissue Exposure Point Concentrations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	Soil EPC (mg/kg)	Estimated Tissue Concentrations (mg/kg)		
			C_{invert}	C_{plant}	C_{mammal}
Lead	24	136.1	42.4	4.2	9.5
	56	317.5	84	6.7	13.8
	100	566.9	134	9.3	17.8

Notes:

a. EPC value from method SW846 8270 used in modeling.

C = concentration

COPEC = constituent of potential ecological concern

EPC = exposure point concentration

mg/kg = milligram per kilogram

PCB = polychlorinated biphenyl

SVOC = semivolatile organic compound

Table D.5
Hazard Quotients for Soil Invertebrates
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
Lead	24	1700	a	17664	136.1	**10**	≤1
	56	1700	a	41216	317.5	**24**	≤1
	100	1700	a	73600	566.9	**43**	≤1

Notes:

Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.

a. EcoSSLs

95UCL = 95th percentile upper confidence limit of the mean

COPEC = constituent of potential ecological concern

mg/kg = milligram per kilogram

Table D.6
Hazard Quotients for Terrestrial Plants
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
				Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
Lead	24	120	a	17664	136.1	**147**	≤1
	56	120	a	41216	317.5	**343**	**3**
	100	120	a	73600	566.9	**613**	**5**

Notes:

Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.

a. Ecological soil screening levels

95UCL = 95th percentile upper confidence limit of the mean

COPEC = constituent of potential ecological concern

mg/kg = milligram per kilogram

Table D.7
Exposure Parameters for Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Common Name	Scientific Name	Feeding Guild	Body Weight (kg)	Note	Dietary Composition (%)			Daily Ingestion Rate (kg/day ww)	Note	Daily Ingestion Rate (kg/day dw)	Note	Soil/ Sediment Ingestion (%)	Note	Soil/ Sediment Ingestion Rate (kg/day dw)	Note
					Plants	Invertebrates	Tissue								
Terrestrial Species															
American robin	*Turdus migratorius*	Insectivorous	0.081	a	37.5	62.5	0	0.10	a	0.02	b	10	c	0.002	e
Red-tailed hawk	*Buteo jamaicensis*	Carnivorous	1.13	a	0	0	100	0.1	a	0.04	b	5.7	d	0.002	e
Northern bobwhite	*Colinus virginianus*	Herbivorous	0.174	a	100	0	0	0.01	a	0.002	b	9.3	c	0.0002	e
Short-tailed shrew	*Blarina brevicauda*	Insectivorous	0.017	a	0	100	0	0.008	a	0.001	b	3.0	d	0.00004	e
Red fox	*Vulpes vulpes*	Carnivorous	4.535	a	0	0	100	0.5	a	0.2	b	2.8	c	0.005	e
White-tailed deer	*Odocoileus virginianus*	Herbivorous	56.5	a	100	0	0	1.7	a	0.3	d	2.0	c	0.005	e

Notes:
a. USEPA 1993
b. Daily ingestion rates converted to dry weight assuming a moisture content of the following (USEPA 2007):
Invertebrates: 84%
Tissue: 68%
Plants: 85%
c. Beyer et al. 1994 (muskrat based on values for woodchuck; robin based on values for woodcock; bobwhite based on values for wild turkey)
d. USEPA 2007
e. Calculated by multiplying the soil ingestion rate times the dry weight daily ingestion rate.
% = percent
kg = kilogram
kg/day dw = kilogram per day dry weight
kg/day ww = kilogram per day wet weight
USEPA = United States Environmental Protection Agency

Table D.8
Hazard Quotients for American Robin
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
				Invertebrates	BAF_{invert}		Plants					NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	136.1	0.081	0.375	e^(0.807 * LN(Cs) - 0.218)	42.4	0.625	0.016	0.002	0.67	4.2	1.63	3.3	**3**	≤1
	56	318	0.081	0.375	e^(0.807 * LN(Cs) - 0.218)	84	0.625	0.016	0.002	0.67	8.9	1.63	3.3	**5**	**3**
	100	566.9	0.081	0.375	e^(0.807 * LN(Cs) - 0.218)	134.1	0.625	0.016	0.002	0.67	14.9	1.63	3.30	**9**	**5**

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table D.9
Hazard Quotients for Northern Bobwhite
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
				Plants					NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	136	0.17	1	0.002	0.0002	1	0.2	1.63	3.3	≤1	≤1
	56	318	0.17	1	0.002	0.0002	1	0.4	1.63	3.3	≤1	≤1
	100	567	0.17	1	0.002	0.0002	1	0.7	1.63	3.3	≤1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level

Table D.10
Hazard Quotients for Red-Tailed Hawk
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
				Mammals					NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	136.1	1.13	1	0.036	0.002	0.5	0.3	1.63	3.3	≤1	≤1
	56	318	1.13	1	0.036	0.002	0.5	0.5	1.63	3.3	≤1	≤1
	100	567	1.13	1	0.036	0.002	0.5	0.8	1.63	3.3	≤1	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
COPEC = constituent of potential ecological concern
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table D.11
Hazard Quotients for Short-Tailed Shrew
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
				Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	136	0.017	1	0.001	0.00004	1	3.5	4.7	8.9	≤1	≤1
	56	318	0.017	1	0.001	0.00004	1	7.0	4.7	8.9	≤1	≤1
	100	567	0.017	1	0.001	0.00004	1	11	4.7	8.9	**2**	≤1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table D.12
Hazard Quotients for White-Tailed Deer
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
				Plants					NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	136	56.50	1	0.261	0.0052	0.67	0.02	4.7	8.9	≤1	≤1
	56	318	56.50	1	0.261	0.0052	0.67	0.04	4.7	8.9	≤1	≤1
	100	567	56.50	1	0.261	0.0052	0.67	0.06	4.7	8.9	≤1	≤1

Notes:

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table D.13
Hazard Quotients for Red Fox
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Bioavailable Fraction (%)	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
				Mammals					NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	136.1	4.535	1	0.1625344	0.004550963	1	0.476212066	4.7	8.9	≤1	≤1
	56	318	4.54	1	0.163	0.005	1	0.8	4.7	8.9	≤1	≤1
	100	567	4.54	1	0.163	0.005	1	1.2	4.7	8.9	≤1	≤1

Notes:

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value
AUF = area use factor

Table D.14
Summary of Hazard Quotients for Terrestrial Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Bioavailable Fraction (%)	American Robin		Northern Bobwhite		Red-Tailed Hawk		Short-Tailed Shrew		White-Tailed Deer		Red Fox	
		NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Lead	24	**3**	**1**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
	56	**5**	**3**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
	100	**9**	**5**	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1

Notes:
a. EPC value from method SW846 8270 used in modeling.
Bolded values indicate HQ>1.
≤ = less than or equal to
COPEC = constituent of potential ecological concern
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl

Attachments

ANALYTICAL REPORT

Job Number: 140-13725-1

Job Description: Ashland - Kenvil Plant

Contract Number: No Number - No Expiration Date

For:
Kennedy/Jenks Consultants
214 Carnegie Center
Suite 103
Princeton, NJ 08540

Attention: Scott Larew

Approved for release.
Ryan Henry
Project Manager I
1/10/2019 4:16 PM

Ryan Henry, Project Manager I
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
william.henry@testamericainc.com
01/10/2019

This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Table of Contents

Cover Title Page 1

Data Summaries 4

- Report Narrative 4
- Sample Summary 5
- Method Summary 6
- Client Sample Results 7
- QC Sample Results 12
- Definitions 14
- QC Association 15
- Chronicle 18
- Certification Summary 31

Inorganic Sample Data 33

- Metals Data 33
  - Met Cover Page 34
  - Met Sample Data 35
  - Met QC Data 55
    - Met ICV/CCV 55
    - Met CRQL 57
    - Met Blanks 58
    - Met ICSA/ICSAB 61
    - Met Serial Dilution 65
  - Met MDL 66
  - Met Linear Ranges 68
  - Met Preparation Log 69
  - Met Analysis Run Log 70
  - Met ICP/MS Int Stds 76

Table of Contents

Met Prep Data 80

General Chemistry Data 82

Gen Chem Cover Page 83

Gen Chem Sample Data 85

Gen Chem QC Data 125

Gen Chem ICV/CCV 125

Gen Chem Blanks 129

Gen Chem Duplicates 130

Gen Chem LCS/LCSD 131

Gen Chem MDL 132

Gen Chem Linear Ranges 136

Gen Chem Analysis Run Log 137

Gen Chem Prep Data 145

Subcontracted Data 153

Shipping and Receiving Documents 154

Client Chain of Custody 155

Sample Receipt Checklist 165

Job Narrative
140-13725-1

Receipt
The samples were received on 12/19/2018 at 10:15am and arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

Receipt Exceptions
Method(s) 9045D, Lloyd Kahn: The following samples were received outside of holding time: SB-ED-01-04 (00.0-00.5) (140-13725-1), SB-ED-01-05 (00.0-00.5) (140-13725-2), SB-ED-02-01 (00.0-00.5) (140-13725-3), SB-ED-02-03 (00.0-00.5) (140-13725-4), SB-ED-03 (00.0-00.5) (140-13725-5), SB-ED-04 (00.0-00.5) (140-13725-6), SB-ED-05-07 (00.0-00.5) (140-13725-7), SB-AR-01-02 (00.0-00.5) (140-13725-8), SB-AR-01-07 (00.0-00.5) (140-13725-9), SB-AR-02 (00.0-00.5) (140-13725-10), SB-AR-03 (00.0-00.5) (140-13725-11), SB-AR-04-03 (00.0-00.5) (140-13725-12), SB-AR-04-06 (00.0-00.5) (140-13725-13), SB-BR-02-02 (00.0-00.5) (140-13725-14), SB-BR-02-03 (00.0-00.5) (140-13725-15), SB-BR-03 (00.0-00.5) (140-13725-16), SB-BR-04 (00.0-00.5) (140-13725-17), SB-BR-04-06 (00.0-00.5) (140-13725-18), SB-BR-03-06 (00.0-00.5) (140-13725-19) and BD112718 (140-13725-20).

Metals
Method(s) 6020A: The method blank for preparation batch 680-552742 and analytical batch 680-553600 contained lead above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) Lloyd Kahn: All of the samples were received outside of the 14 day holding time.

Method(s) 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant

TestAmerica Job ID: 140-13725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-13725-1	SB-ED-01-04 (00.0-00.5)	Solid	11/27/18 10:35	12/19/18 10:15
140-13725-2	SB-ED-01-05 (00.0-00.5)	Solid	11/27/18 10:40	12/19/18 10:15
140-13725-3	SB-ED-02-01 (00.0-00.5)	Solid	11/27/18 11:20	12/19/18 10:15
140-13725-4	SB-ED-02-03 (00.0-00.5)	Solid	11/27/18 11:30	12/19/18 10:15
140-13725-5	SB-ED-03 (00.0-00.5)	Solid	11/27/18 13:30	12/19/18 10:15
140-13725-6	SB-ED-04 (00.0-00.5)	Solid	11/27/18 14:15	12/19/18 10:15
140-13725-7	SB-ED-05-07 (00.0-00.5)	Solid	11/27/18 15:35	12/19/18 10:15
140-13725-8	SB-AR-01-02 (00.0-00.5)	Solid	11/29/18 09:40	12/19/18 10:15
140-13725-9	SB-AR-01-07 (00.0-00.5)	Solid	11/29/18 10:05	12/19/18 10:15
140-13725-10	SB-AR-02 (00.0-00.5)	Solid	11/29/18 10:30	12/19/18 10:15
140-13725-11	SB-AR-03 (00.0-00.5)	Solid	11/29/18 11:30	12/19/18 10:15
140-13725-12	SB-AR-04-03 (00.0-00.5)	Solid	11/29/18 13:45	12/19/18 10:15
140-13725-13	SB-AR-04-06 (00.0-00.5)	Solid	11/29/18 14:00	12/19/18 10:15
140-13725-14	SB-BR-02-02 (00.0-00.5)	Solid	11/28/18 10:10	12/19/18 10:15
140-13725-15	SB-BR-02-03 (00.0-00.5)	Solid	11/28/18 10:15	12/19/18 10:15
140-13725-16	SB-BR-03 (00.0-00.5)	Solid	11/28/18 11:00	12/19/18 10:15
140-13725-17	SB-BR-04 (00.0-00.5)	Solid	11/28/18 13:30	12/19/18 10:15
140-13725-18	SB-BR-04-06 (00.0-00.5)	Solid	11/28/18 14:00	12/19/18 10:15
140-13725-19	SB-BR-03-06 (00.0-00.5)	Solid	11/28/18 11:30	12/19/18 10:15
140-13725-20	BD112718	Solid	11/27/18 00:00	12/19/18 10:15

Method Summary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant

TestAmerica Job ID: 140-13725-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL SAV
9045D	Corrosivity as pH	SW846	TAL BUR
Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL BUR
Moisture	Percent Moisture	EPA	TAL SAV
3050B	Preparation, Metals	SW846	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Client Sample ID: SB-ED-01-04 (00.0-00.5)

Lab Sample ID: 140-13725-1
Date Collected: 11/27/18 10:35
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	900	B	3.4	0.85	mg/Kg	☼	12/21/18 07:50	12/28/18 18:11	20

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.5	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	5900	H	1000	380	mg/Kg			12/26/18 19:16	1

Client Sample ID: SB-ED-01-05 (00.0-00.5)

Lab Sample ID: 140-13725-2
Date Collected: 11/27/18 10:40
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2400	B	34	8.6	mg/Kg	☼	12/21/18 07:50	12/28/18 18:30	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.8	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	5900	H	1000	380	mg/Kg			12/26/18 19:20	1

Client Sample ID: SB-ED-02-01 (00.0-00.5)

Lab Sample ID: 140-13725-3
Date Collected: 11/27/18 11:20
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.9

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1600	B	34	8.5	mg/Kg	☼	12/21/18 07:50	12/28/18 18:15	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.7	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	13000	H	1000	380	mg/Kg			12/26/18 19:25	1

Client Sample ID: SB-ED-02-03 (00.0-00.5)

Lab Sample ID: 140-13725-4
Date Collected: 11/27/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	530	B	1.8	0.44	mg/Kg	☼	12/21/18 07:50	12/28/18 18:22	10

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	22000	H	1000	380	mg/Kg			12/26/18 19:30	1

Client Sample ID: SB-ED-03 (00.0-00.5)

Lab Sample ID: 140-13725-5
Date Collected: 11/27/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2900	B	34	8.4	mg/Kg	☼	12/21/18 07:50	12/28/18 17:45	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	15000	H	1000	380	mg/Kg			12/26/18 19:35	1

Client Sample ID: SB-ED-04 (00.0-00.5)

Lab Sample ID: 140-13725-6
Date Collected: 11/27/18 14:15
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190	B	0.70	0.17	mg/Kg	☼	12/21/18 07:50	12/28/18 17:53	4

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.9	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	7100	H	1000	380	mg/Kg			12/26/18 19:40	1

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Lab Sample ID: 140-13725-7
Date Collected: 11/27/18 15:35
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.9

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8600	B	35	8.8	mg/Kg	☼	12/21/18 07:50	12/28/18 18:26	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	13000	H	1000	380	mg/Kg			12/26/18 19:45	1

Client Sample ID: SB-AR-01-02 (00.0-00.5)

Lab Sample ID: 140-13725-8
Date Collected: 11/29/18 09:40
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 91.2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2100	B	38	9.6	mg/Kg	☼	12/21/18 07:50	12/28/18 18:56	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	9900	H	1000	380	mg/Kg			12/26/18 19:49	1

Client Sample ID: SB-AR-01-07 (00.0-00.5)

Lab Sample ID: 140-13725-9
Date Collected: 11/29/18 10:05
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.3

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	350	B	0.70	0.18	mg/Kg	☼	12/21/18 07:50	12/28/18 18:33	4

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	23000	H	1000	380	mg/Kg			12/26/18 19:54	1

Client Sample ID: SB-AR-02 (00.0-00.5)

Lab Sample ID: 140-13725-10
Date Collected: 11/29/18 10:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	160	B	3.4	0.84	mg/Kg	☼	12/21/18 07:50	12/28/18 19:07	20

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.9	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	8700	H	1000	380	mg/Kg			12/26/18 19:59	1

Client Sample ID: SB-AR-03 (00.0-00.5)

Lab Sample ID: 140-13725-11
Date Collected: 11/29/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.9

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	32000	B	34	8.6	mg/Kg	☼	12/21/18 07:50	12/28/18 18:19	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.3	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	10000	H	1000	380	mg/Kg			12/26/18 20:04	1

Client Sample ID: SB-AR-04-03 (00.0-00.5)

Lab Sample ID: 140-13725-12
Date Collected: 11/29/18 13:45
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.6

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5200	B	35	8.8	mg/Kg	☼	12/21/18 07:50	12/28/18 18:04	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.3	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	6100	H	1000	380	mg/Kg			12/26/18 20:09	1

Client Sample ID: SB-AR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-13
Date Collected: 11/29/18 14:00
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.6

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	870	B	3.4	0.86	mg/Kg	☼	12/21/18 07:50	12/28/18 17:27	20

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	9100	H	1000	380	mg/Kg			12/26/18 20:23	1

Client Sample ID: SB-BR-02-02 (00.0-00.5)

Lab Sample ID: 140-13725-14
Date Collected: 11/28/18 10:10
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.4

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	54000	B	350	87	mg/Kg	☼	12/21/18 07:50	12/28/18 18:48	2000

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.2	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	19000	H	1000	380	mg/Kg			12/26/18 20:28	1

Client Sample ID: SB-BR-02-03 (00.0-00.5)

Lab Sample ID: 140-13725-15
Date Collected: 11/28/18 10:15
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7300	B	35	8.7	mg/Kg	☼	12/21/18 07:50	12/28/18 19:03	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF			SU			01/04/19 08:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	43000	H	1000	380	mg/Kg			12/26/18 20:33	1

Client Sample ID: SB-BR-03 (00.0-00.5)

Lab Sample ID: 140-13725-16
Date Collected: 11/28/18 11:00
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	460	B	1.7	0.42	mg/Kg	☼	12/21/18 07:50	12/28/18 18:37	10

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6	HF			SU			01/09/19 12:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	8900	H	1000	380	mg/Kg			12/26/18 20:38	1

Client Sample ID: SB-BR-04 (00.0-00.5)

Lab Sample ID: 140-13725-17

Date Collected: 11/28/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1400	B	34	8.6	mg/Kg	☼	12/21/18 07:50	12/28/18 18:07	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8	HF			SU			01/09/19 12:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	82000	H	1000	380	mg/Kg			12/26/18 20:43	1

Client Sample ID: SB-BR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-18

Date Collected: 11/28/18 14:00
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	230	B	0.68	0.17	mg/Kg	☼	12/21/18 07:50	12/28/18 17:49	4

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF			SU			01/09/19 12:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	24000	H	1000	380	mg/Kg			12/28/18 17:23	1

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Lab Sample ID: 140-13725-19

Date Collected: 11/28/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6300	B	3.5	0.88	mg/Kg	☼	12/21/18 07:50	12/28/18 18:59	20

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6	HF			SU			01/09/19 12:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	22000	H	1000	380	mg/Kg			12/28/18 17:28	1

Client Sample ID: BD112718

Lab Sample ID: 140-13725-20

Date Collected: 11/27/18 00:00
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2500	B	34	8.6	mg/Kg	☼	12/21/18 07:50	12/28/18 18:52	200

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.8	HF			SU			01/09/19 12:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	11000	H	1000	380	mg/Kg			12/28/18 17:33	1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-552742/1-A
Matrix: Solid
Analysis Batch: 553600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552742

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0962	J	0.19	0.048	mg/Kg		12/21/18 07:50	12/28/18 17:20	1

Method: 9045D - Corrosivity as pH

Lab Sample ID: LCS 200-138797/4
Matrix: Solid
Analysis Batch: 138797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	6.00	6.0		SU		100	99.2 - 100.9 71

Lab Sample ID: 140-13725-10 DU
Matrix: Solid
Analysis Batch: 138797

Client Sample ID: SB-AR-02 (00.0-00.5)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	5.9	HF	5.9		SU		0.3	5

Lab Sample ID: LCS 200-138944/4
Matrix: Solid
Analysis Batch: 138944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	6.00	6.0		SU		100	99.2 - 100.9 71

Lab Sample ID: 140-13725-18 DU
Matrix: Solid
Analysis Batch: 138944

Client Sample ID: SB-BR-04-06 (00.0-00.5)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.4	HF	7.4		SU		0.3	5

Method: Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 200-138566/5
Matrix: Solid
Analysis Batch: 138566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	380	mg/Kg			12/26/18 18:37	1

Lab Sample ID: LCS 200-138566/6
Matrix: Solid
Analysis Batch: 138566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	9260	9810		mg/Kg		106	75 - 125

Method: Lloyd Kahn - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 200-138743/5
Matrix: Solid
Analysis Batch: 138743

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	380	mg/Kg			12/28/18 16:39	1

Lab Sample ID: LCS 200-138743/6
Matrix: Solid
Analysis Batch: 138743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			9260	9580		mg/Kg		103	75 - 125		

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 552742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-1	SB-ED-01-04 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-3	SB-ED-02-01 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-5	SB-ED-03 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-6	SB-ED-04 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-9	SB-AR-01-07 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-10	SB-AR-02 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-12	SB-AR-04-03 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-15	SB-BR-02-03 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-16	SB-BR-03 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-18	SB-BR-04-06 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-20	BD112718	Total/NA	Solid	3050B	
MB 680-552742/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 680-552742/2-A	Lab Control Sample	Total/NA	Solid	3050B	
140-13725-13 MS	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	3050B	
140-13725-13 MSD	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	3050B	

Analysis Batch: 553600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-1	SB-ED-01-04 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-3	SB-ED-02-01 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-5	SB-ED-03 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-6	SB-ED-04 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-9	SB-AR-01-07 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-10	SB-AR-02 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-12	SB-AR-04-03 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-15	SB-BR-02-03 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-16	SB-BR-03 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-18	SB-BR-04-06 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-20	BD112718	Total/NA	Solid	6020A	552742
MB 680-552742/1-A	Method Blank	Total/NA	Solid	6020A	552742
LCS 680-552742/2-A	Lab Control Sample	Total/NA	Solid	6020A	552742
140-13725-13 MS	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	6020A	552742
140-13725-13 MSD	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	6020A	552742

General Chemistry

Analysis Batch: 138566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-1	SB-ED-01-04 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-3	SB-ED-02-01 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-5	SB-ED-03 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-6	SB-ED-04 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-9	SB-AR-01-07 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-10	SB-AR-02 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-12	SB-AR-04-03 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-15	SB-BR-02-03 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-16	SB-BR-03 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
MB 200-138566/5	Method Blank	Total/NA	Solid	Lloyd Kahn	
LCS 200-138566/6	Lab Control Sample	Total/NA	Solid	Lloyd Kahn	

Analysis Batch: 138743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-18	SB-BR-04-06 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	Lloyd Kahn	
140-13725-20	BD112718	Total/NA	Solid	Lloyd Kahn	
MB 200-138743/5	Method Blank	Total/NA	Solid	Lloyd Kahn	
LCS 200-138743/6	Lab Control Sample	Total/NA	Solid	Lloyd Kahn	

Analysis Batch: 138797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-1	SB-ED-01-04 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-3	SB-ED-02-01 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-5	SB-ED-03 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-6	SB-ED-04 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-9	SB-AR-01-07 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-10	SB-AR-02 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-12	SB-AR-04-03 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-15	SB-BR-02-03 (00.0-00.5)	Total/NA	Solid	9045D	
LCS 200-138797/4	Lab Control Sample	Total/NA	Solid	9045D	
140-13725-10 DU	SB-AR-02 (00.0-00.5)	Total/NA	Solid	9045D	

Analysis Batch: 138944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-16	SB-BR-03 (00.0-00.5)	Total/NA	Solid	9045D	

General Chemistry (Continued)

Analysis Batch: 138944 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-18	SB-BR-04-06 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	9045D	
140-13725-20	BD112718	Total/NA	Solid	9045D	
LCS 200-138944/4	Lab Control Sample	Total/NA	Solid	9045D	
140-13725-18 DU	SB-BR-04-06 (00.0-00.5)	Total/NA	Solid	9045D	

Analysis Batch: 552921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-1	SB-ED-01-04 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-3	SB-ED-02-01 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-5	SB-ED-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-6	SB-ED-04 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-9	SB-AR-01-07 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-10	SB-AR-02 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-12	SB-AR-04-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-15	SB-BR-02-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-16	SB-BR-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-18	SB-BR-04-06 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-20	BD112718	Total/NA	Solid	Moisture	

Client Sample ID: SB-ED-01-04 (00.0-00.5)

Lab Sample ID: 140-13725-1
Date Collected: 11/27/18 10:35
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.14 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:16	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-01-04 (00.0-00.5)

Lab Sample ID: 140-13725-1
Date Collected: 11/27/18 10:35
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		20			553600	12/28/18 18:11	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-ED-01-05 (00.0-00.5)

Lab Sample ID: 140-13725-2
Date Collected: 11/27/18 10:40
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.01 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:20	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-01-05 (00.0-00.5)

Lab Sample ID: 140-13725-2
Date Collected: 11/27/18 10:40
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:30	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-ED-02-01 (00.0-00.5)

Lab Sample ID: 140-13725-3
Date Collected: 11/27/18 11:20
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.33 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-ED-02-01 (00.0-00.5)

Lab Sample ID: 140-13725-3
Date Collected: 11/27/18 11:20
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.33 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:25	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-02-01 (00.0-00.5)

Lab Sample ID: 140-13725-3
Date Collected: 11/27/18 11:20
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:15	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-ED-02-03 (00.0-00.5)

Lab Sample ID: 140-13725-4
Date Collected: 11/27/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.12 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:30	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-02-03 (00.0-00.5)

Lab Sample ID: 140-13725-4
Date Collected: 11/27/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		10			553600	12/28/18 18:22	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-ED-03 (00.0-00.5)

Lab Sample ID: 140-13725-5
Date Collected: 11/27/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.15 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-ED-03 (00.0-00.5)

Lab Sample ID: 140-13725-5
Date Collected: 11/27/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.15 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:35	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-03 (00.0-00.5)

Lab Sample ID: 140-13725-5
Date Collected: 11/27/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 17:45	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-ED-04 (00.0-00.5)

Lab Sample ID: 140-13725-6
Date Collected: 11/27/18 14:15
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.41 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:40	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-04 (00.0-00.5)

Lab Sample ID: 140-13725-6
Date Collected: 11/27/18 14:15
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		4			553600	12/28/18 17:53	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Lab Sample ID: 140-13725-7
Date Collected: 11/27/18 15:35
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.23 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Lab Sample ID: 140-13725-7
Date Collected: 11/27/18 15:35
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.23 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:45	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Lab Sample ID: 140-13725-7
Date Collected: 11/27/18 15:35
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:26	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-01-02 (00.0-00.5)

Lab Sample ID: 140-13725-8
Date Collected: 11/29/18 09:40
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.22 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:49	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-AR-01-02 (00.0-00.5)

Lab Sample ID: 140-13725-8
Date Collected: 11/29/18 09:40
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:56	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-01-07 (00.0-00.5)

Lab Sample ID: 140-13725-9
Date Collected: 11/29/18 10:05
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.02 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-AR-01-07 (00.0-00.5)

Lab Sample ID: 140-13725-9
Date Collected: 11/29/18 10:05
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.02 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:54	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-AR-01-07 (00.0-00.5)

Lab Sample ID: 140-13725-9
Date Collected: 11/29/18 10:05
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		4			553600	12/28/18 18:33	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-02 (00.0-00.5)

Lab Sample ID: 140-13725-10
Date Collected: 11/29/18 10:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.10 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 19:59	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-AR-02 (00.0-00.5)

Lab Sample ID: 140-13725-10
Date Collected: 11/29/18 10:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		20			553600	12/28/18 19:07	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-03 (00.0-00.5)

Lab Sample ID: 140-13725-11
Date Collected: 11/29/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.04 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-AR-03 (00.0-00.5)

Lab Sample ID: 140-13725-11
Date Collected: 11/29/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.04 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:04	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-AR-03 (00.0-00.5)

Lab Sample ID: 140-13725-11
Date Collected: 11/29/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.17 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:19	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-04-03 (00.0-00.5)

Lab Sample ID: 140-13725-12
Date Collected: 11/29/18 13:45
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.45 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:09	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-AR-04-03 (00.0-00.5)

Lab Sample ID: 140-13725-12
Date Collected: 11/29/18 13:45
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:04	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-13
Date Collected: 11/29/18 14:00
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.26 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Date Collected: 11/29/18 14:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.26 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:23	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Date Collected: 11/29/18 14:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-13
Matrix: Solid
Percent Solids: 99.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.17 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		20			553600	12/28/18 17:27	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Date Collected: 11/28/18 10:10
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.11 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:28	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Date Collected: 11/28/18 10:10
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-14
Matrix: Solid
Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		2000			553600	12/28/18 18:48	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-BR-02-03 (00.0-00.5)
Date Collected: 11/28/18 10:15
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.42 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR

Client Sample ID: SB-BR-02-03 (00.0-00.5)
Date Collected: 11/28/18 10:15
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.42 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:33	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-BR-02-03 (00.0-00.5)
Date Collected: 11/28/18 10:15
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-15
Matrix: Solid
Percent Solids: 99.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 19:03	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-BR-03 (00.0-00.5)
Date Collected: 11/28/18 11:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.14 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:38	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-BR-03 (00.0-00.5)
Date Collected: 11/28/18 11:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-16
Matrix: Solid
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		10			553600	12/28/18 18:37	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-BR-04 (00.0-00.5)
Date Collected: 11/28/18 13:30
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.05 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR

Client Sample ID: SB-BR-04 (00.0-00.5)

Lab Sample ID: 140-13725-17
Date Collected: 11/28/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.05 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 20:43	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-BR-04 (00.0-00.5)

Lab Sample ID: 140-13725-17
Date Collected: 11/28/18 13:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:07	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-BR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-18
Date Collected: 11/28/18 14:00
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.02 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138743	12/28/18 17:23	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-BR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-18
Date Collected: 11/28/18 14:00
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 99.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		4			553600	12/28/18 17:49	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Lab Sample ID: 140-13725-19
Date Collected: 11/28/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.03 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Lab Sample ID: 140-13725-19

Date Collected: 11/28/18 11:30

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.03 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138743	12/28/18 17:28	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Lab Sample ID: 140-13725-19

Date Collected: 11/28/18 11:30

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		20			553600	12/28/18 18:59	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: BD112718

Lab Sample ID: 140-13725-20

Date Collected: 11/27/18 00:00

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.22 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Lloyd Kahn		1			138743	12/28/18 17:33	MJZ	TAL BUR
	Instrument ID: WCCH1									
Total/NA	Analysis	Moisture		1			552921	12/22/18 10:07	EHS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: BD112718

Lab Sample ID: 140-13725-20

Date Collected: 11/27/18 00:00

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		200			553600	12/28/18 18:52	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: Method Blank

Lab Sample ID: MB 200-138566/5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 18:37	MJZ	TAL BUR

Client Sample ID: Method Blank
Lab Sample ID: MB 200-138566/5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 18:37	MJZ	TAL BUR
	Instrument ID: WCCH1									

Client Sample ID: Method Blank
Lab Sample ID: MB 200-138743/5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Lloyd Kahn		1			138743	12/28/18 16:39	MJZ	TAL BUR
	Instrument ID: WCCH1									

Client Sample ID: Method Blank
Lab Sample ID: MB 680-552742/1-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		1			553600	12/28/18 17:20	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 200-138566/6
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Lloyd Kahn		1			138566	12/26/18 18:42	MJZ	TAL BUR
	Instrument ID: WCCH1									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 200-138743/6
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Lloyd Kahn		1			138743	12/28/18 16:44	MJZ	TAL BUR
	Instrument ID: WCCH1									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 200-138797/4
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	40.00 mL	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 200-138944/4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	40.00 mL	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 680-552742/2-A
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		1			553600	12/28/18 17:23	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Date Collected: 11/29/18 14:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-13 MS
Matrix: Solid
Percent Solids: 99.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		20			553600	12/28/18 17:38	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Date Collected: 11/29/18 14:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-13 MSD
Matrix: Solid
Percent Solids: 99.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	500 mL	552742	12/21/18 07:50	CDD	TAL SAV
Total/NA	Analysis	6020A		20			553600	12/28/18 17:42	BWR	TAL SAV
	Instrument ID: ICPMSC									

Client Sample ID: SB-AR-02 (00.0-00.5)
Date Collected: 11/29/18 10:30
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-10 DU
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.13 g	40.00 mL	138797	01/04/19 08:55	MJZ	TAL BUR
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant

TestAmerica Job ID: 140-13725-1

Client Sample ID: SB-BR-04-06 (00.0-00.5)
Date Collected: 11/28/18 14:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-18 DU
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	20.06 g	40.00 mL	138944	01/09/19 12:00	MJZ	TAL BUR
	Instrument ID: NOEQUIP									

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant

TestAmerica Job ID: 140-13725-1

Laboratory: TestAmerica Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		N/A	
ANAB	DoD ELAP		L2311	02-13-19
Arkansas DEQ	State Program	6	88-0688	06-16-19
California	State Program	9	2423	06-30-19
Colorado	State Program	8	TN00009	02-28-19
Connecticut	State Program	1	PH-0223	09-30-19
Florida	NELAP	4	E87177	06-30-19
Georgia	State Program	4	906	04-13-20
Hawaii	State Program	9	N/A	04-13-19
Kansas	NELAP	7	E-10349	10-31-19
Kentucky (DW)	State Program	4	90101	12-31-18 *
Louisiana	NELAP	6	83979	06-30-19
Louisiana (DW)	NELAP	6	LA160005	12-31-19
Maryland	State Program	3	277	03-31-19
Michigan	State Program	5	9933	04-13-20
Nevada	State Program	9	TN00009	07-31-19
New Jersey	NELAP	2	TN001	06-30-19
New York	NELAP	2	10781	03-31-19
North Carolina (DW)	State Program	4	21705	07-31-19
North Carolina (WW/SW)	State Program	4	64	12-31-19
Ohio VAP	State Program	5	CL0059	08-28-20
Oklahoma	State Program	6	9415	08-31-19
Oregon	NELAP	10	TNI0189	06-30-19
Pennsylvania	NELAP	3	68-00576	12-31-19
Tennessee	State Program	4	2014	04-13-20
Texas	NELAP	6	T104704380-16-9	08-31-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-19
Virginia	NELAP	3	460176	09-14-19
Washington	State Program	10	C593	01-19-20
West Virginia (DW)	State Program	3	9955C	12-31-18 *
West Virginia DEP	State Program	3	345	04-30-19
Wisconsin	State Program	5	998044300	08-31-19

Laboratory: TestAmerica Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	VT972	06-30-19

Analysis Method	Prep Method	Matrix	Analyte

Laboratory: TestAmerica Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	GA769	06-30-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant

TestAmerica Job ID: 140-13725-1

Laboratory: TestAmerica Savannah (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	GA769	06-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Savannah Job Number: 140-13725-1

SDG No.:

Project: Ashland - Kenvil Plant

Client Sample ID	Lab Sample ID
SB-ED-01-04 (00.0-00.5)	140-13725-1
SB-ED-01-05 (00.0-00.5)	140-13725-2
SB-ED-02-01 (00.0-00.5)	140-13725-3
SB-ED-02-03 (00.0-00.5)	140-13725-4
SB-ED-03 (00.0-00.5)	140-13725-5
SB-ED-04 (00.0-00.5)	140-13725-6
SB-ED-05-07 (00.0-00.5)	140-13725-7
SB-AR-01-02 (00.0-00.5)	140-13725-8
SB-AR-01-07 (00.0-00.5)	140-13725-9
SB-AR-02 (00.0-00.5)	140-13725-10
SB-AR-03 (00.0-00.5)	140-13725-11
SB-AR-04-03 (00.0-00.5)	140-13725-12
SB-AR-04-06 (00.0-00.5)	140-13725-13
SB-BR-02-02 (00.0-00.5)	140-13725-14
SB-BR-02-03 (00.0-00.5)	140-13725-15
SB-BR-03 (00.0-00.5)	140-13725-16
SB-BR-04 (00.0-00.5)	140-13725-17
SB-BR-04-06 (00.0-00.5)	140-13725-18
SB-BR-03-06 (00.0-00.5)	140-13725-19
BD112718	140-13725-20

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-01-04 (00.0-00.5)
Lab Sample ID: 140-13725-1
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	900	3.4	0.85	mg/Kg		B	20	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2400	34	8.6	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-02-01 (00.0-00.5)
Lab Sample ID: 140-13725-3
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:20
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1600	34	8.5	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	530	1.8	0.44	mg/Kg		B	10	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-03 (00.0-00.5) Lab Sample ID: 140-13725-5

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 13:30

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 99.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2900	34	8.4	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-04 (00.0-00.5) Lab Sample ID: 140-13725-6

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 14:15

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 99.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	190	0.70	0.17	mg/Kg		B	4	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	8600	35	8.8	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-01-02 (00.0-00.5) Lab Sample ID: 140-13725-8

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 09:40

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2100	38	9.6	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-01-07 (00.0-00.5)
Lab Sample ID: 140-13725-9
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 10:05
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	350	0.70	0.18	mg/Kg		B	4	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-02 (00.0-00.5)
Lab Sample ID: 140-13725-10
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 10:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	160	3.4	0.84	mg/Kg		B	20	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-03 (00.0-00.5) Lab Sample ID: 140-13725-11

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 11:30

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	32000	34	8.6	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-04-03 (00.0-00.5)
Lab Sample ID: 140-13725-12
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 13:45
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	5200	35	8.8	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-04-06 (00.0-00.5) Lab Sample ID: 140-13725-13

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 14:00

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	870	3.4	0.86	mg/Kg		B	20	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-02-02 (00.0-00.5) Lab Sample ID: 140-13725-14

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 10:10

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	54000	350	87	mg/Kg		B	2000	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-15
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:15
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	7300	35	8.7	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-03 (00.0-00.5) Lab Sample ID: 140-13725-16

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 11:00

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	460	1.7	0.42	mg/Kg		B	10	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1400	34	8.6	mg/Kg		B	200	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-18
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	230	0.68	0.17	mg/Kg		B	4	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Savannah
Job No.: 140-13725-1
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	6300	3.5	0.88	mg/Kg		B	20	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: BD112718 | Lab Sample ID: 140-13725-20

Lab Name: TestAmerica Savannah | Job No.: 140-13725-1

SDG ID.:

Matrix: Solid | Date Sampled: 11/27/2018 00:00

Reporting Basis: DRY | Date Received: 12/19/2018 10:15

% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2500	34	8.6	mg/Kg		B	200	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

ICV Source: MS ICVwk_00323 Concentration Units: ug/L

CCV Source: ME MS Cal Std_00006

Analyte	ICV 680-553600/15 12/27/2018 12:17				CCV 680-553600/121 12/28/2018 17:12				CCV 680-553600/133 12/28/2018 17:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	40.5		40.0	101	49.0		50.0	98	50.9		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

ICV Source: MS ICVwk_00323 Concentration Units: ug/L

CCV Source: ME MS Cal Std_00006

Analyte	CCV 680-553600/145 12/28/2018 18:41				CCV 680-553600/154 12/28/2018 19:14							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	49.5		50.0	99	48.4		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Method: 6020A Instrument ID: ICPMSC

Lab Sample ID: CRI 680-553600/17 Concentration Units: ug/L

CRQL Check Standard Source: MS_STD1_RL_00173

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	0.300	0.318	J	106	70-130

Lab Sample ID: CRI 680-553600/215 Concentration Units: ug/L

CRQL Check Standard Source: MS_STD1_RL_00173

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	0.300	0.344	J	115	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 680-553600/16 12/27/2018 12:21		CCB 680-553600/122 12/28/2018 17:16		CCB 680-553600/134 12/28/2018 18:00		CCB 680-553600/146 12/28/2018 18:44	
		Found	C	Found	C	Found	C	Found	C
Lead	0.50	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 680-553600/155 12/28/2018 19:18							
		Found	C	Found	C	Found	C	Found	C
Lead	0.50	ND							

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 680-552742/1-A

Instrument Code: ICPMSC Batch No.: 553600

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	0.0962	J		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Lab Sample ID: ICSA 680-553600/18 Instrument ID: ICPMSC

Lab File ID: 025ICSA.d ICS Source: MS_ICSA_wk_00095

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Lead		**0.0930**	
Aluminum	*100000*	*92237*	*92*
Antimony		*0.0540*	
Arsenic		*0.140*	
Barium		*0.0550*	
Beryllium		*0.0220*	
Boron		*1.23*	
Cadmium		*0.0400*	
Calcium	*100000*	*91456*	*91*
Chromium		*0.347*	
Cobalt		*0.0480*	
Copper		*0.316*	
Iron	*100000*	*91715*	*92*
Magnesium	*100000*	*91781*	*92*
Manganese		*0.604*	
Mercury		*0.0140*	
Molybdenum	*2000*	*1860*	*93*
Nickel		*0.257*	
Potassium	*100000*	*93942*	*94*
Selenium		*0.145*	
Silver		*0.0220*	
Sodium	*100000*	*92048*	*92*
Strontium		*0.849*	
Thallium		*-0.0030*	
Tin		*0.162*	
Titanium	*2000*	*1923*	*96*
Vanadium		*0.146*	
Zinc		*1.04*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Lab Sample ID: ICSAB 680-553600/19 Instrument ID: ICPMSC

Lab File ID: 026ICSB.d ICS Source: MS_ICSABwk_00099

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Lead		**0.102**	
Aluminum	*100000*	*98962*	*99*
Antimony		*0.0480*	
Arsenic	*20.0*	*20.6*	*103*
Barium		*0.0580*	
Beryllium		*0.0060*	
Boron		*0.228*	
Cadmium	*20.0*	*19.9*	*99*
Calcium	*100000*	*97736*	*98*
Chromium	*20.0*	*19.9*	*100*
Cobalt	*20.0*	*19.5*	*98*
Copper	*20.0*	*19.1*	*95*
Iron	*100000*	*97919*	*98*
Magnesium	*100000*	*97863*	*98*
Manganese	*20.0*	*21.1*	*106*
Mercury		*0.0100*	
Molybdenum	*2000*	*1969*	*98*
Nickel	*20.0*	*19.6*	*98*
Potassium	*100000*	*99988*	*100*
Selenium		*0.160*	
Silver	*20.0*	*19.5*	*98*
Sodium	*100000*	*97524*	*98*
Strontium		*0.887*	
Thallium		*-0.0040*	
Tin		*0.254*	
Titanium	*2000*	*2097*	*105*
Vanadium		*2.25*	
Zinc	*20.0*	*19.7*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Lab Sample ID: ICSA 680-553600/27 Instrument ID: ICPMSC

Lab File ID: 305ICSA.d ICS Source: MS_ICSA_wk_00095

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Lead		**0.189**	
Aluminum	*100000*	*95287*	*95*
Antimony		*0.0510*	
Arsenic		*0.123*	
Barium		*0.0700*	
Beryllium		*0.0040*	
Boron		*0.0130*	
Cadmium		*-0.0220*	
Calcium	*100000*	*96812*	*97*
Chromium		*0.398*	
Cobalt		*0.0510*	
Copper		*0.313*	
Iron	*100000*	*97099*	*97*
Magnesium	*100000*	*93419*	*93*
Manganese		*0.647*	
Mercury		*0.0130*	
Molybdenum	*2000*	*1880*	*94*
Nickel		*0.276*	
Potassium	*100000*	*98440*	*98*
Selenium		*0.0410*	
Silver		*0.0230*	
Sodium	*100000*	*93118*	*93*
Strontium		*0.889*	
Thallium		*-0.0050*	
Tin		*0.181*	
Titanium	*2000*	*2030*	*101*
Vanadium		*0.0400*	
Zinc		*0.909*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Lab Sample ID: ICSAB 680-553600/28 Instrument ID: ICPMSC

Lab File ID: 306ICSB.d ICS Source: MS_ICSABwk_00099

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Lead		**0.221**	
Aluminum	*100000*	*97476*	*97*
Antimony		*0.0470*	
Arsenic	*20.0*	*20.5*	*103*
Barium		*0.0590*	
Beryllium		*-0.0080*	
Boron		*0.366*	
Cadmium	*20.0*	*19.4*	*97*
Calcium	*100000*	*98990*	*99*
Chromium	*20.0*	*19.7*	*98*
Cobalt	*20.0*	*19.4*	*97*
Copper	*20.0*	*18.9*	*94*
Iron	*100000*	*99126*	*99*
Magnesium	*100000*	*95359*	*95*
Manganese	*20.0*	*21.2*	*106*
Mercury		*0.0090*	
Molybdenum	*2000*	*1927*	*96*
Nickel	*20.0*	*19.5*	*98*
Potassium	*100000*	*100030*	*100*
Selenium		*0.0860*	
Silver	*20.0*	*18.8*	*94*
Sodium	*100000*	*94484*	*94*
Strontium		*0.924*	
Thallium		*-0.0070*	
Tin		*0.253*	
Titanium	*2000*	*2071*	*104*
Vanadium		*2.11*	
Zinc	*20.0*	*19.4*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 140-13725-13

SDG No:

Lab Name: TestAmerica Savannah Job No: 140-13725-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	870		935		8.1		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Savannah Job Number: 140-13725-1

SDG Number:

Matrix: Solid Instrument ID: ICPMSC

Method: 6020A MDL Date: 06/05/2015 11:38

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.2	0.05

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Savannah Job Number: 140-13725-1

SDG Number:

Matrix: Solid Instrument ID: ICPMSC

Method: 6020A XMDL Date: 08/19/2015 09:10

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		0.5	0.2

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Savannah Job No: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Date: 10/08/2015 12:17

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Lead		3600	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 680-552742/1-A	12/21/2018 07:50	552742	1.04		500
LCS 680-552742/2-A	12/21/2018 07:50	552742	1.03		500
140-13725-13	12/21/2018 07:50	552742	1.17		500
140-13725-13 MS	12/21/2018 07:50	552742	1.18		500
140-13725-13 MSD	12/21/2018 07:50	552742	1.19		500
140-13725-5	12/21/2018 07:50	552742	1.19		500
140-13725-18	12/21/2018 07:50	552742	1.18		500
140-13725-6	12/21/2018 07:50	552742	1.15		500
140-13725-12	12/21/2018 07:50	552742	1.14		500
140-13725-17	12/21/2018 07:50	552742	1.16		500
140-13725-1	12/21/2018 07:50	552742	1.18		500
140-13725-3	12/21/2018 07:50	552742	1.18		500
140-13725-11	12/21/2018 07:50	552742	1.17		500
140-13725-4	12/21/2018 07:50	552742	1.14		500
140-13725-7	12/21/2018 07:50	552742	1.14		500
140-13725-2	12/21/2018 07:50	552742	1.16		500
140-13725-9	12/21/2018 07:50	552742	1.15		500
140-13725-16	12/21/2018 07:50	552742	1.19		500
140-13725-14	12/21/2018 07:50	552742	1.16		500
140-13725-20	12/21/2018 07:50	552742	1.16		500
140-13725-8	12/21/2018 07:50	552742	1.14		500
140-13725-19	12/21/2018 07:50	552742	1.14		500
140-13725-15	12/21/2018 07:50	552742	1.15		500
140-13725-10	12/21/2018 07:50	552742	1.19		500

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Method: 6020A

Start Date: 12/27/2018 11:22 End Date: 12/28/2018 23:07

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			11:22																				
ZZZZZZ			11:26																				
ZZZZZZ			11:30																				
ZZZZZZ			11:34																				
CALSTD1 680-553600/5 IC	1		11:37	X																			
CALSTD2 680-553600/6 IC	1		11:41	X																			
CALSTD3 680-553600/7 IC	1		11:45	X																			
CALSTD4 680-553600/8 IC	1		11:50	X																			
CALSTD5 680-553600/9 IC	1		11:53	X																			
CALSTD6 680-553600/10 IC	1		11:57	X																			
RINSE 680-553600/11			12:01																				
ZZZZZZ			12:05																				
ZZZZZZ			12:08																				
ZZZZZZ			12:12																				
ICV 680-553600/15	1		12:17	X																			
ICB 680-553600/16	1		12:21	X																			
CRI 680-553600/17	1		12:25	X																			
ICSA 680-553600/18	1		12:29	X																			
ICSAB 680-553600/19	1		12:33	X																			
ZZZZZZ			12:37																				
ZZZZZZ			12:40																				
ZZZZZZ			12:44																				
ZZZZZZ			12:47																				
ZZZZZZ			12:51																				
CCV 680-553600/25			12:55																				
CCB 680-553600/26			12:59																				
ICSA 680-553600/27	1		11:26	X																			
ICSAB 680-553600/28	1		11:30	X																			
ZZZZZZ			11:33																				
ZZZZZZ			11:37																				
ZZZZZZ			11:41																				
CCV 680-553600/32			11:44																				
CCB 680-553600/33			11:48																				
ZZZZZZ			11:52																				
ZZZZZZ			11:55																				
ZZZZZZ			11:59																				
ZZZZZZ			12:03																				
CCV 680-553600/38			12:06																				
CCB 680-553600/39			12:10																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Method: 6020A

Start Date: 12/27/2018 11:22 End Date: 12/28/2018 23:07

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			12:14																				
ZZZZZZ			12:17																				
ZZZZZZ			12:21																				
ZZZZZZ			12:25																				
ZZZZZZ			12:28																				
ZZZZZZ			12:32																				
ZZZZZZ			12:36																				
ZZZZZZ			12:39																				
ZZZZZZ			12:43																				
ZZZZZZ			12:47																				
CCV 680-553600/50			12:50																				
CCB 680-553600/51			12:54																				
ZZZZZZ			12:58																				
ZZZZZZ			13:02																				
CCV 680-553600/54			13:05																				
CCB 680-553600/55			13:09																				
ZZZZZZ			13:13																				
ZZZZZZ			13:16																				
ZZZZZZ			13:20																				
ZZZZZZ			13:24																				
ZZZZZZ			13:27																				
ZZZZZZ			13:31																				
ZZZZZZ			13:35																				
ZZZZZZ			13:38																				
ZZZZZZ			13:42																				
CCV 680-553600/65			13:46																				
CCB 680-553600/66			13:49																				
ZZZZZZ			13:53																				
ZZZZZZ			13:57																				
ZZZZZZ			14:00																				
ZZZZZZ			14:04																				
ZZZZZZ			14:08																				
ZZZZZZ			14:12																				
ZZZZZZ			14:15																				
ZZZZZZ			14:19																				
ZZZZZZ			14:23																				
ZZZZZZ			14:26																				
CCV 680-553600/77			14:30																				
CCB 680-553600/78			14:34																				
ZZZZZZ			14:37																				
ZZZZZZ			14:41																				
ZZZZZZ			14:45																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Method: 6020A

Start Date: 12/27/2018 11:22 End Date: 12/28/2018 23:07

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			14:48																				
ZZZZZZ			14:52																				
ZZZZZZ			14:56																				
ZZZZZZ			14:59																				
ZZZZZZ			15:03																				
ZZZZZZ			15:07																				
ZZZZZZ			15:10																				
CCV 680-553600/89			15:14																				
CCB 680-553600/90			15:18																				
ZZZZZZ			15:21																				
ZZZZZZ			15:25																				
ZZZZZZ			15:29																				
ZZZZZZ			15:33																				
ZZZZZZ			15:36																				
ZZZZZZ			15:40																				
ZZZZZZ			15:44																				
CCV 680-553600/98			15:47																				
CCB 680-553600/99			15:51																				
ZZZZZZ			15:55																				
ZZZZZZ			15:58																				
ZZZZZZ			16:02																				
ZZZZZZ			16:06																				
ZZZZZZ			16:09																				
ZZZZZZ			16:13																				
ZZZZZZ			16:17																				
ZZZZZZ			16:20																				
ZZZZZZ			16:24																				
ZZZZZZ			16:28																				
CCV 680-553600/110			16:32																				
CCB 680-553600/111			16:35																				
ZZZZZZ			16:39																				
ZZZZZZ			16:43																				
ZZZZZZ			16:46																				
ZZZZZZ			16:50																				
ZZZZZZ			16:54																				
ZZZZZZ			16:57																				
ZZZZZZ			17:01																				
ZZZZZZ			17:05																				
ZZZZZZ			17:08																				
CCV 680-553600/121	1		17:12	X																			
CCB 680-553600/122	1		17:16	X																			
MB 680-552742/1-A	1	T	17:20	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Method: 6020A

Start Date: 12/27/2018 11:22 End Date: 12/28/2018 23:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
LCS 680-552742/2-A	1	T	17:23	X																			
140-13725-13	20	T	17:27	X																			
140-13725-13 SD	100	T	17:31	X																			
140-13725-13 PDS	20	T	17:34	X																			
140-13725-13 MS	20	T	17:38	X																			
140-13725-13 MSD	20	T	17:42	X																			
140-13725-5	200	T	17:45	X																			
140-13725-18	4	T	17:49	X																			
140-13725-6	4	T	17:53	X																			
CCV 680-553600/133	1		17:56	X																			
CCB 680-553600/134	1		18:00	X																			
140-13725-12	200	T	18:04	X																			
140-13725-17	200	T	18:07	X																			
140-13725-1	20	T	18:11	X																			
140-13725-3	200	T	18:15	X																			
140-13725-11	200	T	18:19	X																			
140-13725-4	10	T	18:22	X																			
140-13725-7	200	T	18:26	X																			
140-13725-2	200	T	18:30	X																			
140-13725-9	4	T	18:33	X																			
140-13725-16	10	T	18:37	X																			
CCV 680-553600/145	1		18:41	X																			
CCB 680-553600/146	1		18:44	X																			
140-13725-14	2000	T	18:48	X																			
140-13725-20	200	T	18:52	X																			
140-13725-8	200	T	18:56	X																			
140-13725-19	20	T	18:59	X																			
140-13725-15	200	T	19:03	X																			
140-13725-10	20	T	19:07	X																			
ZZZZZZ			19:10																				
CCV 680-553600/154	1		19:14	X																			
CCB 680-553600/155	1		19:18	X																			
ZZZZZZ			19:22																				
ZZZZZZ			19:25																				
ZZZZZZ			19:29																				
ZZZZZZ			19:33																				
ZZZZZZ			19:36																				
ZZZZZZ			19:40																				
ZZZZZZ			19:44																				
ZZZZZZ			19:47																				
ZZZZZZ			19:51																				
ZZZZZZ			19:55																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Method: 6020A

Start Date: 12/27/2018 11:22 End Date: 12/28/2018 23:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
CCV 680-553600/166			19:58																				
CCB 680-553600/167			20:02																				
ZZZZZZ			20:06																				
ZZZZZZ			20:09																				
ZZZZZZ			20:13																				
ZZZZZZ			20:17																				
ZZZZZZ			20:20																				
ZZZZZZ			20:24																				
ZZZZZZ			20:28																				
ZZZZZZ			20:32																				
ZZZZZZ			20:35																				
ZZZZZZ			20:39																				
CCV 680-553600/178			20:42																				
CCB 680-553600/179			20:46																				
ZZZZZZ			20:50																				
ZZZZZZ			20:54																				
CCV 680-553600/182			20:57																				
CCB 680-553600/183			21:01																				
ZZZZZZ			21:05																				
ZZZZZZ			21:08																				
ZZZZZZ			21:12																				
ZZZZZZ			21:16																				
ZZZZZZ			21:19																				
ZZZZZZ			21:23																				
ZZZZZZ			21:27																				
ZZZZZZ			21:30																				
ZZZZZZ			21:34																				
ZZZZZZ			21:38																				
CCV 680-553600/194			21:41																				
CCB 680-553600/195			21:45																				
ZZZZZZ			21:49																				
ZZZZZZ			21:53																				
ZZZZZZ			21:56																				
ZZZZZZ			22:00																				
ZZZZZZ			22:04																				
ZZZZZZ			22:07																				
ZZZZZZ			22:11																				
ZZZZZZ			22:15																				
CCV 680-553600/204			22:19																				
CCB 680-553600/205			22:22																				
ZZZZZZ			22:26																				
ZZZZZZ			22:30																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: ICPMSC Method: 6020A

Start Date: 12/27/2018 11:22 End Date: 12/28/2018 23:07

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			22:33																				
ZZZZZZ			22:37																				
ZZZZZZ			22:41																				
ZZZZZZ			22:45																				
ZZZZZZ			22:48																				
ZZZZZZ			22:52																				
ZZZZZZ			22:56																				
CRI 680-553600/215	1		23:00	X																			
CCV 680-553600/216			23:03																				
CCB 680-553600/217			23:07																				

Prep Types

T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

ICP-MS Instrument ID: ICPMSC Start Date: 12/27/2018 End Date: 12/28/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Ge	Q	Element Ge	Q	Element Y-89	Q
CALSTD1 680-553600/5 IC	11:37	100		100		100		100		100	
CALSTD2 680-553600/6 IC	11:41	102		99		104		105		105	
CALSTD3 680-553600/7 IC	11:45	102		100		101		102		105	
CALSTD4 680-553600/8 IC	11:50	100		100		99		100		105	
CALSTD5 680-553600/9 IC	11:53	94		99		98		99		103	
CALSTD6 680-553600/10 IC	11:57	86		98		98		99		103	
ICV 680-553600/15	12:17	94		96		93		95		100	
ICB 680-553600/16	12:21	104		102		100		103		108	
CRI 680-553600/17	12:25	104		100		100		101		105	
ICSA 680-553600/18	12:29	89		92		93		90		96	
ICSAB 680-553600/19	12:33	92		93		94		91		97	
ICSA 680-553600/27	11:26	79		84		86		83		92	
ICSAB 680-553600/28	11:30	80		86		88		85		93	
CCV 680-553600/121	17:12	83		90		91		93		99	
CCB 680-553600/122	17:16	84		86		88		89		95	
MB 680-552742/1-A	17:20	86		89		91		92		98	
LCS 680-552742/2-A	17:23	84		87		88		89		96	
140-13725-13	17:27	89		92		93		93		101	
140-13725-13 SD	17:31	88		91		92		93		99	
140-13725-13 PDS	17:34	86		90		91		92		100	
140-13725-13 MS	17:38	85		89		89		90		98	
140-13725-13 MSD	17:42	88		93		93		94		102	
140-13725-5	17:45	88		91		92		92		100	
140-13725-18	17:49	86		92		91		91		117	
140-13725-6	17:53	87		93		92		93		116	
CCV 680-553600/133	17:56	80		89		90		91		96	
CCB 680-553600/134	18:00	88		91		91		93		100	
140-13725-12	18:04	89		91		93		94		100	
140-13725-17	18:07	88		91		92		93		100	
140-13725-1	18:11	89		93		93		94		103	
140-13725-3	18:15	89		92		92		94		101	
140-13725-11	18:19	87		90		91		93		98	
140-13725-4	18:22	88		93		92		94		106	
140-13725-7	18:26	88		91		92		93		99	
140-13725-2	18:30	88		91		92		94		101	
140-13725-9	18:33	85		92		90		91		110	
140-13725-16	18:37	90		92		93		93		107	
CCV 680-553600/145	18:41	83		90		91		92		99	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

ICP-MS Instrument ID: ICPMSC Start Date: 12/27/2018 End Date: 12/28/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc-45	Q	Element Ge	Q	Element Ge	Q	Element Y-89	Q
CCB 680-553600/146	18:44	88		91		91		94		99	
140-13725-14	18:48	88		92		92		93		100	
140-13725-20	18:52	89		91		92		94		100	
140-13725-8	18:56	89		92		93		94		100	
140-13725-19	18:59	88		93		93		94		103	
140-13725-15	19:03	90		92		93		94		101	
140-13725-10	19:07	89		92		93		94		104	
CCV 680-553600/154	19:14	82		92		93		94		100	
CCB 680-553600/155	19:18	87		91		93		93		99	
CRI 680-553600/215	23:00	88		89		90		92		97	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

ICP-MS Instrument ID: ICPMSC Start Date: 12/27/2018 End Date: 12/28/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In-115	Q	Element Tb-159	Q	Element Ho	Q	Element Bi-209	Q	Element	Q
CALSTD1 680-553600/5 IC	11:37	100		100		100		100			
CALSTD2 680-553600/6 IC	11:41	108		105		104		110			
CALSTD3 680-553600/7 IC	11:45	108		105		105		111			
CALSTD4 680-553600/8 IC	11:50	106		106		105		111			
CALSTD5 680-553600/9 IC	11:53	106		105		105		109			
CALSTD6 680-553600/10 IC	11:57	103		104		104		107			
ICV 680-553600/15	12:17	102		103		102		106			
ICB 680-553600/16	12:21	108		106		106		112			
CRI 680-553600/17	12:25	107		106		105		111			
ICSA 680-553600/18	12:29	94		96		96		96			
ICSAB 680-553600/19	12:33	95		97		97		95			
ICSA 680-553600/27	11:26	91		95		95		95			
ICSAB 680-553600/28	11:30	92		96		96		96			
CCV 680-553600/121	17:12	101		102		102		109			
CCB 680-553600/122	17:16	97		97		97		104			
MB 680-552742/1-A	17:20	101		101		102		110			
LCS 680-552742/2-A	17:23	98		99		100		109			
140-13725-13	17:27	102		103		103		112			
140-13725-13 SD	17:31	102		101		102		111			
140-13725-13 PDS	17:34	100		101		102		109			
140-13725-13 MS	17:38	99		99		99		108			
140-13725-13 MSD	17:42	103		103		104		113			
140-13725-5	17:45	102		102		102		111			
140-13725-18	17:49	100		103		104		111			
140-13725-6	17:53	100		102		102		111			
CCV 680-553600/133	17:56	98		100		101		106			
CCB 680-553600/134	18:00	101		101		101		108			
140-13725-12	18:04	103		102		102		111			
140-13725-17	18:07	102		101		102		110			
140-13725-1	18:11	103		102		102		112			
140-13725-3	18:15	103		102		102		109			
140-13725-11	18:19	100		100		100		109			
140-13725-4	18:22	103		103		103		112			
140-13725-7	18:26	102		101		101		109			
140-13725-2	18:30	103		102		103		111			
140-13725-9	18:33	100		101		101		110			
140-13725-16	18:37	103		103		103		112			
CCV 680-553600/145	18:41	100		102		102		108			

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

ICP-MS Instrument ID: ICPMSC Start Date: 12/27/2018 End Date: 12/28/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In-115	Q	Element Tb-159	Q	Element Ho	Q	Element Bi-209	Q	Element	Q
CCB 680-553600/146	18:44	102		101		101		108			
140-13725-14	18:48	103		101		102		110			
140-13725-20	18:52	103		102		102		109			
140-13725-8	18:56	103		101		102		110			
140-13725-19	18:59	103		103		102		114			
140-13725-15	19:03	105		104		104		112			
140-13725-10	19:07	102		103		103		112			
CCV 680-553600/154	19:14	102		104		104		110			
CCB 680-553600/155	19:18	103		101		102		109			
CRI 680-553600/215	23:00	100		99		99		107			

METALS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Batch Number: 552742 Batch Start Date: 12/21/18 07:50 Batch Analyst: Dixon, Charles D

Batch Method: 3050B Batch End Date: 12/27/18 12:31

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MS_Ag_LCS_SPK 00078	MS_LCS1_WK 00077	MS_LCS2_wk 00241	
MB 680-552742/1		3050B, 6020A		1.04 g	500 mL				
LCS 680-552742/2		3050B, 6020A		1.03 g	500 mL	1 mL	1 mL	1 mL	
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	3050B, 6020A	T	1.17 g	500 mL				
140-13725-A-13 MS	SB-AR-04-06 (00.0-00.5)	3050B, 6020A	T	1.18 g	500 mL	1 mL	1 mL	1 mL	
140-13725-A-13 MSD	SB-AR-04-06 (00.0-00.5)	3050B, 6020A	T	1.19 g	500 mL	1 mL	1 mL	1 mL	
140-13725-A-5	SB-ED-03 (00.0-00.5)	3050B, 6020A	T	1.19 g	500 mL				
140-13725-A-18	SB-BR-04-06 (00.0-00.5)	3050B, 6020A	T	1.18 g	500 mL				
140-13725-A-6	SB-ED-04 (00.0-00.5)	3050B, 6020A	T	1.15 g	500 mL				
140-13725-A-12	SB-AR-04-03 (00.0-00.5)	3050B, 6020A	T	1.14 g	500 mL				
140-13725-A-17	SB-BR-04 (00.0-00.5)	3050B, 6020A	T	1.16 g	500 mL				
140-13725-A-1	SB-ED-01-04 (00.0-00.5)	3050B, 6020A	T	1.18 g	500 mL				
140-13725-A-3	SB-ED-02-01 (00.0-00.5)	3050B, 6020A	T	1.18 g	500 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	3050B, 6020A	T	1.17 g	500 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	3050B, 6020A	T	1.14 g	500 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	3050B, 6020A	T	1.14 g	500 mL				
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	3050B, 6020A	T	1.16 g	500 mL				
140-13725-A-9	SB-AR-01-07 (00.0-00.5)	3050B, 6020A	T	1.15 g	500 mL				
140-13725-A-16	SB-BR-03 (00.0-00.5)	3050B, 6020A	T	1.19 g	500 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	3050B, 6020A	T	1.16 g	500 mL				
140-13725-A-20	BD112718	3050B, 6020A	T	1.16 g	500 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	3050B, 6020A	T	1.14 g	500 mL				
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	3050B, 6020A	T	1.14 g	500 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Batch Number: 552742 Batch Start Date: 12/21/18 07:50 Batch Analyst: Dixon, Charles D

Batch Method: 3050B Batch End Date: 12/27/18 12:31

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MS_Ag_LCS_SPK 00078	MS_LCS1_WK 00077	MS_LCS2_wk 00241	
140-13725-A-15	SB-BR-02-03 (00.0-00.5)	3050B, 6020A	T	1.15 g	500 mL				
140-13725-A-10	SB-AR-02 (00.0-00.5)	3050B, 6020A	T	1.19 g	500 mL				

Batch Notes	
Balance ID	27
Blank Soil Lot Number	5727510
Temperature - Corrected - End	95 Degrees C
Temperature - Corrected - Start	95 Degrees C
Digestion Unit ID	HB12
Digestion Tube/Cup ID	5831739
Hydrogen Peroxide ID	5691239
Hydrochloric Acid ID	5859877
Nitric Acid ID	5873968
Pipette/Syringe/Dispenser ID	ME16/ME22
Sufficient Volume for Batch QC	YES
Thermometer ID	MEPREP19
Temperature - Uncorrected - End	94 Degrees C
Temperature - Uncorrected - Start	94 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 140-13725-1

SDG No.:

Project: Ashland - Kenvil Plant

Client Sample ID	Lab Sample ID
SB-ED-01-04 (00.0-00.5)	140-13725-1
SB-ED-01-05 (00.0-00.5)	140-13725-2
SB-ED-02-01 (00.0-00.5)	140-13725-3
SB-ED-02-03 (00.0-00.5)	140-13725-4
SB-ED-03 (00.0-00.5)	140-13725-5
SB-ED-04 (00.0-00.5)	140-13725-6
SB-ED-05-07 (00.0-00.5)	140-13725-7
SB-AR-01-02 (00.0-00.5)	140-13725-8
SB-AR-01-07 (00.0-00.5)	140-13725-9
SB-AR-02 (00.0-00.5)	140-13725-10
SB-AR-03 (00.0-00.5)	140-13725-11
SB-AR-04-03 (00.0-00.5)	140-13725-12
SB-AR-04-06 (00.0-00.5)	140-13725-13
SB-BR-02-02 (00.0-00.5)	140-13725-14
SB-BR-02-03 (00.0-00.5)	140-13725-15
SB-BR-03 (00.0-00.5)	140-13725-16
SB-BR-04 (00.0-00.5)	140-13725-17
SB-BR-04-06 (00.0-00.5)	140-13725-18
SB-BR-03-06 (00.0-00.5)	140-13725-19
BD112718	140-13725-20

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Savannah Job Number: 140-13725-1

SDG No.:

Project: Ashland - Kenvil Plant

Client Sample ID	Lab Sample ID
SB-ED-01-04 (00.0-00.5)	140-13725-1
SB-ED-01-05 (00.0-00.5)	140-13725-2
SB-ED-02-01 (00.0-00.5)	140-13725-3
SB-ED-02-03 (00.0-00.5)	140-13725-4
SB-ED-03 (00.0-00.5)	140-13725-5
SB-ED-04 (00.0-00.5)	140-13725-6
SB-ED-05-07 (00.0-00.5)	140-13725-7
SB-AR-01-02 (00.0-00.5)	140-13725-8
SB-AR-01-07 (00.0-00.5)	140-13725-9
SB-AR-02 (00.0-00.5)	140-13725-10
SB-AR-03 (00.0-00.5)	140-13725-11
SB-AR-04-03 (00.0-00.5)	140-13725-12
SB-AR-04-06 (00.0-00.5)	140-13725-13
SB-BR-02-02 (00.0-00.5)	140-13725-14
SB-BR-02-03 (00.0-00.5)	140-13725-15
SB-BR-03 (00.0-00.5)	140-13725-16
SB-BR-04 (00.0-00.5)	140-13725-17
SB-BR-04-06 (00.0-00.5)	140-13725-18
SB-BR-03-06 (00.0-00.5)	140-13725-19
BD112718	140-13725-20

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-01-04 (00.0-00.5) Lab Sample ID: 140-13725-1

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 10:35

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	5900	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-01-04 (00.0-00.5) Lab Sample ID: 140-13725-1

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 10:35

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.5			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-01-05 (00.0-00.5) Lab Sample ID: 140-13725-2

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 10:40

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	5900	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-01-05 (00.0-00.5) Lab Sample ID: 140-13725-2

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 10:40

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.8			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-02-01 (00.0-00.5) Lab Sample ID: 140-13725-3

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 11:20

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	13000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-02-01 (00.0-00.5) Lab Sample ID: 140-13725-3

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 11:20

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.7			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-02-03 (00.0-00.5) Lab Sample ID: 140-13725-4

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	22000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-02-03 (00.0-00.5) Lab Sample ID: 140-13725-4

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	8.8			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-03 (00.0-00.5) Lab Sample ID: 140-13725-5

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 13:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	15000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-03 (00.0-00.5) Lab Sample ID: 140-13725-5

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 13:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	8.2			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-04 (00.0-00.5) Lab Sample ID: 140-13725-6

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 14:15

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	7100	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-04 (00.0-00.5) Lab Sample ID: 140-13725-6

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 14:15

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.9			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-05-07 (00.0-00.5) Lab Sample ID: 140-13725-7

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 15:35

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	13000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-ED-05-07 (00.0-00.5) Lab Sample ID: 140-13725-7

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 15:35

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.8			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-01-02 (00.0-00.5) Lab Sample ID: 140-13725-8

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 09:40

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	9900	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-01-02 (00.0-00.5) Lab Sample ID: 140-13725-8

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 09:40

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.4			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-01-07 (00.0-00.5) Lab Sample ID: 140-13725-9

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 10:05

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	23000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-01-07 (00.0-00.5) Lab Sample ID: 140-13725-9

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 10:05

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.9			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-02 (00.0-00.5) Lab Sample ID: 140-13725-10

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 10:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	8700	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-02 (00.0-00.5) Lab Sample ID: 140-13725-10

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 10:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.9			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-03 (00.0-00.5) Lab Sample ID: 140-13725-11

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	10000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-03 (00.0-00.5) Lab Sample ID: 140-13725-11

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.3			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-04-03 (00.0-00.5) Lab Sample ID: 140-13725-12

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 13:45

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	6100	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-04-03 (00.0-00.5) Lab Sample ID: 140-13725-12

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 13:45

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.3			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-04-06 (00.0-00.5) Lab Sample ID: 140-13725-13

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 14:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	9100	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-AR-04-06 (00.0-00.5) Lab Sample ID: 140-13725-13

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 14:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.9			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-02-02 (00.0-00.5) Lab Sample ID: 140-13725-14

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 10:10

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	19000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-02-02 (00.0-00.5) Lab Sample ID: 140-13725-14

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 10:10

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	9.2			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-02-03 (00.0-00.5) Lab Sample ID: 140-13725-15

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 10:15

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	43000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-02-03 (00.0-00.5) Lab Sample ID: 140-13725-15

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 10:15

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.4			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-03 (00.0-00.5) Lab Sample ID: 140-13725-16

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 11:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	8900	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-03 (00.0-00.5) Lab Sample ID: 140-13725-16

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 11:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.6			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-04 (00.0-00.5) Lab Sample ID: 140-13725-17

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 13:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	82000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-04 (00.0-00.5) Lab Sample ID: 140-13725-17

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 13:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.8			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-04-06 (00.0-00.5) Lab Sample ID: 140-13725-18

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 14:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	24000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-04-06 (00.0-00.5) Lab Sample ID: 140-13725-18

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 14:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.4			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-03-06 (00.0-00.5) Lab Sample ID: 140-13725-19

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	22000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SB-BR-03-06 (00.0-00.5) Lab Sample ID: 140-13725-19

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.6			SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BD112718 Lab Sample ID: 140-13725-20

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 00:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	11000	1000	380	mg/Kg		H	1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BD112718 Lab Sample ID: 140-13725-20

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 00:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.8			SU		HF	1	9045D

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Analyst: MJZ Batch Start Date: 01/04/2019

Reporting Units: SU Analytical Batch No.: 138797

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
5	CCV	08:55	pH	7.0	7.00	100	99-101		exphbuffer7_00074
17	CCV	08:55	pH	7.0	7.00	100	99-101		exphbuffer7_00074
28	CCV	08:55	pH	7.0	7.00	100	99-101		exphbuffer7_00074

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Analyst: MJZ Batch Start Date: 01/09/2019

Reporting Units: SU Analytical Batch No.: 138944

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
5	CCV	12:00	pH	7.0	7.00	100	99-101		exphbuffer7_00080
17	CCV	12:00	pH	7.0	7.00	100	99-101		exphbuffer7_00080
27	CCV	15:44	pH	7.0	7.00	100	99-101		exphbuffer7_00080

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Analyst: MJZ Batch Start Date: 12/26/2018

Reporting Units: mg/Kg Analytical Batch No.: 138566

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	18:18	Total Organic Carbon	10200	9260	110	75-125		WCLKLCSs_00020
2	ICB	18:23	Total Organic Carbon	ND					
3	CCV	18:27	Total Organic Carbon	36900	35000	105	75-125		WCTOCCALs_00016
4	CCB	18:32	Total Organic Carbon	ND					
22	CCV	20:14	Total Organic Carbon	38700	35000	111	75-125		WCTOCCALs_00016
23	CCB	20:18	Total Organic Carbon	ND					
37	CCV	21:41	Total Organic Carbon	42600	35000	122	75-125		WCTOCCALs_00016
38	CCB	21:46	Total Organic Carbon	910				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Analyst: MJZ Batch Start Date: 12/28/2018

Reporting Units: mg/Kg Analytical Batch No.: 138743

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	16:20	Total Organic Carbon	9970	9260	108	75-125		WCLKLCSs_00020
2	ICB	16:25	Total Organic Carbon	ND					
3	CCV	16:29	Total Organic Carbon	36300	35000	104	75-125		WCTOCCALs_00016
4	CCB	16:34	Total Organic Carbon	ND					
22	CCV	18:16	Total Organic Carbon	40200	35000	115	75-125		WCTOCCALs_00016
23	CCB	18:21	Total Organic Carbon	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 138566 Date: 12/26/2018 18:37							
Lloyd Kahn	MB 200-138566/5	Total Organic Carbon	ND		mg/Kg	1000	1
Batch ID: 138743 Date: 12/28/2018 16:39							
Lloyd Kahn	MB 200-138743/5	Total Organic Carbon	ND		mg/Kg	1000	1

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 138797 Date: 01/04/2019 08:55								
9045D	SB-AR-02 (00.0-00.5)	140-13725-10	pH	5.9	SU			
9045D	SB-AR-02 (00.0-00.5)	140-13725-10 DU	pH	5.9	SU	0.3	5	
Batch ID: 138944 Date: 01/09/2019 12:00								
9045D	SB-BR-04-06 (00.0-00.5)	140-13725-18	pH	7.4	SU			
9045D	SB-BR-04-06 (00.0-00.5)	140-13725-18 DU	pH	7.4	SU	0.3	5	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 138797	Date: 01/04/2019 08:55										
						LCS Source: WCPH6s_00022					
9045D	LCS 200-138797/4	pH	6.0		SU	6.00	100	99.29-100.71			
Batch ID: 138944	Date: 01/09/2019 12:00										
						LCS Source: WCPH6s_00022					
9045D	LCS 200-138944/4	pH	6.0		SU	6.00	100	99.29-100.71			
Batch ID: 138566	Date: 12/26/2018 18:42										
						LCS Source: WCLKLCSs_00020					
Lloyd Kahn	LCS 200-138566/6	Total Organic Carbon	9810		mg/Kg	9260	106	75-125			
Batch ID: 138743	Date: 12/28/2018 16:44										
						LCS Source: WCLKLCSs_00020					
Lloyd Kahn	LCS 200-138743/6	Total Organic Carbon	9580		mg/Kg	9260	103	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 140-13725-1

SDG Number:

Matrix: Solid Instrument ID: WCCH1

Method: Lloyd Kahn MDL Date: 07/26/2016 16:22

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon		1000	380

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 140-13725-1

SDG Number:

Matrix: Solid Instrument ID: WCCH1

Method: Lloyd Kahn XMDL Date: 07/26/2016 16:23

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon		1000	380

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Savannah Job Number: 140-13725-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/01/2005 13:43

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.01	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Savannah Job Number: 140-13725-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 04/09/2011 17:03

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.01	

FORM IX - IN

11-IN
LINEAR RANGES
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No: 140-13725-1

SDG No.:

Instrument ID: WCCH1 Date: 01/01/2014 16:02

Analyte	Integ. Time (Sec.)	Concentration (mg/Kg)	Method
Total Organic Carbon		75000	Lloyd Kahn

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045D

Start Date: 01/04/2019 08:55 End Date: 01/04/2019 09:21

Lab Sample ID	D/F	Type	Time	Analytes																			
				pH																			
IC 200-138797/1			08:55	X																			
IC 200-138797/2			08:55	X																			
IC 200-138797/3			08:55	X																			
LCS 200-138797/4	1	T	08:55	X																			
CCV 200-138797/5	1		08:55	X																			
140-13725-1	1	T	08:55	X																			
140-13725-2	1	T	08:55	X																			
140-13725-3	1	T	08:55	X																			
140-13725-4	1	T	08:55	X																			
140-13725-5	1	T	08:55	X																			
140-13725-6	1	T	08:55	X																			
140-13725-7	1	T	08:55	X																			
140-13725-8	1	T	08:55	X																			
140-13725-9	1	T	08:55	X																			
140-13725-10	1	T	08:55	X																			
140-13725-10 DU	1	T	08:55	X																			
CCV 200-138797/17	1		08:55	X																			
140-13725-11	1	T	08:55	X																			
140-13725-12	1	T	08:55	X																			
140-13725-13	1	T	08:55	X																			
140-13725-14	1	T	08:55	X																			
140-13725-15	1	T	08:55	X																			
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
CCV 200-138797/28	1		08:55	X																			
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
CCV 200-138797/40			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045D

Start Date: 01/04/2019 08:55 End Date: 01/04/2019 09:21

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			08:55																				
ZZZZZZ			09:21																				
CCV 200-138797/52			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
CCV 200-138797/65			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
CCV 200-138797/72			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				
ZZZZZZ			09:21																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045D

Start Date: 01/09/2019 12:00 End Date: 01/09/2019 15:44

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
IC 200-138944/1			12:00	X																			
IC 200-138944/2			12:00	X																			
IC 200-138944/3			12:00	X																			
LCS 200-138944/4	1	T	12:00	X																			
CCV 200-138944/5	1		12:00	X																			
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
140-13725-16	1	T	12:00	X																			
140-13725-17	1	T	12:00	X																			
140-13725-18	1	T	12:00	X																			
140-13725-18 DU	1	T	12:00	X																			
CCV 200-138944/17	1		12:00	X																			
140-13725-19	1	T	12:00	X																			
140-13725-20	1	T	12:00	X																			
ZZZZZZ			12:05																				
ZZZZZZ			12:05																				
ZZZZZZ			15:44																				
ZZZZZZ			15:44																				
ZZZZZZ			15:44																				
ZZZZZZ			15:44																				
ZZZZZZ			15:44																				
CCV 200-138944/27	1		15:44	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Instrument ID: WCCH1 Method: Lloyd Kahn

Start Date: 12/26/2018 18:18 End Date: 12/26/2018 21:46

Lab Sample ID	D/F	Type	Time	Analytes																			
				TOC																			
ICV 200-138566/1	1		18:18	X																			
ICB 200-138566/2	1		18:23	X																			
CCV 200-138566/3	1		18:27	X																			
CCB 200-138566/4	1		18:32	X																			
MB 200-138566/5	1	T	18:37	X																			
LCS 200-138566/6	1	T	18:42	X																			
ZZZZZZ			19:01																				
ZZZZZZ			19:06																				
ZZZZZZ			19:11																				
140-13725-1	1	T	19:16	X																			
140-13725-2	1	T	19:20	X																			
140-13725-3	1	T	19:25	X																			
140-13725-4	1	T	19:30	X																			
140-13725-5	1	T	19:35	X																			
140-13725-6	1	T	19:40	X																			
140-13725-7	1	T	19:45	X																			
140-13725-8	1	T	19:49	X																			
140-13725-9	1	T	19:54	X																			
140-13725-10	1	T	19:59	X																			
140-13725-11	1	T	20:04	X																			
140-13725-12	1	T	20:09	X																			
CCV 200-138566/22	1		20:14	X																			
CCB 200-138566/23	1		20:18	X																			
140-13725-13	1	T	20:23	X																			
140-13725-14	1	T	20:28	X																			
140-13725-15	1	T	20:33	X																			
140-13725-16	1	T	20:38	X																			
140-13725-17	1	T	20:43	X																			
ZZZZZZ			20:47																				
ZZZZZZ			20:52																				
ZZZZZZ			21:12																				
ZZZZZZ			21:17																				
ZZZZZZ			21:21																				
ZZZZZZ			21:26																				
ZZZZZZ			21:31																				
ZZZZZZ			21:36																				
CCV 200-138566/37	1		21:41	X																			
CCB 200-138566/38	1		21:46	X																			

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Instrument ID: WCCH1 Method: Lloyd Kahn

Start Date: 12/28/2018 16:20 End Date: 12/28/2018 20:58

Lab Sample ID	D/F	Type	Time	Analytes																			
				TOC																			
ICV 200-138743/1	1		16:20	X																			
ICB 200-138743/2	1		16:25	X																			
CCV 200-138743/3	1		16:29	X																			
CCB 200-138743/4	1		16:34	X																			
MB 200-138743/5	1	T	16:39	X																			
LCS 200-138743/6	1	T	16:44	X																			
ZZZZZZ			17:03																				
ZZZZZZ			17:08																				
ZZZZZZ			17:13																				
ZZZZZZ			17:18																				
140-13725-18	1	T	17:23	X																			
140-13725-19	1	T	17:28	X																			
140-13725-20	1	T	17:33	X																			
ZZZZZZ			17:38																				
ZZZZZZ			17:42																				
ZZZZZZ			17:47																				
ZZZZZZ			17:52																				
ZZZZZZ			17:57																				
ZZZZZZ			18:02																				
ZZZZZZ			18:07																				
ZZZZZZ			18:12																				
CCV 200-138743/22	1		18:16	X																			
CCB 200-138743/23	1		18:21	X																			
ZZZZZZ			18:26																				
ZZZZZZ			18:31																				
ZZZZZZ			18:36																				
ZZZZZZ			18:41																				
ZZZZZZ			18:46																				
ZZZZZZ			18:51																				
ZZZZZZ			18:56																				
ZZZZZZ			19:00																				
ZZZZZZ			19:05																				
ZZZZZZ			19:10																				
ZZZZZZ			19:15																				
ZZZZZZ			19:35																				
ZZZZZZ			19:39																				
ZZZZZZ			19:44																				
ZZZZZZ			19:49																				
ZZZZZZ			19:54																				
ZZZZZZ			19:59																				
CCV 200-138743/41			20:04																				
CCB 200-138743/42			20:09																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Instrument ID: WCCH1 Method: Lloyd Kahn

Start Date: 12/28/2018 16:20 End Date: 12/28/2018 20:58

Lab Sample ID	D / F	Type	Time	Analytes																			
				TOC																			
ZZZZZZ			20:14																				
ZZZZZZ			20:19																				
ZZZZZZ			20:23																				
ZZZZZZ			20:28																				
ZZZZZZ			20:33																				
ZZZZZZ			20:38																				
ZZZZZZ			20:43																				
ZZZZZZ			20:48																				
CCV 200-138743/51			20:53																				
CCB 200-138743/52			20:58																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 12/22/2018 10:07 End Date: 12/22/2018 10:07

Lab Sample ID	D / F	Type	Time	Analytes																			
				Moist																			
140-13725-1	1	T	10:07	X																			
140-13725-2	1	T	10:07	X																			
140-13725-3	1	T	10:07	X																			
140-13725-4	1	T	10:07	X																			
140-13725-5	1	T	10:07	X																			
140-13725-6	1	T	10:07	X																			
140-13725-7	1	T	10:07	X																			
140-13725-8	1	T	10:07	X																			
140-13725-9	1	T	10:07	X																			
140-13725-10	1	T	10:07	X																			
140-13725-11	1	T	10:07	X																			
140-13725-12	1	T	10:07	X																			
140-13725-13	1	T	10:07	X																			
140-13725-14	1	T	10:07	X																			
140-13725-15	1	T	10:07	X																			
140-13725-16	1	T	10:07	X																			
140-13725-17	1	T	10:07	X																			
140-13725-18	1	T	10:07	X																			
140-13725-19	1	T	10:07	X																			
140-13725-20	1	T	10:07	X																			
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 12/22/2018 10:07 End Date: 12/22/2018 10:07

Lab Sample ID	D / F	Type	Time	Analytes																			
				Moist																			
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				
ZZZZZZ			10:07																				

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Batch Number: 138797 Batch Start Date: 01/04/19 11:00 Batch Analyst: Zenie, Matthew J

Batch Method: 9045D Batch End Date: 01/04/19 15:06

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	SampleTemp	exphbuffer7 00074	WCPH6s 00022	
LCS 200-138797/4		9045D		40.00 mL	40.00 mL	22 Celsius		40 mL	
CCV 200-138797/5		9045D		40.00 mL	40.00 mL	22 Celsius	40 mL		
140-13725-B-1	SB-ED-01-04 (00.0-00.5)	9045D	T	20.14 g	40.00 mL	22 Celsius			
140-13725-B-2	SB-ED-01-05 (00.0-00.5)	9045D	T	20.01 g	40.00 mL	22 Celsius			
140-13725-B-3	SB-ED-02-01 (00.0-00.5)	9045D	T	20.33 g	40.00 mL	22 Celsius			
140-13725-B-4	SB-ED-02-03 (00.0-00.5)	9045D	T	20.12 g	40.00 mL	22 Celsius			
140-13725-B-5	SB-ED-03 (00.0-00.5)	9045D	T	20.15 g	40.00 mL	22 Celsius			
140-13725-B-6	SB-ED-04 (00.0-00.5)	9045D	T	20.41 g	40.00 mL	22 Celsius			
140-13725-B-7	SB-ED-05-07 (00.0-00.5)	9045D	T	20.23 g	40.00 mL	22 Celsius			
140-13725-B-8	SB-AR-01-02 (00.0-00.5)	9045D	T	20.22 g	40.00 mL	22 Celsius			
140-13725-B-9	SB-AR-01-07 (00.0-00.5)	9045D	T	20.02 g	40.00 mL	22 Celsius			
140-13725-B-10	SB-AR-02 (00.0-00.5)	9045D	T	20.10 g	40.00 mL	22 Celsius			
140-13725-B-10 DU	SB-AR-02 (00.0-00.5)	9045D	T	20.13 g	40.00 mL	22 Celsius			
CCV 200-138797/17		9045D		40.00 mL	40.00 mL	22 Celsius	40 mL		
140-13725-B-11	SB-AR-03 (00.0-00.5)	9045D	T	20.04 g	40.00 mL	22 Celsius			
140-13725-B-12	SB-AR-04-03 (00.0-00.5)	9045D	T	20.45 g	40.00 mL	22 Celsius			
140-13725-B-13	SB-AR-04-06 (00.0-00.5)	9045D	T	20.26 g	40.00 mL	22 Celsius			
140-13725-B-14	SB-BR-02-02 (00.0-00.5)	9045D	T	20.11 g	40.00 mL	22 Celsius			
140-13725-B-15	SB-BR-02-03 (00.0-00.5)	9045D	T	20.42 g	40.00 mL	22 Celsius			
CCV 200-138797/28		9045D		40.00 mL	40.00 mL	22 Celsius	40 mL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Batch Number: 138797 Batch Start Date: 01/04/19 11:00 Batch Analyst: Zenie, Matthew J

Batch Method: 9045D Batch End Date: 01/04/19 15:06

Batch Notes	
Balance ID	M78711
Batch Comment	Temp corrected in sample results
pH Buffer 1 ID	1207385
pH Buffer 2 ID	1176487
pH Buffer 3 ID	1176269
pH Buffer 4 ID	1122396
Calibration Date and Time	01/04/2019 14:23
pH Meter Calibration Slope	97.8/98.1
pH Meter ID	UB-5
Probe ID	SN 8071002P
Sufficient volume for sample dup	YES
Thermometer ID	Ambient - 215 CF=0° / In sample 278 CF=-0.1°

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Batch Number: 138944 Batch Start Date: 01/09/19 13:00 Batch Analyst: Zenie, Matthew J

Batch Method: 9045D Batch End Date: 01/09/19 17:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	SampleTemp	exphbuffer7 00080	WCPH6s 00022	
LCS 200-138944/4		9045D		40.00 mL	40.00 mL	23° Celsius		40 mL	
CCV 200-138944/5		9045D		40.00 mL	40.00 mL	23° Celsius	40 mL		
140-13725-B-16	SB-BR-03 (00.0-00.5)	9045D	T	20.14 g	40.00 mL	23° Celsius			
140-13725-B-17	SB-BR-04 (00.0-00.5)	9045D	T	20.05 g	40.00 mL	23° Celsius			
140-13725-B-18	SB-BR-04-06 (00.0-00.5)	9045D	T	20.02 g	40.00 mL	23° Celsius			
140-13725-B-18 DU	SB-BR-04-06 (00.0-00.5)	9045D	T	20.06 g	40.00 mL	23° Celsius			
CCV 200-138944/17		9045D		40.00 mL	40.00 mL	23° Celsius	40 mL		
140-13725-B-19	SB-BR-03-06 (00.0-00.5)	9045D	T	20.03 g	40.00 mL	23° Celsius			
140-13725-B-20	BD112718	9045D	T	20.22 g	40.00 mL	23° Celsius			
CCV 200-138944/27		9045D		40 mL	40.00 mL	23° Celsius	40 mL		

Batch Notes	
Balance ID	M78711
pH Buffer 1 ID	1246511
pH Buffer 2 ID	1246512
pH Buffer 3 ID	1246514
pH Buffer 4 ID	1122396
Calibration Date and Time	01/09/2019 16:00
pH Meter Calibration Slope	98.0/98.3
pH Meter ID	UB-5
Probe ID	SN8071002P
Sufficient volume for sample dup	YES
Thermometer ID	Ambient- 215 CF=0°/ In sample- 278 CF=-0.1° -- All samples corrected

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Batch Number: 138944 Batch Start Date: 01/09/19 13:00 Batch Analyst: Zenie, Matthew J

Batch Method: 9045D Batch End Date: 01/09/19 17:15

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Batch Number: 138566 Batch Start Date: 12/26/18 18:18 Batch Analyst: Zenie, Matthew J

Batch Method: Lloyd Kahn Batch End Date: 12/26/18 21:46

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WCLKLCSs 00020	WCTOCCALs 00016			
ICV 200-138566/1		Lloyd Kahn			9 mg				
CCV 200-138566/3		Lloyd Kahn		10 mg		35 uL			
LCS 200-138566/6		Lloyd Kahn			9.8 mg				
CCV 200-138566/22		Lloyd Kahn		10 mg		35 uL			
CCV 200-138566/37		Lloyd Kahn		10 mg		35 uL			

Batch Notes	
Acid ID	1:19 Phosphoric
Phosphoric Acid ID	1236785
Pipette/Syringe/Dispenser ID	81000

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 140-13725-1

SDG No.:

Batch Number: 138743 Batch Start Date: 12/28/18 16:20 Batch Analyst: Zenie, Matthew J

Batch Method: Lloyd Kahn Batch End Date: 12/28/18 20:58

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WCLKLCSs 00020	WCTOCCALs 00016			
ICV 200-138743/1		Lloyd Kahn			10.8 mg				
CCV 200-138743/3		Lloyd Kahn		10 mg		35 uL			
LCS 200-138743/6		Lloyd Kahn			9.75 mg				
CCV 200-138743/22		Lloyd Kahn		10 mg		35 uL			

Batch Notes	
Acid ID	1:19 Phosphoric
Phosphoric Acid ID	1236785
Pipette/Syringe/Dispenser ID	81000

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Batch Number: 552921 Batch Start Date: 12/22/18 10:07 Batch Analyst: Sharpe, Evan H

Batch Method: Moisture Batch End Date: 12/22/18 15:22

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
140-13725-A-1	SB-ED-01-04 (00.0-00.5)	Moisture	T	1.29 g	10.42 g	10.42 g			
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Moisture	T	1.29 g	10.70 g	10.70 g			
140-13725-A-3	SB-ED-02-01 (00.0-00.5)	Moisture	T	1.30 g	10.45 g	10.44 g			
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Moisture	T	1.28 g	10.57 g	10.57 g			
140-13725-A-5	SB-ED-03 (00.0-00.5)	Moisture	T	1.28 g	10.30 g	10.28 g			
140-13725-A-6	SB-ED-04 (00.0-00.5)	Moisture	T	1.28 g	10.56 g	10.54 g			
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Moisture	T	1.29 g	10.65 g	10.64 g			
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Moisture	T	1.28 g	10.51 g	9.70 g			
140-13725-A-9	SB-AR-01-07 (00.0-00.5)	Moisture	T	1.25 g	10.46 g	10.40 g			
140-13725-A-10	SB-AR-02 (00.0-00.5)	Moisture	T	1.29 g	10.58 g	10.56 g			
140-13725-A-11	SB-AR-03 (00.0-00.5)	Moisture	T	1.29 g	10.47 g	10.46 g			
140-13725-A-12	SB-AR-04-03 (00.0-00.5)	Moisture	T	1.29 g	10.86 g	10.82 g			
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Moisture	T	1.31 g	10.73 g	10.69 g			
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Moisture	T	1.28 g	10.57 g	10.51 g			
140-13725-A-15	SB-BR-02-03 (00.0-00.5)	Moisture	T	1.30 g	10.26 g	10.24 g			
140-13725-A-16	SB-BR-03 (00.0-00.5)	Moisture	T	1.26 g	10.65 g	10.65 g			
140-13725-A-17	SB-BR-04 (00.0-00.5)	Moisture	T	1.30 g	10.77 g	10.77 g			
140-13725-A-18	SB-BR-04-06 (00.0-00.5)	Moisture	T	1.28 g	10.21 g	10.14 g			
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Moisture	T	1.27 g	10.43 g	10.43 g			
140-13725-A-20	BD112718	Moisture	T	1.26 g	10.68 g	10.68 g			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 140-13725-1

SDG No.:

Batch Number: 552921 Batch Start Date: 12/22/18 10:07 Batch Analyst: Sharpe, Evan H

Batch Method: Moisture Batch End Date: 12/22/18 15:22

Batch Notes	
Balance ID	19
Date samples were placed in the oven	12/22/2018
Oven Temp In	108 Degrees C
Time samples were place in the oven	10:07
Date samples were removed from oven	12/22/2018
Oven Temp Out	101 Degrees C
Time Samples were removed from oven	15:22
Oven ID	CU01
Thermometer ID	EXTCLPWB1
Temperature - Start - Uncorrected	108 Degrees C
Temperature - End - Uncorrected	101 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

copy

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Lora Sterner	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-5931-2040.2
Client Contact: Lora Sterner	Phone: 610 762 9262	E-Mail: william.henry@testamericainc.com		Page: Page 2 of 5
Company: Kennedy/Jenks Consultants				Job #:

Address: 214 Carnegie Center Suite 103	Due Date Requested:
City: Princeton	TAT Requested (days): Standard
State, Zip: NJ, 08540	
Phone: 609.285.2623	PO #: FY2019 PO Pending
Email: lorasterner@kennedyjenks.com	WO #: Task 100
Project Name: Ashland - Kenvil Plant	Project #: 14004994
Site:	SSOW#:

Analysis Requested

140-13725 Chain of Custody

H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

DELIVER TO TA KNOXVILLE

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D422 - Grain Size (Sieve and Hydrometer)	9045D, Lloyd_Kahn	6020A - Total Lead	6010B_SEP - (MOD) Step 1 HOLD	6020A - Total Lead	SM5310_TOC_B - Local Method	9040C - Local Method	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	N	N	N	N	D	S	N		
SB-ED-01-04(00.0-00.5)	11/27/18	1635	G	S				X	X	X				3	RT CT
SB-ED-01-05(00.0-00.5)	11/27/18	1040						X	X	X				3	REC. @ 0.4°c 0.4°c
SB-ED-02-01(00.0-00.5)	11/27/18	1120						X	X	X				3	NO CUSTODY SEAL
SB-ED-02-03(00.0-00.5)	11/27/18	1130						X	X	X				3	1 COOLER RH 12-19-18
SB-ED-03(00.0-00.5)	11/27/18	1330						X	X	X				3	FED EX # 413725375170
SB-ED-04(00.0-00.5)	11/27/18	1418						X	X	X				3	
SB-ED-05-07(00.0-00.5)	11/27/18	1535						X	X	X				3	
SB-AR-01-02(00.0-00.5)	11/29/18	940						X	X	X				3	
SB-AR-01-07(00.0-00.5)	11/29/18	1005						X	X	X				3	
SB-AR-02(00.0-00.5)	11/29/18	1030						X	X	X				3	
SB-AR-03(00.0-00.5)	11/29/18	1130	↓	↓				X	X	X				3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) KJ EDD

Special Instructions/QC Requirements: HOLD SEP Analysis

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Lora Sterner	12/17/18	KJC	Johnny Greene	12-17-18 1415	TA KNX
Johnny Greene	12-17-18			12/17/18 1700	TAEH
	12/18/18 1800	TAEH	Ryan Henry	12/19/18 1015	TA KNX

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

COPY

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Lora Sterner	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-5931-2040.3
Client Contact: Lora Sterner	Phone: 6107629262	E-Mail: william.henry@testamericainc.com		Page: Page 3 of 5
Company: Kennedy/Jenks Consultants				Job #:
Address: 214 Carnegie Center Suite 103	Due Date Requested:			
City: Princeton	TAT Requested (days): Standard			
State, Zip: NJ, 08540				
Phone: 609.285.2623	PO #: FY2019 PO Pending			
Email: lorasterner@kennedyjenks.com	WO #: Task 100			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

DELIVER TO TA KNOXVILLE

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D422 - Grain Size (Sieve and Hydrometer)	9045D, Lloyd_Kahn	6020A - Total Lead	6010B_SEP - (MOD) Step 1 - TCLP	6020A--Total-Lead	SM5310_TOC-B--Local Method	9040C--Local-Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	D	S	N		
SB-AR-04-03(00.0-00.5)	11/29/18	1345	G	S				X	X	X				3	
SB-AR-04-06(00.0-00.5)	11/29/18	1400						X	X	X				3	
SB-BR-02-02(00.0-00.5)	11/28/18	1010						X	X	X				3	
SB-BR-02-03(00.0-00.5)	11/28/18	1015						X	X	X				3	
SB-BR-03 (00.0-00.5)	11/28/18	1100						X	X	X				3	
SB-BR-04 (00.0-00.5)	11/28/18	1330						X	X	X				3	
SB-BR-04-06(00.0-00.5)	11/28/18	1400						X	X	X				3	
SB-BR-03-06 (00.0-00.5)	11/28/18	1130						X	X	X				3	
BD112718	11/27/18	—	↓	↓				X	X	X				3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: HOLD SEP Analysis

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	12/17/18	KJ2	Johnny Green	12/17/18 1415	TAEdi
Relinquished by: Johnny Green	12/17/18			12/17/18 1700	TAEdi
Relinquished by:	12/18/18 1800	TAEdi	Ryan Henry	12/19/18 1015	TA KNX

Custody Seals Intact: △ Yes △ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ Containers, Broken
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?			✓	☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID: SC68 Correction factor: 0	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted
10. Was the sampler identified on the COC?	✓			☐ Sampler Not Listed on COC
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete
15. Were samples received within holding time?	✓	/		☐ Holding Time - Receipt
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only)
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			/	☐ Residual Chlorine
19. For 1613B water samples is pH<9?			/	☐ If no, lab will adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

IS, 9045D, 1L09D-KATN

Labeling Verified by: Date:

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: PM Instructions:

Sample Receiving Associate: Date: 12-19-18

QA026R30.doc, 080916

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

140-13725 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Henry, Ryan	COC No: 140-4829.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: william.henry@testamericainc.com	State of Origin: New Jersey	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New Jersey	Job #: 140-13725-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 1/18/2019		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email:	WO #:		
Project Name: Ashland - Kenvil Plant	Project #: 14004994		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9045D/ pH	Lloyd_Kahn/ Lloyd Kahn - TOC										Total Number of containers	Special Instructions/Note:
			Preservation Code:																
SB-ED-01-04 (00.0-00.5) (140-13725-1)	11/27/18	10:35 Eastern		Solid			X	X										1	
SB-ED-01-05 (00.0-00.5) (140-13725-2)	11/27/18	10:40 Eastern		Solid			X	X										1	
SB-ED-02-01 (00.0-00.5) (140-13725-3)	11/27/18	11:20 Eastern		Solid			X	X										1	
SB-ED-02-03 (00.0-00.5) (140-13725-4)	11/27/18	11:30 Eastern		Solid			X	X										1	
SB-ED-03 (00.0-00.5) (140-13725-5)	11/27/18	13:30 Eastern		Solid			X	X										1	
SB-ED-04 (00.0-00.5) (140-13725-6)	11/27/18	14:15 Eastern		Solid			X	X										1	
SB-ED-05-07 (00.0-00.5) (140-13725-7)	11/27/18	15:35 Eastern		Solid			X	X										1	
SB-AR-01-02 (00.0-00.5) (140-13725-8)	11/29/18	09:40 Eastern		Solid			X	X										1	
SB-AR-01-07 (00.0-00.5) (140-13725-9)	11/29/18	10:05 Eastern		Solid			X	X										1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 12/19/18 1530	Company TA-Knx	Received by:	Date/Time: 12/20/18 11:20	Company TA Bnd		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-4829.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: william.henry@testamericainc.com	State of Origin: New Jersey	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New Jersey		Job #: 140-13725-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 1/18/2019			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9045D/ pH	Lloyd_Kahn/ Lloyd Kahn - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-AR-02 (00.0-00.5) (140-13725-10)	11/29/18	10:30 Eastern		Solid			X	X	1	
SB-AR-03 (00.0-00.5) (140-13725-11)	11/29/18	11:30 Eastern		Solid			X	X	1	
SB-AR-04-03 (00.0-00.5) (140-13725-12)	11/29/18	13:45 Eastern		Solid			X	X	1	
SB-AR-04-06 (00.0-00.5) (140-13725-13)	11/29/18	14:00 Eastern		Solid			X	X	1	
SB-BR-02-02 (00.0-00.5) (140-13725-14)	11/28/18	10:10 Eastern		Solid			X	X	1	
SB-BR-02-03 (00.0-00.5) (140-13725-15)	11/28/18	10:15 Eastern		Solid			X	X	1	
SB-BR-03 (00.0-00.5) (140-13725-16)	11/28/18	11:00 Eastern		Solid			X	X	1	
SB-BR-04 (00.0-00.5) (140-13725-17)	11/28/18	13:30 Eastern		Solid			X	X	1	
SB-BR-04-06 (00.0-00.5) (140-13725-18)	11/28/18	14:00 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/19/18 1530	TA-Ks	[signature]	12/20/18 1:20	TA Pgh
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-4829.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: william.henry@testamericainc.com	State of Origin: New Jersey	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New Jersey		Job #: 140-13725-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 1/18/2019			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9045D/ pH	Lloyd_Kahn/ Lloyd Kahn - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-BR-03-06 (00.0-00.5) (140-13725-19)	11/28/18	11:30 Eastern		Solid			X	X	1	
BD112718 (140-13725-20)	11/27/18	Eastern		Solid			X	X	1	

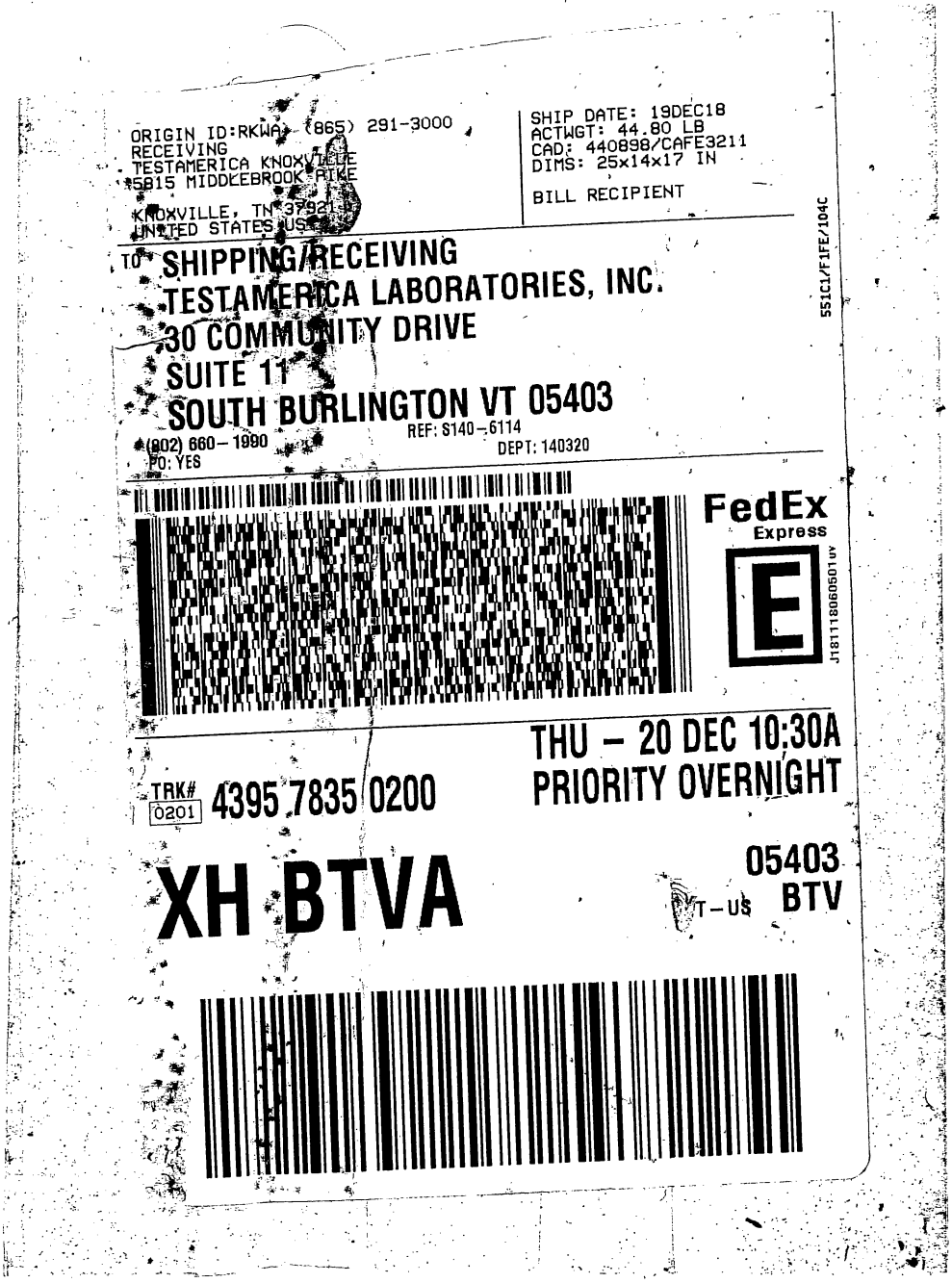
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 12/19/18 1530	Company TA-Ks	Received by:		Date/Time: 12/20/18 11:20	Company FS Bud	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016



ORIGIN ID:RKWA (865) 291-3000
RECEIVING
TESTAMERICA KNOXVILLE
5815 MIDDLEBROOK PIKE
KNOXVILLE, TN 37921
UNITED STATES US

SHIP DATE: 19DEC18
ACTWGT: 44.80 LB
CAD: 440898/CAFE3211
DIMS: 25x14x17 IN

BILL RECIPIENT

551C1/F1FE/104C

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990
PO: YES

REF: S140-6114
DEPT: 140320

FedEx Express

J181118060501uy

THU - 20 DEC 10:30A
PRIORITY OVERNIGHT

TRK# 0201 4395 7835 0200

XH BTVA

05403
T-US BTV

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-4830.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: william.henry@testamericainc.com	State of Origin: New Jersey	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New Jersey		Job #: 140-13725-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 12/24/2018			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A/3050B Total Lead	Moisture/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-ED-01-04 (00.0-00.5) (140-13725-1)	11/27/18	10:35 Eastern		Solid			X	X	1	
SB-ED-01-05 (00.0-00.5) (140-13725-2)	11/27/18	10:40 Eastern		Solid			X	X	1	
SB-ED-02-01 (00.0-00.5) (140-13725-3)	11/27/18	11:20 Eastern		Solid			X	X	1	
SB-ED-02-03 (00.0-00.5) (140-13725-4)	11/27/18	11:30 Eastern		Solid			X	X	1	
SB-ED-03 (00.0-00.5) (140-13725-5)	11/27/18	13:30 Eastern		Solid			X	X	1	
SB-ED-04 (00.0-00.5) (140-13725-6)	11/27/18	14:15 Eastern		Solid			X	X	1	
SB-ED-05-07 (00.0-00.5) (140-13725-7)	11/27/18	15:35 Eastern		Solid			X	X	1	
SB-AR-01-02 (00.0-00.5) (140-13725-8)	11/29/18	09:40 Eastern		Solid			X	X	1	
SB-AR-01-07 (00.0-00.5) (140-13725-9)	11/29/18	10:05 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/19/18 1500	TA-Nk	[signature]	12-20-18 0935	TASAV
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8/1.8

Ver: 09/20/2016

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-4830.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: william.henry@testamericainc.com	State of Origin: New Jersey	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New Jersey		Job #: 140-13725-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 12/24/2018			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A/3050B Total Lead	Moisture/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-AR-02 (00.0-00.5) (140-13725-10)	11/29/18	10:30 Eastern		Solid			X	X	1	
SB-AR-03 (00.0-00.5) (140-13725-11)	11/29/18	11:30 Eastern		Solid			X	X	1	
SB-AR-04-03 (00.0-00.5) (140-13725-12)	11/29/18	13:45 Eastern		Solid			X	X	1	
SB-AR-04-06 (00.0-00.5) (140-13725-13)	11/29/18	14:00 Eastern		Solid			X	X	1	
SB-BR-02-02 (00.0-00.5) (140-13725-14)	11/28/18	10:10 Eastern		Solid			X	X	1	
SB-BR-02-03 (00.0-00.5) (140-13725-15)	11/28/18	10:15 Eastern		Solid			X	X	1	
SB-BR-03 (00.0-00.5) (140-13725-16)	11/28/18	11:00 Eastern		Solid			X	X	1	
SB-BR-04 (00.0-00.5) (140-13725-17)	11/28/18	13:30 Eastern		Solid			X	X	1	
SB-BR-04-06 (00.0-00.5) (140-13725-18)	11/28/18	14:00 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/19/18 1500	TA-Kx	[signature]	12-12-18 0935	TASAV
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8/1.8

Ver: 09/20/2016

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-4830.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: william.henry@testamericainc.com	State of Origin: New Jersey	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New Jersey		Job #: 140-13725-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 12/24/2018			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A/3050B Total Lead	Moisture/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-BR-03-06 (00.0-00.5) (140-13725-19)	11/28/18	11:30 Eastern		Solid			X	X	1	
BD112718 (140-13725-20)	11/27/18	Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/19/18 1500	TA-Knx	[signature]	12-20-18 0935	TASAV
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8/1.8

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Kennedy/Jenks Consultants

Job Number: 140-13725-1

Login Number: 13725
List Number: 3
Creator: McNabb, Robert W

List Source: TestAmerica Burlington
List Creation: 12/20/18 01:34 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	729015
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Kennedy/Jenks Consultants

Job Number: 140-13725-1

Login Number: 13725
List Number: 2
Creator: Nobles, Terry G

List Source: TestAmerica Savannah
List Creation: 12/20/18 01:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 140-13725-3

Job Description: Ashland - Kenvil Plant SEP

Contract Number: No Number - No Expiration Date

For:
Kennedy/Jenks Consultants
214 Carnegie Center
Suite 103
Princeton, NJ 08540

Attention: Scott Larew

Approved for release.
Ryan Henry
Project Manager I
2/25/2019 9:28 AM

Ryan Henry, Project Manager I
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
william.henry@testamericainc.com
02/25/2019

This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Table of Contents

Cover Title Page 1

Data Summaries 4

Definitions 4

Report Narrative 5

Sample Summary 7

Method Summary 8

Client Sample Results 9

QC Sample Results 18

QC Association 23

Chronicle 30

Certification Summary 45

Inorganic Sample Data 46

Metals Data 46

Met Cover Page 47

Met Sample Data 48

Met QC Data 129

Met ICV/CCV 129

Met CRQL 142

Met Blanks 143

Met ICSA/ICSAB 158

Met Dup/Trip 166

Met LCS/LCSD 174

Met Serial Dilution 190

Met MDL 198

Met IECF 215

Met Linear Ranges 218

Table of Contents

Met Preparation Log 219

Met Analysis Run Log 227

Met ICP/MS Int Stds 236

Met Prep Data 243

General Chemistry Data 269

Gen Chem Cover Page 270

Gen Chem MDL 271

Gen Chem Analysis Run Log 272

Gen Chem Prep Data 273

Shipping and Receiving Documents 274

Client Chain of Custody 275

Definitions/Glossary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Qualifiers

Metals

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-13725-3

Receipt
The samples were received on 12/19/2018 at 10:15am and released from On Hold on 01/29/19. They arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4º C.

Metals
7 Step Sequential Extraction Procedure

These soil samples were prepared and analyzed using TestAmerica Knoxville standard operating procedure KNOX-MT-0008, "7 Step Sequential Extraction Procedure". SW-846 Method 6010B as incorporated in TestAmerica Knoxville standard operating procedure KNOX-MT-0007 was used to perform the final instrument analyses.

An aliquot of each sample was sequentially extracted using the steps listed below:

· Step 1 - Exchangeable Fraction: A 5 gram aliquot of sample was extracted with 25 mL of 1M magnesium sulfate (MgSO4), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 2 - Carbonate Fraction: The sample residue from step 1 was extracted with 25 mL of 1M sodium acetate/acetic acid (NaOAc/HOAc) at pH 5, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 3 - Non-crystalline Materials Fraction: The sample residue from step 2 was extracted with 25 mL of 0.2M ammonium oxalate (pH 3), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 4 - Metal Hydroxide Fraction: The sample residue from step 3 was extracted with 25 mL of 1M hydroxylamine hydrochloride solution in 25% v/v acetic acid, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 5 - Organic-bound Fraction: The sample residue from step 4 was extracted three times with 25 mL of 5% sodium hypochlorite (NaClO) at pH 9.5, centrifuged and filtered. The resulting leachates were combined and 5 mL were digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 6 - Acid/Sulfide Fraction: The sample residue from step 5 was extracted with 25 mL of a 3:1:2 v/v solution of HCl-HNO3-H2O, centrifuged and filtered. 5 mL of the resulting leachate was diluted to 50 mL with reagent water and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 7 - Residual Fraction: A 1.0 g aliquot of the sample residue from step 6 was digested using HF, HNO3, HCl and H3BO3. The digestate was analyzed by ICP using method 6010B. Results are reported in mg/kg on a dry weight basis.

In addition, a 1.0 g aliquot of the original sample was digested using HF, HNO3, HCl and H3BO3. The digestate was analyzed by ICP using method 6010B. Total metal results are reported in mg/kg on a dry weight basis.

Results were calculated using the following equation:

Result, µg/g or mg/Kg, dry weight = (C × V × V1 × D) / (W × S × V2)

Where:
C = Concentration from instrument readout, µg/mL
V = Final volume of digestate, mL
D = Instrument dilution factor
V1 = Total volume of leachate, mL
V2 = Volume of leachate digested, mL
W = Wet weight of sample, g
S = Percent solids/100

A method blank, laboratory control sample and laboratory control sample duplicate were prepared and analyzed with each SEP step in order to provide information about both the presence of elements of interest in the extraction solutions, and the recovery of elements of interest from the extraction solutions. Results outside of laboratory QC limits do not reflect out of control performance, but rather the effect of the extraction solution upon the analyte.

A laboratory sample duplicate was prepared and analyzed with each batch of samples in order to provide information regarding the reproducibility of the procedure.

SEP Report Notes:

The final report lists the results for each step, the result for the total digestion of the sample, and a sum of the results of steps 1 through 7 by element.

The digestates for steps 1, 2 and 5 were analyzed at a dilution due to instrument problems caused by the high solids content of the digestates. The reporting limits were adjusted accordingly.

Method(s) 6010B: The serial dilution performed for the following sample associated with batch 140-27848 was outside control limits: (140-13725-A-2-B SD ^10) Sample non-homogeneity suspected.

Method(s) 6010B: The following samples were diluted to bring the concentration of the target analyte, Lead, within the calibration range: SB-AR-03 (00.0-00.5) (140-13725-11) and SB-BR-02-02 (00.0-00.5) (140-13725-14). Elevated reporting limits (RLs) are provided.

Method(s) 6010B SEP: The serial dilution performed for the following sample associated with batch 140-27809 was outside control limits: (140-13725-A-2-X SD ^5) Sample non-homogeneity suspected.

Method(s) 6010B SEP: The following samples were diluted to bring the concentration of the target analyte, Lead, within the calibration range: SB-AR-03 (00.0-00.5) (140-13725-11) and SB-BR-02-02 (00.0-00.5) (140-13725-14). Elevated reporting limits (RLs) are provided.

Method(s) 6010B SEP: Samples were analyzed at 1:1 dilutions due to sample matrix and elemental interferences (Si, Al, Fe). As an additional note, titanium is not an interfering element for the lead line used to report the samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
% Moisture: The samples were analyzed for percent moisture using SOP number KNOX-WC-0012 (based on Modified MCAWW 160.3 and SM2540B and on the percent moisture determinations described in methods 3540C and 3550B).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-13725-2	SB-ED-01-05 (00.0-00.5)	Solid	11/27/18 10:40	12/19/18 10:15
140-13725-4	SB-ED-02-03 (00.0-00.5)	Solid	11/27/18 11:30	12/19/18 10:15
140-13725-7	SB-ED-05-07 (00.0-00.5)	Solid	11/27/18 15:35	12/19/18 10:15
140-13725-8	SB-AR-01-02 (00.0-00.5)	Solid	11/29/18 09:40	12/19/18 10:15
140-13725-11	SB-AR-03 (00.0-00.5)	Solid	11/29/18 11:30	12/19/18 10:15
140-13725-13	SB-AR-04-06 (00.0-00.5)	Solid	11/29/18 14:00	12/19/18 10:15
140-13725-14	SB-BR-02-02 (00.0-00.5)	Solid	11/28/18 10:10	12/19/18 10:15
140-13725-17	SB-BR-04 (00.0-00.5)	Solid	11/28/18 13:30	12/19/18 10:15
140-13725-19	SB-BR-03-06 (00.0-00.5)	Solid	11/28/18 11:30	12/19/18 10:15

Method Summary

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Method	Method Description	Protocol	Laboratory
6010B	SEP Metals (ICP) - Total	SW846	TAL KNX
6010B SEP	SEP Metals (ICP)	SW846	TAL KNX
Moisture	Percent Moisture	EPA	TAL KNX
3010A	Preparation, Total Metals	SW846	TAL KNX
Acid/Sulfide	Sequential Extraction Procedure, Acid/Sulfide Fraction	TAL-KNOX	TAL KNX
Carbonate	Sequential Extraction Procedure, Carbonate Fraction	TAL-KNOX	TAL KNX
Exchangeable	Sequential Extraction Procedure, Exchangeable Fraction	TAL-KNOX	TAL KNX
Metal Hydroxide	Sequential Extraction Procedure, Metal Hydroxide Fraction	TAL-KNOX	TAL KNX
Non-Crystalline	Sequential Extraction Procedure, Non-crystalline Materials	TAL-KNOX	TAL KNX
Organic-Bound	Sequential Extraction Procedure, Organic Bound Fraction	TAL-KNOX	TAL KNX
Residual	Sequential Extraction Procedure, Residual Fraction	TAL-KNOX	TAL KNX
Total	Preparation, Total Material	TAL-KNOX	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-KNOX = TestAmerica Laboratories, Knoxville, Facility Standard Operating Procedure.

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Client Sample ID: SB-ED-01-05 (00.0-00.5)

Date Collected: 11/27/18 10:40
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-2

Matrix: Solid
Percent Solids: 100.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67		2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 11:57	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	880		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 13:20	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	310	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 12:57	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	640		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 10:56	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	47	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 12:18	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		0.50	0.11	mg/Kg	☼	02/14/19 08:00	02/19/19 13:52	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		0.50	0.11	mg/Kg	☼	02/19/19 07:31	02/20/19 14:10	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2100		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2100	B	1.0	0.22	mg/Kg	☼	02/06/19 09:06	02/20/19 12:47	2

Client Sample ID: SB-ED-02-03 (00.0-00.5)

Date Collected: 11/27/18 11:30
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-4

Matrix: Solid
Percent Solids: 100.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:07	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**120**		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 13:46	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**53**	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 13:07	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**180**		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:06	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**16**	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 12:44	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**13**		0.50	0.11	mg/Kg	☼	02/14/19 08:00	02/19/19 14:03	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**3.6**		0.50	0.11	mg/Kg	☼	02/19/19 07:31	02/20/19 14:26	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**390**		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**370**	B	1.0	0.22	mg/Kg	☼	02/06/19 09:06	02/20/19 13:13	2

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Date Collected: 11/27/18 15:35
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-7

Matrix: Solid
Percent Solids: 99.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.4		2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:13	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2800		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 13:51	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	260	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 13:12	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1600		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:11	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	150	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 12:50	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	120		0.50	0.11	mg/Kg	☼	02/14/19 08:00	02/19/19 14:08	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		1.0	0.22	mg/Kg	☼	02/19/19 07:31	02/20/19 12:12	2

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5000		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4400	B	1.0	0.22	mg/Kg	☼	02/06/19 09:06	02/20/19 13:19	2

Client Sample ID: SB-AR-01-02 (00.0-00.5)

Date Collected: 11/29/18 09:40
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-8

Matrix: Solid
Percent Solids: 91.2

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.7	J	2.2	0.48	mg/Kg	☼	02/07/19 08:00	02/13/19 12:48	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	680		1.6	0.36	mg/Kg	☼	02/08/19 08:00	02/13/19 14:12	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	350	*	0.55	0.12	mg/Kg	☼	02/09/19 08:00	02/14/19 13:49	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	820		0.55	0.12	mg/Kg	☼	02/12/19 08:00	02/19/19 11:47	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100	B *	8.2	1.8	mg/Kg	☼	02/14/19 08:00	02/19/19 13:11	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	99		0.55	0.12	mg/Kg	☼	02/14/19 08:00	02/19/19 15:02	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17		1.1	0.24	mg/Kg	☼	02/19/19 07:31	02/20/19 12:33	2

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2100		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2100	B	1.1	0.24	mg/Kg	☼	02/06/19 09:06	02/20/19 13:41	2

Client Sample ID: SB-AR-03 (00.0-00.5)

Date Collected: 11/29/18 11:30
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-11

Matrix: Solid
Percent Solids: 99.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:54	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11000		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 14:17	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	260	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 13:55	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4000		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:52	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1100	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 13:16	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9600		2.5	0.55	mg/Kg	☼	02/14/19 08:00	02/19/19 15:25	5

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	780		1.0	0.22	mg/Kg	☼	02/19/19 07:31	02/20/19 12:38	2

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	27000		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	26000	B	5.0	1.1	mg/Kg	☼	02/06/19 09:06	02/20/19 14:52	10

Client Sample ID: SB-AR-04-06 (00.0-00.5)

Date Collected: 11/29/18 14:00
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-13

Matrix: Solid
Percent Solids: 99.6

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.3	J	2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:59	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	220		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 14:23	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 14:00	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	390		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:57	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	34	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 13:22	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	68		0.50	0.11	mg/Kg	☼	02/14/19 08:00	02/19/19 15:14	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13		0.50	0.11	mg/Kg	☼	02/19/19 07:31	02/20/19 14:42	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	850		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	840	B	1.0	0.22	mg/Kg	☼	02/06/19 09:06	02/20/19 13:52	2

Client Sample ID: SB-BR-02-02 (00.0-00.5)

Date Collected: 11/28/18 10:10
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-14

Matrix: Solid
Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	270		2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:23	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	30000		5.0	1.1	mg/Kg	☼	02/08/19 08:00	02/13/19 14:29	10

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	300	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 13:23	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	740		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:22	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	15000	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 13:00	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	31000		5.0	1.1	mg/Kg	☼	02/14/19 08:00	02/19/19 15:20	10

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3000		0.50	0.11	mg/Kg	☼	02/19/19 07:31	02/20/19 14:31	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	81000		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	69000	B	10	2.2	mg/Kg	☼	02/06/19 09:06	02/20/19 14:47	20

Client Sample ID: SB-BR-04 (00.0-00.5)

Date Collected: 11/28/18 13:30
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-17

Matrix: Solid
Percent Solids: 100.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:43	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**200**		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 14:07	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**44**	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 13:44	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**370**		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:42	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**53**	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 13:06	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**92**		0.50	0.11	mg/Kg	☼	02/14/19 08:00	02/19/19 14:57	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**67**		0.50	0.11	mg/Kg	☼	02/19/19 07:31	02/20/19 14:37	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**830**		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**960**	B	1.0	0.22	mg/Kg	☼	02/06/19 09:06	02/20/19 13:35	2

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Date Collected: 11/28/18 11:30
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-19

Matrix: Solid
Percent Solids: 100.0

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.1	J	2.0	0.44	mg/Kg	☼	02/07/19 08:00	02/13/19 12:18	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	230		1.5	0.33	mg/Kg	☼	02/08/19 08:00	02/13/19 13:56	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	120	*	0.50	0.11	mg/Kg	☼	02/09/19 08:00	02/14/19 13:18	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	410		0.50	0.11	mg/Kg	☼	02/12/19 08:00	02/19/19 11:16	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	43	B *	7.5	1.7	mg/Kg	☼	02/14/19 08:00	02/19/19 12:55	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	60		0.50	0.11	mg/Kg	☼	02/14/19 08:00	02/19/19 14:13	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.5		1.0	0.22	mg/Kg	☼	02/19/19 07:31	02/20/19 12:17	2

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	880		0.50	0.11	mg/Kg			02/21/19 15:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	760	B	1.0	0.22	mg/Kg	☼	02/06/19 09:06	02/20/19 13:24	2

Method: 6010B - SEP Metals (ICP) - Total

Lab Sample ID: MB 140-27433/12-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27848 — **Prep Batch: 27433**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.155	J	0.50	0.11	mg/Kg		02/06/19 09:06	02/20/19 11:22	1

Lab Sample ID: LCS 140-27433/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27848 — **Prep Batch: 27433**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	5.09		mg/Kg		102	75 - 125

Lab Sample ID: LCSD 140-27433/14-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27848 — **Prep Batch: 27433**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	5.10		mg/Kg		102	75 - 125	0	30

Lab Sample ID: 140-13725-2 DU — **Client Sample ID: SB-ED-01-05 (00.0-00.5)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27848 — **Prep Batch: 27433**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	2100	B	1990		mg/Kg	☼	4	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-27434/11-B ^4 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Step 1**
Analysis Batch: 27652 — **Prep Batch: 27449**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0	0.44	mg/Kg		02/07/19 08:00	02/13/19 11:42	4

Lab Sample ID: LCS 140-27434/12-B ^5 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Step 1**
Analysis Batch: 27652 — **Prep Batch: 27449**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	4.78		mg/Kg		96	75 - 125

Lab Sample ID: LCSD 140-27434/13-B ^5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Step 1**
Analysis Batch: 27652 — **Prep Batch: 27449**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	4.67		mg/Kg		93	75 - 125	2	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-13725-2 DU — **Client Sample ID: SB-ED-01-05 (00.0-00.5)**
Matrix: Solid — **Prep Type: Step 1**
Analysis Batch: 27652 — **Prep Batch: 27449**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	67		67.5		mg/Kg	☼	1	30

Lab Sample ID: MB 140-27450/11-B ^3 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Step 2**
Analysis Batch: 27652 — **Prep Batch: 27478**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.33	mg/Kg		02/08/19 08:00	02/13/19 13:04	3

Lab Sample ID: LCS 140-27450/12-B ^5 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Step 2**
Analysis Batch: 27652 — **Prep Batch: 27478**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	4.19		mg/Kg		84	75 - 125

Lab Sample ID: LCSD 140-27450/13-B ^5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Step 2**
Analysis Batch: 27652 — **Prep Batch: 27478**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	4.13		mg/Kg		83	75 - 125	2	30

Lab Sample ID: 140-13725-2 DU — **Client Sample ID: SB-ED-01-05 (00.0-00.5)**
Matrix: Solid — **Prep Type: Step 2**
Analysis Batch: 27652 — **Prep Batch: 27478**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	880		877		mg/Kg	☼	0.6	30

Lab Sample ID: MB 140-27480/11-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Step 3**
Analysis Batch: 27702 — **Prep Batch: 27530**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.11	mg/Kg		02/09/19 08:00	02/14/19 12:42	1

Lab Sample ID: LCS 140-27480/12-B — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Step 3**
Analysis Batch: 27702 — **Prep Batch: 27530**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	0.147	J *	mg/Kg		3	75 - 125

Lab Sample ID: LCSD 140-27480/13-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Step 3**
Analysis Batch: 27702 — **Prep Batch: 27530**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	0.172	J *	mg/Kg		3	75 - 125	15	30

Lab Sample ID: 140-13725-2 DU
Matrix: Solid
Analysis Batch: 27702

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Prep Type: Step 3
Prep Batch: 27530

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	310	*	305	*	mg/Kg	☼	0.9	30

Lab Sample ID: MB 140-27533/11-B
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: Method Blank
Prep Type: Step 4
Prep Batch: 27542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.11	mg/Kg		02/12/19 08:00	02/19/19 10:41	1

Lab Sample ID: LCS 140-27533/12-B
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: Lab Control Sample
Prep Type: Step 4
Prep Batch: 27542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	4.63		mg/Kg		93	75 - 125

Lab Sample ID: LCSD 140-27533/13-B
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 4
Prep Batch: 27542

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	4.85		mg/Kg		97	75 - 125	5	30

Lab Sample ID: 140-13725-2 DU
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Prep Type: Step 4
Prep Batch: 27542

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	640		617		mg/Kg	☼	3	30

Lab Sample ID: MB 140-27543/11-B ^5
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: Method Blank
Prep Type: Step 5
Prep Batch: 27643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.77	J	7.5	1.7	mg/Kg		02/14/19 08:00	02/19/19 12:02	5

Lab Sample ID: LCS 140-27543/12-B ^5
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: Lab Control Sample
Prep Type: Step 5
Prep Batch: 27643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	15.0	9.27	*	mg/Kg		62	75 - 125

Lab Sample ID: LCSD 140-27543/13-B ^5
Matrix: Solid
Analysis Batch: 27809

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 5
Prep Batch: 27643

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	15.0	9.30	*	mg/Kg		62	75 - 125	0	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-13725-2 DU — **Client Sample ID: SB-ED-01-05 (00.0-00.5)**
Matrix: Solid — **Prep Type: Step 5**
Analysis Batch: 27809 — **Prep Batch: 27643**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	47	B *	42.9	*	mg/Kg	☼	8	30

Lab Sample ID: MB 140-27645/11-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Step 6**
Analysis Batch: 27809 — **Prep Batch: 27645**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.11	mg/Kg		02/14/19 08:00	02/19/19 13:37	1

Lab Sample ID: LCS 140-27645/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Step 6**
Analysis Batch: 27809 — **Prep Batch: 27645**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	4.98		mg/Kg		100	75 - 125

Lab Sample ID: LCSD 140-27645/13-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Step 6**
Analysis Batch: 27809 — **Prep Batch: 27645**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	4.97		mg/Kg		99	75 - 125	0	30

Lab Sample ID: 140-13725-2 DU — **Client Sample ID: SB-ED-01-05 (00.0-00.5)**
Matrix: Solid — **Prep Type: Step 6**
Analysis Batch: 27809 — **Prep Batch: 27645**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	110		121		mg/Kg	☼	7	30

Lab Sample ID: MB 140-27782/11-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Step 7**
Analysis Batch: 27848 — **Prep Batch: 27782**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.11	mg/Kg		02/19/19 07:31	02/20/19 11:07	1

Lab Sample ID: LCS 140-27782/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Step 7**
Analysis Batch: 27848 — **Prep Batch: 27782**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	4.99		mg/Kg		100	75 - 125

Lab Sample ID: LCSD 140-27782/13-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Step 7**
Analysis Batch: 27848 — **Prep Batch: 27782**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.00	5.04		mg/Kg		101	75 - 125	1	30

QC Sample Results

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Lab Sample ID: 140-13725-2 DU
Matrix: Solid
Analysis Batch: 27848

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Prep Type: Step 7
Prep Batch: 27782

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	18			17.7		mg/Kg	☼			2	30

Metals

Prep Batch: 27433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	Total	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	Total	
MB 140-27433/12-A	Method Blank	Total/NA	Solid	Total	
LCS 140-27433/13-A	Lab Control Sample	Total/NA	Solid	Total	
LCSD 140-27433/14-A	Lab Control Sample Dup	Total/NA	Solid	Total	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	Total	

SEP Batch: 27434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 1	Solid	Exchangeable	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 1	Solid	Exchangeable	
MB 140-27434/11-B ^4	Method Blank	Step 1	Solid	Exchangeable	
LCS 140-27434/12-B ^5	Lab Control Sample	Step 1	Solid	Exchangeable	
LCSD 140-27434/13-B ^5	Lab Control Sample Dup	Step 1	Solid	Exchangeable	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 1	Solid	Exchangeable	

Prep Batch: 27449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-11	SB-AR-03 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-17	SB-BR-04 (00.0-00.5)	Step 1	Solid	3010A	27434
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 1	Solid	3010A	27434
MB 140-27434/11-B ^4	Method Blank	Step 1	Solid	3010A	27434
LCS 140-27434/12-B ^5	Lab Control Sample	Step 1	Solid	3010A	27434
LCSD 140-27434/13-B ^5	Lab Control Sample Dup	Step 1	Solid	3010A	27434
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 1	Solid	3010A	27434

SEP Batch: 27450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 2	Solid	Carbonate	

Metals (Continued)

SEP Batch: 27450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 2	Solid	Carbonate	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 2	Solid	Carbonate	
MB 140-27450/11-B ^3	Method Blank	Step 2	Solid	Carbonate	
LCS 140-27450/12-B ^5	Lab Control Sample	Step 2	Solid	Carbonate	
LCSD 140-27450/13-B ^5	Lab Control Sample Dup	Step 2	Solid	Carbonate	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 2	Solid	Carbonate	

Prep Batch: 27478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-11	SB-AR-03 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-17	SB-BR-04 (00.0-00.5)	Step 2	Solid	3010A	27450
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 2	Solid	3010A	27450
MB 140-27450/11-B ^3	Method Blank	Step 2	Solid	3010A	27450
LCS 140-27450/12-B ^5	Lab Control Sample	Step 2	Solid	3010A	27450
LCSD 140-27450/13-B ^5	Lab Control Sample Dup	Step 2	Solid	3010A	27450
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 2	Solid	3010A	27450

SEP Batch: 27480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 3	Solid	Non-Crystalline	
MB 140-27480/11-B	Method Blank	Step 3	Solid	Non-Crystalline	
LCS 140-27480/12-B	Lab Control Sample	Step 3	Solid	Non-Crystalline	
LCSD 140-27480/13-B	Lab Control Sample Dup	Step 3	Solid	Non-Crystalline	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 3	Solid	Non-Crystalline	

Prep Batch: 27530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-11	SB-AR-03 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 3	Solid	3010A	27480

Metals (Continued)

Prep Batch: 27530 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-17	SB-BR-04 (00.0-00.5)	Step 3	Solid	3010A	27480
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 3	Solid	3010A	27480
MB 140-27480/11-B	Method Blank	Step 3	Solid	3010A	27480
LCS 140-27480/12-B	Lab Control Sample	Step 3	Solid	3010A	27480
LCSD 140-27480/13-B	Lab Control Sample Dup	Step 3	Solid	3010A	27480
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 3	Solid	3010A	27480

SEP Batch: 27533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	
MB 140-27533/11-B	Method Blank	Step 4	Solid	Metal Hydroxide	
LCS 140-27533/12-B	Lab Control Sample	Step 4	Solid	Metal Hydroxide	
LCSD 140-27533/13-B	Lab Control Sample Dup	Step 4	Solid	Metal Hydroxide	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 4	Solid	Metal Hydroxide	

Prep Batch: 27542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-11	SB-AR-03 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-17	SB-BR-04 (00.0-00.5)	Step 4	Solid	3010A	27533
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 4	Solid	3010A	27533
MB 140-27533/11-B	Method Blank	Step 4	Solid	3010A	27533
LCS 140-27533/12-B	Lab Control Sample	Step 4	Solid	3010A	27533
LCSD 140-27533/13-B	Lab Control Sample Dup	Step 4	Solid	3010A	27533
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 4	Solid	3010A	27533

SEP Batch: 27543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 5	Solid	Organic-Bound	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 5	Solid	Organic-Bound	

Metals (Continued)

SEP Batch: 27543 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-27543/11-B ^5	Method Blank	Step 5	Solid	Organic-Bound	
LCS 140-27543/12-B ^5	Lab Control Sample	Step 5	Solid	Organic-Bound	
LCSD 140-27543/13-B ^5	Lab Control Sample Dup	Step 5	Solid	Organic-Bound	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 5	Solid	Organic-Bound	

Prep Batch: 27643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-11	SB-AR-03 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-17	SB-BR-04 (00.0-00.5)	Step 5	Solid	3010A	27543
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 5	Solid	3010A	27543
MB 140-27543/11-B ^5	Method Blank	Step 5	Solid	3010A	27543
LCS 140-27543/12-B ^5	Lab Control Sample	Step 5	Solid	3010A	27543
LCSD 140-27543/13-B ^5	Lab Control Sample Dup	Step 5	Solid	3010A	27543
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 5	Solid	3010A	27543

SEP Batch: 27645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	
MB 140-27645/11-A	Method Blank	Step 6	Solid	Acid/Sulfide	
LCS 140-27645/12-A	Lab Control Sample	Step 6	Solid	Acid/Sulfide	
LCSD 140-27645/13-A	Lab Control Sample Dup	Step 6	Solid	Acid/Sulfide	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 6	Solid	Acid/Sulfide	

Analysis Batch: 27652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-11	SB-AR-03 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-11	SB-AR-03 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 2	Solid	6010B SEP	27478

Metals (Continued)

Analysis Batch: 27652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-17	SB-BR-04 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-17	SB-BR-04 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 2	Solid	6010B SEP	27478
MB 140-27434/11-B ^4	Method Blank	Step 1	Solid	6010B SEP	27449
MB 140-27450/11-B ^3	Method Blank	Step 2	Solid	6010B SEP	27478
LCS 140-27434/12-B ^5	Lab Control Sample	Step 1	Solid	6010B SEP	27449
LCS 140-27450/12-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	27478
LCSD 140-27434/13-B ^5	Lab Control Sample Dup	Step 1	Solid	6010B SEP	27449
LCSD 140-27450/13-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	27478
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 1	Solid	6010B SEP	27449
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 2	Solid	6010B SEP	27478

Analysis Batch: 27702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-11	SB-AR-03 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-17	SB-BR-04 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 3	Solid	6010B SEP	27530
MB 140-27480/11-B	Method Blank	Step 3	Solid	6010B SEP	27530
LCS 140-27480/12-B	Lab Control Sample	Step 3	Solid	6010B SEP	27530
LCSD 140-27480/13-B	Lab Control Sample Dup	Step 3	Solid	6010B SEP	27530
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 3	Solid	6010B SEP	27530

Prep Batch: 27782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-11	SB-AR-03 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-17	SB-BR-04 (00.0-00.5)	Step 7	Solid	Residual	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 7	Solid	Residual	
MB 140-27782/11-A	Method Blank	Step 7	Solid	Residual	
LCS 140-27782/12-A	Lab Control Sample	Step 7	Solid	Residual	
LCSD 140-27782/13-A	Lab Control Sample Dup	Step 7	Solid	Residual	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 7	Solid	Residual	

Analysis Batch: 27809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 5	Solid	6010B SEP	27643

Metals (Continued)

Analysis Batch: 27809 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-11	SB-AR-03 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-11	SB-AR-03 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-11	SB-AR-03 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-17	SB-BR-04 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-17	SB-BR-04 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-17	SB-BR-04 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 6	Solid	6010B SEP	27645
MB 140-27533/11-B	Method Blank	Step 4	Solid	6010B SEP	27542
MB 140-27543/11-B ^5	Method Blank	Step 5	Solid	6010B SEP	27643
MB 140-27645/11-A	Method Blank	Step 6	Solid	6010B SEP	27645
LCS 140-27533/12-B	Lab Control Sample	Step 4	Solid	6010B SEP	27542
LCS 140-27543/12-B ^5	Lab Control Sample	Step 5	Solid	6010B SEP	27643
LCS 140-27645/12-A	Lab Control Sample	Step 6	Solid	6010B SEP	27645
LCSD 140-27533/13-B	Lab Control Sample Dup	Step 4	Solid	6010B SEP	27542
LCSD 140-27543/13-B ^5	Lab Control Sample Dup	Step 5	Solid	6010B SEP	27643
LCSD 140-27645/13-A	Lab Control Sample Dup	Step 6	Solid	6010B SEP	27645
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 4	Solid	6010B SEP	27542
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 5	Solid	6010B SEP	27643
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 6	Solid	6010B SEP	27645

Analysis Batch: 27848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-4	SB-ED-02-03 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-7	SB-ED-05-07 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-8	SB-AR-01-02 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-11	SB-AR-03 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-13	SB-AR-04-06 (00.0-00.5)	Step 7	Solid	6010B SEP	27782

Metals (Continued)

Analysis Batch: 27848 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-14	SB-BR-02-02 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-17	SB-BR-04 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	6010B	27433
140-13725-19	SB-BR-03-06 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	6010B	27433
MB 140-27433/12-A	Method Blank	Total/NA	Solid	6010B	27433
MB 140-27782/11-A	Method Blank	Step 7	Solid	6010B SEP	27782
LCS 140-27433/13-A	Lab Control Sample	Total/NA	Solid	6010B	27433
LCS 140-27782/12-A	Lab Control Sample	Step 7	Solid	6010B SEP	27782
LCSD 140-27433/14-A	Lab Control Sample Dup	Total/NA	Solid	6010B	27433
LCSD 140-27782/13-A	Lab Control Sample Dup	Step 7	Solid	6010B SEP	27782
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Step 7	Solid	6010B SEP	27782
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	6010B	27433

Analysis Batch: 27888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-11	SB-AR-03 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-17	SB-BR-04 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Sum of Steps 1-7	Solid	6010B SEP	

General Chemistry

Analysis Batch: 27351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-13725-2	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-4	SB-ED-02-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-7	SB-ED-05-07 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-8	SB-AR-01-02 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-11	SB-AR-03 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-13	SB-AR-04-06 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-14	SB-BR-02-02 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-17	SB-BR-04 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-19	SB-BR-03-06 (00.0-00.5)	Total/NA	Solid	Moisture	
140-13725-2 DU	SB-ED-01-05 (00.0-00.5)	Total/NA	Solid	Moisture	

Client Sample ID: SB-ED-01-05 (00.0-00.5)

Date Collected: 11/27/18 10:40
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-ED-01-05 (00.0-00.5)

Date Collected: 11/27/18 10:40
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-2

Matrix: Solid
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 12:47	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 11:57	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 13:20	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 12:57	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 10:56	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:18	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 13:52	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 14:10	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Client Sample ID: SB-ED-02-03 (00.0-00.5)

Lab Sample ID: 140-13725-4
Date Collected: 11/27/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-ED-02-03 (00.0-00.5)

Lab Sample ID: 140-13725-4
Date Collected: 11/27/18 11:30
Matrix: Solid
Date Received: 12/19/18 10:15
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:13	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:07	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 13:46	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:07	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:06	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:44	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 14:03	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 14:26	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Lab Sample ID: 140-13725-7

Date Collected: 11/27/18 15:35

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-ED-05-07 (00.0-00.5)

Lab Sample ID: 140-13725-7

Date Collected: 11/27/18 15:35

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 99.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:19	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:13	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 13:51	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:12	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:11	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:50	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 14:08	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			27848	02/20/19 12:12	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-AR-01-02 (00.0-00.5)

Lab Sample ID: 140-13725-8

Date Collected: 11/29/18 09:40

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-AR-01-02 (00.0-00.5)

Lab Sample ID: 140-13725-8

Date Collected: 11/29/18 09:40

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:41	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:48	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 14:12	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:49	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:47	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 13:11	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 15:02	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			27848	02/20/19 12:33	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-AR-03 (00.0-00.5)

Lab Sample ID: 140-13725-11

Date Collected: 11/29/18 11:30

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-AR-03 (00.0-00.5)

Lab Sample ID: 140-13725-11

Date Collected: 11/29/18 11:30

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 99.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		10			27848	02/20/19 14:52	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:54	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 14:17	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:55	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:52	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 13:16	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		5			27809	02/19/19 15:25	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			27848	02/20/19 12:38	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-AR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-13

Date Collected: 11/29/18 14:00

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-AR-04-06 (00.0-00.5)

Lab Sample ID: 140-13725-13

Date Collected: 11/29/18 14:00

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 99.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:52	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:59	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 14:23	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 14:00	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:57	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 13:22	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 15:14	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 14:42	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-BR-02-02 (00.0-00.5)

Lab Sample ID: 140-13725-14

Date Collected: 11/28/18 10:10

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-BR-02-02 (00.0-00.5)

Lab Sample ID: 140-13725-14

Date Collected: 11/28/18 10:10

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		20			27848	02/20/19 14:47	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:23	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		10			27652	02/13/19 14:29	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:23	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:22	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 13:00	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		10			27809	02/19/19 15:20	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 14:31	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-BR-04 (00.0-00.5)

Lab Sample ID: 140-13725-17

Date Collected: 11/28/18 13:30

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-BR-04 (00.0-00.5)

Lab Sample ID: 140-13725-17

Date Collected: 11/28/18 13:30

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:35	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:43	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 14:07	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:44	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:42	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 13:06	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 14:57	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 14:37	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Lab Sample ID: 140-13725-19

Date Collected: 11/28/18 11:30

Matrix: Solid

Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			27888	02/21/19 15:43	KNC	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: SB-BR-03-06 (00.0-00.5)

Lab Sample ID: 140-13725-19

Date Collected: 11/28/18 11:30

Matrix: Solid

Date Received: 12/19/18 10:15

Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:24	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:18	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 13:56	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:18	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:16	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:55	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 14:13	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			27848	02/20/19 12:17	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 140-27433/12-A
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		1			27848	02/20/19 11:22	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 140-27434/11-B ^4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 11:42	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 140-27450/11-B ^3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 13:04	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 140-27480/11-B
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 12:42	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 140-27533/11-B
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 10:41	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-27543/11-B ^5

Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:02	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-27645/11-A

Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 13:37	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-27782/11-A

Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 11:07	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-27433/13-A

Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		1			27848	02/20/19 11:27	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-27434/12-B ^5

Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			27652	02/13/19 11:47	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-27450/12-B ^5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			27652	02/13/19 13:09	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-27480/12-B
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 12:47	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-27533/12-B
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 10:46	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-27543/12-B ^5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:08	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-27645/12-A
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 13:42	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-27782/12-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 11:12	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27433/14-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		1			27848	02/20/19 11:32	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27434/13-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			27652	02/13/19 11:52	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27450/13-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			27652	02/13/19 13:15	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27480/13-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 12:52	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27533/13-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 10:51	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27543/13-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:13	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27645/13-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 13:47	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-27782/13-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 11:17	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2 DU
Date Collected: 11/27/18 10:40
Matrix: Solid
Date Received: 12/19/18 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27351	02/01/19 15:07	BKD	TAL KNX
	Instrument ID: W3									

Lab Chronicle

Client: Kennedy/Jenks Consultants
Project/Site: Ashland - Kenvil Plant SEP

TestAmerica Job ID: 140-13725-3

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Date Collected: 11/27/18 10:40
Date Received: 12/19/18 10:15

Lab Sample ID: 140-13725-2 DU
Matrix: Solid
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	27433	02/06/19 09:06	KNC	TAL KNX
Total/NA	Analysis	6010B		2			27848	02/20/19 13:08	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	27434	02/06/19 09:12	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	27449	02/07/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			27652	02/13/19 12:02	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	27450	02/07/19 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	27478	02/08/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			27652	02/13/19 13:25	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	27480	02/08/19 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	27530	02/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			27702	02/14/19 13:02	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	27533	02/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	27542	02/12/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			27809	02/19/19 11:01	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	27543	02/12/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	27643	02/14/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			27809	02/19/19 12:24	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	27645	02/14/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			27809	02/19/19 13:57	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	27782	02/19/19 07:31	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			27848	02/20/19 14:15	KNC	TAL KNX
	Instrument ID: DUO									

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Kennedy/Jenks Consultants
TestAmerica Job ID: 140-13725-3
Project/Site: Ashland - Kenvil Plant SEP

Laboratory: TestAmerica Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		N/A	
ANAB	DoD / DOE		L2311	02-13-22
Arkansas DEQ	State Program	6	88-0688	06-16-19
California	State Program	9	2423	06-30-19
Colorado	State Program	8	TN00009	02-28-19
Connecticut	State Program	1	PH-0223	09-30-19
Florida	NELAP	4	E87177	06-30-19
Georgia	State Program	4	906	04-13-20
Hawaii	State Program	9	N/A	04-13-19
Kansas	NELAP	7	E-10349	10-31-19
Kentucky (DW)	State Program	4	90101	12-31-19
Louisiana	NELAP	6	83979	06-30-19
Louisiana (DW)	NELAP	6	LA160005	12-31-19
Maryland	State Program	3	277	03-31-19
Michigan	State Program	5	9933	04-13-20
Nevada	State Program	9	TN00009	07-31-19
New Hampshire	NELAP	1	2999	01-17-20
New Jersey	NELAP	2	TN001	06-30-19
New York	NELAP	2	10781	03-31-19
North Carolina (DW)	State Program	4	21705	07-31-19
North Carolina (WW/SW)	State Program	4	64	12-31-19
Ohio VAP	State Program	5	CL0059	08-28-20
Oklahoma	State Program	6	9415	08-31-19
Oregon	NELAP	10	TNI0189	06-30-19
Pennsylvania	NELAP	3	68-00576	12-31-19
Tennessee	State Program	4	2014	04-13-20
Texas	NELAP	6	T104704380-16-9	08-31-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-19
Virginia	NELAP	3	460176	09-14-19
Washington	State Program	10	C593	01-19-20
West Virginia (DW)	State Program	3	9955C	12-31-19
West Virginia DEP	State Program	3	345	04-30-19
Wisconsin	State Program	5	998044300	08-31-19

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG No.:

Project: Ashland - Kenvil Plant SEP

Client Sample ID	Lab Sample ID
SB-ED-01-05 (00.0-00.5)	140-13725-2
SB-ED-02-03 (00.0-00.5)	140-13725-4
SB-ED-05-07 (00.0-00.5)	140-13725-7
SB-AR-01-02 (00.0-00.5)	140-13725-8
SB-AR-03 (00.0-00.5)	140-13725-11
SB-AR-04-06 (00.0-00.5)	140-13725-13
SB-BR-02-02 (00.0-00.5)	140-13725-14
SB-BR-04 (00.0-00.5)	140-13725-17
SB-BR-03-06 (00.0-00.5)	140-13725-19

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	67	2.0	0.44	mg/Kg			4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	880	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	310	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	640	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	47	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	110	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	18	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: WET
Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2100	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-01-05 (00.0-00.5)
Lab Sample ID: 140-13725-2
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 10:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2100	1.0	0.22	mg/Kg		B	2	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	ND	2.0	0.44	mg/Kg			4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	120	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	53	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	180	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	16	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	13	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	3.6	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-ED-02-03 (00.0-00.5) Lab Sample ID: 140-13725-4

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	390	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-02-03 (00.0-00.5)
Lab Sample ID: 140-13725-4
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	370	1.0	0.22	mg/Kg		B	2	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	7.4	2.0	0.44	mg/Kg			4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2800	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	260	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1600	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	150	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	120	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	42	1.0	0.22	mg/Kg			2	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-ED-05-07 (00.0-00.5) Lab Sample ID: 140-13725-7

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/27/2018 15:35

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	5000	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-ED-05-07 (00.0-00.5)
Lab Sample ID: 140-13725-7
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/27/2018 15:35
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	4400	1.0	0.22	mg/Kg		B	2	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1.7	2.2	0.48	mg/Kg	J		4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	680	1.6	0.36	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	350	0.55	0.12	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	820	0.55	0.12	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	100	8.2	1.8	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	99	0.55	0.12	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-AR-01-02 (00.0-00.5)
Lab Sample ID: 140-13725-8
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 09:40
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	17	1.1	0.24	mg/Kg			2	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-AR-01-02 (00.0-00.5) Lab Sample ID: 140-13725-8

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 09:40

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2100	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-01-02 (00.0-00.5) Lab Sample ID: 140-13725-8

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 09:40

Reporting Basis: DRY Date Received: 12/19/2018 10:15

% Solids: 91.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	2100	1.1	0.24	mg/Kg		B	2	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	130	2.0	0.44	mg/Kg			4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	11000	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	260	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	4000	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1100	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	9600	2.5	0.55	mg/Kg			5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	780	1.0	0.22	mg/Kg			2	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-AR-03 (00.0-00.5) Lab Sample ID: 140-13725-11

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	27000	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-03 (00.0-00.5)
Lab Sample ID: 140-13725-11
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	26000	5.0	1.1	mg/Kg		B	10	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1.3	2.0	0.44	mg/Kg	J		4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	220	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	130	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	390	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	34	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	68	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	13	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-AR-04-06 (00.0-00.5) Lab Sample ID: 140-13725-13

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/29/2018 14:00

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	850	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-AR-04-06 (00.0-00.5)
Lab Sample ID: 140-13725-13
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/29/2018 14:00
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	840	1.0	0.22	mg/Kg		B	2	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	270	2.0	0.44	mg/Kg			4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	30000	5.0	1.1	mg/Kg			10	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	300	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	740	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	15000	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	31000	5.0	1.1	mg/Kg			10	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	3000	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-BR-02-02 (00.0-00.5) Lab Sample ID: 140-13725-14

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 10:10

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	81000	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-02-02 (00.0-00.5)
Lab Sample ID: 140-13725-14
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 10:10
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 99.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	69000	10	2.2	mg/Kg		B	20	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	ND	2.0	0.44	mg/Kg			4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	200	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	44	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	370	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	53	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	92	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	67	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-BR-04 (00.0-00.5) Lab Sample ID: 140-13725-17

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 13:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	830	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-04 (00.0-00.5)
Lab Sample ID: 140-13725-17
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 13:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	960	1.0	0.22	mg/Kg		B	2	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 1

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	1.1	2.0	0.44	mg/Kg	J		4	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 2

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	230	1.5	0.33	mg/Kg			3	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 3

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	120	0.50	0.11	mg/Kg		*	1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 4

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	410	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 5

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	43	7.5	1.7	mg/Kg		B *	5	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 6

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	60	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - STEP 7

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	9.5	1.0	0.22	mg/Kg			2	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - SUM OF STEPS 1-7

Client Sample ID: SB-BR-03-06 (00.0-00.5) Lab Sample ID: 140-13725-19

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG ID.:

Matrix: Solid Date Sampled: 11/28/2018 11:30

Reporting Basis: WET Date Received: 12/19/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	880	0.50	0.11	mg/Kg			1	6010B SEP

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SB-BR-03-06 (00.0-00.5)
Lab Sample ID: 140-13725-19
Lab Name: TestAmerica Knoxville
Job No.: 140-13725-3
SDG ID.:
Matrix: Solid
Date Sampled: 11/28/2018 11:30
Reporting Basis: DRY
Date Received: 12/19/2018 10:15
% Solids: 100.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	760	1.0	0.22	mg/Kg		B	2	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00342

Analyte	ICV 140-27652/4 02/13/2019 10:09				CCV 140-27652/20 02/13/2019 11:31				CCV 140-27652/32 02/13/2019 12:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	252		250	101	507		500	101	507		500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00342

Analyte	CCV 140-27652/44 02/13/2019 13:36				CCV 140-27652/55 02/13/2019 14:34							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	509		500	102	509		500	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90XXCCVLP_00309

Analyte	CCVL 140-27652/3 02/13/2019 10:04				ICV 140-27652/4 02/13/2019 10:09							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	257		250	103	252		250	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00343

Analyte	ICV 140-27702/4 02/14/2019 10:01				CCV 140-27702/33 02/14/2019 12:31				CCV 140-27702/45 02/14/2019 13:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	253		250	101	504		500	101	506		500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00343

Analyte	CCV 140-27702/51 02/14/2019 14:05											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	510		500	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90XXCCVLP_00310

Analyte	CCVL 140-27702/3 02/14/2019 09:56				ICV 140-27702/4 02/14/2019 10:01							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	257		250	103	253		250	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00344

Analyte	ICV 140-27809/4 02/19/2019 10:05				CCV 140-27809/9 02/19/2019 10:31				CCV 140-27809/21 02/19/2019 11:32			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	255		250	102	505		500	101	510		500	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00344

Analyte	CCV 140-27809/33 02/19/2019 12:34				CCV 140-27809/43 02/19/2019 13:27				CCV 140-27809/55 02/19/2019 14:47			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	512		500	102	514		500	103	512		500	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00344

Analyte	CCV 140-27809/63 02/19/2019 15:30											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	523		500	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90XXCCVLP_00311

Analyte	CCVL 140-27809/3 02/19/2019 10:00				ICV 140-27809/4 02/19/2019 10:05							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	259		250	103	255		250	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00345

Analyte	ICV 140-27848/4 02/20/2019 10:25				CCV 140-27848/10 02/20/2019 10:57				CCV 140-27848/22 02/20/2019 11:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	254		250	102	512		500	102	508		500	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90CVCCVP_00345

Analyte	CCV 140-27848/34 02/20/2019 12:58				CCV 140-27848/45 02/20/2019 13:57				CCV 140-27848/56 02/20/2019 14:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	508		500	102	505		500	101	509		500	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICV Source: 90XXICVS_00081 Concentration Units: ug/L

CCV Source: 90XXCCVLP_00312

Analyte	CCVL 140-27848/3 02/20/2019 10:20				ICV 140-27848/4 02/20/2019 10:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Lead	260		250	104	254		250	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Method: 6010B SEP Instrument ID: DUO

Lab Sample ID: CRI 140-27652/19 Concentration Units: ug/L

CRQL Check Standard Source: 90XXCRDL100P_00357

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	10.0	9.90	J	99	50-150

Lab Sample ID: CRI 140-27702/32 Concentration Units: ug/L

CRQL Check Standard Source: 90XXCRDL100P_00358

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	10.0	10.9		109	50-150

Lab Sample ID: CRI 140-27809/8 Concentration Units: ug/L

CRQL Check Standard Source: 90XXCRDL100P_00359

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	10.0	10.9		109	50-150

Lab Sample ID: CRI 140-27848/9 Concentration Units: ug/L

CRQL Check Standard Source: 90XXCRDL100P_00360

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	10.0	11.0		110	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 140-27652/5 02/13/2019 10:15		CCB 140-27652/21 02/13/2019 11:36		CCB 140-27652/33 02/13/2019 12:38		CCB 140-27652/45 02/13/2019 13:41	
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 140-27652/56 02/13/2019 14:39							
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 140-27702/5 02/14/2019 10:06		CCB 140-27702/34 02/14/2019 12:36		CCB 140-27702/46 02/14/2019 13:39		CCB 140-27702/52 02/14/2019 14:10	
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 140-27809/5 02/19/2019 10:10		CCB 140-27809/10 02/19/2019 10:36		CCB 140-27809/22 02/19/2019 11:37		CCB 140-27809/34 02/19/2019 12:39	
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 140-27809/44 02/19/2019 13:32		CCB 140-27809/56 02/19/2019 14:52		CCB 140-27809/64 02/19/2019 15:35			
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 140-27848/5 02/20/2019 10:30		CCB 140-27848/11 02/20/2019 11:02		CCB 140-27848/23 02/20/2019 12:02		CCB 140-27848/35 02/20/2019 13:03	
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 140-27848/46 02/20/2019 14:02		CCB 140-27848/57 02/20/2019 15:02					
		Found	C	Found	C	Found	C	Found	C
Lead	10	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27433/12-A

Instrument Code: DUO Batch No.: 27848

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	0.155	J		6010B

3-IN
METHOD BLANK
METALS - STEP 1

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27434/11-B ^4

Instrument Code: DUO Batch No.: 27652

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	ND			6010B_SEP

3-IN
METHOD BLANK
METALS - STEP 2

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27450/11-B ^3

Instrument Code: DUO Batch No.: 27652

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	ND			6010B_SEP

3-IN
METHOD BLANK
METALS - STEP 3

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27480/11-B

Instrument Code: DUO Batch No.: 27702

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	ND			6010B_SEP

FORM III-IN

3-IN
METHOD BLANK
METALS - STEP 4

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27533/11-B

Instrument Code: DUO Batch No.: 27809

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	ND			6010B_SEP

FORM III-IN

3-IN
METHOD BLANK
METALS - STEP 5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27543/11-B ^5

Instrument Code: DUO Batch No.: 27809

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	1.77	J		6010B_SEP

3-IN
METHOD BLANK
METALS - STEP 6

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27645/11-A

Instrument Code: DUO Batch No.: 27809

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	ND			6010B_SEP

FORM III-IN

3-IN
METHOD BLANK
METALS - STEP 7

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 140-27782/11-A

Instrument Code: DUO Batch No.: 27848

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	ND			6010B_SEP

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSA 140-27652/6 Instrument ID: DUO

Lab File ID: F021319.asc ICS Source: 90XXICSAP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Lead		**-11.3**	
Aluminum	*500000*	*503510*	*101*
Antimony		*7.42*	
Arsenic		*1.52*	
Barium		*0.160*	
Beryllium		*-0.270*	
Cadmium		*-4.06*	
Calcium	*500000*	*466100*	*93*
Chromium		*3.07*	
Cobalt		*-0.960*	
Copper		*-0.430*	
Iron	*200000*	*191840*	*96*
Li		*12.2*	
Magnesium	*500000*	*507840*	*102*
Manganese		*-6.76*	
Mo		*-1.27*	
Nickel		*0.830*	
Phosphorus		*1.00*	
Potassium		*240*	
Selenium		*9.83*	
Silver		*-0.930*	
Sodium		*51.9*	
Thallium		*-3.61*	
Vanadium		*1.79*	
Zinc		*-2.47*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSAB 140-27652/7 Instrument ID: DUO

Lab File ID: F021319.asc ICS Source: 90XXICSABP_00028

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Lead	**50.0**	**41.9**	**84**
Aluminum	*250000*	*248050*	*99*
Antimony	*600*	*589*	*98*
Arsenic	*100*	*99.1*	*99*
Barium	*500*	*504*	*101*
Beryllium	*500*	*510*	*102*
Cadmium	*1000*	*950*	*95*
Calcium	*250000*	*237150*	*95*
Chromium	*500*	*487*	*97*
Cobalt	*500*	*475*	*95*
Copper	*500*	*508*	*102*
Iron	*100000*	*96536*	*97*
Li	*1000*	*1059*	*106*
Magnesium	*250000*	*248300*	*99*
Manganese	*500*	*492*	*98*
Mo	*1000*	*979*	*98*
Nickel	*1000*	*941*	*94*
Phosphorus	*1000*	*954*	*95*
Potassium	*10000*	*11293*	*113*
Selenium	*50.0*	*53.9*	*108*
Silver	*200*	*203*	*101*
Sodium	*10000*	*10613*	*106*
Thallium	*100*	*92.6*	*93*
Vanadium	*500*	*489*	*98*
Zinc	*1000*	*988*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSA 140-27702/6 Instrument ID: DUO

Lab File ID: F021419.asc ICS Source: 90XXICSAP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Lead		**-7.66**	
Aluminum	*500000*	*508560*	*102*
Antimony		*6.19*	
Arsenic		*2.82*	
Barium		*0.0300*	
Beryllium		*-0.310*	
Cadmium		*-4.64*	
Calcium	*500000*	*472880*	*95*
Chromium		*2.42*	
Cobalt		*-1.27*	
Copper		*-0.130*	
Iron	*200000*	*192950*	*96*
Li		*11.0*	
Magnesium	*500000*	*511420*	*102*
Manganese		*-6.94*	
Mo		*-1.63*	
Nickel		*1.01*	
Phosphorus		*-1.22*	
Potassium		*136*	
Selenium		*10.5*	
Silver		*-0.950*	
Sodium		*44.7*	
Thallium		*-1.74*	
Vanadium		*2.38*	
Zinc		*-2.79*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSAB 140-27702/7 Instrument ID: DUO

Lab File ID: F021419.asc ICS Source: 90XXICSABP_00028

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Lead	**50.0**	**44.2**	**88**
Aluminum	*250000*	*250200*	*100*
Antimony	*600*	*597*	*99*
Arsenic	*100*	*99.0*	*99*
Barium	*500*	*507*	*101*
Beryllium	*500*	*518*	*104*
Cadmium	*1000*	*956*	*96*
Calcium	*250000*	*241480*	*97*
Chromium	*500*	*490*	*98*
Cobalt	*500*	*478*	*96*
Copper	*500*	*509*	*102*
Iron	*100000*	*97483*	*97*
Li	*1000*	*1052*	*105*
Magnesium	*250000*	*251310*	*101*
Manganese	*500*	*497*	*99*
Mo	*1000*	*978*	*98*
Nickel	*1000*	*949*	*95*
Phosphorus	*1000*	*961*	*96*
Potassium	*10000*	*11243*	*112*
Selenium	*50.0*	*53.7*	*107*
Silver	*200*	*203*	*101*
Sodium	*10000*	*10623*	*106*
Thallium	*100*	*96.4*	*96*
Vanadium	*500*	*492*	*98*
Zinc	*1000*	*993*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSA 140-27809/6 Instrument ID: DUO

Lab File ID: F021919.asc ICS Source: 90XXICSAP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Lead		**3.63**	
Aluminum	*500000*	*505440*	*101*
Antimony		*6.94*	
Arsenic		*0.740*	
Barium		*0.270*	
Beryllium		*-0.330*	
Cadmium		*-2.36*	
Calcium	*500000*	*474530*	*95*
Chromium		*2.53*	
Cobalt		*-1.02*	
Copper		*0.440*	
Iron	*200000*	*190640*	*95*
Li		*4.66*	
Magnesium	*500000*	*515130*	*103*
Manganese		*-6.86*	
Mo		*-1.86*	
Nickel		*0.170*	
Phosphorus		*1.50*	
Potassium		*177*	
Selenium		*10.2*	
Silver		*-0.550*	
Sodium		*130*	
Thallium		*-1.67*	
Vanadium		*-0.610*	
Zinc		*-1.55*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSAB 140-27809/7 Instrument ID: DUO

Lab File ID: F021919.asc ICS Source: 90XXICSABP_00028

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Lead	**50.0**	**49.2**	**98**
Aluminum	*250000*	*248780*	*100*
Antimony	*600*	*587*	*98*
Arsenic	*100*	*99.7*	*100*
Barium	*500*	*507*	*101*
Beryllium	*500*	*510*	*102*
Cadmium	*1000*	*956*	*96*
Calcium	*250000*	*236780*	*95*
Chromium	*500*	*488*	*98*
Cobalt	*500*	*478*	*96*
Copper	*500*	*509*	*102*
Iron	*100000*	*96182*	*96*
Li	*1000*	*1056*	*106*
Magnesium	*250000*	*248510*	*99*
Manganese	*500*	*495*	*99*
Mo	*1000*	*979*	*98*
Nickel	*1000*	*947*	*95*
Phosphorus	*1000*	*959*	*96*
Potassium	*10000*	*11317*	*113*
Selenium	*50.0*	*57.2*	*114*
Silver	*200*	*205*	*102*
Sodium	*10000*	*10683*	*107*
Thallium	*100*	*95.4*	*95*
Vanadium	*500*	*488*	*98*
Zinc	*1000*	*994*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSA 140-27848/7 Instrument ID: DUO

Lab File ID: F022019.asc ICS Source: 90XXICSASiP_00025

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Lead		**1.01**	
Aluminum	*500000*	*494490*	*99*
Antimony		*12.2*	
Arsenic		*6.12*	
Barium		*0.250*	
Beryllium		*-0.320*	
Cadmium		*-2.56*	
Calcium	*500000*	*466760*	*93*
Chromium		*3.82*	
Cobalt		*-1.61*	
Copper		*-0.600*	
Iron	*200000*	*188170*	*94*
Li		*15.1*	
Magnesium	*500000*	*499860*	*100*
Manganese		*-6.60*	
Mo		*-2.12*	
Nickel		*1.22*	
Phosphorus		*-21.1*	
Potassium		*69.4*	
Selenium		*3.07*	
Silver		*-0.310*	
Sodium		*32.5*	
Thallium		*1.50*	
Vanadium		*2.46*	
Zinc		*-0.300*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Lab Sample ID: ICSAB 140-27848/8 Instrument ID: DUO

Lab File ID: F022019.asc ICS Source: 90XXICSABP_00028

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Lead	**50.0**	**50.2**	**100**
Aluminum	*250000*	*249150*	*100*
Antimony	*600*	*594*	*99*
Arsenic	*100*	*98.7*	*99*
Barium	*500*	*504*	*101*
Beryllium	*500*	*523*	*105*
Cadmium	*1000*	*952*	*95*
Calcium	*250000*	*238080*	*95*
Chromium	*500*	*498*	*100*
Cobalt	*500*	*477*	*95*
Copper	*500*	*513*	*103*
Iron	*100000*	*96705*	*97*
Li	*1000*	*1038*	*104*
Magnesium	*250000*	*249090*	*100*
Manganese	*500*	*501*	*100*
Mo	*1000*	*974*	*97*
Nickel	*1000*	*946*	*95*
Phosphorus	*1000*	*960*	*96*
Potassium	*10000*	*11104*	*111*
Selenium	*50.0*	*52.6*	*105*
Silver	*200*	*206*	*103*
Sodium	*10000*	*10560*	*106*
Thallium	*100*	*93.5*	*94*
Vanadium	*500*	*497*	*99*
Zinc	*1000*	*991*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

6-IN
DUPLICATES
METALS - STEP 1

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	2.0	67		67.5		1		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - STEP 2

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	1.5	880		877		0.6		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - STEP 3

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	0.50	310		305		0.9	*	6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - STEP 4

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	0.50	640		617		3		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - STEP 5

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	7.5	47		42.9		8	*	6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - STEP 6

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	0.50	110		121		7		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS - STEP 7

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	0.50	18		17.7		2		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: SB-ED-01-05 (00.0-00.5) DU Lab ID: 140-13725-2 DU

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	1.0	2100		1990		4		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 140-27433/13-A

Lab Name: TestAmerica Knoxville | Job No.: 140-13725-3

Sample Matrix: Solid | LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	5.09		102	75	125		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 140-27433/14-A

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	5.10		5.00	102	75-125	0	30		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 1

Lab ID: LCS 140-27434/12-B ^5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	4.78		96	75	125		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 1

Lab ID: LCSD 140-27434/13-B ^5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	4.67		5.00	93	75-125	2	30		6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 2

Lab ID: LCS 140-27450/12-B ^5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	4.19		84	75	125		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 2

Lab ID: LCSD 140-27450/13-B ^5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	4.13		5.00	83	75-125	2	30		6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 3

Lab ID: LCS 140-27480/12-B

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	0.147	J	3	75	125	*	6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 3

Lab ID: LCSD 140-27480/13-B

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	0.172	J	5.00	3	75-125	15	30	*	6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 4

Lab ID: LCS 140-27533/12-B

Lab Name: TestAmerica Knoxville | Job No.: 140-13725-3

Sample Matrix: Solid | LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	4.63		93	75	125		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 4

Lab ID: LCSD 140-27533/13-B

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	4.85		5.00	97	75-125	5	30		6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 5

Lab ID: LCS 140-27543/12-B ^5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	15.0	9.27		62	75	125	*	6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 5

Lab ID: LCSD 140-27543/13-B ^5

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	9.30		15.0	62	75-125	0	30	*	6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 6

Lab ID: LCS 140-27645/12-A

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	4.98		100	75	125		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 6

Lab ID: LCSD 140-27645/13-A

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	4.97		5.00	99	75-125	0	30		6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - STEP 7

Lab ID: LCS 140-27782/12-A

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5.00	4.99		100	75	125		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - STEP 7

Lab ID: LCSD 140-27782/13-A

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

Sample Matrix: Solid LCS Source: 90SPB1REV-1P_00015

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	5.04		5.00	101	75-125	1	30		6010B SEP

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 1

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	67		68.1		2.0		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 2

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	880		923		4.6		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 3

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	310		322		4.8		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 4

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	640		673		5.4		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 5

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	47		50.4		NC		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 6

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	110		130		15	V	6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - STEP 7

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	18		19.3		6.9		6010B SEP

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 140-13725-2

SDG No:

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	2100		2340		13	V	6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B MDL Date: 05/27/2015 16:03

Preparation Method: Total

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 1

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 15:56

Prep Method: 3010A

SEP Method: Exchangeable

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 1

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 2

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 15:57

Prep Method: 3010A

SEP Method: Carbonate

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 2

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 3

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 15:57

Prep Method: 3010A

SEP Method: Non-Crystalline

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 3

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 4

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 15:59

Prep Method: 3010A

SEP Method: Metal Hydroxide

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 4

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 5

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 16:00

Prep Method: 3010A

SEP Method: Organic-Bound

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		1.5	0.33

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 5

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 6

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 16:01

SEP Method: Acid/Sulfide

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 6

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - STEP 7

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP MDL Date: 05/27/2015 16:03

Preparation Method: Residual

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - STEP 7

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: DUO

Method: 6010B SEP XMDL Date: 01/01/2015 11:28

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Lead		10	2.6

9-IN
DETECTION LIMITS
METALS - SUM OF STEPS 1-7

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 6010B SEP MDL Date: 01/01/2015 18:02

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.5	0.11

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG No.:

ICP-AES Instrument ID: DUO Date: 09/04/2018

Analyte	Wave Length	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg
Aluminum	308.215														
Antimony	206.833									0.014628					
Arsenic	189.042									-0.001498		-0.000040			
Beryllium	313.042														
Boron	249.678								0			-0.000339			
Cadmium	226.502											0.000096			
Chromium	267.716														
Cobalt	228.616														
Copper	324.754											-0.000059			
Lead	220.353	-0.000042							-0.000412			0.000012			
Manganese	257.610											0.000011			0.000041
Nickel	231.604											-0.000026			
Selenium	196.090											-0.000084			
Silicon	250.690								0.010341						
Silver	328.068														
Sodium	589.592														
Thallium	190.856								0.004877	0.000327					
Titanium	334.941														0.000032
Tungsten	207.911														
Vanadium	292.402									-0.000909		-0.000032			
Zinc	213.856										0.001101	0.000110			

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG No.:

ICP-AES Instrument ID: DUO Date: 09/04/2018

Analyte	Wave Length	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl	V
Aluminum	308.215		0.016430												0.040677
Antimony	206.833										-0.002189				-0.001659
Arsenic	189.042		0.000593							-0.000024					
Beryllium	313.042														0.000228
Boron	249.678														
Cadmium	226.502				-0.000086										
Chromium	267.716														
Cobalt	228.616		-0.001285							-0.000009			0.001531		
Copper	324.754														
Lead	220.353		-0.001590							0.000070			-0.000511		
Manganese	257.610														
Nickel	231.604									-0.000013				0.000164	
Selenium	196.090	0.000576								0.000016					
Silicon	250.690														
Silver	328.068														
Sodium	589.592														
Thallium	190.856									-0.000010			-0.000563		0.002619
Titanium	334.941														
Tungsten	207.911														
Vanadium	292.402		-0.000547												
Zinc	213.856				0.005220										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG No.:

ICP-AES Instrument ID: DUO Date: 09/04/2018

Analyte	Wave Length	W	Zn												
Aluminum	308.215														
Antimony	206.833														
Arsenic	189.042														
Beryllium	313.042														
Boron	249.678														
Cadmium	226.502														
Chromium	267.716														
Cobalt	228.616														
Copper	324.754														
Lead	220.353														
Manganese	257.610														
Nickel	231.604														
Selenium	196.090														
Silicon	250.690														
Silver	328.068														
Sodium	589.592														
Thallium	190.856														
Titanium	334.941														
Tungsten	207.911														
Vanadium	292.402														
Zinc	213.856														

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Knoxville Job No: 140-13725-3

SDG No.:

Instrument ID: DUO Date: 09/05/2018 00:00

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Lead		90000	6010B
Lead		90000	6010B SEP

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Preparation Method: Total

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
140-13725-2	02/06/2019 09:06	27433	1.000		50
140-13725-2 DU	02/06/2019 09:06	27433	1.000		50
140-13725-4	02/06/2019 09:06	27433	1.000		50
140-13725-7	02/06/2019 09:06	27433	1.000		50
140-13725-19	02/06/2019 09:06	27433	1.000		50
140-13725-14	02/06/2019 09:06	27433	1.000		50
140-13725-17	02/06/2019 09:06	27433	1.000		50
140-13725-8	02/06/2019 09:06	27433	1.000		50
140-13725-11	02/06/2019 09:06	27433	1.000		50
140-13725-13	02/06/2019 09:06	27433	1.000		50
MB 140-27433/12-A	02/06/2019 09:06	27433	1.000		50
LCS 140-27433/13-A	02/06/2019 09:06	27433	1.000		50
LCSD 140-27433/14-A	02/06/2019 09:06	27433	1.000		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
140-13725-2	02/07/2019 08:00	27449		5	50
140-13725-2 DU	02/07/2019 08:00	27449		5	50
140-13725-4	02/07/2019 08:00	27449		5	50
140-13725-7	02/07/2019 08:00	27449		5	50
140-13725-19	02/07/2019 08:00	27449		5	50
140-13725-14	02/07/2019 08:00	27449		5	50
140-13725-17	02/07/2019 08:00	27449		5	50
140-13725-8	02/07/2019 08:00	27449		5	50
140-13725-11	02/07/2019 08:00	27449		5	50
140-13725-13	02/07/2019 08:00	27449		5	50
MB 140-27434/11-B ^4	02/07/2019 08:00	27449		5	50
LCS 140-27434/12-B ^5	02/07/2019 08:00	27449		5	50
LCSD 140-27434/13-B ^5	02/07/2019 08:00	27449		5	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
140-13725-2	02/08/2019 08:00	27478		5	50
140-13725-2 DU	02/08/2019 08:00	27478		5	50
140-13725-4	02/08/2019 08:00	27478		5	50
140-13725-7	02/08/2019 08:00	27478		5	50
140-13725-19	02/08/2019 08:00	27478		5	50
140-13725-14	02/08/2019 08:00	27478		5	50
140-13725-17	02/08/2019 08:00	27478		5	50
140-13725-8	02/08/2019 08:00	27478		5	50
140-13725-11	02/08/2019 08:00	27478		5	50
140-13725-13	02/08/2019 08:00	27478		5	50
MB 140-27450/11-B ^3	02/08/2019 08:00	27478		5	50
LCS 140-27450/12-B ^5	02/08/2019 08:00	27478		5	50
LCSD 140-27450/13-B ^5	02/08/2019 08:00	27478		5	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
140-13725-2	02/09/2019 08:00	27530		5	50
140-13725-2 DU	02/09/2019 08:00	27530		5	50
140-13725-4	02/09/2019 08:00	27530		5	50
140-13725-7	02/09/2019 08:00	27530		5	50
140-13725-19	02/09/2019 08:00	27530		5	50
140-13725-14	02/09/2019 08:00	27530		5	50
140-13725-17	02/09/2019 08:00	27530		5	50
140-13725-8	02/09/2019 08:00	27530		5	50
140-13725-11	02/09/2019 08:00	27530		5	50
140-13725-13	02/09/2019 08:00	27530		5	50
MB 140-27480/11-B	02/09/2019 08:00	27530		5	50
LCS 140-27480/12-B	02/09/2019 08:00	27530		5	50
LCSD 140-27480/13-B	02/09/2019 08:00	27530		5	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
140-13725-2	02/12/2019 08:00	27542		5	50
140-13725-2 DU	02/12/2019 08:00	27542		5	50
140-13725-4	02/12/2019 08:00	27542		5	50
140-13725-7	02/12/2019 08:00	27542		5	50
140-13725-19	02/12/2019 08:00	27542		5	50
140-13725-14	02/12/2019 08:00	27542		5	50
140-13725-17	02/12/2019 08:00	27542		5	50
140-13725-8	02/12/2019 08:00	27542		5	50
140-13725-11	02/12/2019 08:00	27542		5	50
140-13725-13	02/12/2019 08:00	27542		5	50
MB 140-27533/11-B	02/12/2019 08:00	27542		5	50
LCS 140-27533/12-B	02/12/2019 08:00	27542		5	50
LCSD 140-27533/13-B	02/12/2019 08:00	27542		5	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
140-13725-2	02/14/2019 08:00	27643		5	50
140-13725-2 DU	02/14/2019 08:00	27643		5	50
140-13725-4	02/14/2019 08:00	27643		5	50
140-13725-7	02/14/2019 08:00	27643		5	50
140-13725-19	02/14/2019 08:00	27643		5	50
140-13725-14	02/14/2019 08:00	27643		5	50
140-13725-17	02/14/2019 08:00	27643		5	50
140-13725-8	02/14/2019 08:00	27643		5	50
140-13725-11	02/14/2019 08:00	27643		5	50
140-13725-13	02/14/2019 08:00	27643		5	50
MB 140-27543/11-B ^5	02/14/2019 08:00	27643		5	50
LCS 140-27543/12-B ^5	02/14/2019 08:00	27643		5	50
LCSD 140-27543/13-B ^5	02/14/2019 08:00	27643		5	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

SEP Method: Acid/Sulfide

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
140-13725-2	02/14/2019 08:00	27645	5.000		250
140-13725-2 DU	02/14/2019 08:00	27645	5.000		250
140-13725-4	02/14/2019 08:00	27645	5.000		250
140-13725-7	02/14/2019 08:00	27645	5.000		250
140-13725-19	02/14/2019 08:00	27645	5.000		250
140-13725-14	02/14/2019 08:00	27645	5.000		250
140-13725-17	02/14/2019 08:00	27645	5.000		250
140-13725-8	02/14/2019 08:00	27645	5.000		250
140-13725-11	02/14/2019 08:00	27645	5.000		250
140-13725-13	02/14/2019 08:00	27645	5.000		250
MB 140-27645/11-A	02/14/2019 08:00	27645	5.000		250
LCS 140-27645/12-A	02/14/2019 08:00	27645	5.000		250
LCSD 140-27645/13-A	02/14/2019 08:00	27645	5.000		250

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Preparation Method: Residual

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
140-13725-2	02/19/2019 07:31	27782	1.000		50
140-13725-2 DU	02/19/2019 07:31	27782	1.000		50
140-13725-4	02/19/2019 07:31	27782	1.000		50
140-13725-7	02/19/2019 07:31	27782	1.000		50
140-13725-19	02/19/2019 07:31	27782	1.000		50
140-13725-14	02/19/2019 07:31	27782	1.000		50
140-13725-17	02/19/2019 07:31	27782	1.000		50
140-13725-8	02/19/2019 07:31	27782	1.000		50
140-13725-11	02/19/2019 07:31	27782	1.000		50
140-13725-13	02/19/2019 07:31	27782	1.000		50
MB 140-27782/11-A	02/19/2019 07:31	27782	1.000		50
LCS 140-27782/12-A	02/19/2019 07:31	27782	1.000		50
LCSD 140-27782/13-A	02/19/2019 07:31	27782	1.000		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B

Start Date: 02/20/2019 10:10 End Date: 02/20/2019 15:17

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ICIS 140-27848/1	1		10:10	X																			
ZZZZZZ			10:15																				
CCVL 140-27848/3	1		10:20	X																			
ICV 140-27848/4	1		10:25	X																			
ICB 140-27848/5	1		10:30	X																			
ZZZZZZ			10:35																				
ICSA 140-27848/7	1		10:42	X																			
ICSAB 140-27848/8	1		10:47	X																			
CRI 140-27848/9	1		10:52	X																			
CCV 140-27848/10	1		10:57	X																			
CCB 140-27848/11	1		11:02	X																			
MB 140-27782/11-A	1	0	11:07	X																			
LCS 140-27782/12-A	1	0	11:12	X																			
LCSD 140-27782/13-A	1	0	11:17	X																			
MB 140-27433/12-A	1	T	11:22	X																			
LCS 140-27433/13-A	1	T	11:27	X																			
LCSD 140-27433/14-A	1	T	11:32	X																			
ZZZZZZ			11:37																				
ZZZZZZ			11:42																				
ZZZZZZ			11:48																				
ZZZZZZ			11:53																				
CCV 140-27848/22	1		11:58	X																			
CCB 140-27848/23	1		12:02	X																			
ZZZZZZ			12:07																				
140-13725-7	2	0	12:12	X																			
140-13725-19	2	0	12:17	X																			
ZZZZZZ			12:22																				
ZZZZZZ			12:27																				
140-13725-8	2	0	12:33	X																			
140-13725-11	2	0	12:38	X																			
ZZZZZZ			12:43																				
140-13725-2	2	T	12:47	X																			
140-13725-2 SD	10	T	12:53	X																			
CCV 140-27848/34	1		12:58	X																			
CCB 140-27848/35	1		13:03	X																			
140-13725-2 DU	2	T	13:08	X																			
140-13725-4	2	T	13:13	X																			
140-13725-7	2	T	13:19	X																			
140-13725-19	2	T	13:24	X																			
ZZZZZZ			13:30																				
140-13725-17	2	T	13:35	X																			
140-13725-8	2	T	13:41	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B

Start Date: 02/20/2019 10:10 End Date: 02/20/2019 15:17

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			13:46																				
140-13725-13	2	T	13:52	X																			
CCV 140-27848/45	1		13:57	X																			
CCB 140-27848/46	1		14:02	X																			
140-13725-2	1	0	14:10	X																			
140-13725-2 DU	1	0	14:15	X																			
140-13725-2 SD	5	0	14:21	X																			
140-13725-4	1	0	14:26	X																			
140-13725-14	1	0	14:31	X																			
140-13725-17	1	0	14:37	X																			
140-13725-13	1	0	14:42	X																			
140-13725-14	20	T	14:47	X																			
140-13725-11	10	T	14:52	X																			
CCV 140-27848/56	1		14:57	X																			
CCB 140-27848/57	1		15:02	X																			
ZZZZZZ			15:07																				
ZZZZZZ			15:12																				
ZZZZZZ			15:17																				

Prep Types

0 = Step 7

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B SEP

Start Date: 02/13/2019 09:54 End Date: 02/13/2019 14:44

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ICIS 140-27652/1	1		09:54	X																			
ZZZZZZ			09:59																				
CCVL 140-27652/3	1		10:04	X																			
ICV 140-27652/4	1		10:09	X																			
ICB 140-27652/5	1		10:15	X																			
ICSA 140-27652/6	1		10:20	X																			
ICSAB 140-27652/7	1		10:25	X																			
CRI 140-27652/8			10:30																				
CCV 140-27652/9			10:35																				
CCB 140-27652/10			10:40																				
ZZZZZZ			10:45																				
ZZZZZZ			10:51																				
ZZZZZZ			10:56																				
ZZZZZZ			11:01																				
ZZZZZZ			11:06																				
ZZZZZZ			11:11																				
ZZZZZZ			11:16																				
ZZZZZZ			11:21																				
CRI 140-27652/19	1		11:26	X																			
CCV 140-27652/20	1		11:31	X																			
CCB 140-27652/21	1		11:36	X																			
MB 140-27434/11-B ^4	4	O	11:42	X																			
LCS 140-27434/12-B ^5	5	O	11:47	X																			
LCSD 140-27434/13-B ^5	5	O	11:52	X																			
140-13725-2	4	O	11:57	X																			
140-13725-2 DU	4	O	12:02	X																			
140-13725-4	4	O	12:07	X																			
140-13725-7	4	O	12:13	X																			
140-13725-19	4	O	12:18	X																			
140-13725-14	4	O	12:23	X																			
140-13725-2 SD	20	O	12:28	X																			
CCV 140-27652/32	1		12:33	X																			
CCB 140-27652/33	1		12:38	X																			
140-13725-17	4	O	12:43	X																			
140-13725-8	4	O	12:48	X																			
140-13725-11	4	O	12:54	X																			
140-13725-13	4	O	12:59	X																			
MB 140-27450/11-B ^3	3	$	13:04	X																			
LCS 140-27450/12-B ^5	5	$	13:09	X																			
LCSD 140-27450/13-B ^5	5	$	13:15	X																			
140-13725-2	3	$	13:20	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B SEP

Start Date: 02/13/2019 09:54 End Date: 02/13/2019 14:44

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
140-13725-2 DU	3	$	13:25	X																			
140-13725-2 SD	15	$	13:30	X																			
CCV 140-27652/44	1		13:36	X																			
CCB 140-27652/45	1		13:41	X																			
140-13725-4	3	$	13:46	X																			
140-13725-7	3	$	13:51	X																			
140-13725-19	3	$	13:56	X																			
ZZZZZZ			14:02																				
140-13725-17	3	$	14:07	X																			
140-13725-8	3	$	14:12	X																			
140-13725-11	3	$	14:17	X																			
140-13725-13	3	$	14:23	X																			
140-13725-14	10	$	14:29	X																			
CCV 140-27652/55	1		14:34	X																			
CCB 140-27652/56	1		14:39	X																			
ZZZZZZ			14:44																				

Prep Types

$ = Step 2

O = Step 1

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B SEP

Start Date: 02/14/2019 09:46 End Date: 02/14/2019 14:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ICIS 140-27702/1	1		09:46	X																			
ZZZZZZ			09:51																				
CCVL 140-27702/3	1		09:56	X																			
ICV 140-27702/4	1		10:01	X																			
ICB 140-27702/5	1		10:06	X																			
ICSA 140-27702/6	1		10:11	X																			
ICSAB 140-27702/7	1		10:17	X																			
CRI 140-27702/8			10:22																				
CCV 140-27702/9			10:27																				
CCB 140-27702/10			10:32																				
ZZZZZZ			10:37																				
ZZZZZZ			10:42																				
ZZZZZZ			10:47																				
ZZZZZZ			10:52																				
ZZZZZZ			10:58																				
ZZZZZZ			11:03																				
ZZZZZZ			11:08																				
ZZZZZZ			11:13																				
ZZZZZZ			11:18																				
ZZZZZZ			11:24																				
CCV 140-27702/21			11:29																				
CCB 140-27702/22			11:34																				
ZZZZZZ			11:39																				
ZZZZZZ			11:44																				
ZZZZZZ			11:49																				
ZZZZZZ			11:55																				
ZZZZZZ			12:00																				
ZZZZZZ			12:05																				
ZZZZZZ			12:10																				
ZZZZZZ			12:16																				
ZZZZZZ			12:21																				
CRI 140-27702/32	1		12:26	X																			
CCV 140-27702/33	1		12:31	X																			
CCB 140-27702/34	1		12:36	X																			
MB 140-27480/11-B	1	!	12:42	X																			
LCS 140-27480/12-B	1	!	12:47	X																			
LCSD 140-27480/13-B	1	!	12:52	X																			
140-13725-2	1	!	12:57	X																			
140-13725-2 DU	1	!	13:02	X																			
140-13725-4	1	!	13:07	X																			
140-13725-7	1	!	13:12	X																			
140-13725-19	1	!	13:18	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B SEP

Start Date: 02/14/2019 09:46 End Date: 02/14/2019 14:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
140-13725-14	1	!	13:23	X																			
140-13725-2 SD	5	!	13:29	X																			
CCV 140-27702/45	1		13:34	X																			
CCB 140-27702/46	1		13:39	X																			
140-13725-17	1	!	13:44	X																			
140-13725-8	1	!	13:49	X																			
140-13725-11	1	!	13:55	X																			
140-13725-13	1	!	14:00	X																			
CCV 140-27702/51	1		14:05	X																			
CCB 140-27702/52	1		14:10	X																			
ZZZZZZ			14:15																				
ZZZZZZ			14:21																				
ZZZZZZ			14:26																				

Prep Types
! = Step 3

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B SEP

Start Date: 02/19/2019 09:50 End Date: 02/19/2019 15:40

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ICIS 140-27809/1	1		09:50	X																			
ZZZZZZ			09:55																				
CCVL 140-27809/3	1		10:00	X																			
ICV 140-27809/4	1		10:05	X																			
ICB 140-27809/5	1		10:10	X																			
ICSA 140-27809/6	1		10:15	X																			
ICSAB 140-27809/7	1		10:21	X																			
CRI 140-27809/8	1		10:26	X																			
CCV 140-27809/9	1		10:31	X																			
CCB 140-27809/10	1		10:36	X																			
MB 140-27533/11-B	1	#	10:41	X																			
LCS 140-27533/12-B	1	#	10:46	X																			
LCSD 140-27533/13-B	1	#	10:51	X																			
140-13725-2	1	#	10:56	X																			
140-13725-2 DU	1	#	11:01	X																			
140-13725-4	1	#	11:06	X																			
140-13725-7	1	#	11:11	X																			
140-13725-19	1	#	11:16	X																			
140-13725-14	1	#	11:22	X																			
140-13725-2 SD	5	#	11:27	X																			
CCV 140-27809/21	1		11:32	X																			
CCB 140-27809/22	1		11:37	X																			
140-13725-17	1	#	11:42	X																			
140-13725-8	1	#	11:47	X																			
140-13725-11	1	#	11:52	X																			
140-13725-13	1	#	11:57	X																			
MB 140-27543/11-B ^5	5	?	12:02	X																			
LCS 140-27543/12-B ^5	5	?	12:08	X																			
LCSD 140-27543/13-B ^5	5	?	12:13	X																			
140-13725-2	5	?	12:18	X																			
140-13725-2 DU	5	?	12:24	X																			
140-13725-2 SD	25	?	12:29	X																			
CCV 140-27809/33	1		12:34	X																			
CCB 140-27809/34	1		12:39	X																			
140-13725-4	5	?	12:44	X																			
140-13725-7	5	?	12:50	X																			
140-13725-19	5	?	12:55	X																			
140-13725-14	5	?	13:00	X																			
140-13725-17	5	?	13:06	X																			
140-13725-8	5	?	13:11	X																			
140-13725-11	5	?	13:16	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: DUO Method: 6010B SEP

Start Date: 02/19/2019 09:50 End Date: 02/19/2019 15:40

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
140-13725-13	5	?	13:22	X																			
CCV 140-27809/43	1		13:27	X																			
CCB 140-27809/44	1		13:32	X																			
MB 140-27645/11-A	1	@	13:37	X																			
LCS 140-27645/12-A	1	@	13:42	X																			
LCSD 140-27645/13-A	1	@	13:47	X																			
140-13725-2	1	@	13:52	X																			
140-13725-2 DU	1	@	13:57	X																			
140-13725-4	1	@	14:03	X																			
140-13725-7	1	@	14:08	X																			
140-13725-19	1	@	14:13	X																			
ZZZZZZ			14:18																				
140-13725-2 SD	5	@	14:23	X																			
CCV 140-27809/55	1		14:47	X																			
CCB 140-27809/56	1		14:52	X																			
140-13725-17	1	@	14:57	X																			
140-13725-8	1	@	15:02	X																			
ZZZZZZ			15:07																				
140-13725-13	1	@	15:14	X																			
140-13725-14	10	@	15:20	X																			
140-13725-11	5	@	15:25	X																			
CCV 140-27809/63	1		15:30	X																			
CCB 140-27809/64	1		15:35	X																			
ZZZZZZ			15:40																				

Prep Types
= Step 4
? = Step 5
@ = Step 6

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: NOEQUIP Method: 6010B SEP

Start Date: 02/21/2019 15:43 End Date: 02/21/2019 15:43

Lab Sample ID	D / F	Type	Time	Analytes																			
				Pb																			
140-13725-2	1	&	15:43	X																			
140-13725-4	1	&	15:43	X																			
140-13725-7	1	&	15:43	X																			
140-13725-19	1	&	15:43	X																			
140-13725-14	1	&	15:43	X																			
140-13725-17	1	&	15:43	X																			
140-13725-8	1	&	15:43	X																			
140-13725-11	1	&	15:43	X																			
140-13725-13	1	&	15:43	X																			

Prep Types

& = Sum of Steps 1-7

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/13/2019 End Date: 02/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
ICIS 140-27652/1	09:54										
CCVL 140-27652/3	10:04	99		99							
ICV 140-27652/4	10:09	99		99							
ICB 140-27652/5	10:15	100		100							
ICSA 140-27652/6	10:20	93		91							
ICSAB 140-27652/7	10:25	96		95							
CRI 140-27652/19	11:26	100		99							
CCV 140-27652/20	11:31	98		98							
CCB 140-27652/21	11:36	100		99							
MB 140-27434/11-B ^4	11:42	95		95							
LCS 140-27434/12-B ^5	11:47	97		96							
LCSD 140-27434/13-B ^5	11:52	98		96							
140-13725-2	11:57	96		96							
140-13725-2 DU	12:02	95		94							
140-13725-4	12:07	95		94							
140-13725-7	12:13	95		95							
140-13725-19	12:18	95		94							
140-13725-14	12:23	96		95							
140-13725-2 SD	12:28	100		100							
CCV 140-27652/32	12:33	98		98							
CCB 140-27652/33	12:38	100		99							
140-13725-17	12:43	95		95							
140-13725-8	12:48	95		95							
140-13725-11	12:54	95		95							
140-13725-13	12:59	95		94							
MB 140-27450/11-B ^3	13:04	94		92							
LCS 140-27450/12-B ^5	13:09	96		94							
LCSD 140-27450/13-B ^5	13:15	96		95							
140-13725-2	13:20	95		93							
140-13725-2 DU	13:25	95		92							
140-13725-2 SD	13:30	97		96							
CCV 140-27652/44	13:36	96		96							
CCB 140-27652/45	13:41	99		98							
140-13725-4	13:46	96		95							
140-13725-7	13:51	95		93							
140-13725-19	13:56	99		98							

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/13/2019 End Date: 02/13/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
140-13725-14	14:02	100		100							
140-13725-17	14:07	96		95							
140-13725-8	14:12	100		98							
140-13725-11	14:17	98		96							
140-13725-13	14:23	96		95							
140-13725-14	14:29	99		98							
CCV 140-27652/55	14:34	96		97							
CCB 140-27652/56	14:39	98		98							

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/14/2019 End Date: 02/14/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
ICIS 140-27702/1	09:46										
CCVL 140-27702/3	09:56	99		99							
ICV 140-27702/4	10:01	99		99							
ICB 140-27702/5	10:06	99		99							
ICSA 140-27702/6	10:11	92		91							
ICSAB 140-27702/7	10:17	95		95							
CRI 140-27702/32	12:26	98		98							
CCV 140-27702/33	12:31	96		97							
CCB 140-27702/34	12:36	98		99							
MB 140-27480/11-B	12:42	98		100							
LCS 140-27480/12-B	12:47	98		99							
LCSD 140-27480/13-B	12:52	98		98							
140-13725-2	12:57	100		101							
140-13725-2 DU	13:02	99		100							
140-13725-4	13:07	103		105							
140-13725-7	13:12	99		100							
140-13725-19	13:18	115		116							
140-13725-14	13:23	104		105							
140-13725-2 SD	13:29	98		99							
CCV 140-27702/45	13:34	95		96							
CCB 140-27702/46	13:39	97		98							
140-13725-17	13:44	103		104							
140-13725-8	13:49	110		111							
140-13725-11	13:55	100		101							
140-13725-13	14:00	103		104							
CCV 140-27702/51	14:05	95		97							
CCB 140-27702/52	14:10	98		100							

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/19/2019 End Date: 02/19/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
ICIS 140-27809/1	09:50										
CCVL 140-27809/3	10:00	99		100							
ICV 140-27809/4	10:05	99		99							
ICB 140-27809/5	10:10	99		100							
ICSA 140-27809/6	10:15	93		91							
ICSAB 140-27809/7	10:21	96		95							
CRI 140-27809/8	10:26	101		100							
CCV 140-27809/9	10:31	98		99							
CCB 140-27809/10	10:36	100		100							
MB 140-27533/11-B	10:41	100		101							
LCS 140-27533/12-B	10:46	99		100							
LCSD 140-27533/13-B	10:51	99		100							
140-13725-2	10:56	104		106							
140-13725-2 DU	11:01	104		106							
140-13725-4	11:06	104		106							
140-13725-7	11:11	103		105							
140-13725-19	11:16	106		108							
140-13725-14	11:22	108		110							
140-13725-2 SD	11:27	102		102							
CCV 140-27809/21	11:32	98		97							
CCB 140-27809/22	11:37	99		99							
140-13725-17	11:42	104		107							
140-13725-8	11:47	103		105							
140-13725-11	11:52	103		104							
140-13725-13	11:57	103		105							
MB 140-27543/11-B ^5	12:02	92		90							
LCS 140-27543/12-B ^5	12:08	93		91							
LCSD 140-27543/13-B ^5	12:13	94		92							
140-13725-2	12:18	93		90							
140-13725-2 DU	12:24	93		90							
140-13725-2 SD	12:29	97		96							
CCV 140-27809/33	12:34	97		97							
CCB 140-27809/34	12:39	99		99							
140-13725-4	12:44	92		89							
140-13725-7	12:50	93		90							
140-13725-19	12:55	93		90							
140-13725-14	13:00	93		90							
140-13725-17	13:06	93		90							

FORM XV - IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/19/2019 End Date: 02/19/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
140-13725-8	13:11	93		90							
140-13725-11	13:16	92		90							
140-13725-13	13:22	92		90							
CCV 140-27809/43	13:27	97		97							
CCB 140-27809/44	13:32	99		99							
MB 140-27645/11-A	13:37	100		100							
LCS 140-27645/12-A	13:42	98		98							
LCSD 140-27645/13-A	13:47	98		97							
140-13725-2	13:52	107		105							
140-13725-2 DU	13:57	107		105							
140-13725-4	14:03	103		101							
140-13725-7	14:08	104		102							
140-13725-19	14:13	106		103							
140-13725-14	14:18	105		103							
140-13725-2 SD	14:23	101		100							
CCV 140-27809/55	14:47	95		95							
CCB 140-27809/56	14:52	98		97							
140-13725-17	14:57	103		101							
140-13725-8	15:02	103		100							
140-13725-11	15:07	101		99							
140-13725-13	15:14	102		100							
140-13725-14	15:20	100		99							
140-13725-11	15:25	99		99							
CCV 140-27809/63	15:30	96		96							
CCB 140-27809/64	15:35	98		98							

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/20/2019 End Date: 02/20/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
ICIS 140-27848/1	10:10										
CCVL 140-27848/3	10:20	99		99							
ICV 140-27848/4	10:25	99		99							
ICB 140-27848/5	10:30	100		99							
ICSA 140-27848/7	10:42	88		89							
ICSAB 140-27848/8	10:47	96		93							
CRI 140-27848/9	10:52	100		99							
CCV 140-27848/10	10:57	97		96							
CCB 140-27848/11	11:02	99		99							
MB 140-27782/11-A	11:07	99		101							
LCS 140-27782/12-A	11:12	96		98							
LCSD 140-27782/13-A	11:17	96		98							
MB 140-27433/12-A	11:22	99		100							
LCS 140-27433/13-A	11:27	96		98							
LCSD 140-27433/14-A	11:32	96		98							
140-13725-2	11:42	97		96							
140-13725-2 DU	11:48	97		96							
140-13725-2 SD	11:53	101		100							
CCV 140-27848/22	11:58	98		99							
CCB 140-27848/23	12:02	100		100							
140-13725-4	12:07	98		98							
140-13725-7	12:12	97		97							
140-13725-19	12:17	101		100							
140-13725-14	12:22	96		96							
140-13725-17	12:27	98		97							
140-13725-8	12:33	100		99							
140-13725-11	12:38	98		97							
140-13725-13	12:43	99		97							
140-13725-2	12:47	106		105							
140-13725-2 SD	12:53	103		102							
CCV 140-27848/34	12:58	98		98							
CCB 140-27848/35	13:03	99		99							
140-13725-2 DU	13:08	112		111							
140-13725-4	13:13	109		107							
140-13725-7	13:19	108		108							
140-13725-19	13:24	126		119							
140-13725-14	13:30	114		112							
140-13725-17	13:35	117		116							
140-13725-8	13:41	111		109							
140-13725-11	13:46	109		106							
140-13725-13	13:52	108		105							

FORM XV - IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

ICP Instrument ID: DUO Start Date: 02/20/2019 End Date: 02/20/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 224.306	Q	Element Y 371.030	Q	Element	Q	Element	Q	Element	Q
CCV 140-27848/45	13:57	97		98							
CCB 140-27848/46	14:02	99		99							
140-13725-2	14:10	92		93							
140-13725-2 DU	14:15	93		94							
140-13725-2 SD	14:21	99		98							
140-13725-4	14:26	97		95							
140-13725-14	14:31	95		95							
140-13725-17	14:37	96		95							
140-13725-13	14:42	96		95							
140-13725-14	14:47	101		101							
140-13725-11	14:52	101		100							
CCV 140-27848/56	14:57	96		97							
CCB 140-27848/57	15:02	98		98							

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27433 Batch Start Date: 02/06/19 09:06 Batch Analyst: Collins, Kerry N

Batch Method: Total Batch End Date: 02/06/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	90L1HgCA1000P 00034	90SPAREV-1P 00015	90SPB1REV-1P 00015
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-17	SB-BR-04 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-11	SB-AR-03 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Total, 6010B	T	1.000 g	50 mL	NO NOMINAL AMOUNT			
MB 140-27433/12		Total, 6010B		1.000 g	50 mL	NO NOMINAL AMOUNT			
LCS 140-27433/13		Total, 6010B		1.000 g	50 mL	NO NOMINAL AMOUNT	0.25 mL	0.5 mL	0.5 mL
LCSD 140-27433/14		Total, 6010B		1.000 g	50 mL	NO NOMINAL AMOUNT	0.25 mL	0.5 mL	0.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	90SPCREV-1P 00016					
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Total, 6010B	T						
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Total, 6010B	T						
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Total, 6010B	T						
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Total, 6010B	T						
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Total, 6010B	T						
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Total, 6010B	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27433 Batch Start Date: 02/06/19 09:06 Batch Analyst: Collins, Kerry N

Batch Method: Total Batch End Date: 02/06/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	90SPCREV-1P 00016					
140-13725-A-17	SB-BR-04 (00.0-00.5)	Total, 6010B	T						
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Total, 6010B	T						
140-13725-A-11	SB-AR-03 (00.0-00.5)	Total, 6010B	T						
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Total, 6010B	T						
MB 140-27433/12		Total, 6010B							
LCS 140-27433/13		Total, 6010B		0.5 mL					
LCSD 140-27433/14		Total, 6010B		0.5 mL					

Batch Notes	
Balance ID	mt2
Boric Acid ID	182288 1ml
Digestion Tubes ID	274661-5420
Hydrochloric Acid ID	201960 3ml
Hydrofluoric Acid ID	170516 1ml
Nitric Acid ID	207002 10ml
Hot Block ID	B
Pipette/Syringe/Dispenser ID	met-016
Perform Calculation (0=No, 1=Yes)	1
Temperature	93 Degrees C
Thermometer ID	metals 16

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27434 Batch Start Date: 02/06/19 09:12 Batch Analyst: Collins, Kerry N

Batch Method: Exchangeable Batch End Date: 02/06/19 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-17	SB-BR-04 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Exchangeable, 3010A, 6010B SEP	O	5.000 g	25 mL				
MB 140-27434/11		Exchangeable, 3010A, 6010B SEP		5.000 g	25 mL				
LCS 140-27434/12		Exchangeable, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	
LCSD 140-27434/13		Exchangeable, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27434 Batch Start Date: 02/06/19 09:12 Batch Analyst: Collins, Kerry N

Batch Method: Exchangeable Batch End Date: 02/06/19 15:00

Batch Notes	
Balance ID	mt2
Centrifuge End Date Time	2-6-19 12:05
Centrifuge Start Date Time	2-6-19 11:35
Extraction End Date	2-6-19 11:20
Extraction Solution ID	194251 25ml
Extraction Start Date	2-6-19 10:20
Pipette/Syringe/Dispenser ID	met-014 S7515-10 no lot# on bag
Syringe Filter Lot #	R7EA01040

Basis	Basis Description
O	Step 1

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27449 Batch Start Date: 02/07/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/07/19 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
140-13725-A-2-D	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-2-E DU	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-4-C	SB-ED-02-03 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-7-C	SB-ED-05-07 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-19-C	SB-BR-03-06 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-14-C	SB-BR-02-02 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-17-C	SB-BR-04 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-8-C	SB-AR-01-02 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-11-C	SB-AR-03 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
140-13725-A-13-E	SB-AR-04-06 (00.0-00.5)	3010A, 6010B SEP	O	5 mL	50 mL				
MB 140-27434/11-A		3010A, 6010B SEP		5 mL	50 mL				
LCS 140-27434/12-A		3010A, 6010B SEP		5 mL	50 mL				
LCSD 140-27434/13-A		3010A, 6010B SEP		5 mL	50 mL				

Batch Notes	
Digestion Unit ID	E
Hydrochloric Acid ID	201960 2.5ml
Nitric Acid ID	206946 3ml
Pipette/Syringe/Dispenser ID	P200
Thermometer ID	metals 10
Digestion Tube/Cup ID	091418
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27449 Batch Start Date: 02/07/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/07/19 17:00

Basis	Basis Description
O	Step 1

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27450 Batch Start Date: 02/07/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Carbonate Batch End Date: 02/07/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	AnalysisComment
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				white precipitate after acidifying to pH<2
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				sample turned milky, precipitated when acidifying to pH<2
140-13725-A-17	SB-BR-04 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				white precipitate after acidifying to pH<2
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Carbonate, 3010A, 6010B SEP	$	5.000 g	25 mL				
MB 140-27450/11		Carbonate, 3010A, 6010B SEP		5.000 g	25 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27450 Batch Start Date: 02/07/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Carbonate Batch End Date: 02/07/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	AnalysisComment
LCS 140-27450/12		Carbonate, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	white precipitate bottom of LCS/LCSD after centrifuging
LCSD 140-27450/13		Carbonate, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	white precipitate bottom of LCS/LCSD after centrifuging

Batch Notes	
Centrifuge End Date Time	2-7-19 12:05
Centrifuge Start Date Time	2-7-19 11:35
Extraction End Date	2-7-19 11:10
Extraction Solution ID	194254 25ml
Extraction Start Date	2-7-19 8:10
Pipette/Syringe/Dispenser ID	met-014 S7515-10 no lot# on bag
Syringe Filter Lot #	R7EA01040

Basis	Basis Description
$	Step 2

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27478 Batch Start Date: 02/08/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/08/19 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
140-13725-A-2-H	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-2-I DU	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-4-E	SB-ED-02-03 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-7-E	SB-ED-05-07 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-19-E	SB-BR-03-06 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-14-E	SB-BR-02-02 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-17-E	SB-BR-04 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-8-E	SB-AR-01-02 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-11-E	SB-AR-03 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
140-13725-A-13-G	SB-AR-04-06 (00.0-00.5)	3010A, 6010B SEP	$	5 mL	50 mL				
MB 140-27450/11-A		3010A, 6010B SEP		5 mL	50 mL				
LCS 140-27450/12-A		3010A, 6010B SEP		5 mL	50 mL				
LCSD 140-27450/13-A		3010A, 6010B SEP		5 mL	50 mL				

Batch Notes	
Digestion Unit ID	E
Hydrochloric Acid ID	208260 2.5ml
Nitric Acid ID	206946 3ml
Pipette/Syringe/Dispenser ID	P200
Thermometer ID	metals 10
Digestion Tube/Cup ID	091418
Temperature - Uncorrected - End	91 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27478 Batch Start Date: 02/08/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/08/19 17:00

Basis	Basis Description
$	Step 2

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27480 Batch Start Date: 02/08/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Non-Crystalline Batch End Date: 02/08/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	AnalysisComment
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-17	SB-BR-04 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Non-Crystalline, 3010A, 6010B SEP	!	5.000 g	25 mL				
MB 140-27480/11		Non-Crystalline, 3010A, 6010B SEP		5.000 g	25 mL				
LCS 140-27480/12		Non-Crystalline, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	white precipitate bottom LCS/LCSD after centrifuging

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27480 Batch Start Date: 02/08/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Non-Crystalline Batch End Date: 02/08/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	AnalysisComment
LCSD 140-27480/13		Non-Crystalline, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	white precipitate bottom LCS/LCSD after centrifuging

Batch Notes	
Centrifuge End Date Time	2-8-19 13:30
Centrifuge Start Date Time	2-8-19 13:00
Extraction End Date	2-8-19 12:20
Extraction Solution ID	193646 25ml
Extraction Start Date	2-8-19 8:20
Pipette/Syringe/Dispenser ID	met-014 S7515-10 no lot# on bag
Syringe Filter Lot #	R7EA01040

Basis	Basis Description
!	Step 3

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27530 Batch Start Date: 02/09/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/09/19 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
140-13725-A-2-L	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-2-MDU	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-4-G	SB-ED-02-03 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-7-G	SB-ED-05-07 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-19-G	SB-BR-03-06 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-14-G	SB-BR-02-02 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-17-G	SB-BR-04 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-8-G	SB-AR-01-02 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-11-G	SB-AR-03 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
140-13725-A-13-I	SB-AR-04-06 (00.0-00.5)	3010A, 6010B SEP	!	5 mL	50 mL				
MB 140-27480/11-A		3010A, 6010B SEP		5 mL	50 mL				
LCS 140-27480/12-A		3010A, 6010B SEP		5 mL	50 mL				
LCSD 140-27480/13-A		3010A, 6010B SEP		5 mL	50 mL				

Batch Notes	
Digestion Unit ID	E
Hydrochloric Acid ID	208260 2.5ml
Nitric Acid ID	206946 3ml
Pipette/Syringe/Dispenser ID	P200
Thermometer ID	metals 10
Digestion Tube/Cup ID	091418
Temperature - Uncorrected - End	91 Degrees C
Temperature - Uncorrected - Start	91 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27530 Batch Start Date: 02/09/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/09/19 17:00

Basis	Basis Description
!	Step 3

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27533 Batch Start Date: 02/09/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Metal Hydroxide Batch End Date: 02/09/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-17	SB-BR-04 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Metal Hydroxide, 3010A, 6010B SEP	#	5.000 g	25 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27533 Batch Start Date: 02/09/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Metal Hydroxide Batch End Date: 02/09/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	
MB 140-27533/11		Metal Hydroxide, 3010A, 6010B SEP		5.000 g	25 mL				
LCS 140-27533/12		Metal Hydroxide, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	
LCSD 140-27533/13		Metal Hydroxide, 3010A, 6010B SEP		5.000 g	25 mL	2.5 mL	2.5 mL	2.5 mL	

Batch Notes	
Centrifuge End Date Time	2-9-19 15:55
Centrifuge Start Date Time	2-9-19 15:25
Extraction End Date	2-9-19 14:15
Extraction Solution ID	194257 25ml
Extraction Start Date	2-9-19 8:15
Hot Block ID	B
Pipette/Syringe/Dispenser ID	met-014 S7515-10 no lot# on bag
Syringe Filter Lot #	R7EA01040
Temperature	93 Degrees C
Thermometer ID	metals 16

Basis	Basis Description
#	Step 4

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27542 Batch Start Date: 02/12/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/12/19 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
140-13725-A-2-P	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-2-Q DU	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-4-I	SB-ED-02-03 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-7-I	SB-ED-05-07 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-19-I	SB-BR-03-06 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-14-I	SB-BR-02-02 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-17-I	SB-BR-04 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-8-I	SB-AR-01-02 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-11-I	SB-AR-03 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
140-13725-A-13-K	SB-AR-04-06 (00.0-00.5)	3010A, 6010B SEP	#	5 mL	50 mL				
MB 140-27533/11-A		3010A, 6010B SEP		5 mL	50 mL				
LCS 140-27533/12-A		3010A, 6010B SEP		5 mL	50 mL				
LCSD 140-27533/13-A		3010A, 6010B SEP		5 mL	50 mL				

Batch Notes	
Digestion Unit ID	E
Hydrochloric Acid ID	208260 2.5ml
Nitric Acid ID	206946 3ml
Pipette/Syringe/Dispenser ID	P200
Thermometer ID	metals 10
Digestion Tube/Cup ID	091418
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27542 Batch Start Date: 02/12/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/12/19 17:00

Basis	Basis Description
#	Step 4

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27543 Batch Start Date: 02/12/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Organic-Bound Batch End Date: 02/13/19 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	AnalysisComment
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-17	SB-BR-04 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Organic-Bound, 3010A, 6010B SEP	?	5.000 g	75 mL				
MB 140-27543/11		Organic-Bound, 3010A, 6010B SEP		5.000 g	75 mL				
LCS 140-27543/12		Organic-Bound, 3010A, 6010B SEP		5.000 g	75 mL	7.5 mL	7.5 mL	7.5 mL	brown precipitate bottom LCS/LCSD after centrifuging

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27543 Batch Start Date: 02/12/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Organic-Bound Batch End Date: 02/13/19 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	AnalysisComment
LCSD 140-27543/13		Organic-Bound, 3010A, 6010B SEP		5.000 g	75 mL	7.5 mL	7.5 mL	7.5 mL	brown precipitate bottom LCS/LCSD after centrifuging

Batch Notes	
Centrifuge End Date Time	2-12-19 12:05 15:10 2-13-19 12:25
Centrifuge Start Date Time	2-12-19 11:35 14:40 2-13-19 11:55
Extraction End Date	2-12-19 10:20 13:30 2-13-19 10:15
Extraction Solution ID	186503 75ml
Extraction Start Date	2-12-19 9:20 12:30 2-13-19 9:15
Hot Block ID	B
Pipette/Syringe/Dispenser ID	met-014 S7515-10 no lot# on bag
Syringe Filter Lot #	R7EA01040
Temperature	2-12-19 93 2-13-19 92 Degrees C
Thermometer ID	metals 16

Basis	Basis Description
?	Step 5

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27643 Batch Start Date: 02/14/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/14/19 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
140-13725-A-2-T	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-2-U DU	SB-ED-01-05 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-4-K	SB-ED-02-03 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-7-K	SB-ED-05-07 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-19-K	SB-BR-03-06 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-14-K	SB-BR-02-02 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-17-K	SB-BR-04 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-8-K	SB-AR-01-02 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-11-K	SB-AR-03 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
140-13725-A-13-M	SB-AR-04-06 (00.0-00.5)	3010A, 6010B SEP	?	5 mL	50 mL				
MB 140-27543/11-A		3010A, 6010B SEP		5 mL	50 mL				
LCS 140-27543/12-A		3010A, 6010B SEP		5 mL	50 mL				
LCSD 140-27543/13-A		3010A, 6010B SEP		5 mL	50 mL				

Batch Notes	
Digestion Unit ID	E
Hydrochloric Acid ID	208260 2.5ml
Nitric Acid ID	206946 3ml
Pipette/Syringe/Dispenser ID	P200
Thermometer ID	metals 10
Digestion Tube/Cup ID	091418
Temperature - Uncorrected - End	93 Degrees C
Temperature - Uncorrected - Start	93 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27643 Batch Start Date: 02/14/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: 3010A Batch End Date: 02/14/19 17:00

Basis	Basis Description
?	Step 5

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27645 Batch Start Date: 02/14/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Acid/Sulfide Batch End Date: 02/14/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016	
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-17	SB-BR-04 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-11	SB-AR-03 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Acid/Sulfide , 6010B SEP	@	5.000 g	250 mL				
MB 140-27645/11		Acid/Sulfide , 6010B SEP		5.000 g	250 mL				
LCS 140-27645/12		Acid/Sulfide , 6010B SEP		5.000 g	250 mL	2.5 mL	2.5 mL	2.5 mL	
LCSD 140-27645/13		Acid/Sulfide , 6010B SEP		5.000 g	250 mL	2.5 mL	2.5 mL	2.5 mL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27645 Batch Start Date: 02/14/19 08:00 Batch Analyst: Collins, Kerry N

Batch Method: Acid/Sulfide Batch End Date: 02/14/19 16:00

Batch Notes	
Centrifuge End Date Time	2-14-19 11:50
Centrifuge Start Date Time	2-14-19 11:20
Extraction End Date	2-14-19 10:25
Extraction Solution ID	195928 25ml
Extraction Start Date	2-14-19 9:25
Filter ID	MPSF180516
Hot Block ID	B
Pipette ID	met-014
Temperature	92 Degrees C
Thermometer ID	metals 16

Basis	Basis Description
@	Step 6

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27782 Batch Start Date: 02/19/19 07:31 Batch Analyst: Collins, Kerry N

Batch Method: Residual Batch End Date: 02/19/19 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	90SPAREV-1P 00015	90SPB1REV-1P 00015	90SPCREV-1P 00016
140-13725-A-2	SB-ED-01-05 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-2 DU	SB-ED-01-05 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-4	SB-ED-02-03 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-7	SB-ED-05-07 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-19	SB-BR-03-06 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-14	SB-BR-02-02 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-17	SB-BR-04 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-8	SB-AR-01-02 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-11	SB-AR-03 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
140-13725-A-13	SB-AR-04-06 (00.0-00.5)	Residual, 6010B SEP	0	1.000 g	50 mL	NO NOMINAL AMOUNT			
MB 140-27782/11		Residual, 6010B SEP		1.000 g	50 mL	NO NOMINAL AMOUNT			
LCS 140-27782/12		Residual, 6010B SEP		1.000 g	50 mL	NO NOMINAL AMOUNT	0.5 mL	0.5 mL	0.5 mL
LCSD 140-27782/13		Residual, 6010B SEP		1.000 g	50 mL	NO NOMINAL AMOUNT	0.5 mL	0.5 mL	0.5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27782 Batch Start Date: 02/19/19 07:31 Batch Analyst: Collins, Kerry N

Batch Method: Residual Batch End Date: 02/19/19 16:00

Batch Notes	
Balance ID	mt2
Boric Acid ID	182288 1ml
Digestion Tubes ID	274661-5420
Hydrochloric Acid ID	208260 3ml
Hydrofluoric Acid ID	170516 1ml
Nitric Acid ID	210388 10ml
Hot Block ID	B
Pipette ID	met-016
Perform Calculation (0=No, 1=Yes)	1
Temperature	95 Degrees C
Thermometer ID	metals 16

Basis	Basis Description
0	Step 7

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG No.:

Project: Ashland - Kenvil Plant SEP

Client Sample ID	Lab Sample ID
SB-ED-01-05 (00.0-00.5)	140-13725-2
SB-ED-02-03 (00.0-00.5)	140-13725-4
SB-ED-05-07 (00.0-00.5)	140-13725-7
SB-AR-01-02 (00.0-00.5)	140-13725-8
SB-AR-03 (00.0-00.5)	140-13725-11
SB-AR-04-06 (00.0-00.5)	140-13725-13
SB-BR-02-02 (00.0-00.5)	140-13725-14
SB-BR-04 (00.0-00.5)	140-13725-17
SB-BR-03-06 (00.0-00.5)	140-13725-19

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Knoxville Job Number: 140-13725-3

SDG Number:

Matrix: Solid Instrument ID: W3

Method: Moisture RL Date: 01/01/2015 16:10

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Instrument ID: W3 Method: Moisture

Start Date: 02/01/2019 15:07 End Date: 02/01/2019 15:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Moist																			
140-13725-2	1	T	15:07	X																			
140-13725-4	1	T	15:07	X																			
140-13725-7	1	T	15:07	X																			
140-13725-8	1	T	15:07	X																			
140-13725-11	1	T	15:07	X																			
140-13725-13	1	T	15:07	X																			
140-13725-14	1	T	15:07	X																			
140-13725-17	1	T	15:07	X																			
140-13725-19	1	T	15:07	X																			
140-13725-2 DU	1	T	15:07	X																			

Prep Types
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Knoxville Job No.: 140-13725-3

SDG No.:

Batch Number: 27351 Batch Start Date: 02/01/19 15:07 Batch Analyst: Dameron, Bryan K

Batch Method: Moisture Batch End Date: 02/04/19 08:59

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
140-13725-C-2	SB-ED-01-05 (00.0-00.5)	Moisture	T	1.09 g	9.55 g	9.422 g			
140-13725-C-4	SB-ED-02-03 (00.0-00.5)	Moisture	T	1.09 g	8.25 g	7.618 g			
140-13725-C-7	SB-ED-05-07 (00.0-00.5)	Moisture	T	1.09 g	7.52 g	7.404 g			
140-13725-C-8	SB-AR-01-02 (00.0-00.5)	Moisture	T	1.07 g	7.91 g	7.847 g			
140-13725-C-11	SB-AR-03 (00.0-00.5)	Moisture	T	1.07 g	8.63 g	8.607 g			
140-13725-C-13	SB-AR-04-06 (00.0-00.5)	Moisture	T	1.07 g	7.54 g	7.467 g			
140-13725-C-14	SB-BR-02-02 (00.0-00.5)	Moisture	T	1.09 g	7.63 g	7.613 g			
140-13725-C-17	SB-BR-04 (00.0-00.5)	Moisture	T	1.10 g	7.79 g	7.757 g			
140-13725-C-19	SB-BR-03-06 (00.0-00.5)	Moisture	T	1.08 g	8.38 g	8.361 g			
140-13725-C-2 DU	SB-ED-01-05 (00.0-00.5)	Moisture	T	1.06 g	9.71 g	9.576 g			

Batch Notes	
Balance ID	S1
Date and Time Samples in Desiccator	02/02/2019 07:50
Date samples were placed in the oven	02/01/2019
Oven Temp In	105 Degrees C
Time samples were place in the oven	15:21
Date samples were removed from oven	02/02/2019
Oven Temp Out	105 Degrees C
Time Samples were removed from oven	00:00
Oven ID	023
Thermometer ID	023
Temperature - End - Uncorrected	105 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

COPY

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Lora Sterner	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-5931-2040.2
Client Contact: Lora Sterner	Phone: 610 762 9262	E-Mail: william.henry@testamericainc.com		Page: Page 2 of 5
Company: Kennedy/Jenks Consultants				Job #:
Address: 214 Carnegie Center Suite 103	Due Date Requested:			
City: Princeton	TAT Requested (days): Standard			
State, Zip: NJ, 08540				
Phone: 609.285.2623	PO #: FY2019 PO Pending			
Email: lorasterner@kennedyjenks.com	WO #: Task 100			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

140-13725 Chain of Custody

H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D422 - Grain Size (Sieve and Hydrometer)	9045D, Lloyd_Kahn	6020A - Total Lead	6010B_SEP - (MOD) Step 1 HOLD	6020A_Total Lead	SM5310_TOC_B - Local Method	9040C - Local Method	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	N	N	N	N	D	S	N		
SB-ED-01-04(00.0-00.5)	11/27/18	1635	G	S				X	X	X				3	DELIVER TO TA KNOXVILLE RT CT
SB-ED-01-05(00.0-00.5)	11/27/18	1040						X	X	X				3	REC. @ 0.4°c 0.4°c
SB-ED-02-01(00.0-00.5)	11/27/18	1120						X	X	X				3	NO CUSTODY SEAL
SB-ED-02-03(00.0-00.5)	11/27/18	1130						X	X	X				3	1 COOLER RH 12-19-18
SB-ED-03(00.0-00.5)	11/27/18	1330						X	X	X				3	FED EX # 413725375170
SB-ED-04(00.0-00.5)	11/27/18	1418						X	X	X				3	
SB-ED-05-07(00.0-00.5)	11/27/18	1535						X	X	X				3	
SB-AR-01-02(00.0-00.5)	11/29/18	940						X	X	X				3	
SB-AR-01-07(00.0-00.5)	11/29/18	1005						X	X	X				3	
SB-AR-02(00.0-00.5)	11/29/18	1030						X	X	X				3	
SB-AR-03(00.0-00.5)	11/29/18	1130	↓	↓				X	X	X				3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) KJ EDD

Special Instructions/QC Requirements: HOLD SEP Analysis

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Lora Sterner	12/17/18	KJC	Johnny Greene	12-17-18 1415	TA KNX
Johnny Greene	12-17-18	TAKNX		12/17/18 1700	TAKNX
	12/18/18 1800	TAKNX	Ryan Henry	12/19/18 1015	TA KNX

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone (865) 291-3000 Fax (865) 584-4315

Chain of Custody Record

COPY

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Lora Sterner	Lab PM: Henry, Ryan	Carrier Tracking No(s):	COC No: 140-5931-2040.3
Client Contact: Lora Sterner	Phone: 6107629262	E-Mail: william.henry@testamericainc.com		Page: Page 3 of 5
Company: Kennedy/Jenks Consultants				Job #:
Address: 214 Carnegie Center Suite 103	Due Date Requested:			
City: Princeton	TAT Requested (days): Standard			
State, Zip: NJ, 08540				
Phone: 609.285.2623	PO #: FY2019 PO Pending			
Email: lorasterner@kennedyjenks.com	WO #: Task 100			
Project Name: Ashland - Kenvil Plant	Project #: 14004994			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D422 - Grain Size (Sieve and Hydrometer)	9045D, Lloyd_Kahn	6020A - Total Lead	6010B_SEP - (MOD) Step 1 - 4oz LD	6020A_Total_Lead	SM5310_TOC_B_Local Method	9040C_Local_Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	D	S	N		
SB-AR-04-03(00.0-00.5)	11/29/18	1345	G	S				X	X	X				3	DELIVER TO TA KNOXVILLE
SB-AR-04-06(00.0-00.5)	11/29/18	1400						X	X	X				3	
SB-BR-02-02(00.0-00.5)	11/28/18	1010						X	X	X				3	
SB-BR-02-03(00.0-00.5)	11/28/18	1015						X	X	X				3	
SB-BR-03 (00.0-00.5)	11/28/18	1100						X	X	X				3	
SB-BR-04 (00.0-00.5)	11/28/18	1330						X	X	X				3	
SB-BR-04-06(00.0-00.5)	11/28/18	1400						X	X	X				3	
SB-BR-03-06 (00.0-00.5)	11/28/18	1130						X	X	X				3	
BD 112718	11/27/18	—	↓	↓				X	X	X				3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: HOLD SEP Analysis

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/17/18	KJ2	Johnny Green	12/17/18 1415	TAEL
2	Johnny Green	12/17/18		[signature]	12/17/18 1700	TAEL
3	[signature]	12/18/18 1800	TAEL	Ryan Henry	12/19/18 1015	TA KNX

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ Containers, Broken
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?			✓	☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID: SC68 Correction factor: 0	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted
10. Was the sampler identified on the COC?	✓			☐ Sampler Not Listed on COC
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete
15. Were samples received within holding time?	✓	/		☐ Holding Time - Receipt
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only)
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			/	☐ Residual Chlorine
19. For 1613B water samples is pH<9?			/	☐ If no, lab will adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

IS, 9045D, 1L09D-KATN

Labeling Verified by: Date:

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: PM Instructions:

Sample Receiving Associate: Date: 12-19-18

QA026R30.doc, 080916

Appendix E

Ecological Risk Assessment Dataset

Appendix E.1

ERA Dataset – Terrestrial Soil Data

			Location	C10-241A-03	D10-2349-02	D10-241B-03	D10-251-02	D10-8284-03	D10-9119-01	D10-N4-01	D9-2-04	D9-2-04	D9-2229-01	D9-3-02	D9-4-03	D9-4-03	D9-5-05
			Sample Date	11/18/1999	11/12/1999	11/19/1999	11/17/1999	11/16/1999	11/19/1999	11/12/1999	11/18/1999	11/18/1999	11/11/1999	11/11/1999	11/10/1999	11/10/1999	11/11/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	C10-241A-030.5N	D10-2349-021.5N	D10-241B-031.5N	D10-251-020.75N	D10-8284-031N	D10-9119-011N	D10-N4-011N	D9-2-041FD	D9-2-041N	D9-2229-010.5N	D9-3-021N	D9-4-031FD	D9-4-031N	D9-5-051.5N
			Parent ID								D9-2-041N				D9-4-031N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 182	< 230	< 250			< 230	< 220							< 240
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 182	< 230	< 250			< 230	< 220							< 240
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 182	< 230	< 250			< 230	< 220							< 240
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 182	< 230	< 250			< 230	< 250							< 240
2-Nitrotoluene	88-72-2	ug/kg		< 364	< 430	< 500			< 450	< 430							< 480
3-Nitrotoluene	99-08-1	ug/kg		< 364	< 430	< 500			< 450	< 430							< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 182	< 230	< 250			< 230	< 220							< 240
4-Nitrotoluene	99-99-0	ug/kg		< 364	< 430	< 500			< 450	< 430							< 480
Nitrobenzene	98-95-3	ug/kg	1310	< 182	< 230	< 250			< 230	< 220							< 240
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000	< 7500	< 4800	< 4900			< 4800	< 4700							< 4800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 364	< 430	< 500			< 450	< 430							< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 364	< 430	< 500			< 450	< 430							< 480
Tetryl	479-45-8	ug/kg	25000	< 364	< 430	< 500			< 450	< 430							< 480
GenChem																	
pH	pH	su							7.82	6.51							
Grain Size																	
Clay	Clay	%		3.5	6.1	15.7	11.3	9.8	5.1	6.6		6.4	8.2	8.4		17.3	11.3
Gravel	Gravel	%		30.4	36	24.5	26.7	46.9	52.4	30.7		57.2	30.3	29		24.4	36.9
Sand	Sand	%		49.4	40.6	28.3	60.9	39.9	32.2	51		26.9	44	57.6		32.6	27.2
Silt	Silt	%		16.7	17.3	31.5	1	3.4	10.3	11.8		9.4	17.4	5		25.7	24.6
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	C10-241A-03	D10-2349-02	D10-241B-03	D10-251-02	D10-8284-03	D10-9119-01	D10-N4-01	D9-2-04	D9-2-04	D9-2229-01	D9-3-02	D9-4-03	D9-4-03	D9-5-05
			Sample Date	11/18/1999	11/12/1999	11/19/1999	11/17/1999	11/16/1999	11/19/1999	11/12/1999	11/18/1999	11/18/1999	11/11/1999	11/11/1999	11/10/1999	11/10/1999	11/11/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	C10-241A-030.5N	D10-2349-021.5N	D10-241B-031.5N	D10-251-020.75N	D10-8284-031N	D10-9119-011N	D10-N4-011N	D9-2-041FD	D9-2-041N	D9-2229-010.5N	D9-3-021N	D9-4-031FD	D9-4-031N	D9-5-051.5N
			Parent ID								D9-2-041N				D9-4-031N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.63	< 0.46	< 0.54	< 0.59	2.1	< 0.47	< 0.44	0.35	< 0.37	< 0.5	< 0.46	< 0.57	< 0.46	0.97
Arsenic	7440-38-2	mg/kg	9.9	9.5	296	3.7	8.8	370	16.7	5.5	4.6	4	3.1	4.8	4.3	4.1	4.4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	1.1	0.4	0.36	0.85	0.47	0.31	0.41	0.37	0.33	0.38	0.27	0.73	0.7	0.32
Cadmium	7440-43-9	mg/kg	0.36	< 0.38	< 0.27	< 0.32	0.43	0.37	0.34	< 0.26	0.06	0.02	< 0.3	< 0.28	< 0.28	< 0.27	< 0.32
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	24.3	14	20.1	19.6	8.6	33.7	11.9	16.1	15	10.9	8.4	24	15.9	10.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	24.8	20.3	75.9	22.1	38.9	50.7	18	31	25	21.2	14	21.1	20	10
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	171	76.6	66.8	589	217	320	81.1	34.3	24.1	99.5	9.2	468	600	47.9
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.47	0.08	0.07	0.16	0.1	0.12	0.06	0.07	0.05	0.11	0.05	0.06	0.07	0.11
Nickel	7440-02-0	mg/kg	38	11.7	6.9	6.1	11.1	9.5	9	6	6.2	5.3	5.2	3	8.3	8	4.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.1	< 0.46	0.55	1.3	2.4	0.55	< 0.44	0.46	0.44	0.45	0.47	0.5	0.52	0.97
Silver	7440-22-4	mg/kg	2	< 0.38	0.11	< 0.32	< 0.35	< 0.32	< 0.28	< 0.26	< 0.26	< 0.22	< 0.3	< 0.28	< 0.28	< 0.27	0.11
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.3	< 0.92	< 1.1	< 1.2	< 1.1	< 0.94	< 0.87	< 0.88	< 0.73	< 1	< 0.92	< 0.93	< 0.91	< 1.1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	113	30.3	< 1.6	116	43.4	128	32.2	63.6	48.9	24.6	14.3	42.3	42.3	29.1
Moisture																	
Percent Solids	SOLID	percent		62.4	88.7	82.7	77.7	85.6	89.1	89.3	91.3	89.1	92.9	92.8	87.8	86.7	83.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2700	< 1900	< 2000	< 2100	< 1900	< 1900	< 1900	< 1900	< 1900	< 1800	< 1800	< 1900	< 1900	< 2000

			Location	C10-241A-03	D10-2349-02	D10-241B-03	D10-251-02	D10-8284-03	D10-9119-01	D10-N4-01	D9-2-04	D9-2-04	D9-2229-01	D9-3-02	D9-4-03	D9-4-03	D9-5-05
			Sample Date	11/18/1999	11/12/1999	11/19/1999	11/17/1999	11/16/1999	11/19/1999	11/12/1999	11/18/1999	11/18/1999	11/11/1999	11/11/1999	11/10/1999	11/10/1999	11/11/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	C10-241A-030.5N	D10-2349-021.5N	D10-241B-031.5N	D10-251-020.75N	D10-8284-031N	D10-9119-011N	D10-N4-011N	D9-2-041FD	D9-2-041N	D9-2229-010.5N	D9-3-021N	D9-4-031FD	D9-4-031N	D9-5-051.5N
			Parent ID								D9-2-041N				D9-4-031N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 540	< 370	< 400	< 430	39	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 540	< 370	< 400	< 430	92	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2-Chloronaphthalene	91-58-7	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2-Chlorophenol	95-57-8	ug/kg	243	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 1100	< 750	< 800	< 860	< 780	< 750	< 750	< 730	< 750	< 720	< 720	< 760	< 770	< 800
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 2700	< 1900	< 2000	< 2100	< 1900	< 1900	< 1900	< 1900	< 1900	< 1800	< 1800	< 1900	< 1900	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
4-Nitrophenol	100-02-7	ug/kg	7000	< 2700	< 1900	< 2000	< 2100	< 1900	< 1900	< 1900	< 1900	< 1900	< 1800	< 1800	< 1900	< 1900	< 2000
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 540	< 370	< 400	< 430	59	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Acenaphthylene	208-96-8	ug/kg	682000	< 540	< 370	360	< 430	430	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Anthracene	120-12-7	ug/kg	1480000	< 540	< 370	360	< 430	480	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Benzidine	92-87-5	ug/kg	1310	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	< 540							< 370	< 370					
Benzo[a]anthracene	56-55-3	ug/kg	5210	140	140	2600	65	4200	64	66	44	43	< 360	28	< 380	< 380	< 400
Benzo[a]pyrene	50-32-8	ug/kg	1520	180	96	2000	71	3800	45	45	35	< 370	< 360	< 360	21	< 380	25
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	310	190	3400	110	7000	140	61	68	63	< 360	< 360	< 380	< 380	< 400
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 370	1300	< 430	1200	83	< 370			< 360	< 360	< 380	< 380	< 400
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 540	< 370	1500	< 430	2200	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	170	89	860	67	90	2500	820	900	780	48	110	< 380	< 380	21
Butylbenzylphthalate	85-68-7	ug/kg	239	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Chrysene	218-01-9	ug/kg	4730	220	130	2600	98	4500	110	46	40	54	< 360	< 360	< 380	< 380	< 400
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 540	< 370	450	< 430	510	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Diethylphthalate	84-66-2	ug/kg	24800	50	< 370	< 400	< 430	62	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Dimethylphthalate	131-11-3	ug/kg	734000	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Di-n-butylphthalate	84-74-2	ug/kg	150	72	< 370	< 400	100	40	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Fluoranthene	206-44-0	ug/kg	122000	280	140	2200	97	3900	79	< 370	84	81	< 360	< 360	< 380	< 380	< 400
Fluorene	86-73-7	ug/kg	122000	< 540	< 370	< 400	< 430	89	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Hexachlorobenzene	118-74-1	ug/kg	199	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Hexachloroethane	67-72-1	ug/kg	596	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 540	75	1500	< 430	1300	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Isophorone	78-59-1	ug/kg	139000	< 540	< 370	3700	< 430	< 390	110	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Naphthalene	91-20-3	ug/kg	99.4	< 540	< 370	39	< 430	290	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Nitrobenzene	98-95-3	ug/kg	1310				< 430	< 390			< 370	< 370	< 360	< 360	< 380	< 380	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 540	< 370	< 400	< 430	62	< 370	< 370	66	< 370	< 360	< 360	< 380	< 380	< 400
Pentachlorophenol	87-86-5	ug/kg	2100	< 2700	< 1900	< 2000	< 2100	< 1900	< 1900	< 1900	< 1900	< 1900	< 1800	< 1800	< 1900	< 1900	< 2000
Phenanthrene	85-01-8	ug/kg	45700	180	40	790	60	840	780	23	33	42	< 360	33	< 380	< 380	26
Phenol	108-95-2	ug/kg	30000	< 540	< 370	< 400	< 430	< 390	< 370	< 370	< 370	< 370	< 360	< 360	< 380	< 380	< 400
Pyrene	129-00-0	ug/kg	78500	270	200	< 400	< 430	5000	97	96	< 370	96	< 360	< 360	< 380	< 380	< 400
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		110000	27100	19200	55500	41800	9370	21400		10600	2030	8980		17800	48500
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	C10-241A-03	D10-2349-02	D10-241B-03	D10-251-02	D10-8284-03	D10-9119-01	D10-N4-01	D9-2-04	D9-2-04	D9-2229-01	D9-3-02	D9-4-03	D9-4-03	D9-5-05
			Sample Date	11/18/1999	11/12/1999	11/19/1999	11/17/1999	11/16/1999	11/19/1999	11/12/1999	11/18/1999	11/18/1999	11/11/1999	11/11/1999	11/10/1999	11/10/1999	11/11/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	C10-241A-030.5N	D10-2349-021.5N	D10-241B-031.5N	D10-251-020.75N	D10-8284-031N	D10-9119-011N	D10-N4-011N	D9-2-041FD	D9-2-041N	D9-2229-010.5N	D9-3-021N	D9-4-031FD	D9-4-031N	D9-5-051.5N
			Parent ID								D9-2-041N				D9-4-031N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	D9-8279-01	D9-8284-05	D9-9108-01	E10-8277-01	E10-8277-01	E11-2-03	E11-207B-04	E15-8560-02	E15-8560-02	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04
			Sample Date	11/19/1999	11/22/1999	11/10/1999	11/12/1999	11/12/1999	10/20/1999	11/9/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
			Sample ID	D9-8279-011N	D9-8284-050.5N	D9-9108-010.5N	E10-8277-011FD	E10-8277-011N	E11-2-031.5N	E11-207B-040.5N	E15-8560-020.5N	E15-8560-021.5N	E15-8560-030.8FD	E15-8560-030.8N	E15-8560-031.5FD	E15-8560-031.5N	E15-8560-040.5N
			Parent ID				E10-8277-011N						E15-8560-030.8N		E15-8560-031.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 220					< 250								
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 220					< 250								
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 220					< 250								
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 220					< 250								
2-Nitrotoluene	88-72-2	ug/kg		< 430					< 500								
3-Nitrotoluene	99-08-1	ug/kg		< 430					< 500								
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 220					< 250								
4-Nitrotoluene	99-99-0	ug/kg		< 430					< 500								
Nitrobenzene	98-95-3	ug/kg	1310	< 220					< 250								
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000	< 4500					22714.3								
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 430					< 500								
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 430					< 500								
Tetryl	479-45-8	ug/kg	25000	< 430					< 500								
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		8.7				9.4	7.1								
Gravel	Gravel	%		36.7				42.9	31.3								
Sand	Sand	%		38.9				30.6	47.9								
Silt	Silt	%		15.6				17.1	13.7								
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	D9-8279-01	D9-8284-05	D9-9108-01	E10-8277-01	E10-8277-01	E11-2-03	E11-207B-04	E15-8560-02	E15-8560-02	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04
			Sample Date	11/19/1999	11/22/1999	11/10/1999	11/12/1999	11/12/1999	10/20/1999	11/9/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
			Sample ID	D9-8279-011N	D9-8284-050.5N	D9-9108-010.5N	E10-8277-011FD	E10-8277-011N	E11-2-031.5N	E11-207B-040.5N	E15-8560-020.5N	E15-8560-021.5N	E15-8560-030.8FD	E15-8560-030.8N	E15-8560-031.5FD	E15-8560-031.5N	E15-8560-040.5N
			Parent ID				E10-8277-011N						E15-8560-030.8N		E15-8560-031.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.47		< 0.33	< 0.46	< 0.49	< 0.48								
Arsenic	7440-38-2	mg/kg	9.9	3.6		5.4	33.5	56.7	7.7								
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.39		0.65	0.3	0.28	0.57								
Cadmium	7440-43-9	mg/kg	0.36	< 0.28		< 0.2	< 0.04	0.26	0.36								
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	12.3		14	14.5	17	14.1								
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	17.2		36.2	19.4	20.1	18.6								
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	113		41.8	353	635	155								
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.24		0.05	3.6	4.8	0.21								
Nickel	7440-02-0	mg/kg	38	7		6.7	6.4	6.7	10.4								
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.36		< 0.33	< 0.44	< 0.49	1.4								
Silver	7440-22-4	mg/kg	2	< 0.28		< 0.2	0.12	0.19	< 0.29								
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.94		0.38	< 0.93	< 0.98	< 0.97								
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	61.7		98.8	78.5	132	86.8								
Moisture																	
Percent Solids	SOLID	percent		92.4		79.8	86.8	86.7	86			97.4			94	85.1	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 1800		< 2100	< 1900	< 1900	< 1900			< 1700			< 1800	< 2000	

			Location	D9-8279-01	D9-8284-05	D9-9108-01	E10-8277-01	E10-8277-01	E11-2-03	E11-207B-04	E15-8560-02	E15-8560-02	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04
			Sample Date	11/19/1999	11/22/1999	11/10/1999	11/12/1999	11/12/1999	10/20/1999	11/9/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
			Sample ID	D9-8279-011N	D9-8284-050.5N	D9-9108-010.5N	E10-8277-011FD	E10-8277-011N	E11-2-031.5N	E11-207B-040.5N	E15-8560-020.5N	E15-8560-021.5N	E15-8560-030.8FD	E15-8560-030.8N	E15-8560-031.5FD	E15-8560-031.5N	E15-8560-040.5N
			Parent ID				E10-8277-011N						E15-8560-030.8N		E15-8560-031.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2-Chloronaphthalene	91-58-7	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2-Chlorophenol	95-57-8	ug/kg	243	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 720		< 830	< 770	< 770	< 780			< 690			< 710	< 780	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 1800		< 2100	< 1900	< 1900	< 1900			< 1700			< 1800	< 2000	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
4-Nitrophenol	100-02-7	ug/kg	7000	< 1800		< 2100	< 1900	< 1900	< 1900			< 1700			< 1800	< 2000	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	41		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Acenaphthylene	208-96-8	ug/kg	682000	91		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Anthracene	120-12-7	ug/kg	1480000	170		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Benzidine	92-87-5	ug/kg	1310	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	620		61	110	83	38			< 340			< 360	< 390	
Benzo[a]pyrene	50-32-8	ug/kg	1520	420		40	69	49	36			< 340			< 360	< 390	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	990		72	120	120	62			< 340			< 360	< 390	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	250		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	340		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	210		2800	220	230	< 390			20			64	19	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Chrysene	218-01-9	ug/kg	4730	740		54	88	78	73			< 340			< 360	< 390	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	73		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Diethylphthalate	84-66-2	ug/kg	24800	< 360		< 420	69	55	98			< 340			< 360	< 390	
Dimethylphthalate	131-11-3	ug/kg	734000	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Di-n-butylphthalate	84-74-2	ug/kg	150	< 360		< 420	< 370	430	880			77			150	140	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Fluoranthene	206-44-0	ug/kg	122000	2500		< 420	130	110	< 390			< 340			< 360	< 390	
Fluorene	86-73-7	ug/kg	122000	89		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Hexachlorobenzene	118-74-1	ug/kg	199	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Hexachloroethane	67-72-1	ug/kg	596	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	240		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Isophorone	78-59-1	ug/kg	139000	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Naphthalene	91-20-3	ug/kg	99.4	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Nitrobenzene	98-95-3	ug/kg	1310			< 420	< 380	< 380				< 340			< 360	< 390	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 360		< 420	< 380	< 380	150			< 340			< 360	< 390	
Pentachlorophenol	87-86-5	ug/kg	2100	< 1800		< 2100	< 1900	< 1900	< 1900			< 1700			< 1800	< 2000	
Phenanthrene	85-01-8	ug/kg	45700	1300		28	40	39	43			< 340			< 360	< 390	
Phenol	108-95-2	ug/kg	30000	< 360		< 420	< 380	< 380	< 390			< 340			< 360	< 390	
Pyrene	129-00-0	ug/kg	78500	2700		< 420	140	110	< 390			< 340			< 360	< 390	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		14800				30900	24600								
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 512					< 525	< 568		< 536	< 521			< 521

			Location	D9-8279-01	D9-8284-05	D9-9108-01	E10-8277-01	E10-8277-01	E11-2-03	E11-207B-04	E15-8560-02	E15-8560-02	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04
			Sample Date	11/19/1999	11/22/1999	11/10/1999	11/12/1999	11/12/1999	10/20/1999	11/9/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
			Sample ID	D9-8279-011N	D9-8284-050.5N	D9-9108-010.5N	E10-8277-011FD	E10-8277-011N	E11-2-031.5N	E11-207B-040.5N	E15-8560-020.5N	E15-8560-021.5N	E15-8560-030.8FD	E15-8560-030.8N	E15-8560-031.5FD	E15-8560-031.5N	E15-8560-040.5N
			Parent ID				E10-8277-011N						E15-8560-030.8N		E15-8560-031.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
1,1-Dichloroethane	75-34-3	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 512					< 525	< 568		< 536	< 521			< 521
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 512					< 525	< 568		< 536	< 521			< 521
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 512					< 525	< 568		< 536	< 521			< 521
1,2-Dichloroethane	107-06-2	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
1,2-Dichloropropane	78-87-5	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 512					< 525	< 568		< 536	< 521			< 521
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 512					< 525	< 568		< 536	< 521			< 521
2-Chloroethylvinylether	110-75-8	ug/kg			< 1025					< 1050	< 1136		< 1072	< 1042			< 1042
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 2049					< 2101	< 2273		< 2143	< 2083			< 2083
Acrylonitrile	107-13-1	ug/kg	23.9		< 512					< 525	< 568		< 536	< 521			< 521
Benzene	71-43-2	ug/kg	255		< 512					< 525	< 568		< 536	< 521			< 521
Bromodichloromethane	75-27-4	ug/kg	540		< 512					< 525	< 568		< 536	< 521			< 521
Bromoform	75-25-2	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
Bromomethane	74-83-9	ug/kg	235		< 1025					< 1050	< 1136		< 1072	< 1042			< 1042
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 512					< 525	< 568		< 536	< 521			< 521
Chlorobenzene	108-90-7	ug/kg	13100		< 512					< 525	< 568		< 536	< 521			< 521
Chloroethane	75-00-3	ug/kg			< 1025					< 1050	< 1136		< 1072	< 1042			< 1042
Chloroform	67-66-3	ug/kg	1190		< 512					< 525	< 568		< 536	< 521			< 521
Chloromethane	74-87-3	ug/kg	10400		< 1025					< 1050	< 1136		< 1072	< 1042			< 1042
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 512					< 525	< 568		< 536	< 521			< 521
Ethylbenzene	100-41-4	ug/kg	5160		< 512					< 525	< 568		< 536	< 521			< 521
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 512					< 525	< 568		< 536	< 521			< 521
Methylene Chloride	75-09-2	ug/kg	4050		< 512					< 525	< 568		< 214	< 521			< 521
Naphthalene	91-20-3	ug/kg	99.4		< 512					< 525			< 536				
Tetrachloroethene	127-18-4	ug/kg	9920		< 512					< 525	< 568		< 536	< 521			< 521
Toluene	108-88-3	ug/kg	200000		< 512					< 525	< 568		< 536	< 521			< 521
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 512					< 525	< 568		< 536	< 521			< 521
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 512					< 525	< 568		< 536	< 521			< 521
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 1025					< 1050	< 1136		< 1072	< 1042			< 1042
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07	E15-8560-07	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-22	E15-8560-22
			Sample Date	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	10/5/1999	10/5/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N	E15-8560-071.5N	E15-8560-080.5N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-220.5FD	E15-8560-220.5N
			Parent ID														
			Note													E15-8560-220.5N	
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07	E15-8560-07	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-22	E15-8560-22
			Sample Date	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	10/5/1999	10/5/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N	E15-8560-071.5N	E15-8560-080.5N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-220.5FD	E15-8560-220.5N
			Parent ID													E15-8560-220.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36														
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11														
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1														
Nickel	7440-02-0	mg/kg	38														
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2														
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent			95.6			73			95.7		95.2		87.4		
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 350			< 460			< 350		< 350		< 380		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 350			< 460			< 350		< 350		< 380		
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 350			< 460			< 350		< 350		< 380		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 350			< 460			< 350		< 350		< 380		
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 350			< 460			< 350		< 350		< 380		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 350			< 460			< 350		< 350		< 380		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 350			< 460			< 350		< 350		< 380		
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 350			< 460			< 350		< 350		< 380		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 1700			< 2300			< 1700		< 1800		< 1900		

			Location	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07	E15-8560-07	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-22	E15-8560-22
			Sample Date	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	10/5/1999	10/5/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N	E15-8560-071.5N	E15-8560-080.5N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-220.5FD	E15-8560-220.5N
			Parent ID													E15-8560-220.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 350			< 460			< 350		< 350		< 380		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 350			< 460			< 350		< 350		< 380		
2-Chloronaphthalene	91-58-7	ug/kg			< 350			< 460			< 350		< 350		< 380		
2-Chlorophenol	95-57-8	ug/kg	243		< 350			< 460			< 350		< 350		< 380		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 350			< 460			< 350		< 350		< 380		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 690			< 910			< 690		< 700		< 770		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 1700			< 2300			< 1700		< 1800		< 1900		
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 350			< 460			< 350		< 350		< 380		
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 350			< 460			< 350		< 350		< 380		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 350			< 460			< 350		< 350		< 380		
4-Nitrophenol	100-02-7	ug/kg	7000		< 1700			< 2300			< 1700		< 1800		< 1900		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 350			< 460			< 350		< 350		< 380		
Acenaphthylene	208-96-8	ug/kg	682000		< 350			< 460			< 350		< 350		< 380		
Anthracene	120-12-7	ug/kg	1480000		< 350			< 460			< 350		< 350		< 380		
Benzidine	92-87-5	ug/kg	1310		< 350			< 460			< 350		< 350		< 380		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		< 350			< 460			< 350		< 350		30		
Benzo[a]pyrene	50-32-8	ug/kg	1520		< 350			< 460			< 350		< 350		< 380		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		< 350			< 460			< 350		< 350		< 380		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 350			< 460			< 350		< 350		< 380		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 350			< 460			< 350		< 350		< 380		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 350			< 460			< 350		< 350		< 380		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 350			< 460			< 350		< 350		< 380		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 350			< 460			< 350		< 350		< 380		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		22			< 460			< 350		< 350		< 380		
Butylbenzylphthalate	85-68-7	ug/kg	239		< 350			< 460			< 350		< 350		< 380		
Chrysene	218-01-9	ug/kg	4730		< 350			< 460			< 350		< 350		< 380		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 350			< 460			< 350		< 350		< 380		
Diethylphthalate	84-66-2	ug/kg	24800		< 350			< 460			< 350		< 350		< 380		
Dimethylphthalate	131-11-3	ug/kg	734000		< 350			< 460			< 350		< 350		< 380		
Di-n-butylphthalate	84-74-2	ug/kg	150		< 350			< 460			< 350		< 350		< 380		
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 350			< 460			< 350		< 350		< 380		
Fluoranthene	206-44-0	ug/kg	122000		< 350			< 460			< 350		< 350		< 380		
Fluorene	86-73-7	ug/kg	122000		< 350			< 460			< 350		< 350		< 380		
Hexachlorobenzene	118-74-1	ug/kg	199		< 350			< 460			< 350		< 350		< 380		
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 350			< 460			< 350		< 350		< 380		
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 350			< 460			< 350		< 350		< 380		
Hexachloroethane	67-72-1	ug/kg	596		< 350			< 460			< 350		< 350		< 380		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 350			< 460			< 350		< 350		< 380		
Isophorone	78-59-1	ug/kg	139000		< 350			< 460			< 350		< 350		< 380		
Naphthalene	91-20-3	ug/kg	99.4		< 350			< 460			< 350		< 350		< 380		
Nitrobenzene	98-95-3	ug/kg	1310		< 350			< 460			< 350		< 350		< 380		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 350			< 460			< 350		< 350		< 380		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 350			< 460			< 350		< 350		< 380		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 350			< 460			< 350		< 350		< 380		
Pentachlorophenol	87-86-5	ug/kg	2100		< 1700			< 2300			< 1700		< 1800		< 1900		
Phenanthrene	85-01-8	ug/kg	45700		< 350			< 460			< 350		< 350		36		
Phenol	108-95-2	ug/kg	30000		< 350			< 460			< 350		< 350		< 380		
Pyrene	129-00-0	ug/kg	78500		< 350			< 460			< 350		< 350		84		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800

			Location	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07	E15-8560-07	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-22	E15-8560-22
			Sample Date	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	10/5/1999	10/5/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N	E15-8560-071.5N	E15-8560-080.5N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-220.5FD	E15-8560-220.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,1-Dichloroethane	75-34-3	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,2-Dichloroethane	107-06-2	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,2-Dichloropropane	78-87-5	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
2-Chloroethylvinylether	110-75-8	ug/kg		< 1042		< 1250	< 1042		< 1042	< 1042		< 1085		< 1042		< 4200	< 3700
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 2083		< 2500	< 2083		< 2083	< 2083		< 2170		< 2083		< 8300	< 7400
Acrylonitrile	107-13-1	ug/kg	23.9	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Benzene	71-43-2	ug/kg	255	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Bromodichloromethane	75-27-4	ug/kg	540	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Bromoform	75-25-2	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Bromomethane	74-83-9	ug/kg	235	< 1042		< 1250	< 1042		< 1042	< 1042		< 1085		< 1042		< 4200	< 3700
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Chlorobenzene	108-90-7	ug/kg	13100	< 521		755	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Chloroethane	75-00-3	ug/kg		< 1042		< 1250	< 1042		< 1042	< 1042		< 1085		< 1042		< 4200	< 3700
Chloroform	67-66-3	ug/kg	1190	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Chloromethane	74-87-3	ug/kg	10400	< 1042		< 1250	< 1042		< 1042	< 1042		< 1085		< 1042		680	< 3700
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Ethylbenzene	100-41-4	ug/kg	5160	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Methylene Chloride	75-09-2	ug/kg	4050	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 5300	< 1800
Naphthalene	91-20-3	ug/kg	99.4													< 2100	
Tetrachloroethene	127-18-4	ug/kg	9920	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Toluene	108-88-3	ug/kg	200000	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 521		< 625	< 521		< 521	< 521		< 543		< 521		< 2100	< 1800
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 1042		< 1250	< 1042		< 1042	< 1042		< 1085		< 1042		< 4200	< 3700
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25	E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	F10-37B-02	F11-2-03	F11-A2-01	F12-2075-03
			Sample Date	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	12/10/1999	12/10/1999	12/10/1999	10/29/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N	E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	F10-37B-020.5N	F11-2-030.5N	F11-A2-011N	F12-2075-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														< 250
2-Nitrotoluene	88-72-2	ug/kg															< 500
3-Nitrotoluene	99-08-1	ug/kg															< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														< 250
4-Nitrotoluene	99-99-0	ug/kg															< 500
Nitrobenzene	98-95-3	ug/kg	1310														< 250
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														< 4800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														< 500
Tetryl	479-45-8	ug/kg	25000														< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%												4.7		5.8	
Gravel	Gravel	%												41.8		36.3	
Sand	Sand	%												42.5		42.7	
Silt	Silt	%												11.1		15.3	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25	E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	F10-37B-02	F11-2-03	F11-A2-01	F12-2075-03
			Sample Date	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	12/10/1999	12/10/1999	12/10/1999	10/29/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N	E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	F10-37B-020.5N	F11-2-030.5N	F11-A2-011N	F12-2075-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27											0.32		0.97	< 0.49
Arsenic	7440-38-2	mg/kg	9.9											4.2		239	19
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10											0.24		0.57	0.52
Cadmium	7440-43-9	mg/kg	0.36											< 0.23		< 0.33	< 0.3
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4											26.7		12.6	20.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4											23.3		36.1	16
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11											51.6		168	12.5
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1											1.2		0.29	0.04
Nickel	7440-02-0	mg/kg	38											5.5		9.5	6.6
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52											0.61		1.6	0.22
Silver	7440-22-4	mg/kg	2											0.13		< 0.33	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1											< 0.77		< 1.1	< 0.99
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5											49.4		36.4	70.2
Moisture																	
Percent Solids	SOLID	percent			94.8		93.7		80.6		80.1		94.3	89.9		86.2	92.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 1800		< 1800		< 2100		< 2100		< 1800	< 740		< 780	< 18000

			Location	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25	E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	F10-37B-02	F11-2-03	F11-A2-01	F12-2075-03
			Sample Date	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	12/10/1999	12/10/1999	12/10/1999	10/29/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N	E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	F10-37B-020.5N	F11-2-030.5N	F11-A2-011N	F12-2075-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2-Chloronaphthalene	91-58-7	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2-Chlorophenol	95-57-8	ug/kg	243		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 700		< 710		< 820		< 840		< 710	< 740		< 780	< 7200
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 1800		< 1800		< 2100		< 2100		< 1800	< 740		< 780	< 18000
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
4-Nitrophenol	100-02-7	ug/kg	7000		< 1800		< 1800		< 2100		< 2100		< 1800	< 740		< 780	< 18000
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Acenaphthylene	208-96-8	ug/kg	682000		< 350		< 350		< 410		< 420		< 350	34		17	< 3600
Anthracene	120-12-7	ug/kg	1480000		< 350		< 350		< 410		< 420		< 350	53		22	< 3600
Benzidine	92-87-5	ug/kg	1310		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		< 350		< 350		< 410		< 420		< 350	140		81	< 3600
Benzo[a]pyrene	50-32-8	ug/kg	1520		< 350		< 350		< 410		< 420		< 350	130		76	< 3600
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		< 350		< 350		< 410		< 420		< 350	210		190	< 3600
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 350		< 350		< 410		< 420		< 350	91		< 390	< 3600
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		< 350		< 350		< 410		20		< 350	130		47	190
Butylbenzylphthalate	85-68-7	ug/kg	239		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Chrysene	218-01-9	ug/kg	4730		< 350		< 350		< 410		< 420		< 350	210		170	< 3600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Diethylphthalate	84-66-2	ug/kg	24800		< 350		< 350		< 410		110		70	120		120	< 3600
Dimethylphthalate	131-11-3	ug/kg	734000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Di-n-butylphthalate	84-74-2	ug/kg	150		< 350		< 350		< 410		< 420		< 350	88		< 390	5500
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Fluoranthene	206-44-0	ug/kg	122000		< 350		< 350		< 410		< 420		< 350	330		190	< 3600
Fluorene	86-73-7	ug/kg	122000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Hexachlorobenzene	118-74-1	ug/kg	199		< 350		< 350		< 410		< 420		< 350				< 3600
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Hexachloroethane	67-72-1	ug/kg	596		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 350		< 350		< 410		< 420		< 350	77		< 390	< 3600
Isophorone	78-59-1	ug/kg	139000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Naphthalene	91-20-3	ug/kg	99.4		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Nitrobenzene	98-95-3	ug/kg	1310		< 350		< 350		< 410		< 420		< 350	< 370		< 390	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 350		< 350		< 410		< 420		< 350	140		84	< 3600
Pentachlorophenol	87-86-5	ug/kg	2100		< 1800		< 1800		< 2100		< 2100		< 1800	< 740		< 780	< 18000
Phenanthrene	85-01-8	ug/kg	45700		< 350		< 350		< 410		< 420		< 350	200		100	< 3600
Phenol	108-95-2	ug/kg	30000		< 350		< 350		< 410		< 420		< 350	< 370		< 390	< 3600
Pyrene	129-00-0	ug/kg	78500		< 350		< 350		< 410		< 420		< 350	440		180	< 3600
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg												14200		10700	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		

			Location	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25	E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	F10-37B-02	F11-2-03	F11-A2-01	F12-2075-03
			Sample Date	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	12/10/1999	12/10/1999	12/10/1999	10/29/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N	E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	F10-37B-020.5N	F11-2-030.5N	F11-A2-011N	F12-2075-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
1,1-Dichloroethane	75-34-3	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 1200		< 1400		< 1400		< 830		< 1600			< 570		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 1200		< 1400		< 1400		< 830		< 1600			< 570		
1,2-Dichloroethane	107-06-2	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
1,2-Dichloropropane	78-87-5	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 1200		< 1400		< 1400		< 830		< 1600			< 570		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 1200		< 1400		< 1400		< 830		< 1600			< 570		
2-Chloroethylvinylether	110-75-8	ug/kg		< 2300		< 2800		< 2700		< 1700		< 3100		< 1200	< 1100		
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 4600		< 5700		< 5400		< 3300		< 6200		< 2400	< 2300		
Acrylonitrile	107-13-1	ug/kg	23.9	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Benzene	71-43-2	ug/kg	255	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Bromodichloromethane	75-27-4	ug/kg	540	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Bromoform	75-25-2	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Bromomethane	74-83-9	ug/kg	235	< 2300		< 2800		< 2700		< 1700		< 3100		< 1200	< 1100		
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Chlorobenzene	108-90-7	ug/kg	13100	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Chloroethane	75-00-3	ug/kg		< 2300		< 2800		< 2700		< 1700		< 3100		< 1200	< 1100		
Chloroform	67-66-3	ug/kg	1190	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Chloromethane	74-87-3	ug/kg	10400	< 2300		< 2800		< 2700		< 1700		< 3100		< 1200	< 1100		
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Ethylbenzene	100-41-4	ug/kg	5160	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 1200		< 1400		< 1400		< 830		< 1600			< 570		
Methylene Chloride	75-09-2	ug/kg	4050	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Toluene	108-88-3	ug/kg	200000	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 1200		< 1400		< 1400		< 830		< 1600		< 600	< 570		
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 2300		< 2800		< 2700		< 1700		< 3100		< 1200	< 1100		
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F12-2075A-03	F12-2075A-04	F12-2221-05	F12-8206-03	F12-F6-02	F13-8209-03	F13-8209-03	F9-16-04	F9-16-05	F9-16-05	F9-2105A-01	F9-5-03	F9-7-03	F9-8188-01
			Sample Date	11/1/1999	11/1/1999	10/28/1999	10/21/1999	12/2/1999	11/2/1999	11/2/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F12-2075A-031N	F12-2075A-041N	F12-2221-051N	F12-8206-031N	F12-F6-021N	F13-8209-031FD	F13-8209-031N	F9-16-041N	F9-16-051.5FD	F9-16-051.5N	F9-2105A-011N	F9-5-031.3N	F9-7-031N	F9-8188-011N
			Parent ID						F13-8209-031N			F9-16-051.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 220			< 220	< 210	< 250	< 250	< 250		< 250	< 250	< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 220			< 220	< 210	< 250	< 250	< 250		< 250	< 250	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 220			< 220	< 210	838	< 250	< 250		1117	< 250	951
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 220			< 220	< 210	< 250	< 250	< 250		< 250	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg				< 430			< 430	< 420	< 500	< 500	< 500		< 500	< 500	< 500
3-Nitrotoluene	99-08-1	ug/kg				< 430			< 430	< 420	< 500	< 500	< 500		< 500	< 500	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 220			< 220	< 210	< 250	< 250	< 250		< 250	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg				< 430			< 430	< 420	< 500	< 500	< 500		< 500	< 500	< 500
Nitrobenzene	98-95-3	ug/kg	1310			< 220			< 220	< 210	< 250	< 250	< 250		< 250	< 250	< 250
Nitrocellulose	9004-70-0	ug/kg									4510000	177000	99000		6550000	90100	1740000
Nitroglycerin	55-63-0	ug/kg	65000			< 4800			< 4500	< 4500	52208	10125	2090		183465	< 4988	131692
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 430			< 430	< 420	< 500	< 500	< 500		< 500	< 500	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 430			< 430	< 420	< 500	< 500	< 500		< 500	< 500	< 500
Tetryl	479-45-8	ug/kg	25000			< 430			< 430	< 420	< 500	< 500	< 500		< 500	< 500	< 500
GenChem																	
pH	pH	su		7.29	6.69												
Grain Size																	
Clay	Clay	%					3	11.3		3.2	7.9			9.3	10.1	11.6	7.7
Gravel	Gravel	%					35.9	28.6		26.1	39.4			38.5	36.9	23.1	40.6
Sand	Sand	%					47	37.3		55.9	34.5			33.8	33.4	40.7	38.6
Silt	Silt	%					14.1	22.8		14.8	18.2			18.5	19.6	24.6	13.1
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F12-2075A-03	F12-2075A-04	F12-2221-05	F12-8206-03	F12-F6-02	F13-8209-03	F13-8209-03	F9-16-04	F9-16-05	F9-16-05	F9-2105A-01	F9-5-03	F9-7-03	F9-8188-01
			Sample Date	11/1/1999	11/1/1999	10/28/1999	10/21/1999	12/2/1999	11/2/1999	11/2/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F12-2075A-031N	F12-2075A-041N	F12-2221-051N	F12-8206-031N	F12-F6-021N	F13-8209-031FD	F13-8209-031N	F9-16-041N	F9-16-051.5FD	F9-16-051.5N	F9-2105A-011N	F9-5-031.3N	F9-7-031N	F9-8188-011N
			Parent ID						F13-8209-031N			F9-16-051.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.52	< 0.44	< 0.51	< 0.43	< 0.5	< 0.45	< 0.43	< 1.3	< 0.49	< 0.54	< 0.57	< 0.56	< 0.55	< 0.54
Arsenic	7440-38-2	mg/kg	9.9	84.7	72	75.5	7.1	5.1	4	5.5	8.5	2.5	2.6	5.4	3.9	3.8	7.7
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.59	0.53	0.49	0.28	0.64	0.61	0.62	0.64	0.53	0.54	0.74	0.6	0.7	0.69
Cadmium	7440-43-9	mg/kg	0.36	< 0.31	< 0.27	0.48	0.33	< 0.3	< 0.28	< 0.26	0.68	< 0.09	< 0.33	< 0.34	< 0.34	< 0.33	0.39
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	22.2	18.5	25.5	12.3	16.3	14.5	17.6	16.2	11.5	11.2	47.9	15.1	14.5	20.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	43.5	40.4	202	24.5	13.3	10.2	12.9	39	35.2	33.2	66.3	46.9	21.2	74.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	49.2	30.4	109	614	14.8	8.7	10	116	16.9	15	63.3	81.7	15.8	66.1
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.12	0.08	0.08	0.41	0.09	0.03	0.03	0.13	0.03	0.02	2.2	0.07	0.02	0.13
Nickel	7440-02-0	mg/kg	38	17.2	15.1	11.1	6.9	7.4	7.7	8.5	10.5	7.2	5.9	10.6	7.9	9	11
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.76	0.65	0.92	0.68	1.1	0.47	0.35	1.3	1	1.1	1.1	1.4	1.3	1.3
Silver	7440-22-4	mg/kg	2	< 0.31	< 0.27	0.1	0.11	< 0.3	< 0.27	< 0.26	< 0.76	< 0.09	< 0.33	< 0.34	< 0.34	< 0.33	< 0.33
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 0.89	< 1	< 0.86	< 1	< 0.91	< 0.86	< 2.5	< 0.97	< 1.1	0.7	0.83	0.79	0.94
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	72.2	44.9	386	192	71.2	46.1	48.7	252	47.8	43.6	141	101	57.6	205
Moisture																	
Percent Solids	SOLID	percent		85.9	91	82.2	91.2	83.9	88.8	87.4	79.4	90	89.3	85.2	86.2	85.7	85.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 19000	< 18000	< 2000	< 1800	< 790	< 1900	< 1900	< 840	< 740	< 750	< 780	< 780	< 780	< 780

Kennedy Jenks

			Location	F12-2075A-03	F12-2075A-04	F12-2221-05	F12-8206-03	F12-F6-02	F13-8209-03	F13-8209-03	F9-16-04	F9-16-05	F9-16-05	F9-2105A-01	F9-5-03	F9-7-03	F9-8188-01
			Sample Date	11/1/1999	11/1/1999	10/28/1999	10/21/1999	12/2/1999	11/2/1999	11/2/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F12-2075A-031N	F12-2075A-041N	F12-2221-051N	F12-8206-031N	F12-F6-021N	F13-8209-031FD	F13-8209-031N	F9-16-041N	F9-16-051.5FD	F9-16-051.5N	F9-2105A-011N	F9-5-031.3N	F9-7-031N	F9-8188-011N
			Parent ID						F13-8209-031N			F9-16-051.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	240	< 370	< 370	160	460	< 390	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2-Chloronaphthalene	91-58-7	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2-Chlorophenol	95-57-8	ug/kg	243	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 7800	< 7300	< 820	< 730	< 790	< 750	< 770	< 840	< 740	< 750	< 780	< 780	< 780	< 780
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 19000	< 18000	< 2000	< 1800	< 790	< 1900	< 1900	< 840	< 740	< 750	< 780	< 780	< 780	< 780
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
4-Nitrophenol	100-02-7	ug/kg	7000	< 19000	< 18000	< 2000	< 1800	< 790	< 1900	< 1900	< 840	< 740	< 750	< 780	< 780	< 780	< 780
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 3900	< 3700	< 410	44	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Acenaphthylene	208-96-8	ug/kg	682000	< 3900	< 3700	410	44	< 400	< 370	< 380	< 420	< 370	< 370	20	< 390	< 390	< 390
Anthracene	120-12-7	ug/kg	1480000	< 3900	< 3700	170	190	< 400	< 370	< 380	< 420	< 370	< 370	41	< 390	< 390	< 390
Benzidine	92-87-5	ug/kg	1310	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100								< 420	< 370	< 370	< 390	< 390	< 390	< 390
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 3900	< 3700	880	530	33	< 370	240	64	< 370	< 370	130	69	< 390	48
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 3900	< 3700	810	480	33	< 370	120	79	< 370	< 370	180	< 390	< 390	55
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 3900	< 3700	1300	770	< 400	< 370	230	170	< 370	< 370	400	190	< 390	81
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 3900	< 3700	580	270	< 400	< 370	< 380							
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 3900	< 3700	280	360	< 400	< 370	67	< 420	< 370	< 370	100	98	< 390	< 390
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 3900	< 3700	50	51	30	30	< 380	80	21	< 370	280	170	< 390	67
Butylbenzylphthalate	85-68-7	ug/kg	239	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Chrysene	218-01-9	ug/kg	4730	< 3900	< 3700	920	610	43	< 370	150	76	< 370	< 370	170	83	< 390	50
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 3900	< 3700	170	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Diethylphthalate	84-66-2	ug/kg	24800	1500	< 3700	170	41	< 400	< 370	< 380	660	< 370	< 370	390	4200	< 390	240
Dimethylphthalate	131-11-3	ug/kg	734000	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Di-n-butylphthalate	84-74-2	ug/kg	150	< 3900	< 3700	57	40	< 400	42	59	< 420	< 33	< 370	< 390	3200	< 390	< 390
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Fluoranthene	206-44-0	ug/kg	122000	< 3900	< 3700	890	1200	79	< 370	270	130	< 370	< 370	320	92	< 390	< 390
Fluorene	86-73-7	ug/kg	122000	< 3900	< 3700	< 410	74	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Hexachlorobenzene	118-74-1	ug/kg	199	< 3900	< 3700	< 410	< 370		< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Hexachloroethane	67-72-1	ug/kg	596	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 3900	< 3700	480	270	< 400	< 370	< 380	< 420	< 370	< 370	75	< 390	< 390	< 390
Isophorone	78-59-1	ug/kg	139000	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Naphthalene	91-20-3	ug/kg	99.4	< 3900	< 3700	< 410	42	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Nitrobenzene	98-95-3	ug/kg	1310	< 3900	< 3700		< 370	< 400						< 390			
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 3900	< 3700	160	120	< 400	< 370	< 380	1200	110	76	780	< 390	< 390	2300
Pentachlorophenol	87-86-5	ug/kg	2100	< 19000	< 18000	< 2000	< 1800	< 790	< 1900	< 1900	< 840	< 740	< 750	< 780	< 780	< 780	< 780
Phenanthrene	85-01-8	ug/kg	45700	< 3900	< 3700	180	980	38	< 370	< 380	68	< 370	< 370	220	24	< 390	40
Phenol	108-95-2	ug/kg	30000	< 3900	< 3700	< 410	< 370	< 400	< 370	< 380	< 420	< 370	< 370	< 390	< 390	< 390	< 390
Pyrene	129-00-0	ug/kg	78500	< 3900	< 3700	1400	1700	68	< 370	250	110	< 370	< 370	340	< 390	< 390	< 390
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg					65900	7900		9310	33000			17800	11900	2740	14700
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	F12-2075A-03	F12-2075A-04	F12-2221-05	F12-8206-03	F12-F6-02	F13-8209-03	F13-8209-03	F9-16-04	F9-16-05	F9-16-05	F9-2105A-01	F9-5-03	F9-7-03	F9-8188-01
			Sample Date	11/1/1999	11/1/1999	10/28/1999	10/21/1999	12/2/1999	11/2/1999	11/2/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F12-2075A-031N	F12-2075A-041N	F12-2221-051N	F12-8206-031N	F12-F6-021N	F13-8209-031FD	F13-8209-031N	F9-16-041N	F9-16-051.5FD	F9-16-051.5N	F9-2105A-011N	F9-5-031.3N	F9-7-031N	F9-8188-011N
			Parent ID						F13-8209-031N			F9-16-051.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F9-C1-04	G10-1-02	G10-1-02	G10-172A-01	G10-2-03	G10-5-02	G10-8106-01	G10-8106-01	G10-8106A-04	G10-8106B-04	G10-8108-06	G10-8108-07	G10-8108-08	G10-8159-03
			Sample Date	12/21/1999	11/23/1999	11/23/1999	12/1/1999	11/22/1999	12/15/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/23/1999	11/23/1999	11/23/1999	12/15/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F9-C1-041.3N	G10-1-021FD	G10-1-021N	G10-172A-010.5N	G10-2-031N	G10-5-021N	G10-8106-010.5N	G10-8106-011N	G10-8106A-041N	G10-8106B-041N	G10-8108-061N	G10-8108-071N	G10-8108-081N	G10-8159-030.5N
			Parent ID		G10-1-021N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		6.9		6		7.3	5.4		4.8	3.9	5.4		4.2		
Gravel	Gravel	%		42.4		31.6		32.2	51.3		38.2	39.2	35.9		51.5		
Sand	Sand	%		35.1		54.2		44.4	34.6		47.9	25.3	49.7		36		
Silt	Silt	%		15.5		8.2		16.1	8.8		9.1	31.6	9		8.2		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F9-C1-04	G10-1-02	G10-1-02	G10-172A-01	G10-2-03	G10-5-02	G10-8106-01	G10-8106-01	G10-8106A-04	G10-8106B-04	G10-8108-06	G10-8108-07	G10-8108-08	G10-8159-03
			Sample Date	12/21/1999	11/23/1999	11/23/1999	12/1/1999	11/22/1999	12/15/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/23/1999	11/23/1999	11/23/1999	12/15/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F9-C1-041.3N	G10-1-021FD	G10-1-021N	G10-172A-010.5N	G10-2-031N	G10-5-021N	G10-8106-010.5N	G10-8106-011N	G10-8106A-041N	G10-8106B-041N	G10-8108-061N	G10-8108-071N	G10-8108-081N	G10-8159-030.5N
			Parent ID		G10-1-021N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.5	1.1	0.72		1.3	< 0.6		0.17	< 0.52	179	0.73	10.7	1.3	
Arsenic	7440-38-2	mg/kg	9.9	6.4	82.9	84.2		15.7	9.5		14.3	15.9	41.7	8.9	99.7	7.5	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.53	0.4	0.39		0.86	0.43		0.32	0.38	0.44	0.51	0.33	0.44	
Cadmium	7440-43-9	mg/kg	0.36	< 0.3	0.26	0.21		1.8	1.5		0.74	0.69	8.6	< 0.31	3.3	1.9	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	11.2	15.6	15.4		56.5	18.6		23.1	40.3	186	18	26.9	14.9	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	32.2	66.2	63.6		110	97.4		206	91.6	1370	107	317	232	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	42.2	153	120		341	304		367	853	35300	298	7650	1120	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.07	9.9	10.5		0.93	1.7		0.62	2.3	0.88	0.55	0.72	1.6	
Nickel	7440-02-0	mg/kg	38	8.3	12.2	11.1		1020	13.8		72.7	16.7	281	20.8	19.7	12.5	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.1	26.9	21.6		3.1	1.6		2.3	2.4	5.6	2.2	2	1.2	
Silver	7440-22-4	mg/kg	2	< 0.3	0.26	0.16		0.37	0.39		0.67	0.21	22.6	< 0.31	5	0.76	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.99	< 1.1	< 0.99		< 1.1	< 1.2		< 0.87	< 1	< 8.8	< 1	< 3.9	< 0.77	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	87.3	110	87.8		357	326		304	168	892	160	600	963	
Moisture																	
Percent Solids	SOLID	percent		87.6	88.4	88.5		85.6	82.9		82.7	81.5	85.9	88.9	81.7	92.9	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371						21					< 19	< 210	< 19	
Aroclor-1221	11104-28-2	ug/kg	371						21					< 19	< 210	< 19	
Aroclor-1232	11141-16-5	ug/kg	371						21					< 19	< 210	< 19	
Aroclor-1242	53469-21-9	ug/kg	371						21					< 19	< 210	< 19	
Aroclor-1248	12672-29-6	ug/kg	371						21					< 19	< 210	< 19	
Aroclor-1254	11097-69-1	ug/kg	371						340					< 19	1900	< 19	
Aroclor-1260	11096-82-5	ug/kg	371						41					< 38	1500	130	
Polychlorinated biphenyls	1336-36-3	ug/kg	371						486					< 38	3400	130	
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 380	< 380	< 380		< 390	< 400		< 400	280	< 390	< 370	< 4100	< 360	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 760	< 1900	< 1900		< 1900	< 800		< 2000	< 2100	< 1900	< 1900	< 20000	< 1800	

			Location	F9-C1-04	G10-1-02	G10-1-02	G10-172A-01	G10-2-03	G10-5-02	G10-8106-01	G10-8106-01	G10-8106A-04	G10-8106B-04	G10-8108-06	G10-8108-07	G10-8108-08	G10-8159-03
			Sample Date	12/21/1999	11/23/1999	11/23/1999	12/1/1999	11/22/1999	12/15/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/23/1999	11/23/1999	11/23/1999	12/15/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F9-C1-041.3N	G10-1-021FD	G10-1-021N	G10-172A-010.5N	G10-2-031N	G10-5-021N	G10-8106-010.5N	G10-8106-011N	G10-8106A-041N	G10-8106B-041N	G10-8108-061N	G10-8108-071N	G10-8108-081N	G10-8159-030.5N
			Parent ID		G10-1-021N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	120	< 380	< 380		< 390	< 400		< 400	< 410	54	300	< 4100	52	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 380	< 380	< 380		< 390	< 400		60	< 410	< 390	85	< 4100	< 360	
2-Chloronaphthalene	91-58-7	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
2-Chlorophenol	95-57-8	ug/kg	243	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 760	< 760	< 760		< 780	< 800		< 800	< 820	< 780	< 750	< 8100	< 720	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 760	< 1900	< 1900		< 1900	< 800		< 2000	< 2100	< 1900	< 1900	< 20000	< 1800	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
4-Nitrophenol	100-02-7	ug/kg	7000	< 760	< 1900	< 1900		< 1900	< 800		< 2000	< 2100	< 1900	< 1900	< 20000	< 1800	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 380	< 380	< 380		< 390	< 400		< 400	37	50	< 370	< 4100	< 360	
Acenaphthylene	208-96-8	ug/kg	682000	< 380	< 380	< 380		< 390	19		66	660	< 390	< 370	< 4100	< 360	
Anthracene	120-12-7	ug/kg	1480000	< 380	< 380	< 380		< 390	29		53	600	73	28	< 4100	< 360	
Benzidine	92-87-5	ug/kg	1310	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	< 380					110		380						
Benzo[a]anthracene	56-55-3	ug/kg	5210	61	< 380	< 380		< 390	120		470	590	310	98	660	130	
Benzo[a]pyrene	50-32-8	ug/kg	1520	69	< 380	< 380		< 390	130		480	290	240	91	710	130	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	120	< 380	< 380		< 390	240		760	920	360	180	1000	290	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 380	< 380		< 390				290	200	< 370	< 4100	< 360	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 380	< 380	< 380		< 390	98		440	340	140	< 370	< 4100	91	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	68	52	24		53	580		< 400	94	3000	52	520	200	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 380	< 380	< 380		< 390	870		< 400	< 410	< 390	< 370	< 4100	< 360	
Chrysene	218-01-9	ug/kg	4730	63	< 380	< 380		46	140		570	870	350	200	840	290	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 380	< 380	< 380		< 390	< 400		130	< 410	81	< 370	< 4100	< 360	
Diethylphthalate	84-66-2	ug/kg	24800	100	120	< 380		< 390	660		< 400	< 410	460	< 370	< 4100	67	
Dimethylphthalate	131-11-3	ug/kg	734000	< 380	< 380	< 380		< 390	< 400		< 400	< 410	49	< 370	< 4100	< 360	
Di-n-butylphthalate	84-74-2	ug/kg	150	< 380	200	75		< 390	970		120	140	1400	75	< 4100	180	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Fluoranthene	206-44-0	ug/kg	122000	< 380	< 380	< 380		< 390	240		1000	5400	470	230	990	220	
Fluorene	86-73-7	ug/kg	122000	< 380	< 380	< 380		< 390	< 400		< 400	47	< 390	< 370	< 4100	< 360	
Hexachlorobenzene	118-74-1	ug/kg	199	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Hexachloroethane	67-72-1	ug/kg	596	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 380	< 380	< 380		< 390	95		340	310	160	< 370	< 4100	< 360	
Isophorone	78-59-1	ug/kg	139000	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Naphthalene	91-20-3	ug/kg	99.4	< 380	< 380	< 380		< 390	< 400		24	160	33	97	< 4100	33	
Nitrobenzene	98-95-3	ug/kg	1310	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 380	< 380	< 380		< 390	< 400		< 400	< 410	330	< 370	< 4100	< 360	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	1800	< 380	< 380		< 390	720		< 400	< 410	< 390	86	< 4100	190	
Pentachlorophenol	87-86-5	ug/kg	2100	< 760	< 1900	< 1900		< 1900	< 800		< 2000	< 2100	< 1900	< 1900	< 20500	< 1800	
Phenanthrene	85-01-8	ug/kg	45700	67	< 380	< 380		42	97		530	2600	240	230	620	200	
Phenol	108-95-2	ug/kg	30000	< 380	< 380	< 380		< 390	< 400		< 400	< 410	< 390	< 370	< 4100	< 360	
Pyrene	129-00-0	ug/kg	78500	< 380	< 380	< 380		< 390	260		1500	2900	640	200	1400	300	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		26600		256000		114000	41200		26100	27200	13400		30800		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg					< 590			< 530							< 560
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127				< 590			< 530							< 560

			Location	F9-C1-04	G10-1-02	G10-1-02	G10-172A-01	G10-2-03	G10-5-02	G10-8106-01	G10-8106-01	G10-8106A-04	G10-8106B-04	G10-8108-06	G10-8108-07	G10-8108-08	G10-8159-03
			Sample Date	12/21/1999	11/23/1999	11/23/1999	12/1/1999	11/22/1999	12/15/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/23/1999	11/23/1999	11/23/1999	12/15/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F9-C1-041.3N	G10-1-021FD	G10-1-021N	G10-172A-010.5N	G10-2-031N	G10-5-021N	G10-8106-010.5N	G10-8106-011N	G10-8106A-041N	G10-8106B-041N	G10-8108-061N	G10-8108-071N	G10-8108-081N	G10-8159-030.5N
			Parent ID		G10-1-021N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg					< 590			< 530							< 560
1,1-Dichloroethane	75-34-3	ug/kg					< 590			< 530							< 560
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 590			< 530							< 560
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 590			< 530							< 560
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 590			< 530							< 560
1,2-Dichloroethane	107-06-2	ug/kg					< 590			< 530							< 560
1,2-Dichloropropane	78-87-5	ug/kg					< 590			< 530							< 560
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 590			< 530							< 560
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 590			< 530							< 560
2-Chloroethylvinylether	110-75-8	ug/kg					< 1179			< 1059							< 1100
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270				< 2359			< 2119							2300
Acrylonitrile	107-13-1	ug/kg	23.9				< 590			< 530							< 560
Benzene	71-43-2	ug/kg	255				< 590			< 530							< 560
Bromodichloromethane	75-27-4	ug/kg	540				< 590			< 530							< 560
Bromoform	75-25-2	ug/kg					< 590			< 530							< 560
Bromomethane	74-83-9	ug/kg	235				< 1179			123							< 1100
Carbon Tetrachloride	56-23-5	ug/kg	2980				< 590			< 530							< 560
Chlorobenzene	108-90-7	ug/kg	13100				< 590			< 530							< 560
Chloroethane	75-00-3	ug/kg					< 1179			< 1059							< 1100
Chloroform	67-66-3	ug/kg	1190				< 590			< 530							< 560
Chloromethane	74-87-3	ug/kg	10400				< 1179			< 1059							< 1100
cis-1,2-Dichloroethene	156-59-2	ug/kg					< 590			< 530							< 560
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050				< 590			< 530							290
Ethylbenzene	100-41-4	ug/kg	5160				< 590			< 530							260
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 590			< 530							< 560
Methylene Chloride	75-09-2	ug/kg	4050				< 590			< 530							< 560
Naphthalene	91-20-3	ug/kg	99.4														< 560
Tetrachloroethene	127-18-4	ug/kg	9920				< 590			< 530							430
Toluene	108-88-3	ug/kg	200000				< 590			< 530							760
trans-1,2-Dichloroethene	156-60-5	ug/kg					< 590			< 530							< 560
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400				195			< 530							< 560
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646				< 1179			< 1059							< 1100
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G10-8159-03	G10-8159-05	G10-8159-06	G10-8204-05	G10-8213-07	G10-8213-07	G10-8501-06	G10-8502-07	G10-8503-03	G10-8503-03	G10-9515-02	G11-2017B-01	G11-2017B-01	G11-2017B-07
			Sample Date	12/15/1999	12/15/1999	12/15/1999	11/22/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999	12/17/1999	12/17/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	G10-8159-031.5N	G10-8159-050.5N	G10-8159-060.5N	G10-8204-050.5N	G10-8213-071FD	G10-8213-071N	G10-8501-061N	G10-8502-071N	G10-8503-030.5FD	G10-8503-030.5N	G10-9515-021N	G11-2017B-010.5N	G11-2017B-011N	G11-2017B-070.5N
			Parent ID					G10-8213-071N				G10-8503-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376													< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655													< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000													< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000													< 250	
2-Nitrotoluene	88-72-2	ug/kg														< 500	
3-Nitrotoluene	99-08-1	ug/kg														< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000													< 250	
4-Nitrotoluene	99-99-0	ug/kg														< 500	
Nitrobenzene	98-95-3	ug/kg	1310													< 250	
Nitrocellulose	9004-70-0	ug/kg														96000	
Nitroglycerin	55-63-0	ug/kg	65000													< 4878	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000													< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000													< 500	
Tetryl	479-45-8	ug/kg	25000													< 500	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		6.1					6.1	7.1	5.3			8.4		7.5	
Gravel	Gravel	%		44.6					42.2	35.7	51.8			28.3		32.2	
Sand	Sand	%		36					41.4	41.8	31.3			44.6		48.1	
Silt	Silt	%		13.3					10.4	15.4	11.6			18.6		12.2	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G10-8159-03	G10-8159-05	G10-8159-06	G10-8204-05	G10-8213-07	G10-8213-07	G10-8501-06	G10-8502-07	G10-8503-03	G10-8503-03	G10-9515-02	G11-2017B-01	G11-2017B-01	G11-2017B-07
			Sample Date	12/15/1999	12/15/1999	12/15/1999	11/22/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999	12/17/1999	12/17/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	G10-8159-031.5N	G10-8159-050.5N	G10-8159-060.5N	G10-8204-050.5N	G10-8213-071FD	G10-8213-071N	G10-8501-061N	G10-8502-071N	G10-8503-030.5FD	G10-8503-030.5N	G10-9515-021N	G11-2017B-010.5N	G11-2017B-011N	G11-2017B-070.5N
			Parent ID					G10-8213-071N				G10-8503-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.6			< 0.44	2	0.69	0.64	0.94			20.5		< 0.51	
Arsenic	7440-38-2	mg/kg	9.9	20.1			4	35.6	32.3	25.8	319			13.1		10.9	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.35			0.62	0.35	0.39	0.62	0.67			0.4		0.42	
Cadmium	7440-43-9	mg/kg	0.36	0.88			1.4	0.63	0.66	< 0.31	2.7			1.1		0.6	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	24.1			19.7	17.3	16.5	16.7	72.6			27.3		13.4	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	116			122	126	86.9	185	164			155		31.2	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	806			103	2730	3420	361	495			709		85.1	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	1.1			0.65	1.3	0.78	5.1	13			1.6		1.5	
Nickel	7440-02-0	mg/kg	38	9			18.3	16.7	12.9	18.3	82.5			14.1		7.2	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.7			< 0.44	3.7	2.5	3.7	27.1			1.5		1.3	
Silver	7440-22-4	mg/kg	2	0.29			0.4	0.45	0.43	< 0.31	0.62			0.26		0.1	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.2			< 0.88	< 2	< 0.92	1.8	< 1.2			< 1		< 1	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	254			367	152	150	243	293			292		92.1	
Moisture																	
Percent Solids	SOLID	percent		79			81.2	88.1	87.2	85.8	84.8			85		85.9	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
1,2-Diphenylhydrazine	122-66-7	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2,4-Dimethylphenol	105-67-9	ug/kg	10				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9				< 21000	< 1900	< 1900	< 780	< 780			< 2000		< 780	

			Location	G10-8159-03	G10-8159-05	G10-8159-06	G10-8204-05	G10-8213-07	G10-8213-07	G10-8501-06	G10-8502-07	G10-8503-03	G10-8503-03	G10-9515-02	G11-2017B-01	G11-2017B-01	G11-2017B-07
			Sample Date	12/15/1999	12/15/1999	12/15/1999	11/22/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999	12/17/1999	12/17/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	G10-8159-031.5N	G10-8159-050.5N	G10-8159-060.5N	G10-8204-050.5N	G10-8213-071FD	G10-8213-071N	G10-8501-061N	G10-8502-071N	G10-8503-030.5FD	G10-8503-030.5N	G10-9515-021N	G11-2017B-010.5N	G11-2017B-011N	G11-2017B-070.5N
			Parent ID					G10-8213-071N				G10-8503-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280				< 4100	31	< 380	< 390	< 390			< 390		< 390	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2-Chloronaphthalene	91-58-7	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2-Chlorophenol	95-57-8	ug/kg	243				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646				< 8200	< 760	< 770	< 780	< 780			< 780		< 780	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144				< 21000	< 1900	< 1900	< 780	< 780			< 2000		< 780	
4-Bromophenyl-phenylether	101-55-3	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
4-Chloro-3-methylphenol	59-50-7	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
4-Nitrophenol	100-02-7	ug/kg	7000				< 21000	< 1900	< 1900	< 780	< 780			< 2000		< 780	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Acenaphthylene	208-96-8	ug/kg	682000				< 4100	30	36	21	< 390			170		< 390	
Anthracene	120-12-7	ug/kg	1480000				< 4100	23	25	48	35			240		< 390	
Benzidine	92-87-5	ug/kg	1310				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100							< 390	< 390					< 390	
Benzo[a]anthracene	56-55-3	ug/kg	5210				< 4100	41	50	240	80			2000		59	
Benzo[a]pyrene	50-32-8	ug/kg	1520				< 4100	42	43	290	< 390			1600		44	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800				< 4100	91	130	450	110			2700		97	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000				< 4100	< 380	< 380					550			
Benzo[k]fluoranthene	207-08-9	ug/kg	148000				< 4100	< 380	< 380	140	< 390			990		< 390	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925				6200	33	41	< 390	90			410		170	
Butylbenzylphthalate	85-68-7	ug/kg	239				4500	< 380	< 380	< 390	< 390			< 390		< 390	
Chrysene	218-01-9	ug/kg	4730				< 4100	58	72	230	74			1800		94	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400				< 4100	< 380	< 380	< 390	< 390			230		< 390	
Diethylphthalate	84-66-2	ug/kg	24800				1400	< 380	< 380	< 390	< 390			76		< 390	
Dimethylphthalate	131-11-3	ug/kg	734000				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Di-n-butylphthalate	84-74-2	ug/kg	150				1400	< 380	< 380	< 390	60			270		100	
Di-n-octylphthalate	117-84-0	ug/kg	7090				< 4100	< 380	< 380	< 390	< 390			< 390		100	
Fluoranthene	206-44-0	ug/kg	122000				< 4100	< 380	74	360	110			2300		98	
Fluorene	86-73-7	ug/kg	122000				< 4100	< 380	< 380	< 390	< 390			31		< 390	
Hexachlorobenzene	118-74-1	ug/kg	199				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Hexachlorocyclopentadiene	77-47-4	ug/kg					< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Hexachloroethane	67-72-1	ug/kg	596				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000				< 4100	< 380	72	< 390	< 390			660		< 390	
Isophorone	78-59-1	ug/kg	139000				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Naphthalene	91-20-3	ug/kg	99.4				< 4100	< 380	< 380	< 390	< 390			50		47	
Nitrobenzene	98-95-3	ug/kg	1310				< 4100	< 380	< 380	< 390	< 390			< 390			
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545				850	< 380	< 380	< 390	< 390			< 390		< 390	
Pentachlorophenol	87-86-5	ug/kg	2100				< 21000	< 1900	< 1900	< 780	< 780			< 2000		< 780	
Phenanthrene	85-01-8	ug/kg	45700				< 4100	22	< 380	240	89			380		120	
Phenol	108-95-2	ug/kg	30000				< 4100	< 380	< 380	< 390	< 390			< 390		< 390	
Pyrene	129-00-0	ug/kg	78500				< 4100	< 380	< 380	610	160			2400		< 390	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		34400					12100	26000	33300			12600		38300	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 580	< 580						< 700	< 600		< 530		< 520

			Location	G10-8159-03	G10-8159-05	G10-8159-06	G10-8204-05	G10-8213-07	G10-8213-07	G10-8501-06	G10-8502-07	G10-8503-03	G10-8503-03	G10-9515-02	G11-2017B-01	G11-2017B-01	G11-2017B-07
			Sample Date	12/15/1999	12/15/1999	12/15/1999	11/22/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999	12/17/1999	12/17/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	G10-8159-031.5N	G10-8159-050.5N	G10-8159-060.5N	G10-8204-050.5N	G10-8213-071FD	G10-8213-071N	G10-8501-061N	G10-8502-071N	G10-8503-030.5FD	G10-8503-030.5N	G10-9515-021N	G11-2017B-010.5N	G11-2017B-011N	G11-2017B-070.5N
			Parent ID					G10-8213-071N				G10-8503-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
1,1-Dichloroethane	75-34-3	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 580	< 580						< 700	< 600		< 530		< 520
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 580	< 580						< 700	< 600		< 530		< 520
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 580	< 580						< 700	< 600		< 530		< 520
1,2-Dichloroethane	107-06-2	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
1,2-Dichloropropane	78-87-5	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 580	< 580						< 700	< 600		< 530		< 520
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 580	< 580						< 700	< 600		< 530		< 520
2-Chloroethylvinylether	110-75-8	ug/kg			< 1200	< 1200						< 1400	< 1200		< 1100		< 1100
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 2300	< 2300						< 2800	< 2400		< 2100		< 2100
Acrylonitrile	107-13-1	ug/kg	23.9		< 580	< 580						< 700	< 600		< 530		< 520
Benzene	71-43-2	ug/kg	255		< 580	< 580						< 700	< 600		< 530		< 520
Bromodichloromethane	75-27-4	ug/kg	540		< 580	< 580						< 700	< 600		< 530		< 520
Bromoform	75-25-2	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
Bromomethane	74-83-9	ug/kg	235		< 1200	< 1200						< 1400	< 1200		< 1100		< 1100
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 580	< 580						< 700	< 600		< 530		< 520
Chlorobenzene	108-90-7	ug/kg	13100		< 580	< 580						< 700	< 600		< 530		< 520
Chloroethane	75-00-3	ug/kg			< 1200	< 1200						< 1400	< 1200		< 1100		< 1100
Chloroform	67-66-3	ug/kg	1190		< 580	< 580						< 700	< 600		< 530		< 520
Chloromethane	74-87-3	ug/kg	10400		< 1200	< 1200						< 1400	< 1200		< 1100		< 1100
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 580	< 580						< 700	< 600		< 530		< 520
Ethylbenzene	100-41-4	ug/kg	5160		< 580	< 580						< 700	< 600		< 530		< 520
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 580	< 580						< 700	< 600		< 530		< 520
Methylene Chloride	75-09-2	ug/kg	4050		< 580	< 580						< 1500	< 600		< 530		< 520
Naphthalene	91-20-3	ug/kg	99.4		< 580	< 580						< 140					
Tetrachloroethene	127-18-4	ug/kg	9920		< 580	< 580						570	470		800		< 520
Toluene	108-88-3	ug/kg	200000		< 580	< 580						< 700	< 600		120		< 520
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 580	< 580						< 700	< 600		< 530		< 520
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 580	< 580						< 700	< 600		< 530		< 520
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 1200	< 1200						< 1400	< 1200		< 1100		< 1100
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G11-2017B-08	G11-2259-01	G11-2259-06	G11-253-03	G11-3-01	G11-3-01	G11-3-01	G11-3-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05
			Sample Date	12/15/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	G11-2017B-080.5N	G11-2259-011.5N	G11-2259-061N	G11-253-031N	G11-3-010.5FD	G11-3-010.5N	G11-3-011.5FD	G11-3-011.5N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N
			Parent ID					G11-3-010.5N		G11-3-011.5N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg					< 120										
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655				< 120										
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000				< 120										
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 120										
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000				< 120										
2-Nitrotoluene	88-72-2	ug/kg					< 230										
3-Nitrotoluene	99-08-1	ug/kg					< 230										
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000				< 120										
4-Nitrotoluene	99-99-0	ug/kg					< 230										
Nitrobenzene	98-95-3	ug/kg	1310				< 120										
Nitrocellulose	9004-70-0	ug/kg					34500										
Nitroglycerin	55-63-0	ug/kg	65000				< 4546										
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000				< 230										
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000				< 230										
Tetryl	479-45-8	ug/kg	25000				230										
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			5.6		5.5				3.1		2.3		11.2		2.5
Gravel	Gravel	%			42.6		28.9				39.1		38.2		25.4		57.8
Sand	Sand	%			39.2		54.2				48.1		53.3		44		31.6
Silt	Silt	%			12.6		11.4				9.7		6.2		19.4		8
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G11-2017B-08	G11-2259-01	G11-2259-06	G11-253-03	G11-3-01	G11-3-01	G11-3-01	G11-3-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05
			Sample Date	12/15/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	G11-2017B-080.5N	G11-2259-011.5N	G11-2259-061N	G11-253-031N	G11-3-010.5FD	G11-3-010.5N	G11-3-011.5FD	G11-3-011.5N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N
			Parent ID					G11-3-010.5N		G11-3-011.5N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		0.79	1.3				0.34	0.23		0.3		< 0.54	0.36	< 0.58
Arsenic	7440-38-2	mg/kg	9.9		120	78.7				30.9	27.6		46.2		15.3	10.7	21.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.6	0.99				0.81	0.77		0.16		0.4	0.58	0.44
Cadmium	7440-43-9	mg/kg	0.36		0.38	0.15				< 0.32	< 0.37		0.13		< 0.32	< 0.31	< 0.35
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		18.1	13				13.7	10.9		7.9		14.5	15.2	10.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		30.2	69.6				111	91.5		10.8		106	1070	27.7
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		77	138				375	327		30.2		120	86.7	62.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.84	0.42				1.8	1.7		0.07		2.2	0.54	0.64
Nickel	7440-02-0	mg/kg	38		11.3	16.9				16.1	10.2		4.6		11.1	9.7	11
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		2.1	2				3.8	3.3		0.42		2.2	2.3	2.1
Silver	7440-22-4	mg/kg	2		0.12	0.15				0.24	< 0.37		< 0.33		< 0.32	0.25	< 0.35
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		0.45	< 1.2				0.6	< 1.2		< 1.1		< 1.1	< 1	< 1.2
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		555	386				81.3	44.6		31.4		52.3	107	36.2
Moisture																	
Percent Solids	SOLID	percent			84.4	79.5	91.9			76.3	77.8		84.3		79.9	79.2	83.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 400	< 420				< 440	< 428		< 4000		< 420	< 420	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 790	< 830				< 880	< 857		< 7900		< 830	< 840	< 800

				Location	G11-2017B-08	G11-2259-01	G11-2259-06	G11-253-03	G11-3-01	G11-3-01	G11-3-01	G11-3-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05
				Sample Date	12/15/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999
				Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft
				Sample ID	G11-2017B-080.5N	G11-2259-011.5N	G11-2259-061N	G11-253-031N	G11-3-010.5FD	G11-3-010.5N	G11-3-011.5FD	G11-3-011.5N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N
				Parent ID					G11-3-010.5N		G11-3-011.5N							
				Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**															
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 400	1300					< 440	< 428		< 4000		250	< 420	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 400	1100					< 440	< 428		< 4000		< 420	< 420	< 400
2-Chloronaphthalene	91-58-7	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
2-Chlorophenol	95-57-8	ug/kg	243		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
2-Methylnaphthalene	91-57-6	ug/kg	3240															
2-Methylphenol	95-48-7	ug/kg																
2-Nitroaniline	88-74-4	ug/kg																
2-Nitrophenol	88-75-5	ug/kg			< 790	< 420					< 440	< 428		< 7900		< 420	< 420	< 400
2-Nitrotoluene	88-72-2	ug/kg																
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 790	< 830					< 880	< 857		< 7900		< 830	< 840	< 800
3-Nitrotoluene	99-08-1	ug/kg																
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 790	< 830					< 880	< 857		< 7900		< 830	< 840	< 800
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
4-Nitrophenol	100-02-7	ug/kg	7000		< 400	< 830					< 880	< 857		< 4000		< 830	< 840	< 800
4-Nitrotoluene	99-99-0	ug/kg																
Acenaphthene	83-32-9	ug/kg	20000		< 400	22					< 440	< 428		< 4000		39	< 420	< 400
Acenaphthylene	208-96-8	ug/kg	682000		< 400	69					19	< 428		< 4000		88	< 420	< 400
Anthracene	120-12-7	ug/kg	1480000		< 400	170					< 440	< 428		< 4000		100	< 420	29
Benzidine	92-87-5	ug/kg	1310		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100								< 440					330	< 420	
Benzo[a]anthracene	56-55-3	ug/kg	5210		73	390					120	113		< 4000		460	64	82
Benzo[a]pyrene	50-32-8	ug/kg	1520		58	260					85	102		< 4000		360	51	120
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		130	650					210	166		< 4000		690	120	340
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 400	200						< 428		< 4000				95
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 400	240					< 440	< 428		< 4000		310	< 420	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		52	85					53	< 428		< 4000		< 420	< 420	< 400
Butylbenzylphthalate	85-68-7	ug/kg	239		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Chrysene	218-01-9	ug/kg	4730		120	540					180	157		< 4000		700	88	270
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 400	< 420					< 440	< 428		< 4000		110	< 420	< 400
Diethylphthalate	84-66-2	ug/kg	24800		< 400	< 420					44	< 428		< 4000		< 420	< 420	< 400
Dimethylphthalate	131-11-3	ug/kg	734000		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Di-n-butylphthalate	84-74-2	ug/kg	150		< 400	86					< 120	< 428		< 4000		130	< 420	93
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Fluoranthene	206-44-0	ug/kg	122000		170	780					290	245		< 4000		900	160	100
Fluorene	86-73-7	ug/kg	122000		< 400	26					< 440	< 428		< 4000		69	< 420	< 400
Hexachlorobenzene	118-74-1	ug/kg	199								< 440	< 428				< 420	< 420	
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Hexachloroethane	67-72-1	ug/kg	596		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 400	200					< 440	< 428		< 4000		290	< 420	79
Isophorone	78-59-1	ug/kg	139000		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Naphthalene	91-20-3	ug/kg	99.4		< 400	35					< 440	< 428		< 4000		71	< 420	< 400
Nitrobenzene	98-95-3	ug/kg	1310		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 400	520					< 440	27.9		< 4000		500	< 420	< 400
Pentachlorophenol	87-86-5	ug/kg	2100		< 790	< 830					< 880	< 857		< 7900		< 830	< 840	< 800
Phenanthrene	85-01-8	ug/kg	45700		86	290					160	138		< 4000		750	87	150
Phenol	108-95-2	ug/kg	30000		< 400	< 420					< 440	< 428		< 4000		< 420	< 420	< 400
Pyrene	129-00-0	ug/kg	78500		150	870					280	298		< 4000		1600	120	120
Total Organic Carbon																		
Total Organic Carbon	TOC	mg/kg			34000		7820					52000		9750		34400		35100
TPH																		
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg																
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg																
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg																
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg																
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg																
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg																
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg																
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg																
Total Aliphatics	TOTALIPH	mg/kg																
Total Aromatics	TOTAROM	mg/kg																
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg																
Amyl alcohol	71-41-0	ug/kg																
Di-N-Propyl Ether	111-43-3	ug/kg																
Ethanol	64-17-5	ug/kg																
Ethyl ether	60-29-7	ug/kg																
Methanol	67-56-1	ug/kg																
N-butyl ether	142-96-1	ug/kg																
VOCs																		
1,1,1-Trichloroethane	71-55-6	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 520				< 619	< 568			< 560		< 772		< 607		

			Location	G11-2017B-08	G11-2259-01	G11-2259-06	G11-253-03	G11-3-01	G11-3-01	G11-3-01	G11-3-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05
			Sample Date	12/15/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	G11-2017B-080.5N	G11-2259-011.5N	G11-2259-061N	G11-253-031N	G11-3-010.5FD	G11-3-010.5N	G11-3-011.5FD	G11-3-011.5N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N
			Parent ID					G11-3-010.5N		G11-3-011.5N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
1,1-Dichloroethane	75-34-3	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 520				< 619	< 568			< 560		< 772		< 607	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 520				< 619	< 568			< 560		< 772			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 520				< 619	< 568			< 560		< 772			
1,2-Dichloroethane	107-06-2	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
1,2-Dichloropropane	78-87-5	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 520				< 619	< 568			< 560		< 772			
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 520				< 619	< 568			< 560		< 772			
2-Chloroethylvinylether	110-75-8	ug/kg		< 1000				< 1238	< 1136			< 1100		< 1543		< 1214	
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 2100				< 2475	< 2273			< 2200		< 3086		< 2427	
Acrylonitrile	107-13-1	ug/kg	23.9	< 520				< 619	< 568			< 560		< 772		< 607	
Benzene	71-43-2	ug/kg	255	< 520				< 619	< 568			< 560		< 772		< 607	
Bromodichloromethane	75-27-4	ug/kg	540	< 520				< 619	< 568			< 560		< 772		< 607	
Bromoform	75-25-2	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
Bromomethane	74-83-9	ug/kg	235	< 1000				< 1238	< 1136			< 1100		< 1543		< 1214	
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 520				< 619	< 568			< 560		< 772		< 607	
Chlorobenzene	108-90-7	ug/kg	13100	< 520				< 619	< 568			< 560		< 772		< 607	
Chloroethane	75-00-3	ug/kg		< 1000				< 1238	< 1136			< 1100		< 1543		< 1214	
Chloroform	67-66-3	ug/kg	1190	< 520				< 619	< 568			< 560		< 772		< 607	
Chloromethane	74-87-3	ug/kg	10400	< 1000				< 1238	< 1136			190		< 1543		< 1214	
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 520				< 619	< 568			< 560		< 772		< 607	
Ethylbenzene	100-41-4	ug/kg	5160	< 520				< 619	< 568			< 560		< 772		< 607	
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 520				< 619	< 568			< 560		< 772			
Methylene Chloride	75-09-2	ug/kg	4050	< 520				< 1067	< 568			< 560		< 772		< 607	
Naphthalene	91-20-3	ug/kg	99.4					< 619									
Tetrachloroethene	127-18-4	ug/kg	9920	< 520				< 619	< 568			< 560		< 772		< 607	
Toluene	108-88-3	ug/kg	200000	< 520				< 619	< 568			< 560		< 772		< 607	
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 520				< 619	< 568			< 560		< 772		< 607	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 520				< 619	< 568			< 560		< 772		< 607	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 1000				< 1238	< 1136			< 1100		< 1543		< 1214	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G11-8257-03	G11-8257-03	G11-9304-05	G11-9304-05	G11-9309-01	G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G7-1-01	G7-2-04	G7-2115-04	G7-2115-06	G7-2115-07
			Sample Date	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/3/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	12/16/1999	12/16/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G11-8257-031.5N	G11-8257-030.5N	G11-9304-050.5FD	G11-9304-050.5N	G11-9309-010.5N	G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G7-1-011N	G7-2-041N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N
			Parent ID			G11-9304-050.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376										< 250	< 250	< 250	< 250	< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655										< 250	< 250	< 250	< 250	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000										< 250	< 250	4657	14175	13727
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000										< 250	< 250	< 250	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg											< 500	< 500	< 500	< 500	< 500
3-Nitrotoluene	99-08-1	ug/kg											< 500	< 500	< 500	< 500	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000										< 250	< 250	< 250	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg											< 500	< 500	< 500	< 500	< 500
Nitrobenzene	98-95-3	ug/kg	1310										< 250	< 250	< 250	< 250	< 250
Nitrocellulose	9004-70-0	ug/kg											126000	88300	9560000	23400000	33700000
Nitroglycerin	55-63-0	ug/kg	65000										14750	< 4878	232903	1320000	1670000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000										< 500	< 500	< 500	< 500	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000										< 500	< 500	< 500	< 500	< 500
Tetryl	479-45-8	ug/kg	25000										< 500	< 500	< 500	< 500	< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		0.6			3.6		4	6.1		5.7	8.9	9.6	29.6		
Gravel	Gravel	%		47.1			53.9		30.1	30.4		42	32.1	26.3	15.4		
Sand	Sand	%		40.7			32.4		56.6	53.6		36.1	36	31.7	21.1		
Silt	Silt	%		11.6			10.2		9.3	9.9		16.2	23.1	32.4	33.8		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G11-8257-03	G11-8257-03	G11-9304-05	G11-9304-05	G11-9309-01	G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G7-1-01	G7-2-04	G7-2115-04	G7-2115-06	G7-2115-07
			Sample Date	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/3/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	12/16/1999	12/16/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G11-8257-031.5N	G11-8257-030.5N	G11-9304-050.5FD	G11-9304-050.5N	G11-9309-010.5N	G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G7-1-011N	G7-2-041N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N
			Parent ID			G11-9304-050.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.48		0.26	0.25	2.4	0.36	0.8	7.6	< 0.55	< 0.47	0.56	< 1.2	0.46	< 0.66
Arsenic	7440-38-2	mg/kg	9.9	28.8		8.3	8	587	53.7	156	1150	10.9	23.1	9.7	244	97.7	189
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.62		0.38	0.42	0.54	0.57	0.32	0.6	0.65	0.6	0.71	0.68	0.59	0.56
Cadmium	7440-43-9	mg/kg	0.36	< 0.29		0.04	< 0.29	22.4	0.08	0.04	< 0.26	< 0.33	< 0.28	< 0.41	5.5	1.1	< 0.4
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	17.2		17.5	17.1	24.6	9.5	9.5	9.9	15.5	29.8	42.3	21	41	83.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	32.1		348	37.6	73.2	29.4	23.9	29.2	17.9	27.7	25.9	115	452	376
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	104		42.7	27.3	199	87.6	83.8	31.5	44.3	24.1	273	419	563	582
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.2		0.03	0.04	0.57	0.24	0.18	0.21	0.13	0.06	0.83	0.24	1.4	5.1
Nickel	7440-02-0	mg/kg	38	12.3		11	11.3	25	12.9	8.2	13.4	7.5	10.9	11.3	13.9	12.3	10
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.6		0.44	0.42	2.6	1.6	1.4	2.7	1.5	1.1	2	1.4	1.6	1.9
Silver	7440-22-4	mg/kg	2	< 0.29		< 0.29	< 0.29	0.23	0.13	0.12	0.11	< 0.33	< 0.28	0.19	< 0.74	< 0.45	< 0.4
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.96		< 0.97	< 0.95	< 1.1	< 0.97	< 0.94	< 0.88	< 1.1	< 0.94	0.77	< 2.5	< 1.5	< 1.3
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	102		309	140	391	58.4	37.8	44.5	86.2	68.7	117	1050	469	160
Moisture																	
Percent Solids	SOLID	percent		84.6		93.1	87.3	79	85.8	83.5	85.8	80.6	86.8	71	77.2	67.3	75.6
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 20						< 21	< 20						
Aroclor-1221	11104-28-2	ug/kg	371	< 20						< 21	< 20						
Aroclor-1232	11141-16-5	ug/kg	371	< 20						< 21	< 20						
Aroclor-1242	53469-21-9	ug/kg	371	< 20						< 21	< 20						
Aroclor-1248	12672-29-6	ug/kg	371	< 20						< 21	< 20						
Aroclor-1254	11097-69-1	ug/kg	371	< 20						180	< 20						
Aroclor-1260	11096-82-5	ug/kg	371	660						< 40	< 40						
Polychlorinated biphenyls	1336-36-3	ug/kg	371	660						180	< 40						
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 780		< 7200	< 770	< 8400	< 780	< 790	< 780	< 820	< 770	< 940	< 870	< 1000	< 880

			Location	G11-8257-03	G11-8257-03	G11-9304-05	G11-9304-05	G11-9309-01	G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G7-1-01	G7-2-04	G7-2115-04	G7-2115-06	G7-2115-07
			Sample Date	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/3/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	12/16/1999	12/16/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G11-8257-031.5N	G11-8257-030.5N	G11-9304-050.5FD	G11-9304-050.5N	G11-9309-010.5N	G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G7-1-011N	G7-2-041N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N
			Parent ID			G11-9304-050.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	42		< 3600	< 380	2200	860	64	< 390	< 410	69	< 470	240	1000	150
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	59		< 3600	< 380	2300	830	110	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2-Chloronaphthalene	91-58-7	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2-Chlorophenol	95-57-8	ug/kg	243	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 390		< 7200	< 380	< 4200	< 390	< 400	< 390	< 820	< 380	< 470	< 430	< 500	< 440
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 780		< 7200	< 760	< 8400	< 780	< 790	< 780	< 820	< 770	< 940	< 870	< 1000	< 880
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 780		< 7200	< 770	< 8400	< 780	< 790	< 780	< 820	< 770	< 940	< 870	< 1000	< 880
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
4-Nitrophenol	100-02-7	ug/kg	7000	< 780		< 3600	< 770	< 8400	< 780	< 790	< 780	< 410	< 760	< 940	< 870	< 1000	< 880
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Acenaphthylene	208-96-8	ug/kg	682000	17		< 3600	< 380	420	61	40	< 390	21	31	< 470	< 430	< 500	< 440
Anthracene	120-12-7	ug/kg	1480000	25		< 3600	< 380	320	60	31	110	37	28	< 470	< 430	< 500	< 440
Benzidine	92-87-5	ug/kg	1310	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	120				920	180	< 400	< 390		< 380	< 470	< 430	< 500	< 440
Benzo[a]anthracene	56-55-3	ug/kg	5210	150		< 3600	< 380	2500	380	160	35	100	220	100	36	43	< 440
Benzo[a]pyrene	50-32-8	ug/kg	1520	140		< 3600	28	2000	290	130	28	95	200	90	< 430	< 500	< 440
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	230		< 3600	< 380	4200	760	240	66	160	300	180	< 430	< 500	< 440
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			< 3600	< 380					< 410					
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	120		< 3600	< 380	2200	280	170	< 390	< 410	120	< 470	< 430	< 500	< 440
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 390		390	350	670	48	52	32	66	51	49	150	150	< 440
Butylbenzylphthalate	85-68-7	ug/kg	239	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Chrysene	218-01-9	ug/kg	4730	180		< 3600	< 380	3000	630	260	130	140	210	130	< 430	< 500	< 440
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 390		< 3600	< 380	< 4200	51	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Diethylphthalate	84-66-2	ug/kg	24800	< 390		< 3600	< 380	< 4200	20	< 400	< 390	< 410	330	70	1000	3900	200
Dimethylphthalate	131-11-3	ug/kg	734000	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Di-n-butylphthalate	84-74-2	ug/kg	150	97		< 3600	830	< 4200	48	46	< 390	< 410	200	55	5100	6200	670
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Fluoranthene	206-44-0	ug/kg	122000	320		< 3600	< 380	2800	650	400	70	200	340	220	< 430	< 500	< 440
Fluorene	86-73-7	ug/kg	122000	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Hexachlorobenzene	118-74-1	ug/kg	199	< 390				< 4200	< 390	< 400	< 390		< 380	< 470	< 430	< 500	< 440
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Hexachloroethane	67-72-1	ug/kg	596	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	95		< 3600	< 380	1100	170	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Isophorone	78-59-1	ug/kg	139000	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Naphthalene	91-20-3	ug/kg	99.4	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Nitrobenzene	98-95-3	ug/kg	1310	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410					
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 390		< 3600	560	< 4200	< 390	< 400	< 390	< 410	480	< 470	700	3700	1600
Pentachlorophenol	87-86-5	ug/kg	2100	< 780		< 7200	< 770	< 8400	< 780	< 790	< 780	< 820	< 770	< 940	< 870	< 1000	< 880
Phenanthrene	85-01-8	ug/kg	45700	180		< 3600	< 380	820	310	260	110	120	94	150	< 430	< 500	< 440
Phenol	108-95-2	ug/kg	30000	< 390		< 3600	< 380	< 4200	< 390	< 400	< 390	< 410	< 380	< 470	< 430	< 500	< 440
Pyrene	129-00-0	ug/kg	78500	350		< 3600	< 380	3300	610	330	< 390	240	310	200	< 430	< 500	< 440
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		10600			2710		20800	12900		5330	3190	33100	10600		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 595												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 595												

			Location	G11-8257-03	G11-8257-03	G11-9304-05	G11-9304-05	G11-9309-01	G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G7-1-01	G7-2-04	G7-2115-04	G7-2115-06	G7-2115-07
			Sample Date	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/3/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	12/16/1999	12/16/1999	12/21/1999	12/21/1999	12/21/1999
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G11-8257-031.5N	G11-8257-030.5N	G11-9304-050.5FD	G11-9304-050.5N	G11-9309-010.5N	G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G7-1-011N	G7-2-041N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N
			Parent ID			G11-9304-050.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 595												
1,1-Dichloroethane	75-34-3	ug/kg			< 595												
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 595												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 595												
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 595												
1,2-Dichloroethane	107-06-2	ug/kg			< 595												
1,2-Dichloropropane	78-87-5	ug/kg			< 595												
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 595												
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 595												
2-Chloroethylvinylether	110-75-8	ug/kg			< 1191												
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 2381												
Acrylonitrile	107-13-1	ug/kg	23.9		< 595												
Benzene	71-43-2	ug/kg	255		< 595												
Bromodichloromethane	75-27-4	ug/kg	540		< 595												
Bromoform	75-25-2	ug/kg			< 595												
Bromomethane	74-83-9	ug/kg	235		< 1191												
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 595												
Chlorobenzene	108-90-7	ug/kg	13100		< 595												
Chloroethane	75-00-3	ug/kg			< 1191												
Chloroform	67-66-3	ug/kg	1190		< 595												
Chloromethane	74-87-3	ug/kg	10400		< 1191												
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 595												
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 595												
Ethylbenzene	100-41-4	ug/kg	5160		< 595												
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 595												
Methylene Chloride	75-09-2	ug/kg	4050		< 595												
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 595												
Toluene	108-88-3	ug/kg	200000		< 595												
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 595												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 595												
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 1191												
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G8-2114-03	G8-2114-06	G8-2148-02	G8-2204-05	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-A12-05
			Sample Date	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/16/1999
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G7-2149-010.5N	G7-2149-041FD	G7-2149-041N	G7-2164-011.5N	G7-2164-050.5N	G8-2114-031N	G8-2114-061N	G8-2148-021N	G8-2204-051N	G8-2210-031.5FD	G8-2210-031.5N	G8-2249-011N	G8-2260-011N	G8-A12-051N
			Parent ID		G7-2149-041N								G8-2210-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 250		< 238	< 250	< 238	< 238	< 238	< 250	< 244	< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655				< 250		< 238	< 250	< 238	< 238	< 238	< 250	< 244	< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000				< 250		< 238	< 250	< 238	< 238	< 238	< 250	< 244	< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000				< 250		< 238	< 250	< 238	< 238	< 238	< 250	< 244	< 250	
2-Nitrotoluene	88-72-2	ug/kg					< 500		< 476	< 500	< 476	< 476	< 476	< 500	< 488	< 500	
3-Nitrotoluene	99-08-1	ug/kg					< 500		< 476	< 500	< 476	< 476	< 476	< 500	< 488	< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000				< 250		< 238	< 250	< 238	< 238	< 238	< 250	< 244	< 250	
4-Nitrotoluene	99-99-0	ug/kg					< 500		< 476	< 500	< 476	< 476	< 476	< 500	< 488	< 500	
Nitrobenzene	98-95-3	ug/kg	1310				< 250		< 238	< 250	< 238	< 238	< 238	< 250	< 244	< 250	
Nitrocellulose	9004-70-0	ug/kg					105000		454000	1030000	72800	86400	338000	261000	494000	76900	
Nitroglycerin	55-63-0	ug/kg	65000				5985		88800	40195	< 4878	< 4878	5950	1800	49400	< 4878	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000				< 500		< 476	849	< 476	< 476	< 476	< 500	7150	< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000				< 500		< 476	< 500	< 476	< 476	< 476	< 500	< 488	< 500	
Tetryl	479-45-8	ug/kg	25000				< 500		476	500	476	476	< 476	500	500	500	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%				10.6	15.1		4		11.3	4.4		6.4	8.1	5.5	9.9
Gravel	Gravel	%				37.8	20.7		42.7		33.7	51.3		29.2	37.9	39.4	24.3
Sand	Sand	%				31.7	35.7		42.9		43.1	35.6		51.6	40.4	44.2	49.1
Silt	Silt	%				19.9	28.6		10.3		11.9	8.8		12.7	13.7	10.9	16.6
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G8-2114-03	G8-2114-06	G8-2148-02	G8-2204-05	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-A12-05
			Sample Date	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/16/1999
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G7-2149-010.5N	G7-2149-041FD	G7-2149-041N	G7-2164-011.5N	G7-2164-050.5N	G8-2114-031N	G8-2114-061N	G8-2148-021N	G8-2204-051N	G8-2210-031.5FD	G8-2210-031.5N	G8-2249-011N	G8-2260-011N	G8-A12-051N
			Parent ID		G7-2149-041N								G8-2210-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.62	< 0.46	< 0.58	< 0.59	< 0.55	< 0.47	< 3.1	< 0.51	< 0.51	< 0.52	< 0.51	< 0.56	< 0.52	0.16
Arsenic	7440-38-2	mg/kg	9.9	383	10.7	378	162	266	18.1	17	4.8	4.1	5	3.2	34.6	4.2	3.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.45	0.3	0.56	0.55	0.41	0.41	0.4	0.74	0.55	0.68	0.46	0.59	0.53	0.56
Cadmium	7440-43-9	mg/kg	0.36	0.6	< 0.08	0.7	1.4	< 0.33	< 0.28	< 1.8	< 0.31	< 0.31	< 0.31	< 0.31	0.19	< 0.31	< 0.25
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	13.5	13.9	12.2	39.5	27.4	28	23.7	17.4	14	11.8	9.6	26.5	14.7	19.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	61.1	142	41.5	28.8	84.8	95.7	4780	337	29.8	21.6	13.2	59.8	71.7	287
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	218	242	192	302	229	28.7	90.8	58.9	35.6	26.2	25.9	424	26.1	41.3
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.61	0.1	0.44	0.04	0.39	0.08	0.45	0.06	0.22	0.06	0.1	0.29	0.39	0.04
Nickel	7440-02-0	mg/kg	38	9	7.7	9	9.9	16.4	6.1	19.3	9.7	9.9	10.5	7.1	9.6	10.4	7.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.5	1.3	1.5	1.1	1.9	< 0.47	1.3	0.74	< 0.51	< 0.37	0.52	0.66	0.68	< 0.41
Silver	7440-22-4	mg/kg	2	< 0.37	< 0.29	< 0.35	< 0.35	< 0.33	< 0.28	< 1.8	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.31	< 0.25
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.2	< 0.98	< 1.2	0.78	0.65	0.72	< 6.1	1.7	1.2	1.4	0.92	1.3	1.3	0.57
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	142	57	173	289	95.1	120	111	65.1	65.7	114	83.3	209	97.4	137
Moisture																	
Percent Solids	SOLID	percent		79.3	88.5	80.3	81.6	84.2	91.2	78.4	86.2	92.6	90	89.6	86.6	91.6	86.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 840	< 760	< 830	< 810	< 790	< 730	< 850	< 780	< 720	< 740	< 740	< 773	< 720	< 780

Kennedy Jenks

			Location	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G8-2114-03	G8-2114-06	G8-2148-02	G8-2204-05	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-A12-05
			Sample Date	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/16/1999
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G7-2149-010.5N	G7-2149-041FD	G7-2149-041N	G7-2164-011.5N	G7-2164-050.5N	G8-2114-031N	G8-2114-061N	G8-2148-021N	G8-2204-051N	G8-2210-031.5FD	G8-2210-031.5N	G8-2249-011N	G8-2260-011N	G8-A12-051N
			Parent ID		G7-2149-041N								G8-2210-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	540	< 380	< 420	130	600	960	840	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 420	< 380	< 420	< 410	< 400	55	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2-Chloronaphthalene	91-58-7	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2-Chlorophenol	95-57-8	ug/kg	243	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 840	< 760	< 830	< 810	< 790	< 730	< 850	< 780	< 720	< 740	< 740	< 773	< 720	< 780
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 840	< 760	< 830	< 810	< 790	< 730	< 850	< 780	< 720	< 740	< 740	< 773	< 720	< 780
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
4-Nitrophenol	100-02-7	ug/kg	7000	< 840	< 760	< 830	< 810	< 790	< 730	< 850	< 780	< 720	< 740	< 740	< 773	< 720	< 780
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Acenaphthylene	208-96-8	ug/kg	682000	< 420	< 380	< 420	< 410	31	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Anthracene	120-12-7	ug/kg	1480000	< 420	< 380	< 420	30	49	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Benzidine	92-87-5	ug/kg	1310	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370		< 360	< 390
Benzo[a]anthracene	56-55-3	ug/kg	5210	110	< 380	71	130	250	< 370	< 430	57	< 360	32	< 370	40.6	34	59
Benzo[a]pyrene	50-32-8	ug/kg	1520	120	< 380	< 420	95	250	< 370	< 430	59	< 360	< 370	< 370	27.5	< 360	59
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	380	< 380	200	150	1800	59	160	130	< 360	< 370	< 370	< 387	61	110
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000												< 387		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	120	< 380	120	< 410	530	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 420	< 380	< 420	< 410	< 400	190	< 430	< 390	< 360	79	< 370	< 387	< 360	38
Butylbenzylphthalate	85-68-7	ug/kg	239	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Chrysene	218-01-9	ug/kg	4730	190	< 380	130	120	350	< 370	140	110	< 360	< 370	< 370	< 387	44	62
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Diethylphthalate	84-66-2	ug/kg	24800	54	< 380	< 420	< 410	490	2600	280	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Dimethylphthalate	131-11-3	ug/kg	734000	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Di-n-butylphthalate	84-74-2	ug/kg	150	< 420	< 380	< 420	680	7600	940	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	190	< 387	< 360	< 390
Fluoranthene	206-44-0	ug/kg	122000	240	< 380	180	280	490	< 370	< 430	190	< 360	< 370	< 370	< 387	< 360	93
Fluorene	86-73-7	ug/kg	122000	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Hexachlorobenzene	118-74-1	ug/kg	199	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Hexachloroethane	67-72-1	ug/kg	596	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 420	< 380	< 420	< 410	340	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Isophorone	78-59-1	ug/kg	139000	< 420	< 380	< 420	< 410	< 400	< 370	130	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Naphthalene	91-20-3	ug/kg	99.4	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
Nitrobenzene	98-95-3	ug/kg	1310	< 420	< 380	< 420		< 400									< 390
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	< 387	< 360	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	290	< 380	360	210	580	310	670	< 390	< 360	78	68	80	< 360	< 390
Pentachlorophenol	87-86-5	ug/kg	2100	< 840	< 760	< 830	< 810	< 790	< 730	< 850	< 780	< 720	< 740	< 740	< 773	< 720	< 780
Phenanthrene	85-01-8	ug/kg	45700	78	< 380	62	180	82	< 370	140	84	< 360	< 370	< 370	< 387	< 360	31
Phenol	108-95-2	ug/kg	30000	< 420	< 380	< 420	< 410	< 400	< 370	< 430	< 390	< 360	< 370	< 370	18.6	< 360	< 390
Pyrene	129-00-0	ug/kg	78500	220	< 380	140	300	430	< 370	< 430	130	< 360	< 370	< 370	< 387	< 360	< 390
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				55400	12700		16100		13800	5750		4980	9300	6900	1820
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G8-2114-03	G8-2114-06	G8-2148-02	G8-2204-05	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-A12-05
			Sample Date	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/16/1999
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G7-2149-010.5N	G7-2149-041FD	G7-2149-041N	G7-2164-011.5N	G7-2164-050.5N	G8-2114-031N	G8-2114-061N	G8-2148-021N	G8-2204-051N	G8-2210-031.5FD	G8-2210-031.5N	G8-2249-011N	G8-2260-011N	G8-A12-051N
			Parent ID		G7-2149-041N								G8-2210-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02	G9-15-01	G9-15-01	G9-2-03	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05	G9-3-03	G9-3-03
			Sample Date	12/17/1999	12/17/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	11/23/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N	G9-15-011FD	G9-15-011N	G9-2-031N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N	G9-3-030.5N	G9-3-031N
			Parent ID			G9-1-021N		G9-15-011N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 250												
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 250												
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 250												
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 250												
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 250												
2-Nitrotoluene	88-72-2	ug/kg			< 500												
3-Nitrotoluene	99-08-1	ug/kg			< 500												
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 250												
4-Nitrotoluene	99-99-0	ug/kg			< 500												
Nitrobenzene	98-95-3	ug/kg	1310		< 250												
Nitrocellulose	9004-70-0	ug/kg			79100												
Nitroglycerin	55-63-0	ug/kg	65000		< 5000												
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 500												
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 500												
Tetryl	479-45-8	ug/kg	25000		500												
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		6.9	9		7.7		4.4	9.3			5.4				5.4
Gravel	Gravel	%		31.5	40		41.1		27.2	30.8			39.9				33.3
Sand	Sand	%		43.1	35.4		35.9		56	39.8			33				40.6
Silt	Silt	%		18.5	15.6		15.3		12.4	20.1			21.6				20.7
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02	G9-15-01	G9-15-01	G9-2-03	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05	G9-3-03	G9-3-03
			Sample Date	12/17/1999	12/17/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	11/23/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N	G9-15-011FD	G9-15-011N	G9-2-031N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N	G9-3-030.5N	G9-3-031N
			Parent ID			G9-1-021N		G9-15-011N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.56				1.6	0.53	10.7	< 0.57		0.44		6.2		
Arsenic	7440-38-2	mg/kg	9.9	5.3				6.1	6.9	19.2	84.1		83.1		91.5		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.63				0.36	0.34	0.65	0.31		0.36		0.39		
Cadmium	7440-43-9	mg/kg	0.36	< 0.33				0.16	0.19	0.19	0.85		< 0.34		0.82		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	13.9				9.3	8.1	45	9.3		9.4		13.3		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	20.7				44.7	33.4	4170	80.5		47.7		67.7		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	45.5				305	61.8	496	79.6		92.8		153		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.11				0.29	0.14	< 0.07	0.42		0.31		1.2		
Nickel	7440-02-0	mg/kg	38	8.9				10	10	38.1	6.3		5.6		9.6		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.65				1.1	1.1	1.3	1.3		1.4		0.58		
Silver	7440-22-4	mg/kg	2	< 0.33				0.12	< 0.3	1.7	0.64		< 0.34		0.28		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.1				< 1.1	< 1	< 5.9	< 1.1		1.1		< 1.1		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	94.7				116	104	317	76.1		99.2		503		
Moisture																	
Percent Solids	SOLID	percent		84.8	90		76.2	80.7	83.7	82.2	85		77.6		83.5		84
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371							< 210							
Aroclor-1221	11104-28-2	ug/kg	371							< 210							
Aroclor-1232	11141-16-5	ug/kg	371							< 210							
Aroclor-1242	53469-21-9	ug/kg	371							< 210							
Aroclor-1248	12672-29-6	ug/kg	371							< 210							
Aroclor-1254	11097-69-1	ug/kg	371							3200							
Aroclor-1260	11096-82-5	ug/kg	371							3000							
Polychlorinated biphenyls	1336-36-3	ug/kg	371							6200							
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 780			< 880	< 820	< 790	< 2000	< 780		< 850		< 790		< 790

			Location	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02	G9-15-01	G9-15-01	G9-2-03	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05	G9-3-03	G9-3-03
			Sample Date	12/17/1999	12/17/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	11/23/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N	G9-15-011FD	G9-15-011N	G9-2-031N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N	G9-3-030.5N	G9-3-031N
			Parent ID			G9-1-021N		G9-15-011N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 390			< 440	< 410	< 400	80	120		2100		8800		150
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 390			< 440	< 410	< 400	29	< 390		170		520		< 400
2-Chloronaphthalene	91-58-7	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2-Chlorophenol	95-57-8	ug/kg	243	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 780			< 880	< 820	< 790	< 810	< 780		< 850		< 790		< 790
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 780			< 880	< 820	< 790	< 2000	< 780		< 850		< 800		< 790
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
4-Nitrophenol	100-02-7	ug/kg	7000	< 780			< 880	< 820	< 790	< 2000	< 780		< 850		< 790		< 790
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		5200
Acenaphthylene	208-96-8	ug/kg	682000	< 390			< 440	23	< 400	53	< 390		< 430		450		48
Anthracene	120-12-7	ug/kg	1480000	< 390			< 440	29	< 400	38	< 390		33		510		17000
Benzidine	92-87-5	ug/kg	1310	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100	< 390							< 390		< 430		920		5500
Benzo[a]anthracene	56-55-3	ug/kg	5210	37			46	83	44	110	42		170		3000		19000
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 390			40	68	35	86	< 390		120		2700		14000
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 390			< 440	110	< 400	190	< 390		340		5700		19000
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000				< 440	< 410	< 400	< 410							
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 390			< 440	< 410	< 400	< 410	< 390		110		2200		6100
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 390			< 440	28	< 400	< 410	< 390		< 430		< 400		< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 390			< 440	< 410	< 400	270	< 390		74		440		300
Butylbenzylphthalate	85-68-7	ug/kg	239	< 390			< 440	< 410	< 400	< 410	79		< 430		< 400		< 400
Chrysene	218-01-9	ug/kg	4730	< 390			51	110	66	160	87		290		2400		16000
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		1600
Diethylphthalate	84-66-2	ug/kg	24800	< 390			< 440	< 410	< 400	39	48		< 430		2500		< 400
Dimethylphthalate	131-11-3	ug/kg	734000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Di-n-butylphthalate	84-74-2	ug/kg	150	81			100	100	< 400	420	190		< 430		1000		< 400
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		270
Fluoranthene	206-44-0	ug/kg	122000	< 390			< 440	170	100	190	96		200		2300		39000
Fluorene	86-73-7	ug/kg	122000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		5200
Hexachlorobenzene	118-74-1	ug/kg	199	< 390						< 410	< 390		< 430		< 400		< 400
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Hexachloroethane	67-72-1	ug/kg	596	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		1100		5600
Isophorone	78-59-1	ug/kg	139000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
Naphthalene	91-20-3	ug/kg	99.4	< 390			< 440	< 410	< 400	31	< 390		39		67		5200
Nitrobenzene	98-95-3	ug/kg	1310	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	410			160	< 410	< 400	130	< 390		440		< 400		< 400
Pentachlorophenol	87-86-5	ug/kg	2100	< 780			< 880	< 820	< 790	< 2000	< 780		< 850		< 790		< 790
Phenanthrene	85-01-8	ug/kg	45700	< 390			50	120	70	130	42		100		160		38000
Phenol	108-95-2	ug/kg	30000	< 390			< 440	< 410	< 400	< 410	< 390		< 430		< 400		85
Pyrene	129-00-0	ug/kg	78500	< 390			< 440	230	140	280	110		160		2400		31000
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		7260	7470		7740		24400	41300			97800				34600
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg				< 620						< 530		< 550		< 530	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			< 620						< 530		< 550		< 530	

			Location	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02	G9-15-01	G9-15-01	G9-2-03	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05	G9-3-03	G9-3-03
			Sample Date	12/17/1999	12/17/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	11/23/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N	G9-15-011FD	G9-15-011N	G9-2-031N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N	G9-3-030.5N	G9-3-031N
			Parent ID			G9-1-021N		G9-15-011N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 620						< 530		< 550		< 530	
1,1-Dichloroethane	75-34-3	ug/kg				< 620						< 530		< 550		< 530	
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 620						< 530		< 550		< 530	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 620						< 530		< 550		< 530	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 620						< 530		< 550		< 530	
1,2-Dichloroethane	107-06-2	ug/kg				< 620						< 530		< 550		< 530	
1,2-Dichloropropane	78-87-5	ug/kg				< 620						< 530		< 550		< 530	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 620						< 530		< 550		< 530	
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 620						< 530		< 550		< 530	
2-Chloroethylvinylether	110-75-8	ug/kg				< 1200						< 1100		< 1100		< 1100	
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270			< 2500						< 2100		< 2200		< 2100	
Acrylonitrile	107-13-1	ug/kg	23.9			< 620						< 530		< 550		< 530	
Benzene	71-43-2	ug/kg	255			290						< 530		< 550		640	
Bromodichloromethane	75-27-4	ug/kg	540			< 620						< 530		< 550		< 530	
Bromoform	75-25-2	ug/kg				< 620						< 530		< 550		< 530	
Bromomethane	74-83-9	ug/kg	235			< 1200						< 1100		< 1100		< 1060	
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 620						< 530		< 550		< 530	
Chlorobenzene	108-90-7	ug/kg	13100			< 620						< 530		< 550		< 530	
Chloroethane	75-00-3	ug/kg				< 1200						< 1100		< 1100		< 1060	
Chloroform	67-66-3	ug/kg	1190			< 620						< 530		< 550		< 530	
Chloromethane	74-87-3	ug/kg	10400			< 1200						< 1100		< 1100		< 1060	
cis-1,2-Dichloroethene	156-59-2	ug/kg				< 620						< 530		< 550		< 530	
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050			< 620						< 530		< 550		< 530	
Ethylbenzene	100-41-4	ug/kg	5160			< 620						< 530		< 550		< 530	
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 620						< 530		< 550		< 530	
Methylene Chloride	75-09-2	ug/kg	4050			1100						< 530		< 550		< 530	
Naphthalene	91-20-3	ug/kg	99.4			< 620											
Tetrachloroethene	127-18-4	ug/kg	9920			< 620						< 530		< 550		< 530	
Toluene	108-88-3	ug/kg	200000			< 620						< 530		< 550		< 530	
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 620						< 530		< 550		< 530	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400			< 620						< 530		< 550		< 530	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646			< 1200						< 1100		< 1100		< 1060	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G9-8107-02	G9-8182-01	G9-8182-05	G9-8187-01	G9-8205-05	G9-8207-04	G9-8207-05	G9-8207-05	G9-9321-02	G9-9321-08	G9-A11-02	H10-154B-03	H11-10-02	H11-10-02
			Sample Date	11/23/1999	11/22/1999	11/22/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/21/1999	12/3/1999	12/9/1999	12/9/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	G9-8107-021N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-050.5N	G9-8207-051N	G9-9321-021N	G9-9321-081N	G9-A11-020.8N	H10-154B-031N	H11-10-021N	H11-10-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 250										
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655				< 250										
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000				< 250										
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000				< 250										
2-Nitrotoluene	88-72-2	ug/kg					< 500										
3-Nitrotoluene	99-08-1	ug/kg					< 500										
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000				< 250										
4-Nitrotoluene	99-99-0	ug/kg					< 500										
Nitrobenzene	98-95-3	ug/kg	1310				< 250										
Nitrocellulose	9004-70-0	ug/kg					99500										
Nitroglycerin	55-63-0	ug/kg	65000				7854										
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000				< 500										
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000				< 500										
Tetryl	479-45-8	ug/kg	25000				< 500										
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			3.3		4.7	4.3				1.5		11.3	11.3	5.4	
Gravel	Gravel	%			57.9		33.6	14.8				50.6		13.5	32.4	39.9	
Sand	Sand	%			32.8		47.1	72.4				37		61.4	35.8	37.9	
Silt	Silt	%			6		14.6	8.5				10.9		13.8	20.5	16.8	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G9-8107-02	G9-8182-01	G9-8182-05	G9-8187-01	G9-8205-05	G9-8207-04	G9-8207-05	G9-8207-05	G9-9321-02	G9-9321-08	G9-A11-02	H10-154B-03	H11-10-02	H11-10-02
			Sample Date	11/23/1999	11/22/1999	11/22/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/21/1999	12/3/1999	12/9/1999	12/9/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	G9-8107-021N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-050.5N	G9-8207-051N	G9-9321-021N	G9-9321-081N	G9-A11-020.8N	H10-154B-031N	H11-10-021N	H11-10-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	7.2	11	7.4	0.19	< 0.43				0.26	< 0.42	< 0.55	1.6		
Arsenic	7440-38-2	mg/kg	9.9	169	20.8	10.8	11.2	2.7				16.8	3.9	3.5	20.9		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.5	0.58	0.46	0.64	0.44				0.19	0.91	0.54	0.94		
Cadmium	7440-43-9	mg/kg	0.36	0.49	1	0.65	< 0.29	< 0.26				< 0.37	0.86	< 0.33	0.33		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	40.6	89.4	17.4	13.4	7.1				9.8	7.7	10.7	24.2		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	171	361	81.8	52	11.3				30.7	40	14.7	51.5		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	745	2860	528	109	5.2				287	53.6	8.5	538		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	1.7	1	0.44	0.21	0.02				0.46	0.08	0.1	1.6		
Nickel	7440-02-0	mg/kg	38	19.9	51.3	12.7	18.1	5.8				11.4	8.2	9.2	12.1		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	2	2.5	< 0.49	1.7	< 0.43				2	0.88	1	2.6		
Silver	7440-22-4	mg/kg	2	0.61	1.5	0.47	< 0.29	< 0.26				< 0.37	0.16	< 0.33	0.24		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.2	< 1.8	< 0.99	< 0.96	< 0.86				< 1.2	< 0.84	< 1.1	< 1.2		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	290	459	186	109	32				26.1	625	67.6	345		
Moisture																	
Percent Solids	SOLID	percent		81	88.6	83.9	80.2	90.4			90.4	80.4	84.8	89.6	75.8	86.1	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371					< 19							< 23		
Aroclor-1221	11104-28-2	ug/kg	371					< 19							< 23		
Aroclor-1232	11141-16-5	ug/kg	371					< 19							< 23		
Aroclor-1242	53469-21-9	ug/kg	371					< 19							< 23		
Aroclor-1248	12672-29-6	ug/kg	371					< 19							< 23		
Aroclor-1254	11097-69-1	ug/kg	371					< 19							620		
Aroclor-1260	11096-82-5	ug/kg	371					340							390		
Polychlorinated biphenyls	1336-36-3	ug/kg	371					340							1010		
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2100	< 1900	< 2000	< 830	< 740			< 740	< 830	< 780	< 740	< 8800	< 780	

			Location	G9-8107-02	G9-8182-01	G9-8182-05	G9-8187-01	G9-8205-05	G9-8207-04	G9-8207-05	G9-8207-05	G9-9321-02	G9-9321-08	G9-A11-02	H10-154B-03	H11-10-02	H11-10-02
			Sample Date	11/23/1999	11/22/1999	11/22/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/21/1999	12/3/1999	12/9/1999	12/9/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	G9-8107-021N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-050.5N	G9-8207-051N	G9-9321-021N	G9-9321-081N	G9-A11-020.8N	H10-154B-031N	H11-10-021N	H11-10-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 410	47	41	88	< 370			< 370	87	< 390	140	< 4400	< 390	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	16	28	< 420	< 370			< 370	37	< 390	< 370	< 4400	< 390	
2-Chloronaphthalene	91-58-7	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
2-Chlorophenol	95-57-8	ug/kg	243	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 410	< 370	< 400	< 420	< 370			< 740	< 420	< 390	< 370	< 4400	< 390	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 820	< 750	< 790	< 830	< 740			< 740	< 830	< 780	< 740	< 8800	< 780	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 2100	< 1900	< 2000	< 830	< 740			< 740	< 830	< 780	< 740	< 8800	< 780	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
4-Nitrophenol	100-02-7	ug/kg	7000	< 2100	< 1900	< 2000	< 830	< 740			< 370	< 830	< 780	< 740	< 8800	< 780	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Acenaphthylene	208-96-8	ug/kg	682000	< 410	< 370	< 400	45	< 370			< 370	23	< 390	< 370	< 4400	28	
Anthracene	120-12-7	ug/kg	1480000	< 410	< 370	29	29	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Benzidine	92-87-5	ug/kg	1310	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100				120	< 370				< 420	< 390	< 370	< 4400	100	
Benzo[a]anthracene	56-55-3	ug/kg	5210	59	32	81	210	< 370			< 370	110	46	< 370	620	130	
Benzo[a]pyrene	50-32-8	ug/kg	1520	55	< 370	83	230	< 370			27	77	40	20	610	120	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	110	72	120	440	< 370			< 370	240	85	< 370	1300	220	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 410	< 370	< 400					< 370						
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 410	< 370	40	170	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	59	51	440	< 420	< 370			37	< 420	< 390	21	< 4400	< 390	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Chrysene	218-01-9	ug/kg	4730	99	96	120	340	< 370			< 370	240	72	< 370	890	190	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Diethylphthalate	84-66-2	ug/kg	24800	< 410	< 370	< 400	72	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Dimethylphthalate	131-11-3	ug/kg	734000	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Di-n-butylphthalate	84-74-2	ug/kg	150	160	46	100	< 420	< 370			260	< 420	< 390	< 370	1200	< 390	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Fluoranthene	206-44-0	ug/kg	122000	120	72	150	460	< 370			< 370	260	130	< 370	950	280	
Fluorene	86-73-7	ug/kg	122000	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Hexachlorobenzene	118-74-1	ug/kg	199	< 410	< 370	< 400	< 420	< 370				< 420	< 390	< 370	< 4400	< 390	
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Hexachloroethane	67-72-1	ug/kg	596	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 410	< 370	< 400	97	< 370			< 370	< 420	< 390	< 370	< 4400	94	
Isophorone	78-59-1	ug/kg	139000	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Naphthalene	91-20-3	ug/kg	99.4	< 410	< 370	< 400	< 420	< 370			< 370	29	< 390	< 370	< 4400	< 390	
Nitrobenzene	98-95-3	ug/kg	1310	< 410	< 370	< 400		< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 410	< 370	< 400	110	< 370			< 370	97	< 390	230	580	< 390	
Pentachlorophenol	87-86-5	ug/kg	2100	< 2100	< 1900	< 2000	< 830	< 740			< 740	< 830	< 780	< 740	< 8800	< 780	
Phenanthrene	85-01-8	ug/kg	45700	27	100	110	280	< 370			< 370	140	47	< 370	390	140	
Phenol	108-95-2	ug/kg	30000	< 410	< 370	< 400	< 420	< 370			< 370	< 420	< 390	< 370	< 4400	< 390	
Pyrene	129-00-0	ug/kg	78500	130	< 370	220	600	< 370			< 370	240	120	< 370	< 4400	280	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			8700		15600	520				40000		4050	35100	12200	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg							< 530	< 540							< 517
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127						< 530	< 540							< 517

			Location	G9-8107-02	G9-8182-01	G9-8182-05	G9-8187-01	G9-8205-05	G9-8207-04	G9-8207-05	G9-8207-05	G9-9321-02	G9-9321-08	G9-A11-02	H10-154B-03	H11-10-02	H11-10-02
			Sample Date	11/23/1999	11/22/1999	11/22/1999	12/9/1999	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/21/1999	12/3/1999	12/9/1999	12/9/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	G9-8107-021N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-050.5N	G9-8207-051N	G9-9321-021N	G9-9321-081N	G9-A11-020.8N	H10-154B-031N	H11-10-021N	H11-10-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg							< 530	< 540							< 517
1,1-Dichloroethane	75-34-3	ug/kg							< 530	< 540							< 517
1,1-Dichloroethene	75-35-4	ug/kg	8280						< 530	< 540							< 517
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000						< 530	< 540							< 517
1,2-Dichlorobenzene	95-50-1	ug/kg	2960						< 530	< 540							< 517
1,2-Dichloroethane	107-06-2	ug/kg							< 530	< 540							< 517
1,2-Dichloropropane	78-87-5	ug/kg							< 530	< 540							< 517
1,3-Dichlorobenzene	541-73-1	ug/kg	37700						< 530	< 540							< 517
1,4-Dichlorobenzene	106-46-7	ug/kg	546						< 530	< 540							< 517
2-Chloroethylvinylether	110-75-8	ug/kg							< 1100	< 1100							< 1033
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270						< 2100	< 2200							< 2066
Acrylonitrile	107-13-1	ug/kg	23.9						< 530	< 540							< 517
Benzene	71-43-2	ug/kg	255						< 530	< 540							< 517
Bromodichloromethane	75-27-4	ug/kg	540						< 530	< 540							< 517
Bromoform	75-25-2	ug/kg							< 530	< 540							< 517
Bromomethane	74-83-9	ug/kg	235						< 1100	< 1100							< 1033
Carbon Tetrachloride	56-23-5	ug/kg	2980						< 530	< 540							< 517
Chlorobenzene	108-90-7	ug/kg	13100						< 530	< 540							< 517
Chloroethane	75-00-3	ug/kg							< 1100	< 1100							< 1033
Chloroform	67-66-3	ug/kg	1190						< 530	< 540							< 517
Chloromethane	74-87-3	ug/kg	10400						< 1100	< 1100							< 1033
cis-1,2-Dichloroethene	156-59-2	ug/kg							< 530	< 540							< 517
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050						< 530	< 540							< 517
Ethylbenzene	100-41-4	ug/kg	5160						< 530	< 540							< 517
Hexachlorobutadiene	87-68-3	ug/kg	39.8						< 530	< 540							< 517
Methylene Chloride	75-09-2	ug/kg	4050						< 530	< 540							< 517
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920						< 530	< 540							< 517
Toluene	108-88-3	ug/kg	200000						< 530	< 540							< 517
trans-1,2-Dichloroethene	156-60-5	ug/kg							< 530	< 540							< 517
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400						< 530	2100							< 517
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646						< 1100	< 1100							< 1033
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	H11-12-01	H11-2319-04	H11-2319-04	H11-6-01	H11-761-03	H11-762-03	H11-763-03	H11-8-01	H11-8-02	H11-9-02	H11-9307-02	H11-9310-03	H11-9312-02	H11-9312-02
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/3/1999	12/7/1999	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/10/1999	12/9/1999	12/3/1999	12/10/1999	12/10/1999
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H11-12-011.5N	H11-2319-041.3N	H11-2319-040.5N	H11-6-011N	H11-761-031N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-020.4N	H11-9-021.5N	H11-9307-021N	H11-9310-031N	H11-9312-021FD	H11-9312-021N
			Parent ID													H11-9312-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 238	< 250	< 238	< 238							
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655				< 238	< 250	< 238	< 238							
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000				< 238	< 250	< 238	< 238							
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000				< 238	< 250	< 238	< 238							
2-Nitrotoluene	88-72-2	ug/kg					< 476	< 500	< 476	< 476							
3-Nitrotoluene	99-08-1	ug/kg					< 476	< 500	< 476	< 476							
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000				< 238	< 250	< 238	< 238							
4-Nitrotoluene	99-99-0	ug/kg					< 476	< 500	< 476	< 476							
Nitrobenzene	98-95-3	ug/kg	1310				< 238	< 250	< 238	< 238							
Nitrocellulose	9004-70-0	ug/kg					59100	83500	63100	96600							
Nitroglycerin	55-63-0	ug/kg	65000				< 5000	< 5000	< 5000	< 5000							
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000				< 476	< 500	< 476	< 476							
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000				< 476	< 500	< 476	< 476							
Tetryl	479-45-8	ug/kg	25000				< 476	< 500	< 476	< 476							
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		8.5	0.6		4.3	3.9	2.4	4			12.5	5.1	8.6		
Gravel	Gravel	%		34.8	41		45	56.4	20.8	55.7			26.6	43.6	37.7		
Sand	Sand	%		37.1	47.7		40.1	30.9	59.4	28.8			30.1	40	35.5		
Silt	Silt	%		19.6	10.6		10.6	8.7	17.4	11.5			30.8	11.3	18.2		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	H11-12-01	H11-2319-04	H11-2319-04	H11-6-01	H11-761-03	H11-762-03	H11-763-03	H11-8-01	H11-8-02	H11-9-02	H11-9307-02	H11-9310-03	H11-9312-02	H11-9312-02
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/3/1999	12/7/1999	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/10/1999	12/9/1999	12/3/1999	12/10/1999	12/10/1999
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H11-12-011.5N	H11-2319-041.3N	H11-2319-040.5N	H11-6-011N	H11-761-031N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-020.4N	H11-9-021.5N	H11-9307-021N	H11-9310-031N	H11-9312-021FD	H11-9312-021N
			Parent ID													H11-9312-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		0.23		1.5	6.3	0.15	0.69			0.46	< 0.5	< 0.48	< 0.94	0.56
Arsenic	7440-38-2	mg/kg	9.9		12		168	33.8	4.3	8.8			11.5	9.5	42.6	10.5	11.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.64		0.41	0.39	0.2	0.3			0.72	0.67	0.25	0.34	0.31
Cadmium	7440-43-9	mg/kg	0.36		< 0.28		< 0.34	< 0.35	< 0.25	0.66			< 0.32	< 0.3	< 0.29	< 0.57	< 0.33
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		14.5		10.1	22.5	8.4	8.5			103	17.8	18.5	42.5	34.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		30.5		28.1	57.7	13.3	52.2			31.8	19.1	15	59.1	52.8
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		307		109	554	105	289			112	25	190	266	265
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.37		0.23	6.4	0.35	0.26			0.31	0.29	0.46	0.15	0.27
Nickel	7440-02-0	mg/kg	38		12.2		7.3	15.4	5.4	10			51.2	10.3	3.2	12.8	11.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		1.9		4	5	1	0.71			1.2	1.2	2	2.6	2
Silver	7440-22-4	mg/kg	2		< 0.28		0.2	0.21	< 0.25	< 0.38			0.11	< 0.3	0.26	< 0.57	< 0.33
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		1.1		< 1.1	< 1.2	< 0.83	< 1.3			0.97	< 0.99	< 0.96	< 1.9	2.5
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		297		31.8	351	26.5	280			864	47.2	128	145	127
Moisture																	
Percent Solids	SOLID	percent		80.7	87.4		81.9	85	86	71.4		87.9	73.2	84.7	82.6	79.6	78.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 21					< 20					< 20			
Aroclor-1221	11104-28-2	ug/kg	371	< 21					< 20					< 20			
Aroclor-1232	11141-16-5	ug/kg	371	< 21					< 20					< 20			
Aroclor-1242	53469-21-9	ug/kg	371	< 21					< 20					< 20			
Aroclor-1248	12672-29-6	ug/kg	371	< 21					< 20					< 20			
Aroclor-1254	11097-69-1	ug/kg	371	97					< 20					< 20			
Aroclor-1260	11096-82-5	ug/kg	371	75					< 39					37			
Polychlorinated biphenyls	1336-36-3	ug/kg	371	172					< 39					37			
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 770		< 810	< 780	< 780	< 940		< 760	< 910	< 780	< 800	< 830	< 850

				Location	H11-12-01	H11-2319-04	H11-2319-04	H11-6-01	H11-761-03	H11-762-03	H11-763-03	H11-8-01	H11-8-02	H11-9-02	H11-9307-02	H11-9310-03	H11-9312-02	H11-9312-02
				Sample Date	12/10/1999	12/9/1999	12/9/1999	12/3/1999	12/7/1999	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/10/1999	12/9/1999	12/3/1999	12/10/1999	12/10/1999
				Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Sample ID	H11-12-011.5N	H11-2319-041.3N	H11-2319-040.5N	H11-6-011N	H11-761-031N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-020.4N	H11-9-021.5N	H11-9307-021N	H11-9310-031N	H11-9312-021FD	H11-9312-021N
				Parent ID													H11-9312-021N	
				Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**															
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
2-Chloronaphthalene	91-58-7	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
2-Chlorophenol	95-57-8	ug/kg	243		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
2-Methylnaphthalene	91-57-6	ug/kg	3240															
2-Methylphenol	95-48-7	ug/kg																
2-Nitroaniline	88-74-4	ug/kg																
2-Nitrophenol	88-75-5	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
2-Nitrotoluene	88-72-2	ug/kg																
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 770		< 810	< 780	< 780	< 940		< 760	< 910	< 780	< 800	< 830	< 850	
3-Nitrotoluene	99-08-1	ug/kg																
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 770		< 810	< 780	< 780	< 940		< 760	< 910	< 780	< 800	< 830	< 850	
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
4-Nitrophenol	100-02-7	ug/kg	7000		< 770		< 810	< 780	< 780	< 940		< 760	< 910	< 780	< 800	< 830	< 850	
4-Nitrotoluene	99-99-0	ug/kg																
Acenaphthene	83-32-9	ug/kg	20000		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Acenaphthylene	208-96-8	ug/kg	682000		18		110	77	< 390	99		150	78	51	< 400	< 420	19	
Anthracene	120-12-7	ug/kg	1480000		< 380		96	59	< 390	120		78	120	46	86	< 420	< 430	
Benzidine	92-87-5	ug/kg	1310		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100		< 380		400	340	< 390	800		< 380		100	< 400			
Benzo[a]anthracene	56-55-3	ug/kg	5210		80		890	420	110	520		300	480	230	68	110	130	
Benzo[a]pyrene	50-32-8	ug/kg	1520		57		700	500	91	830		310	370	230	45	100	130	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		140		1700	1100	170	1000		560	770	360	150	170	240	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000										200			< 420	< 430	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 380		760	290	< 390	500		190	280	150	< 400	< 420	< 430	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		< 380		56	< 390	< 390	< 470		< 380	< 460	< 390	33	< 420	< 430	
Butylbenzylphthalate	85-68-7	ug/kg	239		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Chrysene	218-01-9	ug/kg	4730		100		1300	670	150	700		370	500	310	170	140	190	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 380		180	91	< 390	270		< 380	< 460	< 390	< 400	< 420	< 430	
Diethylphthalate	84-66-2	ug/kg	24800		< 380		< 410	< 390	60	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Dimethylphthalate	131-11-3	ug/kg	734000		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Di-n-butylphthalate	84-74-2	ug/kg	150		180		36	57	55	200		< 380	180	< 390	81	< 420	130	
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Fluoranthene	206-44-0	ug/kg	122000		150		1500	1100	210	760		660	520	370	220	240	330	
Fluorene	86-73-7	ug/kg	122000		< 380		< 410	24	< 390	53		28	< 460	< 390	< 400	< 420	< 430	
Hexachlorobenzene	118-74-1	ug/kg	199		< 380		< 410	< 390	< 390	< 470		< 380		< 390	< 400			
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Hexachloroethane	67-72-1	ug/kg	596		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 380		410	330	< 390	720		< 380	220	90	< 400	< 420	< 430	
Isophorone	78-59-1	ug/kg	139000		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Naphthalene	91-20-3	ug/kg	99.4		< 380		54	29	< 390	54		< 380	< 460	< 390	< 400	< 420	< 430	
Nitrobenzene	98-95-3	ug/kg	1310		< 380							< 380	< 460	< 390	< 400	< 420	< 430	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Pentachlorophenol	87-86-5	ug/kg	2100		< 770		< 810	< 780	< 780	< 940		< 760	< 910	< 780	< 800	< 830	< 850	
Phenanthrene	85-01-8	ug/kg	45700		100		350	500	120	750		370	140	230	82	100	120	
Phenol	108-95-2	ug/kg	30000		< 380		< 410	< 390	< 390	< 470		< 380	< 460	< 390	< 400	< 420	< 430	
Pyrene	129-00-0	ug/kg	78500		180		2100	1200	270	1700		590	480	460	200	180	240	
Total Organic Carbon																		
Total Organic Carbon	TOC	mg/kg		26400	8570		16500	18400	34900	46900			39400	15100	9520			
TPH																		
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg																
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg																
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg																
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg																
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg																
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg																
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg																
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg																
Total Aliphatics	TOTALIPH	mg/kg																
Total Aromatics	TOTAROM	mg/kg																
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg																
Amyl alcohol	71-41-0	ug/kg																
Di-N-Propyl Ether	111-43-3	ug/kg																
Ethanol	64-17-5	ug/kg																
Ethyl ether	60-29-7	ug/kg																
Methanol	67-56-1	ug/kg																
N-butyl ether	142-96-1	ug/kg																
VOCs																		
1,1,1-Trichloroethane	71-55-6	ug/kg				< 539					< 510							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			< 539					< 510							

			Location	H11-12-01	H11-2319-04	H11-2319-04	H11-6-01	H11-761-03	H11-762-03	H11-763-03	H11-8-01	H11-8-02	H11-9-02	H11-9307-02	H11-9310-03	H11-9312-02	H11-9312-02
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/3/1999	12/7/1999	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/10/1999	12/9/1999	12/3/1999	12/10/1999	12/10/1999
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H11-12-011.5N	H11-2319-041.3N	H11-2319-040.5N	H11-6-011N	H11-761-031N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-020.4N	H11-9-021.5N	H11-9307-021N	H11-9310-031N	H11-9312-021FD	H11-9312-021N
			Parent ID													H11-9312-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 539					< 510						
1,1-Dichloroethane	75-34-3	ug/kg				< 539					< 510						
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 539					< 510						
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 539					< 510						
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 539					< 510						
1,2-Dichloroethane	107-06-2	ug/kg				< 539					< 510						
1,2-Dichloropropane	78-87-5	ug/kg				< 539					< 510						
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 539					< 510						
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 539					< 510						
2-Chloroethylvinylether	110-75-8	ug/kg				< 1078					< 1000						
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270			< 2155					< 2000						
Acrylonitrile	107-13-1	ug/kg	23.9			< 539					< 510						
Benzene	71-43-2	ug/kg	255			< 539					< 510						
Bromodichloromethane	75-27-4	ug/kg	540			< 539					< 510						
Bromoform	75-25-2	ug/kg				< 539					< 510						
Bromomethane	74-83-9	ug/kg	235			< 1078					< 1000						
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 539					< 510						
Chlorobenzene	108-90-7	ug/kg	13100			< 539					< 510						
Chloroethane	75-00-3	ug/kg				< 1078					< 1000						
Chloroform	67-66-3	ug/kg	1190			< 539					< 510						
Chloromethane	74-87-3	ug/kg	10400			< 1078					< 1000						
cis-1,2-Dichloroethene	156-59-2	ug/kg				< 539					< 510						
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050			< 539					< 510						
Ethylbenzene	100-41-4	ug/kg	5160			< 539					< 510						
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 539					< 510						
Methylene Chloride	75-09-2	ug/kg	4050			< 539					< 510						
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920			< 539					< 510						
Toluene	108-88-3	ug/kg	200000			< 539					< 510						
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 539					< 510						
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400			< 539					< 510						
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646			< 1078					< 1000						
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-06	H11-9336-01	H11-9336-02	H12-2-03	H12-3-01	H12-4-01	H12-689-03	H12-8563-03	H12-8563-03	H12-8607-04	H12-8607-04
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/3/1999	12/3/1999	12/14/1999	12/14/1999	12/10/1999	12/15/1999	12/15/1999	12/15/1999	12/14/1999	12/14/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-2-031.5N	H12-3-011.5N	H12-4-011N	H12-689-031N	H12-8563-030.5N	H12-8563-031N	H12-8607-041.5N	H12-8607-040.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su													7.45		
Grain Size																	
Clay	Clay	%		8.6		3.4			11.2	5.1	5.9	8.9	11.6		8.1	7.1	
Gravel	Gravel	%		22.1		51.4			37.1	43.8	16.4	19.2	32.2		26.6	35.4	
Sand	Sand	%		53.8		37.4			23.2	36.5	45.9	41.2	30.5		40.4	42	
Silt	Silt	%		15.6		7.8			28.5	14.6	31.8	30.7	25.8		25	15.5	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-06	H11-9336-01	H11-9336-02	H12-2-03	H12-3-01	H12-4-01	H12-689-03	H12-8563-03	H12-8563-03	H12-8607-04	H12-8607-04
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/3/1999	12/3/1999	12/14/1999	12/14/1999	12/10/1999	12/15/1999	12/15/1999	12/15/1999	12/14/1999	12/14/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-2-031.5N	H12-3-011.5N	H12-4-011N	H12-689-031N	H12-8563-030.5N	H12-8563-031N	H12-8607-041.5N	H12-8607-040.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	6.8	< 0.59	0.38	0.77	1.9	4	< 0.53	< 0.69	1.1	0.95		< 0.5	< 0.52	
Arsenic	7440-38-2	mg/kg	9.9	20.6	4.1	121	129	135	789	9.8	3.3	4.4	3		5.5	5.4	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.23	0.08	0.15	1	0.56	0.58	0.57	0.55	0.59	0.31		0.5	0.51	
Cadmium	7440-43-9	mg/kg	0.36	< 0.61	< 0.36	< 0.31	0.05	0.3	0.22	0.48	< 0.41	< 0.38	0.38		0.41	0.11	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	15.5	4	7.7	29.6	12.7	18.8	16	12.3	15.7	17.6		14	11.9	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	65	15.4	17.9	48.6	36.2	36.9	27.1	8.9	23.3	15.4		28.6	21.7	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	1350	43.7	65.1	317	92.2	176	165	91.5	204	186		26	148	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.53	0.29	0.12	0.32	0.39	0.23	0.23	0.15	0.28	0.3		0.04	0.4	
Nickel	7440-02-0	mg/kg	38	9.5	2.6	7.6	14.2	10	14.1	11.7	5.6	6.2	10		8.8	6.9	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	2.9	< 0.59	1.3	2.2	3.4	6.7	1.7	1.2	1.1	< 0.57		< 0.5	1.5	
Silver	7440-22-4	mg/kg	2	0.21	< 0.36	< 0.31	0.1	0.37	0.6	< 0.32	< 0.41	< 0.38	< 0.34		< 0.3	< 0.31	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2	< 1.2	< 1	< 1.1	< 1.1	< 0.97	0.6	< 1.4	0.9	< 1.1		< 1	< 1	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	559	27.4	19.6	217	86.4	103	318	76.2	89.4	106		48.2	485	
Moisture																	
Percent Solids	SOLID	percent		84.4	81.6	83.2	82.7	80.4	82.1	83.3	70.4	76.4	77.7		91.3	82.7	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371					< 21	< 21				22				
Aroclor-1221	11104-28-2	ug/kg	371					< 21	< 21				22				
Aroclor-1232	11141-16-5	ug/kg	371					< 21	< 21				22				
Aroclor-1242	53469-21-9	ug/kg	371					< 21	< 21				22				
Aroclor-1248	12672-29-6	ug/kg	371					< 21	< 21				22				
Aroclor-1254	11097-69-1	ug/kg	371					110	310				27				
Aroclor-1260	11096-82-5	ug/kg	371					94	240				33				
Polychlorinated biphenyls	1336-36-3	ug/kg	371					204	550				170				
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 790	< 810	< 800	< 800	< 830	< 810	< 800	< 950	< 880	< 850		< 730	< 800	

			Location	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-06	H11-9336-01	H11-9336-02	H12-2-03	H12-3-01	H12-4-01	H12-689-03	H12-8563-03	H12-8563-03	H12-8607-04	H12-8607-04
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/3/1999	12/3/1999	12/14/1999	12/14/1999	12/10/1999	12/15/1999	12/15/1999	12/15/1999	12/14/1999	12/14/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-2-031.5N	H12-3-011.5N	H12-4-011N	H12-689-031N	H12-8563-030.5N	H12-8563-031N	H12-8607-041.5N	H12-8607-040.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 400	< 410	< 400	170	44	< 410	< 400	< 480	< 440	< 430		110	< 400	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		58	< 400	
2-Chloronaphthalene	91-58-7	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2-Chlorophenol	95-57-8	ug/kg	243	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 790	< 810	< 800	< 800	< 830	< 810	< 800	< 950	< 880	< 850		< 730	< 800	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 790	< 810	< 800	< 800	< 830	< 810	< 800	< 950	< 880	< 850		< 730	< 800	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
4-Nitrophenol	100-02-7	ug/kg	7000	< 790	< 810	< 800	< 800	< 830	< 810	< 800	< 950	< 880	< 850		< 730	< 800	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	28		< 370	< 400	
Acenaphthylene	208-96-8	ug/kg	682000	280	< 410	< 400	22	180	78	180	< 480	< 440	< 430		< 370	< 400	
Anthracene	120-12-7	ug/kg	1480000	180	< 410	< 400	38	160	140	140	< 480	< 440	58		110	65	
Benzidine	92-87-5	ug/kg	1310	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100		< 410	< 400	150	480	450				< 430		110		
Benzo[a]anthracene	56-55-3	ug/kg	5210	1300	90	76	260	950	770	1400	< 480	63	94		160	240	
Benzo[a]pyrene	50-32-8	ug/kg	1520	1300	60	50	200	740	640	1400	31	57	77		150	200	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	2400	160	180	560	2900	1800	2000	< 480	69	100		220	320	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	1100						780	< 480	< 440				130	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	840	48	< 400	180	930	580	890	< 480	< 440	< 430		< 370	130	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 400	< 410	< 400	< 400	76	830	< 400	< 480	< 440	< 430		< 370	< 400	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 400	< 410	< 400	< 400	< 420	160	< 400	< 480	< 440	< 430		< 370		
Chrysene	218-01-9	ug/kg	4730	1700	160	130	460	2000	950	1300	< 480	66	120		120	250	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	240	< 410	< 400	< 400	140	200	210	< 480	< 440	< 430		< 370	< 400	
Diethylphthalate	84-66-2	ug/kg	24800	< 400	< 410	< 400	38	< 420	96	< 400	< 480	< 440	< 430		760	< 400	
Dimethylphthalate	131-11-3	ug/kg	734000	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370		
Di-n-butylphthalate	84-74-2	ug/kg	150	190	< 410	< 400	250	40	68	< 400	< 480	160	< 430		390	< 400	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 400	< 410	< 400	< 400	< 420	< 410	70	< 480	< 440	< 430		< 370	< 400	
Fluoranthene	206-44-0	ug/kg	122000	3800	110	180	410	2200	850	1900	< 480	110	240		330	470	
Fluorene	86-73-7	ug/kg	122000	73	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Hexachlorobenzene	118-74-1	ug/kg	199		< 410	< 400	< 400	< 420	< 410				< 430		< 370		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Hexachloroethane	67-72-1	ug/kg	596	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	1000	< 410	< 400	100	490	430	710	< 480	< 440	< 430		98	100	
Isophorone	78-59-1	ug/kg	139000	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Naphthalene	91-20-3	ug/kg	99.4	< 400	< 410	< 400	49	51	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Nitrobenzene	98-95-3	ug/kg	1310	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		260	< 400	
Pentachlorophenol	87-86-5	ug/kg	2100	< 790	< 810	< 800	< 800	< 830	< 810	< 800	< 950	< 880	< 850		< 730	< 800	
Phenanthrene	85-01-8	ug/kg	45700	2400	74	83	250	510	220	320	37	58	220		190	280	
Phenol	108-95-2	ug/kg	30000	< 400	< 410	< 400	< 400	< 420	< 410	< 400	< 480	< 440	< 430		< 370	< 400	
Pyrene	129-00-0	ug/kg	78500	3000	< 410	170	470	2500	1600	2400	< 480	< 440	220		290	590	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		34400		66900			25900	47900	42000	27500	18900		34500	33200	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg												< 570			< 700
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127											< 570			< 700

			Location	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-06	H11-9336-01	H11-9336-02	H12-2-03	H12-3-01	H12-4-01	H12-689-03	H12-8563-03	H12-8563-03	H12-8607-04	H12-8607-04
			Sample Date	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/3/1999	12/3/1999	12/14/1999	12/14/1999	12/10/1999	12/15/1999	12/15/1999	12/15/1999	12/14/1999	12/14/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-2-031.5N	H12-3-011.5N	H12-4-011N	H12-689-031N	H12-8563-030.5N	H12-8563-031N	H12-8607-041.5N	H12-8607-040.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg												< 570			< 700
1,1-Dichloroethane	75-34-3	ug/kg												< 570			< 700
1,1-Dichloroethene	75-35-4	ug/kg	8280											< 570			< 700
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000											< 570			< 700
1,2-Dichlorobenzene	95-50-1	ug/kg	2960											< 570			< 700
1,2-Dichloroethane	107-06-2	ug/kg												< 570			< 700
1,2-Dichloropropane	78-87-5	ug/kg												< 570			< 700
1,3-Dichlorobenzene	541-73-1	ug/kg	37700											< 570			< 700
1,4-Dichlorobenzene	106-46-7	ug/kg	546											280			< 700
2-Chloroethylvinylether	110-75-8	ug/kg												< 1100			< 1400
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270											< 2300			< 2800
Acrylonitrile	107-13-1	ug/kg	23.9											< 570			< 700
Benzene	71-43-2	ug/kg	255											< 570			< 700
Bromodichloromethane	75-27-4	ug/kg	540											< 570			< 700
Bromoform	75-25-2	ug/kg												< 570			< 700
Bromomethane	74-83-9	ug/kg	235											< 1100			< 1400
Carbon Tetrachloride	56-23-5	ug/kg	2980											< 570			< 700
Chlorobenzene	108-90-7	ug/kg	13100											< 570			< 700
Chloroethane	75-00-3	ug/kg												< 1100			< 1400
Chloroform	67-66-3	ug/kg	1190											< 570			< 700
Chloromethane	74-87-3	ug/kg	10400											< 1100			< 1400
cis-1,2-Dichloroethene	156-59-2	ug/kg												< 570			< 700
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050											< 570			< 700
Ethylbenzene	100-41-4	ug/kg	5160											< 570			< 700
Hexachlorobutadiene	87-68-3	ug/kg	39.8											< 570			< 700
Methylene Chloride	75-09-2	ug/kg	4050											< 570			< 700
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920											< 570			< 700
Toluene	108-88-3	ug/kg	200000											< 570			< 700
trans-1,2-Dichloroethene	156-60-5	ug/kg												< 570			< 700
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400											< 570			< 700
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646											< 1100			< 1400
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H13-408-02	H13-9329-02	H8-2171-05	H8-585-01	H8-585-01	H8-8262-01	H9-10-05	H9-10-05	H9-1-04	H9-2261-04	H9-3-01	H9-8155-02	H9-8238-01	H9-8238-02
			Sample Date	12/14/1999	12/14/1999	3/23/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/1/1999	12/1/1999	12/1/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-408-021.3N	H13-9329-021N	H8-2171-051.25N	H8-585-010.5N	H8-585-011N	H8-8262-011.25N	H9-10-051FD	H9-10-051N	H9-1-040.5N	H9-2261-041.25N	H9-3-011.25N	H9-8155-021N	H9-8238-011N	H9-8238-021N
			Parent ID							H9-10-051N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg		< 250									< 11000	< 280			
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 250											
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250		< 250							< 11000	< 280			
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250		< 250							350000	< 280			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250		< 250							290000	< 280			
2-Nitrotoluene	88-72-2	ug/kg		< 500		< 500							< 5700	< 140			
3-Nitrotoluene	99-08-1	ug/kg		< 500		< 500							< 5700	< 140			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250		< 250							200000	< 140			
4-Nitrotoluene	99-99-0	ug/kg		< 500		< 500							< 5700	< 140			
Nitrobenzene	98-95-3	ug/kg	1310	< 250		< 250							< 11000	< 280			
Nitrocellulose	9004-70-0	ug/kg		68500		< 30200							54300	61300			
Nitroglycerin	55-63-0	ug/kg	65000	< 4878		< 640							< 4878	< 4651			
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500		< 500							< 5700	< 140			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500		< 500							37000	< 140			
Tetryl	479-45-8	ug/kg	25000	< 500		< 500							5700	140			
GenChem																	
pH	pH	su				7.73				5	5.05						
Grain Size																	
Clay	Clay	%		5.8	2.5			6.5	4.8		15.6		5.5	13.4	6.2	13.7	
Gravel	Gravel	%		35.5	64.6			33.1	38.2		12.1		43.5	24.8	19.6	23	
Sand	Sand	%		40.6	25.1			47	44.7		31.8		37.4	33.3	39.8	33.5	
Silt	Silt	%		18.1	7.8			13.4	12.4		40.4		13.6	28.6	34.4	29.8	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H13-408-02	H13-9329-02	H8-2171-05	H8-585-01	H8-585-01	H8-8262-01	H9-10-05	H9-10-05	H9-1-04	H9-2261-04	H9-3-01	H9-8155-02	H9-8238-01	H9-8238-02
			Sample Date	12/14/1999	12/14/1999	3/23/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/1/1999	12/1/1999	12/1/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-408-021.3N	H13-9329-021N	H8-2171-051.25N	H8-585-010.5N	H8-585-011N	H8-8262-011.25N	H9-10-051FD	H9-10-051N	H9-1-040.5N	H9-2261-041.25N	H9-3-011.25N	H9-8155-021N	H9-8238-011N	H9-8238-021N
			Parent ID							H9-10-051N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50			8410											
Antimony	7440-36-0	mg/kg	0.27	0.22	0.26	< 0.92		1.9	1.9	0.33	< 0.59		1.3	0.23	< 0.51	< 0.41	< 0.48
Arsenic	7440-38-2	mg/kg	9.9	3.9	20.9	2.7		152	38.9	16.2	18.1		26.8	14.9	15.4	20.1	22.6
Barium	7440-39-3	mg/kg	283			50.6											
Beryllium	7440-41-7	mg/kg	10	0.65	0.51	0.83		0.35	0.41	0.9	0.97		1.1	1	0.69	0.48	0.41
Cadmium	7440-43-9	mg/kg	0.36	0.04	0.56	< 0.55		< 0.32	2.3	< 0.34	< 0.36		5.1	< 0.31	0.78	0.41	0.41
Calcium	7440-70-2	mg/kg				2430											
Chromium	7440-47-3	mg/kg	0.4	8.7	13.4	11.1		20.7	44.3	18.8	19.2		16.2	27	112	24.5	17.9
Cobalt	7440-48-4	mg/kg	0.14			6											
Copper	7440-50-8	mg/kg	5.4	53.8	19.7	14.1		105	290	29.1	30.1		191	32.4	38.7	18.2	13.5
Iron	7439-89-6	mg/kg				20700											
Lead	7439-92-1	mg/kg	11	2010	85.6	27.4		599	496	110	128		521	348	155	97.9	36.4
Magnesium	7439-95-4	mg/kg				1910											
Manganese	7439-96-5	mg/kg	220			307											
Mercury	7439-97-6	mg/kg	0.1	0.08	0.2	0.05		0.44	2	0.28	0.21		0.21	0.14	13.8	0.05	0.27
Nickel	7440-02-0	mg/kg	38	7.7	9.2	6.4		13.4	38.5	10.5	10.5		16.5	16.9	13.7	12.1	7.5
Potassium	7440-09-7	mg/kg				547											
Selenium	7782-49-2	mg/kg	0.52	1.8	2.1	< 0.92		1.8	2.7	1.7	2.4		3.1	1.9	1.9	1.4	1.7
Silver	7440-22-4	mg/kg	2	0.13	< 0.3	< 0.55		0.17	1.1	< 0.34	< 0.36		0.21	< 0.31	2.5	< 0.25	< 0.29
Sodium	7440-23-5	mg/kg				< 183											
Thallium	7440-28-0	mg/kg	1	< 1.1	< 1	< 1.8		< 1.1	< 3.9	< 1.1	< 1.2		< 1	0.65	< 1	0.5	< 0.96
Vanadium	7440-62-2	mg/kg	2			26.4											
Zinc	7440-66-6	mg/kg	8.5	57.1	84.3	49.2		182	598	102	108		1620	184	151	68.8	63.9
Moisture																	
Percent Solids	SOLID	percent		81.3	82.4	91		85.8	82.5	77	79.5		85.7	81.5	79.5	86.1	84.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371			< 19							< 20				
Aroclor-1221	11104-28-2	ug/kg	371			< 19							< 20				
Aroclor-1232	11141-16-5	ug/kg	371			< 19							< 20				
Aroclor-1242	53469-21-9	ug/kg	371			< 19							< 20				
Aroclor-1248	12672-29-6	ug/kg	371			< 19							< 20				
Aroclor-1254	11097-69-1	ug/kg	371			< 19							< 20				
Aroclor-1260	11096-82-5	ug/kg	371			< 37							16				
Polychlorinated biphenyls	1336-36-3	ug/kg	371			< 37							16				
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg				< 3.6											
4-4-DDE	72-55-9	ug/kg				< 3.6											
4-4-DDT	50-29-3	ug/kg				< 3.6											
a-BHC	319-84-6	ug/kg				< 1.9											
Aldrin	309-00-2	ug/kg				< 1.9											
alpha-Chlordane	5103-71-9	ug/kg				< 1.9											
b-BHC	319-85-7	ug/kg				< 1.9											
d-BHC	319-86-8	ug/kg				< 1.9											
Dieldrin	60-57-1	ug/kg				< 3.6											
Endosulfan I	959-98-8	ug/kg				< 1.9											
Endosulfan II	33213-65-9	ug/kg				< 3.6											
Endosulfan Sulfate	1031-07-8	ug/kg				< 3.6											
Endrin	72-20-8	ug/kg				< 3.6											
Endrin Aldehyde	7421-93-4	ug/kg				< 3.6											
Endrin Ketone	53494-70-5	ug/kg				< 3.6											
gamma-Chlordane	5103-74-2	ug/kg				< 1.9											
Heptachlor	76-44-8	ug/kg				< 1.9											
Heptachlor Epoxide	1024-57-3	ug/kg				< 1.9											
Lindane	58-89-9	ug/kg				< 1.9											
Methoxychlor	72-43-5	ug/kg				< 19											
Toxaphene	8001-35-2	ug/kg				< 190											
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 820	< 810	< 1800		< 7800	< 810	< 870	< 830		< 780	< 810	< 2100	< 1900	< 2000

Kennedy Jenks

			Location	H13-408-02	H13-9329-02	H8-2171-05	H8-585-01	H8-585-01	H8-8262-01	H9-10-05	H9-10-05	H9-1-04	H9-2261-04	H9-3-01	H9-8155-02	H9-8238-01	H9-8238-02
			Sample Date	12/14/1999	12/14/1999	3/23/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/1/1999	12/1/1999	12/1/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-408-021.3N	H13-9329-021N	H8-2171-051.25N	H8-585-010.5N	H8-585-011N	H8-8262-011.25N	H9-10-051FD	H9-10-051N	H9-1-040.5N	H9-2261-041.25N	H9-3-011.25N	H9-8155-021N	H9-8238-011N	H9-8238-021N
			Parent ID							H9-10-051N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 410	< 410	< 370		< 3900	70	< 430	60		< 390	< 410	39	< 390	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	< 410	< 370		< 3900	67	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2-Chloronaphthalene	91-58-7	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2-Chlorophenol	95-57-8	ug/kg	243	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 780	< 810	< 420	< 390	< 400
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 820	< 810	< 740		< 7800	< 810	< 870	< 830		< 780	< 810	< 840	< 780	< 790
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 820	< 810	< 1800		< 7800	< 810	< 870	< 830		< 780	< 810	< 2100	< 1900	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
4-Nitrophenol	100-02-7	ug/kg	7000	< 820	< 810	< 1800		< 7800	< 810	< 870	< 830		< 390	< 410	< 2100	< 1900	< 2000
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 410	< 410	< 370		< 3900	< 410	47	35		< 390	< 410	< 420	< 390	< 400
Acenaphthylene	208-96-8	ug/kg	682000	< 410	29	< 370		< 3900	110	290	160		19	50	19	< 390	< 400
Anthracene	120-12-7	ug/kg	1480000	< 410	37	< 370		< 3900	150	290	160		24	51	48	< 390	< 400
Benzidine	92-87-5	ug/kg	1310	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	55	320	260		< 3900	590	1200	670		130	180	230	< 390	< 400
Benzo[a]pyrene	50-32-8	ug/kg	1520	63	310	260		220	510	1100	670		140	180	250	< 390	< 400
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	95	580	490		< 3900	1200	1500	970		250	230	380	< 390	< 400
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 410	150	150		< 3900	350	780	450		170	110	110	< 390	< 400
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 410	210	160		< 3900	490	610	310		95	< 410	180	< 390	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 410	< 410	< 370		< 3900	56	48	47		44	50	< 420	< 390	< 400
Butylbenzylphthalate	85-68-7	ug/kg	239	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Chrysene	218-01-9	ug/kg	4730	86	450	270		410	820	1300	910		130	230	300	< 390	46
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 410	< 410	< 370		< 3900	< 410	< 430	120		< 390	< 410	< 420	< 390	< 400
Diethylphthalate	84-66-2	ug/kg	24800	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	140	47	< 400
Dimethylphthalate	131-11-3	ug/kg	734000	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Di-n-butylphthalate	84-74-2	ug/kg	150	< 410	< 410	< 370		< 3900	92	96	76		< 390	< 410	200	71	85
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Fluoranthene	206-44-0	ug/kg	122000	160	610	78		< 3900	1100	2500	1700		140	400	580	< 390	< 400
Fluorene	86-73-7	ug/kg	122000	< 410	< 410	< 370		< 3900	< 410	160	120		< 390	< 410	39	< 390	< 400
Hexachlorobenzene	118-74-1	ug/kg	199			< 370									< 420	< 390	< 400
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Hexachloroethane	67-72-1	ug/kg	596	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410		< 390	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 410	130	120		< 3900	340	660	380		130	100	100	< 390	< 400
Isophorone	78-59-1	ug/kg	139000	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Naphthalene	91-20-3	ug/kg	99.4	< 410	< 410	< 370		< 3900	< 410	37	< 420		< 390	< 410	< 420	< 390	< 400
Nitrobenzene	98-95-3	ug/kg	1310		< 410			< 3900	< 410	< 430	< 420				< 420	< 390	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 410	< 410	58		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	
Pentachlorophenol	87-86-5	ug/kg	2100	< 820	< 810	< 1800		< 7800	< 810	< 870	< 830		< 780	< 810	< 2100	< 1900	< 2000
Phenanthrene	85-01-8	ug/kg	45700	100	370	< 370		< 3900	170	1900	1200		76	300	450	< 390	66
Phenol	108-95-2	ug/kg	30000	< 410	< 410	< 370		< 3900	< 410	< 430	< 420		< 390	< 410	< 420	< 390	< 400
Pyrene	129-00-0	ug/kg	78500	150	640	160		< 3900	1000	2700	1800		150	480	850	< 390	< 400
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		48700	35000			9670	9680		9920		9750	8240	20200	9140	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg				< 620	< 580					< 560					
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			< 620	< 580					< 560					

			Location	H13-408-02	H13-9329-02	H8-2171-05	H8-585-01	H8-585-01	H8-8262-01	H9-10-05	H9-10-05	H9-1-04	H9-2261-04	H9-3-01	H9-8155-02	H9-8238-01	H9-8238-02
			Sample Date	12/14/1999	12/14/1999	3/23/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/1/1999	12/1/1999	12/1/1999
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-408-021.3N	H13-9329-021N	H8-2171-051.25N	H8-585-010.5N	H8-585-011N	H8-8262-011.25N	H9-10-051FD	H9-10-051N	H9-1-040.5N	H9-2261-041.25N	H9-3-011.25N	H9-8155-021N	H9-8238-011N	H9-8238-021N
			Parent ID							H9-10-051N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 620	< 580					< 560					
1,1-Dichloroethane	75-34-3	ug/kg				< 620	< 580					< 560					
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 620	< 580					< 560					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 580					< 560					
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 580					< 610					
1,2-Dichloroethane	107-06-2	ug/kg				< 620	< 580					< 610					
1,2-Dichloropropane	78-87-5	ug/kg				< 620	< 580					< 560					
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 580					< 560					
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 580					< 560					
2-Chloroethylvinylether	110-75-8	ug/kg				< 1200	< 1200					< 1100					
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270			< 2500	< 2300					< 2200					
Acrylonitrile	107-13-1	ug/kg	23.9			< 620	< 580					< 560					
Benzene	71-43-2	ug/kg	255			< 620	< 580					< 560					
Bromodichloromethane	75-27-4	ug/kg	540			< 620	< 580					< 560					
Bromoform	75-25-2	ug/kg				< 620	< 580					< 560					
Bromomethane	74-83-9	ug/kg	235			< 1200	< 1200					< 1100					
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 620	< 580					< 560					
Chlorobenzene	108-90-7	ug/kg	13100			< 620	< 580					< 560					
Chloroethane	75-00-3	ug/kg				< 1200	< 1200					< 1100					
Chloroform	67-66-3	ug/kg	1190			< 620	< 580					170					
Chloromethane	74-87-3	ug/kg	10400			< 1200	130					180					
cis-1,2-Dichloroethene	156-59-2	ug/kg				< 620	< 580					< 560					
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050			< 620	< 580					< 560					
Ethylbenzene	100-41-4	ug/kg	5160			< 620	< 580					< 560					
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 580					< 560					
Methylene Chloride	75-09-2	ug/kg	4050			280	< 580					< 560					
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920			< 620	< 580					< 560					
Toluene	108-88-3	ug/kg	200000			< 620	200					< 560					
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 620	< 580					< 560					
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400			< 620	930					< 560					
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646			< 1200	< 1200					< 1200					
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H9-8238-03	I11-9117-02	I11-9117-02	I8-2328-07	K8-9212-07	UD-08	E10-2097-02	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2160-03	E10-2160-05	E10-2288-03
			Sample Date	12/1/1999	12/15/1999	12/15/1999	3/23/1999	3/23/1999	9/20/1999	3/24/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	H9-8238-031N	I11-9117-020.5N	I11-9117-021N	I8-2328-071.5N	K8-9212-071.5N	UD-081.5N	E10-2097-021N	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2160-031N	E10-2160-051N	E10-2288-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 25	< 25	< 230	< 25	< 25	< 25	< 25	< 25	< 25	NA	< 23
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655				< 25	< 25	< 230	< 25	< 25	< 25	< 25	< 25	< 25	NA	< 23
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000				140	< 25	< 230	< 25	< 25	< 25	< 25	< 25	< 25	NA	< 23
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8							NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000				< 25	< 25	< 230	< 25	< 25	< 25	< 25	< 25	< 25	NA	< 23
2-Nitrotoluene	88-72-2	ug/kg					< 50	< 50	< 450	< 50	< 50	< 50	< 50	< 50	< 50	NA	< 45
3-Nitrotoluene	99-08-1	ug/kg					< 50	< 50	< 450	< 50	< 50	< 50	< 50	< 50	< 50	NA	< 45
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000				< 25	< 25	< 230	< 25	< 25	< 25	< 25	< 25	< 25	NA	< 23
4-Nitrotoluene	99-99-0	ug/kg					< 50	< 50	< 450	< 50	< 50	< 50	< 50	< 50	< 50	NA	< 45
Nitrobenzene	98-95-3	ug/kg	1310				< 25	< 25	< 230	< 25	< 25	< 25	< 25	< 25	< 25	NA	< 23
Nitrocellulose	9004-70-0	ug/kg					69400	106000	109000	538000	33200000	148000	211000	1030000	2080000	NA	2820000
Nitroglycerin	55-63-0	ug/kg	65000				7600	< 540	< 5000	< 530	220000	< 540	< 550	3900	3800	NA	14000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000				< 50	< 50	< 450	< 50	< 50	< 50	< 50	< 50	< 50	NA	< 45
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000							NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000				< 50	< 50	< 450	< 50	< 50	< 50	< 50	< 50	< 50	NA	< 45
Tetryl	479-45-8	ug/kg	25000				< 50	< 50	< 450	< 50	< 50	< 50	< 50	< 50	< 50	NA	< 45
GenChem																	
pH	pH	su					5.75	4.99									
Grain Size																	
Clay	Clay	%				14.5			11	3.3		4.5		5.5	6.1		4.6
Gravel	Gravel	%				24.1			26.7	53.8		60.2		48	45.3		47.6
Sand	Sand	%				35.6			41.8	34.5		27.7		35.8	35.1		36.2
Silt	Silt	%				25.8			20.5	8.5		7.7		10.6	13.5		11.7
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H9-8238-03	I11-9117-02	I11-9117-02	I8-2328-07	K8-9212-07	UD-08	E10-2097-02	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2160-03	E10-2160-05	E10-2288-03
			Sample Date	12/1/1999	12/15/1999	12/15/1999	3/23/1999	3/23/1999	9/20/1999	3/24/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	H9-8238-031N	I11-9117-020.5N	I11-9117-021N	I8-2328-071.5N	K8-9212-071.5N	UD-081.5N	E10-2097-021N	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2160-031N	E10-2160-051N	E10-2288-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50				8300	16500									
Antimony	7440-36-0	mg/kg	0.27	< 0.37		< 0.6	< 0.98	< 0.81	< 1.1	< 0.5	< 1	< 0.4	< 0.6	< 0.6	< 1	< 1	
Arsenic	7440-38-2	mg/kg	9.9	3.5		57.1	3.1	4.8	7.6	5.3	6.6	3	6.2	4.4	5.9	5.6	
Barium	7440-39-3	mg/kg	283				32.4	54.8									
Beryllium	7440-41-7	mg/kg	10	0.43		0.41	0.8	1.1	0.75	0.41	0.51	0.65	0.55	0.33	0.35	0.33	
Cadmium	7440-43-9	mg/kg	0.36	0.28		1	< 0.59	< 0.48	< 0.64	0.32	0.82	0.39	0.43	0.61	0.45	0.37	
Calcium	7440-70-2	mg/kg					1290	485									
Chromium	7440-47-3	mg/kg	0.4	13.2		56.8	11.5	17.5	15.9	11.3	23	9.8	13.3	11.6	12.6	11.8	
Cobalt	7440-48-4	mg/kg	0.14				4.9	8.6									
Copper	7440-50-8	mg/kg	5.4	12.7		31.4	11	15.6	13.3	13.7	39.2	15.5	13.1	16.5	77.6	43.4	
Iron	7439-89-6	mg/kg					23300	26700									
Lead	7439-92-1	mg/kg	11	14.7		204	5.4	9.2	28.4	34.3	309	27	30.3	75.7	96.8	16	
Magnesium	7439-95-4	mg/kg					1420	1930									
Manganese	7439-96-5	mg/kg	220				238	372									
Mercury	7439-97-6	mg/kg	0.1	0.12		0.47			0.06	0.1	2	0.14	0.09	0.09	0.16	0.03	
Nickel	7440-02-0	mg/kg	38	6		29.6	6.4	13.1	10.3	9.3	10	6.5	6.9	9.1	7.8	6.9	
Potassium	7440-09-7	mg/kg					475	627									
Selenium	7782-49-2	mg/kg	0.52	0.64		1.1	< 0.98	1.4	1	< 0.4	< 1	0.82	0.51	0.51	1	< 1	
Silver	7440-22-4	mg/kg	2	< 0.22		0.17	< 0.59	< 0.48	< 0.64	< 0.2	< 0.7	< 0.2	< 0.3	< 0.3	< 0.6	< 0.6	
Sodium	7440-23-5	mg/kg					< 196	< 161									
Thallium	7440-28-0	mg/kg	1	< 0.74		< 1.2	< 2	< 1.6	< 2.1	< 0.9	< 2	< 0.8	< 1	< 1	< 2	< 2	
Vanadium	7440-62-2	mg/kg	2				26.3	34.5									
Zinc	7440-66-6	mg/kg	8.5	56.7		180	49.1	49.4	298	64.3	209	91.1	74	289	86.7	37.2	
Moisture																	
Percent Solids	SOLID	percent		94.2		77.5	90.1	88	85.7	94.1	79.3	92.3	90.8	87	82.8	89	88.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371				< 19	< 20	< 20								
Aroclor-1221	11104-28-2	ug/kg	371				< 19	< 20	< 20								
Aroclor-1232	11141-16-5	ug/kg	371				< 19	< 20	< 20								
Aroclor-1242	53469-21-9	ug/kg	371				< 19	< 20	< 20								
Aroclor-1248	12672-29-6	ug/kg	371				< 19	< 20	< 20								
Aroclor-1254	11097-69-1	ug/kg	371				< 19	< 20	< 20								
Aroclor-1260	11096-82-5	ug/kg	371				< 38	< 39	< 39								
Polychlorinated biphenyls	1336-36-3	ug/kg	371				< 38	< 39	< 39								
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg					< 3.7	< 3.8	< 3.9								
4-4-DDE	72-55-9	ug/kg					< 3.7	< 3.8	< 3.9								
4-4-DDT	50-29-3	ug/kg					< 3.7	< 3.8	< 3.9								
a-BHC	319-84-6	ug/kg					< 1.9	< 2	< 1.9								
Aldrin	309-00-2	ug/kg					< 1.9	< 2	< 1.9								
alpha-Chlordane	5103-71-9	ug/kg					< 1.9	< 2	< 1.9								
b-BHC	319-85-7	ug/kg					< 1.9	< 2	< 1.9								
d-BHC	319-86-8	ug/kg					< 1.9	< 2	< 1.9								
Dieldrin	60-57-1	ug/kg					< 3.7	< 3.8	< 3.9								
Endosulfan I	959-98-8	ug/kg					< 1.9	< 2	< 1.9								
Endosulfan II	33213-65-9	ug/kg					< 3.7	< 3.8	< 3.9								
Endosulfan Sulfate	1031-07-8	ug/kg					< 3.7	< 3.8	< 3.9								
Endrin	72-20-8	ug/kg					< 3.7	< 3.8	< 3.9								
Endrin Aldehyde	7421-93-4	ug/kg					< 3.7	< 3.8	< 3.9								
Endrin Ketone	53494-70-5	ug/kg					< 3.7	< 3.8	< 3.9								
gamma-Chlordane	5103-74-2	ug/kg					< 1.9	< 2	< 1.9								
Heptachlor	76-44-8	ug/kg					< 1.9	< 2	< 1.9								
Heptachlor Epoxide	1024-57-3	ug/kg					< 1.9	< 2	< 1.9								
Lindane	58-89-9	ug/kg					< 1.9	< 2	< 1.9								
Methoxychlor	72-43-5	ug/kg					< 19	< 20	< 19								
Toxaphene	8001-35-2	ug/kg					< 190	< 200	< 190								
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 1800		< 850	< 77	< 76	< 1900	< 710	< 84	< 72	< 73	< 770	< 80	< 75	< 760

			Location	H9-8238-03	I11-9117-02	I11-9117-02	I8-2328-07	K8-9212-07	UD-08	E10-2097-02	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2160-03	E10-2160-05	E10-2288-03
			Sample Date	12/1/1999	12/15/1999	12/15/1999	3/23/1999	3/23/1999	9/20/1999	3/24/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	H9-8238-031N	I11-9117-020.5N	I11-9117-021N	I8-2328-071.5N	K8-9212-071.5N	UD-081.5N	E10-2097-021N	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2160-031N	E10-2160-051N	E10-2288-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 350		< 430	< 380	< 380	< 390	< 3500	220	< 360	< 370	< 3800	< 400	< 370	< 3800
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 350		< 430	< 380	< 380	< 390	< 3500	32	< 360	< 370	< 3800	< 400	< 370	< 3800
2-Chloronaphthalene	91-58-7	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2-Chlorophenol	95-57-8	ug/kg	243	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 710		< 850	< 77	< 76	< 780	< 710	< 84	< 72	< 73	< 770	< 80	< 75	< 760
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 1800		< 850	< 77	< 76	< 1900	< 710	< 84	< 72	< 73	< 770	< 80	< 75	< 760
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
4-Nitrophenol	100-02-7	ug/kg	7000	< 1800		< 850	< 77	< 76	< 1900	< 710	< 84	< 72	< 73	< 770	< 80	< 75	< 760
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 350		< 430	< 38	< 38	< 390	< 350	130	< 36	< 37	< 380	< 40	< 37	< 380
Acenaphthylene	208-96-8	ug/kg	682000	< 350		35	< 38	< 38	< 390	< 350	31	< 36	< 37	< 380	< 40	< 37	< 380
Anthracene	120-12-7	ug/kg	1480000	< 350		47	< 38	< 38	< 390	< 350	320	22	< 37	< 380	< 40	< 37	< 380
Benzidine	92-87-5	ug/kg	1310	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100			200											
Benzo[a]anthracene	56-55-3	ug/kg	5210	49		220	< 38	160	33	< 350	1500	71	< 37	< 380	< 40	< 37	< 380
Benzo[a]pyrene	50-32-8	ug/kg	1520	43		210	< 38	69	31	< 350	1500	71	< 37	< 380	< 40	< 37	< 380
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	66		340	< 38	150	< 390	< 350	2300	120	< 37	< 380	< 40	< 37	< 380
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 350			< 38	< 38	< 390	< 350	1200	< 36	< 37	< 380	< 40	< 37	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 350		130	< 38	< 38	< 390	< 350	730	< 36	< 37	< 380	< 40	< 37	< 380
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 350		< 430	20	42	34	< 350	270	90	41	< 380	48	23	< 380
Butylbenzylphthalate	85-68-7	ug/kg	239	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Chrysene	218-01-9	ug/kg	4730	48		280	< 38	190	< 390	< 350	1700	85	< 37	< 380	< 40	< 37	< 380
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 350		< 430	< 38	< 38	< 390	< 350	250	< 36	< 37	< 380	< 40	< 37	< 380
Diethylphthalate	84-66-2	ug/kg	24800	55		< 430	87	< 38	< 390	< 350	560	< 36	< 37	< 380	44	< 37	< 380
Dimethylphthalate	131-11-3	ug/kg	734000	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Di-n-butylphthalate	84-74-2	ug/kg	150	87		< 430	< 38	< 38	< 390	< 350	5500	250	91	430	49	< 37	< 380
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Fluoranthene	206-44-0	ug/kg	122000	76		530	< 38	150	< 390	< 350	4400	150	< 37	< 380	< 40	< 37	< 380
Fluorene	86-73-7	ug/kg	122000	< 350		< 430	< 38	< 38	< 390	< 350	160	< 36	< 37	< 380	< 40	< 37	< 380
Hexachlorobenzene	118-74-1	ug/kg	199	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Hexachloroethane	67-72-1	ug/kg	596	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 350		150	< 38	< 38	< 390	< 350	1000	< 36	< 37	< 380	< 40	< 37	< 380
Isophorone	78-59-1	ug/kg	139000	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Naphthalene	91-20-3	ug/kg	99.4	< 350		< 430	< 38	< 38	< 390	< 350	39	< 36	< 37	< 380	< 40	< 37	< 380
Nitrobenzene	98-95-3	ug/kg	1310	< 350		< 430										< 37	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 350		< 430	170	< 38	< 390	< 350	2600	< 36	< 37	< 380	< 40	< 37	< 380
Pentachlorophenol	87-86-5	ug/kg	2100	< 1800		< 850	< 77	< 76	< 1900	< 710	< 84	< 72	< 73	< 770	< 80	< 75	< 760
Phenanthrene	85-01-8	ug/kg	45700	38		250	< 38	300	36	< 350	3000	93	24	< 380	< 40	< 37	< 380
Phenol	108-95-2	ug/kg	30000	< 350		< 430	< 38	< 38	< 390	< 350	< 42	< 36	< 37	< 380	< 40	< 37	< 380
Pyrene	129-00-0	ug/kg	78500	< 350		520	< 38	< 38	< 390	< 350	3100	130	< 37	< 380	< 40	< 37	< 380
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				25900			11800	20100		21000		5020	21100		47500
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 540		< 630	< 720	< 606								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 540		< 630	< 720	< 606								

			Location	H9-8238-03	I11-9117-02	I11-9117-02	I8-2328-07	K8-9212-07	UD-08	E10-2097-02	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2160-03	E10-2160-05	E10-2288-03
			Sample Date	12/1/1999	12/15/1999	12/15/1999	3/23/1999	3/23/1999	9/20/1999	3/24/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	H9-8238-031N	I11-9117-020.5N	I11-9117-021N	I8-2328-071.5N	K8-9212-071.5N	UD-081.5N	E10-2097-021N	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2160-031N	E10-2160-051N	E10-2288-030.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 540		< 630	< 720	< 606								
1,1-Dichloroethane	75-34-3	ug/kg			< 540		< 630	< 720	< 606								
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 540		< 630	< 720	< 606								
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 540												
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 540												
1,2-Dichloroethane	107-06-2	ug/kg			< 540		< 630	< 720	< 606								
1,2-Dichloropropane	78-87-5	ug/kg			< 540		< 630	< 720	< 606								
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 540												
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 540												
2-Chloroethylvinylether	110-75-8	ug/kg			< 1100		< 1300	< 1400	< 1211								
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 2200		< 2500	< 2900	< 2422								
Acrylonitrile	107-13-1	ug/kg	23.9		< 540		< 630	< 720	< 606								
Benzene	71-43-2	ug/kg	255		< 540		< 630	< 720	< 606								
Bromodichloromethane	75-27-4	ug/kg	540		< 540		< 630	< 720	< 606								
Bromoform	75-25-2	ug/kg			< 540		< 630	< 720	< 606								
Bromomethane	74-83-9	ug/kg	235		< 1100		< 1300	< 1400	< 1211								
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 540		< 630	< 720	< 606								
Chlorobenzene	108-90-7	ug/kg	13100		< 540		< 630	< 720	< 606								
Chloroethane	75-00-3	ug/kg			< 1000		< 1300	< 1400	< 1211								
Chloroform	67-66-3	ug/kg	1190		< 540		< 630	< 720	< 606								
Chloromethane	74-87-3	ug/kg	10400		< 1100		< 1300	< 1400	636								
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 540		< 630	< 720	< 606								
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 540		< 630	< 720	< 606								
Ethylbenzene	100-41-4	ug/kg	5160		< 540		< 630	< 720	< 606								
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 540												
Methylene Chloride	75-09-2	ug/kg	4050		< 540		560	610	< 515								
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 540		< 630	< 720	< 606								
Toluene	108-88-3	ug/kg	200000		< 540		< 630	< 720	< 606								
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 540		< 630	< 720	< 606								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 540		< 630	< 720	< 606								
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 1100		< 1300	< 1400	< 1211								
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	E10-2288-05	E10-615-04	E10-615-04	E9-2-03	E9-2153-02	E9-2296-05	E9-2296-06	E9-2296A-01	E9-2296A-01	E9-2296C-01	E9-2296D-01	E9-556-04	E9-558B-03	E9-560-03
			Sample Date	3/24/2000	3/23/2000	3/23/2000	3/24/2000	3/23/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/31/2000	3/21/2000	3/17/2000	3/23/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	E10-2288-051N	E10-615-040.75FD	E10-615-040.75N	E9-2-031N	E9-2153-021.5N	E9-2296-051N	E9-2296-061N	E9-2296A-011N	E9-2296A-010.5N	E9-2296C-010.5N	E9-2296D-011.5N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N
			Parent ID		E10-615-040.75N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 22	< 250	< 25	< 25	< 25	< 25	< 25	NA	NA	NA	< 23	< 25	< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 22	< 250	< 25	< 25	< 25	< 25	< 25	NA	NA	NA	< 23	< 25	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 22	< 250	< 25	350	150	1048	< 25	NA	NA	NA	< 23	< 25	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 22	< 250	< 25	< 25	< 25	< 25	< 25	NA	NA	NA	< 23	< 25	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 43	< 500	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 47	< 50	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 43	< 500	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 47	< 50	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 22	< 250	< 25	< 25	< 25	< 25	< 25	NA	NA	NA	< 23	< 25	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 43	< 500	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 47	< 50	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 22	< 250	< 25	< 25	130	< 25	< 25	NA	NA	NA	< 23	< 25	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		4140000	1360000	1850000	1260000	292000	2070000	104000	NA	NA	NA	119000	276000	< 37000	1230000
Nitroglycerin	55-63-0	ug/kg	65000	10000	22000	4000	26000	28000	170000	< 520	NA	NA	NA	< 470	< 540	< 540	< 630
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 43	< 500	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 47	< 50	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 43	< 500	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 47	< 50	< 50	< 50
Tetryl	479-45-8	ug/kg	25000	< 43	< 500	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	< 47	< 50	< 50	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%				6.6	8.3	0.8			4.5			3.4	5.7	7.4	10.4
Gravel	Gravel	%				40.5	36.2	319			36.1			22.5	26.6	43.3	47.5
Sand	Sand	%				36.3	45.3	60.5			52			70.9	59.9	34.5	24.6
Silt	Silt	%				16.7	10.2	6.8			7.4			3.3	7.9	14.7	17.5
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	E10-2288-05	E10-615-04	E10-615-04	E9-2-03	E9-2153-02	E9-2296-05	E9-2296-06	E9-2296A-01	E9-2296A-01	E9-2296C-01	E9-2296D-01	E9-556-04	E9-558B-03	E9-560-03
			Sample Date	3/24/2000	3/23/2000	3/23/2000	3/24/2000	3/23/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/31/2000	3/21/2000	3/17/2000	3/23/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	E10-2288-051N	E10-615-040.75FD	E10-615-040.75N	E9-2-031N	E9-2153-021.5N	E9-2296-051N	E9-2296-061N	E9-2296A-011N	E9-2296A-010.5N	E9-2296C-010.5N	E9-2296D-011.5N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N
			Parent ID		E10-615-040.75N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.7	< 0.6	< 0.4	< 0.6	< 1	< 1				< 1	< 1	< 0.6	< 1
Arsenic	7440-38-2	mg/kg	9.9		4.3	6.1	3.9	3.9	5.5	3.6				3.8	3.5	5.2	9.7
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.54	0.54	0.39	0.38	0.51	0.4				0.28	0.41	0.71	0.8
Cadmium	7440-43-9	mg/kg	0.36		< 0.35	< 0.3	0.08	< 0.3	< 0.6	< 0.5				< 0.6	0.22	< 0.3	0.36
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		12.8	12.3	12.5	16	14.4	8.4				10.2	7.7	15	13.3
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		11.6	11.5	20.4	636	17.7	40.6				8.6	12.9	32.4	19
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		41	40.3	19.3	35.2	18.8	12				9.2	16	38.5	71.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.07	0.07	0.08	0.07	0.06	0.05				0.04	0.02	0.11	0.09
Nickel	7440-02-0	mg/kg	38		7	6.9	6.2	8.4	9	6.4				4.5	5.4	9.5	9.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.75	0.9	0.52	< 0.5	< 1	< 1				< 1	0.96	0.53	1
Silver	7440-22-4	mg/kg	2		< 0.35	< 0.3	< 0.2	< 0.3	< 0.6	< 0.5				< 0.6	< 0.6	< 0.3	< 0.7
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		1.6	1	< 0.8	0.94	< 2	< 2				< 2	< 2	2.1	< 2
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		66.5	69.5	58.2	260	50.7	88.4				77.4	60.3	147	84.2
Moisture																	
Percent Solids	SOLID	percent		86.2	79.2	80	91	86	90.6	91.7	90.6			96.3	87.7	86.3	79.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 780	< 840	< 83	< 730	< 78	< 730	< 72	< 74			< 69	< 76	< 78	< 84

			Location	E10-2288-05	E10-615-04	E10-615-04	E9-2-03	E9-2153-02	E9-2296-05	E9-2296-06	E9-2296A-01	E9-2296A-01	E9-2296C-01	E9-2296D-01	E9-556-04	E9-558B-03	E9-560-03
			Sample Date	3/24/2000	3/23/2000	3/23/2000	3/24/2000	3/23/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/31/2000	3/21/2000	3/17/2000	3/23/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	E10-2288-051N	E10-615-040.75FD	E10-615-040.75N	E9-2-031N	E9-2153-021.5N	E9-2296-051N	E9-2296-061N	E9-2296A-011N	E9-2296A-010.5N	E9-2296C-010.5N	E9-2296D-011.5N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N
			Parent ID		E10-615-040.75N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 3900	5500	3800	< 3700	< 390	< 3700	< 360	< 370			< 350	< 380	< 390	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 3900	270	170	< 3700	< 390	< 3700	< 360	< 370			< 350	< 380	< 390	< 420
2-Chloronaphthalene	91-58-7	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2-Chlorophenol	95-57-8	ug/kg	243	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 780	< 840	< 83	< 730	< 78	< 730	< 72	< 73			< 69	< 76	< 78	< 84
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 780	< 840	< 83	< 730	< 78	< 730	< 72	< 73			< 69	< 76	< 78	< 84
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
4-Nitrophenol	100-02-7	ug/kg	7000	< 780	< 840	< 83	< 730	< 78	< 730	< 72	< 73			< 69	< 76	< 78	< 84
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Acenaphthylene	208-96-8	ug/kg	682000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Anthracene	120-12-7	ug/kg	1480000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Benzidine	92-87-5	ug/kg	1310	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	57	< 42
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	45	27
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	67	< 42
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	400	< 420	< 42	< 370	32	< 370	< 36	47			20	< 38	< 39	28
Butylbenzylphthalate	85-68-7	ug/kg	239	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Chrysene	218-01-9	ug/kg	4730	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	67	< 42
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Diethylphthalate	84-66-2	ug/kg	24800	< 390	< 420	< 42	370	300	< 370	< 36	280			< 35	< 38	< 39	< 42
Dimethylphthalate	131-11-3	ug/kg	734000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Di-n-butylphthalate	84-74-2	ug/kg	150	< 390	870	710	630	62	< 370	< 36	550			52	< 38	110	< 42
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Fluoranthene	206-44-0	ug/kg	122000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	100	< 42
Fluorene	86-73-7	ug/kg	122000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Hexachlorobenzene	118-74-1	ug/kg	199	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Hexachloroethane	67-72-1	ug/kg	596	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Isophorone	78-59-1	ug/kg	139000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Naphthalene	91-20-3	ug/kg	99.4	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Nitrobenzene	98-95-3	ug/kg	1310								< 37						
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 390	330	280	860	230	4200	< 36	160			< 35	< 38	< 39	< 42
Pentachlorophenol	87-86-5	ug/kg	2100	< 780	< 840	< 83	< 730	< 78	< 730	< 72	< 73			< 69	< 76	< 78	< 84
Phenanthrene	85-01-8	ug/kg	45700	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	40	37
Phenol	108-95-2	ug/kg	30000	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Pyrene	129-00-0	ug/kg	78500	< 390	< 420	< 42	< 370	< 39	< 370	< 36	< 37			< 35	< 38	< 39	< 42
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				23800	5380	12700			4560			2600	6560	37200	22100
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg										< 46	< 56				
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127									< 46	< 56				

			Location	E10-2288-05	E10-615-04	E10-615-04	E9-2-03	E9-2153-02	E9-2296-05	E9-2296-06	E9-2296A-01	E9-2296A-01	E9-2296C-01	E9-2296D-01	E9-556-04	E9-558B-03	E9-560-03
			Sample Date	3/24/2000	3/23/2000	3/23/2000	3/24/2000	3/23/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/31/2000	3/21/2000	3/17/2000	3/23/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	E10-2288-051N	E10-615-040.75FD	E10-615-040.75N	E9-2-031N	E9-2153-021.5N	E9-2296-051N	E9-2296-061N	E9-2296A-011N	E9-2296A-010.5N	E9-2296C-010.5N	E9-2296D-011.5N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N
			Parent ID		E10-615-040.75N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg										< 46	< 56				
1,1-Dichloroethane	75-34-3	ug/kg										< 46	< 56				
1,1-Dichloroethene	75-35-4	ug/kg	8280									< 46	< 56				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000									< 466	< 568				
1,2-Dichlorobenzene	95-50-1	ug/kg	2960									< 466	< 568				
1,2-Dichloroethane	107-06-2	ug/kg										< 46	< 56				
1,2-Dichloropropane	78-87-5	ug/kg										< 46	< 56				
1,3-Dichlorobenzene	541-73-1	ug/kg	37700									< 466	< 56				
1,4-Dichlorobenzene	106-46-7	ug/kg	546									< 466	< 56				
2-Chloroethylvinylether	110-75-8	ug/kg										< 93	< 113				
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270									< 186	< 227				
Acrylonitrile	107-13-1	ug/kg	23.9									< 46	< 56				
Benzene	71-43-2	ug/kg	255									< 46	< 56				
Bromodichloromethane	75-27-4	ug/kg	540									< 46	< 56				
Bromoform	75-25-2	ug/kg										< 46	< 56				
Bromomethane	74-83-9	ug/kg	235									444	385				
Carbon Tetrachloride	56-23-5	ug/kg	2980									< 46	< 56				
Chlorobenzene	108-90-7	ug/kg	13100									< 46	< 56				
Chloroethane	75-00-3	ug/kg										< 93	< 113				
Chloroform	67-66-3	ug/kg	1190									< 46	158				
Chloromethane	74-87-3	ug/kg	10400									581	2213				
cis-1,2-Dichloroethene	156-59-2	ug/kg										< 46	< 56				
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050									< 46	< 56				
Ethylbenzene	100-41-4	ug/kg	5160									< 46	< 56				
Hexachlorobutadiene	87-68-3	ug/kg	39.8									< 466	< 56				
Methylene Chloride	75-09-2	ug/kg	4050									< 46	< 56				
Naphthalene	91-20-3	ug/kg	99.4										< 56				
Tetrachloroethene	127-18-4	ug/kg	9920									< 46	< 56				
Toluene	108-88-3	ug/kg	200000									< 46	< 56				
trans-1,2-Dichloroethene	156-60-5	ug/kg										< 46	< 56				
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400									< 46	< 56				
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646									< 93	< 113				
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04	E9-A7-01	F10-11-01	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01	F10-2145-04	F10-2162-04
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/23/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	E9-562-011N	E9-6-010.5FD	E9-6-010.5N	E9-6-030.5N	E9-6-041N	E9-610-041N	E9-A7-011N	F10-11-011.5N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N	F10-2145-041N	F10-2162-041N
			Parent ID		E9-6-010.5N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	NA	NA	NA	NA	< 22	NA	< 25	< 25	< 25	< 23	< 25	NA	NA
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	NA	NA	NA	NA	< 22	NA	< 25	< 25	< 25	< 23	< 25	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25	NA	NA	NA	NA	< 22	NA	< 25	< 25	< 25	< 23	1100	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA	< 250	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	NA	NA	NA	NA	< 22	NA	< 25	< 25	< 25	< 23	< 25	NA	NA
2-Nitrotoluene	88-72-2	ug/kg		< 50	NA	NA	NA	NA	< 43	NA	< 50	< 50	< 50	< 47	< 50	NA	NA
3-Nitrotoluene	99-08-1	ug/kg		< 50	NA	NA	NA	NA	< 43	NA	< 50	< 50	< 50	< 47	< 50	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	NA	NA	NA	NA	< 22	NA	< 25	< 25	< 25	< 23	< 25	NA	NA
4-Nitrotoluene	99-99-0	ug/kg		< 50	NA	NA	NA	NA	< 43	NA	< 50	< 50	< 50	< 47	< 50	NA	NA
Nitrobenzene	98-95-3	ug/kg	1310	< 25	NA	NA	NA	NA	< 22	NA	< 25	< 25	< 25	< 23	< 25	NA	NA
Nitrocellulose	9004-70-0	ug/kg		< 41	NA	NA	NA	NA	1110000	NA	382000	1090000	1520000	1680000	1300000	NA	NA
Nitroglycerin	55-63-0	ug/kg	65000	< 600	NA	NA	NA	NA	47000	NA	3900	< 590	< 580	9000	8400	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	NA	NA	NA	NA	< 43	NA	< 50	< 50	< 50	< 47	< 50	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	NA	NA	NA	NA	< 43	NA	< 50	< 50	< 50	< 47	< 50	NA	NA
Tetryl	479-45-8	ug/kg	25000	< 50	NA	NA	NA	NA	< 43	NA	< 50	< 50	< 50	< 47	< 50	NA	NA
GenChem																	
pH	pH	su															7.19
Grain Size																	
Clay	Clay	%		11		8.8			8.6	5.8	8.8			8.2		9.6	0.5
Gravel	Gravel	%		35.5		21.7			27.1	29.8	41.4			43		43.5	74.8
Sand	Sand	%		36.8		58.6			42.2	56.7	38.1			35.6		28.6	20.4
Silt	Silt	%		16.8		11			22.1	7.7	11.7			13.3		18.3	4.4
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04	E9-A7-01	F10-11-01	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01	F10-2145-04	F10-2162-04
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/23/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	E9-562-011N	E9-6-010.5FD	E9-6-010.5N	E9-6-030.5N	E9-6-041N	E9-610-041N	E9-A7-011N	F10-11-011.5N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N	F10-2145-041N	F10-2162-041N
			Parent ID		E9-6-010.5N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.7	< 0.6	< 0.6	< 0.5	< 0.6	< 1	< 0.6	< 0.6	< 1	< 1	< 1		< 0.7	< 0.5
Arsenic	7440-38-2	mg/kg	9.9	4.2	2.6	2.3	7.7	4.7	4.8	7.8	22.3	12.3	3.8	9		4.5	5.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.6	0.38	0.36	0.43	0.37	0.57	0.35	0.58	0.46	0.42	0.41		0.6	0.23
Cadmium	7440-43-9	mg/kg	0.36	< 0.3	0.3	0.49	< 0.2	< 0.3	0.49	< 0.3	0.12	0.44	0.93	0.18		2.9	0.82
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	15.8	8.5	8.3	15.7	11.8	12	14.5	12.7	11.1	13.4	11.5		38.9	20.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	14.6	78.8	86.7	23.9	62.6	18.1	127	20.7	22.3	32.8	524		552	46.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	19.2	16.9	18.6	65.6	40.5	44.8	34	56.7	176	146	151		249	223
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.04	0.04	0.05	0.06	0.09	0.06	0.09	0.11	0.11	0.14	0.06		1.2	0.42
Nickel	7440-02-0	mg/kg	38	9.1	5.3	6.5	7.4	9.1	6.3	7.3	7.6	9.1	14.3	7.9		14.1	6.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.55	< 0.5	< 0.5	< 0.4	< 0.5	1.3	0.48	1	< 1	< 1	< 1		0.83	0.57
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.3	< 0.2	< 0.3	< 0.7	< 0.3	< 0.3	< 0.6	< 0.6	< 0.6		0.23	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	2.7	0.79	< 0.9	1.1	0.57	< 2	0.94	< 1	2.7	< 2	< 2		1.7	< 0.9
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	50	75.8	67.3	84.7	66.1	152	77.7	69.7	418	374	122		255	365
Moisture																	
Percent Solids	SOLID	percent		83.9	89.8	88.4	88.1	85.4	84.7	84.7	82.8	84.5	86.9	87.6	81	78.4	86.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371				< 2	< 2									
Aroclor-1221	11104-28-2	ug/kg	371				< 2	< 2									
Aroclor-1232	11141-16-5	ug/kg	371				< 2	< 2									
Aroclor-1242	53469-21-9	ug/kg	371				< 2	< 2									
Aroclor-1248	12672-29-6	ug/kg	371				< 2	< 2									
Aroclor-1254	11097-69-1	ug/kg	371				< 2	< 2									
Aroclor-1260	11096-82-5	ug/kg	371				< 3	< 4									
Polychlorinated biphenyls	1336-36-3	ug/kg	371				< 38	< 40									
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 79	< 740	< 76	< 76	< 78	< 78	< 78		< 790	< 770	< 760		< 85	

Kennedy Jenks

			Location	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04	E9-A7-01	F10-11-01	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01	F10-2145-04	F10-2162-04
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/23/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	E9-562-011N	E9-6-010.5FD	E9-6-010.5N	E9-6-030.5N	E9-6-041N	E9-610-041N	E9-A7-011N	F10-11-011.5N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N	F10-2145-041N	F10-2162-041N
			Parent ID		E9-6-010.5N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 400	< 370	< 380	< 380	< 390	1800	< 390		< 4000	< 3800	< 3800		< 430	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 400	< 370	< 380	< 380	< 390	45	< 390		< 4000	< 3800	< 3800		< 430	
2-Chloronaphthalene	91-58-7	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2-Chlorophenol	95-57-8	ug/kg	243	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 79	< 740	< 76	< 76	< 78	< 78	< 78		< 790	< 770	< 760		< 85	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 79	< 740	< 76	< 76	< 78	< 78	< 78		< 790	< 770	< 760		< 85	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
4-Nitrophenol	100-02-7	ug/kg	7000	< 79	< 740	< 76	< 76	< 78	< 78	< 78		< 790	< 770	< 760		< 85	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		150	
Acenaphthylene	208-96-8	ug/kg	682000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		220	
Anthracene	120-12-7	ug/kg	1480000	< 40	< 370	< 38	22	31	< 39	< 39		< 400	< 380	< 380		800	
Benzidine	92-87-5	ug/kg	1310	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 40	< 370	< 38	74	83	< 39	31		1200	< 380	280		2900	
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 40	< 370	< 38	67	73	< 39	28		930	< 380	230		2500	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 40	< 370	< 38	140	150	< 39	90		1200	< 380	< 380		2800	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		1500	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		1000	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 40	< 370	< 38	3000	69	20	120		< 400	< 380	< 380		< 43	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 40	< 370	< 38	12000	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Chrysene	218-01-9	ug/kg	4730	< 40	< 370	< 38	110	85	< 39	66		1200	< 380	< 380		2700	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		480	
Diethylphthalate	84-66-2	ug/kg	24800	< 40	270	210	270	550	< 39	700		< 400	< 380	< 380		< 43	
Dimethylphthalate	131-11-3	ug/kg	734000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Di-n-butylphthalate	84-74-2	ug/kg	150	< 40	57	44	100	140	160	130		210	< 380	< 380		85	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 40	< 370	< 38	2700	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Fluoranthene	206-44-0	ug/kg	122000	< 40	< 370	< 38	330	190	< 39	83		1800	< 380	< 380		6200	
Fluorene	86-73-7	ug/kg	122000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		600	
Hexachlorobenzene	118-74-1	ug/kg	199	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Hexachloroethane	67-72-1	ug/kg	596	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		1200	
Isophorone	78-59-1	ug/kg	139000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Naphthalene	91-20-3	ug/kg	99.4	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		40	
Nitrobenzene	98-95-3	ug/kg	1310		< 370	< 38	< 38	< 39		< 39						< 43	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 40	150	160	210	560	< 39	280		< 400	< 380	< 380		< 43	
Pentachlorophenol	87-86-5	ug/kg	2100	< 79	< 740	< 76	< 76	< 78	< 78	< 78		< 790	< 770	< 760		< 85	
Phenanthrene	85-01-8	ug/kg	45700	< 40	< 370	< 38	64	83	< 39	< 39		580	< 380	290		5200	
Phenol	108-95-2	ug/kg	30000	< 40	< 370	< 38	< 38	< 39	< 39	< 39		< 400	< 380	< 380		< 43	
Pyrene	129-00-0	ug/kg	78500	< 40	< 370	< 38	180	120	< 39	< 39		2000	< 380	< 380		7100	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		16400		9150			17700	35600	33100			40900		25200	118000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04	E9-A7-01	F10-11-01	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01	F10-2145-04	F10-2162-04
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/23/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	E9-562-011N	E9-6-010.5FD	E9-6-010.5N	E9-6-030.5N	E9-6-041N	E9-610-041N	E9-A7-011N	F10-11-011.5N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N	F10-2145-041N	F10-2162-041N
			Parent ID		E9-6-010.5N												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05	F10-2356-04	F10-2356-07	F10-3-01	F10-3-07	F10-460-01	F10-464-01	F10-464-05
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000	3/23/2000	3/23/2000	3/31/2000	3/31/2000	3/16/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N	F10-2356-040.5N	F10-2356-071N	F10-3-010.5N	F10-3-070.5N	F10-460-011N	F10-464-011N	F10-464-051N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	NA	< 25	< 25	< 24	< 25	< 25	NA	NA	< 25	< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	NA	< 25	< 25	< 24	< 25	< 25	NA	NA	< 25	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	NA	< 25	170	< 24	< 25	< 25	NA	NA	< 25	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	NA	< 25	< 25	< 24	< 25	< 25	NA	NA	< 25	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	NA	< 50	< 50	< 48	< 50	< 50	NA	NA	< 50	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	NA	< 50	< 50	< 48	< 50	< 50	NA	NA	< 50	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	NA	< 25	< 25	< 24	< 25	< 25	NA	NA	< 25	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	NA	< 50	< 50	< 48	< 50	< 50	NA	NA	< 50	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	NA	< 25	< 25	< 24	< 25	< 25	NA	NA	< 25	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	NA	2490000	1340000	3420000	389000	357000	NA	NA	44200	1650000	3000000
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	NA	6300	< 640	3800	< 510	< 530	NA	NA	< 630	6100	18000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	NA	< 50	< 50	< 48	< 50	< 50	NA	NA	< 50	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	NA	< 50	< 50	< 48	< 50	< 50	NA	NA	< 50	< 50	< 50
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	NA	< 50	< 50	< 48	< 50	< 50	NA	NA	< 50	< 50	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			4.4			10.9	8.9		5.1				6	14.6	
Gravel	Gravel	%			44.9			38.7	24.2		49.6				38.7	18	
Sand	Sand	%			42.3			37.7	54.8		38.2				36.5	55.4	
Silt	Silt	%			8.4			12.7	12.1		7				18.8	12.1	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05	F10-2356-04	F10-2356-07	F10-3-01	F10-3-07	F10-460-01	F10-464-01	F10-464-05
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000	3/23/2000	3/23/2000	3/31/2000	3/31/2000	3/16/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N	F10-2356-040.5N	F10-2356-071N	F10-3-010.5N	F10-3-070.5N	F10-460-011N	F10-464-011N	F10-464-051N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27						< 1	< 1	< 0.6	< 0.6			< 1	< 1	< 1
Arsenic	7440-38-2	mg/kg	9.9						7.4	158	2.4	3.3			5	14.7	8.7
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10						0.64	0.43	0.3	0.4			0.58	0.5	0.37
Cadmium	7440-43-9	mg/kg	0.36						1.7	0.52	0.35	0.54			0.46	0.87	0.71
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4						15.7	54.5	8.5	12			15.3	15.4	19.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4						105	120	11.8	17.6			17.4	33.6	38
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11						156	236	6.1	22.7			3480	170	137
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1						0.21	0.09	< 0	0.08			0.13	0.33	0.32
Nickel	7440-02-0	mg/kg	38						11.1	13.4	6.7	9.2			7.6	12.7	13.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52						0.88	0.78	< 0.5	0.85			1.3	3.3	2.2
Silver	7440-22-4	mg/kg	2						< 0.7	< 0.6	< 0.3	< 0.3			< 0.7	< 0.8	< 0.9
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1						< 2	< 2	< 1	< 1			< 2	< 2	< 3
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5						512	119	30.3	76.4			75	161	155
Moisture																	
Percent Solids	SOLID	percent			84.4			85.5	75.8	83.8	98.2	94			79.5	68	62.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
1,2-Dichlorobenzene	95-50-1	ug/kg	2960					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
1,2-Diphenylhydrazine	122-66-7	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
1,4-Dichlorobenzene	106-46-7	ug/kg	546					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2,4-Dimethylphenol	105-67-9	ug/kg	10					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2,4-Dinitrophenol	51-28-5	ug/kg	60.9					< 78	< 88	< 79	< 680	< 710			< 83	< 98	< 110

			Location	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05	F10-2356-04	F10-2356-07	F10-3-01	F10-3-07	F10-460-01	F10-464-01	F10-464-05
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000	3/23/2000	3/23/2000	3/31/2000	3/31/2000	3/16/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N	F10-2356-040.5N	F10-2356-071N	F10-3-010.5N	F10-3-070.5N	F10-460-011N	F10-464-011N	F10-464-051N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280					< 390	< 440	< 400	< 3400	< 3500			< 420	< 490	< 540
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8					< 390	< 440	< 400	< 3400	< 3500			< 420	< 490	< 540
2-Chloronaphthalene	91-58-7	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2-Chlorophenol	95-57-8	ug/kg	243					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646					< 78	< 88	< 79	< 680	< 710			< 83	< 98	< 110
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144					< 78	< 88	< 79	< 680	< 710			< 83	< 98	< 110
4-Bromophenyl-phenylether	101-55-3	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
4-Chloro-3-methylphenol	59-50-7	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
4-Chlorophenyl-phenylether	7005-72-3	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
4-Nitrophenol	100-02-7	ug/kg	7000					< 78	< 88	< 79	< 680	< 710			< 83	< 98	< 110
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Acenaphthylene	208-96-8	ug/kg	682000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Anthracene	120-12-7	ug/kg	1480000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Benzidine	92-87-5	ug/kg	1310					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210					32	46	40	< 340	< 350			< 42	100	110
Benzo[a]pyrene	50-32-8	ug/kg	1520					< 39	42	32	< 340	< 350			< 42	95	120
Benzo[b]fluoranthene	205-99-2	ug/kg	59800					< 39	79	46	< 340	< 350			< 42	130	170
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Benzo[k]fluoranthene	207-08-9	ug/kg	148000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Bis(2-Chloroethyl)ether	111-44-4	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925					< 39	43	63	< 340	< 350			< 42	40	66
Butylbenzylphthalate	85-68-7	ug/kg	239					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Chrysene	218-01-9	ug/kg	4730					< 39	47	45	< 340	< 350			< 42	130	160
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Diethylphthalate	84-66-2	ug/kg	24800					33	< 44	< 40	< 340	< 350			< 42	170	560
Dimethylphthalate	131-11-3	ug/kg	734000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Di-n-butylphthalate	84-74-2	ug/kg	150					< 39	62	1500	< 340	< 350			< 42	44	96
Di-n-octylphthalate	117-84-0	ug/kg	7090					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Fluoranthene	206-44-0	ug/kg	122000					< 39	< 44	87	< 340	< 350			< 42	200	250
Fluorene	86-73-7	ug/kg	122000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Hexachlorobenzene	118-74-1	ug/kg	199					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Hexachlorobutadiene	87-68-3	ug/kg	39.8					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Hexachlorocyclopentadiene	77-47-4	ug/kg						< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Hexachloroethane	67-72-1	ug/kg	596					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Isophorone	78-59-1	ug/kg	139000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Naphthalene	91-20-3	ug/kg	99.4					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
N-Nitrosodiphenylamine	86-30-6	ug/kg	545					< 39	< 44	< 40	< 340	< 350			< 42	110	290
Pentachlorophenol	87-86-5	ug/kg	2100					< 78	< 88	< 79	< 680	< 700			< 83	< 98	< 110
Phenanthrene	85-01-8	ug/kg	45700					32	26	42	< 340	< 350			< 42	120	140
Phenol	108-95-2	ug/kg	30000					< 39	< 44	< 40	< 340	< 350			< 42	< 49	< 54
Pyrene	129-00-0	ug/kg	78500					< 39	< 44	< 40	< 340	< 350			< 42	190	220
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				40400		36500	21100		6870				21300	245000	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 55		< 58	< 53						< 53	< 61			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 55		< 58	< 53						< 53	< 61			

			Location	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05	F10-2356-04	F10-2356-07	F10-3-01	F10-3-07	F10-460-01	F10-464-01	F10-464-05
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000	3/23/2000	3/23/2000	3/31/2000	3/31/2000	3/16/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N	F10-2356-040.5N	F10-2356-071N	F10-3-010.5N	F10-3-070.5N	F10-460-011N	F10-464-011N	F10-464-051N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 55		< 58	< 53						< 53	< 61			
1,1-Dichloroethane	75-34-3	ug/kg		< 55		< 58	< 53						< 53	< 61			
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 55		< 58	< 53						< 53	151			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 55		< 58	< 53						384	151			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 55		< 58	< 53						207	< 61			
1,2-Dichloroethane	107-06-2	ug/kg		< 55		< 58	< 53						< 53	< 61			
1,2-Dichloropropane	78-87-5	ug/kg		< 55		< 58	< 53						< 53	< 61			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 55		< 58	< 53						212	< 61			
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 55		< 58	< 53						230	< 619			
2-Chloroethylvinylether	110-75-8	ug/kg		< 110		< 120	< 110						< 107	< 123			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 220		< 230	< 210						< 215	< 247			
Acrylonitrile	107-13-1	ug/kg	23.9	< 55		< 58	< 53						< 53	< 61			
Benzene	71-43-2	ug/kg	255	240		8000	240						< 53	< 61			
Bromodichloromethane	75-27-4	ug/kg	540	< 55		< 58	< 53						< 53	< 61			
Bromoform	75-25-2	ug/kg		< 55		< 58	< 53						< 53	< 61			
Bromomethane	74-83-9	ug/kg	235	< 110		< 120	< 110						307	257			
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 55		< 58	< 53						< 53	< 123			
Chlorobenzene	108-90-7	ug/kg	13100	< 55		< 58	< 53						< 53	< 61			
Chloroethane	75-00-3	ug/kg		< 110		< 120	< 110						< 107	< 123			
Chloroform	67-66-3	ug/kg	1190	< 55		< 58	< 53						252	156			
Chloromethane	74-87-3	ug/kg	10400	< 110		< 120	< 110						586	556			
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 55		< 58	< 53						< 53	< 61			
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 55		< 58	< 53						< 53	< 61			
Ethylbenzene	100-41-4	ug/kg	5160	< 55		< 58	< 53						128	< 61			
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 55		< 58	< 53						331	< 619			
Methylene Chloride	75-09-2	ug/kg	4050	< 55		< 58	< 53						< 53	< 61			
Naphthalene	91-20-3	ug/kg	99.4	< 55		< 58	< 53						410	147			
Tetrachloroethene	127-18-4	ug/kg	9920	< 55		< 58	< 53						< 53	< 61			
Toluene	108-88-3	ug/kg	200000	1100		260	< 53						191	< 61			
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 55		< 58	< 53						< 53	< 61			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 55		< 58	< 53						< 53	< 61			
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 110		< 120	< 110						172	< 123			
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8237-04	F10-8274-02	F10-8274-04	F10-8564-01	F10-9-01	F11-2016-01	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
			Sample Date	3/31/2000	3/23/2000	3/21/2000	3/21/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/24/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	F10-5-010.5N	F10-7-031.5N	F10-8-011FD	F10-8-011N	F10-8237-041N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-9-011N	F11-2016-011.5N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
			Parent ID			F10-8-011N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	NA	< 25	< 25	< 24	< 25	NA	< 24	< 25	< 25	< 25	< 24
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	NA	< 25	< 25	< 24	< 25	NA	< 24	< 25	< 25	< 25	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	NA	< 25	< 25	< 24	< 25	NA	< 24	< 25	< 25	3600	710
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	NA	< 25	< 25	< 24	< 25	NA	< 24	< 25	< 25	< 25	< 24
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	NA	< 50	< 50	< 48	< 50	NA	< 48	< 50	< 50	< 50	< 48
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	NA	< 50	< 50	< 48	< 50	NA	< 48	< 50	< 50	< 50	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	NA	< 25	< 25	< 24	< 25	NA	< 24	< 25	< 25	< 25	< 24
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	NA	< 50	< 50	< 48	< 50	NA	< 48	< 50	< 50	< 50	< 48
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	NA	< 25	< 25	< 24	< 25	NA	< 24	< 25	< 25	< 25	< 24
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	NA	2960000	159000	221000	567000	NA	2090000	< 34000	200000	9310000	2890000
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	NA	57000	< 650	< 640	3700	NA	160000	< 500	6100	760000	220000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	NA	< 50	< 50	< 48	< 50	NA	< 48	< 50	< 50	< 50	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	NA	< 50	< 50	< 48	< 50	NA	< 48	< 50	< 50	860	500
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	NA	< 50	< 50	< 48	< 50	NA	< 48	< 50	< 50	< 50	< 48
GenChem																	
pH	pH	su			8.14												
Grain Size																	
Clay	Clay	%			7.7		8.7		0.5		5.3	7.1	8.6	0.9	7.9		
Gravel	Gravel	%			15.1		47		54.8		31.6	39.7	32	22.4	40.5		
Sand	Sand	%			46.6		31.8		32.2		45.3	42	38.7	72	38.1		
Silt	Silt	%			30.6		12.5		9.8		17.8	11.3	20.6	4.7	13.5		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8237-04	F10-8274-02	F10-8274-04	F10-8564-01	F10-9-01	F11-2016-01	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
			Sample Date	3/31/2000	3/23/2000	3/21/2000	3/21/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/24/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	F10-5-010.5N	F10-7-031.5N	F10-8-011FD	F10-8-011N	F10-8237-041N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-9-011N	F11-2016-011.5N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
			Parent ID			F10-8-011N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		0.36	< 1.3	< 1	< 1	< 1	< 1	< 1		< 0.7	< 0.6	< 0.6		
Arsenic	7440-38-2	mg/kg	9.9		5.6	9.7	16.2	3.7	8.4	7.7	7.3		11.9	2.4	4		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.29	0.51	0.71	0.15	0.33	0.39	0.71		0.47	0.52	0.45		
Cadmium	7440-43-9	mg/kg	0.36		< 0.3	0.16	0.22	1.2	2.4	0.91	0.4		0.97	< 0.3	0.87		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		5.4	13.4	20.4	29.2	23.9	27.7	13.9		15	8.4	13.2		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		10.3	32.5	47.5	32.5	84.1	83.8	22.9		39.8	15	56		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		19.1	29.7	48.1	116	235	126	68.8		132	5.3	68.6		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.11	0.07	0.06	0.29	1.2	1.4	0.32		0.91	< 0	0.46		
Nickel	7440-02-0	mg/kg	38		3.2	9.9	14.1	7.6	14.5	8.9	11.2		10	6.6	11.6		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		< 0.6	< 1.1	< 1	1.2	1.6	0.91	0.94		1.3	< 0.5	1.2		
Silver	7440-22-4	mg/kg	2		< 0.3	< 0.63	< 0.6	< 0.7	< 0.7	< 0.5	< 0.7		< 0.3	< 0.3	< 0.3		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		2.3	< 2.1	1.6	< 2	< 2	< 1	< 2		< 1	1.5	< 1		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		28.5	352	790	592	697	172	98.6		76.8	39	297		
Moisture																	
Percent Solids	SOLID	percent			82.2	85.4	83.6	72.4	76.8	78.2	79.3	88.6	82	94.8	83.3	82.2	91.5
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371									< 2					
Aroclor-1221	11104-28-2	ug/kg	371									< 2					
Aroclor-1232	11141-16-5	ug/kg	371									< 2					
Aroclor-1242	53469-21-9	ug/kg	371									< 2					
Aroclor-1248	12672-29-6	ug/kg	371									< 2					
Aroclor-1254	11097-69-1	ug/kg	371									< 2					
Aroclor-1260	11096-82-5	ug/kg	371									< 3					
Polychlorinated biphenyls	1336-36-3	ug/kg	371									< 38					
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 82	< 780	< 79	< 93	< 87	< 85	< 84		< 810	< 70	< 80		

Kennedy Jenks

			Location	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8237-04	F10-8274-02	F10-8274-04	F10-8564-01	F10-9-01	F11-2016-01	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
			Sample Date	3/31/2000	3/23/2000	3/21/2000	3/21/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/24/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	F10-5-010.5N	F10-7-031.5N	F10-8-011FD	F10-8-011N	F10-8237-041N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-9-011N	F11-2016-011.5N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
			Parent ID			F10-8-011N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 410	< 390	< 400	< 460	< 430	< 430	< 420		< 4100	< 350	< 400		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 410	< 390	< 400	< 460	< 430	< 430	< 420		< 4100	< 350	< 400		
2-Chloronaphthalene	91-58-7	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2-Chlorophenol	95-57-8	ug/kg	243		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 82	< 780	< 79	< 93	< 87	< 85	< 84		< 810	< 70	< 80		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 82	< 780	< 79	< 93	< 87	< 85	< 84		< 810	< 70	< 80		
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
4-Nitrophenol	100-02-7	ug/kg	7000		< 82	< 780	< 79	< 93	< 87	< 85	< 84		< 810	< 70	< 80		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	75		
Acenaphthylene	208-96-8	ug/kg	682000		< 41	< 390	< 40	< 46	< 43	< 43	26		< 410	< 35	23		
Anthracene	120-12-7	ug/kg	1480000		< 41	< 390	< 40	< 46	< 43	77	41		< 410	< 35	510		
Benzidine	92-87-5	ug/kg	1310		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		65	< 390	< 40	61	63	280	240		< 410	< 35	3400		
Benzo[a]pyrene	50-32-8	ug/kg	1520		35	< 390	< 40	62	46	250	230		< 410	< 35	2200		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		71	< 390	< 40	< 46	84	300	310		< 410	< 35	3200		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 41	< 390	< 40	< 46	< 43	130	130		< 410	< 35	1800		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 41	< 390	< 40	< 46	< 43	130	100		< 410	< 35	1200		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		21	28	42	1400	860	60	< 42		750	< 35	< 40		
Butylbenzylphthalate	85-68-7	ug/kg	239		< 41	< 390	< 40	6400	< 43	< 43	< 42		< 410	< 35	< 40		
Chrysene	218-01-9	ug/kg	4730		76	< 390	< 40	72	72	290	220		< 410	< 35	4400		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	480		
Diethylphthalate	84-66-2	ug/kg	24800		< 41	< 390	< 40	270	120	91	< 42		6000	< 35	76		
Dimethylphthalate	131-11-3	ug/kg	734000		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Di-n-butylphthalate	84-74-2	ug/kg	150		< 41	< 390	< 40	72	170	< 43	44		< 410	45	51		
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Fluoranthene	206-44-0	ug/kg	122000		83	< 390	< 40	110	87	590	410		< 410	< 35	2200		
Fluorene	86-73-7	ug/kg	122000		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	84		
Hexachlorobenzene	118-74-1	ug/kg	199		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Hexachloroethane	67-72-1	ug/kg	596		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 41	< 390	< 40	< 46	< 43	110	110		< 410	< 35	1400		
Isophorone	78-59-1	ug/kg	139000		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Naphthalene	91-20-3	ug/kg	99.4		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Nitrobenzene	98-95-3	ug/kg	1310		< 41	< 390	< 40										
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 41	< 390	< 40	820	140	150	< 42		2500	< 35	300		
Pentachlorophenol	87-86-5	ug/kg	2100		< 82	< 780	< 79	< 93	< 87	< 85	< 84		< 810	< 70	< 79		
Phenanthrene	85-01-8	ug/kg	45700		< 41	< 390	< 40	56	< 43	300	140		< 410	< 35	3000		
Phenol	108-95-2	ug/kg	30000		< 41	< 390	< 40	< 46	< 43	< 43	< 42		< 410	< 35	< 40		
Pyrene	129-00-0	ug/kg	78500		110	< 390	< 40	< 46	< 43	590	400		< 410	< 35	8900		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			1830		31000		71400		92800	11200	40800	6160	43100		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 71													
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 71													

Kennedy Jenks

			Location	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8237-04	F10-8274-02	F10-8274-04	F10-8564-01	F10-9-01	F11-2016-01	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
			Sample Date	3/31/2000	3/23/2000	3/21/2000	3/21/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/24/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	F10-5-010.5N	F10-7-031.5N	F10-8-011FD	F10-8-011N	F10-8237-041N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-9-011N	F11-2016-011.5N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
			Parent ID			F10-8-011N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 71													
1,1-Dichloroethane	75-34-3	ug/kg		< 71													
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 71													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 71													
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 71													
1,2-Dichloroethane	107-06-2	ug/kg		< 71													
1,2-Dichloropropane	78-87-5	ug/kg		< 71													
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 71													
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 71													
2-Chloroethylvinylether	110-75-8	ug/kg		< 143													
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 287													
Acrylonitrile	107-13-1	ug/kg	23.9	< 71													
Benzene	71-43-2	ug/kg	255	< 71													
Bromodichloromethane	75-27-4	ug/kg	540	< 71													
Bromoform	75-25-2	ug/kg		< 71													
Bromomethane	74-83-9	ug/kg	235	829													
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 71													
Chlorobenzene	108-90-7	ug/kg	13100	< 71													
Chloroethane	75-00-3	ug/kg		< 143													
Chloroform	67-66-3	ug/kg	1190	203													
Chloromethane	74-87-3	ug/kg	10400	687													
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 71													
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 71													
Ethylbenzene	100-41-4	ug/kg	5160	< 71													
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 71													
Methylene Chloride	75-09-2	ug/kg	4050	< 71													
Naphthalene	91-20-3	ug/kg	99.4	< 71													
Tetrachloroethene	127-18-4	ug/kg	9920	< 71													
Toluene	108-88-3	ug/kg	200000	< 71													
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 71													
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 71													
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 143													
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2118-02	F8-2118-02	F8-2118-10	F8-2144-03	F8-2144-04	F8-2150-02	F8-2150-05	F8-2152-02	F8-2207-03	F8-2208-01
			Sample Date	3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/23/2000	3/23/2000	3/23/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/23/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2118-021FD	F8-2118-021N	F8-2118-101N	F8-2144-031.5N	F8-2144-041.5N	F8-2150-020.5N	F8-2150-050.75N	F8-2152-020.5N	F8-2207-030.5N	F8-2208-011.5N
			Parent ID					F8-2118-021N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	< 25	< 230	< 24	< 22	NA	< 22	NA	NA	NA	< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	< 25	< 230	< 24	< 22	NA	< 22	NA	NA	NA	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	3100	460	280	< 22	NA	1562	NA	NA	NA	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	< 250	NA	NA	NA	NA	< 227	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	< 25	< 230	< 24	< 22	NA	< 22	NA	NA	NA	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	< 50	< 450	< 48	< 43	NA	< 45	NA	NA	NA	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	< 50	< 450	< 48	< 43	NA	< 45	NA	NA	NA	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	< 25	< 230	< 24	< 22	NA	< 22	NA	NA	NA	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	< 50	< 450	< 48	< 43	NA	< 45	NA	NA	NA	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	< 25	< 230	< 24	< 22	NA	< 22	NA	NA	NA	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	916000	397000	585000	57200	NA	1910000	NA	NA	NA	< 37000	70000
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	180000	65000	33000	11000	NA	210000	NA	NA	NA	< 590	33000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	< 50	< 450	< 48	< 43	NA	< 45	NA	NA	NA	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	< 50	< 450	< 48	< 43	NA	< 45	NA	NA	NA	< 50	< 50
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	< 50	< 450	< 48	< 43	NA	< 45	NA	NA	NA	< 50	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		9.3		3.1			1		20.8			12.2	5.2		5.8
Gravel	Gravel	%		35.5		45.3			19.2		29.1			34.9	28.1		37.6
Sand	Sand	%		41.4		44.3			75		24.1			32.7	53.8		43.1
Silt	Silt	%		13.7		7.3			4.8		26			20.2	12.9		13.6
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2118-02	F8-2118-02	F8-2118-10	F8-2144-03	F8-2144-04	F8-2150-02	F8-2150-05	F8-2152-02	F8-2207-03	F8-2208-01
			Sample Date	3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/23/2000	3/23/2000	3/23/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/23/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2118-021FD	F8-2118-021N	F8-2118-101N	F8-2144-031.5N	F8-2144-041.5N	F8-2150-020.5N	F8-2150-050.75N	F8-2152-020.5N	F8-2207-030.5N	F8-2208-011.5N
			Parent ID					F8-2118-021N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 1	< 1	< 0.7		< 0.62	< 0.6	< 0.6	< 1		< 1	< 1	< 0.6	< 0.5	< 0.6
Arsenic	7440-38-2	mg/kg	9.9	20.9	12.4	40.8		39.2	36.2	5.9	6.1		30	32.8	4	3.7	7.3
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.3	0.5	0.22		0.31	0.33	0.42	0.49		0.33	0.57	0.42	0.56	0.53
Cadmium	7440-43-9	mg/kg	0.36	0.95	0.98	0.38		< 0.31	< 0.3	< 0.3	1.6		0.38	0.98	0.06	0.77	< 0.3
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	56.3	48.5	13.2		44.9	55.2	14.3	19.8		21.8	16.2	8.7	15	14.6
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	723	49.9	28.4		13.8	18.5	19.5	878		100	372	18	75.3	17.9
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	256	166	31		11.6	16.8	33	156		193	1330	23.1	77.5	30
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.16	0.04	0.11		0.04	0.07	0.03	0.29		0.05	0.07	0.02	0.09	0.04
Nickel	7440-02-0	mg/kg	38	17.2	7.1	8.1		4.6	5.9	7.8	12.1		10.1	11.4	6.2	11.8	8.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.92	0.98	0.62		< 0.51	0.35	< 0.5	< 1		< 1	1.5	< 0.5	0.34	0.46
Silver	7440-22-4	mg/kg	2	< 0.6	< 0.6	< 0.3		< 0.31	< 0.3	< 0.3	0.66		< 0.7	< 0.7	< 0.3	< 0.2	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2	< 2	< 1		0.78	0.76	0.74	< 2		< 2	< 2	< 1	2	1.8
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	434	621	125		40.8	56.6	67.5	1300		158	342	99	162	95.2
Moisture																	
Percent Solids	SOLID	percent		81.2	88.6	84.4	82	91.7	92.8	91.5	78.7	80.5	84.2	77	91.6	84.3	87.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 82	< 75	< 79		< 720	< 72	< 72	< 840		< 79	< 87	< 72	< 79	< 77

			Location	F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2118-02	F8-2118-02	F8-2118-10	F8-2144-03	F8-2144-04	F8-2150-02	F8-2150-05	F8-2152-02	F8-2207-03	F8-2208-01
			Sample Date	3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/23/2000	3/23/2000	3/23/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/23/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2118-021FD	F8-2118-021N	F8-2118-101N	F8-2144-031.5N	F8-2144-041.5N	F8-2150-020.5N	F8-2150-050.75N	F8-2152-020.5N	F8-2207-030.5N	F8-2208-011.5N
			Parent ID					F8-2118-021N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	260	< 370	< 400		690	410	110	< 4200		< 400	< 430	83	< 400	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	< 370	< 400		34	< 360	< 360	< 4200		< 400	< 430	< 360	< 400	< 380
2-Chloronaphthalene	91-58-7	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2-Chlorophenol	95-57-8	ug/kg	243	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 82	< 75	< 79		< 720	< 72	< 72	< 840		< 79	< 87	< 72	< 79	< 77
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 82	< 75	< 79		< 720	< 72	< 72	< 840		< 79	< 87	< 72	< 79	< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
4-Nitrophenol	100-02-7	ug/kg	7000	< 82	< 75	< 79		< 720	< 72	< 72	< 840		< 79	< 87	< 72	< 79	< 77
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Acenaphthylene	208-96-8	ug/kg	682000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Anthracene	120-12-7	ug/kg	1480000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Benzidine	92-87-5	ug/kg	1310	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	57	31	< 40		29	29	33	< 420		< 40	< 43	< 36	< 40	< 38
Benzo[a]pyrene	50-32-8	ug/kg	1520	51	37	< 40		26	< 36	34	< 420		25	68	26	< 40	< 38
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	84	< 37	< 40		< 360	< 36	< 36	< 420		< 40	90	< 36	< 40	< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	98	26	530		< 360	36	27	< 420		35	< 43	40	< 40	170
Butylbenzylphthalate	85-68-7	ug/kg	239	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Chrysene	218-01-9	ug/kg	4730	52	37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Diethylphthalate	84-66-2	ug/kg	24800	4300	81	< 40		250	2200	86	430		410	< 43	88	< 40	< 38
Dimethylphthalate	131-11-3	ug/kg	734000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Di-n-butylphthalate	84-74-2	ug/kg	150	1300	64	120		560	570	79	< 420		85	< 43	160	< 40	< 38
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Fluoranthene	206-44-0	ug/kg	122000	100	< 37	< 40		< 360	50	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Fluorene	86-73-7	ug/kg	122000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Hexachlorobenzene	118-74-1	ug/kg	199	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Hexachloroethane	67-72-1	ug/kg	596	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Isophorone	78-59-1	ug/kg	139000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Naphthalene	91-20-3	ug/kg	99.4	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Nitrobenzene	98-95-3	ug/kg	1310	< 41	< 37	< 40					< 420		< 40	< 43	< 36		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	3300	390	590		900	1400	310	2000		520	< 43	220	< 40	200
Pentachlorophenol	87-86-5	ug/kg	2100	< 82	< 75	< 79		< 720	< 72	< 72	< 840		< 79	< 87	< 72	< 79	< 77
Phenanthrene	85-01-8	ug/kg	45700	63	< 37	< 40		23	25	< 36	< 420		< 40	< 43	26	< 40	< 38
Phenol	108-95-2	ug/kg	30000	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Pyrene	129-00-0	ug/kg	78500	< 41	< 37	< 40		< 360	< 36	< 36	< 420		< 40	< 43	< 36	< 40	< 38
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		30400		84000			10500		30100			12700	4390		9500
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2118-02	F8-2118-02	F8-2118-10	F8-2144-03	F8-2144-04	F8-2150-02	F8-2150-05	F8-2152-02	F8-2207-03	F8-2208-01
			Sample Date	3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/23/2000	3/23/2000	3/23/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/23/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2118-021FD	F8-2118-021N	F8-2118-101N	F8-2144-031.5N	F8-2144-041.5N	F8-2150-020.5N	F8-2150-050.75N	F8-2152-020.5N	F8-2207-030.5N	F8-2208-011.5N
			Parent ID					F8-2118-021N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-9-02	F8-A9-02	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-2104-03	F9-2105-01	F9-2105-05
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/23/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5FD	F8-567-050.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-041FD	F9-1-041N	F9-1-040.5FD	F9-1-040.5N	F9-2104-030.5N	F9-2105-011N	F9-2105-050.5N
			Parent ID				F8-567-050.5N				F9-1-041N						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	< 25	NA	< 250	< 23	< 23	NA	< 250	< 25	NA	NA	< 24	< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	< 25	NA	< 250	< 23	< 23	NA	< 250	< 25	NA	NA	< 24	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	< 25	NA	160	< 23	710	NA	< 250	< 25	NA	NA	490	550	11000
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	< 25	NA	< 250	< 23	< 23	NA	< 250	< 25	NA	NA	< 24	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		NA	< 50	NA	< 500	< 45	< 45	NA	< 500	< 50	NA	NA	< 48	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		NA	< 50	NA	< 500	< 45	< 45	NA	< 500	< 50	NA	NA	< 48	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	< 25	NA	< 250	< 23	< 23	NA	< 250	< 25	NA	NA	< 24	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg		NA	< 50	NA	< 500	< 45	< 45	NA	< 500	< 50	NA	NA	< 48	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	NA	< 25	NA	< 250	< 23	< 23	NA	330	290	NA	NA	< 24	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		NA	< 42000	NA	285000	374000	1360000	NA	4000000	226000	NA	NA	660000	515000	2110000
Nitroglycerin	55-63-0	ug/kg	65000	NA	6300	NA	17000	< 610	110000	NA	34000	17000	NA	NA	30000	42000	140000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	< 50	NA	< 500	< 45	< 45	NA	< 500	< 50	NA	NA	< 48	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	< 50	NA	< 500	< 45	< 45	NA	< 500	< 50	NA	NA	< 48	< 50	4500
Tetryl	479-45-8	ug/kg	25000	NA	< 50	NA	< 500	< 45	< 45	NA	< 500	< 50	NA	NA	< 48	< 50	< 50
GenChem																	
pH	pH	su		6.29													
Grain Size																	
Clay	Clay	%		7.7	11.1	6.7		14.3	1.6	6.3		3.3			5.7	7.8	
Gravel	Gravel	%		55.1	42.1	28.3		33.4	50.8	38.9		58.5			59.5	33.5	
Sand	Sand	%		23.7	28.3	46.6		28.8	36.8	38.5		26.9			26.2	46.7	
Silt	Silt	%		13.5	18.5	18.4		23.5	10.8	16.3		11.3			8.7	12	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-9-02	F8-A9-02	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-2104-03	F9-2105-01	F9-2105-05
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/23/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5FD	F8-567-050.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-041FD	F9-1-041N	F9-1-040.5FD	F9-1-040.5N	F9-2104-030.5N	F9-2105-011N	F9-2105-050.5N
			Parent ID				F8-567-050.5N				F9-1-041N		F9-1-040.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.5	< 0.6	< 0.7	< 1.4	< 1	0.44	< 0.6	0.39	< 0.4				< 1	< 1
Arsenic	7440-38-2	mg/kg	9.9	8.5	5.4	7.5	4.9	4.3	50.3	4.6	5.3	5.2				5.1	4.4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.61	0.78	0.51	0.51	0.46	0.44	0.51	0.6	0.7				0.44	0.48
Cadmium	7440-43-9	mg/kg	0.36	0.14	< 0.3	0.31	0.4	0.32	< 0.3	< 0.3	< 0.34	< 0.2				0.28	1.2
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	16.5	15.4	15.9	14.5	13.7	14.3	13.4	12.2	13.9				11.5	25.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	74.3	20.1	398	24.9	43.6	53.7	39.5	106	248				111	1190
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	114	27.9	64.8	53.8	49.7	76.3	40.3	65	89				37.8	140
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.15	0.12	1.5	0.12	0.15	0.11	0.1	0.26	0.21				0.26	0.3
Nickel	7440-02-0	mg/kg	38	16.6	11.4	12.4	9.3	9.1	11	8.9	9.8	10.1				8.2	13.7
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.5	< 0.5	0.47	0.95	0.83	0.61	0.66	1.3	1.1				0.82	< 1
Silver	7440-22-4	mg/kg	2	< 0.2	< 0.3	< 0.3	< 0.72	< 0.6	< 0.3	< 0.3	< 0.34	< 0.2				< 0.6	< 0.6
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.2	1.7	1.6	< 2.4	< 2	1.2	1.6	< 1.1	0.64				< 2	< 2
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	115	74.4	125	85.7	74	100	70.4	295	321				88.1	291
Moisture																	
Percent Solids	SOLID	percent		82.1	82	77.6	81.6	82	85.2	85.6	85.7	85.4			86.3	85.5	86.5
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 81	< 81	< 85	< 810	< 81	< 78	< 78	< 780	< 78				< 78	< 78

			Location	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-9-02	F8-A9-02	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-2104-03	F9-2105-01	F9-2105-05
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/23/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5FD	F8-567-050.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-041FD	F9-1-041N	F9-1-040.5FD	F9-1-040.5N	F9-2104-030.5N	F9-2105-011N	F9-2105-050.5N
			Parent ID				F8-567-050.5N				F9-1-041N		F9-1-040.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 410	< 410	41	< 410	< 410	< 390	< 390	100	220				1500	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	< 410	< 430	< 410	< 410	< 390	< 390	< 390	< 390				57	< 390
2-Chloronaphthalene	91-58-7	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2-Chlorophenol	95-57-8	ug/kg	243	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 81	< 81	< 85	< 810	< 81	< 78	< 78	< 780	< 78				< 78	< 78
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 81	< 81	< 85	< 810	< 81	< 78	< 78	< 780	< 78				< 78	< 78
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
4-Nitrophenol	100-02-7	ug/kg	7000	< 81	< 81	< 85	< 810	< 81	< 78	< 78	< 780	< 78				< 78	< 78
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 41	< 41	240	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Acenaphthylene	208-96-8	ug/kg	682000	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Anthracene	120-12-7	ug/kg	1480000	< 41	< 41	610	< 410	28	< 39	< 39	< 390	25				< 39	< 39
Benzidine	92-87-5	ug/kg	1310	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	29	48	1700	100	150	61	98	75	77				44	< 39
Benzo[a]pyrene	50-32-8	ug/kg	1520	31	39	1400	95	130	56	88	72	98				37	< 39
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 41	< 41	1600	120	160	140	100	130	220				< 39	< 39
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 41	< 41	760	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 41	< 41	570	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	22	24	46	30	46	< 39	30	< 390	< 39				25	1100
Butylbenzylphthalate	85-68-7	ug/kg	239	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Chrysene	218-01-9	ug/kg	4730	39	< 41	1400	80	120	84	99	89	120				40	< 39
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 41	< 41	200	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Diethylphthalate	84-66-2	ug/kg	24800	140	52	290	340	210	730	47	76	97				220	500
Dimethylphthalate	131-11-3	ug/kg	734000	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	760
Di-n-butylphthalate	84-74-2	ug/kg	150	190	120	220	52	64	61	44	< 390	< 39				40	2200
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Fluoranthene	206-44-0	ug/kg	122000	< 41	85	3400	160	260	170	140	160	160				< 39	< 39
Fluorene	86-73-7	ug/kg	122000	< 41	< 41	220	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Hexachlorobenzene	118-74-1	ug/kg	199	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Hexachloroethane	67-72-1	ug/kg	596	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 41	< 41	660	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Isophorone	78-59-1	ug/kg	139000	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Naphthalene	91-20-3	ug/kg	99.4	< 41	< 41	32	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Nitrobenzene	98-95-3	ug/kg	1310	< 41		< 43				< 39							
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	340	120	1200	160	130	1100	170	2900	2300				750	1700
Pentachlorophenol	87-86-5	ug/kg	2100	< 81	< 81	< 85	< 810	< 81	190	< 78	< 780	< 78				< 78	< 78
Phenanthrene	85-01-8	ug/kg	45700	33	31	2300	55	72	56	66	110	120				26	22
Phenol	108-95-2	ug/kg	30000	< 41	< 41	< 43	< 410	< 41	< 39	< 39	< 390	< 39				< 39	< 39
Pyrene	129-00-0	ug/kg	78500	< 41	< 41	3700	150	220	100	180	130	150				< 39	< 39
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		30100	9340	37600		12000	11100	30400		25500			5410	11400	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg											< 520	< 55			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127										< 520	< 55			

			Location	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-9-02	F8-A9-02	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-2104-03	F9-2105-01	F9-2105-05
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/23/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5FD	F8-567-050.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-041FD	F9-1-041N	F9-1-040.5FD	F9-1-040.5N	F9-2104-030.5N	F9-2105-011N	F9-2105-050.5N
			Parent ID				F8-567-050.5N				F9-1-041N		F9-1-040.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg											< 520	< 55			
1,1-Dichloroethane	75-34-3	ug/kg											< 520	< 55			
1,1-Dichloroethene	75-35-4	ug/kg	8280										< 520	< 55			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000										200	< 550			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960										150	< 550			
1,2-Dichloroethane	107-06-2	ug/kg											< 520	< 55			
1,2-Dichloropropane	78-87-5	ug/kg											< 520	< 55			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700										160	< 550			
1,4-Dichlorobenzene	106-46-7	ug/kg	546										160	< 550			
2-Chloroethylvinylether	110-75-8	ug/kg											< 1000	< 110			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270										< 2100	< 220			
Acrylonitrile	107-13-1	ug/kg	23.9										< 520	< 55			
Benzene	71-43-2	ug/kg	255										340	< 55			
Bromodichloromethane	75-27-4	ug/kg	540										< 520	< 55			
Bromoform	75-25-2	ug/kg											< 520	< 55			
Bromomethane	74-83-9	ug/kg	235										< 1000	< 110			
Carbon Tetrachloride	56-23-5	ug/kg	2980										< 520	< 55			
Chlorobenzene	108-90-7	ug/kg	13100										< 520	< 55			
Chloroethane	75-00-3	ug/kg											< 1000	< 110			
Chloroform	67-66-3	ug/kg	1190										< 52	< 55			
Chloromethane	74-87-3	ug/kg	10400										170	290			
cis-1,2-Dichloroethene	156-59-2	ug/kg											< 520	< 55			
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050										< 520	< 55			
Ethylbenzene	100-41-4	ug/kg	5160										< 520	< 55			
Hexachlorobutadiene	87-68-3	ug/kg	39.8										< 520	< 550			
Methylene Chloride	75-09-2	ug/kg	4050										< 52	< 55			
Naphthalene	91-20-3	ug/kg	99.4										< 520				
Tetrachloroethene	127-18-4	ug/kg	9920										< 520	< 55			
Toluene	108-88-3	ug/kg	200000										< 520	< 55			
trans-1,2-Dichloroethene	156-60-5	ug/kg											< 520	< 55			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400										< 520	< 55			
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646										< 1000	< 110			
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	F9-2105B-01	F9-2251-03	F9-2276-03	F9-3-01	F9-4-01	F9-4-01	F9-558A-01	F9-563-01	F9-611-02	F9-8-02	F9-8-05	F9-9-01	F9-9-05	F9-9-05
			Sample Date	3/23/2000	3/24/2000	3/16/2000	3/24/2000	3/30/2000	3/30/2000	3/23/2000	3/16/2000	3/16/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	F9-2105B-011N	F9-2251-030.5N	F9-2276-031.5N	F9-3-011.5N	F9-4-011N	F9-4-010.5N	F9-558A-011N	F9-563-010.67N	F9-611-020.5N	F9-8-020.5N	F9-8-051N	F9-9-010.5N	F9-9-050.5FD	F9-9-050.5N
			Parent ID													F9-9-050.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 24	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 25	< 230	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 24	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 25	< 230	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 24	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 25	610	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 24	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 25	< 230	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 48	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 50	< 450	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 48	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 50	< 450	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 24	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 25	< 230	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 48	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 50	< 450	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 24	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 25	< 230	< 25
Nitrocellulose	9004-70-0	ug/kg		210000	NA	NA	NA	NA	NA	940000	NA	NA	225000	169000	180000	371000	227000
Nitroglycerin	55-63-0	ug/kg	65000	< 580	NA	NA	NA	NA	NA	< 590	NA	NA	25000	< 630	< 580	< 6000	< 690
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 48	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 50	< 450	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 48	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 50	< 450	< 50
Tetryl	479-45-8	ug/kg	25000	< 48	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 50	< 450	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		10.1	3.4	8.7	6.2	11.5		9.8	13.4	10.4	8.4		6.3		
Gravel	Gravel	%		40.9	59.2	40.2	39.9	27.5		35.1	34.8	43.9	34.4		46.4		
Sand	Sand	%		34.9	29.8	39.2	36.6	38.3		40.6	33.8	30.4	41.1		33.5		
Silt	Silt	%		14.2	7.6	12	17.3	22.7		14.5	18	15.3	16.2		13.7		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F9-2105B-01	F9-2251-03	F9-2276-03	F9-3-01	F9-4-01	F9-4-01	F9-558A-01	F9-563-01	F9-611-02	F9-8-02	F9-8-05	F9-9-01	F9-9-05	F9-9-05
			Sample Date	3/23/2000	3/24/2000	3/16/2000	3/24/2000	3/30/2000	3/30/2000	3/23/2000	3/16/2000	3/16/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	F9-2105B-011N	F9-2251-030.5N	F9-2276-031.5N	F9-3-011.5N	F9-4-011N	F9-4-010.5N	F9-558A-011N	F9-563-010.67N	F9-611-020.5N	F9-8-020.5N	F9-8-051N	F9-9-010.5N	F9-9-050.5FD	F9-9-050.5N
			Parent ID													F9-9-050.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.7	< 0.6	< 1				< 0.6	< 1	< 1	< 1	< 1	< 1	< 1.5	< 1
Arsenic	7440-38-2	mg/kg	9.9	7.9	2.7	5.8				4.9	25	8.2	5	4.7	5.2	5.9	5.8
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.5	0.87	0.49				0.66	0.52	0.44	0.47	0.49	0.45	0.4	0.49
Cadmium	7440-43-9	mg/kg	0.36	0.26	0.67	0.41				< 0.3	0.47	0.56	0.42	0.43	0.36	0.32	0.45
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	31.9	11.7	13.4				16.2	17.6	11.5	13.3	13	11.7	11	14.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	3130	111	212				27.5	32.4	190	34.3	22.3	32.4	34.7	38.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	194	10.8	34.5				312	811	67.3	53.3	29.5	47.7	46.4	63.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.8	0.12	0.09				0.12	0.09	0.07	0.13	0.24	0.12	0.14	0.16
Nickel	7440-02-0	mg/kg	38	17.4	10.5	7.8				9.6	11.3	11.6	7.1	8.7	7	7	8.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.61	0.51	< 1				0.63	1.1	1.3	< 1	1.2	0.86	< 1.3	0.99
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.6				< 0.3	< 0.6	< 0.6	< 0.7	< 0.7	< 0.7	< 0.75	< 0.7
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.8	< 1	< 2				1.9	< 2	< 2	< 2	< 2	< 2	< 2.5	< 2
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	160	381	392				142	101	84.6	110	87.9	85.1	90.4	114
Moisture																	
Percent Solids	SOLID	percent		86.1	86.9	84.8	87.4	84.2		84.3	81.8	83.9	82.3	77.9	83.6	74.3	72.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371				< 2										
Aroclor-1221	11104-28-2	ug/kg	371				< 2										
Aroclor-1232	11141-16-5	ug/kg	371				< 2										
Aroclor-1242	53469-21-9	ug/kg	371				< 2										
Aroclor-1248	12672-29-6	ug/kg	371				< 2										
Aroclor-1254	11097-69-1	ug/kg	371				< 2										
Aroclor-1260	11096-82-5	ug/kg	371				< 3										
Polychlorinated biphenyls	1336-36-3	ug/kg	371				< 39										
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 78	< 77	< 78		< 79		< 79	< 81	< 79	< 81	< 85	< 80	< 900	< 91

			Location	F9-2105B-01	F9-2251-03	F9-2276-03	F9-3-01	F9-4-01	F9-4-01	F9-558A-01	F9-563-01	F9-611-02	F9-8-02	F9-8-05	F9-9-01	F9-9-05	F9-9-05
			Sample Date	3/23/2000	3/24/2000	3/16/2000	3/24/2000	3/30/2000	3/30/2000	3/23/2000	3/16/2000	3/16/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	F9-2105B-011N	F9-2251-030.5N	F9-2276-031.5N	F9-3-011.5N	F9-4-011N	F9-4-010.5N	F9-558A-011N	F9-563-010.67N	F9-611-020.5N	F9-8-020.5N	F9-8-051N	F9-9-010.5N	F9-9-050.5FD	F9-9-050.5N
			Parent ID													F9-9-050.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 390	< 380	< 390		< 400		< 400	< 410	50	1100	410	3400	69	< 460
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 390	< 380	< 390		< 400		< 400	< 410	< 400	43	< 430	98	< 450	< 460
2-Chloronaphthalene	91-58-7	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2-Chlorophenol	95-57-8	ug/kg	243	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 78	< 77	< 78		< 79		< 79	< 81	< 79	< 81	< 85	< 80	< 900	< 91
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 78	< 77	< 78		< 79		< 79	< 81	< 79	< 81	< 85	< 80	< 900	< 91
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
4-Nitrophenol	100-02-7	ug/kg	7000	< 78	< 77	< 78		< 79		< 79	< 81	< 79	< 81	< 85	< 80	< 900	< 91
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 39	< 38	< 39		18		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Acenaphthylene	208-96-8	ug/kg	682000	< 39	< 38	< 39		24		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Anthracene	120-12-7	ug/kg	1480000	< 39	< 38	< 39		52		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Benzidine	92-87-5	ug/kg	1310	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	56	36	< 39		200		35	39	100	36	< 43	58	38	58
Benzo[a]pyrene	50-32-8	ug/kg	1520	56	< 38	< 39		180		29	38	94	26	< 43	47	41	50
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	74	< 38	< 39		260		< 40	< 41	130	< 41	< 43	65	< 450	75
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 39	< 38	< 39		100		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	48	130	< 39		< 40		23	43	41	27	21	19	22	< 46
Butylbenzylphthalate	85-68-7	ug/kg	239	< 39	83	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Chrysene	218-01-9	ug/kg	4730	67	< 38	< 39		180		< 40	39	92	52	< 43	48	< 450	48
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Diethylphthalate	84-66-2	ug/kg	24800	< 39	470	< 39		< 40		< 40	200	65	< 41	< 43	< 40	< 450	< 46
Dimethylphthalate	131-11-3	ug/kg	734000	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Di-n-butylphthalate	84-74-2	ug/kg	150	130	120	< 39		< 40		93	86	94	150	< 43	69	52	44
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Fluoranthene	206-44-0	ug/kg	122000	100	< 38	< 39		500		< 40	< 41	150	< 41	< 43	96	< 450	< 46
Fluorene	86-73-7	ug/kg	122000	< 39	< 38	< 39		26		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Hexachlorobenzene	118-74-1	ug/kg	199	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Hexachloroethane	67-72-1	ug/kg	596	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 39	< 38	< 39		100		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Isophorone	78-59-1	ug/kg	139000	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Naphthalene	91-20-3	ug/kg	99.4	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Nitrobenzene	98-95-3	ug/kg	1310		< 38	< 39		< 40			< 41	< 40					
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	71	240	< 39		< 40		120	120	83	110	< 43	160	< 450	< 46
Pentachlorophenol	87-86-5	ug/kg	2100	< 78	< 77	< 78		< 79		< 79	< 81	< 79	< 81	< 85	< 80	< 900	< 91
Phenanthrene	85-01-8	ug/kg	45700	50	< 38	< 39		350		23	24	84	< 41	< 43	49	< 450	< 46
Phenol	108-95-2	ug/kg	30000	< 39	< 38	< 39		< 40		< 40	< 41	< 40	< 41	< 43	< 40	< 450	< 46
Pyrene	129-00-0	ug/kg	78500	100	< 38	< 39		360		< 40	< 41	130	< 41	< 43	< 40	< 450	< 46
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		54600	16200	11300	43800	14300		18500	19200	47000	30700		19600		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg							< 57								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127						120								

			Location	F9-2105B-01	F9-2251-03	F9-2276-03	F9-3-01	F9-4-01	F9-4-01	F9-558A-01	F9-563-01	F9-611-02	F9-8-02	F9-8-05	F9-9-01	F9-9-05	F9-9-05
			Sample Date	3/23/2000	3/24/2000	3/16/2000	3/24/2000	3/30/2000	3/30/2000	3/23/2000	3/16/2000	3/16/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	F9-2105B-011N	F9-2251-030.5N	F9-2276-031.5N	F9-3-011.5N	F9-4-011N	F9-4-010.5N	F9-558A-011N	F9-563-010.67N	F9-611-020.5N	F9-8-020.5N	F9-8-051N	F9-9-010.5N	F9-9-050.5FD	F9-9-050.5N
			Parent ID													F9-9-050.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg							< 57								
1,1-Dichloroethane	75-34-3	ug/kg							< 57								
1,1-Dichloroethene	75-35-4	ug/kg	8280						< 57								
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000						200								
1,2-Dichlorobenzene	95-50-1	ug/kg	2960						< 570								
1,2-Dichloroethane	107-06-2	ug/kg							< 57								
1,2-Dichloropropane	78-87-5	ug/kg							< 57								
1,3-Dichlorobenzene	541-73-1	ug/kg	37700						< 570								
1,4-Dichlorobenzene	106-46-7	ug/kg	546						< 570								
2-Chloroethylvinylether	110-75-8	ug/kg							< 110								
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270						< 230								
Acrylonitrile	107-13-1	ug/kg	23.9						< 57								
Benzene	71-43-2	ug/kg	255						< 57								
Bromodichloromethane	75-27-4	ug/kg	540						< 57								
Bromoform	75-25-2	ug/kg							< 57								
Bromomethane	74-83-9	ug/kg	235						< 110								
Carbon Tetrachloride	56-23-5	ug/kg	2980						< 57								
Chlorobenzene	108-90-7	ug/kg	13100						< 57								
Chloroethane	75-00-3	ug/kg							< 110								
Chloroform	67-66-3	ug/kg	1190						< 57								
Chloromethane	74-87-3	ug/kg	10400						< 110								
cis-1,2-Dichloroethene	156-59-2	ug/kg							< 57								
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050						< 57								
Ethylbenzene	100-41-4	ug/kg	5160						< 57								
Hexachlorobutadiene	87-68-3	ug/kg	39.8						190								
Methylene Chloride	75-09-2	ug/kg	4050						< 57								
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920						< 57								
Toluene	108-88-3	ug/kg	200000						< 57								
trans-1,2-Dichloroethene	156-60-5	ug/kg							< 57								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400						< 57								
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646						< 110								
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	G6-2-03	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8243-03	G6-8243-03	G6-8244-01
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/30/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/31/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	G6-2-031N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	< 25	< 24	NA	NA	< 25	NA	NA	NA	NA	NA	NA
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	< 25	< 24	NA	NA	< 25	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	160	< 24	NA	NA	< 25	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	< 25	< 24	NA	NA	< 25	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	< 50	< 48	NA	NA	< 50	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	< 50	< 48	NA	NA	< 50	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	< 25	< 24	NA	NA	< 25	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	< 50	< 48	NA	NA	< 50	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	< 25	< 24	NA	NA	< 25	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	1160000	153000	NA	NA	390000	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	< 620	15000	NA	NA	5200	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	< 50	< 48	NA	NA	< 50	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	< 50	< 48	NA	NA	< 50	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	< 50	< 48	NA	NA	< 50	NA	NA	NA	NA	NA	NA
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		10.6	7.7	10.4	6.2	5.8	4.8		3.3	1.1			3.2		3.1
Gravel	Gravel	%		44.5	29.9	35.2	51.2	24.7	31.5		57.4	70.7			45.1		67
Sand	Sand	%		27.2	47	34.1	28.5	61.7	40.6		27.4	21.2			36.6		22.2
Silt	Silt	%		17.8	15.4	20.3	14.2	7.8	23		11.9	7			15		7.7
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	G6-2-03	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8243-03	G6-8243-03	G6-8244-01
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/30/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/31/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	G6-2-031N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.36	0.76	< 0.7	< 1	< 0.9	< 4		1.4	1.5	4.3	9.1	< 1		< 0.7
Arsenic	7440-38-2	mg/kg	9.9	5.7	8.4	9.8	9	3.3	12.9		70	12.1	13.1	17.8	22.4		15.8
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.41	0.37	0.69	0.58	0.21	1.2		0.82	0.6	0.53	0.78	0.58		0.58
Cadmium	7440-43-9	mg/kg	0.36	< 0.3	< 0.3	< 0.3	0.66	0.08	2.2		5.9	1.4	7.6	10.1	20.8		3.2
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	14.4	18.9	20.5	17.7	5.3	23.6		24.4	26.5	49.7	18.2	31.9		11.6
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	230	441	58.9	147	12.7	114		86	29.2	211	43.2	41.4		30.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	77.8	219	255	104	49	330		1010	300	1050	928	4710		274
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.17	0.19	0.31	0.25	1.1	10.1		9.9	4.4	32.1	42.7	5.6		6.8
Nickel	7440-02-0	mg/kg	38	12.5	14.9	12.8	10.2	5.6	17.8		20.1	22.2	15.7	15.9	16		11.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.81	0.96	0.7	0.95	0.84	< 3		3.3	1.4	2.3	4.9	2.3		2.4
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.3	< 0.6	< 0.4	< 2		0.95	< 0.3	0.66	1	1.7		0.25
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.3	3.2	2.2	< 2	< 1	< 7		1.6	< 1	< 1	< 3	< 2		< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	137	142	147	165	20.4	329		493	648	2150	3320	5120		802
Moisture																	
Percent Solids	SOLID	percent		82	80.1	78.8	81.1	61.2	70		63.1	77.9	60.4	63	73.8		78.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	110	< 560	< 53	< 45		< 43
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 81	< 83	< 84	< 82	< 110	< 95		< 110	< 85	< 1100	< 110	< 90		< 85

			Location	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	G6-2-03	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8243-03	G6-8243-03	G6-8244-01
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/30/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/31/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	G6-2-031N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 410	690	< 420	250	< 550	< 480		84	87	< 5600	400	140		< 430
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	23	< 420	< 410	< 550	< 480		< 530	< 430	< 5600	48	< 450		< 430
2-Chloronaphthalene	91-58-7	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2-Chlorophenol	95-57-8	ug/kg	243	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 81	< 83	< 84	< 82	< 110	< 95		< 110	< 85	< 1100	< 110	< 90		< 85
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 81	< 83	< 84	< 82	< 110	< 95		< 110	< 85	< 1100	< 110	< 90		< 85
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
4-Nitrophenol	100-02-7	ug/kg	7000	< 81	< 83	< 84	< 82	< 110	< 95		< 110	< 85	< 1100	< 110	< 90		< 85
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 41	240	< 42	< 41	< 55	< 48		47	< 43	< 560	< 53	32		< 43
Acenaphthylene	208-96-8	ug/kg	682000	< 41	24	< 42	< 41	60	35		180	< 43	< 560	26	57		19
Anthracene	120-12-7	ug/kg	1480000	66	530	34	49	93	30		200	< 43	< 560	75	85		< 43
Benzidine	92-87-5	ug/kg	1310	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	320	2400	270	120	260	180		710	100	440	200	360		82
Benzo[a]pyrene	50-32-8	ug/kg	1520	270	2200	250	110	250	210		920	94	800	260	420		110
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	350	3100	310	140	340	490		1500	170	< 560	460	600		150
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	150	1100	180	< 41	200	210		910	< 43	1700	260	370		120
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	130	1100	< 42	< 41	160	170		630	< 43	< 560	200	230		< 43
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 41	100	24	29	27	70		250	46	< 560	140	< 45		63
Butylbenzylphthalate	85-68-7	ug/kg	239	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Chrysene	218-01-9	ug/kg	4730	260	2700	280	120	300	340		980	170	1100	280	450		150
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 41	280	< 42	< 41	< 55	< 48		270	< 43	< 560	< 53	100		< 43
Diethylphthalate	84-66-2	ug/kg	24800	< 41	70	< 42	< 41	< 55	40		92	190	< 560	130	130		< 43
Dimethylphthalate	131-11-3	ug/kg	734000	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		38
Di-n-butylphthalate	84-74-2	ug/kg	150	78	670	54	47	72	52		340	< 43	< 560	< 53	< 45		220
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Fluoranthene	206-44-0	ug/kg	122000	460	6300	390	270	710	630		1400	170	770	330	890		230
Fluorene	86-73-7	ug/kg	122000	< 41	280	< 42	< 41	45	< 48		92	< 43	< 560	< 53	47		< 43
Hexachlorobenzene	118-74-1	ug/kg	199	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Hexachloroethane	67-72-1	ug/kg	596	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	130	1000	150	< 41	180	170		750	< 43	< 560	230	330		84
Isophorone	78-59-1	ug/kg	139000	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Naphthalene	91-20-3	ug/kg	99.4	< 41	55	< 42	< 41	< 55	< 48		56	< 43	< 560	37	< 45		< 43
Nitrobenzene	98-95-3	ug/kg	1310	< 41	< 42	< 42			< 48			< 43	< 560	< 53	< 45		< 43
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 41	< 42	< 42	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	170	170	160	100	< 55	< 48		< 53	330	< 560	< 53	< 45		85
Pentachlorophenol	87-86-5	ug/kg	2100	< 81	< 83	< 84	< 82	< 110	< 95		< 110	< 85	< 1100	< 110	< 90		< 85
Phenanthrene	85-01-8	ug/kg	45700	150	4400	180	200	480	300		960	270	620	260	630		220
Phenol	108-95-2	ug/kg	30000	< 41	< 42	580	< 41	< 55	< 48		< 53	< 43	< 560	< 53	< 45		< 43
Pyrene	129-00-0	ug/kg	78500	460	6300	430	280	530	490		1300	160	< 560	410	800		180
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		32600	39300	43600	18200	67800	58200		23000	12300			45800		12800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg								< 57						< 58	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127							< 57						< 58	

			Location	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	G6-2-03	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8243-03	G6-8243-03	G6-8244-01
			Sample Date	3/23/2000	3/23/2000	3/23/2000	3/17/2000	3/30/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/31/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
			Sample ID	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	G6-2-031N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg								< 57						< 58	
1,1-Dichloroethane	75-34-3	ug/kg								< 57						< 58	
1,1-Dichloroethene	75-35-4	ug/kg	8280							< 57						< 58	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000							< 579						< 580	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960							< 579						< 580	
1,2-Dichloroethane	107-06-2	ug/kg								< 57						< 58	
1,2-Dichloropropane	78-87-5	ug/kg								< 57						< 58	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700							< 579						< 580	
1,4-Dichlorobenzene	106-46-7	ug/kg	546							< 579						< 580	
2-Chloroethylvinylether	110-75-8	ug/kg								< 115						< 120	
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270							< 231						< 230	
Acrylonitrile	107-13-1	ug/kg	23.9							< 57						< 58	
Benzene	71-43-2	ug/kg	255							< 57						< 58	
Bromodichloromethane	75-27-4	ug/kg	540							< 57						< 58	
Bromoform	75-25-2	ug/kg								< 57						< 58	
Bromomethane	74-83-9	ug/kg	235							159						< 120	
Carbon Tetrachloride	56-23-5	ug/kg	2980							< 57						< 58	
Chlorobenzene	108-90-7	ug/kg	13100							< 57						< 58	
Chloroethane	75-00-3	ug/kg								< 115						< 120	
Chloroform	67-66-3	ug/kg	1190							129						< 58	
Chloromethane	74-87-3	ug/kg	10400							432						< 120	
cis-1,2-Dichloroethene	156-59-2	ug/kg								< 57						< 58	
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050							< 57						< 58	
Ethylbenzene	100-41-4	ug/kg	5160							< 57						< 58	
Hexachlorobutadiene	87-68-3	ug/kg	39.8							< 579						< 580	
Methylene Chloride	75-09-2	ug/kg	4050							< 57						< 58	
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920							< 57						< 58	
Toluene	108-88-3	ug/kg	200000							< 57						< 58	
trans-1,2-Dichloroethene	156-60-5	ug/kg								< 57						< 58	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400							< 57						< 58	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646							< 115						< 120	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	G6-8244-01	G6-8261-03	G6-8261-03	G6-8261-05	G6-9219-05	G7-8139-02	G7-8139-05	G7-8139-08	G7-8249-02	G8-2209-01	G8-2209-05	G9-7-05	G9-7-05	G9-7-11
			Sample Date	3/31/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/24/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G6-8244-010.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-9219-051.5N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8249-020.5N	G8-2209-011N	G8-2209-051N	G9-7-051FD	G9-7-051N	G9-7-111N
			Parent ID												G9-7-051N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	NA	< 25	< 24	NA	NA	NA	NA	NA	< 250	< 25	< 24
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	NA	< 25	< 24	NA	NA	NA	NA	NA	< 250	< 25	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	NA	< 25	220	NA	NA	NA	NA	NA	< 250	< 25	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	< 40000	< 240	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	NA	< 25	< 24	NA	NA	NA	NA	NA	< 250	< 25	< 24
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	NA	< 50	< 48	NA	NA	NA	NA	NA	< 500	< 50	< 48
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	NA	< 50	< 48	NA	NA	NA	NA	NA	< 500	< 50	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	NA	< 25	< 24	NA	NA	NA	NA	NA	< 250	< 25	< 24
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	NA	< 50	< 48	NA	NA	NA	NA	NA	< 500	< 50	< 48
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	NA	< 25	460	NA	NA	NA	NA	NA	< 250	< 25	< 24
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	NA	< 40000	1290000	NA	NA	NA	NA	NA	47200	< 37000	79100
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	NA	5800	42000	NA	NA	NA	NA	NA	85000	< 590	15000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	NA	< 50	< 48	NA	NA	NA	NA	NA	< 500	< 50	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	NA	< 50	< 48	NA	NA	NA	NA	NA	< 500	< 50	< 48
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	NA	< 50	< 48	NA	NA	NA	NA	NA	< 500	< 50	< 48
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			3.5			5.5		1.5		5.6	5.5			7.4	
Gravel	Gravel	%			60.9			28.7		61.3		42.2	40.9			28.7	
Sand	Sand	%			24.5			58.4		21		37.2	40.1			48.4	
Silt	Silt	%			11.1			7.4		16.3		15	13.4			15.5	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G6-8244-01	G6-8261-03	G6-8261-03	G6-8261-05	G6-9219-05	G7-8139-02	G7-8139-05	G7-8139-08	G7-8249-02	G8-2209-01	G8-2209-05	G9-7-05	G9-7-05	G9-7-11
			Sample Date	3/31/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/24/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G6-8244-010.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-9219-051.5N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8249-020.5N	G8-2209-011N	G8-2209-051N	G9-7-051FD	G9-7-051N	G9-7-111N
			Parent ID												G9-7-051N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27					< 0.6		< 0.7		4.4	< 0.6	< 0.6	< 0.49	< 0.5	1.3
Arsenic	7440-38-2	mg/kg	9.9					2.3		72.4		31.7	3.6	3.1	6.3	6.8	86.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10					0.75		0.94		0.41	0.59	0.52	0.52	0.52	0.63
Cadmium	7440-43-9	mg/kg	0.36					< 0.3		0.39		< 0.3	< 0.3	< 0.3	0.23	0.19	0.29
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4					19.2		25.9		29.8	14.6	15.7	11.2	13.1	16.3
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4					16.5		969		108	20.6	23.4	37.9	55.2	24.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11					6.3		510		996	32.1	28.1	46.4	41.1	93.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1					< 0		11.6		11.7	0.06	0.05	0.13	0.14	0.19
Nickel	7440-02-0	mg/kg	38					10.4		19.6		14.2	11.9	6.5	7	7.5	9.1
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52					< 0.5		1.8		3.3	0.68	< 0.5	0.83	1	1.3
Silver	7440-22-4	mg/kg	2					< 0.3		0.45		0.8	< 0.3	< 0.3	< 0.25	< 0.2	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1					< 1		2		2.2	2.1	1.7	< 0.82	< 0.9	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5					125		527		186	51.2	117	74.4	70.2	80.7
Moisture																	
Percent Solids	SOLID	percent			70.5			86.8	74.5	74.4		79.6	83.8	90.9	86.1	85.2	80.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371								< 1						
Aroclor-1221	11104-28-2	ug/kg	371								< 1						
Aroclor-1232	11141-16-5	ug/kg	371								< 1						
Aroclor-1242	53469-21-9	ug/kg	371								< 1						
Aroclor-1248	12672-29-6	ug/kg	371								< 1						
Aroclor-1254	11097-69-1	ug/kg	371								< 1						
Aroclor-1260	11096-82-5	ug/kg	371								< 3						
Polychlorinated biphenyls	1336-36-3	ug/kg	371								< 34						
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
1,2-Dichlorobenzene	95-50-1	ug/kg	2960					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
1,2-Diphenylhydrazine	122-66-7	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
1,4-Dichlorobenzene	106-46-7	ug/kg	546					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	10					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	60.9					< 77		< 90		< 83	< 79	< 73	< 780	< 78	< 83

Kennedy Jenks

			Location	G6-8244-01	G6-8261-03	G6-8261-03	G6-8261-05	G6-9219-05	G7-8139-02	G7-8139-05	G7-8139-08	G7-8249-02	G8-2209-01	G8-2209-05	G9-7-05	G9-7-05	G9-7-11
			Sample Date	3/31/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/24/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G6-8244-010.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-9219-051.5N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8249-020.5N	G8-2209-011N	G8-2209-051N	G9-7-051FD	G9-7-051N	G9-7-111N
			Parent ID												G9-7-051N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280					< 380		< 450		800	< 400	< 370	< 390	84	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8					< 380		< 450		73	< 400	< 370	< 390	< 390	< 420
2-Chloronaphthalene	91-58-7	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2-Chlorophenol	95-57-8	ug/kg	243					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646					< 77		< 90		< 83	< 79	< 73	< 780	< 78	< 83
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144					< 77		< 90		< 83	< 79	< 73	< 780	< 78	< 83
4-Bromophenyl-phenylether	101-55-3	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
4-Chloro-3-methylphenol	59-50-7	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
4-Chlorophenyl-phenylether	7005-72-3	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
4-Nitrophenol	100-02-7	ug/kg	7000					< 77		< 90		< 83	< 79	< 73	< 780	< 78	< 83
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000					< 38		< 45		110	< 40	< 37	< 390	< 39	< 42
Acenaphthylene	208-96-8	ug/kg	682000					< 38		120		120	< 40	< 37	< 390	< 39	< 42
Anthracene	120-12-7	ug/kg	1480000					< 38		45		180	< 40	< 37	< 390	< 39	< 42
Benzidine	92-87-5	ug/kg	1310					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210					< 38		240		1300	< 40	36	66	84	97
Benzo[a]pyrene	50-32-8	ug/kg	1520					< 38		530		1600	< 40	35	71	71	95
Benzo[b]fluoranthene	205-99-2	ug/kg	59800					< 38		880		3300	< 40	< 37	120	120	120
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000					< 38		860		1200	< 40	< 37	< 390	< 39	< 42
Benzo[k]fluoranthene	207-08-9	ug/kg	148000					< 38		360		1300	< 40	< 37	< 390	< 39	< 42
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925					22		52		320	27	27	33	33	56
Butylbenzylphthalate	85-68-7	ug/kg	239					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Chrysene	218-01-9	ug/kg	4730					< 38		300		1600	< 40	< 37	73	78	81
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400					< 38		200		410	< 40	< 37	< 390	< 39	< 42
Diethylphthalate	84-66-2	ug/kg	24800					< 38		2900		2500	< 40	47	< 390	< 39	120
Dimethylphthalate	131-11-3	ug/kg	734000					< 38		< 45		200	< 40	< 37	< 390	< 39	< 42
Di-n-butylphthalate	84-74-2	ug/kg	150					< 38		95		2000	< 40	< 37	< 390	< 39	< 42
Di-n-octylphthalate	117-84-0	ug/kg	7090					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Fluoranthene	206-44-0	ug/kg	122000					< 38		250		2400	< 40	< 37	130	110	180
Fluorene	86-73-7	ug/kg	122000					< 38		< 45		68	< 40	< 37	< 390	< 39	< 42
Hexachlorobenzene	118-74-1	ug/kg	199					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Hexachlorobutadiene	87-68-3	ug/kg	39.8					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg						< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Hexachloroethane	67-72-1	ug/kg	596					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000					< 38		740		1200	< 40	< 37	< 390	< 39	< 42
Isophorone	78-59-1	ug/kg	139000					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Naphthalene	91-20-3	ug/kg	99.4					< 38		19		68	< 40	< 37	< 390	< 39	< 42
Nitrobenzene	98-95-3	ug/kg	1310							< 45		< 42	< 40	< 37			
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	545					< 38		140		110	< 40	700	1200	110	94
Pentachlorophenol	87-86-5	ug/kg	2100					< 77		< 90		< 83	< 79	< 73	< 780	< 78	< 83
Phenanthrene	85-01-8	ug/kg	45700					< 38		79		1200	< 40	< 37	55	46	82
Phenol	108-95-2	ug/kg	30000					< 38		< 45		< 42	< 40	< 37	< 390	< 39	< 42
Pyrene	129-00-0	ug/kg	78500					< 38		290		2300	< 40	< 37	110	90	150
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			20100			22400		12300		38900	26400			46700	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 48		< 52	< 52										
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 48		< 52	< 52										

			Location	G6-8244-01	G6-8261-03	G6-8261-03	G6-8261-05	G6-9219-05	G7-8139-02	G7-8139-05	G7-8139-08	G7-8249-02	G8-2209-01	G8-2209-05	G9-7-05	G9-7-05	G9-7-11
			Sample Date	3/31/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/24/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G6-8244-010.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-9219-051.5N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8249-020.5N	G8-2209-011N	G8-2209-051N	G9-7-051FD	G9-7-051N	G9-7-111N
			Parent ID												G9-7-051N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 48		< 52	< 52										
1,1-Dichloroethane	75-34-3	ug/kg		< 48		< 52	< 52										
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 48		< 52	< 52										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 481		< 52	< 52										
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 481		< 52	< 52										
1,2-Dichloroethane	107-06-2	ug/kg		< 48		< 52	< 52										
1,2-Dichloropropane	78-87-5	ug/kg		< 48		< 52	< 52										
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 481		< 52	< 52										
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 481		< 52	< 52										
2-Chloroethylvinylether	110-75-8	ug/kg		< 96		< 100	< 100										
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 192		< 210	< 210										
Acrylonitrile	107-13-1	ug/kg	23.9	< 48		< 52	< 52										
Benzene	71-43-2	ug/kg	255	< 48		< 52	< 52										
Bromodichloromethane	75-27-4	ug/kg	540	< 48		< 52	< 52										
Bromoform	75-25-2	ug/kg		< 48		< 52	< 52										
Bromomethane	74-83-9	ug/kg	235	< 96		< 100	< 100										
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 48		420	< 52										
Chlorobenzene	108-90-7	ug/kg	13100	< 48		< 52	< 52										
Chloroethane	75-00-3	ug/kg		< 96		< 100	< 100										
Chloroform	67-66-3	ug/kg	1190	< 48		< 52	< 52										
Chloromethane	74-87-3	ug/kg	10400	< 96		< 100	< 100										
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 48		< 52	< 52										
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 48		< 52	< 52										
Ethylbenzene	100-41-4	ug/kg	5160	< 48		< 52	< 52										
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 481		< 52	< 52										
Methylene Chloride	75-09-2	ug/kg	4050	< 48		< 52	< 52										
Naphthalene	91-20-3	ug/kg	99.4			440	< 52										
Tetrachloroethene	127-18-4	ug/kg	9920	< 48		< 52	< 52										
Toluene	108-88-3	ug/kg	200000	< 48		170	< 52										
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 48		< 52	< 52										
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 48		< 52	520										
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 96		< 100	< 100										
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H6-7-01	H6-8116-01	H6-8120-04	H6-8120-04	H6-8120-05	H6-8120-06	H6-8122-01	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04	H6-8152-07	H6-8520-01	H6-8520-02
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-7-011N	H6-8116-011N	H6-8120-041.5N	H6-8120-040.5N	H6-8120-050.5N	H6-8120-060.5N	H6-8122-010.75N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N	H6-8152-071.5N	H6-8520-011N	H6-8520-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	< 25	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA	NA	NA	NA
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	< 25	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	420	NA	NA	NA	NA	NA	< 25	320	1400	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	< 25	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg		NA	< 50	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg		NA	< 50	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	< 25	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg		NA	< 50	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	1310	NA	< 25	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg		NA	334000	NA	NA	NA	NA	NA	< 40000	713000	5080000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	65000	NA	16000	NA	NA	NA	NA	NA	5400	33000	29000	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	< 50	NA	NA	NA	NA	NA	< 50	300	< 50	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	< 50	44000	< 50	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	< 50	NA	NA	NA	NA	NA	< 50	300	1800	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	25000	NA	< 50	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA	NA	NA	NA
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		9.8	4.1	8.3				14.8	11.3	1.2		6.2		9.8	
Gravel	Gravel	%		16.7	54	48.1				25.1	29.2	69.8		47.4		45.5	
Sand	Sand	%		34.6	28.9	27.4				22.1	37.4	20.8		30.4		27.7	
Silt	Silt	%		38.9	13	16.2				38	22.2	8.2		16		17.1	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	H6-7-01	H6-8116-01	H6-8120-04	H6-8120-04	H6-8120-05	H6-8120-06	H6-8122-01	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04	H6-8152-07	H6-8520-01	H6-8520-02
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-7-011N	H6-8116-011N	H6-8120-041.5N	H6-8120-040.5N	H6-8120-050.5N	H6-8120-060.5N	H6-8122-010.75N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N	H6-8152-071.5N	H6-8520-011N	H6-8520-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.6	< 0.7				< 0.8	< 0.5	3.8	0.42	< 0.7	< 0.7		
Arsenic	7440-38-2	mg/kg	9.9		3.4	8.9				7.1	4.9	10.1	10	8.3	9.3		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.51	0.82				0.7	0.83	0.78	0.75	0.87	0.59		
Cadmium	7440-43-9	mg/kg	0.36		0.1	1				< 0.4	< 0.2	1.9	< 0.4	< 0.3	< 0.3		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		13.6	23.2				27.3	14.2	21.7	17.8	19.8	17.5		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		25.1	175				136	345	236	148	86.9	75.8		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		78.2	248				186	30.5	797	364	432	444		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.5	138				5.8	44.7	57.6	6.2	44.6	2.2		
Nickel	7440-02-0	mg/kg	38		9.3	14.6				14	9.6	17.1	13	12.8	11.8		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.69	1.9				0.89	0.77	1.5	1.3	1.1	0.85		
Silver	7440-22-4	mg/kg	2		< 0.3	1.1				< 0.4	< 0.2	0.72	< 0.4	0.56	< 0.3		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 1	< 1				< 1	< 0.8	< 1	< 1	< 1	< 1		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		67.1	966				132	258	1020	467	457	163		
Moisture																	
Percent Solids	SOLID	percent		71.3	81.3	81.5				72.9	85.7	71.4	75.8	74.9	77.3	86.1	73.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 2												< 8	< 59
Aroclor-1221	11104-28-2	ug/kg	371	< 2												< 8	< 59
Aroclor-1232	11141-16-5	ug/kg	371	< 2												< 8	< 59
Aroclor-1242	53469-21-9	ug/kg	371	< 2												< 8	< 59
Aroclor-1248	12672-29-6	ug/kg	371	< 2												< 8	< 59
Aroclor-1254	11097-69-1	ug/kg	371	< 2												1100	9800
Aroclor-1260	11096-82-5	ug/kg	371	< 4												< 16	< 120
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 48												1100	9800
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 82	< 81				< 91	< 78	< 94	< 880	< 440	< 87		

			Location	H6-7-01	H6-8116-01	H6-8120-04	H6-8120-04	H6-8120-05	H6-8120-06	H6-8122-01	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04	H6-8152-07	H6-8520-01	H6-8520-02
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-7-011N	H6-8116-011N	H6-8120-041.5N	H6-8120-040.5N	H6-8120-050.5N	H6-8120-060.5N	H6-8122-010.75N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N	H6-8152-071.5N	H6-8520-011N	H6-8520-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		120	< 410				< 460	81	250	9300	< 2200	< 430		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 410	< 410				< 460	< 390	39	550	< 2200	< 430		
2-Chloronaphthalene	91-58-7	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2-Chlorophenol	95-57-8	ug/kg	243		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 82	< 81				< 91	< 78	< 94	< 880	< 440	< 87		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 82	< 81				< 91	< 78	< 94	< 880	< 440	< 87		
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
4-Nitrophenol	100-02-7	ug/kg	7000		< 82	< 81				< 91	< 78	< 94	< 880	< 440	< 87		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		50	86				160	98	< 47	< 440	< 220	< 43		
Acenaphthylene	208-96-8	ug/kg	682000		51	< 41				29	< 39	72	< 440	< 220	< 43		
Anthracene	120-12-7	ug/kg	1480000		180	210				570	190	97	< 440	220	< 43		
Benzidine	92-87-5	ug/kg	1310		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		450	620				1200	450	240	< 440	480	81		
Benzo[a]pyrene	50-32-8	ug/kg	1520		400	620				1100	400	340	< 440	390	81		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		620	830				1400	560	860	< 440	520	130		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 41	390				870	190	510	< 440	< 220	< 43		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		220	380				590	190	170	< 440	< 220	< 43		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		1900	< 41				180	< 39	< 47	< 440	1700	58		
Butylbenzylphthalate	85-68-7	ug/kg	239		690	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Chrysene	218-01-9	ug/kg	4730		440	620				920	370	380	< 440	290	46		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 41	120				210	< 39	130	< 440	< 220	< 43		
Diethylphthalate	84-66-2	ug/kg	24800		520	34				< 46	< 39	1200	6600	< 220	< 43		
Dimethylphthalate	131-11-3	ug/kg	734000		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Di-n-butylphthalate	84-74-2	ug/kg	150		2300	< 41				< 46	< 39	1600	< 440	770	< 43		
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Fluoranthene	206-44-0	ug/kg	122000		1100	1300				3700	1100	660	< 440	1000	110		
Fluorene	86-73-7	ug/kg	122000		88	93				230	93	< 47	< 440	< 220	< 43		
Hexachlorobenzene	118-74-1	ug/kg	199		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Hexachloroethane	67-72-1	ug/kg	596		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 41	350				750	190	380	< 440	< 220	< 43		
Isophorone	78-59-1	ug/kg	139000		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Naphthalene	91-20-3	ug/kg	99.4		< 41	< 41				76	46	< 47	< 440	< 220	< 43		
Nitrobenzene	98-95-3	ug/kg	1310			< 41				< 46				< 220	< 43		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		650	110				< 46	< 39	590	3800	< 220	< 43		
Pentachlorophenol	87-86-5	ug/kg	2100		< 82	< 81				< 91	< 78	< 94	< 880	< 440	< 87		
Phenanthrene	85-01-8	ug/kg	45700		870	880				2600	770	310	< 440	1000	39		
Phenol	108-95-2	ug/kg	30000		< 41	< 41				< 46	< 39	< 47	< 440	< 220	< 43		
Pyrene	129-00-0	ug/kg	78500		910	990				2200	600	560	< 440	800	< 43		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		11800	38900	23700				22800	5980	79600		43800		18200	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg					< 59	< 54	< 57								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127				< 59	< 54	< 57								

			Location	H6-7-01	H6-8116-01	H6-8120-04	H6-8120-04	H6-8120-05	H6-8120-06	H6-8122-01	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04	H6-8152-07	H6-8520-01	H6-8520-02
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-7-011N	H6-8116-011N	H6-8120-041.5N	H6-8120-040.5N	H6-8120-050.5N	H6-8120-060.5N	H6-8122-010.75N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N	H6-8152-071.5N	H6-8520-011N	H6-8520-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg					< 59	< 54	< 57								
1,1-Dichloroethane	75-34-3	ug/kg					< 59	< 54	< 57								
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 59	< 54	< 57								
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 590	< 540	< 570								
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 590	< 540	< 570								
1,2-Dichloroethane	107-06-2	ug/kg					< 59	< 54	< 57								
1,2-Dichloropropane	78-87-5	ug/kg					< 59	< 54	< 57								
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 590	< 540	< 570								
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 590	< 540	< 570								
2-Chloroethylvinylether	110-75-8	ug/kg					< 120	< 110	< 110								
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270				< 240	< 220	< 230								
Acrylonitrile	107-13-1	ug/kg	23.9				< 59	< 54	< 57								
Benzene	71-43-2	ug/kg	255				< 59	< 54	< 57								
Bromodichloromethane	75-27-4	ug/kg	540				< 59	< 54	< 57								
Bromoform	75-25-2	ug/kg					< 59	< 54	< 57								
Bromomethane	74-83-9	ug/kg	235				< 120	< 110	< 110								
Carbon Tetrachloride	56-23-5	ug/kg	2980				< 59	230	< 57								
Chlorobenzene	108-90-7	ug/kg	13100				< 59	< 54	< 57								
Chloroethane	75-00-3	ug/kg					< 120	< 110	< 110								
Chloroform	67-66-3	ug/kg	1190				< 59	< 54	< 57								
Chloromethane	74-87-3	ug/kg	10400				< 120	< 110	< 110								
cis-1,2-Dichloroethene	156-59-2	ug/kg					< 59	< 54	< 57								
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050				< 59	< 54	< 57								
Ethylbenzene	100-41-4	ug/kg	5160				< 59	< 54	< 57								
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 590	< 540	< 570								
Methylene Chloride	75-09-2	ug/kg	4050				< 59	< 54	< 57								
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920				< 59	< 54	< 57								
Toluene	108-88-3	ug/kg	200000				< 59	< 54	< 57								
trans-1,2-Dichloroethene	156-60-5	ug/kg					< 59	< 54	< 57								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400				< 59	< 54	< 57								
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646				< 120	< 110	< 110								
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H6-862-04	H7-13-05	H7-13-05	H7-15-02	H7-2-01	H7-4-04	H7-5-01	H7-6-02	H7-606L-01	H7-8131-04	H7-8131-04	H7-8134-02	H7-8144-05	H7-8145-03
			Sample Date	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	H6-862-041N	H7-13-051FD	H7-13-051N	H7-15-021.5N	H7-2-011.5N	H7-4-041.5N	H7-5-011N	H7-6-020.5N	H7-606L-011N	H7-8131-041FD	H7-8131-041N	H7-8134-021.5N	H7-8144-051.5N	H7-8145-031.5N
			Parent ID		H7-13-051N								H7-8131-041N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 250	< 24	NA	NA	< 25	< 25	< 24	< 24	< 250	< 25	NA	< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 250	< 24	NA	NA	< 25	< 25	< 24	< 24	< 250	< 25	NA	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25	< 250	< 24	NA	NA	< 25	< 25	< 24	< 24	250	< 25	NA	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 250	< 24	NA	NA	< 25	< 25	< 24	< 24	< 250	< 25	NA	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 500	< 48	NA	NA	< 50	< 50	< 48	< 48	< 500	< 50	NA	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 500	< 48	NA	NA	< 50	< 50	< 48	< 48	< 500	< 50	NA	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 250	< 24	NA	NA	< 25	< 25	< 24	< 24	< 250	< 25	NA	660	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 500	< 48	NA	NA	< 50	< 50	< 48	< 48	< 500	< 50	NA	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 250	< 24	NA	NA	150	< 25	< 24	< 24	< 250	< 25	NA	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		< 43	63400	66100	NA	NA	180000	57600	90400	46700	239000	2630000	NA	183000	3500000
Nitroglycerin	55-63-0	ug/kg	65000	< 610	< 6100	< 580	NA	NA	< 670	< 600	< 730	< 630	14000	< 520	NA	5500	52000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 500	< 48	NA	NA	< 50	< 50	< 48	< 48	67000	1400	NA	7100	8500000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 500	< 48	NA	NA	< 50	< 50	< 48	< 48	2300	4900	NA	9300	2800
Tetryl	479-45-8	ug/kg	25000	< 50	< 500	< 48	NA	NA	< 50	< 50	< 48	< 48	< 500	< 50	NA	< 50	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		9.8		4	18	16.8	12	3.5	12.3	7.3		1.1	6	1	
Gravel	Gravel	%		50.5		40.8	19.1	20.6	9.3	39.1	10.4	47		74.5	38.9	49.8	
Sand	Sand	%		16.9		43.9	23.9	26.6	37.7	42.8	30.7	28.8		22.8	39.3	48.6	
Silt	Silt	%		22.8		11.2	39	36	41.1	14.6	46.6	17		1.3	15.9	0.6	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	H6-862-04	H7-13-05	H7-13-05	H7-15-02	H7-2-01	H7-4-04	H7-5-01	H7-6-02	H7-606L-01	H7-8131-04	H7-8131-04	H7-8134-02	H7-8144-05	H7-8145-03
			Sample Date	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	H6-862-041N	H7-13-051FD	H7-13-051N	H7-15-021.5N	H7-2-011.5N	H7-4-041.5N	H7-5-011N	H7-6-020.5N	H7-606L-011N	H7-8131-041FD	H7-8131-041N	H7-8134-021.5N	H7-8144-051.5N	H7-8145-031.5N
			Parent ID		H7-13-051N								H7-8131-041N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	126	55	< 0.8		< 0.7	0.43	< 0.8	< 0.7	< 0.59	< 0.5	< 0.6		< 0.6
Arsenic	7440-38-2	mg/kg	9.9	4.6	59.8	51.5	20.3		6.8	6.4	9.6	20	2.3	3.1	8.1		5.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.67	0.78	0.67	0.65		0.85	0.54	1.3	0.56	0.22	0.25	0.57		0.81
Cadmium	7440-43-9	mg/kg	0.36	0.65	< 7.1	< 3	< 0.4		0.13	< 0.3	< 0.4	< 0.3	< 0.29	< 0.2	< 0.3		< 0.3
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	13.2	42.6	40.9	13.8		14.8	12	21.1	18.4	11.7	7.3	13.7		19.6
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	21.2	476	404	21.9		15.5	16.1	26.3	22.8	23.2	18.5	< 0.5		103
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	63.7	53100	17900	104		77	39	97.7	29.6	46.9	48.7	309		149
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.1	4.9	3.8	0.52		0.53	0.82	7.4	0.23	0.14	0.09	2.5		0.4
Nickel	7440-02-0	mg/kg	38	9.2	52	34.5	7.3		9.2	7.1	14.9	9	7.9	5.2	9.6		11.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.83	< 11.9	5.7	0.66		1	0.95	1.6	1.3	< 0.51	< 0.4	1.2		0.54
Silver	7440-22-4	mg/kg	2	< 0.3	5.4	2.3	< 0.4		< 0.3	< 0.3	0.76	< 0.3	< 0.29	< 0.2	< 0.3		< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 23.8	< 12	< 1		< 1	< 1	0.86	1.1	< 0.98	< 0.9	< 1		< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	440	684	587	55.3		127	62.2	161	68.3	54.4	55.9	87.6		309
Moisture																	
Percent Solids	SOLID	percent		81.7	82.5	82.5	68.8	75.1	74.7	82.7	65.1	79.8	94.3	95.5	82	88.6	83.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371					< 2									
Aroclor-1221	11104-28-2	ug/kg	371					< 2									
Aroclor-1232	11141-16-5	ug/kg	371					< 2									
Aroclor-1242	53469-21-9	ug/kg	371					< 2									
Aroclor-1248	12672-29-6	ug/kg	371					< 2									
Aroclor-1254	11097-69-1	ug/kg	371					< 2									
Aroclor-1260	11096-82-5	ug/kg	371					< 4									
Polychlorinated biphenyls	1336-36-3	ug/kg	371					< 45									
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 81	< 810	< 81	< 97		< 89	< 80	< 100	< 83	< 710	< 70	< 810		< 79

			Location	H6-862-04	H7-13-05	H7-13-05	H7-15-02	H7-2-01	H7-4-04	H7-5-01	H7-6-02	H7-606L-01	H7-8131-04	H7-8131-04	H7-8134-02	H7-8144-05	H7-8145-03
			Sample Date	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	H6-862-041N	H7-13-051FD	H7-13-051N	H7-15-021.5N	H7-2-011.5N	H7-4-041.5N	H7-5-011N	H7-6-020.5N	H7-606L-011N	H7-8131-041FD	H7-8131-041N	H7-8134-021.5N	H7-8144-051.5N	H7-8145-031.5N
			Parent ID		H7-13-051N								H7-8131-041N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 410	120	110	< 480		< 440	< 400	< 510	47	< 350	47	< 4100		< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	< 410	< 410	< 480		< 440	< 400	< 510	< 420	< 350	< 350	< 4100		< 400
2-Chloronaphthalene	91-58-7	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2-Chlorophenol	95-57-8	ug/kg	243	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 81	< 810	< 81	< 97		< 89	< 80	< 100	< 83	< 710	< 70	< 810		< 79
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 81	< 810	< 81	< 97		< 89	< 80	< 100	< 83	< 710	< 70	< 810		< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
4-Nitrophenol	100-02-7	ug/kg	7000	< 81	< 810	< 81	< 97		< 89	< 80	< 100	< 83	< 710	< 70	< 810		< 79
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 41	< 410	< 41	< 48		< 44	< 40	< 51	22	< 350	< 35	< 410		< 40
Acenaphthylene	208-96-8	ug/kg	682000	< 41	< 410	< 41	< 48		< 44	< 40	50	140	< 350	< 35	< 410		< 40
Anthracene	120-12-7	ug/kg	1480000	< 41	< 410	< 41	< 48		< 44	< 40	70	140	< 350	< 35	< 410		< 40
Benzidine	92-87-5	ug/kg	1310	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	48	200	200	58		65	80	270	880	28	34	< 410		130
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 41	170	170	62		69	< 40	310	1700	36	34	< 410		170
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 41	320	290	99		96	< 40	430	4800	56	< 35	< 410		220
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 41	< 410	< 41	< 48		< 44	< 40	250	1100	< 350	< 35	< 410		140
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 41	100	< 41	< 48		< 44	< 40	190	1400	< 350	< 35	< 410		120
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	48	< 410	270	40		56	39	210	33	6300	45	< 410		95
Butylbenzylphthalate	85-68-7	ug/kg	239	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Chrysene	218-01-9	ug/kg	4730	80	410	360	83		80	120	360	1400	48	45	< 410		170
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 41	< 410	< 41	< 48		< 44	< 40	< 51	420	< 350	< 35	< 410		< 40
Diethylphthalate	84-66-2	ug/kg	24800	< 41	< 410	590	< 48		< 44	230	70	< 42	190	< 35	2100		< 40
Dimethylphthalate	131-11-3	ug/kg	734000	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Di-n-butylphthalate	84-74-2	ug/kg	150	42	230	240	69		53	39	120	170	2200	190	16000		500
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	110	< 35	< 410		< 40
Fluoranthene	206-44-0	ug/kg	122000	130	340	340	130		150	170	670	550	< 350	68	< 410		380
Fluorene	86-73-7	ug/kg	122000	< 41	< 410	< 41	< 48		< 44	< 40	36	< 42	< 350	< 35	< 410		< 40
Hexachlorobenzene	118-74-1	ug/kg	199	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Hexachloroethane	67-72-1	ug/kg	596	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 41	< 410	< 41	< 48		< 44	< 40	210	1200	< 350	< 35	< 410		110
Isophorone	78-59-1	ug/kg	139000	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Naphthalene	91-20-3	ug/kg	99.4	< 41	< 410	< 41	< 48		< 44	< 40	< 51	92	< 350	< 35	< 410		< 40
Nitrobenzene	98-95-3	ug/kg	1310				< 48								< 410		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	1400		230
Pentachlorophenol	87-86-5	ug/kg	2100	< 81	< 810	< 81	< 97		< 89	< 80	< 100	< 83	< 710	< 70	< 810		< 79
Phenanthrene	85-01-8	ug/kg	45700	69	350	360	98		100	120	470	270	30	53	< 410		180
Phenol	108-95-2	ug/kg	30000	< 41	< 410	< 41	< 48		< 44	< 40	< 51	< 42	< 350	< 35	< 410		< 40
Pyrene	129-00-0	ug/kg	78500	< 41	310	300	160		150	140	890	580	110	< 35	< 410		310
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		21800		34600	37500	16100	45800	8670	65000	4360		20800	32700	9670	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	H6-862-04	H7-13-05	H7-13-05	H7-15-02	H7-2-01	H7-4-04	H7-5-01	H7-6-02	H7-606L-01	H7-8131-04	H7-8131-04	H7-8134-02	H7-8144-05	H7-8145-03
			Sample Date	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	H6-862-041N	H7-13-051FD	H7-13-051N	H7-15-021.5N	H7-2-011.5N	H7-4-041.5N	H7-5-011N	H7-6-020.5N	H7-606L-011N	H7-8131-041FD	H7-8131-041N	H7-8134-021.5N	H7-8144-051.5N	H7-8145-031.5N
			Parent ID		H7-13-051N								H7-8131-041N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H7-8146-03	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-9221-03	H8-9221-04
			Sample Date	3/30/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	H7-8146-031.5N	H7-8248-021FD	H7-8248-021N	H7-8248-020.5FD	H7-8248-020.5N	H7-8252-011N	H7-8252-010.5N	H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-9221-031N	H8-9221-041.25N
			Parent ID		H7-8248-021N		H7-8248-020.5N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 24	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 24	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 48	< 50
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	NA	< 25	< 24	< 25
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	NA	NA	NA	NA	NA	1350000	NA	NA	48000	40900	3430000
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	< 600	NA	NA	< 570	< 590	< 600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 48	< 50
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA	< 50	< 48	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		12.7		4.3			2.2		18.9	4.2	8.9		3.2	7.8	
Gravel	Gravel	%		16.6		45.2			61.6		18.7	45.7	25		44.6	43.1	
Sand	Sand	%		27.9		37.2			30.7		24	33.8	51.6		41.2	30.8	
Silt	Silt	%		42.7		13.4			5.5		38.4	16.3	14.5		11.1	18.2	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	H7-8146-03	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-9221-03	H8-9221-04
			Sample Date	3/30/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	H7-8146-031.5N	H7-8248-021FD	H7-8248-021N	H7-8248-020.5FD	H7-8248-020.5N	H7-8252-011N	H7-8252-010.5N	H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-9221-031N	H8-9221-041.25N
			Parent ID		H7-8248-021N		H7-8248-020.5N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.8	< 0.66	< 0.6			< 0.7		< 0.7	< 0.6			0.41	< 0.6	< 0.7
Arsenic	7440-38-2	mg/kg	9.9	6.4	15.6	9.5			9.7		9.6	17.2			106	5.5	5.3
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.93	0.69	0.61			0.76		0.76	0.57			0.36	0.67	0.73
Cadmium	7440-43-9	mg/kg	0.36	< 0.4	< 0.33	< 0.3			< 0.3		< 0.3	< 0.3			< 0.3	1.5	2.2
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	17	41.7	38.1			49		16.5	27			29	23.2	38.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	23.6	19.8	15			34.8		21.1	35.6			15.6	134	261
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	69.8	67.5	55.8			136		49.8	128			58.4	119	179
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.27	5.7	3.9			1.5		0.88	7.4			0.04	0.15	0.07
Nickel	7440-02-0	mg/kg	38	9.5	16.9	15.9			14.2		8.4	11.8			5.6	16.1	16.4
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.98	2.3	0.62			0.5		0.73	1.3			0.7	0.85	1.1
Silver	7440-22-4	mg/kg	2	< 0.4	< 0.33	< 0.3			< 0.3		< 0.3	< 0.3			< 0.3	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1.1	< 1			< 1		< 1	1.1			0.85	1.6	1.3
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	169	115	102			570		82.4	172			166	864	961
Moisture																	
Percent Solids	SOLID	percent		72.7	82.7	82.8			82.2		72.8	80.7	86.2		87.3	85.2	84
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 91	< 800	< 80			< 81		< 91	< 82	< 78		< 77	< 78	< 79

Kennedy Jenks

			Location	H7-8146-03	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-9221-03	H8-9221-04
			Sample Date	3/30/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	H7-8146-031.5N	H7-8248-021FD	H7-8248-021N	H7-8248-020.5FD	H7-8248-020.5N	H7-8252-011N	H7-8252-010.5N	H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-9221-031N	H8-9221-041.25N
			Parent ID		H7-8248-021N		H7-8248-020.5N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 460	< 400	< 400			44		< 460	120	< 390		190	< 390	26000
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 460	< 400	< 400			< 410		< 460	37	< 390		< 380	< 390	910
2-Chloronaphthalene	91-58-7	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2-Chlorophenol	95-57-8	ug/kg	243	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 91	< 800	< 80			< 81		< 91	< 82	< 78		< 77	< 78	< 79
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 91	< 800	< 80			< 81		< 91	< 82	< 78		< 77	< 78	< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 40	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
4-Nitrophenol	100-02-7	ug/kg	7000	< 91	< 800	< 80			< 81		< 91	< 82	< 78		< 77	< 78	< 79
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Acenaphthylene	208-96-8	ug/kg	682000	< 46	< 400	< 40			24		< 46	< 41	32		59	< 39	< 40
Anthracene	120-12-7	ug/kg	1480000	< 46	< 400	31			< 41		< 46	44	90		54	< 39	< 40
Benzidine	92-87-5	ug/kg	1310	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 46	190	< 40			83		42	98	780		190	< 39	< 40
Benzo[a]pyrene	50-32-8	ug/kg	1520	34	52	< 40			87		42	91	600		180	< 39	< 40
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 46	82	78			140		< 46	150	1000		580	< 39	< 40
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 46	< 400	< 40			96		< 46	< 41	290		150	< 39	< 40
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 46	< 400	< 40			110		< 46	< 41	400		240	< 39	< 40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	51	53	63			< 41		50	41	< 39		38	57	26
Butylbenzylphthalate	85-68-7	ug/kg	239	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Chrysene	218-01-9	ug/kg	4730	< 46	190	100			140		47	160	630		370	< 39	< 40
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 46	< 400	< 40			< 41		< 46	< 41	100		< 38	< 39	< 40
Diethylphthalate	84-66-2	ug/kg	24800	< 46	< 400	< 40			140		< 46	120	47		25	< 39	< 40
Dimethylphthalate	131-11-3	ug/kg	734000	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Di-n-butylphthalate	84-74-2	ug/kg	150	150	< 400	< 40			910		70	95	< 39		150	4900	2000
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Fluoranthene	206-44-0	ug/kg	122000	< 46	90	84			230		82	170	1600		490	< 39	< 40
Fluorene	86-73-7	ug/kg	122000	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Hexachlorobenzene	118-74-1	ug/kg	199	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Hexachloroethane	67-72-1	ug/kg	596	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 46	< 400	< 40			77		< 46	< 41	270		160	< 39	< 40
Isophorone	78-59-1	ug/kg	139000	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Naphthalene	91-20-3	ug/kg	99.4	< 46	< 400	< 40			< 41		< 46	53	< 39		< 38	< 39	< 40
Nitrobenzene	98-95-3	ug/kg	1310	< 46	< 400	< 40			< 41		< 46		< 39				
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 46	< 400	< 40			330		< 46	360	< 39		120	5600	6300
Pentachlorophenol	87-86-5	ug/kg	2100	< 91	< 800	< 80			< 81		< 91	< 82	< 78		< 77	< 78	< 79
Phenanthrene	85-01-8	ug/kg	45700	49	200	180			120		56	200	340		95	< 39	< 40
Phenol	108-95-2	ug/kg	30000	< 46	< 400	< 40			< 41		< 46	< 41	< 39		< 38	< 39	< 40
Pyrene	129-00-0	ug/kg	78500	< 46	< 400	< 40			160		< 46	180	1300		460	< 39	< 40
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		31400		12400			53500		25900	13700	19100		8370	10400	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg					< 631	< 55		< 51				< 56			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127				< 631	< 55		< 51				< 56			

			Location	H7-8146-03	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-9221-03	H8-9221-04
			Sample Date	3/30/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	3/28/2000	3/28/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	H7-8146-031.5N	H7-8248-021FD	H7-8248-021N	H7-8248-020.5FD	H7-8248-020.5N	H7-8252-011N	H7-8252-010.5N	H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-9221-031N	H8-9221-041.25N
			Parent ID		H7-8248-021N		H7-8248-020.5N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg					< 631	< 55		< 51				< 56			
1,1-Dichloroethane	75-34-3	ug/kg					< 631	< 55		< 51				< 56			
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 631	< 55		< 51				< 56			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 631	< 558		< 517				< 560			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 631	< 558		< 517				< 560			
1,2-Dichloroethane	107-06-2	ug/kg					< 631	< 55		< 51				< 56			
1,2-Dichloropropane	78-87-5	ug/kg					< 631	< 55		< 51				< 56			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 631	< 558		< 517				< 560			
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 631	< 558		< 517				< 560			
2-Chloroethylvinylether	110-75-8	ug/kg					< 1263	< 111		< 103				< 110			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270				< 2525	< 223		< 206				< 220			
Acrylonitrile	107-13-1	ug/kg	23.9				< 631	< 55		< 51				< 56			
Benzene	71-43-2	ug/kg	255				< 631	< 55		< 51				< 56			
Bromodichloromethane	75-27-4	ug/kg	540				< 631	< 55		< 51				< 56			
Bromoform	75-25-2	ug/kg					< 631	< 55		< 51				< 56			
Bromomethane	74-83-9	ug/kg	235				< 1263	907		220				< 110			
Carbon Tetrachloride	56-23-5	ug/kg	2980				< 631	< 55		< 51				< 56			
Chlorobenzene	108-90-7	ug/kg	13100				< 631	< 55		< 51				< 56			
Chloroethane	75-00-3	ug/kg					< 1263	< 111		< 103				< 110			
Chloroform	67-66-3	ug/kg	1190				< 631	< 55		141				230			
Chloromethane	74-87-3	ug/kg	10400				< 1263	1411		315				< 110			
cis-1,2-Dichloroethene	156-59-2	ug/kg					< 631	< 55		< 51				< 56			
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050				< 631	< 55		< 51				< 56			
Ethylbenzene	100-41-4	ug/kg	5160				< 631	< 55		< 51				< 56			
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 631	< 558		< 517				< 560			
Methylene Chloride	75-09-2	ug/kg	4050				< 63	< 55		< 51				1100			
Naphthalene	91-20-3	ug/kg	99.4				< 631										
Tetrachloroethene	127-18-4	ug/kg	9920				< 631	< 55		< 51				< 56			
Toluene	108-88-3	ug/kg	200000				< 631	< 55		< 51				< 56			
trans-1,2-Dichloroethene	156-60-5	ug/kg					< 631	< 55		< 51				< 56			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400				< 631	< 55		< 51				< 56			
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646				< 1263	< 113		< 103				< 110			
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	I6-1-04	I6-5-02	I6-5-05	I6-E3-05	F10-44-04	F11-456-01	F12-4-01	F8-575-04	F9-2105A-04	G10-459-04	G10-5-03	G11-253-01	G11-9305-01	G12-12-03
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	I6-1-041.5N	I6-5-021N	I6-5-051N	I6-E3-051.5N	F10-44-041.5N	F11-456-011N	F12-4-011.5N	F8-575-041N	F9-2105A-041N	G10-459-041N	G10-5-031.5N	G11-253-010.75N	G11-9305-011N	G12-12-031.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	NA	NA	NA	< 25				< 25	< 25			< 25		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	NA	NA	NA	< 25				< 25	< 25			< 25		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	NA	NA	NA	< 25				250	470			< 25		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	NA	NA	NA	< 250								< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	NA	NA	NA	< 25				< 25	< 25			< 25		
2-Nitrotoluene	88-72-2	ug/kg		NA	NA	NA	< 50				< 50	< 50			< 50		
3-Nitrotoluene	99-08-1	ug/kg		NA	NA	NA	< 50				< 50	< 50			< 50		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	NA	NA	NA	< 25				< 25	< 25			< 25		
4-Nitrotoluene	99-99-0	ug/kg		NA	NA	NA	< 50				< 50	< 50			< 50		
Nitrobenzene	98-95-3	ug/kg	1310	NA	NA	NA	< 25				< 25	< 25			< 25		
Nitrocellulose	9004-70-0	ug/kg		NA	NA	NA	52500				1410000	466000			< 40000		
Nitroglycerin	55-63-0	ug/kg	65000	NA	NA	NA	< 700				61000	29000			< 590		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	NA	NA	NA	800				< 50	< 50			< 50		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	NA	NA	NA	NA										
RDX (Cyclonite)	121-82-4	ug/kg	98000	NA	NA	NA	740				< 50	< 50			< 50		
Tetryl	479-45-8	ug/kg	25000	NA	NA	NA	< 50				< 50	< 50			< 50		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		5	9.4		17.8										
Gravel	Gravel	%		37.4	47.3		23.5										
Sand	Sand	%		45.6	35.2		24.1										
Silt	Silt	%		12.1	8.1		34.6										
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I6-1-04	I6-5-02	I6-5-05	I6-E3-05	F10-44-04	F11-456-01	F12-4-01	F8-575-04	F9-2105A-04	G10-459-04	G10-5-03	G11-253-01	G11-9305-01	G12-12-03
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	I6-1-041.5N	I6-5-021N	I6-5-051N	I6-E3-051.5N	F10-44-041.5N	F11-456-011N	F12-4-011.5N	F8-575-041N	F9-2105A-041N	G10-459-041N	G10-5-031.5N	G11-253-010.75N	G11-9305-011N	G12-12-031.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.81	< 0.7	< 0.6		0.36	< 0.7	< 0.6	< 0.6	< 0.5	< 0.6	0.92		0.83	< 0.6
Arsenic	7440-38-2	mg/kg	9.9	198	7.8	14		6.1	6.1	3.2	2.8	4.5	3.2	9.3		221	5.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.31	0.81	0.6		0.33	0.56	0.41	0.34	0.63	0.42	0.36		0.15	0.46
Cadmium	7440-43-9	mg/kg	0.36	0.1	< 0.3	< 0.3		0.07	< 0.3	0.09	0.08	0.22	< 0.3	0.37		< 0.3	0.12
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	8.2	15.3	15.5		8.6	11.4	11.7	11.4	13.6	13	14.7		10	16.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	15.6	21.1	12		65.1	18.4	19.3	31.1	49.1	37.3	76.2		22.3	16.6
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	28.6	39.3	19.9		255	27.1	31.9	24	63.7	23	242		83.3	80.2
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.18	0.18	0.08		0.34	0.21	0.07	0.04	0.16	0.06	0.86		0.28	0.14
Nickel	7440-02-0	mg/kg	38	7.9	9.7	8.9		8.4	7.5	10.3	6.6	9.2	6.2	11.7		15.5	6.7
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.44	1	1		1.6	1.2	0.73	< 0.5	0.37	0.39	1.3		1.7	0.79
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.3		< 0.3	< 0.3	< 0.3	< 0.3	< 0.2	< 0.3	< 0.3		< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1	< 1		< 1	< 1	< 1	< 1	< 0.9	< 1	< 1		< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	55.6	88.4	43.8		67.3	58.8	60.9	95.7	119	60.8	142		101	124
Moisture																	
Percent Solids	SOLID	percent		85.3	78.1	86.1	71.3	81.8	75.6	86.4	86.6	89.1	88.5	85.1	84.5	72.8	79.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371							< 2				< 2			
Aroclor-1221	11104-28-2	ug/kg	371							< 2				< 2			
Aroclor-1232	11141-16-5	ug/kg	371							< 2				< 2			
Aroclor-1242	53469-21-9	ug/kg	371							< 2				< 2			
Aroclor-1248	12672-29-6	ug/kg	371							< 2				< 2			
Aroclor-1254	11097-69-1	ug/kg	371							41				160			
Aroclor-1260	11096-82-5	ug/kg	371							< 3				< 4			
Polychlorinated biphenyls	1336-36-3	ug/kg	371							41				160			
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
1,2-Diphenylhydrazine	122-66-7	ug/kg		24	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 78	< 85	< 780		< 81	< 88	< 78	< 77	< 750	< 76	< 78		< 91	< 84

Kennedy Jenks

			Location	I6-1-04	I6-5-02	I6-5-05	I6-E3-05	F10-44-04	F11-456-01	F12-4-01	F8-575-04	F9-2105A-04	G10-459-04	G10-5-03	G11-253-01	G11-9305-01	G12-12-03
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	I6-1-041.5N	I6-5-021N	I6-5-051N	I6-E3-051.5N	F10-44-041.5N	F11-456-011N	F12-4-011.5N	F8-575-041N	F9-2105A-041N	G10-459-041N	G10-5-031.5N	G11-253-010.75N	G11-9305-011N	G12-12-031.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	1100	3100	< 3900		< 410	< 440	< 390	66000	370	< 380	28		180	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	43	1500	< 3900		< 410	< 440	< 390	3300	< 3700	< 380	< 390		270	< 420
2-Chloronaphthalene	91-58-7	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2-Chlorophenol	95-57-8	ug/kg	243	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 78	< 85	< 780		< 81	< 88	< 78	< 77	< 750	< 76	< 78		< 91	< 84
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 78	< 85	< 780		< 81	< 88	< 78	< 77	< 750	< 76	< 78		< 91	< 84
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
4-Nitrophenol	100-02-7	ug/kg	7000	< 78	< 85	< 780		< 81	< 88	< 78	< 77	< 750	< 76	< 78		< 91	< 84
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 39	< 43	< 390		46	36	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Acenaphthylene	208-96-8	ug/kg	682000	71	38	< 390		92	46	18	< 38	< 370	< 38	31		160	< 42
Anthracene	120-12-7	ug/kg	1480000	80	53	< 390		250	89	< 39	< 38	< 370	< 38	36		140	< 42
Benzidine	92-87-5	ug/kg	1310	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	360	320	< 390		1500	570	180	95	< 370	99	570		1700	< 42
Benzo[a]pyrene	50-32-8	ug/kg	1520	350	280	< 390		1500	550	180	96	< 370	80	500		1500	< 42
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	690	480	< 390		1800	840	360	< 38	< 370	120	780		4000	< 42
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	220	160	< 390		870	390	110	< 38	< 370	< 38	310		610	< 42
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	180	130	< 390		570	260	< 39	180	< 370	< 38	240		930	< 42
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 39	< 43	< 390		49	28	24	25	< 370	< 38	210		86	32
Butylbenzylphthalate	85-68-7	ug/kg	239	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	790		< 46	< 42
Chrysene	218-01-9	ug/kg	4730	410	360	< 390		1400	640	230	74	< 370	86	810		2000	< 42
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 39	< 43	< 390		250	< 44	< 39	< 38	< 370	< 38	220		270	< 42
Diethylphthalate	84-66-2	ug/kg	24800	< 39	120	< 390		< 41	< 44	< 39	120	< 370	40	430		84	< 42
Dimethylphthalate	131-11-3	ug/kg	734000	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Di-n-butylphthalate	84-74-2	ug/kg	150	< 39	< 43	< 390		< 41	< 44	22	45	< 370	< 38	110		< 46	< 42
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Fluoranthene	206-44-0	ug/kg	122000	460	550	< 390		2800	1200	450	160	< 370	160	460		1400	< 42
Fluorene	86-73-7	ug/kg	122000	< 39	< 43	< 390		96	71	< 39	< 38	< 370	< 38	< 39		28	< 42
Hexachlorobenzene	118-74-1	ug/kg	199	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Hexachloroethane	67-72-1	ug/kg	596	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	210	150	< 390		780	330	92	< 38	< 370	< 38	230		660	< 42
Isophorone	78-59-1	ug/kg	139000	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Naphthalene	91-20-3	ug/kg	99.4	< 39	< 43	< 390		72	< 44	< 39	< 38	< 370	< 38	27		99	< 42
Nitrobenzene	98-95-3	ug/kg	1310	< 39	< 43	< 390		< 41	< 44	< 39			< 38	< 39		< 46	< 42
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	420	110	< 390		< 41	< 44	< 39	1900	3200	< 38	85		90	< 42
Pentachlorophenol	87-86-5	ug/kg	2100	< 78	< 85	< 780		< 81	< 88	< 78	< 77	< 750	< 76	< 78		< 91	< 84
Phenanthrene	85-01-8	ug/kg	45700	120	270	< 390		1300	870	140	83	< 370	52	200		370	< 42
Phenol	108-95-2	ug/kg	30000	< 39	< 43	< 390		< 41	< 44	< 39	< 38	< 370	< 38	< 39		< 46	< 42
Pyrene	129-00-0	ug/kg	78500	450	490	< 390		2900	1600	310	180	< 370	150	620		1500	< 42
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		22300	15900		37800										
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	I6-1-04	I6-5-02	I6-5-05	I6-E3-05	F10-44-04	F11-456-01	F12-4-01	F8-575-04	F9-2105A-04	G10-459-04	G10-5-03	G11-253-01	G11-9305-01	G12-12-03
			Sample Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft
			Sample ID	I6-1-041.5N	I6-5-021N	I6-5-051N	I6-E3-051.5N	F10-44-041.5N	F11-456-011N	F12-4-011.5N	F8-575-041N	F9-2105A-041N	G10-459-041N	G10-5-031.5N	G11-253-010.75N	G11-9305-011N	G12-12-031.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G12-252-02	G6-1-03	G6-8242-04	G7-2-01	G7-E49-02	G8-2293-02	G8-5-02	G9-9322-02	G9-9322-02	G9-9322-04	G9-9322-04	H12-1-02	H12-1-06	H12-120-03
			Sample Date	4/18/2000	4/4/2000	4/4/2000	4/20/2000	4/4/2000	4/4/2000	4/20/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/25/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G12-252-021.5N	G6-1-031.25N	G6-8242-041.5N	G7-2-011N	G7-E49-021N	G8-2293-020.5N	G8-5-021N	G9-9322-021.5N	G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	H12-1-021N	H12-1-061N	H12-120-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 24	< 25		< 250	< 25					< 238		< 250	< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 24	< 25		< 250	< 25					< 238		< 250	< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 24	< 25		< 250	< 25					< 238		< 250	< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 240	< 250			< 250									
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 24	< 25		< 250	< 25					< 238		< 250	< 250	
2-Nitrotoluene	88-72-2	ug/kg		< 48	< 50		< 500	< 50					< 476		< 500	< 500	
3-Nitrotoluene	99-08-1	ug/kg		< 48	< 50		< 500	< 50					< 476		< 500	< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 24	< 25		< 250	< 25					< 238		< 250	< 250	
4-Nitrotoluene	99-99-0	ug/kg		< 48	< 50		< 500	< 50					< 476		< 500	< 500	
Nitrobenzene	98-95-3	ug/kg	1310	< 24	< 25		< 250	170					< 238		< 250	< 250	
Nitrocellulose	9004-70-0	ug/kg		104000	86100		65400	250000					588000				
Nitroglycerin	55-63-0	ug/kg	65000	< 770	< 710		< 660	6100					4338.6				
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 48	< 50		< 500	< 50					< 476		< 500	< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 48	< 50		< 500	< 50					< 476		< 500	< 500	
Tetryl	479-45-8	ug/kg	25000	< 48	< 50		< 500	< 50					810		< 500	< 500	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			14.2	0.6		9.7	9.4		0.3						
Gravel	Gravel	%			17.7	51.8		32.9	15.9		31.2						
Sand	Sand	%			31.9	39.9		22	34.3		58.3						
Silt	Silt	%			36.2	7.7		35.4	40.4		10.1						
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G12-252-02	G6-1-03	G6-8242-04	G7-2-01	G7-E49-02	G8-2293-02	G8-5-02	G9-9322-02	G9-9322-02	G9-9322-04	G9-9322-04	H12-1-02	H12-1-06	H12-120-03
			Sample Date	4/18/2000	4/4/2000	4/4/2000	4/20/2000	4/4/2000	4/4/2000	4/20/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/25/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G12-252-021.5N	G6-1-031.25N	G6-8242-041.5N	G7-2-011N	G7-E49-021N	G8-2293-020.5N	G8-5-021N	G9-9322-021.5N	G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	H12-1-021N	H12-1-061N	H12-120-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.7	< 0.7	< 0.8	< 0.8		< 0.6		0.35		< 0.798	2.88	< 0.657
Arsenic	7440-38-2	mg/kg	9.9			4.5	3.9	11.4	13.8		6.5		281		6.12	9.23	6.75
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.19	0.23	0.63	0.84		0.33		0.33		0.38	0.428	0.518
Cadmium	7440-43-9	mg/kg	0.36			0.44	< 0.3	0.14	< 0.4		< 0.3		0.49		0.28	1.96	0.481
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			6.8	13	18	22.1		12		12.2		14.9	25.7	107
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			15.8	8.8	384	89.9		16.9		42		16.3	694	29
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			76.1	46.4	148	141		60.5		174		43.8	1060	60.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			36.9	0.28	1.2	0.22		0.11		0.41		0.275	1.02	5.04
Nickel	7440-02-0	mg/kg	38			6.7	7.2	13.5	14.1		6.8		8.3		6.79	24	7.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			0.4	0.59	0.96	1.3		0.37		1.3		1.37	1.5	0.764
Silver	7440-22-4	mg/kg	2			< 0.3	< 0.3	< 0.4	< 0.4		< 0.3		< 0.3		< 0.399	0.813	0.326
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 1	< 1	< 1	1.6		< 1		< 1		< 1.33	< 1.23	< 1.1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			219	31.7	242	150		52.8		65.8		65.3	2060	129
Moisture																	
Percent Solids	SOLID	percent		65.2	70.1	79.6	76.3	73	71.4	81.7	87.3		83.2		74.5	79.5	87
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371							< 2							
Aroclor-1221	11104-28-2	ug/kg	371							< 2							
Aroclor-1232	11141-16-5	ug/kg	371							< 2							
Aroclor-1242	53469-21-9	ug/kg	371							< 2							
Aroclor-1248	12672-29-6	ug/kg	371							< 2							
Aroclor-1254	11097-69-1	ug/kg	371							< 2							
Aroclor-1260	11096-82-5	ug/kg	371							< 4							
Polychlorinated biphenyls	1336-36-3	ug/kg	371							< 42							
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 42	< 44		< 47		< 38		< 40				
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 42	< 44		< 47		< 38		< 40				
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 83	< 88		< 94		< 77		< 200		< 800	190	

			Location	G12-252-02	G6-1-03	G6-8242-04	G7-2-01	G7-E49-02	G8-2293-02	G8-5-02	G9-9322-02	G9-9322-02	G9-9322-04	G9-9322-04	H12-1-02	H12-1-06	H12-120-03
			Sample Date	4/18/2000	4/4/2000	4/4/2000	4/20/2000	4/4/2000	4/4/2000	4/20/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/25/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G12-252-021.5N	G6-1-031.25N	G6-8242-041.5N	G7-2-011N	G7-E49-021N	G8-2293-020.5N	G8-5-021N	G9-9322-021.5N	G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	H12-1-021N	H12-1-061N	H12-120-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 420	< 440		< 470		73		110		< 400	< 420	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 420	< 440		< 470		< 380		43				
2-Chloronaphthalene	91-58-7	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
2-Chlorophenol	95-57-8	ug/kg	243			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 42	< 44		< 47		< 38		< 40				
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 83	< 88		< 94		< 77		< 80				
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 83	< 88		< 94		< 77		< 200		< 800	< 830	
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
4-Nitrophenol	100-02-7	ug/kg	7000			< 83	< 88		< 94		< 77		< 200				
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 42	< 44		< 47		< 38		< 40		42.08	116	
Acenaphthylene	208-96-8	ug/kg	682000			31	< 44		48		57		39		51.03	17.61	
Anthracene	120-12-7	ug/kg	1480000			39	< 44		57		44		65		81.91	422	
Benzidine	92-87-5	ug/kg	1310			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			220	65		550		350		280		537	1550	
Benzo[a]pyrene	50-32-8	ug/kg	1520			240	68		640		320		250		554	1250	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			320	110		1000		790		700		966	1610	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			150	< 44		520		190		< 40		252	543	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 42	< 44		310		210		210		264	927	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			50	< 44		52		< 38		64		39.84	31.44	
Butylbenzylphthalate	85-68-7	ug/kg	239			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Chrysene	218-01-9	ug/kg	4730			280	87		780		490		480		666	1380	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 42	< 44		150		< 38		< 40		< 400	< 420	
Diethylphthalate	84-66-2	ug/kg	24800			< 42	57		< 47		< 38		< 40		< 400	< 420	
Dimethylphthalate	131-11-3	ug/kg	734000			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Di-n-butylphthalate	84-74-2	ug/kg	150			< 42	< 44		57		46		< 40		41.63	< 420	
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Fluoranthene	206-44-0	ug/kg	122000			520	170		1200		900		440		1270	2040	
Fluorene	86-73-7	ug/kg	122000			< 42	< 44		< 47		26		< 40		84.6	107	
Hexachlorobenzene	118-74-1	ug/kg	199			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Hexachloroethane	67-72-1	ug/kg	596			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			130	< 44		480		180		< 40		254	559	
Isophorone	78-59-1	ug/kg	139000			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Naphthalene	91-20-3	ug/kg	99.4			< 42	< 44		< 47		< 38		28				
Nitrobenzene	98-95-3	ug/kg	1310			< 42			< 47		< 38						
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 42	< 44		< 47		< 38		< 40		< 400	171	
Pentachlorophenol	87-86-5	ug/kg	2100			< 83	< 88		< 94		< 77		< 200		< 800	< 830	
Phenanthrene	85-01-8	ug/kg	45700			310	120		440		540		190		915	1550	
Phenol	108-95-2	ug/kg	30000			< 42	< 44		< 47		< 38		< 40		< 400	< 420	
Pyrene	129-00-0	ug/kg	78500			500	150		810		740		410		1570	2820	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			57400	119000		53000	49800		33800				79400		45800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg										< 59		< 59			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127									< 59		< 59			

			Location	G12-252-02	G6-1-03	G6-8242-04	G7-2-01	G7-E49-02	G8-2293-02	G8-5-02	G9-9322-02	G9-9322-02	G9-9322-04	G9-9322-04	H12-1-02	H12-1-06	H12-120-03
			Sample Date	4/18/2000	4/4/2000	4/4/2000	4/20/2000	4/4/2000	4/4/2000	4/20/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/25/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	G12-252-021.5N	G6-1-031.25N	G6-8242-041.5N	G7-2-011N	G7-E49-021N	G8-2293-020.5N	G8-5-021N	G9-9322-021.5N	G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	H12-1-021N	H12-1-061N	H12-120-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg										< 59		< 59			
1,1-Dichloroethane	75-34-3	ug/kg										< 59		< 59			
1,1-Dichloroethene	75-35-4	ug/kg	8280									< 59		< 59	< 400	< 420	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000									< 590		< 595			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960									< 590		< 595			
1,2-Dichloroethane	107-06-2	ug/kg										< 59		< 59			
1,2-Dichloropropane	78-87-5	ug/kg										< 59		< 59			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700									< 590		< 595			
1,4-Dichlorobenzene	106-46-7	ug/kg	546									< 590		< 595			
2-Chloroethylvinylether	110-75-8	ug/kg										< 117		< 119			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270									< 235		< 238			
Acrylonitrile	107-13-1	ug/kg	23.9									< 59		< 59			
Benzene	71-43-2	ug/kg	255									< 59		< 59			
Bromodichloromethane	75-27-4	ug/kg	540									< 59		< 59			
Bromoform	75-25-2	ug/kg										< 59		< 59			
Bromomethane	74-83-9	ug/kg	235									< 117		< 119			
Carbon Tetrachloride	56-23-5	ug/kg	2980									< 59		< 59			
Chlorobenzene	108-90-7	ug/kg	13100									< 59		< 59			
Chloroethane	75-00-3	ug/kg										< 117		< 119			
Chloroform	67-66-3	ug/kg	1190									< 59		< 59			
Chloromethane	74-87-3	ug/kg	10400									189		154			
cis-1,2-Dichloroethene	156-59-2	ug/kg										< 59		< 59			
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050									< 59		< 59			
Ethylbenzene	100-41-4	ug/kg	5160									< 59		< 59			
Hexachlorobutadiene	87-68-3	ug/kg	39.8									< 590		< 595			
Methylene Chloride	75-09-2	ug/kg	4050									< 59		< 59	< 400	< 420	
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920									< 59		< 59			
Toluene	108-88-3	ug/kg	200000									< 59		< 59			
trans-1,2-Dichloroethene	156-60-5	ug/kg										< 59		< 59			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400									< 59		< 59			
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646									< 117		< 119			
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H13-2-01	H13-2-02	H13-2-03	H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-6-01	H13-8164-02	H13-8214-02	H13-8226-02	H6-8123B-06	H6-8245-01	H6-8246-01
			Sample Date	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	6/1/2000	6/1/2000	4/4/2000	4/6/2000	4/6/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-2-011N	H13-2-021N	H13-2-031N	H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-6-011N	H13-8164-021N	H13-8214-021N	H13-8226-021.25N	H6-8123B-061N	H6-8245-011N	H6-8246-011FD
			Parent ID														H6-8246-011N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376											< 250			
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655											< 250			
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000											< 250			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000											< 250			
2-Nitrotoluene	88-72-2	ug/kg												< 500			
3-Nitrotoluene	99-08-1	ug/kg												< 500			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000											< 250			
4-Nitrotoluene	99-99-0	ug/kg												< 250			
Nitrobenzene	98-95-3	ug/kg	1310											< 250			
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000											< 500			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000											< 500			
Tetryl	479-45-8	ug/kg	25000											< 500			
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		2.8			2.6			3.1	1.7					2	
Gravel	Gravel	%		46.8			76.8			40.3	45.4					76.4	
Sand	Sand	%		27.1			16			44.8	36.5					17.3	
Silt	Silt	%		23.3			4.6			11.8	16.3					4.2	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%											92.5	86.9			
Sieve Size #10 - Percent Finer	SIEVE_#010	%											76.8	71.4			
Sieve Size #100 - Percent Finer	SIEVE_#100	%											38.4	40.9			
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%											70.4	66.3			
Sieve Size #200 - Percent Finer	SIEVE_#200	%											29.5	32.5			
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%											83.1	79			
Sieve Size #40 - Percent Finer	SIEVE_#040	%											60.4	59			
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%											49.7	50.3			
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%											100	100			
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H13-2-01	H13-2-02	H13-2-03	H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-6-01	H13-8164-02	H13-8214-02	H13-8226-02	H6-8123B-06	H6-8245-01	H6-8246-01
			Sample Date	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	6/1/2000	6/1/2000	4/4/2000	4/6/2000	4/6/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-2-011N	H13-2-021N	H13-2-031N	H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-6-011N	H13-8164-021N	H13-8214-021N	H13-8226-021.25N	H6-8123B-061N	H6-8245-011N	H6-8246-011FD
			Parent ID														H6-8246-011N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27				< 0.6				< 0.7	< 0.675	1.23	0.544	< 0.7	0.96	0.52
Arsenic	7440-38-2	mg/kg	9.9				76.5				8.3	10.3	14.9	14.2	11	9	13.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10				0.32				0.54	0.445	0.279	0.374	0.92	0.25	0.39
Cadmium	7440-43-9	mg/kg	0.36				0.43				< 0.3	1.22	0.512	0.353	0.38	0.4	0.1
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				12.9				9.7	35.7	19.9	15.2	23	32.4	9.8
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4				16.1				12.2	86.9	88.4	43.3	258	21.6	34.8
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				103				51.4	5350	291	154	376	405	323
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1				0.14				0.12	0.27	0.728	0.296	9.8	0.22	1.1
Nickel	7440-02-0	mg/kg	38				10.8				5	8.55	10.1	8.82	10.6	12.5	6.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52				< 0.5				1	0.916	0.992	1.4	2	1.8	0.76
Silver	7440-22-4	mg/kg	2				< 0.3				< 0.3	0.23	0.137	< 0.34	< 0.3	< 0.3	< 0.38
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1				0.92				0.9	< 1.13	1.2	0.848	< 1	< 1	0.65
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5				104				27.7	726	472	161	234	146	68.8
Moisture																	
Percent Solids	SOLID	percent		87	79.5	74.9	89.9	88	84.7	72.7	76.8	83.9	88.5	84.8	73.5	81.5	75
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 2	< 2	< 2		< 2	< 2	< 2							
Aroclor-1221	11104-28-2	ug/kg	371	< 2	< 2	< 2		< 2	< 2	< 2							
Aroclor-1232	11141-16-5	ug/kg	371	< 2	< 2	< 2		< 2	< 2	< 2							
Aroclor-1242	53469-21-9	ug/kg	371	< 2	< 2	< 2		< 2	< 2	< 2							
Aroclor-1248	12672-29-6	ug/kg	371	< 2	< 2	< 2		< 2	< 2	< 2							
Aroclor-1254	11097-69-1	ug/kg	371	62	< 2	< 2		< 2	< 2	< 2							
Aroclor-1260	11096-82-5	ug/kg	371	< 3	< 4	< 4		< 3	< 4	< 4							
Polychlorinated biphenyls	1336-36-3	ug/kg	371	62	< 42	< 45		< 38	< 40	< 47							
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 37				< 43		< 377	< 393	< 45	< 41	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376									< 400					
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 37				< 43		< 377	< 393	< 45	< 41	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	10				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	60.9				< 74				< 87	< 790	< 753	< 787	< 90	< 81	< 890

			Location	H13-2-01	H13-2-02	H13-2-03	H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-6-01	H13-8164-02	H13-8214-02	H13-8226-02	H6-8123B-06	H6-8245-01	H6-8246-01
			Sample Date	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	6/1/2000	6/1/2000	4/4/2000	4/6/2000	4/6/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-2-011N	H13-2-021N	H13-2-031N	H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-6-011N	H13-8164-021N	H13-8214-021N	H13-8226-021.25N	H6-8123B-061N	H6-8245-011N	H6-8246-011FD
			Parent ID														H6-8246-011N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280				< 370				< 430	< 400	165	< 393	< 450	350	15000
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 370				< 430		< 377	< 393	< 450	< 410	840
2-Chloronaphthalene	91-58-7	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
2-Chlorophenol	95-57-8	ug/kg	243				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 37				< 43		< 377	< 393	< 45	< 41	< 440
2-Nitrotoluene	88-72-2	ug/kg										< 400					
3,3-Dichlorobenzidine	91-94-1	ug/kg	646				< 74				< 87		< 753	< 787	< 90	< 81	< 890
3-Nitrotoluene	99-08-1	ug/kg										< 790					
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144				< 74				< 87	< 790	< 753	< 787	< 90	< 81	< 890
4-Bromophenyl-phenylether	101-55-3	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
4-Chloro-3-methylphenol	59-50-7	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
4-Chlorophenyl-phenylether	7005-72-3	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
4-Nitrophenol	100-02-7	ug/kg	7000				< 74				< 87		< 753	< 787	< 90	< 81	< 890
4-Nitrotoluene	99-99-0	ug/kg										< 790					
Acenaphthene	83-32-9	ug/kg	20000				< 37				< 43	176	< 377	< 393	< 45	22	< 440
Acenaphthylene	208-96-8	ug/kg	682000				27				< 43	121	< 377	< 393	< 45	27	62
Anthracene	120-12-7	ug/kg	1480000				34				< 43	317	< 377	< 393	< 45	54	110
Benzidine	92-87-5	ug/kg	1310				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210				140				47	1770	169	60.2	< 45	200	420
Benzo[a]pyrene	50-32-8	ug/kg	1520				140				40	1970	147	47.2	< 45	240	480
Benzo[b]fluoranthene	205-99-2	ug/kg	59800				210				70	3160	292	80.6	< 45	390	990
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000				110				< 43	933	94.9	< 393	< 45	120	230
Benzo[k]fluoranthene	207-08-9	ug/kg	148000				91				< 43	1080	129	< 393	< 45	140	340
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925				26				21	60.42	< 377	< 393	< 45	64	29
Butylbenzylphthalate	85-68-7	ug/kg	239				95				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Chrysene	218-01-9	ug/kg	4730				190				90	1960	220	< 393	< 45	320	510
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Diethylphthalate	84-66-2	ug/kg	24800				61				< 43	< 400	< 377	< 393	< 45	570	840
Dimethylphthalate	131-11-3	ug/kg	734000				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Di-n-butylphthalate	84-74-2	ug/kg	150				41				< 43	< 400	632	44.4	< 45	110	1300
Di-n-octylphthalate	117-84-0	ug/kg	7090				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Fluoranthene	206-44-0	ug/kg	122000				290				82	3170	222	81	< 45	520	780
Fluorene	86-73-7	ug/kg	122000				< 37				< 43	370	< 377	< 393	< 45	29	32
Hexachlorobenzene	118-74-1	ug/kg	199				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg					< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Hexachloroethane	67-72-1	ug/kg	596				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000				110				< 43	963	91.9	< 393	< 45	110	230
Isophorone	78-59-1	ug/kg	139000				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Naphthalene	91-20-3	ug/kg	99.4				30				< 43		< 377	< 393	< 45	< 41	< 440
Nitrobenzene	98-95-3	ug/kg	1310				< 37				< 43	< 400	< 377		< 45	< 41	< 440
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	545				< 37				< 43	< 400	< 377	< 393	< 45	190	2300
Pentachlorophenol	87-86-5	ug/kg	2100				< 74				< 87	< 790	< 753	< 787	< 90	< 81	< 890
Phenanthrene	85-01-8	ug/kg	45700				160				95	2560	65.5	< 393	< 45	320	370
Phenol	108-95-2	ug/kg	30000				< 37				< 43	< 400	< 377	< 393	< 45	< 41	< 440
Pyrene	129-00-0	ug/kg	78500				350				< 43	4830	159	< 393	< 45	510	770
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg					34900				77300	26900	45200	82400		25500	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	H13-2-01	H13-2-02	H13-2-03	H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-6-01	H13-8164-02	H13-8214-02	H13-8226-02	H6-8123B-06	H6-8245-01	H6-8246-01
			Sample Date	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	6/1/2000	6/1/2000	4/4/2000	4/6/2000	4/6/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H13-2-011N	H13-2-021N	H13-2-031N	H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-6-011N	H13-8164-021N	H13-8214-021N	H13-8226-021.25N	H6-8123B-061N	H6-8245-011N	H6-8246-011FD
			Parent ID														H6-8246-011N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280									< 400					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050									80.69					
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H6-8246-01	H6-8247-02	H6-8247-05	H6-8250-01	H6-8250-04	H6-8275-02	H6-918-01	H6-941C-02	H7-2172-03	H7-8123A-05	H7-8124-01	H7-8176-01	H7-8255-02	H7-8255-02
			Sample Date	4/6/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000	4/4/2000	4/14/2000	4/14/2000	4/4/2000	4/4/2000	4/4/2000	4/4/2000	4/13/2000	4/13/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-8246-011N	H6-8247-020.5N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N	H6-8275-021.25N	H6-918-010.5N	H6-941C-021N	H7-2172-031.5N	H7-8123A-051N	H7-8124-011N	H7-8176-011.5FD	H7-8255-021FD	H7-8255-021N
			Parent ID												H7-8176-011.5N	H7-8255-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376						< 25	< 25	< 25	< 25	< 25		< 250		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655						< 25	< 25	< 25	< 25	< 25		< 250		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000						< 25	< 25	< 25	< 25	< 25		< 250		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 250								
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000						< 25	< 25	< 25	< 25	< 25		< 250		
2-Nitrotoluene	88-72-2	ug/kg							< 50	< 50	< 50	< 50	< 50		< 500		
3-Nitrotoluene	99-08-1	ug/kg							< 50	< 50	< 50	< 50	< 50		< 500		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000						< 25	< 25	< 25	< 25	< 25		< 250		
4-Nitrotoluene	99-99-0	ug/kg							< 50	< 50	< 50	< 50	< 50		< 500		
Nitrobenzene	98-95-3	ug/kg	1310						< 25	< 25	< 25	< 25	260		< 250		
Nitrocellulose	9004-70-0	ug/kg							5010000	83000	72900	233000	3870000		107000		
Nitroglycerin	55-63-0	ug/kg	65000						< 660	< 610	< 590	83000	2400		< 7000		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000						< 50	< 50	< 50	< 50	< 50		< 500		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000						< 50	< 50	< 50	< 50	< 50		< 500		
Tetryl	479-45-8	ug/kg	25000						< 50	< 50	< 50	< 50	< 50		< 500		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		5.8			15.1		6.8	10.2	3.8	9.4		6.1			4.3
Gravel	Gravel	%		44.9			26.1		25.9	22.7	47.8	34.9		28.1			55.5
Sand	Sand	%		32.8			24.8		39.1	46.4	39.7	41		42.3			33
Silt	Silt	%		16.5			34		28.2	20.7	8.7	14.8		23.5			7.1
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H6-8246-01	H6-8247-02	H6-8247-05	H6-8250-01	H6-8250-04	H6-8275-02	H6-918-01	H6-941C-02	H7-2172-03	H7-8123A-05	H7-8124-01	H7-8176-01	H7-8255-02	H7-8255-02
			Sample Date	4/6/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000	4/4/2000	4/14/2000	4/14/2000	4/4/2000	4/4/2000	4/4/2000	4/4/2000	4/13/2000	4/13/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-8246-011N	H6-8247-020.5N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N	H6-8275-021.25N	H6-918-010.5N	H6-941C-021N	H7-2172-031.5N	H7-8123A-051N	H7-8124-011N	H7-8176-011.5FD	H7-8255-021FD	H7-8255-021N
			Parent ID												H7-8176-011.5N	H7-8255-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.86			1.4	< 0.8		< 0.6	0.73	< 0.7	2.9	< 0.7	< 0.83	< 0.64	< 0.7
Arsenic	7440-38-2	mg/kg	9.9	14.2			5.3	8.3		5.6	2	6.2	6.2	6.3	5.8	3.5	5.5
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.63			0.53	0.75		0.82	0.22	0.51	0.3	0.69	0.33	0.64	0.69
Cadmium	7440-43-9	mg/kg	0.36	0.09			1.5	3.2		0.7	0.25	< 0.3	6.6	0.1	< 0.41	2.4	2.4
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	15.5			11.4	31.8		17.2	7.1	43.4	39.6	21.6	11.4	811	1010
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	36.2			36.3	49.4		16.5	22.9	26.3	595	17.7	19.6	20	23.7
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	375			324	915		52.3	25.5	28.4	44000	65.8	24.7	2540	2160
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.66			0.52	0.44		2.9	0.5	0.06	324	1.4	0.22	59.5	55.5
Nickel	7440-02-0	mg/kg	38	8.6			6.4	12.9		10.2	7.4	7.6	33.6	8.1	5	9.4	11.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.72			0.61	0.7		0.99	0.5	0.47	16	0.69	0.51	0.68	0.57
Silver	7440-22-4	mg/kg	2	< 0.3			< 0.3	0.26		< 0.3	< 0.3	< 0.3	26.2	< 0.3	< 0.41	0.27	0.29
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	0.88			< 1	1.4		< 1	< 1	< 1	< 1	< 1	< 1.4	< 1.1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	95.6			449	843		154	43.2	215	681	68.1	40.3	1060	1150
Moisture																	
Percent Solids	SOLID	percent		76.8			75.5	72	75.8	81.5	84.6	81.8	56.5	80.4	71.7	87.7	84.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 430			< 88	< 93		< 82	< 79	< 81	3200	< 83	< 930	< 760	< 79

			Location	H6-8246-01	H6-8247-02	H6-8247-05	H6-8250-01	H6-8250-04	H6-8275-02	H6-918-01	H6-941C-02	H7-2172-03	H7-8123A-05	H7-8124-01	H7-8176-01	H7-8255-02	H7-8255-02
			Sample Date	4/6/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000	4/4/2000	4/14/2000	4/14/2000	4/4/2000	4/4/2000	4/4/2000	4/4/2000	4/13/2000	4/13/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-8246-011N	H6-8247-020.5N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N	H6-8275-021.25N	H6-918-010.5N	H6-941C-021N	H7-2172-031.5N	H7-8123A-051N	H7-8124-011N	H7-8176-011.5FD	H7-8255-021FD	H7-8255-021N
			Parent ID												H7-8176-011.5N	H7-8255-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	5700			78	9600		< 410	< 390	< 410	< 6000	< 420	< 460	< 380	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	280			< 440	420		< 410	< 390	< 410	< 6000	< 420	< 460	< 380	< 400
2-Chloronaphthalene	91-58-7	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2-Chlorophenol	95-57-8	ug/kg	243	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 430			< 88	< 93		< 82	< 79	< 81	< 1200	< 83	< 930	< 760	< 79
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 430			< 88	< 93		< 82	< 79	< 81	< 1200	< 83	< 930	< 760	< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
4-Nitrophenol	100-02-7	ug/kg	7000	< 430			< 88	< 93		< 82	< 79	< 81	< 1200	< 83	< 930	< 760	< 79
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 220			< 44	< 46		22	< 39	< 41	< 600	< 42	< 460	< 380	26
Acenaphthylene	208-96-8	ug/kg	682000	93			< 44	57		< 41	< 39	< 41	1200	18	80	< 380	17
Anthracene	120-12-7	ug/kg	1480000	260			< 44	83		40	< 39	< 41	1500	40	57	42	180
Benzidine	92-87-5	ug/kg	1310	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	740			110	300		180	80	< 41	7000	200	260	250	910
Benzo[a]pyrene	50-32-8	ug/kg	1520	650			110	330		180	84	< 41	5600	130	280	290	930
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	900			140	500		270	120	< 41	11000	130	390	480	1400
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 220			< 44	220		< 41	< 39	< 41	3300	< 42	280	190	580
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 220			< 44	160		100	< 39	< 41	4100	< 42	< 460	150	470
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 220			42	53		36	41	95	690	34	87	< 380	26
Butylbenzylphthalate	85-68-7	ug/kg	239	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	100	< 380	< 40
Chrysene	218-01-9	ug/kg	4730	790			140	370		190	110	< 41	5700	200	310	280	960
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 220			< 44	< 46		< 41	< 39	< 41	1400	< 42	< 460	< 380	170
Diethylphthalate	84-66-2	ug/kg	24800	2000			< 44	42		< 41	< 39	330	< 600	< 42	< 460	< 380	31
Dimethylphthalate	131-11-3	ug/kg	734000	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Di-n-butylphthalate	84-74-2	ug/kg	150	790			< 44	1500		38	< 39	190	1000	< 42	130	< 380	< 40
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Fluoranthene	206-44-0	ug/kg	122000	1400			270	780		460	140	< 41	15000	300	470	440	1900
Fluorene	86-73-7	ug/kg	122000	< 220			< 44	30		< 41	< 39	< 41	< 600	50	< 460	< 380	50
Hexachlorobenzene	118-74-1	ug/kg	199	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Hexachloroethane	67-72-1	ug/kg	596	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 220			< 44	210		78	< 39	< 41	3800	< 42	230	170	570
Isophorone	78-59-1	ug/kg	139000	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Naphthalene	91-20-3	ug/kg	99.4	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Nitrobenzene	98-95-3	ug/kg	1310	< 220			< 44	< 46						< 42		< 380	< 40
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	2600			270	1300		< 41	< 39	660	< 600	< 42	< 460	< 380	< 40
Pentachlorophenol	87-86-5	ug/kg	2100	< 430			< 88	< 93		< 82	< 79	< 81	< 1200	< 83	< 930	< 760	< 79
Phenanthrene	85-01-8	ug/kg	45700	700			160	340		280	59	< 41	4200	440	220	190	830
Phenol	108-95-2	ug/kg	30000	< 220			< 44	< 46		< 41	< 39	< 41	< 600	< 42	< 460	< 380	< 40
Pyrene	129-00-0	ug/kg	78500	1100			270	530		310	110	< 41	7200	430	440	420	1400
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		123000			44300		31700	29000	77700	17600		14700			46900
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 56	< 53											
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 56	< 53											

			Location	H6-8246-01	H6-8247-02	H6-8247-05	H6-8250-01	H6-8250-04	H6-8275-02	H6-918-01	H6-941C-02	H7-2172-03	H7-8123A-05	H7-8124-01	H7-8176-01	H7-8255-02	H7-8255-02
			Sample Date	4/6/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000	4/4/2000	4/14/2000	4/14/2000	4/4/2000	4/4/2000	4/4/2000	4/4/2000	4/13/2000	4/13/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H6-8246-011N	H6-8247-020.5N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N	H6-8275-021.25N	H6-918-010.5N	H6-941C-021N	H7-2172-031.5N	H7-8123A-051N	H7-8124-011N	H7-8176-011.5FD	H7-8255-021FD	H7-8255-021N
			Parent ID												H7-8176-011.5N	H7-8255-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 56	< 53											
1,1-Dichloroethane	75-34-3	ug/kg			< 56	< 53											
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 56	< 53											
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 563	< 539											
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 563	< 539											
1,2-Dichloroethane	107-06-2	ug/kg			< 56	< 53											
1,2-Dichloropropane	78-87-5	ug/kg			< 56	< 53											
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 563	< 539											
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 563	< 539											
2-Chloroethylvinylether	110-75-8	ug/kg			< 112	< 107											
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 225	< 215											
Acrylonitrile	107-13-1	ug/kg	23.9		< 56	< 53											
Benzene	71-43-2	ug/kg	255		< 56	< 53											
Bromodichloromethane	75-27-4	ug/kg	540		< 56	< 53											
Bromoform	75-25-2	ug/kg			< 56	< 53											
Bromomethane	74-83-9	ug/kg	235		< 112	< 107											
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 56	< 53											
Chlorobenzene	108-90-7	ug/kg	13100		< 56	< 53											
Chloroethane	75-00-3	ug/kg			< 112	< 107											
Chloroform	67-66-3	ug/kg	1190		< 56	< 53											
Chloromethane	74-87-3	ug/kg	10400		< 112	< 107											
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 56	< 53											
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 56	< 53											
Ethylbenzene	100-41-4	ug/kg	5160		< 56	< 53											
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 563	< 539											
Methylene Chloride	75-09-2	ug/kg	4050		< 56	< 53											
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 56	< 53											
Toluene	108-88-3	ug/kg	200000		232	< 53											
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 56	< 53											
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 56	< 53											
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 112	< 107											
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H7-8255-02	H8-2171-01	H8-2291-02	H8-558-03	H8-558-03	H8-564-02	I10-1-03	I10-2079-02	I10-2080-01	I10-2121-02	I10-2122-03	I10-2155-02	I10-3-02	I10-550-02
			Sample Date	4/13/2000	4/18/2000	4/18/2000	4/20/2000	4/20/2000	4/20/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	4/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H7-8255-020.5N	H8-2171-011N	H8-2291-021.25N	H8-558-031.25FD	H8-558-031.25N	H8-564-021N	I10-1-031N	I10-2079-021N	I10-2080-011N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N	I10-3-021N	I10-550-021N
			Parent ID				H8-558-031.25N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 25	< 23	< 240	< 25	< 25		< 25		< 25	< 25	< 25		< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 25	< 23	< 240	< 25	< 25		< 25		< 25	< 25	< 25		< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 25	< 23	< 240	< 25	< 25		< 25		< 25	< 25	< 25		< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 250				< 250	< 250	< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 25	< 23	< 240	< 25	< 25		< 25		< 25	< 25	< 25		< 25
2-Nitrotoluene	88-72-2	ug/kg			< 50	< 45	< 480	< 50	< 50		< 50		< 50	< 50	< 50		< 50
3-Nitrotoluene	99-08-1	ug/kg			< 50	< 45	< 480	< 50	< 50		< 50		< 50	< 50	< 50		< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 25	< 23	< 240	< 25	< 25		< 25		< 25	< 25	< 25		< 25
4-Nitrotoluene	99-99-0	ug/kg			< 50	< 45	< 480	< 50	< 50		< 50		< 50	< 50	< 50		< 50
Nitrobenzene	98-95-3	ug/kg	1310		< 25	< 23	< 240	< 25	< 25		< 25		< 25	< 25	< 25		< 25
Nitrocellulose	9004-70-0	ug/kg			< 40000	< 45000	64700	< 38000	< 45000		133000		< 38000	< 42000	< 38		157000
Nitroglycerin	55-63-0	ug/kg	65000		< 650	< 680	< 6300	8400	< 670		< 570		< 540	< 590	1800		3800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 50	< 45	< 480	< 50	< 50		< 50		< 50	< 50	< 50		< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 50	< 45	< 480	< 50	< 50		< 50		< 50	< 50	< 50		< 50
Tetryl	479-45-8	ug/kg	25000		< 50	< 45	< 480	< 50	< 50		< 50		< 50	< 50	< 50		< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%				25.9		14.8	14.9	11.2	6.6	1.4	0	13	7.9	4.4	11.7
Gravel	Gravel	%				3.5		16.5	5.6	30.8	49.9	56.1	17.5	34.7	27.9	38.5	26.4
Sand	Sand	%				22.7		11.9	41.8	29.6	29.5	31.1	76.6	29.3	56.8	44.8	43.7
Silt	Silt	%				47.9		56.8	37.8	28.4	14	11.4	5.9	23	7.4	12.3	18.2
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	H7-8255-02	H8-2171-01	H8-2291-02	H8-558-03	H8-558-03	H8-564-02	I10-1-03	I10-2079-02	I10-2080-01	I10-2121-02	I10-2122-03	I10-2155-02	I10-3-02	I10-550-02
			Sample Date	4/13/2000	4/18/2000	4/18/2000	4/20/2000	4/20/2000	4/20/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	4/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H7-8255-020.5N	H8-2171-011N	H8-2291-021.25N	H8-558-031.25FD	H8-558-031.25N	H8-564-021N	I10-1-031N	I10-2079-021N	I10-2080-011N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N	I10-3-021N	I10-550-021N
			Parent ID				H8-558-031.25N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.7	< 0.6	< 0.71	< 0.7		< 0.6	0.38	< 0.6				< 0.6	1.3
Arsenic	7440-38-2	mg/kg	9.9		4.5	4.8	4.5	4.2		3.8	5.8	2.8				4.9	14.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.79	0.76	0.72	0.67		0.55	0.5	0.29				0.58	0.7
Cadmium	7440-43-9	mg/kg	0.36		0.24	0.15	0.63	0.49		0.61	0.92	0.5				1.3	0.89
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		18.6	17.9	16.5	16		14.8	16.2	15.7				28.7	18.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		10.1	25.4	17.6	18.4		23.5	28.5	23.4				8590	202
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		16.5	37.2	49.6	44.9		55.9	49.5	20.8				53.3	803
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.14	0.07	0.26	0.35		0.13	0.14	0.06				0.07	0.54
Nickel	7440-02-0	mg/kg	38		9	8.8	10.1	10.5		9	7.9	10.3				24	15.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.91	0.68	1.1	0.66		0.59	0.53	0.45				< 0.5	803
Silver	7440-22-4	mg/kg	2		< 0.3	< 0.3	< 0.35	< 0.3		< 0.3	< 0.3	< 0.3				0.19	< 0.7
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 1	< 1	< 1.2	< 1		< 1	< 1	< 1				< 1	< 2
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		158	132	132	127		176	138	52.3				131	1660
Moisture																	
Percent Solids	SOLID	percent			75.4	73.6	79.5	79	74.6	81	87.7	91.2	92.3	84.9	88.3	86.8	79.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 89	< 90	< 830	< 84		< 82	< 76	< 73				< 77	< 83

			Location	H7-8255-02	H8-2171-01	H8-2291-02	H8-558-03	H8-558-03	H8-564-02	I10-1-03	I10-2079-02	I10-2080-01	I10-2121-02	I10-2122-03	I10-2155-02	I10-3-02	I10-550-02
			Sample Date	4/13/2000	4/18/2000	4/18/2000	4/20/2000	4/20/2000	4/20/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	4/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H7-8255-020.5N	H8-2171-011N	H8-2291-021.25N	H8-558-031.25FD	H8-558-031.25N	H8-564-021N	I10-1-031N	I10-2079-021N	I10-2080-011N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N	I10-3-021N	I10-550-021N
			Parent ID				H8-558-031.25N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 440	< 450	< 420	< 420		< 410	< 380	49				< 380	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 440	< 450	< 420	< 420		< 410	< 380	< 370				< 380	< 420
2-Chloronaphthalene	91-58-7	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2-Chlorophenol	95-57-8	ug/kg	243		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 89	< 90	< 830	< 84		< 82	< 76	< 73				< 77	< 83
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 89	< 90	< 830	< 84		< 82	< 76	< 73				< 77	< 83
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
4-Nitrophenol	100-02-7	ug/kg	7000		< 89	< 90	< 830	< 84		< 82	< 76	< 73				< 77	< 83
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Acenaphthylene	208-96-8	ug/kg	682000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	120
Anthracene	120-12-7	ug/kg	1480000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	71
Benzidine	92-87-5	ug/kg	1310		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		< 44	< 45	120	98		42	30	39				48	440
Benzo[a]pyrene	50-32-8	ug/kg	1520		< 44	< 45	100	99		44	38	43				52	500
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		< 44	< 45	130	160		< 41	< 38	< 37				85	710
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	310
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		37	27	< 420	27		21	170	41				24	23
Butylbenzylphthalate	85-68-7	ug/kg	239		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Chrysene	218-01-9	ug/kg	4730		< 44	< 45	120	110		< 41	48	46				63	470
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	110
Diethylphthalate	84-66-2	ug/kg	24800		320	100	71	< 42		< 41	36	< 37				< 38	< 42
Dimethylphthalate	131-11-3	ug/kg	734000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Di-n-butylphthalate	84-74-2	ug/kg	150		< 44	67	< 420	< 42		58	100	45				< 38	39
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Fluoranthene	206-44-0	ug/kg	122000		< 44	< 45	200	200		< 41	< 38	< 37				85	760
Fluorene	86-73-7	ug/kg	122000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Hexachlorobenzene	118-74-1	ug/kg	199		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Hexachloroethane	67-72-1	ug/kg	596		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	290
Isophorone	78-59-1	ug/kg	139000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Naphthalene	91-20-3	ug/kg	99.4		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Nitrobenzene	98-95-3	ug/kg	1310							< 41		< 37				< 38	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 44	< 45	< 420	< 42		< 41	< 38	150				< 38	< 42
Pentachlorophenol	87-86-5	ug/kg	2100		< 89	< 90	< 830	< 84		< 82	< 76	< 73				< 77	< 83
Phenanthrene	85-01-8	ug/kg	45700		< 44	< 45	140	150		39	23	22				49	250
Phenol	108-95-2	ug/kg	30000		< 44	< 45	< 420	< 42		< 41	< 38	< 37				< 38	< 42
Pyrene	129-00-0	ug/kg	78500		< 44	< 45	310	270		< 41	< 38	< 37				140	560
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				29500		37700	47900	36000	22700	19500	31700	34500	4570	24600	30600
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 57													
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 57													

Kennedy Jenks

			Location	H7-8255-02	H8-2171-01	H8-2291-02	H8-558-03	H8-558-03	H8-564-02	I10-1-03	I10-2079-02	I10-2080-01	I10-2121-02	I10-2122-03	I10-2155-02	I10-3-02	I10-550-02
			Sample Date	4/13/2000	4/18/2000	4/18/2000	4/20/2000	4/20/2000	4/20/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	4/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	H7-8255-020.5N	H8-2171-011N	H8-2291-021.25N	H8-558-031.25FD	H8-558-031.25N	H8-564-021N	I10-1-031N	I10-2079-021N	I10-2080-011N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N	I10-3-021N	I10-550-021N
			Parent ID				H8-558-031.25N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 57													
1,1-Dichloroethane	75-34-3	ug/kg		< 57													
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 57													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 579													
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 579													
1,2-Dichloroethane	107-06-2	ug/kg		< 57													
1,2-Dichloropropane	78-87-5	ug/kg		< 57													
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 579													
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 579													
2-Chloroethylvinylether	110-75-8	ug/kg		< 115													
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 231													
Acrylonitrile	107-13-1	ug/kg	23.9	< 57													
Benzene	71-43-2	ug/kg	255	< 57													
Bromodichloromethane	75-27-4	ug/kg	540	< 57													
Bromoform	75-25-2	ug/kg		< 57													
Bromomethane	74-83-9	ug/kg	235	< 115													
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 57													
Chlorobenzene	108-90-7	ug/kg	13100	< 57													
Chloroethane	75-00-3	ug/kg		< 115													
Chloroform	67-66-3	ug/kg	1190	< 57													
Chloromethane	74-87-3	ug/kg	10400	< 115													
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 57													
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 57													
Ethylbenzene	100-41-4	ug/kg	5160	< 57													
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 579													
Methylene Chloride	75-09-2	ug/kg	4050	< 57													
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 57													
Toluene	108-88-3	ug/kg	200000	< 57													
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 57													
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 57													
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 115													
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I10-552-04	I10-E50-05	I11-2326-04	I11-8278-03	I11-9301-05	I11-9303-02	I11-B5-04	I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-11	I12-11-13	I12-15-01
			Sample Date	4/27/2000	4/28/2000	6/1/2000	5/4/2000	5/9/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000
			Sample Depths	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	I10-552-040.5N	I10-E50-051.25N	I11-2326-041N	I11-8278-031.5N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-11-061N	I12-11-081FD	I12-11-081N810	I12-11-081N815	I12-11-111N	I12-11-130.5N	I12-15-011N
			Parent ID									I12-11-081N815					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 25		< 25		< 250								
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 25		< 25		< 250								
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25	< 25		< 25		< 250								
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 25		< 25		< 250								
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 50		< 50		< 500								
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 50		< 50		< 500								
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 25		< 25		< 250								
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 50		< 50		< 250								
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 25		< 25		239								
Nitrocellulose	9004-70-0	ug/kg		< 44000	104000		144000		292000								
Nitroglycerin	55-63-0	ug/kg	65000	16000	9500		< 570		5850								
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 50		< 50		< 500								
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 50		< 50		< 500								
Tetryl	479-45-8	ug/kg	25000	< 50	< 50		< 50		< 500								
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		15.3	9.1		10.3	8									
Gravel	Gravel	%		24.4	42.6		32	32.6									
Sand	Sand	%		29.3	24.6		35.9	44.5									
Silt	Silt	%		31	23.7		21.7	14.8									
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%				89.4			76.2	87.2			83				81.2
Sieve Size #10 - Percent Finer	SIEVE_#010	%				69.3			46.9	64.6			64.3				70.3
Sieve Size #100 - Percent Finer	SIEVE_#100	%				29.3			16.6	33.1			24.6				36
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%				56.5			35.7	54.2			53.6				65.5
Sieve Size #200 - Percent Finer	SIEVE_#200	%				22.5			11.5	26			17.9				25.5
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%				80.4			58.2	75.6			74.5				75.5
Sieve Size #40 - Percent Finer	SIEVE_#040	%				45.9			27.4	46.5			43.1				57.2
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%				37.3			21.5	39.6			32.8				46.5
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%				100			100	100			100				90.4
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															100
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I10-552-04	I10-E50-05	I11-2326-04	I11-8278-03	I11-9301-05	I11-9303-02	I11-B5-04	I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-11	I12-11-13	I12-15-01
			Sample Date	4/27/2000	4/28/2000	6/1/2000	5/4/2000	5/9/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000
			Sample Depths	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	I10-552-040.5N	I10-E50-051.25N	I11-2326-041N	I11-8278-031.5N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-11-061N	I12-11-081FD	I12-11-081N810	I12-11-081N815	I12-11-111N	I12-11-130.5N	I12-15-011N
			Parent ID									I12-11-081N815					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.7	< 0.6	< 0.661	< 0.6	< 0.6	1.55	0.506	< 0.617868	0.53	0.98		< 0.682982	0.7	0.59
Arsenic	7440-38-2	mg/kg	9.9	21.9	4.7	17.8	8.1	18.7	84	81.9	3.1	5.7	4.4		3.3	4.9	27
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.73	0.35	0.453	0.41	0.34	0.313	0.413	0.16	0.33	0.33		0.12	0.24	0.17
Cadmium	7440-43-9	mg/kg	0.36	0.67	< 0.3	0.168	0.58	0.27	0.887	0.277	0.14	0.88	1.7		0.11	0.43	0.11
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	20.5	9.1	16.5	16.6	13.2	17.3	20.9	13.8	13.3	13.4		12	11.1	12.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	17.1	12.7	26.7	46	22.3	59.6	46	25.8	49.2	62.3		16.2	31.5	28.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	129	11	61.9	58.3	109	313	51.4	116	56.5	48.2		67.1	103	71.1
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.16	0.03	0.07	0.4	1.1	0.392	0.108	0.24	0.16		0.14	0.15	0.55	0.14
Nickel	7440-02-0	mg/kg	38	10.7	5.2	10.4	8.4	7.9	12.4	10.7	6.3	8.7	12.3		5.25	6	5.98
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.7	< 0.5	0.874	2.7	0.98	1.5	1.29	< 0.51489	< 0.32	< 0.011166		< 0.569152	< 0.526933	< 0.540845
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.33	< 0.3	< 0.3	0.091	< 0.374	< 0.308934	< 0.07	< 0.0067		< 0.341491	< 0.31616	< 0.324507
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1	1.15	< 1	< 1	1.51	0.784	0.69	0.96	1.3		< 1.138304	< 1.053865	0.72
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	78	186	58.4	56.8	119	285	107	112	338	227		121	303	77
Moisture																	
Percent Solids	SOLID	percent		76	92.3	89	82.9	88.9	89.7	77.8	89.1	77.9	87.8		87.9	87.9	85.6
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 88	< 72	< 748	< 80	< 75	< 743	< 855	< 748.058	< 860	< 758.794		< 757.608	< 758.53	< 778.816

Kennedy Jenks

			Location	I10-552-04	I10-E50-05	I11-2326-04	I11-8278-03	I11-9301-05	I11-9303-02	I11-B5-04	I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-11	I12-11-13	I12-15-01
			Sample Date	4/27/2000	4/28/2000	6/1/2000	5/4/2000	5/9/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000
			Sample Depths	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	I10-552-040.5N	I10-E50-051.25N	I11-2326-041N	I11-8278-031.5N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-11-061N	I12-11-081FD	I12-11-081N810	I12-11-081N815	I12-11-111N	I12-11-130.5N	I12-15-011N
			Parent ID									I12-11-081N815					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 440	< 360	< 374	< 400	84	328	< 428	< 370	< 430	< 380		< 380	< 380	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 440	< 360	< 374	< 400	< 370	334	< 428	< 370	< 430	< 380		< 380	< 380	< 390
2-Chloronaphthalene	91-58-7	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2-Chlorophenol	95-57-8	ug/kg	243	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 88	< 72	< 748	< 80	< 75	< 743	< 855	< 748.058	< 860	< 758.794		< 757.608	< 758.53	< 778.816
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 88	< 72	< 748	< 80	< 75	< 743	< 855	< 748.058	< 860	< 758.794		< 757.608	< 758.53	< 778.816
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
4-Nitrophenol	100-02-7	ug/kg	7000	< 88	< 72	< 748	< 80	< 75	< 743	< 855	< 748.058	< 860	< 758.794		< 757.608	< 758.53	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	21	< 379.397		< 378.804	< 379.265	< 389.408
Acenaphthylene	208-96-8	ug/kg	682000	< 44	< 36	58.3	< 40	54	190	< 428	20	< 430	16		30	38	44
Anthracene	120-12-7	ug/kg	1480000	< 44	< 36	67.3	26	110	172	< 428	< 374.029	67	< 379.397		38	33	48
Benzidine	92-87-5	ug/kg	1310	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	54	43	341	270	540	980	328	140	200	160		260	230	330
Benzo[a]pyrene	50-32-8	ug/kg	1520	51	40	311	380	440	792	402	110	160	150		300	210	220
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 44	67	638	1200	810	2400	848	240	270	220		490	470	580
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 44	< 36	259	1100	340	475	249	< 374.029	120	180		120	160	150
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 44	< 36	244	380	310	469	370	< 374.029	< 430	< 379.397		170	96	200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	39	< 36	< 374	55	47	< 372	< 428	< 374.029	61	44		< 378.804	35	74
Butylbenzylphthalate	85-68-7	ug/kg	239	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Chrysene	218-01-9	ug/kg	4730	59	< 36	433	330	670	1380	468	170	220	400		340	270	450
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 44	< 36	89	210	110	178	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Diethylphthalate	84-66-2	ug/kg	24800	< 44	58	< 374	< 40	250	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Dimethylphthalate	131-11-3	ug/kg	734000	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Di-n-butylphthalate	84-74-2	ug/kg	150	68	120	233	410	220	81	< 428	< 374.029	52	< 379.397		< 378.804	34	140
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Fluoranthene	206-44-0	ug/kg	122000	87	< 36	622	460	850	1290	355	230	350	130		< 378.804	300	390
Fluorene	86-73-7	ug/kg	122000	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	29	< 379.397		< 378.804	< 379.265	< 389.408
Hexachlorobenzene	118-74-1	ug/kg	199	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Hexachloroethane	67-72-1	ug/kg	596	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 44	< 36	236	760	310	490	243	81	100	110		130	150	150
Isophorone	78-59-1	ug/kg	139000	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Naphthalene	91-20-3	ug/kg	99.4	< 44	< 36	< 374	< 40	< 37	423	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Nitrobenzene	98-95-3	ug/kg	1310			< 374		< 37		< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 44	98	< 374	< 40	1600	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Pentachlorophenol	87-86-5	ug/kg	2100	< 88	< 72	< 748	< 80	< 75	< 743	< 855	< 748.058	< 860	< 758.794		< 757.608	< 758.53	< 778.816
Phenanthrene	85-01-8	ug/kg	45700	64	< 36	196	250	320	446	94.5	49	240	36		61	49	72
Phenol	108-95-2	ug/kg	30000	< 44	< 36	< 374	< 40	< 37	< 372	< 428	< 374.029	< 430	< 379.397		< 378.804	< 379.265	< 389.408
Pyrene	129-00-0	ug/kg	78500	< 44	< 36	770	480	910	1230	449	130	250	99		130	210	290
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		36800	6720	50700	42400	73100	21400	82700			16200				32800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	I10-552-04	I10-E50-05	I11-2326-04	I11-8278-03	I11-9301-05	I11-9303-02	I11-B5-04	I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-11	I12-11-13	I12-15-01
			Sample Date	4/27/2000	4/28/2000	6/1/2000	5/4/2000	5/9/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000
			Sample Depths	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	I10-552-040.5N	I10-E50-051.25N	I11-2326-041N	I11-8278-031.5N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-11-061N	I12-11-081FD	I12-11-081N810	I12-11-081N815	I12-11-111N	I12-11-130.5N	I12-15-011N
			Parent ID									I12-11-081N815					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I12-15-04	I12-2013-01	I12-2186-03	I12-2186-06	I12-2186-13	I12-2287-01	I12-6-04	I12-7-02	I12-7-04	I12-8-01	I12-8101-01	I12-8271-02	I12-9-01	I12-9-01
			Sample Date	5/31/2000	5/31/2000	6/1/2000	6/1/2000	6/1/2000	5/31/2000	6/1/2000	5/26/2000	5/26/2000	6/1/2000	5/25/2000	6/1/2000	6/1/2000	6/1/2000
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-15-040.5N	I12-2013-011N	I12-2186-031N	I12-2186-061N	I12-2186-131N	I12-2287-011N	I12-6-041N	I12-7-021.5N	I12-7-041.5N	I12-8-011N	I12-8101-011N	I12-8271-020.5N	I12-9-011FD	I12-9-011N
			Parent ID													I12-9-011N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376									< 250		< 25			
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655									< 250		< 25			
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000									< 250		< 25			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9									< 250					
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000									< 250		< 25			
2-Nitrotoluene	88-72-2	ug/kg										< 500		< 49			
3-Nitrotoluene	99-08-1	ug/kg										< 500		< 49			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000									< 250		< 25			
4-Nitrotoluene	99-99-0	ug/kg										< 500		< 49			
Nitrobenzene	98-95-3	ug/kg	1310									408		< 25			
Nitrocellulose	9004-70-0	ug/kg										522000		118000			
Nitroglycerin	55-63-0	ug/kg	65000									2720		< 640			
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000									< 500		< 49			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000									< 500		< 49			
Tetryl	479-45-8	ug/kg	25000									< 500		< 49			
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%												4.2			
Gravel	Gravel	%												19.1			
Sand	Sand	%												41.1			
Silt	Silt	%												35.6			
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%			56.7	76.1			81.5	89.7			88.7		90.4		98.8
Sieve Size #10 - Percent Finer	SIEVE_#010	%			46.1	495			71.8	76.1			68.2		74		81.4
Sieve Size #100 - Percent Finer	SIEVE_#100	%			13.2	7.8			38.5	32.6			44.8		30.9		25.1
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%			37.5	36			66.9	61.7			64		61.9		66
Sieve Size #200 - Percent Finer	SIEVE_#200	%			8.8	5.5			27.6	26.4			30.7		26.1		19.1
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%			52.4	60.5			76.5	83.4			75.9		83.6		91.5
Sieve Size #40 - Percent Finer	SIEVE_#040	%			27.7	20.5			57.8	47.9			58.9		49.5		48.9
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%			19.1	11.9			47.8	39			52.9		38.8		34.7
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%			92.8	87.1			86.5	100			100		100		100
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%			100	100			100								
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I12-15-04	I12-2013-01	I12-2186-03	I12-2186-06	I12-2186-13	I12-2287-01	I12-6-04	I12-7-02	I12-7-04	I12-8-01	I12-8101-01	I12-8271-02	I12-9-01	I12-9-01
			Sample Date	5/31/2000	5/31/2000	6/1/2000	6/1/2000	6/1/2000	5/31/2000	6/1/2000	5/26/2000	5/26/2000	6/1/2000	5/25/2000	6/1/2000	6/1/2000	6/1/2000
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-15-040.5N	I12-2013-011N	I12-2186-031N	I12-2186-061N	I12-2186-131N	I12-2287-011N	I12-6-041N	I12-7-021.5N	I12-7-041.5N	I12-8-011N	I12-8101-011N	I12-8271-020.5N	I12-9-011FD	I12-9-011N
			Parent ID													I12-9-011N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.650533	9.4	< 0.62	< 0.632	1.14	0.68	< 0.607	< 0.696			< 0.7	< 0.675		
Arsenic	7440-38-2	mg/kg	9.9	17.8	8.8	10.8	49.8	3.91	7.6	20.8	5.48			4.9	6.72		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.17	0.35	0.398	0.425	0.71	0.09	0.476	0.294			0.44	0.437		
Cadmium	7440-43-9	mg/kg	0.36	0.41	6.4	0.501	1.03	13.5	0.09	0.091	0.252			0.45	0.284		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	14.3	117	18.5	25.1	36.8	12.4	15	15.4			14.2	15.8		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	20.3	1500	46	190	69.3	69.7	105	471			23.4	37.5		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	54.8	5020	331	1030	157	134	226	713			41.3	48.7		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.1	0.74	0.084	0.876	0.068	0.32	0.117	1.01			0.1	0.161		
Nickel	7440-02-0	mg/kg	38	6.5	38.7	7.45	12.6	21.1	3.9	9.45	11.2			9.5	8.71		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.85	< 1.086111	1.03	0.916	1.33	0.62	0.963	0.706			0.83	1.19		
Silver	7440-22-4	mg/kg	2	< 0.325267	0.46	< 0.31	0.216	0.218	< 0.322922	< 0.304	0.166			0.08	< 0.337		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.2	4.7	< 1.03	0.745	1.81	< 1.076408	0.655	< 1.16			< 1	0.849		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	126	1770	103	431	704	42.2	70.1	140			183	148		
Moisture																	
Percent Solids	SOLID	percent		85.4	91.2	94.8	94	85.8	86	92.3	82.1	87.9	91.6	75.9	88.1	89.5	88.9
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371										< 18.1			< 18.5	< 18.7
Aroclor-1221	11104-28-2	ug/kg	371										< 18.1			< 18.5	< 18.7
Aroclor-1232	11141-16-5	ug/kg	371										< 18.1			< 18.5	< 18.7
Aroclor-1242	53469-21-9	ug/kg	371										< 18.1			< 18.5	< 18.7
Aroclor-1248	12672-29-6	ug/kg	371										< 18.1			< 18.5	< 18.7
Aroclor-1254	11097-69-1	ug/kg	371										65.6			249	132
Aroclor-1260	11096-82-5	ug/kg	371										< 36.3			< 37	< 37.5
Polychlorinated biphenyls	1336-36-3	ug/kg	371										65.6			249	132
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360				< 44	< 378		
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376								< 410						
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360				< 44	< 378		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 780.64	< 730.34	< 703	< 709	< 777	< 774.754	< 720	< 810			< 88	< 756		

Kennedy Jenks

			Location	I12-15-04	I12-2013-01	I12-2186-03	I12-2186-06	I12-2186-13	I12-2287-01	I12-6-04	I12-7-02	I12-7-04	I12-8-01	I12-8101-01	I12-8271-02	I12-9-01	I12-9-01
			Sample Date	5/31/2000	5/31/2000	6/1/2000	6/1/2000	6/1/2000	5/31/2000	6/1/2000	5/26/2000	5/26/2000	6/1/2000	5/25/2000	6/1/2000	6/1/2000	6/1/2000
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-15-040.5N	I12-2013-011N	I12-2186-031N	I12-2186-061N	I12-2186-131N	I12-2287-011N	I12-6-041N	I12-7-021.5N	I12-7-041.5N	I12-8-011N	I12-8101-011N	I12-8271-020.5N	I12-9-011FD	I12-9-011N
			Parent ID													I12-9-011N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 390	< 370	< 351	724	< 389	< 390	82.5	< 410			110	< 378		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 390	< 370	< 351	74.8	< 389	< 390	< 360				< 440	< 378		
2-Chloronaphthalene	91-58-7	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
2-Chlorophenol	95-57-8	ug/kg	243	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360				< 44	< 378		
2-Nitrotoluene	88-72-2	ug/kg									< 410						
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 780.64	< 730.34	< 703	< 709	< 777	< 774.754	< 720				< 88	< 756		
3-Nitrotoluene	99-08-1	ug/kg									< 810						
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 780.64	< 730.34	< 703	< 709	< 777	< 774.754	< 720	< 810			< 88	< 756		
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
4-Nitrophenol	100-02-7	ug/kg	7000	< 780.64	< 730.34	< 703	< 709	< 777	< 774.754	< 720				< 88	< 756		
4-Nitrotoluene	99-99-0	ug/kg									< 810						
Acenaphthene	83-32-9	ug/kg	20000	< 390.32	< 365.17	< 351	< 355	< 389	26	< 360	< 410			< 44	< 378		
Acenaphthylene	208-96-8	ug/kg	682000	40	70	< 351	107	70.8	31	< 360	20.7			< 44	< 378		
Anthracene	120-12-7	ug/kg	1480000	83	45	< 351	94.3	98.7	42	< 360	< 410			< 44	< 378		
Benzidine	92-87-5	ug/kg	1310	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	370	200	138	287	212	240	120	137			< 44	103		
Benzo[a]pyrene	50-32-8	ug/kg	1520	190	510	110	263	199	250	91.8	160			18	96		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	670	600	186	388	454	440	172	376			< 44	182		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	140	370	90.7	202	199	200	< 360	< 410			< 44	< 378		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	180	190	108	136	163	140	83.6	< 410			< 44	76.3		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	56	350	< 351	450	1260	31	< 360	60.06			< 44	< 378		
Butylbenzylphthalate	85-68-7	ug/kg	239	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Chrysene	218-01-9	ug/kg	4730	600	310	186	358	433	360	153	190			< 44	136		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Diethylphthalate	84-66-2	ug/kg	24800	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Dimethylphthalate	131-11-3	ug/kg	734000	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Di-n-butylphthalate	84-74-2	ug/kg	150	41	220	101	517	1050	< 387.377	254	43.83			< 44	56.7		
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Fluoranthene	206-44-0	ug/kg	122000	780	330	290	776	391	680	209	325			< 44	195		
Fluorene	86-73-7	ug/kg	122000	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Hexachlorobenzene	118-74-1	ug/kg	199	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Hexachloroethane	67-72-1	ug/kg	596	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	150	340	84.7	177	191	170	69.5	76.7			< 44	71.4		
Isophorone	78-59-1	ug/kg	139000	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Naphthalene	91-20-3	ug/kg	99.4	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360				< 44	< 378		
Nitrobenzene	98-95-3	ug/kg	1310	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410				< 378		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 390.32	120	< 351	122	90.6	< 387.377	< 360	< 410			< 44	< 378		
Pentachlorophenol	87-86-5	ug/kg	2100	< 780.64	< 730.34	< 703	< 709	< 777	< 774.754	< 720	< 810			< 88	< 756		
Phenanthrene	85-01-8	ug/kg	45700	88	71	147	350	94.5	370	70.2	118			34	52.2		
Phenol	108-95-2	ug/kg	30000	< 390.32	< 365.17	< 351	< 355	< 389	< 387.377	< 360	< 410			< 44	< 378		
Pyrene	129-00-0	ug/kg	78500	550	340	250	656	342	420	203	343			< 44	168		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			27800	35700			37300	25100	37800		47500	38900	25600		15700
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	I12-15-04	I12-2013-01	I12-2186-03	I12-2186-06	I12-2186-13	I12-2287-01	I12-6-04	I12-7-02	I12-7-04	I12-8-01	I12-8101-01	I12-8271-02	I12-9-01	I12-9-01
			Sample Date	5/31/2000	5/31/2000	6/1/2000	6/1/2000	6/1/2000	5/31/2000	6/1/2000	5/26/2000	5/26/2000	6/1/2000	5/25/2000	6/1/2000	6/1/2000	6/1/2000
			Sample Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-15-040.5N	I12-2013-011N	I12-2186-031N	I12-2186-061N	I12-2186-131N	I12-2287-011N	I12-6-041N	I12-7-021.5N	I12-7-041.5N	I12-8-011N	I12-8101-011N	I12-8271-020.5N	I12-9-011FD	I12-9-011N
			Parent ID													I12-9-011N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280								< 410						
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050								< 410						
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I12-9110-03	I12-9110-04	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-05	I6-8171-01	I6-8171-04	I6-8171-04	I6-8171-06
			Sample Date	5/31/2000	5/31/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I12-9110-031N	I12-9110-041N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-050.5N	I6-8171-010.5N	I6-8171-041N	I6-8171-040.5N	I6-8171-060.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 24		< 25		< 25		< 25	< 25		< 25		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 24		< 25		< 25		< 25	270		< 25		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 24		< 25		< 25		< 25	220		< 25		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8									< 250	< 250				
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 24		< 25		< 25		< 25	< 25		< 25		
2-Nitrotoluene	88-72-2	ug/kg				< 48		< 50		< 50		< 50	< 50		< 50		
3-Nitrotoluene	99-08-1	ug/kg				< 48		< 50		< 50		< 50	< 50		< 50		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 24		< 25		< 25		< 25	< 25		< 25		
4-Nitrotoluene	99-99-0	ug/kg				< 48		< 50		< 50		< 50	< 50		< 50		
Nitrobenzene	98-95-3	ug/kg	1310			< 24		< 25		< 25		< 25	150		< 25		
Nitrocellulose	9004-70-0	ug/kg				< 36000		< 40000		64300		83300	490000		52300		
Nitroglycerin	55-63-0	ug/kg	65000			< 560		< 570		< 640		16000	220000		< 630		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 48		< 50		< 50		< 50	< 50		< 50		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 48		< 50		< 50		< 50	< 50		< 50		
Tetryl	479-45-8	ug/kg	25000			< 48		< 50		< 50		< 50	< 50		< 50		
GenChem																	
pH	pH	su		4.99	4.79												
Grain Size																	
Clay	Clay	%				5						5.7					
Gravel	Gravel	%				48.7						49.3					
Sand	Sand	%				32.9						29.8					
Silt	Silt	%				13.3						15.2					
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%		95.4													
Sieve Size #10 - Percent Finer	SIEVE_#010	%		81.8													
Sieve Size #100 - Percent Finer	SIEVE_#100	%		39.4													
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%		72													
Sieve Size #200 - Percent Finer	SIEVE_#200	%		30.4													
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%		88.1													
Sieve Size #40 - Percent Finer	SIEVE_#040	%		60.4													
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%		49.1													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%		100													
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I12-9110-03	I12-9110-04	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-05	I6-8171-01	I6-8171-04	I6-8171-04	I6-8171-06
			Sample Date	5/31/2000	5/31/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I12-9110-031N	I12-9110-041N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-050.5N	I6-8171-010.5N	I6-8171-041N	I6-8171-040.5N	I6-8171-060.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.55	0.53	< 0.6		< 0.6		< 0.7		< 0.6			< 0.7		
Arsenic	7440-38-2	mg/kg	9.9	9.6	6.8	5.1		45.8		3.5		105			24.3		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.29	0.14	0.55		0.06		0.51		0.5			0.64		
Cadmium	7440-43-9	mg/kg	0.36	< 0.474116	< 0.329968	0.79		0.52		0.93		0.76			0.46		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	31.3	17.9	15.8		30.1		15.6		24.7			15.7		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	57.2	31.1	32.9		28		35.9		37.3			79.9		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	241	133	167		739		130		350			45.2		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.26	0.1	307		4.6		10.8		0.36			0.43		
Nickel	7440-02-0	mg/kg	38	18.2	8.1	7.1		3.7		12.3		9.2			7.5		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.65	< 0.549947	0.57		< 0.5		0.79		0.97			< 0.6		
Silver	7440-22-4	mg/kg	2	< 0.474116	< 0.329968	< 0.3		< 0.3		< 0.3		< 0.3			< 0.3		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	2.3	0.3	< 1		< 1		< 1		< 1			1.1		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	80	37.4	93		98.3		273		121			550		
Moisture																	
Percent Solids	SOLID	percent		85	85	87.2		87.1		77.6		83.5	82.4		78.8		
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 783.378	< 784.068	< 77		< 77		< 85					< 840		

			Location	I12-9110-03	I12-9110-04	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-05	I6-8171-01	I6-8171-04	I6-8171-04	I6-8171-06
			Sample Date	5/31/2000	5/31/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I12-9110-031N	I12-9110-041N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-050.5N	I6-8171-010.5N	I6-8171-041N	I6-8171-040.5N	I6-8171-060.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 390	< 390	< 380		< 380		< 430					< 4200		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 390	< 390	< 380		< 380		< 430					< 4200		
2-Chloronaphthalene	91-58-7	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2-Chlorophenol	95-57-8	ug/kg	243	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 783.378	< 784.068	< 77		< 77		< 85					< 840		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 783.378	< 784.068	< 77		< 77		< 85					< 840		
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
4-Nitrophenol	100-02-7	ug/kg	7000	< 783.378	< 784.068	< 77		< 77		< 85					< 840		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 391.689	< 392.034	< 38		< 38		< 43					15000		
Acenaphthylene	208-96-8	ug/kg	682000	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Anthracene	120-12-7	ug/kg	1480000	< 391.689	< 392.034	< 38		< 38		< 43					19000		
Benzidine	92-87-5	ug/kg	1310	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	74	85	40		< 38		< 43					46000		
Benzo[a]pyrene	50-32-8	ug/kg	1520	64	140	33		< 38		< 43					39000		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	180	240	65		< 38		< 43					51000		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 391.689	87	< 38		< 38		< 43					18000		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 391.689	< 392.034	< 38		< 38		< 43					18000		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	35	24	21		25		< 43					920		
Butylbenzylphthalate	85-68-7	ug/kg	239	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Chrysene	218-01-9	ug/kg	4730	130	210	120		< 38		< 43					40000		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 391.689	< 392.034	< 38		< 38		< 43					5300		
Diethylphthalate	84-66-2	ug/kg	24800	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Dimethylphthalate	131-11-3	ug/kg	734000	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Di-n-butylphthalate	84-74-2	ug/kg	150	< 391.689	< 392.034	54		< 38		< 43					< 420		
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Fluoranthene	206-44-0	ug/kg	122000	150	570	< 38		< 38		< 43					87000		
Fluorene	86-73-7	ug/kg	122000	< 391.689	< 392.034	< 38		< 38		< 43					11000		
Hexachlorobenzene	118-74-1	ug/kg	199	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Hexachloroethane	67-72-1	ug/kg	596	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 391.689	80	< 38		< 38		< 43					17000		
Isophorone	78-59-1	ug/kg	139000	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Naphthalene	91-20-3	ug/kg	99.4	< 391.689	28	< 38		< 38		< 43					3000		
Nitrobenzene	98-95-3	ug/kg	1310	< 391.689	< 392.034												
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Pentachlorophenol	87-86-5	ug/kg	2100	< 783.378	< 784.068	< 77		< 77		< 85					< 840		
Phenanthrene	85-01-8	ug/kg	45700	58	430	98		< 38		< 43					79000		
Phenol	108-95-2	ug/kg	30000	< 391.689	< 392.034	< 38		< 38		< 43					< 420		
Pyrene	129-00-0	ug/kg	78500	< 391.689	440	< 38		< 38		< 43					77000		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		41800		18400						13500					
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127				< 53		< 53		< 52			< 52		< 54	< 56

			Location	I12-9110-03	I12-9110-04	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-05	I6-8171-01	I6-8171-04	I6-8171-04	I6-8171-06
			Sample Date	5/31/2000	5/31/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I12-9110-031N	I12-9110-041N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-050.5N	I6-8171-010.5N	I6-8171-041N	I6-8171-040.5N	I6-8171-060.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
1,1-Dichloroethane	75-34-3	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 53		< 53		< 52			< 52		< 54	< 56
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 534		< 530		< 521			< 525		< 544	< 568
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 534		< 530		< 521			< 525		< 544	< 568
1,2-Dichloroethane	107-06-2	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
1,2-Dichloropropane	78-87-5	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 534		< 530		< 521			< 525		< 544	< 568
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 534		< 530		< 521			< 525		< 544	< 568
2-Chloroethylvinylether	110-75-8	ug/kg					< 106		< 105		< 104			< 105		< 108	< 113
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270				< 213		< 211		< 208			< 210		< 217	< 227
Acrylonitrile	107-13-1	ug/kg	23.9				< 53		< 53		< 52			< 52		< 54	< 56
Benzene	71-43-2	ug/kg	255				< 53		< 53		< 52			< 52		< 54	< 56
Bromodichloromethane	75-27-4	ug/kg	540				< 53		< 53		< 52			< 52		< 54	< 56
Bromoform	75-25-2	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
Bromomethane	74-83-9	ug/kg	235				< 106		< 105		< 104			< 105		< 108	< 113
Carbon Tetrachloride	56-23-5	ug/kg	2980				< 53		< 53		< 52			< 52		< 54	< 56
Chlorobenzene	108-90-7	ug/kg	13100				< 53		< 53		< 52			< 52		< 54	< 56
Chloroethane	75-00-3	ug/kg					< 106		< 105		< 104			< 105		< 108	< 113
Chloroform	67-66-3	ug/kg	1190				< 53		< 53		< 52			< 52		< 54	< 56
Chloromethane	74-87-3	ug/kg	10400				< 106		< 105		< 104			208		159	143
cis-1,2-Dichloroethene	156-59-2	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050				< 53		< 53		< 52			< 52		< 54	< 56
Ethylbenzene	100-41-4	ug/kg	5160				< 53		< 53		< 52			< 52		< 54	< 56
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 534		< 530		< 521			< 525		< 544	< 568
Methylene Chloride	75-09-2	ug/kg	4050				< 53		< 53		< 52			< 52		< 54	< 56
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920				< 53		< 53		< 52			< 52		< 54	< 56
Toluene	108-88-3	ug/kg	200000				< 53		< 53		< 52			116		< 54	< 56
trans-1,2-Dichloroethene	156-60-5	ug/kg					< 53		< 53		< 52			< 52		< 54	< 56
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400				< 53		< 53		< 52			124		< 54	< 56
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646				< 106		< 105		< 104			< 105		< 108	< 113
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8173-01	I6-8175-04	I6-8175-04	I6-8181-01	I6-8184-02	I7-13-01	I7-13-02	I7-15-05	I7-15-05	I7-2124-04
			Sample Date	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/6/2000	4/4/2000	4/4/2000	4/13/2000	4/6/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8173-010.5N	I6-8175-041FD	I6-8175-041N	I6-8181-010.5N	I6-8184-021.5N	I7-13-011N	I7-13-021N	I7-15-051.5FD	I7-15-051.5N	I7-2124-041.5N
			Parent ID						I6-8175-041N						I7-15-051.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25							< 25	< 25			< 250	< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25							< 25	< 25			< 250	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25							< 25	< 25			170	250	1100
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25							< 25	< 25			< 250	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50							< 50	< 50			< 500	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50							< 50	< 50			< 500	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25							< 25	< 25			< 250	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50							< 50	< 50			< 500	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25							< 25	< 25			< 250	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		704000							< 41000	83200			693000	220000	79300
Nitroglycerin	55-63-0	ug/kg	65000	< 570							< 630	< 650			16000	21000	10000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50							< 50	< 50			< 500	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50							< 50	< 50			< 500	< 50	< 50
Tetryl	479-45-8	ug/kg	25000	< 50							< 50	< 50			< 500	< 50	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%				7.7		9.4		9.6	8.2	10.1	11.9			5.9	1.9
Gravel	Gravel	%				51.2		35.2		36.6	40.6	38.9	24.2			40	75.6
Sand	Sand	%				26.5		33.4		38.5	26.3	24.2	33.5			36.1	12.3
Silt	Silt	%				14.7		22		15.2	24.9	26.9	30.3			18	10.2
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8173-01	I6-8175-04	I6-8175-04	I6-8181-01	I6-8184-02	I7-13-01	I7-13-02	I7-15-05	I7-15-05	I7-2124-04
			Sample Date	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/6/2000	4/4/2000	4/4/2000	4/13/2000	4/6/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8173-010.5N	I6-8175-041FD	I6-8175-041N	I6-8181-010.5N	I6-8184-021.5N	I7-13-011N	I7-13-021N	I7-15-051.5FD	I7-15-051.5N	I7-2124-041.5N
			Parent ID						I6-8175-041N						I7-15-051.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6		< 0.6		< 0.7	< 0.74	< 1	< 0.7	0.64			< 0.63	< 0.6	< 0.6
Arsenic	7440-38-2	mg/kg	9.9	52.9		26.4		6	5	7.4	7.1	3.9			11.3	11.9	6.4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.69		0.72		0.61	0.45	0.67	0.59	0.54			0.6	0.6	0.59
Cadmium	7440-43-9	mg/kg	0.36	0.45		1.4		< 0.3	0.3	0.63	0.89	1			0.35	0.3	0.34
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	44.1		28.6		17.6	9.7	13.6	18.4	14.3			39.6	39.8	16
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	20.3		13.6		9.7	7.7	7.4	7.2	23.5			14.9	15.5	18.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	39.1		35		16.3	104	70.8	16.3	1860			15.9	16.4	57.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.32		0.09		0.17	0.12	0.12	0.11	2.6			0.06	0.07	15.2
Nickel	7440-02-0	mg/kg	38	20.2		13.1		9.7	3.8	5.4	8.4	10.7			6.9	7.3	9.1
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.66		0.79		< 0.6	0.5	0.76	0.66	0.59			0.83	0.7	0.86
Silver	7440-22-4	mg/kg	2	< 0.3		0.35		< 0.3	< 0.37	< 0.6	< 0.3	< 0.3			< 0.32	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.6		< 1		1.7	< 1.2	< 2	< 1	< 1			< 1.1	< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	123		221		77.1	274	302	84.3	118			120	120	113
Moisture																	
Percent Solids	SOLID	percent		87.4		83		78.9	79.7	77.1	79.2	77	79.2	82	85	83	81.8
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371										< 2	< 2			
Aroclor-1221	11104-28-2	ug/kg	371										< 2	< 2			
Aroclor-1232	11141-16-5	ug/kg	371										< 2	< 2			
Aroclor-1242	53469-21-9	ug/kg	371										< 2	< 2			
Aroclor-1248	12672-29-6	ug/kg	371										< 2	< 2			
Aroclor-1254	11097-69-1	ug/kg	371										< 2	< 2			
Aroclor-1260	11096-82-5	ug/kg	371										< 4	< 4			
Polychlorinated biphenyls	1336-36-3	ug/kg	371										< 43	< 41			
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 77		< 800		< 84	< 830	< 87	< 84	< 87			< 780	< 80	< 81

			Location	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8173-01	I6-8175-04	I6-8175-04	I6-8181-01	I6-8184-02	I7-13-01	I7-13-02	I7-15-05	I7-15-05	I7-2124-04
			Sample Date	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/6/2000	4/4/2000	4/4/2000	4/13/2000	4/6/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8173-010.5N	I6-8175-041FD	I6-8175-041N	I6-8181-010.5N	I6-8184-021.5N	I7-13-011N	I7-13-021N	I7-15-051.5FD	I7-15-051.5N	I7-2124-041.5N
			Parent ID						I6-8175-041N						I7-15-051.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 380		< 4000		< 420	< 420	< 430	< 420	< 430			82	95	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 380		< 4000		< 420	< 420	< 430	< 420	< 430			< 390	< 400	< 410
2-Chloronaphthalene	91-58-7	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2-Chlorophenol	95-57-8	ug/kg	243	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 77		< 800		< 84	< 830	< 87	< 84	< 87			< 780	< 80	< 81
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 77		< 800		< 84	< 830	< 87	< 84	< 87			< 780	< 80	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
4-Nitrophenol	100-02-7	ug/kg	7000	< 77		< 800		< 84	< 830	< 87	< 84	< 87			< 780	< 80	< 81
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	43		2700		170	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Acenaphthylene	208-96-8	ug/kg	682000	< 38		< 400		< 42	< 420	< 43	< 42	< 43			18	< 40	< 41
Anthracene	120-12-7	ug/kg	1480000	34		2600		480	< 420	< 43	< 42	< 43			58	32	< 41
Benzidine	92-87-5	ug/kg	1310	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	120		6100		1800	< 420	39	< 42	< 43			230	150	63
Benzo[a]pyrene	50-32-8	ug/kg	1520	110		4100		1400	32	26	< 42	< 43			170	130	59
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	140		5600		1800	< 420	< 43	< 42	< 43			230	210	85
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 38		1900		640	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 38		2200		630	< 420	< 43	< 42	< 43			110	< 40	< 41
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	990		< 400		< 42	21	24	< 42	54			26	< 40	28
Butylbenzylphthalate	85-68-7	ug/kg	239	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Chrysene	218-01-9	ug/kg	4730	110		3900		1400	43	< 43	< 42	43			190	160	60
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 38		< 400		200	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Diethylphthalate	84-66-2	ug/kg	24800	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	41	< 41
Dimethylphthalate	131-11-3	ug/kg	734000	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Di-n-butylphthalate	84-74-2	ug/kg	150	< 38		< 400		< 42	< 420	< 43	70	74			93	110	55
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Fluoranthene	206-44-0	ug/kg	122000	240		10000		2800	73	< 43	< 42	< 43			350	260	100
Fluorene	86-73-7	ug/kg	122000	< 38		1500		200	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Hexachlorobenzene	118-74-1	ug/kg	199	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Hexachloroethane	67-72-1	ug/kg	596	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 38		1800		600	< 420	< 43	< 42	< 43			76	< 40	< 41
Isophorone	78-59-1	ug/kg	139000	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Naphthalene	91-20-3	ug/kg	99.4	< 38		980		78	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Nitrobenzene	98-95-3	ug/kg	1310			< 400		< 42	< 420	< 43							
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 38		< 400		< 42	< 420	< 43	< 42	< 43			370	320	86
Pentachlorophenol	87-86-5	ug/kg	2100	< 77		< 800		< 84	< 830	< 87	< 84	< 87			< 780	< 80	< 81
Phenanthrene	85-01-8	ug/kg	45700	140		9200		1300	34	< 43	< 42	33			210	130	71
Phenol	108-95-2	ug/kg	30000	< 38		< 400		< 42	< 420	< 43	< 42	< 43			< 390	< 40	< 41
Pyrene	129-00-0	ug/kg	78500	200		10000		2000	< 420	< 43	< 42	< 43			380	230	110
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				24500		34600		12400	22600	56000	37600			32700	20300
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 51		< 58										
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 51		< 58										

			Location	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8173-01	I6-8175-04	I6-8175-04	I6-8181-01	I6-8184-02	I7-13-01	I7-13-02	I7-15-05	I7-15-05	I7-2124-04
			Sample Date	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/6/2000	4/4/2000	4/4/2000	4/13/2000	4/6/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8173-010.5N	I6-8175-041FD	I6-8175-041N	I6-8181-010.5N	I6-8184-021.5N	I7-13-011N	I7-13-021N	I7-15-051.5FD	I7-15-051.5N	I7-2124-041.5N
			Parent ID						I6-8175-041N						I7-15-051.5N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 51		< 58										
1,1-Dichloroethane	75-34-3	ug/kg			< 51		< 58										
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 51		< 58										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 512		< 584										
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 512		< 584										
1,2-Dichloroethane	107-06-2	ug/kg			< 51		< 58										
1,2-Dichloropropane	78-87-5	ug/kg			< 51		< 58										
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 512		< 584										
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 512		< 584										
2-Chloroethylvinylether	110-75-8	ug/kg			< 102		< 116										
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 204		< 233										
Acrylonitrile	107-13-1	ug/kg	23.9		< 51		< 58										
Benzene	71-43-2	ug/kg	255		< 51		< 58										
Bromodichloromethane	75-27-4	ug/kg	540		< 51		< 58										
Bromoform	75-25-2	ug/kg			< 51		< 58										
Bromomethane	74-83-9	ug/kg	235		< 102		< 116										
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 51		< 58										
Chlorobenzene	108-90-7	ug/kg	13100		< 51		< 58										
Chloroethane	75-00-3	ug/kg			< 102		< 116										
Chloroform	67-66-3	ug/kg	1190		< 51		< 58										
Chloromethane	74-87-3	ug/kg	10400		216		< 116										
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 51		< 58										
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 51		< 58										
Ethylbenzene	100-41-4	ug/kg	5160		< 51		< 58										
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 512		< 584										
Methylene Chloride	75-09-2	ug/kg	4050		< 51		< 58										
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 51		< 58										
Toluene	108-88-3	ug/kg	200000		< 51		< 58										
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 51		< 58										
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		316		< 58										
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 102		< 116										
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-567-01	I7-8181-01	I7-B59-02
			Sample Date	4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	4/27/2000	4/28/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
			Sample ID	I7-2124A-051.5FD	I7-2124A-051.5N	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25FD	I7-5-031.25N	I7-5-030.5FD	I7-5-030.5N	I7-566-021.5N	I7-567-011.5N	I7-8181-010.5N	I7-B59-021.25N
			Parent ID	I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250	< 25	< 25	< 25	< 25	< 25					< 25	< 25		< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250	< 25	< 25	< 25	< 25	< 25					< 25	< 25		< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250	< 25	1200	< 25	< 25	< 25					390	< 25		600
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 250													
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250	< 250									< 250	< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250	< 25	< 25	< 25	< 25	< 25					< 25	< 25		< 25
2-Nitrotoluene	88-72-2	ug/kg		< 500	< 50	< 50	< 50	< 50	< 50					< 50	< 50		< 50
3-Nitrotoluene	99-08-1	ug/kg		< 500	< 50	< 50	< 50	< 50	< 50					< 50	< 50		< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250	< 25	< 25	< 25	< 25	< 25					< 25	< 25		< 25
4-Nitrotoluene	99-99-0	ug/kg		< 500	< 50	< 50	< 50	< 50	< 50					< 50	< 50		< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 250	< 25	< 25	< 25	< 25	< 25					< 25	< 25		< 25
Nitrocellulose	9004-70-0	ug/kg		< 38100	< 39000	1970000	1680000	306000	62800					714000	94600		1540000
Nitroglycerin	55-63-0	ug/kg	65000	< 5500	< 560	< 630	28000	< 690	< 700					42000	< 610		87000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500	< 50	< 50	< 50	< 50	< 50					< 50	< 50		< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500	< 50	< 50	740	< 50	< 50					< 50	< 50		< 50
Tetryl	479-45-8	ug/kg	25000	< 500	< 50	< 50	< 50	< 50	< 50					< 50	< 50		< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%				0	5.4	20.9	11.7		0			9.7	5.1		4.7
Gravel	Gravel	%				34.2	30.1	12	0.9		33.7			38.5	57.4		18.4
Sand	Sand	%				32.5	40.7	31.9	30		40.3			38.3	27.9		63.8
Silt	Silt	%				33.3	23.8	35.2	57.5		26			13.5	9.7		13.1
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-567-01	I7-8181-01	I7-B59-02
			Sample Date	4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	4/27/2000	4/28/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
			Sample ID	I7-2124A-051.5FD	I7-2124A-051.5N	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25FD	I7-5-031.25N	I7-5-030.5FD	I7-5-030.5N	I7-566-021.5N	I7-567-011.5N	I7-8181-010.5N	I7-B59-021.25N
			Parent ID	I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 1	< 0.6	< 0.7	< 0.7	6.6	5.1						< 0.6
Arsenic	7440-38-2	mg/kg	9.9			12.1	6.5	6.8	3.6	675	562						34.8
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.66	0.35	0.86	0.64	0.4	0.46						0.35
Cadmium	7440-43-9	mg/kg	0.36			1.3	0.36	0.3	0.27	< 0.37	< 0.3						0.26
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			28.2	16.7	16.9	15.2	27.3	25.7						35.8
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			33.6	28.3	12.7	9.6	48.4	40.9						16.8
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			64	32.7	27.3	16.3	81.4	67.5						11.3
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.14	0.08	0.09	0.1	0.12	0.12						0.05
Nickel	7440-02-0	mg/kg	38			12.4	7.2	6.8	6.5	15.7	13.6						5.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			64	0.53	1.4	0.9	< 0.62	0.47						< 0.6
Silver	7440-22-4	mg/kg	2			< 0.7	< 0.3	< 0.3	< 0.4	< 0.37	< 0.3						< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 2	< 1	< 1	< 1	< 1.2	< 1						< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			566	96.5	104	95	70.5	66						45.7
Moisture																	
Percent Solids	SOLID	percent		90.7	89.1	79	83.4	72.5	71.5	76.7	87.8			86.5	80.3		87.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 42	< 40	< 46	< 46								< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 42	< 40	< 46	< 46								< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 42	< 40	< 46	< 46								< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 42	< 40	< 46	< 46								< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 42	< 40	< 46	< 46								< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 42	< 40	< 46	< 46								< 38
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 42	< 40	< 46	< 46								< 38
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 42	< 40	< 46	< 46								< 38
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 84	< 80	< 93	< 93								< 77

			Location	I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-567-01	I7-8181-01	I7-B59-02
			Sample Date	4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	4/27/2000	4/28/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
			Sample ID	I7-2124A-051.5FD	I7-2124A-051.5N	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25FD	I7-5-031.25N	I7-5-030.5FD	I7-5-030.5N	I7-566-021.5N	I7-567-011.5N	I7-8181-010.5N	I7-B59-021.25N
			Parent ID	I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			6200	8600	39	< 460								870
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			330	650	< 460	< 460								43
2-Chloronaphthalene	91-58-7	ug/kg				< 42	< 40	< 46	< 46								< 38
2-Chlorophenol	95-57-8	ug/kg	243			< 42	< 40	< 46	< 46								< 38
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 42	< 40	< 46	< 46								< 38
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 84	< 80	< 93	< 93								< 77
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 84	< 80	< 93	< 93								< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 42	< 40	< 46	< 46								< 38
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 42	< 40	< 46	< 46								< 38
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 42	< 40	< 46	< 46								< 38
4-Nitrophenol	100-02-7	ug/kg	7000			< 84	< 80	< 93	< 93								< 77
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 42	< 40	< 46	< 46								< 38
Acenaphthylene	208-96-8	ug/kg	682000			< 42	< 40	< 46	< 46								< 38
Anthracene	120-12-7	ug/kg	1480000			< 42	< 40	< 46	< 46								< 38
Benzidine	92-87-5	ug/kg	1310			< 42	< 40	< 46	< 46								< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			< 42	< 40	< 46	< 46								34
Benzo[a]pyrene	50-32-8	ug/kg	1520			< 42	24	< 46	< 46								28
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			< 42	< 40	< 46	< 46								< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			< 42	< 40	< 46	< 46								< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 42	< 40	< 46	< 46								< 38
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 42	< 40	< 46	< 46								< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 42	< 40	< 46	< 46								< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 42	< 40	< 46	< 46								< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			< 42	38	< 46	25								25
Butylbenzylphthalate	85-68-7	ug/kg	239			< 42	< 40	< 46	< 46								< 38
Chrysene	218-01-9	ug/kg	4730			< 42	39	< 46	< 46								44
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 42	< 40	< 46	< 46								< 38
Diethylphthalate	84-66-2	ug/kg	24800			< 42	< 40	< 46	< 46								160
Dimethylphthalate	131-11-3	ug/kg	734000			< 42	< 40	< 46	< 46								< 38
Di-n-butylphthalate	84-74-2	ug/kg	150			930	12000	1300	95								260
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 42	< 40	< 46	< 46								< 38
Fluoranthene	206-44-0	ug/kg	122000			< 42	< 40	< 46	< 46								< 38
Fluorene	86-73-7	ug/kg	122000			< 42	< 40	< 46	< 46								< 38
Hexachlorobenzene	118-74-1	ug/kg	199			< 42	< 40	< 46	< 46								< 38
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 42	< 40	< 46	< 46								< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 42	< 40	< 46	< 46								< 38
Hexachloroethane	67-72-1	ug/kg	596			< 42	< 40	< 46	< 46								< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			< 42	< 40	< 46	< 46								< 38
Isophorone	78-59-1	ug/kg	139000			< 42	< 40	< 46	< 46								< 38
Naphthalene	91-20-3	ug/kg	99.4			< 42	< 40	< 46	< 46								< 38
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 42	< 40	< 46	< 46								< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 42	< 40	< 46	< 46								< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			280	1300	< 46	< 46								1600
Pentachlorophenol	87-86-5	ug/kg	2100			< 84	< 80	< 93	< 93								< 77
Phenanthrene	85-01-8	ug/kg	45700			< 42	< 40	< 46	< 46								< 38
Phenol	108-95-2	ug/kg	30000			< 42	< 40	< 46	< 46								< 38
Pyrene	129-00-0	ug/kg	78500			< 42	< 40	< 46	< 46								< 38
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				43600	34600	40000	42900		26300			27300	67200		18700
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg										< 610	< 63			< 55	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127									< 610	< 63			< 55	

			Location	I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-567-01	I7-8181-01	I7-B59-02
			Sample Date	4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	4/27/2000	4/28/2000	4/20/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
			Sample ID	I7-2124A-051.5FD	I7-2124A-051.5N	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25FD	I7-5-031.25N	I7-5-030.5FD	I7-5-030.5N	I7-566-021.5N	I7-567-011.5N	I7-8181-010.5N	I7-B59-021.25N
			Parent ID	I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg										< 610	< 63			< 55	
1,1-Dichloroethane	75-34-3	ug/kg										< 610	< 63			< 55	
1,1-Dichloroethene	75-35-4	ug/kg	8280									< 610	< 63			< 55	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000									< 610	< 63			< 550	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960									< 610	< 63			< 550	
1,2-Dichloroethane	107-06-2	ug/kg										< 610	< 63			< 55	
1,2-Dichloropropane	78-87-5	ug/kg										< 610	< 63			< 55	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700									< 610	< 63			< 550	
1,4-Dichlorobenzene	106-46-7	ug/kg	546									< 610	< 63			< 550	
2-Chloroethylvinylether	110-75-8	ug/kg										< 1200	< 130			< 110	
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270									< 2500	< 250			< 220	
Acrylonitrile	107-13-1	ug/kg	23.9									< 610	< 63			< 55	
Benzene	71-43-2	ug/kg	255									< 610	< 63			< 55	
Bromodichloromethane	75-27-4	ug/kg	540									< 610	< 63			< 55	
Bromoform	75-25-2	ug/kg										< 610	< 63			< 55	
Bromomethane	74-83-9	ug/kg	235									< 1200	< 130			< 110	
Carbon Tetrachloride	56-23-5	ug/kg	2980									< 610	< 63			< 55	
Chlorobenzene	108-90-7	ug/kg	13100									< 610	< 63			< 55	
Chloroethane	75-00-3	ug/kg										< 1200	< 130			< 110	
Chloroform	67-66-3	ug/kg	1190									200	210			180	
Chloromethane	74-87-3	ug/kg	10400									< 1200	< 130			< 110	
cis-1,2-Dichloroethene	156-59-2	ug/kg										< 610	< 63			< 55	
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050									< 610	< 63			< 55	
Ethylbenzene	100-41-4	ug/kg	5160									< 610	< 63			< 55	
Hexachlorobutadiene	87-68-3	ug/kg	39.8									< 610	< 63			< 550	
Methylene Chloride	75-09-2	ug/kg	4050									820	780			830	
Naphthalene	91-20-3	ug/kg	99.4									< 610	< 63				
Tetrachloroethene	127-18-4	ug/kg	9920									< 610	< 63			< 55	
Toluene	108-88-3	ug/kg	200000									< 610	< 63			< 55	
trans-1,2-Dichloroethene	156-60-5	ug/kg										< 610	< 63			< 55	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400									< 610	< 63			< 55	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646									< 1200	< 130			< 110	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I8-2170-05	I8-2299-05	I8-2332-02	I8-2333-02	I8-2405-01	I8-2405-05	I8-2405A-02	I8-2409-01	I8-525-03	I8-560-03	I8-588E-03	I8-588E-06	I8-8236-01	I8-9334-01
			Sample Date	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/20/2000	4/20/2000	4/27/2000	4/20/2000	4/20/2000	4/25/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	I8-2170-051N	I8-2299-051N	I8-2332-021.5N	I8-2333-021N	I8-2405-011N	I8-2405-050.5N	I8-2405A-021N	I8-2409-011N	I8-525-030.5N	I8-560-031.5N	I8-588E-031N	I8-588E-061N	I8-8236-011.25N	I8-9334-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250	< 238	< 25		< 250	< 250	< 25		< 250	< 25	< 250	< 250		< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250	< 238	< 25		< 250	< 250	< 25		< 250	< 25	< 250	< 250		< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250	< 238	< 25		< 250	< 250	< 25		< 250	< 25	< 250	< 250		1400
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8											< 250	< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250	< 238	< 25		< 250	< 250	< 25		< 250	< 25	< 250	< 250		< 25
2-Nitrotoluene	88-72-2	ug/kg		< 500	< 476	< 50		< 500	< 500	< 50		< 500	< 50	< 500	< 500		< 50
3-Nitrotoluene	99-08-1	ug/kg		< 500	< 476	< 50		< 500	< 500	< 50		< 500	< 50	< 500	< 500		< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250	< 238	< 25		< 250	< 250	< 25		< 250	< 25	< 250	< 250		< 25
4-Nitrotoluene	99-99-0	ug/kg		< 500	< 476	< 50		< 500	< 500	< 50		< 500	< 50	< 500	< 500		< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 250	< 238	< 25		< 250	< 250	< 25		< 250	< 25	< 250	< 250		< 25
Nitrocellulose	9004-70-0	ug/kg		139000	< 34000	< 34000		85200	524000	< 42000		79000	65600	139000	91400		7050000
Nitroglycerin	55-63-0	ug/kg	65000	73000	< 560	< 580		7400	7800	3600		17000	< 680	< 680	< 660		200000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500	< 476	< 50		< 500	< 500	< 50		< 500	< 50	< 500	< 500		< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500	< 476	< 50		< 500	< 500	< 50		< 500	< 50	< 500	< 500		< 50
Tetryl	479-45-8	ug/kg	25000	< 500	< 476	< 50		< 500	< 500	< 50		< 500	< 50	< 500	< 500		< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		7.6	10.9	10.1	6.9	7.4		10.1	8.5	9.4	0	5.2		3.3	23.7
Gravel	Gravel	%		35.6	26.6	36.2	36.1	31.5		23.4	27.9	27.2	2.3	23.6		49.2	7.9
Sand	Sand	%		39.6	42.2	34.6	40.6	47.6		45	19.8	46.3	34.6	42.4		29.9	37.1
Silt	Silt	%		17.2	20.3	19.1	16.4	13.4		21.5	43.7	17.2	63.2	28.8		17.6	31.3
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I8-2170-05	I8-2299-05	I8-2332-02	I8-2333-02	I8-2405-01	I8-2405-05	I8-2405A-02	I8-2409-01	I8-525-03	I8-560-03	I8-588E-03	I8-588E-06	I8-8236-01	I8-9334-01
			Sample Date	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/20/2000	4/20/2000	4/27/2000	4/20/2000	4/20/2000	4/25/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	I8-2170-051N	I8-2299-051N	I8-2332-021.5N	I8-2333-021N	I8-2405-011N	I8-2405-050.5N	I8-2405A-021N	I8-2409-011N	I8-525-030.5N	I8-560-031.5N	I8-588E-031N	I8-588E-061N	I8-8236-011.25N	I8-9334-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	< 0.5	< 0.6	20.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.7	1.3	5.1	< 0.7	< 0.8
Arsenic	7440-38-2	mg/kg	9.9	4	3.7	3.3	6	5.2	6.1	4.6	3.7	9.3	7.1	8.1	6.8	14.5	15.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.51	0.74	0.65	0.68	0.49	0.43	0.68	0.54	0.52	1.3	0.88	0.63	0.58	0.82
Cadmium	7440-43-9	mg/kg	0.36	0.24	< 0.2	0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.79	0.53	< 0.3	2.1	0.77
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	15.5	24.8	15.6	22.5	15.2	13.5	18.3	15.8	15.6	23.4	22.3	19.1	19.9	21
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.7	40.5	17.1	39	21.6	22.2	25.8	23.1	29.4	24	158	70	74.7	56.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	34.7	6.1	8	17.7	59.1	50.4	8.4	8.2	64.4	22.3	3520	6080	253	76.7
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.1	0.06	0.05	0.07	0.03	0.05	0.02	0.06	0.04	0.22	13.4	0.2	0.32	0.25
Nickel	7440-02-0	mg/kg	38	9	13.5	11.2	13	8	7.3	11	9.1	9	9.2	12.7	15.4	13.2	11.2
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.56	< 0.4	0.47	< 0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.9	1.2	0.94	0.86	1.4
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.29	0.29	0.43	0.24	< 0.4
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	0.91	< 1	< 1	0.72	< 1	1.3	0.69	0.6	< 1	< 1	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	127	43.5	83	61.2	64	61.1	68.8	51	79.4	136	271	72.5	636	127
Moisture																	
Percent Solids	SOLID	percent		82.8	89	86.2	80.7	84.1	87.6	85	86.5	87.2	73.9	74	77.5	82	73.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 80	< 75	< 78	< 82	< 79	< 76	< 78	< 78	< 770	< 90			< 81	< 90

			Location	I8-2170-05	I8-2299-05	I8-2332-02	I8-2333-02	I8-2405-01	I8-2405-05	I8-2405A-02	I8-2409-01	I8-525-03	I8-560-03	I8-588E-03	I8-588E-06	I8-8236-01	I8-9334-01
			Sample Date	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/20/2000	4/20/2000	4/27/2000	4/20/2000	4/20/2000	4/25/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	I8-2170-051N	I8-2299-051N	I8-2332-021.5N	I8-2333-021N	I8-2405-011N	I8-2405-050.5N	I8-2405A-021N	I8-2409-011N	I8-525-030.5N	I8-560-031.5N	I8-588E-031N	I8-588E-061N	I8-8236-011.25N	I8-9334-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 400	< 370	< 390	< 410	< 400	< 380	< 390	< 390	< 3800	< 450			85	43
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 400	< 370	< 390	< 410	< 400	< 380	< 390	< 390	< 3800	< 450			< 410	< 450
2-Chloronaphthalene	91-58-7	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2-Chlorophenol	95-57-8	ug/kg	243	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 80	< 75	< 78	< 82	< 79	< 76	< 78	< 78	< 770	< 90			< 81	< 90
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 80	< 75	< 78	< 82	< 79	< 76	< 78	< 78	< 770	< 90			< 81	< 90
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
4-Nitrophenol	100-02-7	ug/kg	7000	< 80	< 75	< 78	< 82	< 79	< 76	< 78	< 78	< 770	< 90			< 81	< 90
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Acenaphthylene	208-96-8	ug/kg	682000	< 40	< 37	< 39	< 41	< 40	30	< 39	< 39	< 380	< 45			< 41	< 45
Anthracene	120-12-7	ug/kg	1480000	< 40	< 37	< 39	< 41	< 40	35	< 39	< 39	< 380	< 45			< 41	< 45
Benzidine	92-87-5	ug/kg	1310	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 40	< 37	< 39	67	120	280	< 39	48	290	< 45			41	110
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 40	< 37	< 39	72	110	330	< 39	53	360	< 45			43	96
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 40	< 37	< 39	130	200	790	< 39	100	690	< 45			< 41	200
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 40	< 37	< 39	< 41	< 40	150	< 39	< 39	< 380	< 45			< 41	< 45
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 40	< 37	< 39	< 41	< 40	240	< 39	< 39	< 380	< 45			< 41	< 45
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 40	24	21	< 41	< 40	< 38	34	38	< 380	< 45			120	120
Butylbenzylphthalate	85-68-7	ug/kg	239	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Chrysene	218-01-9	ug/kg	4730	39	< 37	< 39	69	81	330	< 39	47	420	< 45			61	130
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Diethylphthalate	84-66-2	ug/kg	24800	1400	< 37	< 39	85	190	94	110	84	< 380	< 45			140	6300
Dimethylphthalate	131-11-3	ug/kg	734000	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Di-n-butylphthalate	84-74-2	ug/kg	150	< 40	< 37	< 39	< 41	< 40	< 38	77	< 39	< 380	< 45			680	16000
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Fluoranthene	206-44-0	ug/kg	122000	< 40	< 37	< 39	< 41	130	290	< 39	< 39	< 380	< 45			< 41	220
Fluorene	86-73-7	ug/kg	122000	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Hexachlorobenzene	118-74-1	ug/kg	199	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Hexachloroethane	67-72-1	ug/kg	596	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 40	< 37	< 39	< 41	< 40	160	< 39	< 39	< 380	< 45			< 41	< 45
Isophorone	78-59-1	ug/kg	139000	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Naphthalene	91-20-3	ug/kg	99.4	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Nitrobenzene	98-95-3	ug/kg	1310				< 41				< 39					< 41	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	120	82	< 39	240	170	350	130	230	1700	< 45			880	5000
Pentachlorophenol	87-86-5	ug/kg	2100	< 80	< 75	< 78	< 82	< 79	< 76	< 78	< 78	< 770	< 90			< 81	< 90
Phenanthrene	85-01-8	ug/kg	45700	31	< 37	< 39	< 41	25	41	< 39	< 39	< 380	< 45			50	92
Phenol	108-95-2	ug/kg	30000	< 40	< 37	< 39	< 41	< 40	< 38	< 39	< 39	< 380	< 45			< 41	< 45
Pyrene	129-00-0	ug/kg	78500	< 40	< 37	< 39	100	150	420	< 39	100	< 380	< 45			< 41	210
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		24600	6270	9900	7100	11200		14000	4210	17800	25400	46800		19200	50800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	I8-2170-05	I8-2299-05	I8-2332-02	I8-2333-02	I8-2405-01	I8-2405-05	I8-2405A-02	I8-2409-01	I8-525-03	I8-560-03	I8-588E-03	I8-588E-06	I8-8236-01	I8-9334-01
			Sample Date	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/20/2000	4/20/2000	4/27/2000	4/20/2000	4/20/2000	4/25/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	I8-2170-051N	I8-2299-051N	I8-2332-021.5N	I8-2333-021N	I8-2405-011N	I8-2405-050.5N	I8-2405A-021N	I8-2409-011N	I8-525-030.5N	I8-560-031.5N	I8-588E-031N	I8-588E-061N	I8-8236-011.25N	I8-9334-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2311-01	I9-2311-06	I9-2311-06	I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-3-01	I9-3-03	I9-3-05
			Sample Date	5/4/2000	5/4/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/25/2000	4/25/2000	4/25/2000	4/20/2000	4/25/2000	4/25/2000	4/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I8-F2-011FD	I8-F2-011N	I9-2-011FD	I9-2-011N	I9-2311-011.5N	I9-2311-061FD	I9-2311-061N	I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-3-011N	I9-3-031N	I9-3-051N
			Parent ID	I8-F2-011N		I9-2-011N			I9-2311-061N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376					< 25	< 250	< 25	< 25	< 25	< 25	< 250			
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655					< 25	< 250	< 25	< 25	< 25	< 25	< 250			
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000					920	< 250	< 25	< 25	< 25	< 25	< 250			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280						< 250								
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8					< 250	< 250	< 250							
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000					< 25	< 250	< 25	< 25	< 25	< 25	< 250			
2-Nitrotoluene	88-72-2	ug/kg						< 50	< 500	< 50	< 50	< 50	< 50	< 500			
3-Nitrotoluene	99-08-1	ug/kg						< 50	< 500	< 50	< 50	< 50	< 50	< 500			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000					< 25	< 250	< 25	< 25	< 25	< 25	< 250			
4-Nitrotoluene	99-99-0	ug/kg						< 50	< 500	< 50	< 50	< 50	< 50	< 500			
Nitrobenzene	98-95-3	ug/kg	1310					< 25	< 250	< 25	< 25	< 25	< 25	< 250			
Nitrocellulose	9004-70-0	ug/kg						2730000	109000	90800	< 40000	< 38000	< 40000	40600			
Nitroglycerin	55-63-0	ug/kg	65000					190000	9500	25000	< 570	< 570	6500	< 560			
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000					< 50	< 500	< 50	< 50	< 50	< 50	< 500			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000					< 50	< 500	< 50	< 50	< 50	< 50	< 500			
Tetryl	479-45-8	ug/kg	25000					< 50	< 500	< 50	< 50	< 50	< 50	< 500			
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			2.3		5.5	5.5			0.7			1.8	4.8		
Gravel	Gravel	%			29		34.8	63.9			49.7			58.8	25.6		
Sand	Sand	%			48.9		33.1	19.8			34.1			34.1	42.3		
Silt	Silt	%			19.9		26.5	10.8			15.5			5.2	27.3		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2311-01	I9-2311-06	I9-2311-06	I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-3-01	I9-3-03	I9-3-05
			Sample Date	5/4/2000	5/4/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/25/2000	4/25/2000	4/25/2000	4/20/2000	4/25/2000	4/25/2000	4/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I8-F2-011FD	I8-F2-011N	I9-2-011FD	I9-2-011N	I9-2311-011.5N	I9-2311-061FD	I9-2311-061N	I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-3-011N	I9-3-031N	I9-3-051N
			Parent ID	I8-F2-011N		I9-2-011N			I9-2311-061N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.55	< 0.6	< 0.78	< 0.6				< 0.5	< 0.5	< 0.7	< 0.6	< 0.6	< 0.5	< 0.5
Arsenic	7440-38-2	mg/kg	9.9	4.8	4.9	19.3	17.9				4	6.5	6.9	3.1	11	5.7	4.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.55	0.6	0.52	0.51				0.59	0.39	0.66	0.32	0.79	0.65	0.58
Cadmium	7440-43-9	mg/kg	0.36	0.61	0.6	< 0.39	< 0.3				0.07	0.07	0.24	< 0.3	0.19	0.08	0.05
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	17.4	18.2	17	19.8				18.9	17.1	15.3	12.2	27.4	16.2	16.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	21.6	23.9	40.9	37.1				14.2	20.5	18.8	38.7	22.4	16.3	14
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	16.5	20.4	86.9	82.1				8.6	29.9	31.7	17.6	75.3	39.4	21.1
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.04	0.06	0.22	0.19				< 0	0.09	0.06	0.04	0.13	0.08	0.04
Nickel	7440-02-0	mg/kg	38	9.3	9.7	10.1	10.9				10.2	10	9.7	4.6	11.7	9.6	8.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.74	0.5	1.3	1.4				0.5	0.81	0.77	< 0.5	1	0.64	0.76
Silver	7440-22-4	mg/kg	2	< 0.28	< 0.3	< 0.39	< 0.3				< 0.2	< 0.2	< 0.3	< 0.3	< 0.3	< 0.2	< 0.2
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 92	< 1	< 1.3	< 1				< 0.8	0.55	< 1	< 1	< 1	< 0.9	< 0.9
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	64	78	48.5	49.3				54.8	50.6	87	51.8	98.2	77.4	57.8
Moisture																	
Percent Solids	SOLID	percent		90.8	91.1	77.2	80.6	88.9	89.9	91.8	88.4	87.3	85.1	89.7	82.2	82.7	88.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 730	< 73	< 870	< 82				< 76	< 77	< 78	< 74	< 81	< 80	< 76

			Location	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2311-01	I9-2311-06	I9-2311-06	I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-3-01	I9-3-03	I9-3-05
			Sample Date	5/4/2000	5/4/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/25/2000	4/25/2000	4/25/2000	4/20/2000	4/25/2000	4/25/2000	4/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I8-F2-011FD	I8-F2-011N	I9-2-011FD	I9-2-011N	I9-2311-011.5N	I9-2311-061FD	I9-2311-061N	I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-3-011N	I9-3-031N	I9-3-051N
			Parent ID	I8-F2-011N		I9-2-011N			I9-2311-061N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 370	< 370	100	680				< 380	< 380	< 390	< 370	< 410	< 400	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 370	< 370	< 430	38				< 380	< 380	< 390	< 370	< 410	< 400	< 380
2-Chloronaphthalene	91-58-7	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2-Chlorophenol	95-57-8	ug/kg	243	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 730	< 73	< 870	< 82				< 76	< 77	< 78	< 74	< 81	< 80	< 76
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 730	< 73	< 870	< 82				< 76	< 77	< 78	< 74	< 81	< 80	< 76
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
4-Nitrophenol	100-02-7	ug/kg	7000	< 730	< 73	< 870	< 82				< 76	< 77	< 78	< 74	< 81	< 80	< 76
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Acenaphthylene	208-96-8	ug/kg	682000	68	53	28	32				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Anthracene	120-12-7	ug/kg	1480000	51	47	36	39				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Benzidine	92-87-5	ug/kg	1310	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	490	480	130	120				< 38	43	< 39	< 37	120	96	< 38
Benzo[a]pyrene	50-32-8	ug/kg	1520	550	490	120	130				< 38	29	34	< 37	100	52	< 38
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	920	850	240	340				< 38	79	< 39	< 37	170	79	< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	360	270	120	130				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	320	190	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	46	49	58	52				< 38	25	30	31	34	52	19
Butylbenzylphthalate	85-68-7	ug/kg	239	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Chrysene	218-01-9	ug/kg	4730	550	480	250	230				< 38	60	41	< 37	140	84	< 38
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	97	77	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Diethylphthalate	84-66-2	ug/kg	24800	100	110	220	240				< 38	< 38	55	< 37	72	< 40	< 38
Dimethylphthalate	131-11-3	ug/kg	734000	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Di-n-butylphthalate	84-74-2	ug/kg	150	690	140	< 43	< 41				< 38	< 38	37	< 37	56	36	44
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Fluoranthene	206-44-0	ug/kg	122000	750	800	250	280				< 38	< 38	< 39	< 37	180	96	< 38
Fluorene	86-73-7	ug/kg	122000	27	32	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Hexachlorobenzene	118-74-1	ug/kg	199	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Hexachloroethane	67-72-1	ug/kg	596	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	310	250	94	100				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Isophorone	78-59-1	ug/kg	139000	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Naphthalene	91-20-3	ug/kg	99.4	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Nitrobenzene	98-95-3	ug/kg	1310	< 370	< 37	< 430	< 41								< 41	< 40	< 38
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	1100	300	91	600				< 38	< 38	< 39	240	< 41	< 40	< 38
Pentachlorophenol	87-86-5	ug/kg	2100	< 730	< 73	< 870	< 82				< 76	< 77	< 78	< 74	94	< 80	< 76
Phenanthrene	85-01-8	ug/kg	45700	310	380	240	190				< 38	23	58	< 37	69	< 40	< 38
Phenol	108-95-2	ug/kg	30000	< 370	< 37	< 430	< 41				< 38	< 38	< 39	< 37	< 41	< 40	< 38
Pyrene	129-00-0	ug/kg	78500	880	1300	230	230				< 38	< 38	< 39	< 37	160	< 40	< 38
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			20500		122000	14600			16100			4050	48100		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2311-01	I9-2311-06	I9-2311-06	I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-3-01	I9-3-03	I9-3-05
			Sample Date	5/4/2000	5/4/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/25/2000	4/25/2000	4/25/2000	4/20/2000	4/25/2000	4/25/2000	4/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I8-F2-011FD	I8-F2-011N	I9-2-011FD	I9-2-011N	I9-2311-011.5N	I9-2311-061FD	I9-2311-061N	I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-3-011N	I9-3-031N	I9-3-051N
			Parent ID	I8-F2-011N		I9-2-011N			I9-2311-061N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I9-3-07	I9-3-09	I9-3-11	I9-3-11	I9-3-13	I9-5-01	I9-515-01	I9-516-04	I9-519-04	I9-520-03	I9-523-03	I9-524-01	J10-2033-01	J10-2-08
			Sample Date	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I9-3-071N	I9-3-091N	I9-3-111.5FD	I9-3-111.5N	I9-3-131.5N	I9-5-011N	I9-515-010.5N	I9-516-041N	I9-519-040.5N	I9-520-031N	I9-523-030.5N	I9-524-011N	J10-2033-011N	J10-2-081N
			Parent ID			I9-3-111.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376						< 25		< 25	< 25	< 25	< 25	< 25		< 24
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655						< 25		< 25	< 25	< 25	< 25	< 25		< 24
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000						< 25		< 25	< 25	< 25	< 25	3000		< 24
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 250								
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000						< 25		< 25	< 25	< 25	< 25	< 25		< 24
2-Nitrotoluene	88-72-2	ug/kg							< 50		< 50	< 50	< 50	< 50	< 50		< 48
3-Nitrotoluene	99-08-1	ug/kg							< 50		< 50	< 50	< 50	< 50	< 50		< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000						< 25		< 25	< 25	< 25	< 25	< 25		< 24
4-Nitrotoluene	99-99-0	ug/kg							< 50		< 50	< 50	< 50	< 50	< 50		< 48
Nitrobenzene	98-95-3	ug/kg	1310						< 25		< 25	< 25	< 25	< 25	< 25		500
Nitrocellulose	9004-70-0	ug/kg							< 37000		75900	< 45000	50700	635000	945000		481000
Nitroglycerin	55-63-0	ug/kg	65000						< 550		< 710	< 660	< 610	8300	12000		< 610
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000						< 50		< 50	< 50	< 50	< 50	< 50		< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000						< 50		< 50	< 50	< 50	< 50	< 50		< 48
Tetryl	479-45-8	ug/kg	25000						< 50		< 50	< 50	< 50	< 50	< 50		< 48
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%							4.5		12.4	9.6	8.3	2.2	8.5	2	
Gravel	Gravel	%							37.3		18.2	37.2	45.6	56.8	35.3	70.7	
Sand	Sand	%							49.4		38.3	26.9	28.7	29.7	38	22.2	
Silt	Silt	%							8.8		31.1	26.4	17.4	11.2	18.1	5.2	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I9-3-07	I9-3-09	I9-3-11	I9-3-11	I9-3-13	I9-5-01	I9-515-01	I9-516-04	I9-519-04	I9-520-03	I9-523-03	I9-524-01	J10-2033-01	J10-2-08
			Sample Date	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I9-3-071N	I9-3-091N	I9-3-111.5FD	I9-3-111.5N	I9-3-131.5N	I9-5-011N	I9-515-010.5N	I9-516-041N	I9-519-040.5N	I9-520-031N	I9-523-030.5N	I9-524-011N	J10-2033-011N	J10-2-081N
			Parent ID			I9-3-111.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	< 0.6	< 0.67	< 0.5	< 0.5			< 0.8	< 0.7	< 0.7	< 0.6	0.54	1.5	1.8
Arsenic	7440-38-2	mg/kg	9.9	4.5	7.3	5.6	4.6	4.7			8.9	3.5	8.3	11.7	240	47.5	53.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.66	0.46	0.67	0.65	0.48			0.82	0.92	0.76	0.47	0.23	0.38	0.4
Cadmium	7440-43-9	mg/kg	0.36	0.06	0.04	0.09	0.1	< 0.2			0.89	0.77	1	0.71	0.33	1.3	0.65
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	19.6	12.3	26.4	15.6	14.3			26.2	16.9	20.4	24.6	4.9	9.6	15.3
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.4	17.1	13.8	11.4	12.8			16.5	9.9	25.4	57.9	8.6	73.5	63.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	14.9	27	26.8	22	5.7			43.9	12.3	379	59.2	48.6	524	92.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.03	0.06	0.08	0.06	< 0			0.11	0.04	0.05	0.05	0.04	1.5	0.19
Nickel	7440-02-0	mg/kg	38	10.9	7.6	13.8	8.5	9.8			13.3	9.4	14.2	8.2	1.9	9.2	11.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.63	0.61	1	0.75	0.46			1.2	0.97	0.89	0.45	0.59	2.2	2.4
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.34	< 0.2	< 0.2			< 0.4	< 0.3	< 0.3	< 0.3	< 0.2	0.15	0.14
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1	< 1.1	< 0.9	< 0.9			< 1	1.1	< 1	< 1	< 0.9	< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	167	51.7	104	103	54.3			77.5	81	333	97.4	25.6	234	49.1
Moisture																	
Percent Solids	SOLID	percent		76.4	88	79.1	79	97.3	91		70.4	75.4	81.9	83.3	93.8	86.7	81.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 88	< 76	< 840	< 84	< 68			< 95	< 89	< 81	< 81	< 71	< 77	< 410

			Location	I9-3-07	I9-3-09	I9-3-11	I9-3-11	I9-3-13	I9-5-01	I9-515-01	I9-516-04	I9-519-04	I9-520-03	I9-523-03	I9-524-01	J10-2033-01	J10-2-08
			Sample Date	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I9-3-071N	I9-3-091N	I9-3-111.5FD	I9-3-111.5N	I9-3-131.5N	I9-5-011N	I9-515-010.5N	I9-516-041N	I9-519-040.5N	I9-520-031N	I9-523-030.5N	I9-524-011N	J10-2033-011N	J10-2-081N
			Parent ID			I9-3-111.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 440	< 380	< 420	< 420	< 340			< 480	< 440	< 410	160	250	110	< 2100
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 440	< 380	< 420	< 420	< 340			< 480	< 440	< 410	< 410	< 350	< 380	< 2100
2-Chloronaphthalene	91-58-7	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2-Chlorophenol	95-57-8	ug/kg	243	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 88	< 76	< 840	< 84	< 68			< 95	< 89	< 81	< 81	< 71	< 77	< 410
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 88	< 76	< 840	< 84	< 68			< 95	< 89	< 81	< 81	< 71	< 77	< 410
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
4-Nitrophenol	100-02-7	ug/kg	7000	< 88	< 76	< 840	< 84	< 68			< 95	< 89	< 81	< 81	< 71	< 77	< 410
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	270
Acenaphthylene	208-96-8	ug/kg	682000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	16	43	920
Anthracene	120-12-7	ug/kg	1480000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	2300
Benzidine	92-87-5	ug/kg	1310	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 44	< 38	100	81	< 34			76	< 44	52	43	79	200	14000
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 44	< 38	110	58	< 34			84	< 44	61	49	68	200	13000
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 44	< 38	190	130	< 34			110	< 44	120	98	210	460	32000
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	160	9100
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	170	11000
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	59	33	32	< 42	41			49	30	49	420	21	< 38	< 210
Butylbenzylphthalate	85-68-7	ug/kg	239	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Chrysene	218-01-9	ug/kg	4730	< 44	< 38	94	63	< 34			91	40	71	66	140	430	18000
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	3900
Diethylphthalate	84-66-2	ug/kg	24800	< 44	< 38	< 420	< 42	2100			< 48	< 44	< 41	410	51	< 38	< 210
Dimethylphthalate	131-11-3	ug/kg	734000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Di-n-butylphthalate	84-74-2	ug/kg	150	41	43	< 420	< 42	< 34			300	220	100	400	200	340	280
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Fluoranthene	206-44-0	ug/kg	122000	< 44	< 38	75	< 42	< 34			150	< 44	150	< 41	110	370	9600
Fluorene	86-73-7	ug/kg	122000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	210
Hexachlorobenzene	118-74-1	ug/kg	199	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Hexachloroethane	67-72-1	ug/kg	596	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	150	9500
Isophorone	78-59-1	ug/kg	139000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Naphthalene	91-20-3	ug/kg	99.4	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	40	< 210
Nitrobenzene	98-95-3	ug/kg	1310	< 44	< 38	< 420	< 42	< 34								< 38	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 44	< 38	< 420	< 42	520			< 48	< 44	< 41	370	110	130	< 210
Pentachlorophenol	87-86-5	ug/kg	2100	< 88	< 76	< 840	< 84	< 68			< 95	< 89	< 81	< 81	< 71	< 77	< 410
Phenanthrene	85-01-8	ug/kg	45700	< 44	< 38	24	< 42	< 34			140	< 44	110	< 41	31	360	2800
Phenol	108-95-2	ug/kg	30000	< 44	< 38	< 420	< 42	< 34			< 48	< 44	< 41	< 41	< 35	< 38	< 210
Pyrene	129-00-0	ug/kg	78500	< 44	< 38	< 420	< 42	< 34			200	< 44	110	< 41	130	500	17000
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg							15000		53800	20000	37200	74500	15200	27900	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg								< 65							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127							< 65							

			Location	I9-3-07	I9-3-09	I9-3-11	I9-3-11	I9-3-13	I9-5-01	I9-515-01	I9-516-04	I9-519-04	I9-520-03	I9-523-03	I9-524-01	J10-2033-01	J10-2-08
			Sample Date	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/27/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/27/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I9-3-071N	I9-3-091N	I9-3-111.5FD	I9-3-111.5N	I9-3-131.5N	I9-5-011N	I9-515-010.5N	I9-516-041N	I9-519-040.5N	I9-520-031N	I9-523-030.5N	I9-524-011N	J10-2033-011N	J10-2-081N
			Parent ID			I9-3-111.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg								< 65							
1,1-Dichloroethane	75-34-3	ug/kg								< 65							
1,1-Dichloroethene	75-35-4	ug/kg	8280							< 65							
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000							< 650							
1,2-Dichlorobenzene	95-50-1	ug/kg	2960							< 650							
1,2-Dichloroethane	107-06-2	ug/kg								< 65							
1,2-Dichloropropane	78-87-5	ug/kg								< 65							
1,3-Dichlorobenzene	541-73-1	ug/kg	37700							< 650							
1,4-Dichlorobenzene	106-46-7	ug/kg	546							< 650							
2-Chloroethylvinylether	110-75-8	ug/kg								< 130							
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270							< 260							
Acrylonitrile	107-13-1	ug/kg	23.9							< 65							
Benzene	71-43-2	ug/kg	255							< 65							
Bromodichloromethane	75-27-4	ug/kg	540							< 65							
Bromoform	75-25-2	ug/kg								< 65							
Bromomethane	74-83-9	ug/kg	235							< 130							
Carbon Tetrachloride	56-23-5	ug/kg	2980							< 65							
Chlorobenzene	108-90-7	ug/kg	13100							< 65							
Chloroethane	75-00-3	ug/kg								< 130							
Chloroform	67-66-3	ug/kg	1190							< 65							
Chloromethane	74-87-3	ug/kg	10400							< 130							
cis-1,2-Dichloroethene	156-59-2	ug/kg								< 65							
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050							< 65							
Ethylbenzene	100-41-4	ug/kg	5160							< 65							
Hexachlorobutadiene	87-68-3	ug/kg	39.8							< 650							
Methylene Chloride	75-09-2	ug/kg	4050							< 65							
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920							< 65							
Toluene	108-88-3	ug/kg	200000							< 65							
trans-1,2-Dichloroethene	156-60-5	ug/kg								< 65							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400							< 65							
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646							< 130							
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	J10-2-11	J10-6-01	J10-6-05	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-8265-04	J11-B20-02	J11-B83-01	J12-2-03	J12-2-03	J6-2340-02
			Sample Date	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000	5/18/2000	5/18/2000	5/23/2000	5/23/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J10-2-111.5N	J10-6-010.5N	J10-6-050.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J12-2-031.5FD	J12-2-031.5N	J6-2340-021.5FD
			Parent ID												J12-2-031.5N		J6-2340-021.5N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25					< 25		< 24	< 25	< 25	< 23	< 240	< 25	< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25					< 25		< 24	< 25	< 25	< 23	< 240	< 25	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25					< 25		< 24	130	< 25	< 23	< 240	< 25	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 250								
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25					< 25		< 24	< 25	< 25	< 23	< 240	< 25	< 250
2-Nitrotoluene	88-72-2	ug/kg		< 50					< 50		< 48	< 50	< 50	< 45	< 480	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg		< 50					< 50		< 48	< 50	< 50	< 45	< 480	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25					< 25		< 24	< 25	< 25	< 23	< 240	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg		< 50					< 50		< 48	< 50	< 50	< 45	< 480	< 50	< 500
Nitrobenzene	98-95-3	ug/kg	1310	1200					< 25		< 24	510	< 25	< 23	< 240	< 25	250
Nitrocellulose	9004-70-0	ug/kg		253000					82800		185000	6240000	59200	15600000	487000	483000	44700
Nitroglycerin	55-63-0	ug/kg	65000	11000					< 540		< 550	< 700	< 540	< 570	< 5900	< 730	29000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50					< 50		< 48	< 50	< 50	< 45	< 480	< 50	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50					< 50		< 48	< 50	< 50	< 45	< 480	< 50	< 500
Tetryl	479-45-8	ug/kg	25000	< 50					< 50		< 48	< 50	< 50	< 45	< 480	< 50	< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%								1.5		5.5	3.5	2.2		10.5	
Gravel	Gravel	%								6.8		48.3	20.9	50.4		31.3	
Sand	Sand	%								77.2		40.8	47.1	32.5		43.2	
Silt	Silt	%								14.6		5.5	28.5	14.9		15.1	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	J10-2-11	J10-6-01	J10-6-05	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-8265-04	J11-B20-02	J11-B83-01	J12-2-03	J12-2-03	J6-2340-02
			Sample Date	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000	5/18/2000	5/18/2000	5/23/2000	5/23/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J10-2-111.5N	J10-6-010.5N	J10-6-050.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J12-2-031.5FD	J12-2-031.5N	J6-2340-021.5FD
			Parent ID												J12-2-031.5N		J6-2340-021.5N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	5.5						< 0.6	< 0.7	< 0.8	< 0.6	< 0.6	0.67	< 0.8	< 0.68
Arsenic	7440-38-2	mg/kg	9.9	420						2.6	3.6	20.8	3.3	8.4	5.5	5.7	13.2
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.3						0.35	0.26	0.52	0.2	0.22	0.14	0.14	0.7
Cadmium	7440-43-9	mg/kg	0.36	0.49						< 0.3	< 0.3	1.5	0.04	0.13	< 0.3	< 0.4	0.86
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	8.8						8.9	8.6	14.4	10.7	11.3	10.5	9.9	17.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	53.6						1110	458	72.5	75.5	32.6	30.7	34.8	21.7
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	72						1920	1040	553	138	95.9	198	213	39.7
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.21						20.6	13.4	2	0.23	0.16	0.6	0.74	0.14
Nickel	7440-02-0	mg/kg	38	8.9						5.6	5.5	11.2	4.9	8.5	5.4	5.2	10.1
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.4						< 0.5	0.72	1.2	0.39	0.73	1.1	0.99	0.94
Silver	7440-22-4	mg/kg	2	0.12						0.1	0.1	0.1	< 0.3	< 0.3	< 0.36	< 0.4	< 0.34
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1						< 1	< 1	< 1	< 1	< 1	< 1.2	< 1	< 0.85
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	28						34.2	31.2	694	24.9	61.5	36.6	53.2	211
Moisture																	
Percent Solids	SOLID	percent		81.8			81.8		91	90	84.6	71.9	84.2	87.1	76.4	68.4	81
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 410						< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 420	< 520									
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 410						< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 810			< 420			< 74	< 78	< 930	< 79	< 3100	< 880	< 98	< 820

Kennedy Jenks

			Location	J10-2-11	J10-6-01	J10-6-05	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-8265-04	J11-B20-02	J11-B83-01	J12-2-03	J12-2-03	J6-2340-02
			Sample Date	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000	5/18/2000	5/18/2000	5/23/2000	5/23/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J10-2-111.5N	J10-6-010.5N	J10-6-050.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J12-2-031.5FD	J12-2-031.5N	J6-2340-021.5FD
			Parent ID												J12-2-031.5N		J6-2340-021.5N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 4100			< 420			430	100	< 4600	< 400	< 15000	< 440	< 490	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 4100						240	83	< 4600	< 400	< 15000	< 440	< 490	< 410
2-Chloronaphthalene	91-58-7	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2-Chlorophenol	95-57-8	ug/kg	243	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 410						< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
2-Nitrotoluene	88-72-2	ug/kg					< 420										
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 810						< 74	< 78	< 930	< 79	< 3100	< 880	< 98	< 820
3-Nitrotoluene	99-08-1	ug/kg					< 840										
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 810			< 840			< 74	< 78	< 930	< 79	< 3100	< 880	< 98	< 820
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
4-Nitrophenol	100-02-7	ug/kg	7000	< 810						< 74	< 78	< 930	< 79	< 3100	< 880	< 98	< 820
4-Nitrotoluene	99-99-0	ug/kg					< 840										
Acenaphthene	83-32-9	ug/kg	20000	410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Acenaphthylene	208-96-8	ug/kg	682000	1600			< 420			< 37	< 39	< 460	< 40	< 1500	21	30	< 410
Anthracene	120-12-7	ug/kg	1480000	2100			< 420			< 37	< 39	< 460	< 40	< 1500	30	29	< 410
Benzidine	92-87-5	ug/kg	1310	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	9100			< 420			320	63	430	40	< 1500	170	220	220
Benzo[a]pyrene	50-32-8	ug/kg	1520	7400			< 420			410	< 39	< 460	31	< 1500	210	230	290
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	20000			< 420			1300	140	< 460	< 40	< 1500	470	520	390
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	4700			< 420			500	< 39	< 460	< 40	< 1500	140	< 49	220
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	7100			< 420			130	< 39	< 460	< 40	< 1500	< 440	160	150
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 410			19.97			37	61	< 460	< 40	< 1500	44	40	< 410
Butylbenzylphthalate	85-68-7	ug/kg	239	< 410			< 420	< 1000		< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Chrysene	218-01-9	ug/kg	4730	15000			37.9			820	110	440	38	< 1500	270	310	250
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	1500			< 420			540	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Diethylphthalate	84-66-2	ug/kg	24800	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	160
Dimethylphthalate	131-11-3	ug/kg	734000	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Di-n-butylphthalate	84-74-2	ug/kg	150	< 410			< 420			48	550	570	< 40	< 1500	140	170	39
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Fluoranthene	206-44-0	ug/kg	122000	20000			< 420			< 37	130	< 460	< 40	< 1500	390	500	290
Fluorene	86-73-7	ug/kg	122000	370			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	30	< 410
Hexachlorobenzene	118-74-1	ug/kg	199	< 410			< 420	< 520		< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Hexachloroethane	67-72-1	ug/kg	596	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	4700			< 420			350	< 39	< 460	< 40	< 1500	120	< 49	200
Isophorone	78-59-1	ug/kg	139000	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Naphthalene	91-20-3	ug/kg	99.4	310						< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Nitrobenzene	98-95-3	ug/kg	1310				< 420			< 37							
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	190
Pentachlorophenol	87-86-5	ug/kg	2100	< 810			< 840			< 74	< 78	< 930	< 79	< 3100	< 880	< 98	< 820
Phenanthrene	85-01-8	ug/kg	45700	5300			36.27			32	67	< 460	45	< 1500	250	320	66
Phenol	108-95-2	ug/kg	30000	< 410			< 420			< 37	< 39	< 460	< 40	< 1500	< 440	< 49	< 410
Pyrene	129-00-0	ug/kg	78500	20000			< 420			120	130	< 460	< 40	< 1500	670	630	280
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg					46400			13200		65200	46500	225000		79200	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 62	< 53		< 520									
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 62	< 53		< 520									

			Location	J10-2-11	J10-6-01	J10-6-05	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-8265-04	J11-B20-02	J11-B83-01	J12-2-03	J12-2-03	J6-2340-02
			Sample Date	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000	5/18/2000	5/18/2000	5/23/2000	5/23/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J10-2-111.5N	J10-6-010.5N	J10-6-050.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J12-2-031.5FD	J12-2-031.5N	J6-2340-021.5FD
			Parent ID												J12-2-031.5N		J6-2340-021.5N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 62	< 53		< 520									
1,1-Dichloroethane	75-34-3	ug/kg			< 62	< 53		< 520									
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 62	< 53	< 420	< 520									
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 622	< 530		< 520									
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 622	< 530											
1,2-Dichloroethane	107-06-2	ug/kg			< 62	< 53		< 520									
1,2-Dichloropropane	78-87-5	ug/kg			< 62	< 53		< 520									
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 622	< 530											
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 622	< 530		< 520									
2-Chloroethylvinylether	110-75-8	ug/kg			< 121	< 105		< 1000									
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 242	< 211		< 2100									
Acrylonitrile	107-13-1	ug/kg	23.9		< 62	< 53		< 520									
Benzene	71-43-2	ug/kg	255		< 62	< 53		3140									
Bromodichloromethane	75-27-4	ug/kg	540		< 62	< 53		< 520									
Bromoform	75-25-2	ug/kg			< 62	< 53		< 520									
Bromomethane	74-83-9	ug/kg	235		< 121	< 105											
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 62	< 53		< 520									
Chlorobenzene	108-90-7	ug/kg	13100		< 62	< 53		< 520									
Chloroethane	75-00-3	ug/kg			< 121	< 105		< 1000									
Chloroform	67-66-3	ug/kg	1190		< 62	< 53		< 520									
Chloromethane	74-87-3	ug/kg	10400		< 121	< 105		< 1000									
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 62	< 53		< 520									
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 62	< 53		< 520									
Ethylbenzene	100-41-4	ug/kg	5160		< 62	< 53		< 520									
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 622	< 530											
Methylene Chloride	75-09-2	ug/kg	4050		< 62	< 53	< 420	< 520									
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 62	< 53		< 520									
Toluene	108-88-3	ug/kg	200000		< 62	< 53		< 520									
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 62	< 53		< 520									
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 62	< 53		< 520									
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 121	< 105		< 1000									
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	J6-2340-02	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05	J6-8134-04	J6-8134-05	J6-9200-02	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06
			Sample Date	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J6-2340-021.5N	J6-3-021.25N	J6-4-011.5FD	J6-4-011.5N	J6-5-011N	J6-6-011N	J6-6-051N	J6-8134-041.25N	J6-8134-051N	J6-9200-021N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N
			Parent ID			J6-4-011.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25					< 24	< 25	< 25	< 25	< 25		< 25	< 24	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25					< 24	< 25	< 25	< 25	< 25		< 25	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25					< 24	< 25	< 25	< 25	< 25		730	7000	6100
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25					< 24	< 25	< 25	< 25	< 25		< 25	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50					< 48	< 50	< 50	< 50	< 50		< 50	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50					< 48	< 50	< 50	< 50	< 50		< 50	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25					< 24	< 25	< 25	< 25	< 25		< 25	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50					< 48	< 50	< 50	< 50	< 50		< 50	< 48	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25					< 24	< 25	< 25	< 25	< 25		< 25	530	< 25
Nitrocellulose	9004-70-0	ug/kg		193000					< 42000	< 49000	43300	< 42000	49200		3980000	7040000	6810000
Nitroglycerin	55-63-0	ug/kg	65000	7000					< 650	< 700	< 590	< 640	< 630		120000	570000	1000000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50					< 48	< 50	< 50	< 50	< 50		< 50	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50					< 48	< 50	< 50	< 50	< 50		< 50	< 48	< 50
Tetryl	479-45-8	ug/kg	25000	< 50					< 48	< 50	< 50	< 50	< 50		< 50	< 48	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		7.4	10.1		9.4	10.6	17.9				4.4		10.5	6.8	
Gravel	Gravel	%		25.3	27.1		11.9	30.5	10				38.8		41.3	51.3	
Sand	Sand	%		54.8	44.7		43.5	35.3	28.9				42.1		31.3	31.8	
Silt	Silt	%		12.5	18		35.2	23.6	43.2				14.7		16.9	10.1	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	J6-2340-02	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05	J6-8134-04	J6-8134-05	J6-9200-02	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06
			Sample Date	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J6-2340-021.5N	J6-3-021.25N	J6-4-011.5FD	J6-4-011.5N	J6-5-011N	J6-6-011N	J6-6-051N	J6-8134-041.25N	J6-8134-051N	J6-9200-021N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N
			Parent ID			J6-4-011.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	< 0.7				< 0.7	< 0.8	< 0.4	< 0.7	< 0.7		< 0.5	1.5	1
Arsenic	7440-38-2	mg/kg	9.9	14.5	6.2				5.3	5.7	4.3	6.6	3.4		8.9	33.3	28.3
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.7	0.57				0.49	0.64	0.51	0.62	0.85		0.59	0.44	0.6
Cadmium	7440-43-9	mg/kg	0.36	0.92	0.63				0.31	0.4	0.33	2.3	0.69		0.48	0.87	0.8
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	19.4	18.5				14.1	13.5	15.4	14.5	14.7		10.9	26.4	26.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	24.1	80.6				12.8	10.4	25.2	23.6	11.9		15.1	118	107
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	53.3	143				34.8	35.8	219	39.2	56.4		54.4	1950	1570
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.15	0.06				0.08	0.1	0.04	0.06	0.1		0.09	4.8	1.8
Nickel	7440-02-0	mg/kg	38	9.9	11.7				10	7.2	14.7	12.5	9.4		8.1	6.4	9.2
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.97	0.81				0.96	1.1	0.32	0.66	0.79		0.68	0.88	1.2
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3				< 0.3	< 0.4	< 0.2	< 0.3	< 0.3		< 0.2	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.9	< 1				< 1	< 1	< 0.8	< 1	< 1		< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	196	883				65	62	137	876	78.4		98.2	235	163
Moisture																	
Percent Solids	SOLID	percent		82.4	80.3	65	65.1	78.5	76.5	71.5	84.9	78.6	79.4		86.1	82.4	82
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371			< 27	< 2	< 2									
Aroclor-1221	11104-28-2	ug/kg	371			< 27	< 2	< 2									
Aroclor-1232	11141-16-5	ug/kg	371			< 27	< 2	< 2									
Aroclor-1242	53469-21-9	ug/kg	371			< 27	< 2	< 2									
Aroclor-1248	12672-29-6	ug/kg	371			< 27	< 2	< 2									
Aroclor-1254	11097-69-1	ug/kg	371			< 27	< 2	< 2									
Aroclor-1260	11096-82-5	ug/kg	371			< 52	< 5	< 4									
Polychlorinated biphenyls	1336-36-3	ug/kg	371			< 52	< 52	< 43									
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 81	< 83				< 87	< 93	< 79	< 85	< 84		< 78	< 81	< 81

Kennedy Jenks

			Location	J6-2340-02	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05	J6-8134-04	J6-8134-05	J6-9200-02	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06
			Sample Date	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J6-2340-021.5N	J6-3-021.25N	J6-4-011.5FD	J6-4-011.5N	J6-5-011N	J6-6-011N	J6-6-051N	J6-8134-041.25N	J6-8134-051N	J6-9200-021N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N
			Parent ID			J6-4-011.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 410	< 420				< 440	< 470	< 390	< 420	< 420		34000	3400	6400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 410	< 420				< 440	< 470	< 390	< 420	< 420		890	200	330
2-Chloronaphthalene	91-58-7	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2-Chlorophenol	95-57-8	ug/kg	243	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 81	< 83				< 87	< 93	< 79	< 85	< 84		< 78	< 81	< 81
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 81	< 83				< 87	< 93	< 79	< 85	< 84		< 78	< 81	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
4-Nitrophenol	100-02-7	ug/kg	7000	< 81	< 83				< 87	< 93	< 79	< 85	< 84		< 78	< 81	< 81
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	30	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Acenaphthylene	208-96-8	ug/kg	682000	43	< 42				< 44	< 47	< 39	130	< 42		320	24	53
Anthracene	120-12-7	ug/kg	1480000	350	52				37	< 47	< 39	370	< 42		170	42	65
Benzidine	92-87-5	ug/kg	1310	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	1300	400				< 44	< 47	< 39	1600	< 42		580	190	290
Benzo[a]pyrene	50-32-8	ug/kg	1520	880	480				< 44	< 47	< 39	1300	< 42		600	140	220
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	1100	960				< 44	< 47	< 39	1700	< 42		1400	290	500
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	370	360				< 44	< 47	< 39	610	< 42		610	< 41	160
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	520	300				< 44	< 47	< 39	670	< 42		500	89	180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 41	24				< 44	790	33	36	< 42		< 39	100	55
Butylbenzylphthalate	85-68-7	ug/kg	239	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Chrysene	218-01-9	ug/kg	4730	890	540				< 44	< 47	< 39	1500	< 42		960	210	340
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 41	120				< 44	< 47	< 39	210	< 42		210	< 41	< 41
Diethylphthalate	84-66-2	ug/kg	24800	190	< 42				< 44	7900	< 39	< 42	< 42		1600	2600	1800
Dimethylphthalate	131-11-3	ug/kg	734000	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Di-n-butylphthalate	84-74-2	ug/kg	150	76	< 42				99	520	< 39	110	43		380	1900	1400
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Fluoranthene	206-44-0	ug/kg	122000	3100	480				< 44	< 47	< 39	3300	< 42		1000	280	540
Fluorene	86-73-7	ug/kg	122000	110	< 42				< 44	< 47	< 39	79	< 42		50	< 41	< 41
Hexachlorobenzene	118-74-1	ug/kg	199	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Hexachloroethane	67-72-1	ug/kg	596	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	400	310				< 44	< 47	< 39	650	< 42		590	89	120
Isophorone	78-59-1	ug/kg	139000	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Naphthalene	91-20-3	ug/kg	99.4	< 41	< 42				< 44	< 47	< 39	< 42	< 42		31	< 41	30
Nitrobenzene	98-95-3	ug/kg	1310		< 42												
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	250	< 42				< 44	< 47	< 39	< 42	< 42		890	3400	3300
Pentachlorophenol	87-86-5	ug/kg	2100	< 81	< 83				< 87	< 93	< 79	< 85	< 84		< 78	< 81	< 81
Phenanthrene	85-01-8	ug/kg	45700	1800	99				36	36	24	1300	< 42		440	90	210
Phenol	108-95-2	ug/kg	30000	< 41	< 42				< 44	< 47	< 39	< 42	< 42		< 39	< 41	< 41
Pyrene	129-00-0	ug/kg	78500	1800	460				< 44	< 47	< 39	3300	< 42		770	200	400
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		19300	31000		44600	38500	24700				26100		23500	21000	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg												< 53			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127											< 53			

			Location	J6-2340-02	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05	J6-8134-04	J6-8134-05	J6-9200-02	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06
			Sample Date	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000
			Sample Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	J6-2340-021.5N	J6-3-021.25N	J6-4-011.5FD	J6-4-011.5N	J6-5-011N	J6-6-011N	J6-6-051N	J6-8134-041.25N	J6-8134-051N	J6-9200-021N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N
			Parent ID			J6-4-011.5N											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg												< 53			
1,1-Dichloroethane	75-34-3	ug/kg												< 53			
1,1-Dichloroethene	75-35-4	ug/kg	8280											< 53			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000											< 534			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960											< 534			
1,2-Dichloroethane	107-06-2	ug/kg												< 53			
1,2-Dichloropropane	78-87-5	ug/kg												< 53			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700											< 534			
1,4-Dichlorobenzene	106-46-7	ug/kg	546											< 534			
2-Chloroethylvinylether	110-75-8	ug/kg												< 106			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270											< 213			
Acrylonitrile	107-13-1	ug/kg	23.9											< 53			
Benzene	71-43-2	ug/kg	255											< 53			
Bromodichloromethane	75-27-4	ug/kg	540											< 53			
Bromoform	75-25-2	ug/kg												< 53			
Bromomethane	74-83-9	ug/kg	235											< 106			
Carbon Tetrachloride	56-23-5	ug/kg	2980											< 53			
Chlorobenzene	108-90-7	ug/kg	13100											< 53			
Chloroethane	75-00-3	ug/kg												< 106			
Chloroform	67-66-3	ug/kg	1190											< 53			
Chloromethane	74-87-3	ug/kg	10400											< 106			
cis-1,2-Dichloroethene	156-59-2	ug/kg												< 53			
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050											< 53			
Ethylbenzene	100-41-4	ug/kg	5160											< 53			
Hexachlorobutadiene	87-68-3	ug/kg	39.8											< 534			
Methylene Chloride	75-09-2	ug/kg	4050											< 53			
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920											< 53			
Toluene	108-88-3	ug/kg	200000											< 53			
trans-1,2-Dichloroethene	156-60-5	ug/kg												< 53			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400											< 53			
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646											< 106			
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	J7-2281-02	J7-2282-06	J7-241-05	J7-3-03	J7-8240-02	J7-8281-02	J7-F1-01	J8-1-01	J8-2-01	J8-2339-02	J8-2354-02	J8-2354-05	J8-2354A-04	J8-8272-02
			Sample Date	4/27/2000	4/27/2000	4/27/2000	4/18/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/14/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J7-2281-021N	J7-2282-061N	J7-241-051N	J7-3-030.5N	J7-8240-021.5N	J7-8281-021N	J7-F1-011.5N	J8-1-011N	J8-2-011.25N	J8-2339-020.5N	J8-2354-021.5N	J8-2354-051N	J8-2354A-041N	J8-8272-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 25	< 25				< 25	< 250		< 227	< 250	< 250	< 250	< 217
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 25	< 25				< 25	< 250		< 227	< 250	< 250	< 250	< 217
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25	< 25	< 25				< 25	< 250		< 227	3433.2	< 250	< 250	< 217
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 250					< 250					< 250	< 217.4
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 25	< 25				< 25	< 250		< 227	< 250	< 250	< 250	< 217
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 50	< 50				< 50	< 500		< 454	< 500	< 500	< 500	< 434
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 50	< 50				< 50	< 500		< 454	< 500	< 500	< 500	< 434
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 25	< 25				< 25	< 250		< 227	< 250	< 250	< 250	< 217
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 50	< 50				< 50	< 500		< 454	< 500	< 500	< 500	< 434
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 25	< 25				< 25	< 250		< 227	< 250	< 250	< 250	< 217
Nitrocellulose	9004-70-0	ug/kg		< 37	72200	74800				< 42000	< 43000		< 38000	5430000	148000	56000	83300
Nitroglycerin	55-63-0	ug/kg	65000	< 560	< 630	< 590				< 590	< 620		5400	810000	13000	< 590	11000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 50	< 50				< 50	< 500		< 454	< 500	< 500	< 500	< 434
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 50	< 50				< 50	< 500		< 454	< 500	< 500	< 500	< 434
Tetryl	479-45-8	ug/kg	25000	< 50	< 50	< 50				< 50	< 500		< 454	< 500	< 500	< 500	< 434
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		7.5		4.1	10	5.1	5.2	7.4	3.1		8.5	2.8		5	0.7
Gravel	Gravel	%		24.9		30	15.9	20.6	47.2	23.7	52.4		21.2	57.4		23.3	63
Sand	Sand	%		50.6		50	36.6	40.3	29.2	53.6	29.9		45.3	31		43.6	30.2
Silt	Silt	%		17.1		15.9	37.5	33.9	18.3	15.3	14.6		24.9	8.8		28.2	6.2
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	J7-2281-02	J7-2282-06	J7-241-05	J7-3-03	J7-8240-02	J7-8281-02	J7-F1-01	J8-1-01	J8-2-01	J8-2339-02	J8-2354-02	J8-2354-05	J8-2354A-04	J8-8272-02
			Sample Date	4/27/2000	4/27/2000	4/27/2000	4/18/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/14/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J7-2281-021N	J7-2282-061N	J7-241-051N	J7-3-030.5N	J7-8240-021.5N	J7-8281-021N	J7-F1-011.5N	J8-1-011N	J8-2-011.25N	J8-2339-020.5N	J8-2354-021.5N	J8-2354-051N	J8-2354A-041N	J8-8272-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	< 0.7		1.5	< 0.6	< 0.8	< 0.6			< 0.5	< 0.5	< 0.6		
Arsenic	7440-38-2	mg/kg	9.9	3.6	7.7		13	9.4	6.6	8.4			3.9	18.9	4.2		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.56	0.8		1.5	0.59	1.9	0.5			0.68	0.69	0.37		
Cadmium	7440-43-9	mg/kg	0.36	0.38	0.81		1.1	0.42	0.54	0.26			< 0.2	0.21	< 0.3		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	13.3	20.1		20.4	15.8	15.3	12.7			22	20.1	11.3		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	12.8	23.3		143	17.8	22.4	14.7			72	27.4	18.4		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	6.4	37.8		880	117	46.2	20.2			11.1	16.3	14.2		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.03	0.12		0.43	0.28	0.11	0.06			0.06	0.23	0.13		
Nickel	7440-02-0	mg/kg	38	8.6	12.1		10.1	9.6	9.3	7.1			21.6	7.2	8.4		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.66	1.1		2	0.64	1	0.6			< 0.4	< 0.4	< 0.5		
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3		< 0.4	< 0.3	0.38	< 0.3			< 0.2	< 0.2	< 0.3		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1		< 1	< 1	< 1	< 1			0.62	< 0.9	< 1		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	39.4	384		205	113	142	69.4			232	56.3	61.7		
Moisture																	
Percent Solids	SOLID	percent		89.1	79	85.2	59.6	82.7	71.5	84.7	80.4	83.1	90	88.5	95.4	85	89.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371									< 2					
Aroclor-1221	11104-28-2	ug/kg	371									< 2					
Aroclor-1232	11141-16-5	ug/kg	371									< 2					
Aroclor-1242	53469-21-9	ug/kg	371									< 2					
Aroclor-1248	12672-29-6	ug/kg	371									< 2					
Aroclor-1254	11097-69-1	ug/kg	371									93					
Aroclor-1260	11096-82-5	ug/kg	371									< 4					
Polychlorinated biphenyls	1336-36-3	ug/kg	371									93					
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 75	< 84		< 1100	< 80	< 93	< 78			< 74	< 760	< 70		

			Location	J7-2281-02	J7-2282-06	J7-241-05	J7-3-03	J7-8240-02	J7-8281-02	J7-F1-01	J8-1-01	J8-2-01	J8-2339-02	J8-2354-02	J8-2354-05	J8-2354A-04	J8-8272-02
			Sample Date	4/27/2000	4/27/2000	4/27/2000	4/18/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/14/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J7-2281-021N	J7-2282-061N	J7-241-051N	J7-3-030.5N	J7-8240-021.5N	J7-8281-021N	J7-F1-011.5N	J8-1-011N	J8-2-011.25N	J8-2339-020.5N	J8-2354-021.5N	J8-2354-051N	J8-2354A-041N	J8-8272-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 370	< 420		4200	< 400	< 460	< 390			< 370	< 3800	< 350		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 370	< 420		< 5600	< 400	< 460	< 390			< 370	< 3800	< 350		
2-Chloronaphthalene	91-58-7	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2-Chlorophenol	95-57-8	ug/kg	243	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 75	< 84		< 1100	< 80	< 93	< 78			< 74	< 760	< 70		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 75	< 84		< 1100	< 80	< 93	< 78			< 74	< 760	< 70		
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
4-Nitrophenol	100-02-7	ug/kg	7000	< 75	< 84		< 1100	< 80	< 93	< 78			< 74	< 760	< 70		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Acenaphthylene	208-96-8	ug/kg	682000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Anthracene	120-12-7	ug/kg	1480000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	21		
Benzidine	92-87-5	ug/kg	1310	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 37	34		< 560	< 40	< 46	< 39			< 37	< 380	130		
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 37	39		< 560	< 40	< 46	< 39			24	< 380	120		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	220		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	88		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 37	55		< 560	< 40	< 46	< 39			36	< 380	< 35		
Butylbenzylphthalate	85-68-7	ug/kg	239	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Chrysene	218-01-9	ug/kg	4730	< 37	44		< 560	< 40	< 46	< 39			< 37	< 380	120		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Diethylphthalate	84-66-2	ug/kg	24800	< 37	83		970	< 40	61	< 39			88	2800	200		
Dimethylphthalate	131-11-3	ug/kg	734000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Di-n-butylphthalate	84-74-2	ug/kg	150	< 37	220		600	< 40	210	38			120	< 380	< 35		
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Fluoranthene	206-44-0	ug/kg	122000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	200		
Fluorene	86-73-7	ug/kg	122000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Hexachlorobenzene	118-74-1	ug/kg	199	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Hexachloroethane	67-72-1	ug/kg	596	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Isophorone	78-59-1	ug/kg	139000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Naphthalene	91-20-3	ug/kg	99.4	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Nitrobenzene	98-95-3	ug/kg	1310				< 560	< 40	< 46								
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 37	90		1100	< 40	< 46	< 39			260	5100	500		
Pentachlorophenol	87-86-5	ug/kg	2100	< 75	< 84		< 1100	< 80	< 93	< 78			< 74	< 760	< 70		
Phenanthrene	85-01-8	ug/kg	45700	< 37	31		< 560	< 40	< 46	< 39			< 37	< 380	91		
Phenol	108-95-2	ug/kg	30000	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	< 35		
Pyrene	129-00-0	ug/kg	78500	< 37	< 42		< 560	< 40	< 46	< 39			< 37	< 380	210		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		10600		15700	74500	17200	42500	13800	3970		4310	13000		5760	14000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	J7-2281-02	J7-2282-06	J7-241-05	J7-3-03	J7-8240-02	J7-8281-02	J7-F1-01	J8-1-01	J8-2-01	J8-2339-02	J8-2354-02	J8-2354-05	J8-2354A-04	J8-8272-02
			Sample Date	4/27/2000	4/27/2000	4/27/2000	4/18/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/14/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J7-2281-021N	J7-2282-061N	J7-241-051N	J7-3-030.5N	J7-8240-021.5N	J7-8281-021N	J7-F1-011.5N	J8-1-011N	J8-2-011.25N	J8-2339-020.5N	J8-2354-021.5N	J8-2354-051N	J8-2354A-041N	J8-8272-021N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	J8-9220-02	J9-1-02	J9-2-02	J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	K10-1-01	K10-2090-01	K10-2090-04	K10-2090-08	K10-2090-08
			Sample Date	5/9/2000	4/25/2000	5/9/2000	4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-9220-021.5N	J9-1-020.75N	J9-2-021.5N	J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	K10-1-011.25N	K10-2090-011.5N	K10-2090-041.25N	K10-2090-081FD	K10-2090-081N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25		< 25	< 25				< 24			< 24	< 25	< 250	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25		< 25	< 25				< 24			< 24	< 25	< 250	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25		< 25	< 25				130			5900	< 25	< 250	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250			< 250										
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25		< 25	< 25				< 24			< 24	< 25	< 250	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50		< 50	< 50				< 48			< 48	< 50	< 500	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50		< 50	< 50				< 48			< 48	< 50	< 500	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25		< 25	< 25				< 24			< 24	< 25	< 250	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50		< 50	< 50				< 48			< 48	< 50	< 500	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25		< 25	< 25				< 24			< 24	< 25	< 250	< 25
Nitrocellulose	9004-70-0	ug/kg		166000		63700	85000				1060000			8970000	1090000	256000	2370000
Nitroglycerin	55-63-0	ug/kg	65000	22000		< 550	5500				11000			830000	2900	2900	< 550
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50		< 50	< 50				< 48			< 48	< 50	< 500	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50		< 50	< 50				< 48			< 48	< 50	< 500	< 50
Tetryl	479-45-8	ug/kg	25000	< 50		< 50	< 50				< 48			< 48	< 50	< 500	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		5.2	6.5	6.7	6.5	2.6		7.8	5.1	11.2	7.6	8.9			
Gravel	Gravel	%		34.1	23	32.1	23	68.8		21.4	35.4	22.5	31.8	41.2			
Sand	Sand	%		40.9	56.1	46.3	56.1	15.8		39.9	35.4	48.7	52.4	44			
Silt	Silt	%		19.8	14.4	14.9	14.4	12.7		30.9	24.1	17.6	8.2	5.9			
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	J8-9220-02	J9-1-02	J9-2-02	J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	K10-1-01	K10-2090-01	K10-2090-04	K10-2090-08	K10-2090-08
			Sample Date	5/9/2000	4/25/2000	5/9/2000	4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-9220-021.5N	J9-1-020.75N	J9-2-021.5N	J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	K10-1-011.25N	K10-2090-011.5N	K10-2090-041.25N	K10-2090-081FD	K10-2090-081N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.6	< 0.6		0.4	< 0.6	1.8	0.8		< 0.6	< 0.5	< 0.5	< 0.54	< 0.6
Arsenic	7440-38-2	mg/kg	9.9		29.6	6.6		54.3	5.4	17.7	26.6		5.5	15.7	9	7.1	7.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.45	0.59		0.47	0.47	0.54	0.63		0.47	0.54	0.5	0.47	0.61
Cadmium	7440-43-9	mg/kg	0.36		0.93	0.12		0.36	0.25	< 0.4	< 0.4		< 0.3	< 0.2	< 0.2	< 0.2	< 0.3
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		24	13.3		11.5	13.6	30.5	15.6		20.7	20.2	17.8	17.8	17.6
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		1690	31		36.2	1200	39.6	61		131	25.6	31.7	24.4	29.7
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		65.2	45		99	96.7	115	81.6		106	20.6	44.9	39.7	80.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.2	0.09		0.51	0.15	0.4	0.16		0.04	0.09	0.04	0.09	0.13
Nickel	7440-02-0	mg/kg	38		15.7	10.9		8.3	8.8	16.9	12.1		9.5	10.5	9.5	9.7	12.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		1.2	1		0.92	0.86	2	0.96		< 0.5	< 0.4	< 0.4	< 0.45	< 0.5
Silver	7440-22-4	mg/kg	2		0.93	< 0.3		< 0.2	0.43	0.22	< 0.4		< 0.3	< 0.2	< 0.2	< 0.27	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 1	< 1		< 0.9	< 1	< 1	< 1		1	0.94	1.2	0.88	1.3
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		444	78.6		156	105	80	56.6		143	93.1	102	122	142
Moisture																	
Percent Solids	SOLID	percent		83.7	84.9	89.1	85.3	91.8	86.9	64.1	68.1	84.8	89.5	90.8	89.7	95.3	90.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371									< 2					
Aroclor-1221	11104-28-2	ug/kg	371									< 2					
Aroclor-1232	11141-16-5	ug/kg	371									< 2					
Aroclor-1242	53469-21-9	ug/kg	371									< 2					
Aroclor-1248	12672-29-6	ug/kg	371									< 2					
Aroclor-1254	11097-69-1	ug/kg	371									17					
Aroclor-1260	11096-82-5	ug/kg	371									< 4					
Polychlorinated biphenyls	1336-36-3	ug/kg	371									17					
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	290	< 37	< 350	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 78	< 75		< 72	< 77	< 100	< 98		< 74	< 73	< 74	< 770	< 74

Kennedy Jenks

			Location	J8-9220-02	J9-1-02	J9-2-02	J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	K10-1-01	K10-2090-01	K10-2090-04	K10-2090-08	K10-2090-08
			Sample Date	5/9/2000	4/25/2000	5/9/2000	4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-9220-021.5N	J9-1-020.75N	J9-2-021.5N	J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	K10-1-011.25N	K10-2090-011.5N	K10-2090-041.25N	K10-2090-081FD	K10-2090-081N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		520	< 370		300	< 380	170	490		< 37	61	120	770	1700
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		27	< 370		17	< 380	< 520	< 490		< 370	< 370	< 370	45	100
2-Chloronaphthalene	91-58-7	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2-Chlorophenol	95-57-8	ug/kg	243		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 78	< 75		< 72	< 77	< 100	< 98		< 74	< 73	< 74	< 770	< 74
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 78	< 75		< 72	< 77	< 100	< 98		< 74	< 73	< 74	< 770	< 74
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
4-Nitrophenol	100-02-7	ug/kg	7000		< 78	< 75		< 72	< 77	< 100	< 98		< 74	< 73	< 74	< 770	< 74
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 39	< 37		< 36	< 38	< 52	< 49		< 37	20	130	250	580
Acenaphthylene	208-96-8	ug/kg	682000		28	45		< 36	< 38	36	< 49		21	64	120	230	250
Anthracene	120-12-7	ug/kg	1480000		32	65		< 36	< 38	41	< 49		54	92	510	1400	2100
Benzidine	92-87-5	ug/kg	1310		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		210	370		82	54	240	100		400	620	2200	4900	5400
Benzo[a]pyrene	50-32-8	ug/kg	1520		190	320		100	140	270	90		350	760	1700	3800	3900
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		260	500		190	220	610	190		510	1200	2300	4700	4900
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		120	300		52	190	280	< 49		220	570	1100	2600	2700
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		120	200		< 36	< 38	130	< 49		140	350	690	1400	1500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		130	36		36	35	100	31		32	70	< 37	< 350	< 37
Butylbenzylphthalate	85-68-7	ug/kg	239		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Chrysene	218-01-9	ug/kg	4730		190	480		120	140	400	110		310	830	1700	3600	3900
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 39	100		< 36	110	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Diethylphthalate	84-66-2	ug/kg	24800		250	< 37		120	47	< 52	21000		< 37	140	< 37	40	33
Dimethylphthalate	131-11-3	ug/kg	734000		< 39	< 37		< 36	< 38	< 52	< 49		88	< 37	< 37	< 350	< 37
Di-n-butylphthalate	84-74-2	ug/kg	150		420	61		58	< 38	270	450		2900	23000	4500	2600	2900
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Fluoranthene	206-44-0	ug/kg	122000		220	760		93	< 38	610	170		640	1600	3800	5000	5500
Fluorene	86-73-7	ug/kg	122000		< 39	< 37		< 36	< 38	< 52	< 49		< 37	28	230	420	1100
Hexachlorobenzene	118-74-1	ug/kg	199		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Hexachloroethane	67-72-1	ug/kg	596		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		120	250		< 36	120	220	< 49		210	520	1000	2700	2800
Isophorone	78-59-1	ug/kg	139000		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Naphthalene	91-20-3	ug/kg	99.4		< 39	34		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	95
Nitrobenzene	98-95-3	ug/kg	1310		< 39			< 36	< 38	< 52			< 37				
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		2400	< 37		380	91	< 52	250		540	3700	320	260	410
Pentachlorophenol	87-86-5	ug/kg	2100		< 78	< 75		< 72	< 77	< 100	< 98		< 74	< 73	< 74	< 770	< 74
Phenanthrene	85-01-8	ug/kg	45700		75	350		57	< 38	340	110		190	470	2300	3500	5700
Phenol	108-95-2	ug/kg	30000		< 39	< 37		< 36	< 38	< 52	< 49		< 37	< 37	< 37	< 350	< 37
Pyrene	129-00-0	ug/kg	78500		370	770		120	< 38	640	160		660	1800	4500	8800	12000
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		26500	24300	74800	6850	24200		92600	49400	11100	24800	26800			
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	J8-9220-02	J9-1-02	J9-2-02	J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	K10-1-01	K10-2090-01	K10-2090-04	K10-2090-08	K10-2090-08
			Sample Date	5/9/2000	4/25/2000	5/9/2000	4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-9220-021.5N	J9-1-020.75N	J9-2-021.5N	J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	K10-1-011.25N	K10-2090-011.5N	K10-2090-041.25N	K10-2090-081FD	K10-2090-081N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	K10-602B-03	K10-602B-03	K10-79A-01	K11-2301-04	K11-3-02	K11-3-02	K6-529-02	K6-8273-03	K6-9214-05	K6-9214-05	K7-2126-05	K7-2127-03	K7-3-03	K7-F5-02
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/12/2000	5/12/2000	4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/28/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	K10-602B-031.5FD	K10-602B-031.5N	K10-79A-011.25N	K11-2301-041.5N	K11-3-021FD	K11-3-021N	K6-529-021.5N	K6-8273-031N	K6-9214-051FD	K6-9214-051N	K7-2126-051.5N	K7-2127-031N	K7-3-030.5N	K7-F5-021N
			Parent ID	K10-602B-031.5N				K11-3-021N				K6-9214-051N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250	< 25			< 250	< 14	< 25	< 250	< 250	< 23	< 25	< 25	< 25	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250	< 25			< 250	< 14	< 25	< 250	< 250	< 23	< 25	< 25	< 25	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250	< 25			1300	1900	< 25	< 250	< 250	< 23	290	< 25	< 25	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 250								< 250					
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250	< 250						< 2500	< 250	< 230	< 250	< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250	< 25			< 250	< 14	< 25	< 250	< 250	< 23	< 25	< 25	< 25	
2-Nitrotoluene	88-72-2	ug/kg		< 500	< 50			< 500	< 27	< 50	< 500	< 500	< 45	< 50	< 50	< 50	
3-Nitrotoluene	99-08-1	ug/kg		< 500	< 50			< 500	< 27	< 50	< 500	< 500	< 45	< 50	< 50	< 50	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250	< 25			< 250	< 14	< 25	< 250	< 250	< 23	< 25	< 25	< 25	
4-Nitrotoluene	99-99-0	ug/kg		< 500	< 50			< 500	< 27	< 50	< 500	< 500	< 45	< 50	< 50	< 50	
Nitrobenzene	98-95-3	ug/kg	1310	< 250	< 25			570	280	< 25	< 250	< 250	< 23	< 25	< 25	< 25	
Nitrocellulose	9004-70-0	ug/kg		53800	91300			< 38600	3990000	73000	8340000	961000	181000	353000	126000	107000	
Nitroglycerin	55-63-0	ug/kg	65000	< 6500	< 600			120000	320000	< 580	14000	49000	4800	33000	11000	< 580	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500	< 50			540	< 27	< 50	< 500	< 500	< 45	< 50	< 50	< 50	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500	< 50			< 500	< 27	< 50	< 500	< 500	< 45	< 50	< 50	< 50	
Tetryl	479-45-8	ug/kg	25000	< 500	< 50			< 500	< 27	< 50	< 500	< 500	< 45	< 50	< 50	< 50	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			13.8	16.4	13.9		2.3	9.3	0				9.8	6.1	0
Gravel	Gravel	%			16.4	9.8	34.2		22.6	33.5	74.5				25.7	15.4	32.6
Sand	Sand	%			23	33.2	33.4		61	41.3	23.3				43.7	51.4	41
Silt	Silt	%			46.8	40.6	18.4		14.2	16	2.2				20.8	27.1	26.4
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	K10-602B-03	K10-602B-03	K10-79A-01	K11-2301-04	K11-3-02	K11-3-02	K6-529-02	K6-8273-03	K6-9214-05	K6-9214-05	K7-2126-05	K7-2127-03	K7-3-03	K7-F5-02
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/12/2000	5/12/2000	4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/28/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	K10-602B-031.5FD	K10-602B-031.5N	K10-79A-011.25N	K11-2301-041.5N	K11-3-021FD	K11-3-021N	K6-529-021.5N	K6-8273-031N	K6-9214-051FD	K6-9214-051N	K7-2126-051.5N	K7-2127-031N	K7-3-030.5N	K7-F5-021N
			Parent ID	K10-602B-031.5N				K11-3-021N				K6-9214-051N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.7	< 0.7	< 0.63	< 0.6	< 0.6						< 0.7	< 0.6
Arsenic	7440-38-2	mg/kg	9.9			6.8	3.8	8.3	8.4	7.3						5.3	4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.74	0.27	0.37	0.34	0.86						0.8	0.71
Cadmium	7440-43-9	mg/kg	0.36			0.4	< 0.3	0.33	0.37	1.3						0.72	0.46
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			23	14.4	13.9	14.3	19.5						21.1	15.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			13.9	119	23.8	43	27.6						37.4	18.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			20.6	67.6	66.5	62.6	347						9.2	20.5
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.07	0.07	0.18	0.27	0.19						0.04	0.12
Nickel	7440-02-0	mg/kg	38			13.2	7.7	7.9	8.1	12						11.7	9.6
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			1.4	< 0.5	0.42	< 0.5	1						0.86	0.53
Silver	7440-22-4	mg/kg	2			< 0.3	< 0.3	< 0.32	< 0.3	< 0.3						< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 1	< 1	< 1.1	< 1	< 1						< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			75.9	214	85.5	93.6	209						53.1	93.2
Moisture																	
Percent Solids	SOLID	percent		76.5	76.2	80.4	82.7	90.2	89.5	84	90.1	84.6	82.8	87.5	85.4	84.6	84.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 83	< 80	< 7400	< 740	< 79						< 78	< 79

			Location	K10-602B-03	K10-602B-03	K10-79A-01	K11-2301-04	K11-3-02	K11-3-02	K6-529-02	K6-8273-03	K6-9214-05	K6-9214-05	K7-2126-05	K7-2127-03	K7-3-03	K7-F5-02
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/12/2000	5/12/2000	4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/28/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	K10-602B-031.5FD	K10-602B-031.5N	K10-79A-011.25N	K11-2301-041.5N	K11-3-021FD	K11-3-021N	K6-529-021.5N	K6-8273-031N	K6-9214-051FD	K6-9214-051N	K7-2126-051.5N	K7-2127-031N	K7-3-030.5N	K7-F5-021N
			Parent ID	K10-602B-031.5N				K11-3-021N				K6-9214-051N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 420	< 400	670	< 3700	< 400						< 390	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 420	< 400	< 3700	< 3700	< 400						< 390	< 400
2-Chloronaphthalene	91-58-7	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2-Chlorophenol	95-57-8	ug/kg	243			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 83	< 80	< 7400	< 740	< 79						< 78	< 79
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 83	< 80	< 7400	< 740	< 79						< 78	< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
4-Nitrophenol	100-02-7	ug/kg	7000			< 83	< 80	< 7400	< 740	< 79						< 78	< 79
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 42	< 40	1700	< 370	< 40						< 39	< 40
Acenaphthylene	208-96-8	ug/kg	682000			< 42	< 40	1500	610	17						< 39	< 40
Anthracene	120-12-7	ug/kg	1480000			< 42	< 40	7400	1400	25						< 39	< 40
Benzidine	92-87-5	ug/kg	1310			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			< 42	< 40	20000	4200	120						< 39	< 40
Benzo[a]pyrene	50-32-8	ug/kg	1520			< 42	< 40	19000	5000	110						< 39	< 40
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			< 42	< 40	21000	9300	170						< 39	< 40
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			< 42	< 40	12000	3000	< 40						< 39	< 40
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 42	< 40	7800	3300	120						< 39	< 40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			25	27	< 3700	200	< 40						< 39	54
Butylbenzylphthalate	85-68-7	ug/kg	239			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Chrysene	218-01-9	ug/kg	4730			< 42	< 40	20000	4700	140						< 39	< 40
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 42	< 40	3400	< 370	< 40						< 39	< 40
Diethylphthalate	84-66-2	ug/kg	24800			< 42	< 40	10000	3500	< 40						< 39	56
Dimethylphthalate	131-11-3	ug/kg	734000			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Di-n-butylphthalate	84-74-2	ug/kg	150			< 42	3100	130000	190000	< 40						< 39	140
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Fluoranthene	206-44-0	ug/kg	122000			< 42	< 40	35000	9000	350						< 39	< 40
Fluorene	86-73-7	ug/kg	122000			< 42	< 40	3400	380	< 40						< 39	< 40
Hexachlorobenzene	118-74-1	ug/kg	199			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Hexachloroethane	67-72-1	ug/kg	596			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			< 42	< 40	11000	3000	< 40						< 39	< 40
Isophorone	78-59-1	ug/kg	139000			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Naphthalene	91-20-3	ug/kg	99.4			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Nitrobenzene	98-95-3	ug/kg	1310			< 42	< 40										< 40
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 42	710	12000	9300	< 40						< 39	89
Pentachlorophenol	87-86-5	ug/kg	2100			< 83	< 80	< 7400	< 740	< 79						< 78	< 79
Phenanthrene	85-01-8	ug/kg	45700			< 42	< 40	26000	4200	180						< 39	29
Phenol	108-95-2	ug/kg	30000			< 42	< 40	< 3700	< 370	< 40						< 39	< 40
Pyrene	129-00-0	ug/kg	78500			< 42	< 40	42000	8100	180						< 39	< 40
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			45700	39900	19000		50700	35700	24300				36600	31800	39300
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	K10-602B-03	K10-602B-03	K10-79A-01	K11-2301-04	K11-3-02	K11-3-02	K6-529-02	K6-8273-03	K6-9214-05	K6-9214-05	K7-2126-05	K7-2127-03	K7-3-03	K7-F5-02
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/12/2000	5/12/2000	4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/28/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	K10-602B-031.5FD	K10-602B-031.5N	K10-79A-011.25N	K11-2301-041.5N	K11-3-021FD	K11-3-021N	K6-529-021.5N	K6-8273-031N	K6-9214-051FD	K6-9214-051N	K7-2126-051.5N	K7-2127-031N	K7-3-030.5N	K7-F5-021N
			Parent ID	K10-602B-031.5N				K11-3-021N				K6-9214-051N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	K8-1-01	K8-1-05	K8-393-05	K8-9207-02	K8-9212A-01	K9-1-02	K9-3-01	K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	L10-1-02	L10-1-02
			Sample Date	4/28/2000	4/28/2000	4/28/2000	5/5/2000	5/9/2000	5/25/2000	5/9/2000	5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	K8-1-011N	K8-1-050.5N	K8-393-050.5N	K8-9207-021.5N	K8-9212A-011.5N	K9-1-021N	K9-3-011.5N	K9-4-021FD	K9-4-021N	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	L10-1-021.5FD	L10-1-021.5N
			Parent ID								K9-4-021N					L10-1-021.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 25	< 25	< 24		< 25				< 24	< 23	< 25	< 240	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 25	< 25	< 24		< 25				< 24	< 23	170	< 240	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	690	< 25	< 25	< 24		< 25				< 24	290	< 25	< 240	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 240						< 240	< 230	< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 25	< 25	130		< 25				< 24	< 23	< 25	< 240	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 50	< 50	< 48		< 49				< 48	< 45	< 50	< 480	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 50	< 50	< 48		< 49				< 48	< 45	< 50	< 480	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 25	< 25	150		< 25				< 24	< 23	170	< 240	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 50	< 50	< 48		< 49				< 48	< 45	< 50	< 480	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 25	< 25	< 24		< 25				< 24	< 23	940	< 240	< 25
Nitrocellulose	9004-70-0	ug/kg		2360000	145000	660000	54900		83000				68100	78800	70700	< 40200	< 38000
Nitroglycerin	55-63-0	ug/kg	65000	10000	< 780	< 850	< 620		< 640				< 580	63000	< 560	< 5700	< 570
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 50	< 50	< 48		< 49				< 48	< 45	< 50	< 480	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 50	< 50	< 48		< 49				< 48	< 45	< 50	< 480	< 50
Tetryl	479-45-8	ug/kg	25000	< 50	< 50	< 50	< 48		< 49				< 48	< 45	< 50	< 480	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		5		9	16.6	16.9	0	18.8		6.2	5.4		6.4		10.5
Gravel	Gravel	%		30.5		2.6	23.8	15.1	17.4	17.9		32.2	40.8		42.4		39.1
Sand	Sand	%		36.7		41.7	28.6	40.5	33.7	26.3		35.8	31.2		36.2		32.2
Silt	Silt	%		27.8		46.8	31	40.8	48.9	36.9		25.8	22.5		15		18.3
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	K8-1-01	K8-1-05	K8-393-05	K8-9207-02	K8-9212A-01	K9-1-02	K9-3-01	K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	L10-1-02	L10-1-02
			Sample Date	4/28/2000	4/28/2000	4/28/2000	5/5/2000	5/9/2000	5/25/2000	5/9/2000	5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	K8-1-011N	K8-1-050.5N	K8-393-050.5N	K8-9207-021.5N	K8-9212A-011.5N	K9-1-021N	K9-3-011.5N	K9-4-021FD	K9-4-021N	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	L10-1-021.5FD	L10-1-021.5N
			Parent ID								K9-4-021N					L10-1-021.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.63	0.62	1.8		< 0.6	< 0.7	< 0.7	< 0.65	< 0.6				< 0.68	< 0.6
Arsenic	7440-38-2	mg/kg	9.9	248	9.4	18.3		15.7	7.7	7.4	5.3	6.5				5.5	8
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.68	1.4	1.1		0.61	0.92	0.69	0.64	0.63				0.73	0.84
Cadmium	7440-43-9	mg/kg	0.36	< 0.3	0.1	< 0.4		0.04	0.62	0.06	0.52	0.51				< 0.34	< 0.3
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	17.3	16.3	16		16.1	24.6	18.5	15	15.2				20.7	27.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	45.1	18.7	69.3		17.6	15	11.3	17.9	19.2				13.3	20.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	233	95.3	182		34.6	16	24.6	9.4	9.4				74.4	145
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.33	0.18	1.9		0.11	0.06	0.07	0.03	0.04				0.02	< 0
Nickel	7440-02-0	mg/kg	38	11.5	12.5	12.1		10.5	14.2	11	9.8	10.8				13.2	16.2
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 0.6	1.2	2		1.5	1.1	0.97	0.94	0.97				< 0.56	< 0.5
Silver	7440-22-4	mg/kg	2	< 0.3	0.11	0.35		< 0.3	< 0.3	< 0.3	< 0.33	< 0.3				< 0.34	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	0.79	0.73	1.2		< 1	< 1	< 1	< 1.1	< 1				1.1	1.5
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	92.6	137	109		88.5	88.2	50.1	41.7	41.6				83.2	95.2
Moisture																	
Percent Solids	SOLID	percent		79	63.7	56	81	82.2	77.6	80.1	88.4	89.5	86.7	94.8	88.9	85.1	87.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 84	< 100	< 120		< 81	< 85	< 83	< 760	< 74				< 780	< 77

			Location	K8-1-01	K8-1-05	K8-393-05	K8-9207-02	K8-9212A-01	K9-1-02	K9-3-01	K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	L10-1-02	L10-1-02
			Sample Date	4/28/2000	4/28/2000	4/28/2000	5/5/2000	5/9/2000	5/25/2000	5/9/2000	5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	K8-1-011N	K8-1-050.5N	K8-393-050.5N	K8-9207-021.5N	K8-9212A-011.5N	K9-1-021N	K9-3-011.5N	K9-4-021FD	K9-4-021N	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	L10-1-021.5FD	L10-1-021.5N
			Parent ID								K9-4-021N					L10-1-021.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	820	< 520	64		< 410	< 430	< 420	< 380	< 370				< 390	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	39	< 520	< 600		< 410	< 430	< 420	< 380	< 370				< 390	< 380
2-Chloronaphthalene	91-58-7	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2-Chlorophenol	95-57-8	ug/kg	243	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 84	< 100	< 120		< 81	< 85	< 83	< 760	< 74				< 780	< 77
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 84	< 100	< 120		< 81	< 85	< 83	< 760	< 74				< 780	< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
4-Nitrophenol	100-02-7	ug/kg	7000	< 84	< 100	< 120		< 81	< 85	< 83	< 760	< 74				< 780	< 77
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Acenaphthylene	208-96-8	ug/kg	682000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Anthracene	120-12-7	ug/kg	1480000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Benzidine	92-87-5	ug/kg	1310	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	38	48	160		120	< 43	< 42	< 380	< 37				< 390	< 38
Benzo[a]pyrene	50-32-8	ug/kg	1520	38	48	140		63	30	< 42	< 380	< 37				< 390	< 38
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	97	< 52	350		95	< 43	< 42	< 380	< 37				< 390	< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	20	83	52		< 41	< 43	< 42	26	< 37				< 390	23
Butylbenzylphthalate	85-68-7	ug/kg	239	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Chrysene	218-01-9	ug/kg	4730	65	53	210		130	< 43	70	< 380	< 37				< 390	< 38
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Diethylphthalate	84-66-2	ug/kg	24800	150	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Dimethylphthalate	131-11-3	ug/kg	734000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Di-n-butylphthalate	84-74-2	ug/kg	150	47	92	120		38	< 43	< 42	< 380	< 37				< 390	< 38
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Fluoranthene	206-44-0	ug/kg	122000	< 42	< 52	360		110	90	76	< 380	< 37				< 390	< 38
Fluorene	86-73-7	ug/kg	122000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Hexachlorobenzene	118-74-1	ug/kg	199	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Hexachloroethane	67-72-1	ug/kg	596	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 42	< 52	110		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Isophorone	78-59-1	ug/kg	139000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Naphthalene	91-20-3	ug/kg	99.4	< 42	< 52	< 60		43	< 43	< 42	< 380	< 37				< 390	< 38
Nitrobenzene	98-95-3	ug/kg	1310					< 41		< 42	< 380	< 37					
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	120	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Pentachlorophenol	87-86-5	ug/kg	2100	< 84	< 100	< 120		< 81	< 85	< 83	< 760	< 74				< 780	< 77
Phenanthrene	85-01-8	ug/kg	45700	37	56	260		150	50	85	< 380	< 37				< 390	< 38
Phenol	108-95-2	ug/kg	30000	< 42	< 52	< 60		< 41	< 43	< 42	< 380	< 37				< 390	< 38
Pyrene	129-00-0	ug/kg	78500	< 42	< 52	380		120	< 43	< 42	< 380	< 37				< 390	< 38
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		34700		161000	42900	67400	42400	41200		6650	43400		25900		7330
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	K8-1-01	K8-1-05	K8-393-05	K8-9207-02	K8-9212A-01	K9-1-02	K9-3-01	K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	L10-1-02	L10-1-02
			Sample Date	4/28/2000	4/28/2000	4/28/2000	5/5/2000	5/9/2000	5/25/2000	5/9/2000	5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	K8-1-011N	K8-1-050.5N	K8-393-050.5N	K8-9207-021.5N	K8-9212A-011.5N	K9-1-021N	K9-3-011.5N	K9-4-021FD	K9-4-021N	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	L10-1-021.5FD	L10-1-021.5N
			Parent ID								K9-4-021N					L10-1-021.5N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	L10-2-02	L10-2088-02	L10-2191-02	L10-2191-06	L10-2242-03	L10-2316-02	L10-4-05	L10-725-01	L10-725-01	L10-8210-03	L10-8210-03	L10-8215-02	L10-8521-03	L10-B462-03
			Sample Date	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/16/2000	5/18/2000	5/18/2000	5/25/2000	5/26/2000	5/18/2000	5/18/2000	5/18/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L10-2-021N	L10-2088-021N	L10-2191-021.5N	L10-2191-061N	L10-2242-031.5N	L10-2316-021N	L10-4-051N	L10-725-011N	L10-725-010.5N	L10-8210-031N1630	L10-8210-031N810	L10-8215-021N	L10-8521-031.5N	L10-B462-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 25	< 24	< 25	< 25		< 24	< 25		< 250		< 25		< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 25	< 24	< 25	< 25		< 24	< 25		< 250		< 25		< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	250	130	9800	< 25	< 25		< 24	< 25		< 250		< 25		< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9										14800				
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 25	< 24	< 25	< 25		< 24	< 25		< 250		< 25		< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 50	< 48	< 50	< 50		< 48	< 50		< 500		< 50		< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 50	< 48	< 50	< 50		< 48	< 50		< 500		< 50		< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 25	< 24	< 25	< 25		< 24	< 25		< 250		< 25		< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 50	< 48	< 50	< 50		< 48	< 50		< 500		< 50		< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 25	< 24	< 25	< 25		< 24	< 25		< 250		< 25		< 25
Nitrocellulose	9004-70-0	ug/kg		101000	820000	23200000	< 37000	89300		44800	71400			852000	60900		136000
Nitroglycerin	55-63-0	ug/kg	65000	8700	33000	3900000	< 530	< 540		< 580	< 550			< 5800	< 560		7500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 50	17000	< 50	< 50		< 48	< 50		< 500		< 50		< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 50	< 48	< 50	< 50		< 48	< 50		< 500		< 50		< 50
Tetryl	479-45-8	ug/kg	25000	< 50	< 50	< 48	< 50	< 50		< 48	< 50		< 500		< 50		< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		0	3.8	37.4		13.5	0	8.4	3.4				13.8		8
Gravel	Gravel	%		45.3	26.7	9.3		29.7	66.8	24.9	34.4				28.3		28.6
Sand	Sand	%		45.3	41.7	11.6		49.8	24.8	50.2	49.1				45		50.5
Silt	Silt	%		9.4	27.9	41.7		7	8.4	16.5	13.1				12.9		12.8
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	L10-2-02	L10-2088-02	L10-2191-02	L10-2191-06	L10-2242-03	L10-2316-02	L10-4-05	L10-725-01	L10-725-01	L10-8210-03	L10-8210-03	L10-8215-02	L10-8521-03	L10-B462-03
			Sample Date	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/16/2000	5/18/2000	5/18/2000	5/25/2000	5/26/2000	5/18/2000	5/18/2000	5/18/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L10-2-021N	L10-2088-021N	L10-2191-021.5N	L10-2191-061N	L10-2242-031.5N	L10-2316-021N	L10-4-051N	L10-725-011N	L10-725-010.5N	L10-8210-031N1630	L10-8210-031N810	L10-8215-021N	L10-8521-031.5N	L10-B462-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	< 0.6			< 0.6	1.9	< 0.6	0.95			< 0.664	< 0.6		< 0.6
Arsenic	7440-38-2	mg/kg	9.9	4.6	11.1			4.5	117	4.7	4.6			13.9	16.2		4.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.39	0.64			0.49	0.44	0.52	0.46			0.573	0.3		0.51
Cadmium	7440-43-9	mg/kg	0.36	0.33	0.42			0.39	0.31	< 0.3	0.39			0.733	0.21		0.47
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	11.5	19			14.7	19.4	22.5	13.9			20.9	22		18.2
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	17.1	33.2			269	34.7	19.5	23.5			38.8	23.5		38
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	31.3	60.8			14.4	44.9	12.1	43.5			177	32.3		32.2
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.04	0.1			0.05	0.07	< 0	0.08			0.579	0.04		0.11
Nickel	7440-02-0	mg/kg	38	8.6	11.9			7.4	11.9	12	12.1			14.3	7.8		10.6
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.56	1			0.62	1.1	< 0.5	0.91			0.799	0.69		0.82
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3			0.07	< 0.3	< 0.3	< 0.3			< 0.332	< 0.3		< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1			< 1	< 1	1.2	< 1			0.751	< 1		< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	43.2	76.1			112	44.4	70.9	61.8			368	40.6		109
Moisture																	
Percent Solids	SOLID	percent		92.8	88.1	79.6	91.5	93.1	95.8	85.5	91.1			84.5	88.6	80.6	89.9
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371													< 2	
Aroclor-1221	11104-28-2	ug/kg	371													< 2	
Aroclor-1232	11141-16-5	ug/kg	371													< 2	
Aroclor-1242	53469-21-9	ug/kg	371													< 2	
Aroclor-1248	12672-29-6	ug/kg	371													< 2	
Aroclor-1254	11097-69-1	ug/kg	371													< 2	
Aroclor-1260	11096-82-5	ug/kg	371													< 4	
Polychlorinated biphenyls	1336-36-3	ug/kg	371													< 42	
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37				< 37		< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 36	< 38	980	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376											< 400			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37				< 37		< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 72	< 76	< 83	< 72	< 72	< 690	< 78	< 74			4240	< 75		< 74

Kennedy Jenks

			Location	L10-2-02	L10-2088-02	L10-2191-02	L10-2191-06	L10-2242-03	L10-2316-02	L10-4-05	L10-725-01	L10-725-01	L10-8210-03	L10-8210-03	L10-8215-02	L10-8521-03	L10-B462-03
			Sample Date	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/16/2000	5/18/2000	5/18/2000	5/25/2000	5/26/2000	5/18/2000	5/18/2000	5/18/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L10-2-021N	L10-2088-021N	L10-2191-021.5N	L10-2191-061N	L10-2242-031.5N	L10-2316-021N	L10-4-051N	L10-725-011N	L10-725-010.5N	L10-8210-031N1630	L10-8210-031N810	L10-8215-021N	L10-8521-031.5N	L10-B462-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	180	31	< 420	< 360	770	560	< 390	130			185	470		150
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 360	< 380	< 420	< 360	47	< 3500	< 390	21				210		< 370
2-Chloronaphthalene	91-58-7	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
2-Chlorophenol	95-57-8	ug/kg	243	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37				< 37		< 37
2-Nitrotoluene	88-72-2	ug/kg												< 400			
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 72	< 76	< 83	< 72	< 72	< 690	< 78	< 73				< 75		< 74
3-Nitrotoluene	99-08-1	ug/kg												< 790			
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 72	< 76	< 83	< 72	< 72	< 690	< 78	< 73			< 790	< 75		< 74
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
4-Nitrophenol	100-02-7	ug/kg	7000	< 72	< 76	< 83	< 72	< 72	< 690	< 78	< 73				< 75		< 74
4-Nitrotoluene	99-99-0	ug/kg												< 790			
Acenaphthene	83-32-9	ug/kg	20000	25	18	72	< 36	< 36	700	< 39	37			28.8	27		< 37
Acenaphthylene	208-96-8	ug/kg	682000	< 36	36	100	< 36	< 36	< 350	< 39	45			23.67	15		< 37
Anthracene	120-12-7	ug/kg	1480000	74	66	290	< 36	< 36	2300	64	89			54.44	64		< 37
Benzidine	92-87-5	ug/kg	1310	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	490	560	1400	67	52	6900	270	620			358	400		100
Benzo[a]pyrene	50-32-8	ug/kg	1520	470	530	1200	68	61	5900	230	620			375	300		87
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	800	700	1700	91	110	9500	310	1100			639	670		160
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	340	320	1000	81	< 36	3100	140	360			201	160		< 37
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	290	430	590	< 36	< 36	3400	97	340			159	140		< 37
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	130	75	1000	34	38	< 350	33	42			279	35		44
Butylbenzylphthalate	85-68-7	ug/kg	239	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			497	< 37		< 37
Chrysene	218-01-9	ug/kg	4730	480	540	1200	86	88	6500	220	800			444	400		110
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Diethylphthalate	84-66-2	ug/kg	24800	1900	42	< 42	< 36	< 36	< 350	< 39	37			< 400	53		< 37
Dimethylphthalate	131-11-3	ug/kg	734000	< 36	< 38	630	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Di-n-butylphthalate	84-74-2	ug/kg	150	1100	1200	47000	560	660	8700	480	1100			758	1200		1900
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Fluoranthene	206-44-0	ug/kg	122000	890	760	2600	190	200	15000	550	1300			637	580		240
Fluorene	86-73-7	ug/kg	122000	34	29	120	< 36	< 36	1200	< 39	77			41.82	34		< 37
Hexachlorobenzene	118-74-1	ug/kg	199	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Hexachloroethane	67-72-1	ug/kg	596	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	320	270	920	< 36	< 36	3300	130	320			189	170		< 37
Isophorone	78-59-1	ug/kg	139000	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Naphthalene	91-20-3	ug/kg	99.4	< 36	< 38	180	< 36	< 36	< 350	< 39	< 37				36		< 37
Nitrobenzene	98-95-3	ug/kg	1310						< 350					< 400			
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	220	1300	24000	< 36	360	2500	< 39	100			583	140		720
Pentachlorophenol	87-86-5	ug/kg	2100	< 72	< 76	< 83	< 72	< 72	< 690	< 78	< 73			< 790	< 75		< 74
Phenanthrene	85-01-8	ug/kg	45700	410	250	1200	83	100	8900	260	910			509	350		110
Phenol	108-95-2	ug/kg	30000	< 36	< 38	< 42	< 36	< 36	< 350	< 39	< 37			< 400	< 37		< 37
Pyrene	129-00-0	ug/kg	78500	1400	1400	3300	240	150	13000	580	2300			1710	690		210
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		31800	21500	27200		7520	17300	33000	58100			37800	17100		20800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg										< 48					
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127									< 48					

Kennedy Jenks

			Location	L10-2-02	L10-2088-02	L10-2191-02	L10-2191-06	L10-2242-03	L10-2316-02	L10-4-05	L10-725-01	L10-725-01	L10-8210-03	L10-8210-03	L10-8215-02	L10-8521-03	L10-B462-03
			Sample Date	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/16/2000	5/18/2000	5/18/2000	5/25/2000	5/26/2000	5/18/2000	5/18/2000	5/18/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L10-2-021N	L10-2088-021N	L10-2191-021.5N	L10-2191-061N	L10-2242-031.5N	L10-2316-021N	L10-4-051N	L10-725-011N	L10-725-010.5N	L10-8210-031N1630	L10-8210-031N810	L10-8215-021N	L10-8521-031.5N	L10-B462-031N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg										< 48					
1,1-Dichloroethane	75-34-3	ug/kg										< 48					
1,1-Dichloroethene	75-35-4	ug/kg	8280									< 48		< 400			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000									< 480					
1,2-Dichlorobenzene	95-50-1	ug/kg	2960									< 480					
1,2-Dichloroethane	107-06-2	ug/kg										< 48					
1,2-Dichloropropane	78-87-5	ug/kg										< 48					
1,3-Dichlorobenzene	541-73-1	ug/kg	37700									< 480					
1,4-Dichlorobenzene	106-46-7	ug/kg	546									< 480					
2-Chloroethylvinylether	110-75-8	ug/kg										< 96					
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270									< 190					
Acrylonitrile	107-13-1	ug/kg	23.9									< 48					
Benzene	71-43-2	ug/kg	255									< 48					
Bromodichloromethane	75-27-4	ug/kg	540									< 48					
Bromoform	75-25-2	ug/kg										< 48					
Bromomethane	74-83-9	ug/kg	235									< 96					
Carbon Tetrachloride	56-23-5	ug/kg	2980									< 48					
Chlorobenzene	108-90-7	ug/kg	13100									< 48					
Chloroethane	75-00-3	ug/kg										< 96					
Chloroform	67-66-3	ug/kg	1190									< 48					
Chloromethane	74-87-3	ug/kg	10400									< 96					
cis-1,2-Dichloroethene	156-59-2	ug/kg										< 48					
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050									< 48					
Ethylbenzene	100-41-4	ug/kg	5160									< 48					
Hexachlorobutadiene	87-68-3	ug/kg	39.8									< 480					
Methylene Chloride	75-09-2	ug/kg	4050									< 48		< 400			
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920									< 48					
Toluene	108-88-3	ug/kg	200000									< 48					
trans-1,2-Dichloroethene	156-60-5	ug/kg										< 48					
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400									< 48					
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646									< 96					
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	L11-1-04	L11-2-01	L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L6-1-01	L6-2128-05
			Sample Date	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/7/2000	4/28/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L11-1-041N	L11-2-011N	L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5FD	L11-2226-021.5N	L11-2303-031N	L6-1-011.5N	L6-2128-051N
			Parent ID										L11-2226-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 24			< 25	< 25			< 25	< 25			< 25		< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 24			< 25	< 25			< 25	< 25			< 25		< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 24			< 25	< 25			1700	< 25			< 25		1500
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 24			< 25	< 25			< 25	< 25			< 25		< 25
2-Nitrotoluene	88-72-2	ug/kg		< 48			< 50	< 50			< 50	< 50			< 50		< 50
3-Nitrotoluene	99-08-1	ug/kg		< 48			< 50	< 50			< 50	< 50			< 50		< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 24			< 25	< 25			< 25	< 25			< 25		< 25
4-Nitrotoluene	99-99-0	ug/kg		< 48			< 50	< 50			< 50	< 50			< 50		< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 24			< 25	< 25			< 25	210			< 25		< 25
Nitrocellulose	9004-70-0	ug/kg		96200			80700	108000			433000	128000			< 36000		1780000
Nitroglycerin	55-63-0	ug/kg	65000	24000			27000	2800			< 640	< 540			11000		160000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 48			< 50	< 50			< 50	< 50			< 50		< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 48			< 50	< 50			< 50	< 50			< 50		< 50
Tetryl	479-45-8	ug/kg	25000	< 48			< 50	< 50			350	< 50			< 50		< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		10.7	7.5		1.9			7.7	0			4.5	9.4		
Gravel	Gravel	%		29.8	50.7		40.8			31.6	34.5			14.2	38.1		
Sand	Sand	%		45.5	30		44.3			48.4	53			74.5	38.9		
Silt	Silt	%		14.1	11.8		13			12.3	12.6			6.9	13.6		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	L11-1-04	L11-2-01	L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L6-1-01	L6-2128-05
			Sample Date	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/7/2000	4/28/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L11-1-041N	L11-2-011N	L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5FD	L11-2226-021.5N	L11-2303-031N	L6-1-011.5N	L6-2128-051N
			Parent ID										L11-2226-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27				0.52	< 0.5	< 0.6	< 0.6	< 0.7	< 0.6	< 0.62	< 0.6	< 0.6	0.49	
Arsenic	7440-38-2	mg/kg	9.9				6.6	8.6	5.2	6.1	33.4	3.9	3.9	3	3.6	57.3	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10				0.48	0.27	0.41	0.5	0.45	0.47	0.14	0.17	0.81	0.36	
Cadmium	7440-43-9	mg/kg	0.36				0.29	0.28	0.32	0.36	0.61	0.5	0.16	0.16	0.39	< 0.3	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				16.2	16.6	14.7	21	35.3	11	3.9	4.4	23.1	11.4	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4				27.5	23.8	18.8	24.6	16.6	16.1	8.3	6.4	40.6	34.5	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				17.4	13.5	16.3	16.2	24.3	17.4	4.6	3.4	16.9	156	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1				0.05	0.05	0.05	0.04	0.03	0.04	0.02	< 0	0.03	0.26	
Nickel	7440-02-0	mg/kg	38				9.1	6.8	8.6	9.4	10.6	7.6	1.9	2.3	11.4	8.1	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52				0.49	< 0.4	0.45	0.82	0.67	0.68	< 0.51	< 0.5	0.94	0.5	
Silver	7440-22-4	mg/kg	2				< 0.3	< 0.2	< 0.3	< 0.3	0.1	< 0.3	< 0.31	< 0.3	< 0.3	< 0.3	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1				< 1	< 0.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5				69.5	61.2	83.5	74.7	241	57.5	14.3	10.7	47.3	97.4	
Moisture																	
Percent Solids	SOLID	percent		94.6	84.8		89.5	91.9	88.9	88.1	78.5	89.9	95.3	95.7	93.5	82.2	89.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 70	< 78		< 74	< 72	< 74	< 76	< 85	< 74	< 700	< 70	< 71	< 81	

Kennedy Jenks

				Location	L11-1-04	L11-2-01	L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L6-1-01	L6-2128-05
				Sample Date	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/7/2000	4/28/2000
				Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
				Sample ID	L11-1-041N	L11-2-011N	L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5FD	L11-2226-021.5N	L11-2303-031N	L6-1-011.5N	L6-2128-051N
				Parent ID										L11-2226-021.5N				
				Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**															
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	2900	1000		560	760	140	740	< 430	< 370	< 350	< 350	970	76	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	440	300		300	380	98	430	< 430	< 370	< 350	< 350	930	< 410	
2-Chloronaphthalene	91-58-7	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2-Chlorophenol	95-57-8	ug/kg	243	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 70	< 78		< 74	< 72	< 74	< 76	< 85	< 74	< 700	< 70	< 71	< 81	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 70	< 78		< 74	< 72	< 74	< 76	< 85	< 74	< 700	< 70	< 71	< 81	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
4-Nitrophenol	100-02-7	ug/kg	7000	< 70	< 78		< 74	< 72	< 74	< 76	< 85	< 74	< 700	< 70	< 71	< 81	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	55	66		27	25	< 37	58	< 43	< 37	120	78	< 35	< 41	
Acenaphthylene	208-96-8	ug/kg	682000	< 35	65		< 37	< 36	< 37	< 38	< 43	21	< 350	< 35	< 35	50	
Anthracene	120-12-7	ug/kg	1480000	430	370		92	120	34	230	< 43	30	450	330	82	95	
Benzidine	92-87-5	ug/kg	1310	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	940	1300		260	840	180	960	< 43	100	1800	1600	210	240	
Benzo[a]pyrene	50-32-8	ug/kg	1520	830	1200		250	810	170	920	< 43	150	1700	1600	180	150	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	1200	2000		340	1300	290	1500	< 43	330	2600	1900	250	540	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	430	890		< 37	440	< 37	360	< 43	130	590	600	81	160	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	540	740		240	460	140	640	< 43	130	870	1400	140	170	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	84	< 39		44	95	37	43	41	94	22	27	35	36	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Chrysene	218-01-9	ug/kg	4730	770	1300		230	650	190	810	< 43	140	1400	1200	190	370	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 35	260		< 37	140	< 37	120	< 43	< 37	< 350	< 35	< 35	< 41	
Diethylphthalate	84-66-2	ug/kg	24800	1200	71		550	920	230	700	< 43	200	< 350	220	110	< 41	
Dimethylphthalate	131-11-3	ug/kg	734000	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Di-n-butylphthalate	84-74-2	ug/kg	150	2900	< 39		910	1300	< 37	< 38	4900	5300	< 35	< 35	790	73	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Fluoranthene	206-44-0	ug/kg	122000	1600	2400		570	1000	370	1700	< 43	180	3000	2600	420	440	
Fluorene	86-73-7	ug/kg	122000	92	130		49	37	< 37	70	< 43	< 37	140	83	25	< 41	
Hexachlorobenzene	118-74-1	ug/kg	199	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Hexachloroethane	67-72-1	ug/kg	596	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	420	890		81	430	< 37	370	< 43	120	620	610	79	140	
Isophorone	78-59-1	ug/kg	139000	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Naphthalene	91-20-3	ug/kg	99.4	< 35	29		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	33	
Nitrobenzene	98-95-3	ug/kg	1310		< 39				< 37	< 38			< 350	< 35		< 41	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	1700	2500		1500	590	95	90	180	490	200	< 35	380	170	
Pentachlorophenol	87-86-5	ug/kg	2100	< 70	< 78		< 74	< 72	< 74	< 76	< 85	< 74	< 700	< 70	< 71	< 81	
Phenanthrene	85-01-8	ug/kg	45700	690	1500		370	330	150	560	< 43	47	1300	790	280	130	
Phenol	108-95-2	ug/kg	30000	< 35	< 39		< 37	< 36	< 37	< 38	< 43	< 37	< 350	< 35	< 35	< 41	
Pyrene	129-00-0	ug/kg	78500	2400	2200		490	2100	390	1800	< 43	160	3400	2900	340	540	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		8870	80000		7330			7740	11200			4950	9130		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg				< 60											
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			601											

			Location	L11-1-04	L11-2-01	L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L6-1-01	L6-2128-05
			Sample Date	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/7/2000	4/28/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	L11-1-041N	L11-2-011N	L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5FD	L11-2226-021.5N	L11-2303-031N	L6-1-011.5N	L6-2128-051N
			Parent ID										L11-2226-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 60											
1,1-Dichloroethane	75-34-3	ug/kg				< 60											
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 60											
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 601											
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 601											
1,2-Dichloroethane	107-06-2	ug/kg				< 60											
1,2-Dichloropropane	78-87-5	ug/kg				< 60											
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 601											
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 601											
2-Chloroethylvinylether	110-75-8	ug/kg				< 120											
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270			< 240											
Acrylonitrile	107-13-1	ug/kg	23.9			< 60											
Benzene	71-43-2	ug/kg	255			< 60											
Bromodichloromethane	75-27-4	ug/kg	540			< 60											
Bromoform	75-25-2	ug/kg				< 60											
Bromomethane	74-83-9	ug/kg	235			< 120											
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 60											
Chlorobenzene	108-90-7	ug/kg	13100			< 60											
Chloroethane	75-00-3	ug/kg				< 120											
Chloroform	67-66-3	ug/kg	1190			< 60											
Chloromethane	74-87-3	ug/kg	10400			< 120											
cis-1,2-Dichloroethene	156-59-2	ug/kg				< 60											
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050			< 60											
Ethylbenzene	100-41-4	ug/kg	5160			< 60											
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 601											
Methylene Chloride	75-09-2	ug/kg	4050			< 60											
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920			< 60											
Toluene	108-88-3	ug/kg	200000			< 60											
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 60											
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400			< 60											
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646			< 120											
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	L6-2129-05	L6-3-02	L6-370-05	L6-371-01	L6-4-02	L6-5-01	L6-9-01	L7-1-03	L7-2130-06	L7-2131-04	L7-2131-05	L7-2131-05	L7-5-01	L7-6-01
			Sample Date	5/2/2000	4/13/2000	4/13/2000	4/11/2000	4/18/2000	4/18/2000	4/11/2000	5/23/2000	5/11/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	L6-2129-051.5N	L6-3-021N	L6-370-051.5N	L6-371-011N	L6-4-021N	L6-5-011.5N	L6-9-011N	L7-1-031.5N	L7-2130-061N	L7-2131-041N	L7-2131-051.5FD	L7-2131-051.5N	L7-5-011N	L7-6-011N
			Parent ID											L7-2131-051.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25		< 25	< 24		< 25			< 14	< 24	< 250	< 25		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25		< 25	< 24		< 25			< 14	< 24	< 250	< 25		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	740		< 25	< 24		< 25			< 14	3700	180	430		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280											< 250			
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250								< 140	< 240	< 250	< 250		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25		< 25	< 24		< 25			< 14	< 24	< 250	< 25		
2-Nitrotoluene	88-72-2	ug/kg		< 50		< 50	< 48		< 50			< 29	< 48	< 500	< 50		
3-Nitrotoluene	99-08-1	ug/kg		< 50		< 50	< 48		< 50			< 29	< 48	< 500	< 50		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25		< 25	< 24		< 25			< 14	< 24	< 250	< 25		
4-Nitrotoluene	99-99-0	ug/kg		< 50		< 50	< 48		< 50			< 29	< 48	< 500	< 50		
Nitrobenzene	98-95-3	ug/kg	1310	< 25		< 25	< 24		< 25			< 14	< 24	< 250	< 25		
Nitrocellulose	9004-70-0	ug/kg		1120000		< 42000	< 40000		< 39000			52100	6260000	246000	498000		
Nitroglycerin	55-63-0	ug/kg	65000	210000		< 600	< 550		< 570			9600	1200000	37000	110000		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50		< 50	< 48		< 50			< 29	< 48	< 500	< 50		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50		< 50	< 48		< 50			< 29	< 48	< 500	< 50		
Tetryl	479-45-8	ug/kg	25000	< 50		< 50	< 48		< 50			< 29	< 48	< 500	< 50		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			5.7	6.9	3.6	10.9	8	3.5	8		0.1			7.2	9
Gravel	Gravel	%			14.7	20.4	30	15.3	23.5	32.9	15.9		45.6			36	17.1
Sand	Sand	%			64.3	47.2	41.7	47	47.1	48	52.8		46.1			40.2	41
Silt	Silt	%			15.4	25.5	24.7	26.8	21.4	15.6	23.2		8.2			16.6	32.8
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	L6-2129-05	L6-3-02	L6-370-05	L6-371-01	L6-4-02	L6-5-01	L6-9-01	L7-1-03	L7-2130-06	L7-2131-04	L7-2131-05	L7-2131-05	L7-5-01	L7-6-01
			Sample Date	5/2/2000	4/13/2000	4/13/2000	4/11/2000	4/18/2000	4/18/2000	4/11/2000	5/23/2000	5/11/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	L6-2129-051.5N	L6-3-021N	L6-370-051.5N	L6-371-011N	L6-4-021N	L6-5-011.5N	L6-9-011N	L7-1-031.5N	L7-2130-061N	L7-2131-041N	L7-2131-051.5FD	L7-2131-051.5N	L7-5-011N	L7-6-011N
			Parent ID											L7-2131-051.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.7	< 0.4	< 0.6	< 0.6	< 0.6	< 4	< 0.7						< 0.8
Arsenic	7440-38-2	mg/kg	9.9		3.8	3.3	4.5	6.7	4.8	5	8.9						13.4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.48	0.49	0.65	0.56	0.8	0.61	0.67						0.71
Cadmium	7440-43-9	mg/kg	0.36		< 0.3	0.28	0.27	0.5	0.15	< 2	0.23						0.27
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		9.7	12.9	16.5	15.5	17.8	10.2	20.3						18.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		14	14.1	16.3	37.7	22.4	9480	13.1						15.9
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		39.2	15	35.4	142	46.9	2850	30.7						40
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.14	0.05	0.05	< 0	0.15	6.6	0.07						0.13
Nickel	7440-02-0	mg/kg	38		6.1	8.1	10.8	9.9	12.5	6.2	7.9						12.6
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.42	0.64	0.51	0.87	0.48	2.5	0.79						0.96
Silver	7440-22-4	mg/kg	2		< 0.3	< 0.2	< 0.3	< 0.3	< 0.3	< 2	0.09						0.12
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 1	< 0.8	< 1	< 1	< 1	< 6	< 1						< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		50.7	60.3	82.2	75.8	110	70.9	103						93.5
Moisture																	
Percent Solids	SOLID	percent		89.2	84.8	82.8	86.3	80.3	86.3	69.2	74.6	87	88.7	91.8	91.6	75.5	71.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371													< 2	
Aroclor-1221	11104-28-2	ug/kg	371													< 2	
Aroclor-1232	11141-16-5	ug/kg	371													< 2	
Aroclor-1242	53469-21-9	ug/kg	371													< 2	
Aroclor-1248	12672-29-6	ug/kg	371													< 2	
Aroclor-1254	11097-69-1	ug/kg	371													< 2	
Aroclor-1260	11096-82-5	ug/kg	371													< 4	
Polychlorinated biphenyls	1336-36-3	ug/kg	371													< 45	
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 79	< 81	< 190	< 83	< 78	< 240	< 89						< 94

Kennedy Jenks

			Location	L6-2129-05	L6-3-02	L6-370-05	L6-371-01	L6-4-02	L6-5-01	L6-9-01	L7-1-03	L7-2130-06	L7-2131-04	L7-2131-05	L7-2131-05	L7-5-01	L7-6-01
			Sample Date	5/2/2000	4/13/2000	4/13/2000	4/11/2000	4/18/2000	4/18/2000	4/11/2000	5/23/2000	5/11/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	L6-2129-051.5N	L6-3-021N	L6-370-051.5N	L6-371-011N	L6-4-021N	L6-5-011.5N	L6-9-011N	L7-1-031.5N	L7-2130-061N	L7-2131-041N	L7-2131-051.5FD	L7-2131-051.5N	L7-5-011N	L7-6-011N
			Parent ID											L7-2131-051.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 390	< 400	< 390	< 420	< 390	290	< 440						< 470
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 390	< 400	< 390	< 420	< 390	130	< 440						< 470
2-Chloronaphthalene	91-58-7	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2-Chlorophenol	95-57-8	ug/kg	243		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 79	< 81	< 78	< 83	< 78	< 97	< 89						< 94
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 79	< 81	< 190	< 83	< 78	< 240	< 89						< 94
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
4-Nitrophenol	100-02-7	ug/kg	7000		< 79	< 81	< 190	< 83	< 78	< 240	< 89						< 94
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Acenaphthylene	208-96-8	ug/kg	682000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Anthracene	120-12-7	ug/kg	1480000		< 39	< 40	26	< 42	< 39	< 48	< 44						< 47
Benzidine	92-87-5	ug/kg	1310		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		< 39	< 40	210	< 42	< 39	100	37						< 47
Benzo[a]pyrene	50-32-8	ug/kg	1520		27	< 40	180	< 42	< 39	99	< 44						< 47
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		< 39	< 40	200	21	< 39	170	< 44						< 47
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 39	< 40	93	< 42	< 39	< 48	< 44						< 47
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 39	< 40	100	< 42	< 39	< 48	< 44						< 47
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		32	< 40	22	31	26	76	40						< 47
Butylbenzylphthalate	85-68-7	ug/kg	239		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Chrysene	218-01-9	ug/kg	4730		< 39	< 40	160	< 42	< 39	120	< 44						< 47
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Diethylphthalate	84-66-2	ug/kg	24800		< 39	< 40	38	< 42	< 39	43	< 44						< 47
Dimethylphthalate	131-11-3	ug/kg	734000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Di-n-butylphthalate	84-74-2	ug/kg	150		45	< 40	< 39	< 42	35	410	83						56
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Fluoranthene	206-44-0	ug/kg	122000		74	< 40	330	< 42	< 39	190	< 44						85
Fluorene	86-73-7	ug/kg	122000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Hexachlorobenzene	118-74-1	ug/kg	199		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Hexachloroethane	67-72-1	ug/kg	596		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 39	< 40	89	< 42	< 39	< 48	< 44						< 47
Isophorone	78-59-1	ug/kg	139000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Naphthalene	91-20-3	ug/kg	99.4		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Nitrobenzene	98-95-3	ug/kg	1310		< 39			< 42		< 48	< 44						< 47
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Pentachlorophenol	87-86-5	ug/kg	2100		< 79	< 81	< 190	< 83	< 78	< 240	< 89						< 94
Phenanthrene	85-01-8	ug/kg	45700		39	< 40	86	< 42	< 39	160	44						61
Phenol	108-95-2	ug/kg	30000		< 39	< 40	< 39	< 42	< 39	< 48	< 44						< 47
Pyrene	129-00-0	ug/kg	78500		< 39	< 40	370	< 42	< 39	270	< 44						75
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			36300	10600	18100	35000	11600	53100	70900		8400			11300	88700
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	L6-2129-05	L6-3-02	L6-370-05	L6-371-01	L6-4-02	L6-5-01	L6-9-01	L7-1-03	L7-2130-06	L7-2131-04	L7-2131-05	L7-2131-05	L7-5-01	L7-6-01
			Sample Date	5/2/2000	4/13/2000	4/13/2000	4/11/2000	4/18/2000	4/18/2000	4/11/2000	5/23/2000	5/11/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	L6-2129-051.5N	L6-3-021N	L6-370-051.5N	L6-371-011N	L6-4-021N	L6-5-011.5N	L6-9-011N	L7-1-031.5N	L7-2130-061N	L7-2131-041N	L7-2131-051.5FD	L7-2131-051.5N	L7-5-011N	L7-6-011N
			Parent ID											L7-2131-051.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	L7-9315-01	L8-8215-01	L8-8235-01	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-8210-05	M10-1-02	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02
			Sample Date	5/23/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	5/12/2000	5/18/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	L7-9315-011.5N	L8-8215-010.5N	L8-8235-011N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-8210-051N	M10-1-021.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 25		< 25	< 25	< 13				< 25	< 23			
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 25		< 25	< 25	< 13				< 25	< 23			
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25	< 25		< 25	< 25	< 13				< 25	< 23			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250			< 250	< 250									
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 25		< 25	< 25	< 13				< 25	< 23			
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 50		< 50	< 50	< 27				< 50	< 45			
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 50		< 50	< 50	< 27				< 50	< 45			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 25		< 25	< 25	< 13				< 25	< 23			
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 50		< 50	< 50	< 27				< 50	< 45			
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 25		< 25	< 25	< 13				< 25	< 23			
Nitrocellulose	9004-70-0	ug/kg		63900	66100		< 37000	< 37000	< 39000				< 41000	107000			
Nitroglycerin	55-63-0	ug/kg	65000	< 590	< 550		< 560	< 540	< 560				< 580	9200			
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 50		< 50	< 50	< 27				< 50	< 45			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 50		< 50	< 50	< 27				< 50	< 45			
Tetryl	479-45-8	ug/kg	25000	< 50	< 50		< 50	< 50	< 27				< 50	< 45			
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		0	4.9	0	4		2.3	0	21.8	8.5	16.6	6.4	3.5		2.4
Gravel	Gravel	%		30	32.3	60.2	23.5		40.6	45	19.8	46.8	19.1	44.5	45.8		23.6
Sand	Sand	%		63.6	50.6	17	61.8		46.8	42.2	34.3	29.1	35.2	40.4	36.6		32.7
Silt	Silt	%		6.4	12.2	22.8	10.7		10.3	12.8	24.1	15.6	29.1	8.7	14.1		41.3
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	L7-9315-01	L8-8215-01	L8-8235-01	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-8210-05	M10-1-02	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02
			Sample Date	5/23/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	5/12/2000	5/18/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	L7-9315-011.5N	L8-8215-010.5N	L8-8235-011N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-8210-051N	M10-1-021.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.6	< 0.7			< 0.6		< 0.6	0.52	< 0.6	< 0.6	0.59		
Arsenic	7440-38-2	mg/kg	9.9		5.3	7.4			5.1		5.4	9.9	4.8	5.9	4.5		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.31	0.8			0.55		0.97	0.45	0.22	0.29	0.26		
Cadmium	7440-43-9	mg/kg	0.36		0.53	0.67			< 0.3		0.59	0.82	0.05	< 0.3	0.75		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		12.8	19.7			17.9		20	53.5	17.9	12	24.7		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		10.5	17.8			17		12.6	36.9	6.1	117	1120		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		32.8	40.7			35.3		32.8	6530	20	18.2	155		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.04	0.11			0.04		0.13	3.1	0.06	0.03	0.15		
Nickel	7440-02-0	mg/kg	38		6.2	12			9.5		11.6	14.1	6.5	6.9	14.3		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.49	1.2			< 0.5		1.3	< 0.4	0.55	< 0.5	0.44		
Silver	7440-22-4	mg/kg	2		< 0.3	< 0.3			< 0.3		< 0.3	4.7	< 0.3	< 0.3	0.54		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 1	< 1			< 1		< 1	0.67	< 1	< 1	< 1		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		73.6	197			66.2		143	290	30.4	52.9	643		
Moisture																	
Percent Solids	SOLID	percent		84.2	90.6	76.4	90	90.6	88.6	82.8	88.4	83.9	85.9	90.9	79.2		81.9
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371							< 2							
Aroclor-1221	11104-28-2	ug/kg	371							< 2							
Aroclor-1232	11141-16-5	ug/kg	371							< 2							
Aroclor-1242	53469-21-9	ug/kg	371							< 2							
Aroclor-1248	12672-29-6	ug/kg	371							< 2							
Aroclor-1254	11097-69-1	ug/kg	371							< 2							
Aroclor-1260	11096-82-5	ug/kg	371							< 4							
Polychlorinated biphenyls	1336-36-3	ug/kg	371							< 41							
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 73	< 88			< 75		< 76	< 790	< 78	< 73	< 84		< 81

			Location	L7-9315-01	L8-8215-01	L8-8235-01	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-8210-05	M10-1-02	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02
			Sample Date	5/23/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	5/12/2000	5/18/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	L7-9315-011.5N	L8-8215-010.5N	L8-8235-011N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-8210-051N	M10-1-021.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 370	< 440			< 370		< 380	2300	< 390	500	< 420		< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 370	< 440			< 370		< 380	< 4000	< 390	32	< 420		< 410
2-Chloronaphthalene	91-58-7	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2-Chlorophenol	95-57-8	ug/kg	243		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 73	< 88			< 75		< 76	< 790	< 78	< 73	< 84		< 81
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 73	< 88			< 75		< 76	< 790	< 78	< 73	< 84		< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
4-Nitrophenol	100-02-7	ug/kg	7000		< 73	< 88			< 75		< 76	< 790	< 78	< 73	< 84		< 81
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 37	< 44			100		< 38	< 400	< 39	< 37	< 42		< 41
Acenaphthylene	208-96-8	ug/kg	682000		38	< 44			33		< 38	< 400	< 39	< 37	24		< 41
Anthracene	120-12-7	ug/kg	1480000		49	< 44			300		< 38	< 400	< 39	< 37	< 42		< 41
Benzidine	92-87-5	ug/kg	1310		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		350	75			880		33	< 400	< 39	240	< 42		87
Benzo[a]pyrene	50-32-8	ug/kg	1520		380	95			780		34	< 400	37	< 37	99		96
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		620	140			1100		< 38	< 400	< 39	400	140		160
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		240	< 44			390		< 38	< 400	< 39	< 37	110		< 41
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		230	< 44			350		< 38	< 400	< 39	120	< 42		< 41
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		53	36			150		300	790	< 39	88	81		35
Butylbenzylphthalate	85-68-7	ug/kg	239		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Chrysene	218-01-9	ug/kg	4730		390	93			770		36	< 400	53	260	140		120
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 37	< 44			110		< 38	< 400	< 39	< 37	< 42		< 41
Diethylphthalate	84-66-2	ug/kg	24800		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Dimethylphthalate	131-11-3	ug/kg	734000		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Di-n-butylphthalate	84-74-2	ug/kg	150		78	< 44			270		< 38	500	< 39	270	940		< 41
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Fluoranthene	206-44-0	ug/kg	122000		800	190			2200		72	< 400	100	340	180		210
Fluorene	86-73-7	ug/kg	122000		39	< 44			190		< 38	< 400	< 39	< 37	< 42		< 41
Hexachlorobenzene	118-74-1	ug/kg	199		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Hexachloroethane	67-72-1	ug/kg	596		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		220	< 44			380		< 38	< 400	< 39	< 37	90		< 41
Isophorone	78-59-1	ug/kg	139000		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Naphthalene	91-20-3	ug/kg	99.4		< 37	< 44			30		< 38	< 400	< 39	< 37	< 42		< 41
Nitrobenzene	98-95-3	ug/kg	1310			< 44					< 38	< 400			< 42		< 41
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 37	< 44			< 37		< 38	730	< 39	580	< 42		< 41
Pentachlorophenol	87-86-5	ug/kg	2100		< 73	< 88			< 75		< 76	< 790	< 78	< 73	< 84		< 81
Phenanthrene	85-01-8	ug/kg	45700		360	96			1500		39	< 400	60	120	66		80
Phenol	108-95-2	ug/kg	30000		< 37	< 44			< 37		< 38	< 400	< 39	< 37	< 42		< 41
Pyrene	129-00-0	ug/kg	78500		1000	150			1500		< 38	< 400	93	540	230		150
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		57500	39700	68200	11100		33200	18200	53300	103000	17800	11000	54900		25900
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg														< 62	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127													< 62	

			Location	L7-9315-01	L8-8215-01	L8-8235-01	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-8210-05	M10-1-02	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02
			Sample Date	5/23/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	5/12/2000	5/18/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000
			Sample Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	L7-9315-011.5N	L8-8215-010.5N	L8-8235-011N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-8210-051N	M10-1-021.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg														< 62	
1,1-Dichloroethane	75-34-3	ug/kg														< 62	
1,1-Dichloroethene	75-35-4	ug/kg	8280													< 62	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000													< 625	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960													< 625	
1,2-Dichloroethane	107-06-2	ug/kg														< 62	
1,2-Dichloropropane	78-87-5	ug/kg														< 62	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700													< 625	
1,4-Dichlorobenzene	106-46-7	ug/kg	546													< 625	
2-Chloroethylvinylether	110-75-8	ug/kg														< 125	
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270													< 250	
Acrylonitrile	107-13-1	ug/kg	23.9													< 62	
Benzene	71-43-2	ug/kg	255													< 62	
Bromodichloromethane	75-27-4	ug/kg	540													< 62	
Bromoform	75-25-2	ug/kg														< 62	
Bromomethane	74-83-9	ug/kg	235													< 125	
Carbon Tetrachloride	56-23-5	ug/kg	2980													< 62	
Chlorobenzene	108-90-7	ug/kg	13100													< 62	
Chloroethane	75-00-3	ug/kg														< 125	
Chloroform	67-66-3	ug/kg	1190													< 62	
Chloromethane	74-87-3	ug/kg	10400													< 125	
cis-1,2-Dichloroethene	156-59-2	ug/kg														< 62	
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050													< 62	
Ethylbenzene	100-41-4	ug/kg	5160													< 62	
Hexachlorobutadiene	87-68-3	ug/kg	39.8													< 625	
Methylene Chloride	75-09-2	ug/kg	4050													< 62	
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920													< 62	
Toluene	108-88-3	ug/kg	200000													< 62	
trans-1,2-Dichloroethene	156-60-5	ug/kg														< 62	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400													< 62	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646													< 125	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	M10-7-02	M10-724-01	M10-724-01	M10-B14-01	M10-B14-01	M11-3-02	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166A-B-C-03	M5-8166D-04	M6-1-01	M6-1-06
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M10-7-020.5N	M10-724-010.5N925	M10-724-010.5N930	M10-B14-011FD	M10-B14-011N	M11-3-021N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166A-B-C-031N	M5-8166D-041N	M6-1-011N	M6-1-061N
			Parent ID				M10-B14-011N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25		< 24			< 25							< 25	< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25		< 24			< 25							< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	2600		360			< 25							< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250												< 250	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25		< 24			< 25							< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50		< 48			< 50							< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50		< 48			< 50							< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25		< 24			< 25							< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50		< 48			< 50							< 50	< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25		< 24			< 25							< 25	< 25
Nitrocellulose	9004-70-0	ug/kg		685000		1140000			80900							108000	79400
Nitroglycerin	55-63-0	ug/kg	65000	280000		50000			< 630							8400	< 590
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50		< 48			< 50							< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50		< 48			< 50							< 50	< 50
Tetryl	479-45-8	ug/kg	25000	< 50		< 48			< 50							< 50	< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		0		0		15.3	3.7	8	8.4	1.4	2.2	6.3	7.2	-0.1	
Gravel	Gravel	%		51.7		30.4		25.3	48.8	44.8	52.2	43.6	35.8	25.2	31.2	49.4	
Sand	Sand	%		40.9		57.6		47.4	39.3	40.6	22.4	40.5	51.3	47	51.5	45.3	
Silt	Silt	%		7.3		12		11.9	8.2	6.6	17.1	14.5	10.7	21.5	10.1	5.4	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	M10-7-02	M10-724-01	M10-724-01	M10-B14-01	M10-B14-01	M11-3-02	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166A-B-C-03	M5-8166D-04	M6-1-01	M6-1-06
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M10-7-020.5N	M10-724-010.5N925	M10-724-010.5N930	M10-B14-011FD	M10-B14-011N	M11-3-021N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166A-B-C-031N	M5-8166D-041N	M6-1-011N	M6-1-061N
			Parent ID				M10-B14-011N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.6	0.68	< 0.6	< 0.7		< 0.7	< 0.7	0.57	< 0.6	< 0.6		1.1
Arsenic	7440-38-2	mg/kg	9.9			4.2	4.4	5.2	4.4		3.5	6.5	9.8	2.7	1.7		161
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.37	0.46	0.44	0.28		0.48	0.64	0.59	0.31	0.3		0.8
Cadmium	7440-43-9	mg/kg	0.36			0.31	0.18	0.07	1.5		< 0.3	0.41	< 0.3	< 0.3	< 0.3		0.29
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			10	20.7	20.1	9.2		14.6	20.9	23.1	7.5	7.7		16.8
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			13.3	24.1	24.4	10.7		27.9	20.3	22.8	18.5	10.1		50.6
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			29.8	295	308	128		20.2	288	22.7	6.3	3.8		53.5
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.06	0.08	0.11	0.22		0.03	0.1	0.03	0.03	< 0		0.15
Nickel	7440-02-0	mg/kg	38			8	11.7	12.6	6		10.9	10.5	12	5.3	5		17.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			0.33	0.46	0.56	0.91		< 0.6	0.69	0.46	< 0.5	< 0.5		1.3
Silver	7440-22-4	mg/kg	2			< 0.3	< 0.32	< 0.3	0.17		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 1	< 1.1	< 1	< 1		< 1	0.66	1	< 1	< 1		< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			46.5	103	221	295		73.3	78.1	185	40.4	41.7		52.9
Moisture																	
Percent Solids	SOLID	percent		85.3		90.3	88.8	85.6	75.8	88.6	82.8	79.5	85.8	90.1	88.7	87.9	84.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371							< 2							
Aroclor-1221	11104-28-2	ug/kg	371							< 2							
Aroclor-1232	11141-16-5	ug/kg	371							< 2							
Aroclor-1242	53469-21-9	ug/kg	371							< 2							
Aroclor-1248	12672-29-6	ug/kg	371							< 2							
Aroclor-1254	11097-69-1	ug/kg	371							< 2							
Aroclor-1260	11096-82-5	ug/kg	371							< 3							
Polychlorinated biphenyls	1336-36-3	ug/kg	371							< 38							
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 740	< 750	< 78	< 88		< 80	< 83	< 78	< 74	< 75		

			Location	M10-7-02	M10-724-01	M10-724-01	M10-B14-01	M10-B14-01	M11-3-02	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166A-B-C-03	M5-8166D-04	M6-1-01	M6-1-06
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M10-7-020.5N	M10-724-010.5N925	M10-724-010.5N930	M10-B14-011FD	M10-B14-011N	M11-3-021N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166A-B-C-031N	M5-8166D-041N	M6-1-011N	M6-1-061N
			Parent ID				M10-B14-011N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 3700	< 370	< 390	< 440		< 400	< 420	< 390	< 370	< 370		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 3700	< 370	< 390	< 440		< 400	< 420	< 390	< 370	< 370		
2-Chloronaphthalene	91-58-7	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2-Chlorophenol	95-57-8	ug/kg	243			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 740	< 750	< 78	< 88		< 80	< 83	< 78	< 74	< 75		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 740	< 750	< 78	< 88		< 80	< 83	< 78	< 74	< 75		
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
4-Nitrophenol	100-02-7	ug/kg	7000			< 740	< 750	< 78	< 88		< 80	< 83	< 78	< 74	< 75		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Acenaphthylene	208-96-8	ug/kg	682000			< 370	< 370	< 39	31		< 40	< 42	< 39	< 37	27		
Anthracene	120-12-7	ug/kg	1480000			< 370	< 370	< 39	44		< 40	< 42	< 39	< 37	45		
Benzidine	92-87-5	ug/kg	1310			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			330	62	67	140		< 40	< 42	< 39	< 37	170		
Benzo[a]pyrene	50-32-8	ug/kg	1520			310	48	< 39	140		< 40	< 42	< 39	< 37	110		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			< 370	72	100	510		< 40	< 42	< 39	< 37	180		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			< 370	< 370	< 39	130		< 40	< 42	< 39	< 37	< 37		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 370	< 370	< 39	150		< 40	< 42	< 39	< 37	< 37		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			< 370	37	140	28		51	< 42	60	81	< 37		
Butylbenzylphthalate	85-68-7	ug/kg	239			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Chrysene	218-01-9	ug/kg	4730			390	63	100	400		< 40	< 42	< 39	< 37	140		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Diethylphthalate	84-66-2	ug/kg	24800			1000	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Dimethylphthalate	131-11-3	ug/kg	734000			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Di-n-butylphthalate	84-74-2	ug/kg	150			16000	< 37	< 39	< 44		150	38	40	< 37	< 37		
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Fluoranthene	206-44-0	ug/kg	122000			740	110	150	610		< 40	< 42	< 39	< 37	340		
Fluorene	86-73-7	ug/kg	122000			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Hexachlorobenzene	118-74-1	ug/kg	199			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Hexachloroethane	67-72-1	ug/kg	596			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			< 370	< 370	< 39	130		< 40	< 42	< 39	< 37	< 37		
Isophorone	78-59-1	ug/kg	139000			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Naphthalene	91-20-3	ug/kg	99.4			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Nitrobenzene	98-95-3	ug/kg	1310				< 370	< 39			< 40	< 42	< 39	< 37	< 37		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			3200	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Pentachlorophenol	87-86-5	ug/kg	2100			< 740	< 750	< 78	< 88		< 80	< 83	< 78	< 74	< 75		
Phenanthrene	85-01-8	ug/kg	45700			290	56	92	150		< 40	< 42	< 39	< 37	250		
Phenol	108-95-2	ug/kg	30000			< 370	< 370	< 39	< 44		< 40	< 42	< 39	< 37	< 37		
Pyrene	129-00-0	ug/kg	78500			< 370	130	190	450		< 40	< 42	< 39	< 37	270		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		24500		36600		27500	44400	8780	11400	55400	7120	15000	1270	62000	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 54												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 54												

			Location	M10-7-02	M10-724-01	M10-724-01	M10-B14-01	M10-B14-01	M11-3-02	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166A-B-C-03	M5-8166D-04	M6-1-01	M6-1-06
			Sample Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	5/5/2000	5/5/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M10-7-020.5N	M10-724-010.5N925	M10-724-010.5N930	M10-B14-011FD	M10-B14-011N	M11-3-021N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166A-B-C-031N	M5-8166D-041N	M6-1-011N	M6-1-061N
			Parent ID				M10-B14-011N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 54												
1,1-Dichloroethane	75-34-3	ug/kg			< 54												
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 54												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 540												
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 540												
1,2-Dichloroethane	107-06-2	ug/kg			< 54												
1,2-Dichloropropane	78-87-5	ug/kg			< 54												
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 540												
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 540												
2-Chloroethylvinylether	110-75-8	ug/kg			< 110												
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 220												
Acrylonitrile	107-13-1	ug/kg	23.9		< 54												
Benzene	71-43-2	ug/kg	255		< 54												
Bromodichloromethane	75-27-4	ug/kg	540		< 54												
Bromoform	75-25-2	ug/kg			< 54												
Bromomethane	74-83-9	ug/kg	235		730												
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 54												
Chlorobenzene	108-90-7	ug/kg	13100		< 54												
Chloroethane	75-00-3	ug/kg			< 110												
Chloroform	67-66-3	ug/kg	1190		< 54												
Chloromethane	74-87-3	ug/kg	10400		< 110												
cis-1,2-Dichloroethene	156-59-2	ug/kg			< 54												
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 54												
Ethylbenzene	100-41-4	ug/kg	5160		< 54												
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 540												
Methylene Chloride	75-09-2	ug/kg	4050		< 54												
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 54												
Toluene	108-88-3	ug/kg	200000		210												
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 54												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 54												
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 110												
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-05	M7-1-05	M7-2-02	M7-2-05	M7-2-11	M7-2-13	M7-2-18	M7-9205-01	M8-2-05	M8-2196-07
			Sample Date	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/12/2000	5/12/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-051FD	M7-1-051N	M7-2-021N	M7-2-051N	M7-2-111.5N	M7-2-131N	M7-2-181.5N	M7-9205-011.5N	M8-2-051.5N	M8-2196-071.5N
			Parent ID					M7-1-051N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25	< 24	< 23	< 25	< 210	< 25						< 25	< 25	< 14
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25	< 24	< 23	< 25	260	260						< 25	< 25	< 14
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25	< 24	< 23	< 25	110	< 25						< 25	390	2000
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280					< 210									
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250	< 240	< 230	< 250	< 210	< 250						< 250		< 140
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25	< 24	< 23	< 25	< 210	< 25						< 25	< 25	< 14
2-Nitrotoluene	88-72-2	ug/kg		< 50	< 48	< 45	< 50	< 420	< 50						< 50	< 50	< 29
3-Nitrotoluene	99-08-1	ug/kg		< 50	< 48	< 45	< 50	< 420	< 50						< 50	< 50	< 29
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25	< 24	< 23	120	< 210	< 25						< 25	< 25	< 14
4-Nitrotoluene	99-99-0	ug/kg		< 50	< 48	< 45	< 50	< 420	< 50						< 50	< 50	< 29
Nitrobenzene	98-95-3	ug/kg	1310	< 25	< 24	< 23	< 25	< 210	< 25						< 25	< 25	< 14
Nitrocellulose	9004-70-0	ug/kg		198000	386000	90900	153000	183000	157000						< 40000	273000	124000
Nitroglycerin	55-63-0	ug/kg	65000	< 680	4800	< 610	< 630	< 6800	< 670						< 570	< 610	370000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50	< 48	< 45	< 50	< 420	< 50						< 50	< 50	< 29
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50	< 48	< 45	< 50	< 420	< 50						< 50	< 50	< 29
Tetryl	479-45-8	ug/kg	25000	< 50	< 48	< 45	< 50	< 420	< 50						< 50	< 50	< 29
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%									3.2				3.8	4.4	
Gravel	Gravel	%									50.6				26.3	33.7	
Sand	Sand	%									33.3				56.6	51.8	
Silt	Silt	%									12.8				13.3	10.1	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-05	M7-1-05	M7-2-02	M7-2-05	M7-2-11	M7-2-13	M7-2-18	M7-9205-01	M8-2-05	M8-2196-07
			Sample Date	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/12/2000	5/12/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-051FD	M7-1-051N	M7-2-021N	M7-2-051N	M7-2-111.5N	M7-2-131N	M7-2-181.5N	M7-9205-011.5N	M8-2-051.5N	M8-2196-071.5N
			Parent ID					M7-1-051N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27							3.1	19.9	< 1	1.5	8.4		< 0.6	
Arsenic	7440-38-2	mg/kg	9.9							20.8	72.5	11.9	14.7	100		7	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10							0.56	0.69	0.74	0.31	0.41		0.41	
Cadmium	7440-43-9	mg/kg	0.36							2.9	2.4	0.47	0.5	0.21		2.2	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4							45.8	286	19.9	13.7	13.7		15.7	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4							636	9520	14	24.7	58.2		88.4	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11							806	1980	51.2	120	280		822	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1							2.7	0.5		0.32	0.5		0.44	
Nickel	7440-02-0	mg/kg	38							136	1380	5.8	7.6	15.1		12.5	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52							1.4	< 6	2.9	3.3	1.9		1.2	
Silver	7440-22-4	mg/kg	2							0.59	2.1	< 0.7	0.34	0.25		32.2	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1							< 1	< 13	< 2	< 1	< 1		< 1	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5							1720	1940	122	68.3	81.8		953	
Moisture																	
Percent Solids	SOLID	percent		74	73.8	81.6	79.5	73.4	73.8	63.6	69.2	41.7	48.9	81.7	86.5	82.6	86.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000							< 520	< 480	< 79	< 68	< 41		< 40	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960							< 520	< 480	< 79	< 68	< 41		< 40	
1,2-Diphenylhydrazine	122-66-7	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700							< 520	< 480	< 79	< 68	< 41		< 40	
1,4-Dichlorobenzene	106-46-7	ug/kg	546							< 520	< 480	< 79	< 68	< 41		< 40	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
2,4-Dimethylphenol	105-67-9	ug/kg	10							< 520	< 480	< 79	< 68	< 41		< 40	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9							< 1000	< 970	< 160	< 140	< 81		< 80	

			Location	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-05	M7-1-05	M7-2-02	M7-2-05	M7-2-11	M7-2-13	M7-2-18	M7-9205-01	M8-2-05	M8-2196-07
			Sample Date	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/12/2000	5/12/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-051FD	M7-1-051N	M7-2-021N	M7-2-051N	M7-2-111.5N	M7-2-131N	M7-2-181.5N	M7-9205-011.5N	M8-2-051.5N	M8-2196-071.5N
			Parent ID					M7-1-051N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280							970	1900	< 790	< 680	430		79	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8							< 5200	< 4800	< 790	< 680	< 410		< 400	
2-Chloronaphthalene	91-58-7	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
2-Chlorophenol	95-57-8	ug/kg	243							< 520	< 480	< 79	< 68	< 41		< 40	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646							< 1000	< 970	< 160	< 140	< 81		< 80	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144							< 1000	< 970	< 160	< 140	< 81		< 80	
4-Bromophenyl-phenylether	101-55-3	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
4-Chloro-3-methylphenol	59-50-7	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
4-Nitrophenol	100-02-7	ug/kg	7000							< 1000	< 970	< 160	< 140	< 81		< 80	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000							< 520	< 480	< 79	< 68	< 41		< 40	
Acenaphthylene	208-96-8	ug/kg	682000							< 520	< 480	< 79	< 68	52		< 40	
Anthracene	120-12-7	ug/kg	1480000							< 520	< 480	< 79	< 68	120		< 40	
Benzidine	92-87-5	ug/kg	1310							< 520	< 480	< 79	< 68	< 41		< 40	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210							830	< 480	< 79	87	420		80	
Benzo[a]pyrene	50-32-8	ug/kg	1520							1900	< 480	< 79	< 68	300		61	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800							< 520	< 480	< 79	< 68	850		< 40	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000							3700	< 480	< 79	< 68	150		< 40	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000							< 520	< 480	< 79	< 68	310		< 40	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900							< 520	< 480	< 79	< 68	< 41		< 40	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925							< 520	< 480	< 79	78	< 41		48	
Butylbenzylphthalate	85-68-7	ug/kg	239							< 520	< 480	< 79	< 68	< 41		< 40	
Chrysene	218-01-9	ug/kg	4730							1700	< 480	< 79	100	690		96	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400							1900	< 480	< 79	< 68	< 41		< 40	
Diethylphthalate	84-66-2	ug/kg	24800							490	< 480	< 79	62	< 41		< 40	
Dimethylphthalate	131-11-3	ug/kg	734000							< 520	< 480	< 79	< 68	< 41		< 40	
Di-n-butylphthalate	84-74-2	ug/kg	150							< 520	< 480	< 79	93	42		160	
Di-n-octylphthalate	117-84-0	ug/kg	7090							< 520	< 480	< 79	< 68	< 41		< 40	
Fluoranthene	206-44-0	ug/kg	122000							< 520	< 480	< 79	200	570		130	
Fluorene	86-73-7	ug/kg	122000							< 520	< 480	< 79	< 68	< 41		< 40	
Hexachlorobenzene	118-74-1	ug/kg	199							< 520	< 480	< 79	< 68	< 41		< 40	
Hexachlorobutadiene	87-68-3	ug/kg	39.8							< 520	< 480	< 79	< 68	< 41		< 40	
Hexachlorocyclopentadiene	77-47-4	ug/kg								< 520	< 480	< 79	< 68	< 41		< 40	
Hexachloroethane	67-72-1	ug/kg	596							< 520	< 480	< 79	< 68	< 41		< 40	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000							2100	< 480	< 79	< 68	170		< 40	
Isophorone	78-59-1	ug/kg	139000							< 520	< 480	< 79	< 68	< 41		69	
Naphthalene	91-20-3	ug/kg	99.4							< 520	< 480	< 79	< 68	67		< 40	
Nitrobenzene	98-95-3	ug/kg	1310							< 520	< 480	< 79	< 68	< 41			
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321							< 520	< 480	< 79	< 68	< 41		< 40	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544							< 520	< 480	< 79	< 68	< 41		< 40	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545							11000	3200	< 79	< 68	< 41		180	
Pentachlorophenol	87-86-5	ug/kg	2100							< 1000	< 970	< 160	< 140	< 81		< 80	
Phenanthrene	85-01-8	ug/kg	45700							< 520	< 480	< 79	110	510		50	
Phenol	108-95-2	ug/kg	30000							< 520	< 480	< 79	< 68	< 41		< 40	
Pyrene	129-00-0	ug/kg	78500							< 520	< 480	< 79	190	730		120	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg									257000				17200	194000	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-05	M7-1-05	M7-2-02	M7-2-05	M7-2-11	M7-2-13	M7-2-18	M7-9205-01	M8-2-05	M8-2196-07
			Sample Date	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/12/2000	5/12/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
			Sample ID	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-051FD	M7-1-051N	M7-2-021N	M7-2-051N	M7-2-111.5N	M7-2-131N	M7-2-181.5N	M7-9205-011.5N	M8-2-051.5N	M8-2196-071.5N
			Parent ID					M7-1-051N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	M8-2196-08	M8-3-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2193-01	M9-2193-06	M9-2251-03	M9-2251-03	M9-2251-03	M9-2251-03	M9-2254-03	M9-2292-01
			Sample Date	5/12/2000	5/12/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/12/2000	5/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M8-2196-081.5N	M8-3-011.5N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2193-011N	M9-2193-061N	M9-2251-031FD	M9-2251-031N	M9-2251-030.5FD	M9-2251-030.5N	M9-2254-031N	M9-2292-011N
			Parent ID									M9-2251-031N		M9-2251-030.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 24		< 25	< 25	< 14	< 14	< 14	< 13						< 24
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 24		< 25	< 25	< 14	< 14	< 14	< 13						< 24
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 24		< 25	< 25	< 14	760	2000	< 13						6200
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 240		< 250		< 140	< 140	< 140	< 130						< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 24		< 25	< 25	< 14	< 14	< 14	< 13						< 24
2-Nitrotoluene	88-72-2	ug/kg		< 48		< 50	< 50	< 27	< 28	< 29	< 26						< 48
3-Nitrotoluene	99-08-1	ug/kg		< 48		< 50	< 50	< 27	< 28	< 29	< 26						< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 24		< 25	< 25	< 14	< 14	< 14	< 13						< 24
4-Nitrotoluene	99-99-0	ug/kg		< 48		< 50	< 50	< 27	< 28	< 29	< 26						< 48
Nitrobenzene	98-95-3	ug/kg	1310	< 24		< 25	< 25	< 14	< 14	< 14	< 13						< 24
Nitrocellulose	9004-70-0	ug/kg		< 36000		226000	293000	< 38000	71400	563000	< 38000						93800
Nitroglycerin	55-63-0	ug/kg	65000	< 550		12000	11000	< 540	180000	760000	< 540						< 510
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 48		< 50	< 50	< 27	< 28	< 29	< 26						< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 48		< 50	< 50	< 27	< 28	< 29	< 26						< 48
Tetryl	479-45-8	ug/kg	25000	< 48		< 50	< 50	< 27	< 28	< 29	< 26						< 48
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		3.1	0		3.7						2.9			0.7	2.9
Gravel	Gravel	%		32.5	31.6		42.4						17.7			29.1	54.9
Sand	Sand	%		55.4	60.3		45.8						46.8			53	33.2
Silt	Silt	%		9	8.2		8.1						32.6			17.2	9
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	M8-2196-08	M8-3-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2193-01	M9-2193-06	M9-2251-03	M9-2251-03	M9-2251-03	M9-2251-03	M9-2254-03	M9-2292-01
			Sample Date	5/12/2000	5/12/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/12/2000	5/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M8-2196-081.5N	M8-3-011.5N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2193-011N	M9-2193-061N	M9-2251-031FD	M9-2251-031N	M9-2251-030.5FD	M9-2251-030.5N	M9-2254-031N	M9-2292-011N
			Parent ID									M9-2251-031N		M9-2251-030.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.4		< 1					< 0.76	1.3			< 0.5	
Arsenic	7440-38-2	mg/kg	9.9		5.4		5.6					10.9	11.3			6.3	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.41		0.4					0.64	0.87			0.6	
Cadmium	7440-43-9	mg/kg	0.36		0.32		0.26					0.45	0.86			0.37	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		15.1		24.3					23.2	25.9			20	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		31.3		3600					43.3	46.3			32.6	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		33.5		1510					55.9	72.9			16.1	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		< 0		0.11					0.12	0.12			0.04	
Nickel	7440-02-0	mg/kg	38		9.9		17.8					11.6	12.9			10.6	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.24		< 1					1.5	1.9			< 0.4	
Silver	7440-22-4	mg/kg	2		0.15		< 0.6					0.12	0.43			< 0.3	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 0.7		< 2					< 1.3	< 2			0.56	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		135		161					92.8	92			94.1	
Moisture																	
Percent Solids	SOLID	percent		91.5	88.3	86.6	92.7	92.4	88	87.4	90.7	76.8	77.4			88.8	93.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 38		< 36					< 430	< 43			< 37	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 38		< 36					< 430	< 43			< 37	
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 38		< 36					< 430	< 43			< 37	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 38		< 36					< 430	< 43			< 37	
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 38		< 36					< 430	< 43			< 37	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 38		< 36					< 430	< 43			< 37	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 38		< 36					< 430	< 43			< 37	
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 38		< 36					< 430	< 43			< 37	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 76		< 72					< 870	< 87			< 75	

			Location	M8-2196-08	M8-3-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2193-01	M9-2193-06	M9-2251-03	M9-2251-03	M9-2251-03	M9-2251-03	M9-2254-03	M9-2292-01
			Sample Date	5/12/2000	5/12/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/12/2000	5/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M8-2196-081.5N	M8-3-011.5N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2193-011N	M9-2193-061N	M9-2251-031FD	M9-2251-031N	M9-2251-030.5FD	M9-2251-030.5N	M9-2254-031N	M9-2292-011N
			Parent ID									M9-2251-031N		M9-2251-030.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 380		< 360					3200	< 430			3300	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 380		< 360					< 430	< 430			130	
2-Chloronaphthalene	91-58-7	ug/kg			< 38		< 36					< 430	< 43			< 37	
2-Chlorophenol	95-57-8	ug/kg	243		< 38		< 36					< 430	< 43			< 37	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 38		< 36					< 430	< 43			< 37	
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 76		< 72					< 870	< 87			< 75	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 76		< 72					< 870	< 87			< 75	
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 38		< 36					< 430	< 43			< 37	
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 38		< 36					< 430	< 43			< 37	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 38		< 36					< 430	< 43			< 37	
4-Nitrophenol	100-02-7	ug/kg	7000		< 76		< 72					< 870	< 87			< 75	
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000		< 38		< 36					87	98			< 37	
Acenaphthylene	208-96-8	ug/kg	682000		< 38		< 36					39	22			< 37	
Anthracene	120-12-7	ug/kg	1480000		< 38		< 36					370	400			< 37	
Benzidine	92-87-5	ug/kg	1310		< 38		< 36					< 430	< 43			< 37	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		< 38		< 36					900	1100			59	
Benzo[a]pyrene	50-32-8	ug/kg	1520		< 38		26					670	780			69	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		< 38		< 36					970	1100			100	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		< 38		< 36					360	400			< 37	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		< 38		< 36					350	350			< 37	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 38		< 36					< 430	< 43			< 37	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 38		< 36					< 430	< 43			< 37	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 38		< 36					< 430	< 43			< 37	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		26		30					< 430	< 43			30	
Butylbenzylphthalate	85-68-7	ug/kg	239		< 38		< 36					< 430	< 43			< 37	
Chrysene	218-01-9	ug/kg	4730		< 38		< 36					850	960			81	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 38		< 36					120	130			< 37	
Diethylphthalate	84-66-2	ug/kg	24800		< 38		< 36					< 430	< 43			< 37	
Dimethylphthalate	131-11-3	ug/kg	734000		< 38		< 36					< 430	< 43			< 37	
Di-n-butylphthalate	84-74-2	ug/kg	150		< 38		< 36					< 43	< 43			180	
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 38		< 36					< 430	< 43			< 37	
Fluoranthene	206-44-0	ug/kg	122000		< 38		< 36					2600	2300			190	
Fluorene	86-73-7	ug/kg	122000		< 38		< 36					200	190			< 37	
Hexachlorobenzene	118-74-1	ug/kg	199		< 38		< 36					< 430	< 43			< 37	
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 38		< 36					< 430	< 43			< 37	
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 38		< 36					< 430	< 43			< 37	
Hexachloroethane	67-72-1	ug/kg	596		< 38		< 36					< 430	< 43			< 37	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		< 38		< 36					360	410			< 37	
Isophorone	78-59-1	ug/kg	139000		< 38		< 36					< 430	< 43			< 37	
Naphthalene	91-20-3	ug/kg	99.4		< 38		< 36					< 430	< 43			< 37	
Nitrobenzene	98-95-3	ug/kg	1310		< 38							< 430	< 43			< 37	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 38		< 36					< 430	< 43			< 37	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 38		< 36					< 430	< 43			< 37	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 38		85					150	< 43			570	
Pentachlorophenol	87-86-5	ug/kg	2100		< 76		< 72					< 870	< 87			< 75	
Phenanthrene	85-01-8	ug/kg	45700		< 38		22					1900	1900			68	
Phenol	108-95-2	ug/kg	30000		< 38		< 36					< 430	< 43			< 37	
Pyrene	129-00-0	ug/kg	78500		< 38		< 36					1700	2300			110	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		15400	10500		6300						37900			19200	57500
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg												< 607	< 58		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127											< 607	< 58		

			Location	M8-2196-08	M8-3-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2193-01	M9-2193-06	M9-2251-03	M9-2251-03	M9-2251-03	M9-2251-03	M9-2254-03	M9-2292-01
			Sample Date	5/12/2000	5/12/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/12/2000	5/18/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	M8-2196-081.5N	M8-3-011.5N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2193-011N	M9-2193-061N	M9-2251-031FD	M9-2251-031N	M9-2251-030.5FD	M9-2251-030.5N	M9-2254-031N	M9-2292-011N
			Parent ID									M9-2251-031N		M9-2251-030.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg												< 607	< 58		
1,1-Dichloroethane	75-34-3	ug/kg												< 607	< 58		
1,1-Dichloroethene	75-35-4	ug/kg	8280											< 607	< 58		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000											< 607	< 58		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960											< 607	< 584		
1,2-Dichloroethane	107-06-2	ug/kg												< 607	< 58		
1,2-Dichloropropane	78-87-5	ug/kg												< 607	< 58		
1,3-Dichlorobenzene	541-73-1	ug/kg	37700											< 607	< 584		
1,4-Dichlorobenzene	106-46-7	ug/kg	546											< 607	< 584		
2-Chloroethylvinylether	110-75-8	ug/kg												< 1214	< 116		
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270											< 2427	< 233		
Acrylonitrile	107-13-1	ug/kg	23.9											< 607	< 58		
Benzene	71-43-2	ug/kg	255											< 607	< 58		
Bromodichloromethane	75-27-4	ug/kg	540											< 607	< 58		
Bromoform	75-25-2	ug/kg												< 607	< 58		
Bromomethane	74-83-9	ug/kg	235											< 1214	< 116		
Carbon Tetrachloride	56-23-5	ug/kg	2980											< 607	< 58		
Chlorobenzene	108-90-7	ug/kg	13100											< 607	< 58		
Chloroethane	75-00-3	ug/kg												< 1214	< 116		
Chloroform	67-66-3	ug/kg	1190											< 607	< 58		
Chloromethane	74-87-3	ug/kg	10400											< 1214	< 116		
cis-1,2-Dichloroethene	156-59-2	ug/kg												< 607	< 58		
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050											< 607	< 58		
Ethylbenzene	100-41-4	ug/kg	5160											< 607	< 58		
Hexachlorobutadiene	87-68-3	ug/kg	39.8											< 607	< 58		
Methylene Chloride	75-09-2	ug/kg	4050											< 60	< 58		
Naphthalene	91-20-3	ug/kg	99.4											< 60			
Tetrachloroethene	127-18-4	ug/kg	9920											< 607	< 58		
Toluene	108-88-3	ug/kg	200000											< 607	< 58		
trans-1,2-Dichloroethene	156-60-5	ug/kg												< 607	< 58		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400											< 607	< 58		
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646											< 1214	< 116		
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	M9-3-01	N4-3-02	N5-3-03	N5-582-02	N5-6-14	N5-8-01	N5-8-03	N5-8-05	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-17	N7-394-01
			Sample Date	5/18/2000	4/6/2000	5/12/2000	5/12/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	M9-3-011.25N	N4-3-020.5N	N5-3-031.5N	N5-582-021.5N	N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-171N	N7-394-011.25N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 25													< 25
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 25													< 25
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 25													< 25
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 25													< 25
2-Nitrotoluene	88-72-2	ug/kg		< 50													< 50
3-Nitrotoluene	99-08-1	ug/kg		< 50													< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 25													< 25
4-Nitrotoluene	99-99-0	ug/kg		< 50													< 50
Nitrobenzene	98-95-3	ug/kg	1310	< 25													< 25
Nitrocellulose	9004-70-0	ug/kg		56700													77200
Nitroglycerin	55-63-0	ug/kg	65000	< 500													< 660
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 50													< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 50													< 50
Tetryl	479-45-8	ug/kg	25000	< 50													< 50
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		2.1	7.2	10.1	6.4	6.6	5.5			9					13.4
Gravel	Gravel	%		52.5	42.4	27.4	35.7	37.3	35.7			40.6					22.1
Sand	Sand	%		39.7	33.1	45.6	45.5	43.6	47.3			27.8					42.7
Silt	Silt	%		5.7	17.3	16.9	12.4	12.5	11.6			22.6					21.8
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	M9-3-01	N4-3-02	N5-3-03	N5-582-02	N5-6-14	N5-8-01	N5-8-03	N5-8-05	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-17	N7-394-01
			Sample Date	5/18/2000	4/6/2000	5/12/2000	5/12/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	M9-3-011.25N	N4-3-020.5N	N5-3-031.5N	N5-582-021.5N	N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-171N	N7-394-011.25N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.6	< 0.6	< 0.6	11.4	0.86	< 0.6	< 0.7	< 0.6	< 4	7.6	1.5	< 0.7	3.9	< 0.7
Arsenic	7440-38-2	mg/kg	9.9	2.9	4.3	4.8	12.9	25.1	2	2.8	2.2	81.6	108	34.8	18.7	16.9	4.7
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.36	0.59	0.54	0.53	0.34	0.24	0.58	0.67	0.68	0.48	0.44	0.7	0.57	0.65
Cadmium	7440-43-9	mg/kg	0.36	0.16	0.11	< 0.3	1.1	0.58	0.52	0.97	0.13	0.73	< 3	2.7	0.86	1	0.32
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	11	13.3	20.3	17.9	16	8.1	19.2	13	57.8	60.2	23.1	13.3	17.6	10.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	14.5	37.6	13.2	22.7	84	10.6	20.9	17.8	62.1	180	40.9	17.7	69.9	11.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	49.2	10.4	16.8	225	191	27.5	35.4	7.2	210	942	95.5	59	629	22.9
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.04	< 0	< 0	0.28	0.32	0.04	0.09	< 0	0.23	0.23	0.26	0.08	0.37	0.09
Nickel	7440-02-0	mg/kg	38	7.3	9.2	13.1	11.3	7.6	4.6	13.5	12.1	29.9	157	24.2	11.1	11.7	7.1
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 0.5	0.8	0.58	< 3	2.3	0.66	1.2	< 0.5	3.5	5.1	2.5	0.96	2.9	0.86
Silver	7440-22-4	mg/kg	2	< 0.3	< 0.3	< 0.3	0.42	< 0.3	< 0.3	< 0.3	< 0.3	0.74	< 3	0.32	< 0.3	0.32	< 0.4
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1	< 1	< 6	< 1	< 1	< 1	< 1	< 7	< 12	< 2	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	63.8	95	98.3	80.4	101	41.2	100	87.7	452	490	282	121	106	51.3
Moisture																	
Percent Solids	SOLID	percent		94.8	88	85	74.9	69.8	91.8	76.6	87	67.3	74	40.3	71.7	47.8	75.7
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 70	< 76	< 78	< 890	< 95	< 72	< 87	< 77	< 100	< 90	< 170	< 93	< 140	< 88

Kennedy Jenks

			Location	M9-3-01	N4-3-02	N5-3-03	N5-582-02	N5-6-14	N5-8-01	N5-8-03	N5-8-05	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-17	N7-394-01
			Sample Date	5/18/2000	4/6/2000	5/12/2000	5/12/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	M9-3-011.25N	N4-3-020.5N	N5-3-031.5N	N5-582-021.5N	N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-171N	N7-394-011.25N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	9600	< 380	< 390	< 4400	120	< 360	< 430	< 380	280	< 450	< 830	< 460	< 690	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	690	< 380	< 390	< 4400	56	< 360	< 430	< 380	120	< 450	< 830	< 460	< 690	< 440
2-Chloronaphthalene	91-58-7	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2-Chlorophenol	95-57-8	ug/kg	243	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 70	< 76	< 78	< 890	< 95	< 72	< 87	< 77	< 100	< 90	< 170	< 93	< 140	< 88
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 70	< 76	< 78	< 890	< 95	< 72	< 87	< 77	< 100	< 90	< 170	< 93	< 140	< 88
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
4-Nitrophenol	100-02-7	ug/kg	7000	< 70	< 76	< 78	< 890	< 95	< 72	< 87	< 77	< 100	< 90	< 170	< 93	< 140	< 88
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	210	< 38	< 39	< 440	< 48	< 36	< 43	< 38	43	< 45	< 83	< 46	< 69	< 44
Acenaphthylene	208-96-8	ug/kg	682000	220	< 38	< 39	380	250	< 36	< 43	< 38	260	150	220	120	130	< 44
Anthracene	120-12-7	ug/kg	1480000	490	< 38	< 39	410	330	< 36	< 43	< 38	900	58	450	190	130	< 44
Benzidine	92-87-5	ug/kg	1310	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	1900	< 38	< 39	1700	2500	< 36	< 43	< 38	4200	600	4100	1400	2200	< 44
Benzo[a]pyrene	50-32-8	ug/kg	1520	2100	< 38	< 39	1400	1800	< 36	< 43	< 38	2600	660	1800	1000	2400	< 44
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	3600	< 38	< 39	2300	3900	< 36	< 43	< 38	5400	1300	4900	3500	4200	< 44
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	1600	< 38	< 39	< 440	740	< 36	< 43	< 38	1200	460	800	480	2000	< 44
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	1000	< 38	< 39	1200	1600	< 36	< 43	< 38	2500	540	2000	1100	1800	< 44
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	110	46	< 39	290	200	42	140	39	170	120	160	52	140	< 44
Butylbenzylphthalate	85-68-7	ug/kg	239	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Chrysene	218-01-9	ug/kg	4730	2600	< 38	< 39	2300	2900	< 36	< 43	< 38	3900	700	3700	2000	2600	< 44
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 35	< 38	< 39	< 440	280	< 36	< 43	< 38	490	180	340	200	610	< 44
Diethylphthalate	84-66-2	ug/kg	24800	< 35	62	< 39	< 440	710	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Dimethylphthalate	131-11-3	ug/kg	734000	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Di-n-butylphthalate	84-74-2	ug/kg	150	2900	58	< 39	< 440	300	< 36	< 43	< 38	46	46	< 83	< 46	150	< 44
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Fluoranthene	206-44-0	ug/kg	122000	3200	< 38	< 39	5300	2800	< 36	< 43	< 38	4700	860	4600	860	4000	< 44
Fluorene	86-73-7	ug/kg	122000	320	< 38	< 39	370	30	< 36	< 43	< 38	86	40	< 83	< 46	< 69	< 44
Hexachlorobenzene	118-74-1	ug/kg	199	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Hexachloroethane	67-72-1	ug/kg	596	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	1700	< 38	< 39	910	770	< 36	< 43	< 38	1300	470	930	550	1900	< 44
Isophorone	78-59-1	ug/kg	139000	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Naphthalene	91-20-3	ug/kg	99.4	55	< 38	< 39	< 440	< 48	< 36	< 43	< 38	41	39	< 83	< 46	110	< 44
Nitrobenzene	98-95-3	ug/kg	1310		< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	490	< 38	< 39	< 440	690	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Pentachlorophenol	87-86-5	ug/kg	2100	< 70	< 76	< 78	< 890	< 95	< 72	< 87	< 77	< 100	< 90	< 170	< 93	< 140	< 88
Phenanthrene	85-01-8	ug/kg	45700	3200	< 38	28	3800	230	< 36	< 43	< 38	540	500	290	46	1100	< 44
Phenol	108-95-2	ug/kg	30000	< 35	< 38	< 39	< 440	< 48	< 36	< 43	< 38	< 50	< 45	< 83	< 46	< 69	< 44
Pyrene	129-00-0	ug/kg	78500	4700	< 38	< 39	3800	7300	< 36	< 43	< 38	5700	1600	6600	1700	4400	< 44
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		32400	10100	33400	201000	38200	77900			39400					27600
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	M9-3-01	N4-3-02	N5-3-03	N5-582-02	N5-6-14	N5-8-01	N5-8-03	N5-8-05	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-17	N7-394-01
			Sample Date	5/18/2000	4/6/2000	5/12/2000	5/12/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Depths	0.0-1.3 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft
			Sample ID	M9-3-011.25N	N4-3-020.5N	N5-3-031.5N	N5-582-021.5N	N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-171N	N7-394-011.25N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	N7-5-02	N7-571-03	N7-573-01	N8-2304-01	N8-2304-05	N8-389-05	N9-2195-02	N9-2195-05	N9-2269-04	N9-3-05	N9-B41-10-03	N9-B4-11-05	O5-5-03	O5-534-04
			Sample Date	5/5/2000	5/5/2000	5/4/2000	5/25/2000	5/25/2000	4/28/2000	5/23/2000	5/23/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/11/2000	5/11/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	N7-5-021N	N7-571-031.5N	N7-573-011N	N8-2304-011N	N8-2304-051N	N8-389-051N	N9-2195-021.5N	N9-2195-051N	N9-2269-041.5N	N9-3-051N	N9-B41-10-031.5N	N9-B4-11-051N	O5-5-031.25N	O5-534-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 25	< 25	< 25	< 25	< 25	< 25	< 24	< 25	< 25	< 240	< 240		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 25	< 25	< 25	< 25	< 25	< 25	< 24	< 25	< 25	< 240	< 240		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 25	< 25	< 25	< 25	< 25	< 25	< 24	1300	< 25	< 240	< 240		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 250								
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 25	< 25	< 25	< 25	< 25	< 25	< 24	< 25	< 25	< 240	< 240		
2-Nitrotoluene	88-72-2	ug/kg			< 50	< 50	< 50	< 49	< 50	< 50	< 48	< 50	< 50	< 490	< 490		
3-Nitrotoluene	99-08-1	ug/kg			< 50	< 50	< 50	< 49	< 50	< 50	< 48	< 50	< 50	< 490	< 490		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 25	< 25	< 25	< 25	< 25	< 25	< 24	< 25	< 25	< 240	< 240		
4-Nitrotoluene	99-99-0	ug/kg			< 50	< 50	< 50	< 49	< 50	< 50	< 48	< 50	< 50	< 490	< 490		
Nitrobenzene	98-95-3	ug/kg	1310		< 25	< 25	< 25	< 25	< 25	< 25	< 24	< 25	< 25	< 240	< 240		
Nitrocellulose	9004-70-0	ug/kg			74700	105000	872000	579000	< 46000	< 39000	79000	161000	51500	38600	22000		
Nitroglycerin	55-63-0	ug/kg	65000		< 640	< 630	8400	2300	< 660	< 570	54000	5600	< 660	< 5800	< 5400		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 50	< 50	< 50	< 49	< 50	< 50	< 48	< 50	< 50	< 490	< 490		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 50	< 50	< 50	< 49	< 50	< 50	< 48	< 50	< 50	< 490	< 490		
Tetryl	479-45-8	ug/kg	25000		< 50	< 50	< 50	< 49	< 50	< 50	< 48	< 50	< 50	< 490	< 490		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		7.5	7.7	6.2	5.5		12	11.1		1.9	2.5			8.8	11.4
Gravel	Gravel	%		12	26.8	45.1	23.2		20.9	18.1		40.4	20.3			25.9	21.4
Sand	Sand	%		44.7	38.6	37	55.9		44.9	59.6		45.8	51.6			46.6	34.2
Silt	Silt	%		35.8	26.9	11.7	15.4		22.1	11.2		11.9	25.5			18.7	33
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	N7-5-02	N7-571-03	N7-573-01	N8-2304-01	N8-2304-05	N8-389-05	N9-2195-02	N9-2195-05	N9-2269-04	N9-3-05	N9-B41-10-03	N9-B4-11-05	O5-5-03	O5-534-04
			Sample Date	5/5/2000	5/5/2000	5/4/2000	5/25/2000	5/25/2000	4/28/2000	5/23/2000	5/23/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/11/2000	5/11/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	N7-5-021N	N7-571-031.5N	N7-573-011N	N8-2304-011N	N8-2304-051N	N8-389-051N	N9-2195-021.5N	N9-2195-051N	N9-2269-041.5N	N9-3-051N	N9-B41-10-031.5N	N9-B4-11-051N	O5-5-031.25N	O5-534-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.59	< 0.7	0.5	< 0.6	< 0.6		< 0.6	< 0.6	< 0.6	< 0.7	< 0.679	< 0.613	< 0.6	< 0.7
Arsenic	7440-38-2	mg/kg	9.9	8	7.9	32.7	3.3	1.6		2.8	6	3.1	5.7	3.34	2.36	4.3	4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.79	0.5	0.45	0.55	0.34		0.14	0.21	0.39	0.14	0.329	0.362	0.48	0.55
Cadmium	7440-43-9	mg/kg	0.36	0.26	0.14	0.84	0.64	0.47		< 0.3	< 0.3	0.59	1.5	< 0.34	< 0.306	< 0.3	0.11
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	9.6	17.3	17	15.1	10.2		8.2	9.9	12.3	9.4	10.1	8.97	35	13.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.1	14.8	58.5	24.6	20.4		6	75.7	21.6	20	10.6	12.4	13.9	14.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	75.7	20	274	19	9.5		31.3	93.6	22.7	170	9.56	7.24	11.1	310
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.17	0.05	0.42	0.04	0.02		0.1	0.34	0.05	0.09	0.162	< 0.035	0.06	0.22
Nickel	7440-02-0	mg/kg	38	7	9.7	16.5	9.2	7.7		3.3	4.6	7.2	4.2	5.89	6.05	17.6	7
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.3	< 0.6	2	0.91	0.56		< 0.5	< 0.5	0.62	1.5	0.465	< 0.511	< 0.5	< 0.6
Silver	7440-22-4	mg/kg	2	0.1	< 0.3	0.16	< 0.3	0.09		< 0.3	< 0.3	0.1	0.22	< 0.34	< 0.306	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1	< 1	< 1	< 1		< 1	< 1	< 1	< 1	< 1.13	< 1.02	< 1	0.89
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	69.4	77.3	66.9	213	101		19.8	52.3	134	374	359	64.7	101	158
Moisture																	
Percent Solids	SOLID	percent		86.6	78	79.5	86	91.6	75.8	88.2	92.1	89.5	75.4	85.7	92.4	85.8	75.8
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44			< 39	< 44
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44			< 39	< 44
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 77	< 85	< 83	< 78	< 140		< 76	< 72	< 150	< 89	< 390	< 360	< 78	< 88

			Location	N7-5-02	N7-571-03	N7-573-01	N8-2304-01	N8-2304-05	N8-389-05	N9-2195-02	N9-2195-05	N9-2269-04	N9-3-05	N9-B41-10-03	N9-B4-11-05	O5-5-03	O5-534-04
			Sample Date	5/5/2000	5/5/2000	5/4/2000	5/25/2000	5/25/2000	4/28/2000	5/23/2000	5/23/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/11/2000	5/11/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	N7-5-021N	N7-571-031.5N	N7-573-011N	N8-2304-011N	N8-2304-051N	N8-389-051N	N9-2195-021.5N	N9-2195-051N	N9-2269-041.5N	N9-3-051N	N9-B41-10-031.5N	N9-B4-11-051N	O5-5-031.25N	O5-534-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 380	< 430	120	< 390	< 720		< 380	< 360	< 740	< 440	< 390	< 360	< 390	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 380	< 430	< 420	< 390	< 720		< 380	< 360	< 740	< 440			< 390	< 440
2-Chloronaphthalene	91-58-7	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
2-Chlorophenol	95-57-8	ug/kg	243	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44			< 39	< 44
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 77	< 85	< 83	< 78	< 140		< 76	< 72	< 150	< 89			< 78	< 88
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 77	< 85	< 83	< 78	< 140		< 76	< 72	< 150	< 89	< 780	< 720	< 78	< 88
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
4-Nitrophenol	100-02-7	ug/kg	7000	< 77	< 85	< 83	< 78	< 140		< 76	< 72	< 150	< 89			< 78	< 88
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 38	< 43	< 42	71	99		< 38	58	< 74	< 44	< 390	< 360	< 39	< 44
Acenaphthylene	208-96-8	ug/kg	682000	< 38	< 43	39	160	320		< 38	16	59	< 44	< 390	< 360	< 39	62
Anthracene	120-12-7	ug/kg	1480000	< 38	< 43	36	410	700		< 38	360	160	< 44	< 390	< 360	< 39	< 44
Benzidine	92-87-5	ug/kg	1310	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	72	< 43	260	1600	3300		< 38	1500	720	39	< 390	< 360	< 39	130
Benzo[a]pyrene	50-32-8	ug/kg	1520	86	< 43	210	1500	3100		< 38	1200	690	39	< 390	< 360	< 39	180
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	140	< 43	530	2400	4100		< 38	1900	1100	< 44	< 390	< 360	< 39	320
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 38	< 43	190	1400	2100		< 38	390	430	< 44	< 390	< 360	< 39	< 44
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 38	< 43	180	1100	1500		< 38	750	400	< 44	< 390	< 360	< 39	< 44
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 38	< 43	67	78	< 72		47	100	190	24	< 390	121	< 39	26
Butylbenzylphthalate	85-68-7	ug/kg	239	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Chrysene	218-01-9	ug/kg	4730	120	< 43	330	2000	4000		41	1200	730	55	< 390	< 360	< 39	220
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 38	< 43	< 42	430	590		< 38	140	< 74	< 44	< 390	< 360	< 39	< 44
Diethylphthalate	84-66-2	ug/kg	24800	< 38	< 43	< 42	220	120		< 38	32	76	< 44	< 390	< 360	< 39	< 44
Dimethylphthalate	131-11-3	ug/kg	734000	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Di-n-butylphthalate	84-74-2	ug/kg	150	84	< 43	36	4400	2200		73	83	12000	< 44	< 390	< 360	< 39	< 44
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Fluoranthene	206-44-0	ug/kg	122000	190	< 43	430	2900	6500		75	2700	1600	110	< 390	< 360	< 39	580
Fluorene	86-73-7	ug/kg	122000	< 38	< 43	< 42	140	220		< 38	150	74	< 44	< 390	< 360	< 39	37
Hexachlorobenzene	118-74-1	ug/kg	199	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Hexachloroethane	67-72-1	ug/kg	596	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 38	< 43	180	1200	1700		< 38	420	440	< 44	< 390	< 360	< 39	< 44
Isophorone	78-59-1	ug/kg	139000	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Naphthalene	91-20-3	ug/kg	99.4	< 38	< 43	24	< 39	< 72		< 38	< 36	< 74	< 44			< 39	30
Nitrobenzene	98-95-3	ug/kg	1310	< 38												< 39	< 44
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 38	< 43	< 42	620	310		< 38	1100	1900	< 44	< 390	95.28	< 39	240
Pentachlorophenol	87-86-5	ug/kg	2100	< 77	< 85	< 83	< 78	< 140		< 76	< 72	< 150	< 89	< 780	< 720	< 78	< 88
Phenanthrene	85-01-8	ug/kg	45700	160	< 43	180	1700	2800		38	1300	730	60	< 390	< 360	< 39	450
Phenol	108-95-2	ug/kg	30000	< 38	< 43	< 42	< 39	< 72		< 38	< 36	< 74	< 44	< 390	< 360	< 39	< 44
Pyrene	129-00-0	ug/kg	78500	200	< 43	610	3900	6800		< 38	2400	1200	< 44	< 390	< 360	< 39	390
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		123000	28900	57400	31100		31200	9410		14300	45800	4340	6440	9920	45800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	N7-5-02	N7-571-03	N7-573-01	N8-2304-01	N8-2304-05	N8-389-05	N9-2195-02	N9-2195-05	N9-2269-04	N9-3-05	N9-B41-10-03	N9-B4-11-05	O5-5-03	O5-534-04
			Sample Date	5/5/2000	5/5/2000	5/4/2000	5/25/2000	5/25/2000	4/28/2000	5/23/2000	5/23/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/11/2000	5/11/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	N7-5-021N	N7-571-031.5N	N7-573-011N	N8-2304-011N	N8-2304-051N	N8-389-051N	N9-2195-021.5N	N9-2195-051N	N9-2269-041.5N	N9-3-051N	N9-B41-10-031.5N	N9-B4-11-051N	O5-5-031.25N	O5-534-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280											< 390	< 360		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050											< 390	< 360		
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	O5-578-04	O5-579-04	O5-580.75-05	O6-1-02	O6-3-01	O6-649-02	O6-650-03	O6-9224-03	O6-9224-06	O7-2271-04	O7-391-03	O7-395-02	O7-576-02	O7-9319-01
			Sample Date	5/9/2000	5/11/2000	5/11/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/9/2000	5/9/2000	5/26/2000	5/5/2000	5/5/2000	5/10/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
			Sample ID	O5-578-041.5N	O5-579-041.5N	O5-580.75-051.5N	O6-1-021N	O6-3-011.5N	O6-649-021.5N	O6-650-031.5N	O6-9224-031N	O6-9224-061.5N	O7-2271-041N	O7-391-031.5N	O7-395-021N	O7-576-021.5N	O7-9319-011.25FD
			Parent ID														O7-9319-011.25N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 23	< 15	< 15			< 139	< 137	< 22	< 25	< 240	< 25	< 25	< 162	< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 23	< 15	< 15			< 139	< 137	< 22	< 25	< 240	< 25	< 25	< 162	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 23	< 15	< 15			< 139	< 137	300	< 25	< 240	< 25	< 25	< 162	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 230	< 150	< 150					< 220	< 250		< 250			
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 23	< 15	< 15			< 139	< 137	< 22	< 25	< 240	< 25	< 25	< 162	< 250
2-Nitrotoluene	88-72-2	ug/kg		< 45	< 30	< 29			< 278	< 275	< 43	< 50	< 490	< 50	< 50	< 325	< 500
3-Nitrotoluene	99-08-1	ug/kg		< 45	< 30	< 29			< 278	< 275	< 43	< 50	< 490	< 50	< 50	< 325	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 23	< 15	160			< 139	< 137	< 22	< 25	< 240	< 25	< 25	< 162	< 250
4-Nitrotoluene	99-99-0	ug/kg		< 45	< 30	< 29			< 278	< 275	< 43	< 50	< 490	< 50	< 50	< 325	< 500
Nitrobenzene	98-95-3	ug/kg	1310	< 23	< 15	< 15			< 139	< 137	< 22	< 25	< 240	< 25	< 25	< 162	220
Nitrocellulose	9004-70-0	ug/kg		< 45000	< 41000	< 39000			< 38000	< 38000	203000	< 36000	28100	< 41000	87400	79000	1750000
Nitroglycerin	55-63-0	ug/kg	65000	< 650	< 590	< 570			< 570	< 550	70000	< 520	< 5900	< 590	< 660	< 650	660000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 45	< 30	< 29			< 278	< 275	< 43	< 50	< 490	< 50	< 50	< 325	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 45	< 30	< 29			< 278	< 275	< 43	< 50	< 490	< 50	< 50	< 325	< 500
Tetryl	479-45-8	ug/kg	25000	< 45	< 30	< 29			< 278	< 275	< 43	< 50	< 490	< 50	< 50	< 325	< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		12.9	8.3	9.2	18.8	10.3	13.4	9.2	5.8			10.3	9.1	8	
Gravel	Gravel	%		19.2	30.7	23.2	16.2	17.8	34.5	26.4	27.3			17.9	27.1	35.8	
Sand	Sand	%		40.5	39.4	45.2	23.1	50.6	29.8	52.6	49.5			43.4	45.8	36.9	
Silt	Silt	%		27.5	21.7	22.5	41.9	21.4	22.3	11.8	17.4			28.5	18	19.3	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	O5-578-04	O5-579-04	O5-580.75-05	O6-1-02	O6-3-01	O6-649-02	O6-650-03	O6-9224-03	O6-9224-06	O7-2271-04	O7-391-03	O7-395-02	O7-576-02	O7-9319-01
			Sample Date	5/9/2000	5/11/2000	5/11/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/9/2000	5/9/2000	5/26/2000	5/5/2000	5/5/2000	5/10/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
			Sample ID	O5-578-041.5N	O5-579-041.5N	O5-580.75-051.5N	O6-1-021N	O6-3-011.5N	O6-649-021.5N	O6-650-031.5N	O6-9224-031N	O6-9224-061.5N	O7-2271-041N	O7-391-031.5N	O7-395-021N	O7-576-021.5N	O7-9319-011.25FD
			Parent ID														O7-9319-011.25N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27				< 0.8		< 0.6	< 0.6			< 0.695		< 0.8	< 0.7	0.69
Arsenic	7440-38-2	mg/kg	9.9				7.3		6.4	5.1			2.52		6	8.9	20.1
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10				1.1		0.58	0.55			0.616		0.56	0.89	0.48
Cadmium	7440-43-9	mg/kg	0.36				< 0.4		< 0.3	< 0.3			< 0.347		0.54	0.25	2.3
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				17.4		16.5	13.7			15		16.9	16.5	293
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4				19.8		16.8	15.9			19.2		19.7	16.8	59
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				38.1		19.8	9.8			4.33		88.7	84.2	1580
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1				0.11		0.02	0.04			0.02		0.15	0.16	3.2
Nickel	7440-02-0	mg/kg	38				12		15.1	8.1			7.29		10.2	11.4	10.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52				0.48		< 0.5	< 0.5			0.407		1.3	1.1	0.71
Silver	7440-22-4	mg/kg	2				< 0.4		< 0.3	< 0.3			< 0.347		2.3	0.14	0.15
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1				< 1		0.72	0.8			0.579		< 1	0.74	< 1.2
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5				87.8		57	81.8			104		298	109	463
Moisture																	
Percent Solids	SOLID	percent		77.1	84.5	85.7	71.8	78.6	87.6	90.8	87.6	95.7	84.6	81.1	73.6	76.9	77.8
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371					< 1									
Aroclor-1221	11104-28-2	ug/kg	371					< 1									
Aroclor-1232	11141-16-5	ug/kg	371					< 1									
Aroclor-1242	53469-21-9	ug/kg	371					< 1									
Aroclor-1248	12672-29-6	ug/kg	371					< 1									
Aroclor-1254	11097-69-1	ug/kg	371					< 1									
Aroclor-1260	11096-82-5	ug/kg	371					< 3									
Polychlorinated biphenyls	1336-36-3	ug/kg	371					< 38									
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 46		< 38	< 37					< 45	< 43	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 46		< 38	< 37					< 45	< 43	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 46		< 38	< 37			< 390		< 45	< 43	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	10				< 46		< 38	< 37			< 390		< 45	< 43	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	60.9				< 92		< 76	< 73			< 390		< 90	< 87	< 850

			Location	O5-578-04	O5-579-04	O5-580.75-05	O6-1-02	O6-3-01	O6-649-02	O6-650-03	O6-9224-03	O6-9224-06	O7-2271-04	O7-391-03	O7-395-02	O7-576-02	O7-9319-01
			Sample Date	5/9/2000	5/11/2000	5/11/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/9/2000	5/9/2000	5/26/2000	5/5/2000	5/5/2000	5/10/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
			Sample ID	O5-578-041.5N	O5-579-041.5N	O5-580.75-051.5N	O6-1-021N	O6-3-011.5N	O6-649-021.5N	O6-650-031.5N	O6-9224-031N	O6-9224-061.5N	O7-2271-041N	O7-391-031.5N	O7-395-021N	O7-576-021.5N	O7-9319-011.25FD
			Parent ID														O7-9319-011.25N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280				< 460		< 380	< 370			< 390		< 450	< 430	79
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 460		< 380	< 370					< 450	< 430	< 430
2-Chloronaphthalene	91-58-7	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
2-Chlorophenol	95-57-8	ug/kg	243				< 46		< 38	< 37			< 390		< 45	< 43	< 430
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 46		< 38	< 37					< 45	< 43	< 430
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646				< 92		< 76	< 73					< 90	< 87	< 850
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144				< 92		< 76	< 73			< 780		< 90	< 87	< 850
4-Bromophenyl-phenylether	101-55-3	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
4-Chloro-3-methylphenol	59-50-7	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
4-Chlorophenyl-phenylether	7005-72-3	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
4-Nitrophenol	100-02-7	ug/kg	7000				< 92		< 76	< 73					< 90	< 87	< 850
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Acenaphthylene	208-96-8	ug/kg	682000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Anthracene	120-12-7	ug/kg	1480000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Benzidine	92-87-5	ug/kg	1310				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210				< 46		< 38	37			< 390		140	46	59
Benzo[a]pyrene	50-32-8	ug/kg	1520				< 46		< 38	< 37			< 390		150	63	97
Benzo[b]fluoranthene	205-99-2	ug/kg	59800				< 46		< 38	< 37			< 390		180	< 43	280
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000				< 46		< 38	< 37			< 390		100	< 43	130
Benzo[k]fluoranthene	207-08-9	ug/kg	148000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
Bis(2-Chloroethyl)ether	111-44-4	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925				30		23	< 37			< 390		66	37	61
Butylbenzylphthalate	85-68-7	ug/kg	239				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Chrysene	218-01-9	ug/kg	4730				< 46		< 38	52			< 390		150	110	120
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Diethylphthalate	84-66-2	ug/kg	24800				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Dimethylphthalate	131-11-3	ug/kg	734000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Di-n-butylphthalate	84-74-2	ug/kg	150				< 46		< 38	< 37			< 390		45	< 43	130
Di-n-octylphthalate	117-84-0	ug/kg	7090				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Fluoranthene	206-44-0	ug/kg	122000				< 46		< 38	85			< 390		230	120	120
Fluorene	86-73-7	ug/kg	122000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Hexachlorobenzene	118-74-1	ug/kg	199				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Hexachlorocyclopentadiene	77-47-4	ug/kg					< 46		< 38	< 37			< 390		< 45	< 43	< 430
Hexachloroethane	67-72-1	ug/kg	596				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000				< 46		< 38	< 37			< 390		< 45	< 43	99
Isophorone	78-59-1	ug/kg	139000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Naphthalene	91-20-3	ug/kg	99.4				< 46		< 38	< 37					< 45	< 43	< 430
Nitrobenzene	98-95-3	ug/kg	1310				< 46										
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321				< 46		< 38	< 37			< 390		< 45	< 43	< 430
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544				< 46		< 38	< 37			< 390		< 45	< 43	< 430
N-Nitrosodiphenylamine	86-30-6	ug/kg	545				< 46		< 38	< 37			< 390		< 45	< 43	240
Pentachlorophenol	87-86-5	ug/kg	2100				< 92		< 76	< 73			< 780		< 90	< 87	< 850
Phenanthrene	85-01-8	ug/kg	45700				29		< 38	< 37			< 390		120	100	65
Phenol	108-95-2	ug/kg	30000				< 46		< 38	< 37			< 390		< 45	< 43	< 430
Pyrene	129-00-0	ug/kg	78500				< 46		< 38	< 37			< 390		260	< 43	160
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		35100	14100	9290	71200	68900	15000	16300	25700		634	7230	73000	85600	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	O5-578-04	O5-579-04	O5-580.75-05	O6-1-02	O6-3-01	O6-649-02	O6-650-03	O6-9224-03	O6-9224-06	O7-2271-04	O7-391-03	O7-395-02	O7-576-02	O7-9319-01
			Sample Date	5/9/2000	5/11/2000	5/11/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/9/2000	5/9/2000	5/26/2000	5/5/2000	5/5/2000	5/10/2000	5/5/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
			Sample ID	O5-578-041.5N	O5-579-041.5N	O5-580.75-051.5N	O6-1-021N	O6-3-011.5N	O6-649-021.5N	O6-650-031.5N	O6-9224-031N	O6-9224-061.5N	O7-2271-041N	O7-391-031.5N	O7-395-021N	O7-576-021.5N	O7-9319-011.25FD
			Parent ID														O7-9319-011.25N
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280										< 390				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050										< 390				
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	O7-9319-01	O8-2247-04	O8-2247-05	O8-2268-05	O8-3-04	O8-3-09	O8-3-13	O8-3-18	O8-3-20	O8-4-02	P5-535-04	P6-651-02	P6-9225-03	P7-575-04
			Sample Date	5/5/2000	5/16/2000	5/16/2000	5/26/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/11/2000	5/4/2000	5/4/2000	5/9/2000
			Sample Depths	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	O7-9319-011.25N	O8-2247-041.5N	O8-2247-051N	O8-2268-051.5N	O8-3-041N	O8-3-091.25N	O8-3-131N	O8-3-181N	O8-3-201.5N	O8-4-020.5N	P5-535-041N	P6-651-021N	P6-9225-031N	P7-575-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 24	< 25	< 25							< 24	< 175	< 25	< 24	< 24
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 24	< 25	< 25							< 24	< 175	< 25	< 24	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	310	< 25	< 25							< 24	967.4	< 25	< 24	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8											< 175.8			
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 24	< 25	< 25							< 24	< 175	< 25	< 24	< 24
2-Nitrotoluene	88-72-2	ug/kg		< 48	< 50	< 50							< 48	< 351	< 50	< 48	< 48
3-Nitrotoluene	99-08-1	ug/kg		< 48	< 50	< 50							< 48	< 351	< 50	< 48	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 24	< 25	< 25							< 24	< 175	< 25	< 24	< 24
4-Nitrotoluene	99-99-0	ug/kg		< 48	< 50	< 50							< 48	< 351	< 50	< 48	< 48
Nitrobenzene	98-95-3	ug/kg	1310	200	< 25	240							< 24	93.6	< 25	< 24	< 24
Nitrocellulose	9004-70-0	ug/kg		1160000	< 38000	278000							< 39000	3130000	< 39	419000	< 39000
Nitroglycerin	55-63-0	ug/kg	65000	4000	< 550	< 440							< 560	< 700	< 560	13000	< 570
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 48	< 50	< 50							< 48	< 351	< 50	< 48	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 48	< 50	< 50							< 48	< 351	< 50	< 48	< 48
Tetryl	479-45-8	ug/kg	25000	< 48	< 50	< 50							< 48	< 351	< 50	< 48	< 48
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%		3.6	11.6				6.3				14.5	13.4	35.1	19.8	
Gravel	Gravel	%		25.5	23.5				15				15.9	7.7	26.7	21.8	
Sand	Sand	%		47.3	52.7				64				52.8	40.2	24.1	37	
Silt	Silt	%		23.6	12.2				17.4				16.8	38.8	14.1	21.3	
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	O7-9319-01	O8-2247-04	O8-2247-05	O8-2268-05	O8-3-04	O8-3-09	O8-3-13	O8-3-18	O8-3-20	O8-4-02	P5-535-04	P6-651-02	P6-9225-03	P7-575-04
			Sample Date	5/5/2000	5/16/2000	5/16/2000	5/26/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/11/2000	5/4/2000	5/4/2000	5/9/2000
			Sample Depths	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	O7-9319-011.25N	O8-2247-041.5N	O8-2247-051N	O8-2268-051.5N	O8-3-041N	O8-3-091.25N	O8-3-131N	O8-3-181N	O8-3-201.5N	O8-4-020.5N	P5-535-041N	P6-651-021N	P6-9225-031N	P7-575-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.55	< 0.6	< 0.6	< 0.672	< 0.7	< 0.6	< 0.8	< 0.7	< 0.6	< 0.6	0.64	< 0.6	< 0.6	< 0.6
Arsenic	7440-38-2	mg/kg	9.9	19.9	2.4	2.1	6.7	4.4	3.5	4.7	3.2	4.3	2.3	8.5	3.3	13.6	3.3
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.53	0.39	0.49	0.865	0.31	0.56	0.98	0.42	0.41	0.59	0.83	0.52	0.48	0.36
Cadmium	7440-43-9	mg/kg	0.36	2	0.3	0.2	< 0.336	0.81	0.64	0.45	0.55	0.38	< 0.3	0.36	0.32	0.95	0.13
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	54.6	15.4	17.3	23.2	14.7	15.6	17.2	11	16.9	14.7	17.9	11.9	27.1	8.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	59.6	46.3	21.7	26.8	62.7	51.6	31.5	23.9	17.2	17.7	24.7	14.5	29.8	15.9
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	534	24.6	9	34.3	12.6	48.3	60	35.8	10.8	11.6	1330	11.7	60.9	38.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	3.3	< 0	< 0	0.134	0.06	0.06	0.1	0.03	0.05	0.02	0.13	0.03	0.04	0.05
Nickel	7440-02-0	mg/kg	38	11.4	9	9.6	15.7	11	9.4	10	23.3	10.7	6.8	12.2	8.5	8.9	6.4
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.6	< 0.5	< 0.5	1.03	0.95	0.41	1.3	< 0.6	0.81	< 0.5	0.99	0.47	0.44	0.64
Silver	7440-22-4	mg/kg	2	0.2	< 0.3	< 0.3	< 0.336	332	< 0.3	0.29	0.65	< 0.3	< 0.3	0.17	< 0.3	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1	< 1	0.87	1.25	< 1	< 1	< 1	< 1	< 1	1.4	1.1	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	581	182	90.3	101	93.3	120	82.5	392	73.9	56.1	383	57.8	477	59.9
Moisture																	
Percent Solids	SOLID	percent		84	90.8	91.8	84.3	71.7	87.7	72.9	77.4	82.9	89.6	71.1	89.6	81.8	81.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 40	< 37	< 36		< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 400										
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 40	< 37	< 36		< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 79	< 73	< 72	< 790	< 93	< 76	< 91	< 87	< 80	< 74		< 74	< 81	< 78

Kennedy Jenks

			Location	O7-9319-01	O8-2247-04	O8-2247-05	O8-2268-05	O8-3-04	O8-3-09	O8-3-13	O8-3-18	O8-3-20	O8-4-02	P5-535-04	P6-651-02	P6-9225-03	P7-575-04
			Sample Date	5/5/2000	5/16/2000	5/16/2000	5/26/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/11/2000	5/4/2000	5/4/2000	5/9/2000
			Sample Depths	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	O7-9319-011.25N	O8-2247-041.5N	O8-2247-051N	O8-2268-051.5N	O8-3-041N	O8-3-091.25N	O8-3-131N	O8-3-181N	O8-3-201.5N	O8-4-020.5N	P5-535-041N	P6-651-021N	P6-9225-031N	P7-575-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 400	< 370	< 360	< 400	< 460	59	< 460	< 430	< 400	< 370		< 370	920	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 400	< 370	< 360		< 460	< 380	< 460	< 430	< 400	< 370		< 370	< 410	< 390
2-Chloronaphthalene	91-58-7	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2-Chlorophenol	95-57-8	ug/kg	243	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 40	< 37	< 36		< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
2-Nitrotoluene	88-72-2	ug/kg					< 400										
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 79	< 73	< 72		< 93	< 76	< 91	< 87	< 80	< 74		< 74	< 81	< 78
3-Nitrotoluene	99-08-1	ug/kg					< 790										
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 79	< 73	< 72	< 790	< 93	< 76	< 91	< 87	< 80	< 74		< 74	< 81	< 78
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
4-Nitrophenol	100-02-7	ug/kg	7000	< 79	< 73	< 72		< 93	< 76	< 91	< 87	< 80	< 74		< 74	< 81	< 78
4-Nitrotoluene	99-99-0	ug/kg					< 790										
Acenaphthene	83-32-9	ug/kg	20000	< 40	< 37	< 36	< 400	< 46	31	< 46	29	< 40	< 37		< 37	< 41	< 39
Acenaphthylene	208-96-8	ug/kg	682000	< 40	< 37	< 36	< 400	< 46	20	< 46	130	< 40	< 37		< 37	< 41	< 39
Anthracene	120-12-7	ug/kg	1480000	< 40	< 37	< 36	< 400	< 46	120	< 46	180	< 40	52		< 37	< 41	< 39
Benzidine	92-87-5	ug/kg	1310	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 40	< 37	78	< 400	39	490	< 46	780	< 40	210		< 37	< 41	65
Benzo[a]pyrene	50-32-8	ug/kg	1520	85	< 37	51	< 400	42	400	30	710	< 40	150		< 37	< 41	55
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	220	< 37	72	< 400	< 46	570	< 46	700	< 40	190		< 37	< 41	83
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	140	< 37	< 36	< 400	< 46	190	< 46	520	< 40	91		< 37	< 41	< 39
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 40	< 37	< 36	< 400	< 46	190	< 46	620	< 40	< 37		< 37	< 41	< 39
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	170	29	49	21.76	120	91	< 46	50	< 40	26		< 37	1700	39
Butylbenzylphthalate	85-68-7	ug/kg	239	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Chrysene	218-01-9	ug/kg	4730	130	< 37	71	< 400	< 46	470	< 46	940	< 40	180		< 37	< 41	64
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 40	< 37	< 36	< 400	< 46	< 38	< 46	150	< 40	< 37		< 37	< 41	< 39
Diethylphthalate	84-66-2	ug/kg	24800	< 40	< 37	< 36	< 400	< 46	< 38	3500	410	< 40	< 37		< 37	< 41	< 39
Dimethylphthalate	131-11-3	ug/kg	734000	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Di-n-butylphthalate	84-74-2	ug/kg	150	210	< 37	83	< 400	< 46	< 38	< 46	170	< 40	< 37		< 37	99	< 39
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Fluoranthene	206-44-0	ug/kg	122000	120	< 37	120	< 400	< 46	920	< 46	1600	< 40	310		< 37	< 41	71
Fluorene	86-73-7	ug/kg	122000	< 40	< 37	< 36	< 400	< 46	69	< 46	84	< 40	< 37		< 37	< 41	< 39
Hexachlorobenzene	118-74-1	ug/kg	199	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Hexachloroethane	67-72-1	ug/kg	596	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	93	< 37	< 36	< 400	< 46	160	< 46	430	< 40	76		< 37	< 41	< 39
Isophorone	78-59-1	ug/kg	139000	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Naphthalene	91-20-3	ug/kg	99.4	< 40	< 37	< 36		< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Nitrobenzene	98-95-3	ug/kg	1310				< 400	< 46	< 38	< 46	< 43	< 40					
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	230	< 37	< 36	< 400	< 46	320	< 46	< 43	< 40	< 37		< 37	160	< 39
Pentachlorophenol	87-86-5	ug/kg	2100	< 79	79	< 72	< 790	< 93	< 76	< 91	< 87	< 80	< 74		< 74	< 81	< 78
Phenanthrene	85-01-8	ug/kg	45700	69	22	92	< 400	27	670	34	890	< 40	210		< 37	< 41	38
Phenol	108-95-2	ug/kg	30000	< 40	< 37	< 36	< 400	< 46	< 38	< 46	< 43	< 40	< 37		< 37	< 41	< 39
Pyrene	129-00-0	ug/kg	78500	140	< 37	170	< 400	< 46	990	< 46	1900	< 40	470		< 37	< 41	< 39
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		49200	24500		9790		20000				20300	56100	19100	22700	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	O7-9319-01	O8-2247-04	O8-2247-05	O8-2268-05	O8-3-04	O8-3-09	O8-3-13	O8-3-18	O8-3-20	O8-4-02	P5-535-04	P6-651-02	P6-9225-03	P7-575-04
			Sample Date	5/5/2000	5/16/2000	5/16/2000	5/26/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/11/2000	5/4/2000	5/4/2000	5/9/2000
			Sample Depths	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	O7-9319-011.25N	O8-2247-041.5N	O8-2247-051N	O8-2268-051.5N	O8-3-041N	O8-3-091.25N	O8-3-131N	O8-3-181N	O8-3-201.5N	O8-4-020.5N	P5-535-041N	P6-651-021N	P6-9225-031N	P7-575-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 400										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050				< 400										
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	P7-9209-06	Q6-583-01	Q6-583-01	Q6-584-02	Q6-8-03	R5-1-01	R5-1-01	R5-2-01	R5-2-03	R5-2-05	R6-11-02	S7-1-02	C10-241A-05	C14-1-03
			Sample Date	5/10/2000	5/25/2000	5/25/2000	5/10/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/10/2000	5/10/2000	6/30/2000	7/6/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	P7-9209-061.25N	Q6-583-011N	Q6-583-010.5N	Q6-584-021N	Q6-8-031N	R5-1-011.25FD	R5-1-011.25N	R5-2-011N	R5-2-031N	R5-2-051N	R6-11-021.25N	S7-1-021N	C10-241A-051.5N	C14-1-031N
			Parent ID						R5-1-011.25N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 141			< 141	< 25							< 160	< 249	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 141			< 141	< 25							< 160	< 249	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 141			< 141	< 25							< 160	< 249	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 141.6													
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 141			< 141	< 25							< 160	< 249	
2-Nitrotoluene	88-72-2	ug/kg		< 283			< 282	< 50							< 320	< 498	
3-Nitrotoluene	99-08-1	ug/kg		< 283			< 282	< 50							< 320	< 498	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 141			< 141	< 25							< 160	< 249	
4-Nitrotoluene	99-99-0	ug/kg		< 283			< 282	< 50							< 320	< 498	
Nitrobenzene	98-95-3	ug/kg	1310	< 141			< 141	< 25							< 160	< 249	
Nitrocellulose	9004-70-0	ug/kg		64100			< 40000	< 38000							< 44000		
Nitroglycerin	55-63-0	ug/kg	65000	4100			11000	< 540							< 620	< 6000	< 375.439
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 283			< 282	< 50							< 320	< 498	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 283			< 282	< 50							< 320	< 498	
Tetryl	479-45-8	ug/kg	25000	< 283			< 282	< 50							< 320	< 498	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%			0		7	0		2.9	8.6			5	21.5		
Gravel	Gravel	%			55		33.3	24		45.3	27.6			22.4	12.3		
Sand	Sand	%			33		43.7	67.1		44.5	42.6			50.8	38.2		
Silt	Silt	%			12		16	8.8		7.3	21.2			21.7	28.1		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	P7-9209-06	Q6-583-01	Q6-583-01	Q6-584-02	Q6-8-03	R5-1-01	R5-1-01	R5-2-01	R5-2-03	R5-2-05	R6-11-02	S7-1-02	C10-241A-05	C14-1-03
			Sample Date	5/10/2000	5/25/2000	5/25/2000	5/10/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/10/2000	5/10/2000	6/30/2000	7/6/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	P7-9209-061.25N	Q6-583-011N	Q6-583-010.5N	Q6-584-021N	Q6-8-031N	R5-1-011.25FD	R5-1-011.25N	R5-2-011N	R5-2-031N	R5-2-051N	R6-11-021.25N	S7-1-021N	C10-241A-051.5N	C14-1-031N
			Parent ID						R5-1-011.25N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27				< 0.6	< 0.6	0.77	0.88	< 0.7	< 1	1.2	< 0.6	0.57	< 0.688	< 0.627817
Arsenic	7440-38-2	mg/kg	9.9				4.8	3.4	6.1	4.8	5.8	8.6	9.1	4.4	16.5	4.13	5.29
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10				0.56	0.6	0.26	0.25	0.43	0.53	0.58	0.78	0.67	0.497	0.567
Cadmium	7440-43-9	mg/kg	0.36				< 0.3	0.45	0.23	0.2	0.37	0.21	0.9	< 0.3	0.04	0.748	1.11
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				18.2	11.6	9.4	9.8	14.4	27	21.5	15.1	19.8	19.8	17.4
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4				15.3	19.1	21.6	17.2	15.3	19.2	29.6	12.3	19.6	16.3	20.1
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				22.4	17.6	85.8	59.9	94.5	79.3	108	18.4	42.7	68.7	30
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1				0.03	0.05	0.22	0.22	0.08	0.11	0.35	0.05	0.06	0.07	0.106
Nickel	7440-02-0	mg/kg	38				7.7	6.8	6.1	4.7	7.2	9.8	11.1	9.7	12.5	6.4	10.7
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52				< 0.5	0.63	1.4	0.91	1.3	79.3	1.4	0.37	0.79	1.04	1.16
Silver	7440-22-4	mg/kg	2				< 0.3	< 0.3	0.1	0.15	< 0.3	0.79	0.48	< 0.3	< 0.3	< 0.344	< 0.313909
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1				0.56	< 1	< 1.1	< 1	< 1	< 2	< 1	1	0.66	< 1.15	< 1.046362
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5				94.2	80.4	98.9	80.7	174	4910	945	140	122	25.9	63.5
Moisture																	
Percent Solids	SOLID	percent		86.1	86.1		86.2	93.2	89.2	89.9	77.2	74	72.2	86.6	78.1	83.1	88.5
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
1,2-Diphenylhydrazine	122-66-7	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
2,4-Dimethylphenol	105-67-9	ug/kg	10				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
2,4-Dinitrophenol	51-28-5	ug/kg	60.9				< 78	< 72	< 750	< 74	< 87	< 90	< 93	< 77	< 85	< 802	< 750.878

			Location	P7-9209-06	Q6-583-01	Q6-583-01	Q6-584-02	Q6-8-03	R5-1-01	R5-1-01	R5-2-01	R5-2-03	R5-2-05	R6-11-02	S7-1-02	C10-241A-05	C14-1-03
			Sample Date	5/10/2000	5/25/2000	5/25/2000	5/10/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/10/2000	5/10/2000	6/30/2000	7/6/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	P7-9209-061.25N	Q6-583-011N	Q6-583-010.5N	Q6-584-021N	Q6-8-031N	R5-1-011.25FD	R5-1-011.25N	R5-2-011N	R5-2-031N	R5-2-051N	R6-11-021.25N	S7-1-021N	C10-241A-051.5N	C14-1-031N
			Parent ID						R5-1-011.25N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280				< 390	< 360	< 370	< 370	< 430	< 450	< 460	< 380	< 430	< 401	190
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 390	< 360	38	28	< 430	< 450	< 460	< 380	< 430	< 401	< 375
2-Chloronaphthalene	91-58-7	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
2-Chlorophenol	95-57-8	ug/kg	243				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43		
2-Nitrotoluene	88-72-2	ug/kg															< 375.439
3,3-Dichlorobenzidine	91-94-1	ug/kg	646				< 78	< 72	< 750	< 74	< 87	< 90	< 93	< 77	< 85	< 802	< 750.878
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144				< 78	< 72	< 750	< 74	< 87	< 90	< 93	< 77	< 85	< 802	< 750.878
4-Bromophenyl-phenylether	101-55-3	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
4-Chloro-3-methylphenol	59-50-7	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
4-Chlorophenyl-phenylether	7005-72-3	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
4-Nitrophenol	100-02-7	ug/kg	7000				< 78	< 72	< 750	< 74	< 87	< 90	< 93	< 77	< 85		
4-Nitrotoluene	99-99-0	ug/kg															< 750.878
Acenaphthene	83-32-9	ug/kg	20000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	170	< 401	< 375.439
Acenaphthylene	208-96-8	ug/kg	682000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	41	< 401	< 375.439
Anthracene	120-12-7	ug/kg	1480000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	320	< 401	< 375.439
Benzidine	92-87-5	ug/kg	1310				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210				< 39	43	< 370	< 37	< 43	< 45	90	43	600	< 401	< 375.439
Benzo[a]pyrene	50-32-8	ug/kg	1520				< 39	42	< 370	< 37	< 43	< 45	86	25	490	< 401	< 375.439
Benzo[b]fluoranthene	205-99-2	ug/kg	59800				< 39	63	< 370	< 37	< 43	< 45	170	< 38	700	< 401	< 375.439
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	200	< 401	< 375.439
Benzo[k]fluoranthene	207-08-9	ug/kg	148000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	340	< 401	< 375.439
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Bis(2-Chloroethyl)ether	111-44-4	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925				24	23	47	47	33	37	130	< 38	22	< 401	< 375.439
Butylbenzylphthalate	85-68-7	ug/kg	239				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Chrysene	218-01-9	ug/kg	4730				< 39	41	39	< 37	< 43	61	130	< 38	660	< 401	< 375.439
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Diethylphthalate	84-66-2	ug/kg	24800				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Dimethylphthalate	131-11-3	ug/kg	734000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Di-n-butylphthalate	84-74-2	ug/kg	150				< 39	< 36	< 370	< 37	< 43	< 45	41	< 38	< 43	< 401	< 375.439
Di-n-octylphthalate	117-84-0	ug/kg	7090				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Fluoranthene	206-44-0	ug/kg	122000				< 39	< 36	< 370	< 37	< 43	84	170	< 38	1800	< 401	< 375.439
Fluorene	86-73-7	ug/kg	122000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	200	< 401	< 375.439
Hexachlorobenzene	118-74-1	ug/kg	199				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43		
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Hexachlorocyclopentadiene	77-47-4	ug/kg					< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Hexachloroethane	67-72-1	ug/kg	596				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	220	< 401	< 375.439
Isophorone	78-59-1	ug/kg	139000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Naphthalene	91-20-3	ug/kg	99.4				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	32	< 401	< 375.439
Nitrobenzene	98-95-3	ug/kg	1310						< 370	< 37	< 43	< 45	< 46	< 38			< 375.439
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
N-Nitrosodiphenylamine	86-30-6	ug/kg	545				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	
Pentachlorophenol	87-86-5	ug/kg	2100				< 78	< 72	< 750	< 74	< 87	< 90	< 93	< 77	< 85	< 802	< 750.878
Phenanthrene	85-01-8	ug/kg	45700				< 39	22	42	29	41	37	140	< 38	1300	< 401	< 375.439
Phenol	108-95-2	ug/kg	30000				< 39	< 36	< 370	< 37	< 43	< 45	< 46	< 38	< 43	< 401	< 375.439
Pyrene	129-00-0	ug/kg	78500				< 39	< 36	< 370	< 37	< 43	< 45	290	< 38	930	< 401	< 375.439
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			23500		47700	12700		49300	60200			27900	38800		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg				< 56											
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			< 56											

			Location	P7-9209-06	Q6-583-01	Q6-583-01	Q6-584-02	Q6-8-03	R5-1-01	R5-1-01	R5-2-01	R5-2-03	R5-2-05	R6-11-02	S7-1-02	C10-241A-05	C14-1-03
			Sample Date	5/10/2000	5/25/2000	5/25/2000	5/10/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/10/2000	5/10/2000	6/30/2000	7/6/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	P7-9209-061.25N	Q6-583-011N	Q6-583-010.5N	Q6-584-021N	Q6-8-031N	R5-1-011.25FD	R5-1-011.25N	R5-2-011N	R5-2-031N	R5-2-051N	R6-11-021.25N	S7-1-021N	C10-241A-051.5N	C14-1-031N
			Parent ID						R5-1-011.25N								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 56											
1,1-Dichloroethane	75-34-3	ug/kg				< 56											
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 56											
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 56											
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 56											
1,2-Dichloroethane	107-06-2	ug/kg				< 56											
1,2-Dichloropropane	78-87-5	ug/kg				< 56											
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 56											
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 56											
2-Chloroethylvinylether	110-75-8	ug/kg				< 112											
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270			< 225											
Acrylonitrile	107-13-1	ug/kg	23.9			< 56											
Benzene	71-43-2	ug/kg	255			< 56											
Bromodichloromethane	75-27-4	ug/kg	540			< 56											
Bromoform	75-25-2	ug/kg				< 56											
Bromomethane	74-83-9	ug/kg	235			< 112											
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 56											
Chlorobenzene	108-90-7	ug/kg	13100			< 56											
Chloroethane	75-00-3	ug/kg				< 112											
Chloroform	67-66-3	ug/kg	1190			< 56											
Chloromethane	74-87-3	ug/kg	10400			< 112											
cis-1,2-Dichloroethene	156-59-2	ug/kg				< 56											
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050			< 56											
Ethylbenzene	100-41-4	ug/kg	5160			< 56											
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 56											
Methylene Chloride	75-09-2	ug/kg	4050			< 56											
Naphthalene	91-20-3	ug/kg	99.4			< 56											
Tetrachloroethene	127-18-4	ug/kg	9920			< 56											
Toluene	108-88-3	ug/kg	200000			< 56											
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 56											
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400			< 56											
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646			< 112											
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	C14-121-04	C14-125-04	D10-11-03	D10-11-03	D9-2229-05	D9-3-01	D9-5-02	D9-8284-03	E10-2031B-01	E10-2031C-03	E10-2169A-04	E10-2314-01	E11-2-02	E11-6-02
			Sample Date	7/6/2000	7/6/2000	7/21/2000	7/21/2000	6/29/2000	6/29/2000	6/29/2000	7/21/2000	6/30/2000	6/30/2000	6/30/2000	7/21/2000	6/22/2000	7/14/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	C14-121-041.5N	C14-125-041.5N	D10-11-031.5N	D10-11-030.5N	D9-2229-050.75N	D9-3-011N	D9-5-021N	D9-8284-030.5N	E10-2031B-011.5N	E10-2031C-031.5N	E10-2169A-041.5N	E10-2314-010.5N	E11-2-021.5N	E11-6-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376							< 247.525				< 245		< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655							< 247.525				< 245		< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000							< 247.525				< 245		< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280							< 495.05				< 490		< 500	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8							< 495.05				< 490		< 500	
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000							< 247.525				< 245		< 250	
2-Nitrotoluene	88-72-2	ug/kg								< 495.05				< 490		< 500	
3-Nitrotoluene	99-08-1	ug/kg								< 495.05				< 490		< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000							< 247.525				< 245		< 250	
4-Nitrotoluene	99-99-0	ug/kg								< 495.05				< 490		< 500	
Nitrobenzene	98-95-3	ug/kg	1310							< 247.525				< 245		194	
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000	< 392.249	< 380.386			< 373.067	< 356.264	< 409				< 6050		11400	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000							< 495.05				< 490		< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000							< 495.05				< 490		< 500	
Tetryl	479-45-8	ug/kg	25000							< 495.05				< 490		< 500	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															95.5
Sieve Size #10 - Percent Finer	SIEVE_#010	%															67.9
Sieve Size #100 - Percent Finer	SIEVE_#100	%															22.6
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															52.4
Sieve Size #200 - Percent Finer	SIEVE_#200	%															17.3
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															82.6
Sieve Size #40 - Percent Finer	SIEVE_#040	%															39.3
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															28.9
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															100
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	C14-121-04	C14-125-04	D10-11-03	D10-11-03	D9-2229-05	D9-3-01	D9-5-02	D9-8284-03	E10-2031B-01	E10-2031C-03	E10-2169A-04	E10-2314-01	E11-2-02	E11-6-02
			Sample Date	7/6/2000	7/6/2000	7/21/2000	7/21/2000	6/29/2000	6/29/2000	6/29/2000	7/21/2000	6/30/2000	6/30/2000	6/30/2000	7/21/2000	6/22/2000	7/14/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	C14-121-041.5N	C14-125-041.5N	D10-11-031.5N	D10-11-030.5N	D9-2229-050.75N	D9-3-011N	D9-5-021N	D9-8284-030.5N	E10-2031B-011.5N	E10-2031C-031.5N	E10-2169A-041.5N	E10-2314-010.5N	E11-2-021.5N	E11-6-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.653749	< 0.669184			< 0.665538	< 0.61135	< 0.728818		< 0.567	< 0.723	< 0.443		< 0.497698	
Arsenic	7440-38-2	mg/kg	9.9	2.14	4.1			3.85	5.7	4.59		4.28	3.99	11.9		7.42	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.546	0.678			0.352	0.285	0.318		0.618	0.48	0.512		0.413	
Cadmium	7440-43-9	mg/kg	0.36	0.851	0.835			0.531	0.417	0.364		0.701	0.563	1.06		< 0.248849	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	14.6	14.9			48.4	19.5	14.1		15.4	11.6	12.7		8.96	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	12.9	15.3			21.3	19.2	9.93		20.6	25.1	34.5		28.3	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	8.38	20.9			30.9	24.4	26.4		80.6	27.4	348		36.8	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.054	0.08			0.028	0.026	0.503		0.144	0.125	0.859		0.863	
Nickel	7440-02-0	mg/kg	38	6.41	6.99			21.4	8.21	6.11		9.93	11.7	7.92		6.21	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.737	1.25			0.679	0.753	0.745		0.852	0.87	0.783		0.389	
Silver	7440-22-4	mg/kg	2	< 0.326874	< 0.334592			< 0.332769	< 0.305675	< 0.364409		< 0.283	< 0.362	< 0.222		< 0.248849	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.089581	< 1.115306			< 1.10923	< 1.018916	< 1.214696		< 0.945	< 1.21	< 0.739		< 0.829497	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	69.8	84.1			25.2	23.7	26.5		71.8	68.6	150		54	
Moisture																	
Percent Solids	SOLID	percent		85	87.1	86		89.3	93.5	81.5		84.7	70.6	82.5		80.37	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 784.498	< 760.772	< 773		< 746.134	< 712.528	< 817.078		< 787	< 938	< 808		< 829.496	

			Location	C14-121-04	C14-125-04	D10-11-03	D10-11-03	D9-2229-05	D9-3-01	D9-5-02	D9-8284-03	E10-2031B-01	E10-2031C-03	E10-2169A-04	E10-2314-01	E11-2-02	E11-6-02
			Sample Date	7/6/2000	7/6/2000	7/21/2000	7/21/2000	6/29/2000	6/29/2000	6/29/2000	7/21/2000	6/30/2000	6/30/2000	6/30/2000	7/21/2000	6/22/2000	7/14/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	C14-121-041.5N	C14-125-041.5N	D10-11-031.5N	D10-11-030.5N	D9-2229-050.75N	D9-3-011N	D9-5-021N	D9-8284-030.5N	E10-2031B-011.5N	E10-2031C-031.5N	E10-2169A-041.5N	E10-2314-010.5N	E11-2-021.5N	E11-6-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 392	< 380	< 386		< 373	< 356	< 409		< 394	< 469	105		< 415	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 392	< 380	< 386		< 373	< 356	< 409		< 394	< 469	< 21		< 415	
2-Chloronaphthalene	91-58-7	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
2-Chlorophenol	95-57-8	ug/kg	243	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 386											
2-Nitrotoluene	88-72-2	ug/kg		< 392.249	< 380.386			< 373.067	< 356.264			< 394	< 469				
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 784.498	< 760.772	< 773		< 746.134	< 712.528	< 817.078		< 787	< 938	< 808		< 829.496	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 784.498	< 760.772	< 773		< 746.134	< 712.528	< 817.078		< 787	< 938	< 808		< 829.496	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
4-Nitrophenol	100-02-7	ug/kg	7000			< 773											
4-Nitrotoluene	99-99-0	ug/kg		< 784.498	< 760.772			< 746.134	< 712.528			< 787	< 938				
Acenaphthene	83-32-9	ug/kg	20000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Acenaphthylene	208-96-8	ug/kg	682000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Anthracene	120-12-7	ug/kg	1480000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Benzidine	92-87-5	ug/kg	1310	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 392.249	< 380.386	< 386		< 373.067	< 356.264	41.7		< 394	< 469	< 404		< 414.748	
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 392.249	< 380.386	< 386		< 373.067	< 356.264	34.7		< 394	< 469	< 404		< 414.748	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 392.249	< 380.386	30.5		28.7	150	31.5		< 394	107	101		< 414.748	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	269
Chrysene	218-01-9	ug/kg	4730	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	50.5		< 414.748	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Diethylphthalate	84-66-2	ug/kg	24800	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	184		219	
Dimethylphthalate	131-11-3	ug/kg	734000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Di-n-butylphthalate	84-74-2	ug/kg	150	105	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	449		2140	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Fluoranthene	206-44-0	ug/kg	122000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Fluorene	86-73-7	ug/kg	122000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Hexachlorobenzene	118-74-1	ug/kg	199			< 386											
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Hexachloroethane	67-72-1	ug/kg	596	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Isophorone	78-59-1	ug/kg	139000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Naphthalene	91-20-3	ug/kg	99.4	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Nitrobenzene	98-95-3	ug/kg	1310	< 392.249	< 380.386	< 386		< 373.067	< 356.264			< 394	< 469				
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 386						< 394	< 469	< 404		< 414.748	
Pentachlorophenol	87-86-5	ug/kg	2100	< 784.498	< 760.772	< 773		< 746.134	< 712.528	< 817.078		< 787	< 938	< 808		< 829.496	
Phenanthrene	85-01-8	ug/kg	45700	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	49.3		< 414.748	
Phenol	108-95-2	ug/kg	30000	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Pyrene	129-00-0	ug/kg	78500	< 392.249	< 380.386	< 386		< 373.067	< 356.264	< 408.539		< 394	< 469	< 404		< 414.748	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg					< 530				< 517				< 638		< 625
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127				< 530				< 517				< 638		< 625

			Location	C14-121-04	C14-125-04	D10-11-03	D10-11-03	D9-2229-05	D9-3-01	D9-5-02	D9-8284-03	E10-2031B-01	E10-2031C-03	E10-2169A-04	E10-2314-01	E11-2-02	E11-6-02
			Sample Date	7/6/2000	7/6/2000	7/21/2000	7/21/2000	6/29/2000	6/29/2000	6/29/2000	7/21/2000	6/30/2000	6/30/2000	6/30/2000	7/21/2000	6/22/2000	7/14/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	C14-121-041.5N	C14-125-041.5N	D10-11-031.5N	D10-11-030.5N	D9-2229-050.75N	D9-3-011N	D9-5-021N	D9-8284-030.5N	E10-2031B-011.5N	E10-2031C-031.5N	E10-2169A-041.5N	E10-2314-010.5N	E11-2-021.5N	E11-6-020.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg					< 530				< 517				< 638		< 625
1,1-Dichloroethane	75-34-3	ug/kg					< 530				< 517				< 638		< 625
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 530				< 517				< 638		< 625
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 530				< 517				< 638		< 625
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 530				< 517				< 638		< 625
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg					< 530				< 517				< 638		< 625
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 530				< 517				< 638		< 625
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 530				< 517				< 638		< 625
2-Chloroethylvinylether	110-75-8	ug/kg					< 1060				< 1030				< 1280		< 1250
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270				< 2120				< 2070				< 2550		< 2500
Acrylonitrile	107-13-1	ug/kg	23.9				< 5300				< 5170				< 6380		< 625
Benzene	71-43-2	ug/kg	255				< 530				< 517				< 638		< 625
Bromodichloromethane	75-27-4	ug/kg	540				< 530				< 517				< 638		< 625
Bromoform	75-25-2	ug/kg					< 530				< 517				< 638		< 625
Bromomethane	74-83-9	ug/kg	235				< 1060				< 1030				< 1280		
Carbon Tetrachloride	56-23-5	ug/kg	2980				< 530				< 517				< 638		< 625
Chlorobenzene	108-90-7	ug/kg	13100				< 530				< 517				< 638		< 625
Chloroethane	75-00-3	ug/kg					< 1060				< 1030				< 1280		< 1250
Chloroform	67-66-3	ug/kg	1190				< 530				< 517				< 638		< 625
Chloromethane	74-87-3	ug/kg	10400				< 1060				< 1030				< 1280		389
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															< 625
Cis-1,3-Dichloropropene	10061-01-5	ug/kg					< 530				< 517				< 638		
Dibromochloromethane	124-48-1	ug/kg	2050				< 530				< 517				< 638		< 625
Ethylbenzene	100-41-4	ug/kg	5160				< 530				< 517				< 638		< 625
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 530				< 517				< 638		< 625
Methylene Chloride	75-09-2	ug/kg	4050				< 2120				< 2070				< 2550		< 625
Naphthalene	91-20-3	ug/kg	99.4								< 517						
Tetrachloroethene	127-18-4	ug/kg	9920				< 530				< 517				< 638		< 625
Toluene	108-88-3	ug/kg	200000				< 530				< 517				< 638		< 625
trans-1,2-Dichloroethene	156-60-5	ug/kg					< 530				< 517				< 638		< 625
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400				< 530				< 517				< 638		< 625
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	E11-6-04	E11-6-04	E11-8228-05	E12-286D-07	E12-286D-07	E13-3-05	E9-2-01	E9-2297-02	F10-20-02	F10-20-03	F10-2162-02	F10-2162-02	F10-3-01	F10-3-07
			Sample Date	7/14/2000	7/14/2000	6/22/2000	7/27/2000	7/27/2000	6/29/2000	6/16/2000	7/12/2000	7/12/2000	7/12/2000	6/23/2000	6/23/2000	6/16/2000	6/16/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	E11-6-041.5N	E11-6-040.5N	E11-8228-051.5N	E12-286D-071FD	E12-286D-071N	E13-3-051N	E9-2-011.5N	E9-2297-021N	F10-20-021.5N	F10-20-031.25N	F10-2162-021.25N	F10-2162-020.5N	F10-3-011.5N	F10-3-071N
			Parent ID				E12-286D-071N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250			< 250	< 250		< 250	< 238.1		< 238.1				< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250			< 250	< 250		< 250	< 238.1		< 238.1				< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250			< 250	< 250		< 250	1270		< 238.1				106
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8										< 238.1				
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250			< 250	< 250		< 250	< 238.1		< 238.1				< 250
2-Nitrotoluene	88-72-2	ug/kg		< 500			< 500	< 500		< 500	< 476.2		< 476.2				< 500
3-Nitrotoluene	99-08-1	ug/kg		< 500			< 500	< 500		< 500	< 476.2		800				< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250			< 250	< 250		< 250	< 238.1		< 238.1				< 250
4-Nitrotoluene	99-99-0	ug/kg		< 500			< 500	< 500		< 500	< 476.2		< 476.2				< 500
Nitrobenzene	98-95-3	ug/kg	1310	< 250			< 250	< 250		180	139		< 238.1				758
Nitrocellulose	9004-70-0	ug/kg					75300	115000		320000	3010000		444000				13600000
Nitroglycerin	55-63-0	ug/kg	65000	3040			< 5770	< 5880	< 386.311	18900	175000		15000				14100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500			< 500	< 500		< 500	< 476.2		< 476.2				1060
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500			< 500	< 500		< 500	< 476.2		< 476.2				< 500
Tetryl	479-45-8	ug/kg	25000	< 500			< 500	< 500		< 500	< 476.2		< 476.2				< 500
GenChem																	
pH	pH	su					5.55	5.62	5.02					7			
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%									69.5	87.7					
Sieve Size #10 - Percent Finer	SIEVE_#010	%									42.5	70.5					
Sieve Size #100 - Percent Finer	SIEVE_#100	%									18.1	27.9					
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%									37.1	57.9					
Sieve Size #200 - Percent Finer	SIEVE_#200	%									10.7	20.8					
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%									48.8	81.5					
Sieve Size #40 - Percent Finer	SIEVE_#040	%									30.2	46.5					
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%									23.1	36.4					
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%									100	100					
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	E11-6-04	E11-6-04	E11-8228-05	E12-286D-07	E12-286D-07	E13-3-05	E9-2-01	E9-2297-02	F10-20-02	F10-20-03	F10-2162-02	F10-2162-02	F10-3-01	F10-3-07
			Sample Date	7/14/2000	7/14/2000	6/22/2000	7/27/2000	7/27/2000	6/29/2000	6/16/2000	7/12/2000	7/12/2000	7/12/2000	6/23/2000	6/23/2000	6/16/2000	6/16/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	E11-6-041.5N	E11-6-040.5N	E11-8228-051.5N	E12-286D-071FD	E12-286D-071N	E13-3-051N	E9-2-011.5N	E9-2297-021N	F10-20-021.5N	F10-20-031.25N	F10-2162-021.25N	F10-2162-020.5N	F10-3-011.5N	F10-3-071N
			Parent ID				E12-286D-071N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.684126	1.1	0.954	< 0.454939	0.515	< 0.617539	0.928					
Arsenic	7440-38-2	mg/kg	9.9			3.22	76	198	14.1	2.97	24.5	173					
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.296	0.217	0.305	0.362	0.284	0.289	0.441					
Cadmium	7440-43-9	mg/kg	0.36			< 0.342063	< 0.355	< 0.22	0.104	0.637	0.473	0.329					
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			11.4	6.41	8.66	13.3	7.81	21.4	10.4					
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			8.52	20.9	18.6	15.8	19.1	64	48.4					
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			30.2	45	50.9	18	11.2	223	201					
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.236	0.547	0.297	< 0.036887	0.034	0.186	0.704					
Nickel	7440-02-0	mg/kg	38			5.18	5.49	6.19	5.12	4.81	8.53	9.62					
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			0.86	2.93	1.4	0.343	< 0.534	0.79	2.74					
Silver	7440-22-4	mg/kg	2			< 0.342063	< 0.355	< 0.22	< 0.227469	< 0.32	< 0.308769	< 0.348108					
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 1.140209	< 1.18	0.724	1.14	< 1.07	< 1.029231	< 1.160361					
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			72.4	84.4	74.5	41.8	47.6	292	72					
Moisture																	
Percent Solids	SOLID	percent		85.02		74.96	84.6	85.1	86.2	88.4	94.33	83.67	85.66	89.47		70.3	71.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 783.438		< 886.408	< 775	< 781	< 772.622	< 754	< 7056.08	< 793.594				< 949	< 9370

			Location	E11-6-04	E11-6-04	E11-8228-05	E12-286D-07	E12-286D-07	E13-3-05	E9-2-01	E9-2297-02	F10-20-02	F10-20-03	F10-2162-02	F10-2162-02	F10-3-01	F10-3-07
			Sample Date	7/14/2000	7/14/2000	6/22/2000	7/27/2000	7/27/2000	6/29/2000	6/16/2000	7/12/2000	7/12/2000	7/12/2000	6/23/2000	6/23/2000	6/16/2000	6/16/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	E11-6-041.5N	E11-6-040.5N	E11-8228-051.5N	E12-286D-071FD	E12-286D-071N	E13-3-051N	E9-2-011.5N	E9-2297-021N	F10-20-021.5N	F10-20-031.25N	F10-2162-021.25N	F10-2162-020.5N	F10-3-011.5N	F10-3-071N
			Parent ID				E12-286D-071N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 392		< 443	< 388	< 391	< 386	< 377	< 3528	< 397				< 474	< 4690
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 392		< 443	< 388	< 391	< 386	< 377	< 3528	< 397				< 474	< 4690
2-Chloronaphthalene	91-58-7	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
2-Chlorophenol	95-57-8	ug/kg	243	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 388	< 391		< 377						< 474	< 4690
2-Nitrotoluene	88-72-2	ug/kg				< 443.204			< 386.311			< 396.797					
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 783.438		< 886.408	< 775	< 781	< 772.622	< 754	< 7056.08	< 793.594				< 949	< 9370
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 783.438		< 886.408	< 775	< 781	< 772.622	< 754	< 7056.08	< 793.594				< 949	< 9370
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
4-Nitrophenol	100-02-7	ug/kg	7000				< 775	< 781		< 754						< 949	< 9370
4-Nitrotoluene	99-99-0	ug/kg				< 886.408			< 772.622			< 794					
Acenaphthene	83-32-9	ug/kg	20000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Acenaphthylene	208-96-8	ug/kg	682000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797			< 20661.15	< 474	< 4690
Anthracene	120-12-7	ug/kg	1480000	< 391.719		< 443.204	124	116	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Benzidine	92-87-5	ug/kg	1310	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	79.52		< 443.204	547	680	195	35.1	< 3528.04	118				< 474	853
Benzo[a]pyrene	50-32-8	ug/kg	1520	55.23		< 443.204	560	638	153	< 377	< 3528.04	94.04				< 474	843
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	119		< 443.204	1260	1340	281	< 377	< 3528.04	272				< 474	1570
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 391.719		< 443.204	339	349	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 391.719		< 443.204	314	466	< 386.311	< 377	< 3528.04	79.76				< 474	< 4690
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 391.719		< 443.204	< 388	< 391	< 386.311	23	< 3528.04	< 396.797				< 474	< 4690
Butylbenzylphthalate	85-68-7	ug/kg	239	< 391.719	302	< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797			< 1033.057	< 474	< 4690
Chrysene	218-01-9	ug/kg	4730	72.08		< 443.204	715	686	177	35.4	< 3528.04	226				84.9	1170
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 391.719		< 443.204	140	138	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Diethylphthalate	84-66-2	ug/kg	24800	< 391.719		< 443.204	< 388	< 391	< 386.311	108	< 3528.04	554				< 474	< 4690
Dimethylphthalate	131-11-3	ug/kg	734000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Di-n-butylphthalate	84-74-2	ug/kg	150	< 391.719		< 443.204	< 388	< 391	< 386.311	92	2670	< 396.797				< 474	656
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Fluoranthene	206-44-0	ug/kg	122000	< 391.719		< 443.204	467	448	131	< 377	< 3528.04	307				< 474	2720
Fluorene	86-73-7	ug/kg	122000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Hexachlorobenzene	118-74-1	ug/kg	199				< 388	< 391		< 377						< 474	< 4690
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Hexachloroethane	67-72-1	ug/kg	596	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 391.719		< 443.204	338	355	74.9	< 377	< 3528.04	< 396.797				< 474	< 4690
Isophorone	78-59-1	ug/kg	139000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Naphthalene	91-20-3	ug/kg	99.4	< 391.719		< 443.204	< 388	20.7	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Nitrobenzene	98-95-3	ug/kg	1310			< 443.204			< 386.311			< 396.797				< 474	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 391.719		< 443.204	< 388	< 391		396	2490	185				418	< 4690
Pentachlorophenol	87-86-5	ug/kg	2100	< 783.438		< 886.408	< 775	< 781	< 772.622	< 754	< 7056.08	< 793.594				< 949	< 9370
Phenanthrene	85-01-8	ug/kg	45700	86.18		< 443.204	150	121	51.4	24.9	< 3528.04	125				101	1580
Phenol	108-95-2	ug/kg	30000	< 391.719		< 443.204	< 388	< 391	< 386.311	< 377	< 3528.04	< 396.797				< 474	< 4690
Pyrene	129-00-0	ug/kg	78500	< 391.719		< 443.204	483	559	167	< 377	< 3528.04	157				< 474	2170
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg									23400	158000					
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 637.7551										< 516.5289		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 637.7551										< 516.5289		

			Location	E11-6-04	E11-6-04	E11-8228-05	E12-286D-07	E12-286D-07	E13-3-05	E9-2-01	E9-2297-02	F10-20-02	F10-20-03	F10-2162-02	F10-2162-02	F10-3-01	F10-3-07
			Sample Date	7/14/2000	7/14/2000	6/22/2000	7/27/2000	7/27/2000	6/29/2000	6/16/2000	7/12/2000	7/12/2000	7/12/2000	6/23/2000	6/23/2000	6/16/2000	6/16/2000
			Sample Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	E11-6-041.5N	E11-6-040.5N	E11-8228-051.5N	E12-286D-071FD	E12-286D-071N	E13-3-051N	E9-2-011.5N	E9-2297-021N	F10-20-021.5N	F10-20-031.25N	F10-2162-021.25N	F10-2162-020.5N	F10-3-011.5N	F10-3-071N
			Parent ID				E12-286D-071N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 637.7551										< 516.5289		
1,1-Dichloroethane	75-34-3	ug/kg			< 637.7551										< 516.5289		
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 637.7551										< 516.5289		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 638										< 516.5289		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 638										< 516.5289		
1,2-Dichloroethane	107-06-2	ug/kg			< 637.7551												
1,2-Dichloropropane	78-87-5	ug/kg			< 637.7551										< 516.5289		
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 638										< 516.5289		
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 638										< 516.5289		
2-Chloroethylvinylether	110-75-8	ug/kg			< 1275.51										< 1033.057		
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 2551.02										< 5165.289		
Acrylonitrile	107-13-1	ug/kg	23.9		< 637.7551										< 5165.289		
Benzene	71-43-2	ug/kg	255		< 637.7551										< 516.5289		
Bromodichloromethane	75-27-4	ug/kg	540		< 637.7551										< 516.5289		
Bromoform	75-25-2	ug/kg			< 637.7551										< 516.5289		
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 637.7551										< 516.5289		
Chlorobenzene	108-90-7	ug/kg	13100		< 637.7551										< 516.5289		
Chloroethane	75-00-3	ug/kg			< 1275.51										< 1033.057		
Chloroform	67-66-3	ug/kg	1190		< 637.7551										< 516.5289		
Chloromethane	74-87-3	ug/kg	10400		730										< 1033.057		
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg			< 637.7551										< 516.5289		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 637.7551										< 516.5289		
Ethylbenzene	100-41-4	ug/kg	5160		< 637.7551										< 516.5289		
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 638										< 516.5289		
Methylene Chloride	75-09-2	ug/kg	4050		2630										< 2066.115		
Naphthalene	91-20-3	ug/kg	99.4												< 516.5289		
Tetrachloroethene	127-18-4	ug/kg	9920		< 637.7551										< 516.5289		
Toluene	108-88-3	ug/kg	200000		< 637.7551										< 516.5289		
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 637.7551										< 516.5289		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 637.7551										< 516.5289		
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		260												
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F10-37B-03	F10-37B-03	F10-5-01	F10-8-04	F10-8569-03	F11-43-02	F11-43-02	F12-191-01	F12-2039-01	F13-8209-02	F13-8209-02	F13-8230-03	F8-5-01	F8-573-02
			Sample Date	6/23/2000	6/23/2000	6/16/2000	6/16/2000	7/19/2000	6/23/2000	6/23/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	7/13/2000	7/14/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-37B-031N	F10-37B-030.5N	F10-5-011.5N	F10-8-041N	F10-8569-031N	F11-43-021N	F11-43-020.5N	F12-191-011.5N	F12-2039-011.25N	F13-8209-021.5FD	F13-8209-021.5N	F13-8230-031.25N	F8-5-011N	F8-573-021N
			Parent ID										F13-8209-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 230						< 238.0952	< 250	< 250			< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 230						< 238.0952	< 250	< 250			< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 230						< 238.0952	< 250	< 250			< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 250											
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 230											
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 230						< 238.0952	< 250	< 250			< 250
2-Nitrotoluene	88-72-2	ug/kg				< 450						< 476.1904	< 500	< 500			< 500
3-Nitrotoluene	99-08-1	ug/kg				< 450						< 476.1904	< 500	< 500			< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 230						< 238.0952	< 250	< 250			< 250
4-Nitrotoluene	99-99-0	ug/kg				< 450						< 476.1904	< 500	< 500			< 500
Nitrobenzene	98-95-3	ug/kg	1310			< 230						< 238.0952	< 250	< 250			< 250
Nitrocellulose	9004-70-0	ug/kg				829000											1520000
Nitroglycerin	55-63-0	ug/kg	65000			12000					< 386.946	< 416	< 400	< 396	< 429.677		< 378
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 450						< 476.1904	< 500	< 500			< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 450						< 476.1904	< 500	< 500			< 500
Tetryl	479-45-8	ug/kg	25000			< 450						< 476.1904	< 500	< 500			< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%				8.2		3.9									
Gravel	Gravel	%				44		39.3									
Sand	Sand	%				34.4		47.3									
Silt	Silt	%				13.4		9.5									
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%				62.5										80	93.7
Sieve Size #10 - Percent Finer	SIEVE_#010	%				33.1										65.3	84.7
Sieve Size #100 - Percent Finer	SIEVE_#100	%				14.1										30.2	57.7
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%				25.8										52	76.2
Sieve Size #200 - Percent Finer	SIEVE_#200	%				10.7										26.1	54.3
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%				42.3										72.6	90.1
Sieve Size #40 - Percent Finer	SIEVE_#040	%				21.4										42	68
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%				17.8										35.1	61.9
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%				78.6										100	100
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%				83											
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%				100											
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F10-37B-03	F10-37B-03	F10-5-01	F10-8-04	F10-8569-03	F11-43-02	F11-43-02	F12-191-01	F12-2039-01	F13-8209-02	F13-8209-02	F13-8230-03	F8-5-01	F8-573-02
			Sample Date	6/23/2000	6/23/2000	6/16/2000	6/16/2000	7/19/2000	6/23/2000	6/23/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	7/13/2000	7/14/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-37B-031N	F10-37B-030.5N	F10-5-011.5N	F10-8-041N	F10-8569-031N	F11-43-021N	F11-43-020.5N	F12-191-011.5N	F12-2039-011.25N	F13-8209-021.5FD	F13-8209-021.5N	F13-8230-031.25N	F8-5-011N	F8-573-021N
			Parent ID										F13-8209-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.677583			< 0.607	< 1	< 0.608669		< 0.451162	< 0.449102	< 0.595	< 0.427207	< 0.552996		< 0.668145
Arsenic	7440-38-2	mg/kg	9.9	9.05			4.81	4.6	12.6		3.83	3.39	5.72	3.68	3.57		5.59
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.666			0.495	0.47	0.405		0.545	0.386	0.474	0.277	0.303		0.548
Cadmium	7440-43-9	mg/kg	0.36	< 0.338792			0.369	1.9	< 0.304334		0.196	0.156	0.128	0.081	0.173		0.695
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	26			11.1	36.2	104		15.8	16	18	9.35	11.1		17.4
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	70.8			23	227	47.4		15.4	15.4	14.3	6.91	13		53.4
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	74.8			22.3	78.6	201		19.1	4.28	14	8.34	27.7		71
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.483			0.043	3.7	0.152		0.062	0.055	0.038	0.042	0.06		0.043
Nickel	7440-02-0	mg/kg	38	12.7			9.68	21	65.1		8.08	9.33	7.73	3.55	5.11		9.99
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.379			< 0.506	1	< 0.507224		0.692	1.03	0.907	0.373	1.3		1.01
Silver	7440-22-4	mg/kg	2	< 0.338792			< 0.304	< 0.6	< 0.304334		< 0.225581	< 0.224551	< 0.298	< 0.213604	< 0.276498		< 0.334073
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.129305			< 1.01	< 2	< 1.014448		1.92	2.34	1.84	1.13	1.4		< 1.113576
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	129			64.6	322	261		64.8	37.9	48.5	44	47.5		194
Moisture																	
Percent Solids	SOLID	percent		80.5		80.7	91.5	88.6	86.47		85.8	80	83.3	84.1	77.5	90.05	88
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371													< 18.48417	
Aroclor-1221	11104-28-2	ug/kg	371													< 18.48417	
Aroclor-1232	11141-16-5	ug/kg	371													< 18.48417	
Aroclor-1242	53469-21-9	ug/kg	371													< 18.48417	
Aroclor-1248	12672-29-6	ug/kg	371													< 18.48417	
Aroclor-1254	11097-69-1	ug/kg	371													< 18.48417	
Aroclor-1260	11096-82-5	ug/kg	371													113	
Polychlorinated biphenyls	1336-36-3	ug/kg	371													113	
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 825.406			< 729	< 79	< 770.98		< 773.892	< 832.5	< 800	< 791.914	< 859.354		< 756.474

			Location	F10-37B-03	F10-37B-03	F10-5-01	F10-8-04	F10-8569-03	F11-43-02	F11-43-02	F12-191-01	F12-2039-01	F13-8209-02	F13-8209-02	F13-8230-03	F8-5-01	F8-573-02
			Sample Date	6/23/2000	6/23/2000	6/16/2000	6/16/2000	7/19/2000	6/23/2000	6/23/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	7/13/2000	7/14/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-37B-031N	F10-37B-030.5N	F10-5-011.5N	F10-8-041N	F10-8569-031N	F11-43-021N	F11-43-020.5N	F12-191-011.5N	F12-2039-011.25N	F13-8209-021.5FD	F13-8209-021.5N	F13-8230-031.25N	F8-5-011N	F8-573-021N
			Parent ID										F13-8209-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 413			< 364	< 400	< 385		< 387	< 416	< 400	< 396	< 430		< 378
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 413			< 364	< 400	< 385		< 387	< 416	< 400	< 396	< 430		< 378
2-Chloronaphthalene	91-58-7	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
2-Chlorophenol	95-57-8	ug/kg	243	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 364	< 40									
2-Nitrotoluene	88-72-2	ug/kg		< 412.703					< 385.49		< 386.946				< 429.677		
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 825.406			< 729	< 79	< 770.98		< 773.892	< 832.5	< 800	< 791.914	< 859.354		< 756.474
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 825.406			< 729	< 79	< 770.98		< 773.892	< 832.5	< 800	< 791.914	< 859.354		< 756.474
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
4-Nitrophenol	100-02-7	ug/kg	7000				< 729	< 79									
4-Nitrotoluene	99-99-0	ug/kg		< 825.406					< 770.98		< 773.892				< 859.354		
Acenaphthene	83-32-9	ug/kg	20000	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Acenaphthylene	208-96-8	ug/kg	682000	< 412.703	< 21929		< 364	< 40	< 385.49	< 22522	< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Anthracene	120-12-7	ug/kg	1480000	66.03			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Benzidine	92-87-5	ug/kg	1310	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	339			< 364	72	66.3		< 386.946	157	58	72.5	< 429.677		60.1
Benzo[a]pyrene	50-32-8	ug/kg	1520	328			< 364	81	67.46		< 386.946	157	56.4	52.7	< 429.677		45.4
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	394			< 364	98	135		< 386.946	198	77.2	77.6	< 429.677		< 378.237
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	180			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	139			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 412.703			36.4	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	63.6		< 378.237
Butylbenzylphthalate	85-68-7	ug/kg	239	< 412.703	< 1096		< 364	< 40	< 385.49	< 1126	< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Chrysene	218-01-9	ug/kg	4730	350			< 364	80	104		< 386.946	140	60.8	58.6	< 429.677		< 378.237
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Diethylphthalate	84-66-2	ug/kg	24800	53.24			< 364	< 40	79.8		63.5	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Dimethylphthalate	131-11-3	ug/kg	734000	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Di-n-butylphthalate	84-74-2	ug/kg	150	45.4			< 364	< 40	54.35		155	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Fluoranthene	206-44-0	ug/kg	122000	599			< 364	110	93.67		< 386.946	174	76.4	82.8	< 429.677		97.6
Fluorene	86-73-7	ug/kg	122000	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Hexachlorobenzene	118-74-1	ug/kg	199				< 364	< 40									
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Hexachloroethane	67-72-1	ug/kg	596	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	159			< 364	< 40	< 385.49		< 386.946	96.2	< 400	< 395.957	< 429.677		< 378.237
Isophorone	78-59-1	ug/kg	139000	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Naphthalene	91-20-3	ug/kg	99.4	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Nitrobenzene	98-95-3	ug/kg	1310	< 412.703			< 364	< 40	< 385.49		< 386.946				< 429.677		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		1500
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 412.703			< 364	110	< 385.49								
Pentachlorophenol	87-86-5	ug/kg	2100	< 825.406			< 729	< 79	< 770.98		< 773.892	< 832.5	< 800	< 791.914	< 859.354		< 756.474
Phenanthrene	85-01-8	ug/kg	45700	287			< 364	24	< 385.49		< 386.946	97.8	< 400	< 395.957	< 429.677		< 378.237
Phenol	108-95-2	ug/kg	30000	< 412.703			< 364	< 40	< 385.49		< 386.946	< 416.25	< 400	< 395.957	< 429.677		< 378.237
Pyrene	129-00-0	ug/kg	78500	573			< 364	100	77.1		< 386.946	212	< 400	< 395.957	< 429.677		87
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				39300		76000								32500	13800
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 548.2456					< 563.063							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 548.2456					< 563.063							

			Location	F10-37B-03	F10-37B-03	F10-5-01	F10-8-04	F10-8569-03	F11-43-02	F11-43-02	F12-191-01	F12-2039-01	F13-8209-02	F13-8209-02	F13-8230-03	F8-5-01	F8-573-02
			Sample Date	6/23/2000	6/23/2000	6/16/2000	6/16/2000	7/19/2000	6/23/2000	6/23/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	7/13/2000	7/14/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F10-37B-031N	F10-37B-030.5N	F10-5-011.5N	F10-8-041N	F10-8569-031N	F11-43-021N	F11-43-020.5N	F12-191-011.5N	F12-2039-011.25N	F13-8209-021.5FD	F13-8209-021.5N	F13-8230-031.25N	F8-5-011N	F8-573-021N
			Parent ID										F13-8209-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 548.2456					< 563.063							
1,1-Dichloroethane	75-34-3	ug/kg			< 548.2456					< 563.063							
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 548.2456					< 563.063							
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 548					< 563							
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 548					< 563							
1,2-Dichloroethane	107-06-2	ug/kg			< 548.2456					< 563.063							
1,2-Dichloropropane	78-87-5	ug/kg			< 548.2456					< 563.063							
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 548					< 563							
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 548					< 563							
2-Chloroethylvinylether	110-75-8	ug/kg			< 1096.491					< 1126.126							
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 5482.456					< 5630.63							
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255		< 548.2456					< 563.063							
Bromodichloromethane	75-27-4	ug/kg	540		< 548.2456					< 563.063							
Bromoform	75-25-2	ug/kg			< 548.2456					< 563.063							
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 548.2456					< 563.063							
Chlorobenzene	108-90-7	ug/kg	13100		< 548.2456					< 563.063							
Chloroethane	75-00-3	ug/kg			< 1096.491					< 1126.126							
Chloroform	67-66-3	ug/kg	1190		< 548.2456					< 563.063							
Chloromethane	74-87-3	ug/kg	10400		< 1096.491					< 1126.126							
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg			< 548.2456					< 563.063							
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050		< 548.2456					< 563.063							
Ethylbenzene	100-41-4	ug/kg	5160		< 548.2456					< 563.063							
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 548					< 563							
Methylene Chloride	75-09-2	ug/kg	4050		402					< 2252.252							
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 548.2456					< 563.063							
Toluene	108-88-3	ug/kg	200000		< 548.2456					< 563.063							
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 548.2456					< 563.063							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 548.2456					< 563.063							
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 1096.491					< 1126.126							
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F8-573-02	F8-8-01	F9-1-01	F9-1-01	F9-2109-05	F9-2251-01	G10-13-01	G10-13-02	G10-8216-01	G10-8216-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02
			Sample Date	7/14/2000	7/13/2000	6/23/2000	6/23/2000	7/12/2000	6/29/2000	7/13/2000	9/27/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	9/27/2000	9/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F8-573-020.5N	F8-8-011.5N	F9-1-011N	F9-1-010.5N	F9-2109-051.5N	F9-2251-011N	G10-13-010.5N	G10-13-021N	G10-8216-011.25N	G10-8216-021.5N	G11-1-011N	G11-1-010.5N	G11-1-021FD	G11-1-021N
			Parent ID														
			Note													G11-1-021N	
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 238.1		< 208.325						< 250		< 100	< 100
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 238.1		< 208.325						< 250		< 100	< 100
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			226		3320						< 250		< 100	< 100
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 238.1		< 208.325						< 250		< 100	< 100
2-Nitrotoluene	88-72-2	ug/kg				< 476.2		< 416.65						< 500		< 200	< 200
3-Nitrotoluene	99-08-1	ug/kg				< 476.2		< 416.65						< 500		< 200	< 200
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 238.1		< 208.325						< 250		< 100	< 100
4-Nitrotoluene	99-99-0	ug/kg				< 476.2		< 416.65						< 500		< 200	< 200
Nitrobenzene	98-95-3	ug/kg	1310			207		< 208.325						< 250		< 100	< 100
Nitrocellulose	9004-70-0	ug/kg				1510000		14000000						48200		< 36000	56400
Nitroglycerin	55-63-0	ug/kg	65000			35100		537000	< 408.364					3260		< 5830	6300
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 476.2		1740						< 500		< 200	< 200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 476.2		177						< 500		< 200	< 200
Tetryl	479-45-8	ug/kg	25000			< 476.2		< 416.65						< 500		< 200	< 200
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%			89					90.3		81.7		33.8			
Sieve Size #10 - Percent Finer	SIEVE_#010	%			74.8					68.3		67.2		27.6			
Sieve Size #100 - Percent Finer	SIEVE_#100	%			35.6					25.3		14.1		14.1			
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%			64.8					55.8		51.1		24			
Sieve Size #200 - Percent Finer	SIEVE_#200	%			30.1					20.1		10.5		11.1			
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%			82.3					78.9		75.7		29.9			
Sieve Size #40 - Percent Finer	SIEVE_#040	%			53.1					42.9		34.2		20.2			
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%			42.6					32.2		21		16.9			
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%			96.4					97		89.7		54.3			
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%			100					100		100		100			
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	F8-573-02	F8-8-01	F9-1-01	F9-1-01	F9-2109-05	F9-2251-01	G10-13-01	G10-13-02	G10-8216-01	G10-8216-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02
			Sample Date	7/14/2000	7/13/2000	6/23/2000	6/23/2000	7/12/2000	6/29/2000	7/13/2000	9/27/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	9/27/2000	9/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F8-573-020.5N	F8-8-011.5N	F9-1-011N	F9-1-010.5N	F9-2109-051.5N	F9-2251-011N	G10-13-010.5N	G10-13-021N	G10-8216-011.25N	G10-8216-021.5N	G11-1-011N	G11-1-010.5N	G11-1-021FD	G11-1-021N
			Parent ID													G11-1-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.54748		< 0.606673	< 0.538692	< 0.584991	< 0.633	< 0.634115	< 0.667	< 0.609979		< 0.686	< 0.69
Arsenic	7440-38-2	mg/kg	9.9			3.97		4.37	5.98	5.17	3.63	5.98	6.63	11.7		10.8	9.8
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.448		0.418	0.424	0.164	0.228	0.306	0.847	0.487		0.67	0.613
Cadmium	7440-43-9	mg/kg	0.36			< 0.27374		0.574	0.91	0.085	0.071	0.08	0.271	0.623		0.134	0.135
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			20.1		15.4	50.2	15.9	8.02	18.1	22.9	21.4		13.8	18.6
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			75		32.1	157	92.2	8.23	60	43.4	34.6		36.7	40.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			72.8		216	119	56.2	9.97	107	53	50.9		71.1	66.1
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.148		2.03	2.92	0.122	0.047	0.158	0.147	0.15		0.253	0.253
Nickel	7440-02-0	mg/kg	38			11		10.8	8.92	8.4	3.74	15.3	16.4	23.1		12.2	15.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			< 0.456234		1.07	0.771	< 0.487493	< 0.528	0.59	< 0.556	1.11		0.723	0.646
Silver	7440-22-4	mg/kg	2			< 0.27374		< 0.303336	0.243	< 0.292496	< 0.317	< 0.317058	< 0.334	< 0.30499		< 0.343	< 0.345
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 0.912467		< 1.011121	1.63	< 0.974986	< 1.06	< 1.056859	< 1.11	< 1.016632		< 1.14	< 1.15
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			143		250	278	104	25.3	118	137	207		71.4	55
Moisture																	
Percent Solids	SOLID	percent			94.16	89.1		92.43	81.4	96.77	92	94.62	88.2	93.68		85.7	86.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371		< 17.70048							< 17.60727	< 37.7				
Aroclor-1221	11104-28-2	ug/kg	371		< 17.70048							< 17.60727	< 37.7				
Aroclor-1232	11141-16-5	ug/kg	371		< 17.70048							< 17.60727	< 37.7				
Aroclor-1242	53469-21-9	ug/kg	371		< 17.70048							< 17.60727	< 37.7				
Aroclor-1248	12672-29-6	ug/kg	371		< 17.70048							< 17.60727	< 37.7				
Aroclor-1254	11097-69-1	ug/kg	371		< 17.70048							219	110				
Aroclor-1260	11096-82-5	ug/kg	371		30.6							< 35.21454	< 75.5				
Polychlorinated biphenyls	1336-36-3	ug/kg	371		30.6							219	110				
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377			< 388	< 385
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 748.222		< 7205.452	< 816.728	< 688.3	< 723	< 703.868	< 754	< 710.93		< 775	< 769

			Location	F8-573-02	F8-8-01	F9-1-01	F9-1-01	F9-2109-05	F9-2251-01	G10-13-01	G10-13-02	G10-8216-01	G10-8216-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02
			Sample Date	7/14/2000	7/13/2000	6/23/2000	6/23/2000	7/12/2000	6/29/2000	7/13/2000	9/27/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	9/27/2000	9/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F8-573-020.5N	F8-8-011.5N	F9-1-011N	F9-1-010.5N	F9-2109-051.5N	F9-2251-011N	G10-13-010.5N	G10-13-021N	G10-8216-011.25N	G10-8216-021.5N	G11-1-011N	G11-1-010.5N	G11-1-021FD	G11-1-021N
			Parent ID													G11-1-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			270		976	250	< 344	< 361	< 352	< 377	< 355		< 388	< 385
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 374		< 3603	< 408	< 344	< 361	< 352	< 377	< 355		< 388	< 385
2-Chloronaphthalene	91-58-7	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
2-Chlorophenol	95-57-8	ug/kg	243			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg									< 361		< 377			< 388	< 385
2-Nitrotoluene	88-72-2	ug/kg							< 408.364	< 344.15		< 351.934					
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 748.222		< 7205.452	< 816.728	< 688.3	< 723	< 703.868	< 754	< 710.93		< 775	< 769
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 748.222		< 7205.452	< 816.728	< 688.3	< 723	< 703.868	< 754	< 710.93		< 775	< 769
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
4-Nitrophenol	100-02-7	ug/kg	7000								< 723		< 754			< 775	< 769
4-Nitrotoluene	99-99-0	ug/kg							< 816.728	< 688.3		< 703.868					
Acenaphthene	83-32-9	ug/kg	20000			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Acenaphthylene	208-96-8	ug/kg	682000			< 374.111	< 21186	< 3602.726	51.1	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Anthracene	120-12-7	ug/kg	1480000			< 374.111		< 3602.726	70.2	81.56	< 361	< 351.934	< 377	57.59		< 388	57.7
Benzidine	92-87-5	ug/kg	1310			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			146		< 3602.726	297	296	94.3	192	105	287		140	188
Benzo[a]pyrene	50-32-8	ug/kg	1520			162		< 3602.726	242	282	110	156	60.3	306		114	173
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			203		< 3602.726	423	506	208	305	119	588		229	324
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			112		< 3602.726	217	237	74.4	86.93	< 377	250		109	159
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 374.111		< 3602.726	196	133	69	95.37	< 377	192		64.4	88.8
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			< 374.111		667	< 408.364	39.58	< 361	29.91	< 377	78.91		33.3	< 385
Butylbenzylphthalate	85-68-7	ug/kg	239	217		< 374.111	< 1059	< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465	< 1126	< 388	< 385
Chrysene	218-01-9	ug/kg	4730			129		< 3602.726	338	342	134	270	131	376		198	251
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Diethylphthalate	84-66-2	ug/kg	24800			1120		13300	58.8	< 344.15	< 361	< 351.934	< 377	< 355.465		50.8	98.1
Dimethylphthalate	131-11-3	ug/kg	734000			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Di-n-butylphthalate	84-74-2	ug/kg	150			1040		4090	163	< 344.15	< 361	< 351.934	< 377	99.89		60.1	74.6
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Fluoranthene	206-44-0	ug/kg	122000			213		< 3602.726	562	368	85.3	432	195	597		248	358
Fluorene	86-73-7	ug/kg	122000			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Hexachlorobenzene	118-74-1	ug/kg	199							< 344.15	< 361	< 351.934	< 377			< 388	< 385
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Hexachloroethane	67-72-1	ug/kg	596			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			74.82		< 3602.726	208	202	69	83.06	< 377	233		102	143
Isophorone	78-59-1	ug/kg	139000			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Naphthalene	91-20-3	ug/kg	99.4			< 374.111		< 3602.726	< 408.364		< 361		< 377	< 355.465		< 388	< 385
Nitrobenzene	98-95-3	ug/kg	1310						< 408.364	< 344.15	< 361	< 351.934	< 377				
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 374.111		< 3602.726	128	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			754		814		< 344.15	< 361	< 351.934	< 377	179		120	266
Pentachlorophenol	87-86-5	ug/kg	2100			< 748.222		< 7205.452	< 816.728	< 688.3	< 723	< 703.868	< 754	< 710.93		< 775	< 769
Phenanthrene	85-01-8	ug/kg	45700			77.82		< 3602.726	383	83.28	< 361	147	73.9	162		131	160
Phenol	108-95-2	ug/kg	30000			< 374.111		< 3602.726	< 408.364	< 344.15	< 361	< 351.934	< 377	< 355.465		< 388	< 385
Pyrene	129-00-0	ug/kg	78500			193		< 3602.726	719	389	126	258	232	479		229	353
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			11700					11300		94100		45200			
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 512.295			< 529.661								< 563.063		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 512.295			< 529.661								< 563.063		

			Location	F8-573-02	F8-8-01	F9-1-01	F9-1-01	F9-2109-05	F9-2251-01	G10-13-01	G10-13-02	G10-8216-01	G10-8216-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02
			Sample Date	7/14/2000	7/13/2000	6/23/2000	6/23/2000	7/12/2000	6/29/2000	7/13/2000	9/27/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	9/27/2000	9/27/2000
			Sample Depths	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	F8-573-020.5N	F8-8-011.5N	F9-1-011N	F9-1-010.5N	F9-2109-051.5N	F9-2251-011N	G10-13-010.5N	G10-13-021N	G10-8216-011.25N	G10-8216-021.5N	G11-1-011N	G11-1-010.5N	G11-1-021FD	G11-1-021N
			Parent ID													G11-1-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 512.295			< 529.661								< 563.063		
1,1-Dichloroethane	75-34-3	ug/kg		< 512.295			< 529.661								< 563.063		
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 512.295			< 529.661								< 563.063		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 512.295			< 530								< 563		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 512.295			< 530								< 563.063		
1,2-Dichloroethane	107-06-2	ug/kg													< 563.063		
1,2-Dichloropropane	78-87-5	ug/kg		< 512.295			< 529.661								< 563.063		
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 512.295			< 530								< 563		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 512.295			< 530								< 563		
2-Chloroethylvinylether	110-75-8	ug/kg		< 1024.59			< 1059.322								< 1126.126		
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 2049.18			< 5296.61								< 2252.252		
Acrylonitrile	107-13-1	ug/kg	23.9	< 512.295			< 5296.61								< 563.063		
Benzene	71-43-2	ug/kg	255	< 512.295			< 529.661								< 563.063		
Bromodichloromethane	75-27-4	ug/kg	540	< 512.295			< 529.661								< 563.063		
Bromoform	75-25-2	ug/kg		< 512.295			< 529.661								< 563.063		
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 512.295			< 529.661								< 563.063		
Chlorobenzene	108-90-7	ug/kg	13100	< 512.295			< 529.661								< 563.063		
Chloroethane	75-00-3	ug/kg		< 1024.59			< 1059.322								< 1126.126		
Chloroform	67-66-3	ug/kg	1190	< 512.295			< 529.661								< 563.063		
Chloromethane	74-87-3	ug/kg	10400	721			< 1059.322								280		
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg		< 512.295			< 529.661								< 563.063		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 512.295			< 529.661								< 563.063		
Ethylbenzene	100-41-4	ug/kg	5160	< 512.295			< 529.661								< 563.063		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 512.295			< 530								< 563		
Methylene Chloride	75-09-2	ug/kg	4050	< 512.295			987			< 344.15		< 351.934			1850		
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 512.295			< 529.661								< 563.063		
Toluene	108-88-3	ug/kg	200000	< 512.295			< 529.661								< 563.063		
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 512.295			< 529.661								< 563.063		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 512.295			< 529.661								< 563.063		
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646												< 1126.126		
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G11-1-02	G11-1-02	G12-6-03	G6-1-02	G6-2-02	G6-2-02	G6-3-02	G6-8244-03	G6-8244-03	G6-906-02	G6-9219-04	G7-58-01	G7-58-04	G7-E49-05
			Sample Date	9/27/2000	9/27/2000	6/15/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	7/14/2000	7/14/2000	9/13/2000	6/22/2000	9/27/2000	7/13/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft
			Sample ID	G11-1-020.5FD	G11-1-020.5N	G12-6-031N	G6-1-021N	G6-2-021.25FD	G6-2-021.25N	G6-3-021N	G6-8244-031N	G6-8244-030.5N	G6-906-020.5N	G6-9219-041.5N	G7-58-011N	G7-58-040.75N	G7-E49-051N
			Parent ID	G11-1-020.5N				G6-2-021.25N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 248	< 250	< 238	< 250					< 250	< 100	< 250	< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 248	< 250	< 238	< 250					< 250	< 100	< 250	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 248	< 250	< 238	< 250					< 250	< 100	435	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 250								< 100	< 250	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 248	< 250	< 238	< 250					< 250	< 100	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg				< 495	< 500	< 476	< 500					< 500	< 200	< 500	< 500
3-Nitrotoluene	99-08-1	ug/kg				< 495	< 500	< 476	< 500					< 500	< 200	< 500	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 248	< 250	< 238	< 250					< 250	< 100	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg				< 495	< 500	< 476	< 500					< 500	< 200	< 500	< 500
Nitrobenzene	98-95-3	ug/kg	1310			281	< 250	< 238	< 250					< 250	< 100	222	< 250
Nitrocellulose	9004-70-0	ug/kg				419000	66200	< 439	< 479.839					< 468.074	261000	557000	60700
Nitroglycerin	55-63-0	ug/kg	65000			8830	< 6142.506	< 6100	< 6637.461		< 386.047			< 6243.483	20400	8830	< 6321.112
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 495	< 500	< 476	< 500					< 500	< 200	< 500	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 495	< 500	< 476	< 500					< 500	< 200	< 500	< 500
Tetryl	479-45-8	ug/kg	25000			< 495	< 500	< 476	< 500					< 500	< 200	< 500	< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%														77.1	
Sieve Size #10 - Percent Finer	SIEVE_#010	%														62	
Sieve Size #100 - Percent Finer	SIEVE_#100	%														37.6	
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%														55.3	
Sieve Size #200 - Percent Finer	SIEVE_#200	%														33.5	
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%														67.2	
Sieve Size #40 - Percent Finer	SIEVE_#040	%														48.3	
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%														42.4	
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%														100	
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G11-1-02	G11-1-02	G12-6-03	G6-1-02	G6-2-02	G6-2-02	G6-3-02	G6-8244-03	G6-8244-03	G6-906-02	G6-9219-04	G7-58-01	G7-58-04	G7-E49-05
			Sample Date	9/27/2000	9/27/2000	6/15/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	7/14/2000	7/14/2000	9/13/2000	6/22/2000	9/27/2000	7/13/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft
			Sample ID	G11-1-020.5FD	G11-1-020.5N	G12-6-031N	G6-1-021N	G6-2-021.25FD	G6-2-021.25N	G6-3-021N	G6-8244-031N	G6-8244-030.5N	G6-906-020.5N	G6-9219-041.5N	G7-58-011N	G7-58-040.75N	G7-E49-051N
			Parent ID	G11-1-020.5N				G6-2-021.25N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.69		< 0.583	< 0.582522	< 0.588234	0.653			< 0.538821			
Arsenic	7440-38-2	mg/kg	9.9			7.25		3.33	3.62	4.83	34.7			3.07			
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.503		0.226	0.221	0.482	0.622			0.462			
Cadmium	7440-43-9	mg/kg	0.36			0.309		0.284	0.358	0.334	20.2			< 0.269411			
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			20.9		6.1	6.04	14.4	26.8			46.1			
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			33.2		83.6	92.2	21	88.3			16.5			
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			115		182	186	194	4360			30.2			
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.601		1.3	1.41	1.96	7.78			0.087			
Nickel	7440-02-0	mg/kg	38			9.8		7.42	7.26	10.2	35			22			
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			0.866		0.577	0.976	0.621	6.37			< 0.449018			
Silver	7440-22-4	mg/kg	2			< 0.345		< 0.291	< 0.291261	< 0.294117	1.84			< 0.269411			
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 1.15		< 0.971	< 0.97087	< 0.98039	< 2.257846			< 0.898035			
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			119		34.3	36.4	115	3200			41.6			
Moisture																	
Percent Solids	SOLID	percent				82.8	81.35	81.39	74.39	84.1	86			76.27	72.4	87.39	79.09
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 805		< 818	< 8960.564	< 792.706	< 772.094			< 874.086			

			Location	G11-1-02	G11-1-02	G12-6-03	G6-1-02	G6-2-02	G6-2-02	G6-3-02	G6-8244-03	G6-8244-03	G6-906-02	G6-9219-04	G7-58-01	G7-58-04	G7-E49-05
			Sample Date	9/27/2000	9/27/2000	6/15/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	7/14/2000	7/14/2000	9/13/2000	6/22/2000	9/27/2000	7/13/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft
			Sample ID	G11-1-020.5FD	G11-1-020.5N	G12-6-031N	G6-1-021N	G6-2-021.25FD	G6-2-021.25N	G6-3-021N	G6-8244-031N	G6-8244-030.5N	G6-906-020.5N	G6-9219-041.5N	G7-58-011N	G7-58-040.75N	G7-E49-051N
			Parent ID	G11-1-020.5N				G6-2-021.25N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 402		< 409	< 4480	37	1670			< 437			
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 402		< 409	< 4480	< 396	627			< 437			
2-Chloronaphthalene	91-58-7	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
2-Chlorophenol	95-57-8	ug/kg	243			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 402											
2-Nitrotoluene	88-72-2	ug/kg								< 396.353	< 386.047						
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 805		< 818	< 8960.564	< 792.706	< 772.094			< 874.086			
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 805		< 818	< 8960.564	< 792.706	< 772.094			< 874.086			
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
4-Nitrophenol	100-02-7	ug/kg	7000			< 805											
4-Nitrotoluene	99-99-0	ug/kg								< 792.706	< 772.094						
Acenaphthene	83-32-9	ug/kg	20000			< 402		76	2390	< 396.353	< 386.047			< 437.043			
Acenaphthylene	208-96-8	ug/kg	682000			17.7		123	5970	91	< 386.047			< 437.043			
Anthracene	120-12-7	ug/kg	1480000			28.2		203	8790	183	104			< 437.043			
Benzidine	92-87-5	ug/kg	1310			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			110		1000	27500	554	412			46.33			
Benzo[a]pyrene	50-32-8	ug/kg	1520			99.4		898	18800	392	371			51.13			
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			155		1190	28300	615	628			< 437.043			
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			130		498	7190	157	381			< 437.043			
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 402		556	9320	208	226			< 437.043			
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			45.9		< 409	< 4480.282	< 396.353	79.1			68.18			
Butylbenzylphthalate	85-68-7	ug/kg	239			< 402		< 409	< 4480.282	< 396.353	< 386.047	643		< 437.043			
Chrysene	218-01-9	ug/kg	4730			102		806	24600	463	603			< 437.043			
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 402		151	2890	< 396.353	114			< 437.043			
Diethylphthalate	84-66-2	ug/kg	24800			141		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Dimethylphthalate	131-11-3	ug/kg	734000			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Di-n-butylphthalate	84-74-2	ug/kg	150			116		67	< 4480.282	< 396.353	79.9			69.49			
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Fluoranthene	206-44-0	ug/kg	122000			171		2420	61600	1350	884			79.1			
Fluorene	86-73-7	ug/kg	122000			< 402		130	8520	50	< 386.047			< 437.043			
Hexachlorobenzene	118-74-1	ug/kg	199			< 402											
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Hexachloroethane	67-72-1	ug/kg	596			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			95.8		474	7440	172	334			< 437.043			
Isophorone	78-59-1	ug/kg	139000			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Naphthalene	91-20-3	ug/kg	99.4			< 402		84	14900	< 396.353	< 386.047			< 437.043			
Nitrobenzene	98-95-3	ug/kg	1310							< 396.353	< 386.047						
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 402		< 409	< 4480.282	< 396.353	462			< 437.043			
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			183		< 409	< 4480.282	< 396.353				< 437.043			
Pentachlorophenol	87-86-5	ug/kg	2100			< 805		< 818	< 8960.564	< 792.706	< 772.094			< 874.086			
Phenanthrene	85-01-8	ug/kg	45700			81.3		1500	71800	1070	494			54.63			
Phenol	108-95-2	ug/kg	30000			< 402		< 409	< 4480.282	< 396.353	< 386.047			< 437.043			
Pyrene	129-00-0	ug/kg	78500			165		1480	54200	663	1180			< 437.043			
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg														57400	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 590	< 727							< 600.9615	< 539				
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 590	< 727							< 600.9615	< 539				

			Location	G11-1-02	G11-1-02	G12-6-03	G6-1-02	G6-2-02	G6-2-02	G6-3-02	G6-8244-03	G6-8244-03	G6-906-02	G6-9219-04	G7-58-01	G7-58-04	G7-E49-05
			Sample Date	9/27/2000	9/27/2000	6/15/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	7/14/2000	7/14/2000	9/13/2000	6/22/2000	9/27/2000	7/13/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft
			Sample ID	G11-1-020.5FD	G11-1-020.5N	G12-6-031N	G6-1-021N	G6-2-021.25FD	G6-2-021.25N	G6-3-021N	G6-8244-031N	G6-8244-030.5N	G6-906-020.5N	G6-9219-041.5N	G7-58-011N	G7-58-040.75N	G7-E49-051N
			Parent ID	G11-1-020.5N				G6-2-021.25N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 590	< 727							< 600.9615	< 539				
1,1-Dichloroethane	75-34-3	ug/kg		< 590	< 727							< 600.9615	< 539				
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 590	< 727							< 600.9615	< 539				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 590	< 727							< 600.9615	< 539				
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 590	< 727							< 600.9615	< 539				
1,2-Dichloroethane	107-06-2	ug/kg		< 590	< 727								< 539				
1,2-Dichloropropane	78-87-5	ug/kg		< 590	< 727							< 600.9615	< 539				
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 590	< 727							< 600.9615	< 539				
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 590	< 727							< 600.9615	< 539				
2-Chloroethylvinylether	110-75-8	ug/kg		< 1180	< 1450							< 1201.923	< 1080				
Acetonitrile	75-05-8	ug/kg											< 539				
Acrolein	107-02-8	ug/kg	5270	< 2360	< 2910							< 2403.846	< 2160				
Acrylonitrile	107-13-1	ug/kg	23.9	< 590	< 727							< 600.9615					
Benzene	71-43-2	ug/kg	255	< 590	< 727							< 600.9615	< 539				
Bromodichloromethane	75-27-4	ug/kg	540	< 590	< 727							< 600.9615	< 539				
Bromoform	75-25-2	ug/kg		< 590	< 727							< 600.9615	< 539				
Bromomethane	74-83-9	ug/kg	235	< 1180	< 1450								< 1080				
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 590	< 727							< 600.9615	574				
Chlorobenzene	108-90-7	ug/kg	13100	< 590	< 727							< 600.9615	< 539				
Chloroethane	75-00-3	ug/kg		< 1180	< 1450							< 1201.923	< 1080				
Chloroform	67-66-3	ug/kg	1190	< 590	< 727							< 600.9615	< 539				
Chloromethane	74-87-3	ug/kg	10400	< 1180	< 1450							< 1201.923	< 1080				
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg										< 600.9615					
Cis-1,3-Dichloropropene	10061-01-5	ug/kg		< 590	< 727								< 539				
Dibromochloromethane	124-48-1	ug/kg	2050	< 590	< 727							< 600.9615	< 539				
Ethylbenzene	100-41-4	ug/kg	5160	< 590	< 727							< 600.9615	< 539				
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 590	< 727							< 600.9615	< 539				
Methylene Chloride	75-09-2	ug/kg	4050	762	943							< 600.9615	< 539				
Naphthalene	91-20-3	ug/kg	99.4	< 590									< 539				
Tetrachloroethene	127-18-4	ug/kg	9920	< 590	< 727							< 600.9615	< 539				
Toluene	108-88-3	ug/kg	200000	< 590	< 727							220	< 539				
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 590	< 727							< 600.9615	< 539				
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 590	< 727							< 600.9615	< 539				
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 1180	< 1450								< 1080				
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G8-2204-03	G8-3-02	G8-3-02	G8-A12-01	G9-8105-05	G9-8105-05	G9-8187-02	G9-8205-02	H11-2-03	H11-2319-02	H11-2319-02	H11-696-01	H11-696-02	H11-762-02
			Sample Date	6/16/2000	7/14/2000	7/14/2000	6/15/2000	6/23/2000	6/23/2000	6/15/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	7/13/2000	9/27/2000	6/15/2000
			Sample Depths	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	G8-2204-031N	G8-3-021.25N	G8-3-020.5N	G8-A12-010.75N	G9-8105-051N	G9-8105-050.5N	G9-8187-021N	G9-8205-021.25N	H11-2-031.5N	H11-2319-021.25N	H11-2319-020.5N	H11-696-010.5N	H11-696-020.5N	H11-762-021.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250						< 248		< 249			< 217.3913		< 249
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250						< 248		< 249			< 217.3913		< 249
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250						< 248		< 249			< 217.3913		< 249
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250						< 248		< 249			< 217.3913		< 249
2-Nitrotoluene	88-72-2	ug/kg		< 500						< 495		< 498			< 434.7826		< 498
3-Nitrotoluene	99-08-1	ug/kg		< 500						< 495		< 498			< 434.7826		< 498
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250						< 248		< 249			< 217.3913		< 249
4-Nitrotoluene	99-99-0	ug/kg		< 500						< 248		< 249			< 434.7826		< 249
Nitrobenzene	98-95-3	ug/kg	1310	< 250						< 248		< 249			< 217.3913		< 249
Nitrocellulose	9004-70-0	ug/kg		43500						60200		63800			109000		70200
Nitroglycerin	55-63-0	ug/kg	65000	< 5730	< 368.485					< 5660		< 6030			< 5074.906		< 5720
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500						< 495		< 498			< 434.7826		< 498
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500						< 495		< 498			< 434.7826		< 498
Tetryl	479-45-8	ug/kg	25000	< 500						< 495		< 498			< 434.7826		< 498
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%			87.5			93							91.4		
Sieve Size #10 - Percent Finer	SIEVE_#010	%			68.2			83.9							65.2		
Sieve Size #100 - Percent Finer	SIEVE_#100	%			22.7			50.4							31.9		
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%			59.6			75.4							55.9		
Sieve Size #200 - Percent Finer	SIEVE_#200	%			15.9			44.6							29		
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%			79.6			89							72.7		
Sieve Size #40 - Percent Finer	SIEVE_#040	%			45.8			64.8							47.3		
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%			31.4			56.5							38.9		
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%			100			100							100		
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G8-2204-03	G8-3-02	G8-3-02	G8-A12-01	G9-8105-05	G9-8105-05	G9-8187-02	G9-8205-02	H11-2-03	H11-2319-02	H11-2319-02	H11-696-01	H11-696-02	H11-762-02
			Sample Date	6/16/2000	7/14/2000	7/14/2000	6/15/2000	6/23/2000	6/23/2000	6/15/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	7/13/2000	9/27/2000	6/15/2000
			Sample Depths	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	G8-2204-031N	G8-3-021.25N	G8-3-020.5N	G8-A12-010.75N	G9-8105-051N	G9-8105-050.5N	G9-8187-021N	G9-8205-021.25N	H11-2-031.5N	H11-2319-021.25N	H11-2319-020.5N	H11-696-010.5N	H11-696-020.5N	H11-762-021.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.646			< 0.675	2.58		0.348	< 0.538	0.387	0.525		< 0.495412	0.848	0.551
Arsenic	7440-38-2	mg/kg	9.9	9.71			3.62	4.4		2.66	2.78	8.67	15.9		13.1	15.9	5.15
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.681			0.614	0.462		0.428	0.543	0.276	0.515		0.231	0.521	0.188
Cadmium	7440-43-9	mg/kg	0.36	0.203			< 0.337	< 0.218166		< 0.334	< 0.269	< 0.336	0.745		0.154	0.564	< 0.261
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	19.8			18.3	14.9		12.2	13.1	8.77	19.1		8.93	9.8	12.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	20.8			25.9	45.8		18.3	15.1	18.4	48		32.6	119	11.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	66.7			24.7	342		23	16.8	193	563		107	151	95.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.08			0.046	0.99		0.457	0.069	0.095	0.635		0.21	0.307	0.288
Nickel	7440-02-0	mg/kg	38	11.1			9.05	7.68		8.42	8.1	8.36	11.5		8.36	15.2	5.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.897			0.629	0.265		< 0.557	< 0.448	1.4	2.37		1.96	2.83	0.758
Silver	7440-22-4	mg/kg	2	< 0.323			< 0.337	< 0.218166		< 0.334	< 0.269	< 0.336	< 0.3663		< 0.247706	0.441	< 0.261
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	0.749			0.899	< 0.727219		1.36	1.54	1.33	1.06		< 0.825687	< 1.25	0.648
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	58.9			62.4	115		130	68.2	33.9	292		45.6	92.8	25.9
Moisture																	
Percent Solids	SOLID	percent		86.8	90.4		79.4	85.41		87.1	86.5	82.6	78		96.12	77.4	86.9
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371								< 38.5						
Aroclor-1221	11104-28-2	ug/kg	371								< 38.5						
Aroclor-1232	11141-16-5	ug/kg	371								< 38.5						
Aroclor-1242	53469-21-9	ug/kg	371								< 38.5						
Aroclor-1248	12672-29-6	ug/kg	371								< 38.5						
Aroclor-1254	11097-69-1	ug/kg	371								< 38.5						
Aroclor-1260	11096-82-5	ug/kg	371								< 77						
Polychlorinated biphenyls	1336-36-3	ug/kg	371								< 77						
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 768	< 736.97		< 840	< 780.548		< 765	< 771	< 807	< 854.416		< 692.884	< 861	< 767

Kennedy Jenks

			Location	G8-2204-03	G8-3-02	G8-3-02	G8-A12-01	G9-8105-05	G9-8105-05	G9-8187-02	G9-8205-02	H11-2-03	H11-2319-02	H11-2319-02	H11-696-01	H11-696-02	H11-762-02
			Sample Date	6/16/2000	7/14/2000	7/14/2000	6/15/2000	6/23/2000	6/23/2000	6/15/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	7/13/2000	9/27/2000	6/15/2000
			Sample Depths	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	G8-2204-031N	G8-3-021.25N	G8-3-020.5N	G8-A12-010.75N	G9-8105-051N	G9-8105-050.5N	G9-8187-021N	G9-8205-021.25N	H11-2-031.5N	H11-2319-021.25N	H11-2319-020.5N	H11-696-010.5N	H11-696-020.5N	H11-762-021.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 384	< 368		< 420	< 390		< 383	< 385	< 404	< 427		< 346	< 431	< 383
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 384	< 368		< 420	< 390		< 383	< 385	< 404	< 427		< 346	< 431	< 383
2-Chloronaphthalene	91-58-7	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
2-Chlorophenol	95-57-8	ug/kg	243	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 384			< 420			< 383	< 385	< 404				< 431	< 383
2-Nitrotoluene	88-72-2	ug/kg			< 368.485			< 390.274					< 427.208				
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 768	< 736.97		< 840	< 780.548		< 765	< 771	< 807	< 854.416		< 692.884	< 861	< 767
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 768	< 736.97		< 840	< 780.548		< 765	< 771	< 807	< 854.416		< 692.884	< 861	< 767
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
4-Nitrophenol	100-02-7	ug/kg	7000	< 768			< 840			< 765	< 771	< 807				< 861	< 767
4-Nitrotoluene	99-99-0	ug/kg			< 736.97			< 780.548					< 854.416				
Acenaphthene	83-32-9	ug/kg	20000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Acenaphthylene	208-96-8	ug/kg	682000	< 384	< 368.485		< 420	< 390.274	< 23364	< 383	< 385	< 404	< 427.208	< 23585	< 346.442	< 431	51.4
Anthracene	120-12-7	ug/kg	1480000	< 384	< 368.485		< 420	< 390.274		< 383	34.7	< 404	< 427.208		< 346.442	< 431	67.1
Benzidine	92-87-5	ug/kg	1310	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	61.1	< 368.485		< 420	79.23		< 383	159	< 404	< 427.208		88.34	190	< 383
Benzo[a]pyrene	50-32-8	ug/kg	1520	76.8	< 368.485		< 420	84.69		< 383	141	40.4	< 427.208		62.36	68	< 383
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	192	< 368.485		< 420	108		< 383	183	69	< 427.208		165	180	515
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	216
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	34	246
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 384	< 368.485		< 420	< 390.274		24.5	< 385	< 404	< 427.208		35.34	35.7	22.6
Butylbenzylphthalate	85-68-7	ug/kg	239	< 384	< 368.485	356	< 420	< 390.274	< 1168	< 383	< 385	< 404	< 427.208	< 1179	< 346.442	< 431	< 383
Chrysene	218-01-9	ug/kg	4730	102	< 368.485		< 420	94.06		< 383	147	116	< 427.208		207	158	< 383
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Diethylphthalate	84-66-2	ug/kg	24800	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Dimethylphthalate	131-11-3	ug/kg	734000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Di-n-butylphthalate	84-74-2	ug/kg	150	< 384	< 368.485		< 420	< 390.274		< 383	< 385	158	< 427.208		73.1	< 431	< 383
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Fluoranthene	206-44-0	ug/kg	122000	79.5	< 368.485		< 420	117		< 383	405	< 404	< 427.208		328	193	805
Fluorene	86-73-7	ug/kg	122000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	24.5
Hexachlorobenzene	118-74-1	ug/kg	199	< 384			< 420			< 383	< 385	< 404			< 346.442	< 431	< 383
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Hexachloroethane	67-72-1	ug/kg	596	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	207
Isophorone	78-59-1	ug/kg	139000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Naphthalene	91-20-3	ug/kg	99.4	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208			< 431	< 383
Nitrobenzene	98-95-3	ug/kg	1310		< 368.485		< 420	< 390.274			< 385		< 427.208			< 431	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 384			< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Pentachlorophenol	87-86-5	ug/kg	2100	< 768	< 736.97		< 840	< 780.548		< 765	< 771	< 807	< 854.416		< 692.884	< 861	< 767
Phenanthrene	85-01-8	ug/kg	45700	49.6	< 368.485		< 420	45.7		< 383	305	81.5	< 427.208		210	276	377
Phenol	108-95-2	ug/kg	30000	< 384	< 368.485		< 420	< 390.274		< 383	< 385	< 404	< 427.208		< 346.442	< 431	< 383
Pyrene	129-00-0	ug/kg	78500	< 384	< 368.485		< 420	114		< 383	351	< 404	< 427.208		157	128	699
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			6380			22600							181000		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg				< 568.1818			< 584.1121					< 589.6226			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			< 568.1818			< 584.1121					< 589.6226			

			Location	G8-2204-03	G8-3-02	G8-3-02	G8-A12-01	G9-8105-05	G9-8105-05	G9-8187-02	G9-8205-02	H11-2-03	H11-2319-02	H11-2319-02	H11-696-01	H11-696-02	H11-762-02
			Sample Date	6/16/2000	7/14/2000	7/14/2000	6/15/2000	6/23/2000	6/23/2000	6/15/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	7/13/2000	9/27/2000	6/15/2000
			Sample Depths	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
			Sample ID	G8-2204-031N	G8-3-021.25N	G8-3-020.5N	G8-A12-010.75N	G9-8105-051N	G9-8105-050.5N	G9-8187-021N	G9-8205-021.25N	H11-2-031.5N	H11-2319-021.25N	H11-2319-020.5N	H11-696-010.5N	H11-696-020.5N	H11-762-021.5N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 568.1818			< 584.1121					< 589.6226			
1,1-Dichloroethane	75-34-3	ug/kg				< 568.1818			< 584.1121					< 589.6226			
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 568.1818			< 584.1121					< 589.6226			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 568.1818			< 584					< 590			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 568.1818			< 584					< 590			
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg				< 568.1818			< 584.1121					< 589.6226			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 568.1818			< 584					< 590			
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 568.1818			< 584					< 590			
2-Chloroethylvinylether	110-75-8	ug/kg				< 1136.363			< 1168.224					< 1179.245			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270			< 2272.727			< 5841.121					< 5896.226			
Acrylonitrile	107-13-1	ug/kg	23.9			1370			< 5841.121					< 5896.226			
Benzene	71-43-2	ug/kg	255			< 568.1818			< 584.1121					< 589.6226			
Bromodichloromethane	75-27-4	ug/kg	540			< 568.1818			< 584.1121					< 589.6226			
Bromoform	75-25-2	ug/kg				< 568.1818			< 584.1121					< 589.6226			
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 568.1818			< 584.1121					< 589.6226			
Chlorobenzene	108-90-7	ug/kg	13100			< 568.1818			< 584.1121					< 589.6226			
Chloroethane	75-00-3	ug/kg				< 1136.363			< 1168.224					< 1179.245			
Chloroform	67-66-3	ug/kg	1190			< 568.1818			< 584.1121					< 589.6226			
Chloromethane	74-87-3	ug/kg	10400			1490			1250					< 1179.245			
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg				< 568.1818			< 584.1121					< 589.6226			
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050			< 568.1818			< 584.1121					< 589.6226			
Ethylbenzene	100-41-4	ug/kg	5160			< 568.1818			< 584.1121					< 589.6226			
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 568.1818			< 584					< 590			
Methylene Chloride	75-09-2	ug/kg	4050			< 568.1818			< 2336.448					< 2358.49	< 346.442		
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920			< 568.1818			< 584.1121					< 589.6226			
Toluene	108-88-3	ug/kg	200000			< 568.1818			< 584.1121					< 589.6226			
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 568.1818			< 584.1121					< 589.6226			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400			< 568.1818			< 584.1121					< 589.6226			
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H11-9-04	H12-120-02	H12-3-02	H12-689-01	H12-8563-01	H12-8563-01	H12-8607-01	H13-2014-01	H13-408-03	H13-6-04	H13-8226-01	H6-8116-02	H6-8275-04	H6-8285-05
			Sample Date	6/15/2000	9/12/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	6/23/2000	6/2/2000	6/15/2000	9/12/2000	9/12/2000	6/21/2000	6/21/2000	7/13/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	H11-9-041N	H12-120-021N	H12-3-020.75N	H12-689-011.25N	H12-8563-011N	H12-8563-010.5N	H12-8607-010.5N	H13-2014-011.5N	H13-408-031N	H13-6-041N	H13-8226-010.5N	H6-8116-021.25N	H6-8275-041.5N	H6-8285-050.75N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376								< 250	< 248				< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655								< 250	< 248				< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000								641	< 248				< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8													< 250	
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000								< 250	< 248				< 250	
2-Nitrotoluene	88-72-2	ug/kg									< 500	< 495				< 500	
3-Nitrotoluene	99-08-1	ug/kg									< 500	< 495				< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000								< 250	< 248				< 250	
4-Nitrotoluene	99-99-0	ug/kg									< 250	< 248				< 500	
Nitrobenzene	98-95-3	ug/kg	1310								185	< 248				< 250	
Nitrocellulose	9004-70-0	ug/kg									470000	49500				58000	
Nitroglycerin	55-63-0	ug/kg	65000								9020	< 5650				< 5910.864	< 363.696
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000								470	< 495				< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000								< 500	< 495				< 500	
Tetryl	479-45-8	ug/kg	25000								< 500	< 495				< 500	
GenChem																	
pH	pH	su						7.43									
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%									94						84.6
Sieve Size #10 - Percent Finer	SIEVE_#010	%									75.3						53.6
Sieve Size #100 - Percent Finer	SIEVE_#100	%									37.8						20.6
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%									64.2						40.6
Sieve Size #200 - Percent Finer	SIEVE_#200	%									31.5						16.4
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%									84.8						68
Sieve Size #40 - Percent Finer	SIEVE_#040	%									54.1						31.4
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%									45.2						25.1
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%									100						100
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H11-9-04	H12-120-02	H12-3-02	H12-689-01	H12-8563-01	H12-8563-01	H12-8607-01	H13-2014-01	H13-408-03	H13-6-04	H13-8226-01	H6-8116-02	H6-8275-04	H6-8285-05
			Sample Date	6/15/2000	9/12/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	6/23/2000	6/2/2000	6/15/2000	9/12/2000	9/12/2000	6/21/2000	6/21/2000	7/13/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	H11-9-041N	H12-120-021N	H12-3-020.75N	H12-689-011.25N	H12-8563-011N	H12-8563-010.5N	H12-8607-010.5N	H13-2014-011.5N	H13-408-031N	H13-6-041N	H13-8226-010.5N	H6-8116-021.25N	H6-8275-041.5N	H6-8285-050.75N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	2.13	< 0.641	< 0.819	< 0.726	< 0.63593			3.57	< 0.636	< 0.664	1.53	< 0.535716		< 0.642459
Arsenic	7440-38-2	mg/kg	9.9	317	5.83	10.8	6.31	1.57			199	4.21	11.8	28.5	5.54		36.2
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.98	0.496	0.589	0.497	0.476			0.343	0.406	0.491	0.494	0.759		0.515
Cadmium	7440-43-9	mg/kg	0.36	0.106	0.67	0.766	0.436	0.134			0.867	< 0.318	0.069	0.41	0.919		0.597
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	23	38	15.2	20.2	13.7			33.3	9.3	8.6	18	16.7		14.6
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	58.9	27.4	33.2	65.6	20.4			679	18	18	155	24.7		57.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	243	67.1	150	210	2.85			2630	42.1	16.2	646	114		165
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.653	3.48	0.408	0.238	0.081			1.69	0.267	0.04	1.06	6.73		2940
Nickel	7440-02-0	mg/kg	38	20.5	7.13	9.94	11.5	9.53			17.7	7.23	5.73	10.9	12		14.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	2.62	1.28	1.98	1	0.61			2.45	1.23	0.551	0.729	< 0.44643		2.67
Silver	7440-22-4	mg/kg	2	0.516	0.217	< 0.41	< 0.363	< 0.317965			0.992	< 0.318	< 0.332	0.273	< 0.267858		0.344
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	8.88	< 1.07	< 1.37	< 1.21	1.09			2.49	< 1.06	< 1.11	< 1.12	< 0.89286		< 1.070765
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	164	105	267	212	9.26			1060	51	60	338	234		243
Moisture																	
Percent Solids	SOLID	percent		74.6	93.2	69.8	72.5	92			84.7	84.2	90.4	84.5	73.73	76.86	91.6
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371				< 23										
Aroclor-1221	11104-28-2	ug/kg	371				< 23										
Aroclor-1232	11141-16-5	ug/kg	371				< 23										
Aroclor-1242	53469-21-9	ug/kg	371				< 23										
Aroclor-1248	12672-29-6	ug/kg	371				< 23										
Aroclor-1254	11097-69-1	ug/kg	371				< 23										
Aroclor-1260	11096-82-5	ug/kg	371				< 46										
Polychlorinated biphenyls	1336-36-3	ug/kg	371				< 46										
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 893		< 955	< 917	< 720.72			< 1570	< 791	< 738	< 788	< 924.024		< 727.392

			Location	H11-9-04	H12-120-02	H12-3-02	H12-689-01	H12-8563-01	H12-8563-01	H12-8607-01	H13-2014-01	H13-408-03	H13-6-04	H13-8226-01	H6-8116-02	H6-8275-04	H6-8285-05
			Sample Date	6/15/2000	9/12/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	6/23/2000	6/2/2000	6/15/2000	9/12/2000	9/12/2000	6/21/2000	6/21/2000	7/13/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	H11-9-041N	H12-120-021N	H12-3-020.75N	H12-689-011.25N	H12-8563-011N	H12-8563-010.5N	H12-8607-010.5N	H13-2014-011.5N	H13-408-031N	H13-6-041N	H13-8226-010.5N	H6-8116-021.25N	H6-8275-041.5N	H6-8285-050.75N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 447		< 477	< 459	< 360			3480	43.9	< 369	110	< 462		103
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 447		< 477	< 459	< 360			303	< 396	< 369	< 394	< 462		55.7
2-Chloronaphthalene	91-58-7	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
2-Chlorophenol	95-57-8	ug/kg	243	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 447		< 477	< 459				< 786	< 396	< 369	< 394			
2-Nitrotoluene	88-72-2	ug/kg						< 360.36							< 462.012		< 363.696
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 893		< 955	< 917	< 720.72			< 1570	< 791	< 738	< 788	< 924.024		< 727.392
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 893		< 955	< 917	< 720.72			< 1570	< 791	< 738	< 788	< 924.024		< 727.392
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
4-Nitrophenol	100-02-7	ug/kg	7000	< 893		< 955	< 917				< 1570	< 791	< 738	< 788			
4-Nitrotoluene	99-99-0	ug/kg						< 720.72							< 924.024		< 727.392
Acenaphthene	83-32-9	ug/kg	20000	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	66		< 363.696
Acenaphthylene	208-96-8	ug/kg	682000	< 447		20.5	< 459	< 360.36	< 23585	< 20491	589	< 396	< 369	< 394	27		< 363.696
Anthracene	120-12-7	ug/kg	1480000	31.7		< 477	< 459	< 360.36			803	< 396	< 369	82.8	163		< 363.696
Benzidine	92-87-5	ug/kg	1310	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	147		116	117	< 360.36			6290	129	88.9	350	510		189
Benzo[a]pyrene	50-32-8	ug/kg	1520	125		125	87.2	< 360.36			4620	124	85.2	339	419		184
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	208		160	133	< 360.36			7840	185	121	827	501		263
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 447		149	< 459	< 360.36			1840	< 396	< 369	300	228		214
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 447		< 477	< 459	< 360.36			3000	< 396	< 369	282	210		107
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	46		< 477	45	< 360.36			< 786	23.7	< 369	< 394	97		354
Butylbenzylphthalate	85-68-7	ug/kg	239	< 447		< 477	< 459	< 360.36	< 1179	< 1024	< 786	< 396	< 369	< 394	< 462.012		615
Chrysene	218-01-9	ug/kg	4730	183		139	110	39			6010	158	122	498	432		290
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 447		< 477	< 459	< 360.36			728	< 396	< 369	105	< 462.012		< 363.696
Diethylphthalate	84-66-2	ug/kg	24800	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		72.4
Dimethylphthalate	131-11-3	ug/kg	734000	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Di-n-butylphthalate	84-74-2	ug/kg	150	< 447		< 477	< 459	< 360.36			12400	< 396	< 369	< 394	< 462.012		534
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Fluoranthene	206-44-0	ug/kg	122000	188		254	255	< 360.36			7470	333	202	577	1040		347
Fluorene	86-73-7	ug/kg	122000	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	76		< 363.696
Hexachlorobenzene	118-74-1	ug/kg	199	< 447		< 477	< 459				< 786	< 396	< 369	< 394			
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Hexachloroethane	67-72-1	ug/kg	596	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 447		< 477	< 459	< 360.36			2050	< 396	< 369	290	196		171
Isophorone	78-59-1	ug/kg	139000	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Naphthalene	91-20-3	ug/kg	99.4	< 447		< 477	< 459	< 360.36			116	< 396	< 369	< 394	< 462.012		< 363.696
Nitrobenzene	98-95-3	ug/kg	1310	< 447		< 477	< 459	< 360.36					< 369	< 394	< 462.012		< 363.696
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		209
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 447		< 477	< 459	< 360.36			653	< 396	< 369	38.2	< 462.012		
Pentachlorophenol	87-86-5	ug/kg	2100	< 893		< 955	< 917	< 720.72			< 1570	< 791	< 738	< 788	< 924.024		< 727.392
Phenanthrene	85-01-8	ug/kg	45700	245		117	154	< 360.36			825	207	118	214	965		218
Phenol	108-95-2	ug/kg	30000	< 447		< 477	< 459	< 360.36			< 786	< 396	< 369	< 394	< 462.012		< 363.696
Pyrene	129-00-0	ug/kg	78500	400		236	221	< 360.36			6060	296	204	592	919		504
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg									44800						119000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg							< 589.6226	< 512.295							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127						< 589.6226	< 512.295							

			Location	H11-9-04	H12-120-02	H12-3-02	H12-689-01	H12-8563-01	H12-8563-01	H12-8607-01	H13-2014-01	H13-408-03	H13-6-04	H13-8226-01	H6-8116-02	H6-8275-04	H6-8285-05
			Sample Date	6/15/2000	9/12/2000	6/15/2000	6/15/2000	6/23/2000	6/23/2000	6/23/2000	6/2/2000	6/15/2000	9/12/2000	9/12/2000	6/21/2000	6/21/2000	7/13/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft
			Sample ID	H11-9-041N	H12-120-021N	H12-3-020.75N	H12-689-011.25N	H12-8563-011N	H12-8563-010.5N	H12-8607-010.5N	H13-2014-011.5N	H13-408-031N	H13-6-041N	H13-8226-010.5N	H6-8116-021.25N	H6-8275-041.5N	H6-8285-050.75N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg							< 589.6226	< 512.295							
1,1-Dichloroethane	75-34-3	ug/kg							< 589.6226	< 512.295							
1,1-Dichloroethene	75-35-4	ug/kg	8280						< 589.6226	< 512.295							
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000						< 590	< 512							
1,2-Dichlorobenzene	95-50-1	ug/kg	2960						< 590	< 512							
1,2-Dichloroethane	107-06-2	ug/kg								< 512.295							
1,2-Dichloropropane	78-87-5	ug/kg							< 589.6226	< 512.295							
1,3-Dichlorobenzene	541-73-1	ug/kg	37700						< 590	< 512							
1,4-Dichlorobenzene	106-46-7	ug/kg	546						< 590	< 512							
2-Chloroethylvinylether	110-75-8	ug/kg							< 1179.245	< 1024.59							
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270						< 5896.226	< 5122.95							
Acrylonitrile	107-13-1	ug/kg	23.9						< 5896.226								
Benzene	71-43-2	ug/kg	255						< 589.6226	< 512.295							
Bromodichloromethane	75-27-4	ug/kg	540						< 589.6226	< 512.295							
Bromoform	75-25-2	ug/kg							< 589.6226	< 512.295							
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980						< 589.6226	< 512.295							
Chlorobenzene	108-90-7	ug/kg	13100						< 589.6226	< 512.295							
Chloroethane	75-00-3	ug/kg							< 1179.245	< 1024.59							
Chloroform	67-66-3	ug/kg	1190						< 589.6226	< 512.295							
Chloromethane	74-87-3	ug/kg	10400						< 1179.245	< 1024.59							
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg							< 589.6226	< 512.295							
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050						< 589.6226	< 512.295							
Ethylbenzene	100-41-4	ug/kg	5160						< 589.6226	< 512.295							
Hexachlorobutadiene	87-68-3	ug/kg	39.8						< 590	< 512							
Methylene Chloride	75-09-2	ug/kg	4050						< 589.6226	< 2049.18							
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920						< 589.6226	< 512.295							
Toluene	108-88-3	ug/kg	200000						< 589.6226	< 512.295							
trans-1,2-Dichloroethene	156-60-5	ug/kg							< 589.6226	< 512.295							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400						< 589.6226	< 512.295							
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646							< 1024.59							
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H6-8285-07	H6-8285-08	H6-862-01	H6-918-03	H6-941C-03	H7-10-01	H7-2172A-03	H7-2172A-05	H7-4-02	H7-5-02	H7-8134-04	H7-8142-05	H7-8143-03	H7-8144-01
			Sample Date	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	6/21/2000	6/21/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	H6-8285-071N	H6-8285-081N	H6-862-011.5N	H6-918-031N	H6-941C-031N	H7-10-011.5N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-5-021.25N	H7-8134-041.25N	H7-8142-051N	H7-8143-031.25N	H7-8144-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 208.325	< 250	< 250	< 238.1				< 250	< 250		< 25	< 250	< 238.1
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 208.325	< 250	< 250	< 238.1				< 250	< 250		< 25	< 250	< 238.1
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 208.325	< 250	< 250	< 238.1				< 250	< 250		2200	< 250	< 238.1
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														< 238
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 208.325	< 250	< 250	< 238.1				< 250	< 250		< 25	< 250	< 238.1
2-Nitrotoluene	88-72-2	ug/kg			< 416.65	< 500	< 500	< 476.2				< 500	< 500		< 50	< 500	< 476.2
3-Nitrotoluene	99-08-1	ug/kg			< 416.65	< 500	< 500	< 476.2				< 500	< 500		< 50	< 500	< 476.2
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 208.325	< 250	< 250	< 238.1				< 250	< 250		< 25	< 250	< 238.1
4-Nitrotoluene	99-99-0	ug/kg			< 416.65	< 500	< 500	< 476.2				< 500	< 500		< 50	< 500	< 476.2
Nitrobenzene	98-95-3	ug/kg	1310		< 208.325	< 250	< 250	< 238.1				< 250	< 250		< 25	< 250	< 238.1
Nitrocellulose	9004-70-0	ug/kg			4290000	< 466.057	< 449.622	57400				72900	< 408.467		7510000	140000	96200
Nitroglycerin	55-63-0	ug/kg	65000	< 406.593	< 3570	< 6527.415	< 6297.229	< 6020.107		< 381.487	< 400.192	< 6812.917	< 5448.403		150000	5740	6020
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 416.65	< 500	< 500	< 476.2				< 500	< 500		110000	< 500	1410
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 416.65	< 500	< 500	< 476.2				< 500	< 500		10000	< 500	4030
Tetryl	479-45-8	ug/kg	25000		< 416.65	< 500	< 500	< 476.2				< 500	< 500		< 50	< 500	< 476.2
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%							10.6						6		
Gravel	Gravel	%							43.3						49.8		
Sand	Sand	%							25.1						38.5		
Silt	Silt	%							21						5.7		
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%								85.4							
Sieve Size #10 - Percent Finer	SIEVE_#010	%								67.5							
Sieve Size #100 - Percent Finer	SIEVE_#100	%								31.2							
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%								58.4							
Sieve Size #200 - Percent Finer	SIEVE_#200	%								27.5							
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%								74.2							
Sieve Size #40 - Percent Finer	SIEVE_#040	%								46.9							
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%								36.9							
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%								100							
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H6-8285-07	H6-8285-08	H6-862-01	H6-918-03	H6-941C-03	H7-10-01	H7-2172A-03	H7-2172A-05	H7-4-02	H7-5-02	H7-8134-04	H7-8142-05	H7-8143-03	H7-8144-01
			Sample Date	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	6/21/2000	6/21/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	H6-8285-071N	H6-8285-081N	H6-862-011.5N	H6-918-031N	H6-941C-031N	H7-10-011.5N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-5-021.25N	H7-8134-041.25N	H7-8142-051N	H7-8143-031.25N	H7-8144-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.691133	< 0.623554	< 0.582522	< 0.59406	< 0.6		< 0.660927	< 0.693334	< 0.576924	< 0.588234	< 0.550458	< 0.7	1.22	
Arsenic	7440-38-2	mg/kg	9.9	31.2	6.26	4.97	6.53	1.94		3.02	7.61	4.41	3.99	5.81	4.7	7.25	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.531	0.273	1	0.925	0.125		0.572	0.533	1.11	0.594	0.486	0.47	0.747	
Cadmium	7440-43-9	mg/kg	0.36	0.7	0.378	0.532	0.371	< 0.3		0.127	0.747	0.423	0.246	0.471	0.3	1.93	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	17.9	13.7	16	18.1	5.05		24.2	66.8	16	13.1	12.1	43.1	50.7	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	496	56	23.1	17.8	12		14.4	452	11.6	16.3	38.1	47.7	389	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	608	108	45.8	40.2	9.47		7.2	47.2	58.1	28	56.4	248	197	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	7.82	103	0.159	1.34	0.101		0.028	1.48	0.177	1.09	2	82.7	1.4	
Nickel	7440-02-0	mg/kg	38	16.3	8.35	11.4	11.3	7.32		8.96	12.6	10.2	8.66	8.07	29.9	18.5	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	2.96	0.854	1.29	0.972	0.589		1.08	1.18	1.38	0.483	0.733	0.75	1.13	
Silver	7440-22-4	mg/kg	2	0.367	0.52	< 0.291261	< 0.29703	< 0.3		< 0.330463	0.298	< 0.288462	< 0.294117	< 0.275229	7.5	0.373	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.151888	< 1.039257	< 0.97087	< 0.9901	< 1		< 1.101545	< 1.155556	< 0.96154	< 0.98039	< 0.91743	< 1	< 1	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	261	150	117	97.9	11.7		148	246	188	141	84	229	330	
Moisture																	
Percent Solids	SOLID	percent		81.9	93.4	76.64	79.42	79.05	87.1	87.3	83.2	71.58	87.44	78.49	87.1	75.75	92.65
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371						< 2								
Aroclor-1221	11104-28-2	ug/kg	371						< 2								
Aroclor-1232	11141-16-5	ug/kg	371						< 2								
Aroclor-1242	53469-21-9	ug/kg	371						< 2								
Aroclor-1248	12672-29-6	ug/kg	371						< 2								
Aroclor-1254	11097-69-1	ug/kg	371						< 2								
Aroclor-1260	11096-82-5	ug/kg	371						< 4								
Polychlorinated biphenyls	1336-36-3	ug/kg	371						< 42								
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 813.186	< 7135.518	< 869.742	< 839.63	< 842.814		< 762.974	< 800.384	< 931.098	< 762.776	< 849.256	< 790	< 8795.074	

			Location	H6-8285-07	H6-8285-08	H6-862-01	H6-918-03	H6-941C-03	H7-10-01	H7-2172A-03	H7-2172A-05	H7-4-02	H7-5-02	H7-8134-04	H7-8142-05	H7-8143-03	H7-8144-01
			Sample Date	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	6/21/2000	6/21/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	H6-8285-071N	H6-8285-081N	H6-862-011.5N	H6-918-031N	H6-941C-031N	H7-10-011.5N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-5-021.25N	H7-8134-041.25N	H7-8142-051N	H7-8143-031.25N	H7-8144-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 407	< 3570	< 434	< 419	< 421		< 381	< 400	< 465	< 381	< 424	< 4000	< 4397	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 407	< 3570	< 434	< 419	< 421		< 381	< 400	< 465	< 381	< 424	< 4000	< 4397	
2-Chloronaphthalene	91-58-7	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
2-Chlorophenol	95-57-8	ug/kg	243	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg													< 400		
2-Nitrotoluene	88-72-2	ug/kg		< 406.593						< 381.487	< 400.192			< 424.628			
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 813.186	< 7135.518	< 869.742	< 839.63	< 842.814		< 762.974	< 800.384	< 931.098	< 762.776	< 849.256	< 790	< 8795.074	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 813.186	< 7135.518	< 869.742	< 839.63	< 842.814		< 762.974	< 800.384	< 931.098	< 762.776	< 849.256	< 790	< 8795.074	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
4-Nitrophenol	100-02-7	ug/kg	7000												< 790		
4-Nitrotoluene	99-99-0	ug/kg		< 813.186						< 762.974	< 800.384			< 849.256			
Acenaphthene	83-32-9	ug/kg	20000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	207	
Acenaphthylene	208-96-8	ug/kg	682000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Anthracene	120-12-7	ug/kg	1480000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	756	
Benzidine	92-87-5	ug/kg	1310	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	127	< 3567.759	46	47	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	82	330	1930	
Benzo[a]pyrene	50-32-8	ug/kg	1520	161	< 3567.759	33	40	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	370	1620	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	235	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	134	< 400	1970	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	151	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	84.6	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	83	< 3567.759	21	< 419.815	< 421.407		< 381.487	76.8	< 465.549	< 381.388	109	8100	< 4397.537	
Butylbenzylphthalate	85-68-7	ug/kg	239	98	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Chrysene	218-01-9	ug/kg	4730	266	< 3567.759	< 434.871	40	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	100	390	1910	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Diethylphthalate	84-66-2	ug/kg	24800	141	10300	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	211	< 400	< 4397.537	
Dimethylphthalate	131-11-3	ug/kg	734000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Di-n-butylphthalate	84-74-2	ug/kg	150	1120	9120	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	18000	< 4397.537	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	84.4	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Fluoranthene	206-44-0	ug/kg	122000	265	< 3567.759	< 434.871	89	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	169	780	3740	
Fluorene	86-73-7	ug/kg	122000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Hexachlorobenzene	118-74-1	ug/kg	199												< 400		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Hexachloroethane	67-72-1	ug/kg	596	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	121	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Isophorone	78-59-1	ug/kg	139000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Naphthalene	91-20-3	ug/kg	99.4	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Nitrobenzene	98-95-3	ug/kg	1310	< 406.593						< 381.487	< 400.192			< 424.628			
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 406.593	2840	< 434.871	< 419.815	< 421.407		< 381.487	74.8	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 434.871	< 419.815	< 421.407				< 465.549	< 381.388	187	4800	5940	
Pentachlorophenol	87-86-5	ug/kg	2100	< 813.186	< 7135.518	< 869.742	< 839.63	< 842.814		< 762.974	< 800.384	< 931.098	< 762.776	< 849.256	< 790	< 8795.074	
Phenanthrene	85-01-8	ug/kg	45700	152	< 3567.759	34	57	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	101	470	2770	
Phenol	108-95-2	ug/kg	30000	< 406.593	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	< 424.628	< 400	< 4397.537	
Pyrene	129-00-0	ug/kg	78500	420	< 3567.759	< 434.871	< 419.815	< 421.407		< 381.487	< 400.192	< 465.549	< 381.388	122	< 400	2960	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg							13100	5070					44400		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	H6-8285-07	H6-8285-08	H6-862-01	H6-918-03	H6-941C-03	H7-10-01	H7-2172A-03	H7-2172A-05	H7-4-02	H7-5-02	H7-8134-04	H7-8142-05	H7-8143-03	H7-8144-01
			Sample Date	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	7/13/2000	7/13/2000	6/21/2000	6/21/2000	6/21/2000	7/19/2000	6/21/2000	6/21/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	H6-8285-071N	H6-8285-081N	H6-862-011.5N	H6-918-031N	H6-941C-031N	H7-10-011.5N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-5-021.25N	H7-8134-041.25N	H7-8142-051N	H7-8143-031.25N	H7-8144-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H7-8146-04	H7-8176-01	H7-8282-02	H8-2181-01	H8-2181-05	H8-2291-04	H8-558-04	H8-69F-01	H8-69F-02	H8-9121-02	H8-9121-04	H8-9328-05	H8-9328-06	H9-8155-01
			Sample Date	6/21/2000	6/16/2000	6/21/2000	6/2/2000	6/2/2000	7/20/2000	7/20/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	6/2/2000	6/15/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	H7-8146-041.5N	H7-8176-011.5N	H7-8282-021.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-041.5N	H8-558-041N	H8-69F-011N	H8-69F-021N	H8-9121-021.5N	H8-9121-041N	H8-9328-051.5N	H8-9328-061.5N	H9-8155-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 248		< 250	< 238	< 250	< 238					< 250	< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 248		< 250	< 238	< 250	< 238					< 250	< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 248		< 250	< 238	< 250	< 238					< 250	< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8												< 250	< 250	
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 248		< 250	< 238	< 250	< 238					< 250	< 250	
2-Nitrotoluene	88-72-2	ug/kg			< 495		< 500	< 476	< 500	< 476					< 500	< 500	
3-Nitrotoluene	99-08-1	ug/kg			< 495		< 500	< 476	< 500	< 476					< 500	< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 248		< 250	< 238	< 250	< 238					< 250	< 250	
4-Nitrotoluene	99-99-0	ug/kg			< 495		< 250	< 238	< 500	< 476					< 250	< 250	
Nitrobenzene	98-95-3	ug/kg	1310		< 248		< 250	< 238	< 250	< 238					< 250	< 250	
Nitrocellulose	9004-70-0	ug/kg			145000				92100	< 42.2							
Nitroglycerin	55-63-0	ug/kg	65000		< 7000				< 5780	3690							
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		6580		< 500	< 476	< 500	< 476					< 500	< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 495		< 500	< 476	< 500	< 476					< 500	< 500	
Tetryl	479-45-8	ug/kg	25000		< 495		< 500	< 476	< 500	< 476					< 500	< 500	
GenChem																	
pH	pH	su											5.54	5.87			
Grain Size																	
Clay	Clay	%			4.8												
Gravel	Gravel	%			33.4												
Sand	Sand	%			28.5												
Silt	Silt	%			33.3												
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%						96.6			91.5		89.5		97.4		
Sieve Size #10 - Percent Finer	SIEVE_#010	%						90.2			66.9		70.1		85.7		
Sieve Size #100 - Percent Finer	SIEVE_#100	%						39.6			27.5		28.9		48		
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%						58.6			50.6		57.7		75.6		
Sieve Size #200 - Percent Finer	SIEVE_#200	%						36.6			23.2		23.8		41.2		
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%						94.3			79.2		80		92.7		
Sieve Size #40 - Percent Finer	SIEVE_#040	%						47.6			39.5		45.8		65.3		
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%						42.5			32.3		35.8		55.7		
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%						100			100		100		100		
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H7-8146-04	H7-8176-01	H7-8282-02	H8-2181-01	H8-2181-05	H8-2291-04	H8-558-04	H8-69F-01	H8-69F-02	H8-9121-02	H8-9121-04	H8-9328-05	H8-9328-06	H9-8155-01
			Sample Date	6/21/2000	6/16/2000	6/21/2000	6/2/2000	6/2/2000	7/20/2000	7/20/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	6/2/2000	6/15/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	H7-8146-041.5N	H7-8176-011.5N	H7-8282-021.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-041.5N	H8-558-041N	H8-69F-011N	H8-69F-021N	H8-9121-021.5N	H8-9121-041N	H8-9328-051.5N	H8-9328-061.5N	H9-8155-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.576924	< 0.8	< 0.56604	< 0.642	< 0.75	< 0.788	< 0.668	< 0.633	< 0.621	< 0.62	0.387	1.36	1.98	0.357
Arsenic	7440-38-2	mg/kg	9.9	3.39	8.1	5.55	6.91	6.98	11.7	6.72	3.89	4.48	5.12	5.42	10.4	22.4	16.9
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.824	0.35	0.583	0.637	0.544	0.862	0.586	0.542	0.478	0.579	0.539	0.708	0.889	0.445
Cadmium	7440-43-9	mg/kg	0.36	0.319	< 0.4	0.435	0.456	0.328	0.692	0.769	0.157	0.492	0.199	0.277	0.595	0.982	< 0.279
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	17.1	12.3	19.6	20	17.1	26.6	16	12.3	11.3	13.5	14.2	31.8	18.1	49.3
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	35.2	22	23.7	32.1	53	22.2	26.7	35.4	37	27.7	34.6	94.9	138	28.9
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	27.8	34.3	43.6	194	49.2	19	57.5	45.2	72.2	343	163	450	3520	91.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.598	0.08	0.408	1.68	0.217	0.061	1.09	0.103	0.064	2.33	7.25	1.19	0.385	5.22
Nickel	7440-02-0	mg/kg	38	9.06	5.6	9.29	11	26.8	13.8	10.7	8.66	7.68	7.99	8.79	13.2	17.4	11.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.957	0.57	0.777	0.776	1.95	1.29	1.19	0.63	1.21	0.733	0.403	1.42	1.03	1.77
Silver	7440-22-4	mg/kg	2	< 0.288462	< 0.4	< 0.28302	0.076	< 0.375	< 0.394	< 0.334	< 0.316	< 0.31	< 0.31	0.245	0.228	0.218	0.903
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.96154	< 1	< 0.9434	1.15	< 1.25	< 1.31	< 1.11	0.91	< 1.03	0.755	< 1.06	2.29	1.46	0.846
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	108	44.2	72.4	329	64.9	121	94	65.3	94.6	102	137	437	297	65.8
Moisture																	
Percent Solids	SOLID	percent		78.81	72.5	77.38	90.7	76.2	86.5	83.2	93	93	90.5	93	80	82	83.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 845.742	< 94	< 861.038	< 735	< 873	< 768	< 801	< 717	< 717	< 737	< 717			< 801

			Location	H7-8146-04	H7-8176-01	H7-8282-02	H8-2181-01	H8-2181-05	H8-2291-04	H8-558-04	H8-69F-01	H8-69F-02	H8-9121-02	H8-9121-04	H8-9328-05	H8-9328-06	H9-8155-01
			Sample Date	6/21/2000	6/16/2000	6/21/2000	6/2/2000	6/2/2000	7/20/2000	7/20/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	6/2/2000	6/15/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	H7-8146-041.5N	H7-8176-011.5N	H7-8282-021.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-041.5N	H8-558-041N	H8-69F-011N	H8-69F-021N	H8-9121-021.5N	H8-9121-041N	H8-9328-051.5N	H8-9328-061.5N	H9-8155-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 422	< 470	< 430	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 422	< 470	< 430	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2-Chloronaphthalene	91-58-7	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2-Chlorophenol	95-57-8	ug/kg	243	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 47		< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
2-Nitrotoluene	88-72-2	ug/kg		< 422.871		< 430.519											
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 845.742	< 94	< 861.038	< 735	< 873	< 768	< 801	< 717	< 717	< 737	< 717			< 801
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 845.742	< 94	< 861.038	< 735	< 873	< 768	< 801	< 717	< 717	< 737	< 717			< 801
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
4-Nitrophenol	100-02-7	ug/kg	7000		< 94		< 735	< 873	< 768	< 801	< 717	< 717	< 737	< 717			< 801
4-Nitrotoluene	99-99-0	ug/kg		< 845.742		< 861.038											
Acenaphthene	83-32-9	ug/kg	20000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Acenaphthylene	208-96-8	ug/kg	682000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	53.1	< 358	< 368	< 358			18.8
Anthracene	120-12-7	ug/kg	1480000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	65.3	50.6	< 358	54.2	< 358			24.4
Benzidine	92-87-5	ug/kg	1310	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 422.871	< 47	< 430.519	34.6	< 437	< 384	327	318	39.4	228	55.5			129
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 422.871	< 47	< 430.519	< 368	< 437	< 384	331	291	36.6	160	46.6			137
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 422.871	< 47	< 430.519	< 368	< 437	< 384	465	403	< 358	295	86.7			167
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	228	198	< 358	81.8	< 358			< 400
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	156	134	< 358	95.8	< 358			< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	23	< 47	56	< 368	< 437	41.5	210	< 359	< 358	< 368	< 358			45.7
Butylbenzylphthalate	85-68-7	ug/kg	239	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Chrysene	218-01-9	ug/kg	4730	< 422.871	< 47	< 430.519	< 368	< 437	< 384	415	311	58.4	221	91			191
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Diethylphthalate	84-66-2	ug/kg	24800	< 422.871	< 47	< 430.519	< 368	< 437	< 384	489	< 359	< 358	< 368	< 358			95.7
Dimethylphthalate	131-11-3	ug/kg	734000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Di-n-butylphthalate	84-74-2	ug/kg	150	< 422.871	< 47	< 430.519	< 368	< 437	< 384	264	< 359	< 358	< 368	< 358			50.5
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Fluoranthene	206-44-0	ug/kg	122000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	816	550	114	349	117			274
Fluorene	86-73-7	ug/kg	122000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Hexachlorobenzene	118-74-1	ug/kg	199		< 47		< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Hexachloroethane	67-72-1	ug/kg	596	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	183	169	< 358	91.4	< 358			< 400
Isophorone	78-59-1	ug/kg	139000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Naphthalene	91-20-3	ug/kg	99.4	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			111
Nitrobenzene	98-95-3	ug/kg	1310	< 422.871		< 430.519					< 359	< 358	< 368	< 358			< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 422.871	140	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Pentachlorophenol	87-86-5	ug/kg	2100	< 845.742	< 94	< 861.038	< 735	< 873	< 768	< 801	< 717	< 717	< 737	< 717			< 801
Phenanthrene	85-01-8	ug/kg	45700	< 422.871	< 47	< 430.519	< 368	< 437	< 384	484	290	72.4	203	51.6			334
Phenol	108-95-2	ug/kg	30000	< 422.871	< 47	< 430.519	< 368	< 437	< 384	< 401	< 359	< 358	< 368	< 358			< 400
Pyrene	129-00-0	ug/kg	78500	< 422.871	< 47	< 430.519	< 368	< 437	< 384	999	651	93.2	249	116			382
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			40500			33300			41700		58800		108000		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	H7-8146-04	H7-8176-01	H7-8282-02	H8-2181-01	H8-2181-05	H8-2291-04	H8-558-04	H8-69F-01	H8-69F-02	H8-9121-02	H8-9121-04	H8-9328-05	H8-9328-06	H9-8155-01
			Sample Date	6/21/2000	6/16/2000	6/21/2000	6/2/2000	6/2/2000	7/20/2000	7/20/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	6/2/2000	6/15/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	H7-8146-041.5N	H7-8176-011.5N	H7-8282-021.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-041.5N	H8-558-041N	H8-69F-011N	H8-69F-021N	H8-9121-021.5N	H8-9121-041N	H8-9328-051.5N	H8-9328-061.5N	H9-8155-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I10-2079-05	I10-2080-02	I10-2155-03	I10-E50-01	I11-1-03	I11-2326-01	I11-7-01	I11-8260-02	I11-8260-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/19/2000	9/12/2000	8/2/2000	7/19/2000	8/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I10-2079-051.25N	I10-2080-021N	I10-2155-031N	I10-E50-011N	I11-1-031N	I11-2326-011N	I11-7-011N	I11-8260-021N	I11-8260-031.25N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 217		< 208	< 238	< 238		< 178.575	< 238	< 208.325			< 250		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 217		< 208	< 238	< 238		< 178.575	< 238	< 208.325			< 250		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	1010		< 208	< 238	< 238		< 178.575	336	< 208.325			< 250		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 208											
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	176		< 208	< 238	< 238		< 178.575	< 238	< 208.325			< 250		
2-Nitrotoluene	88-72-2	ug/kg		< 435		< 417	< 476	< 476		< 357.15	< 476	< 416.65			< 500		
3-Nitrotoluene	99-08-1	ug/kg		< 435		< 417	< 476	< 476		< 357.15	< 476	< 416.65			< 500		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	247		< 208	< 238	< 238		< 178.575	< 238	< 208.325			< 250		
4-Nitrotoluene	99-99-0	ug/kg		< 435		< 417	< 476	< 476		< 357.15	< 476	< 416.65			< 250		
Nitrobenzene	98-95-3	ug/kg	1310	< 217		< 208	< 238	< 238		67	< 238	108			126		
Nitrocellulose	9004-70-0	ug/kg		1330000		< 36.9	222000	125000		207000	2480000	283000			231000		
Nitroglycerin	55-63-0	ug/kg	65000	22000		4060	15700	56300		< 5524.48	157000	4860			3690		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 435		< 417	< 476	< 476		< 357.15	< 476	< 416.65			< 500		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	547		< 417	< 476	< 476		< 357.15	< 476	< 416.65			< 500		
Tetryl	479-45-8	ug/kg	25000	< 435		< 417	< 476	< 476		< 357.15	< 476	< 416.65			< 500		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%						0			1.1						
Gravel	Gravel	%						58.4			66.2						
Sand	Sand	%						30.3			25.3						
Silt	Silt	%						11.3			7.4						
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I10-2079-05	I10-2080-02	I10-2155-03	I10-E50-01	I11-1-03	I11-2326-01	I11-7-01	I11-8260-02	I11-8260-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/19/2000	9/12/2000	8/2/2000	7/19/2000	8/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I10-2079-051.25N	I10-2080-021N	I10-2155-031N	I10-E50-011N	I11-1-031N	I11-2326-011N	I11-7-011N	I11-8260-021N	I11-8260-031.25N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.529	< 0.572		< 0.536	< 0.7	< 0.616	< 0.578143	< 0.7	< 0.695822	0.696		< 0.66		
Arsenic	7440-38-2	mg/kg	9.9	8.81	4.16		25.5	6.9	6.9	10.6	6.7	17.1	16.3		28.1		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.526	0.488		0.446	0.36	0.516	0.274	0.36	0.303	0.464		0.421		
Cadmium	7440-43-9	mg/kg	0.36	1.26	0.809		0.588	1.3	0.139	0.475	1.6	0.475	3.28		0.866		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	24.2	12.6		12.1	29.9	12.3	14.9	110	17.2	38.4		26.1		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	107	21.9		9.66	60.5	26.8	17.1	58.7	36	486		110		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	64.1	26.3		11.2	133	51.3	46	924	141	1030		465		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.1	0.101		0.059	0.28	0.113	0.243	0.72	0.379	2.2		1.09		
Nickel	7440-02-0	mg/kg	38	10.9	8.3		5.67	15.3	8.61	10.7	19.8	9.97	20		10.5		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.964	0.983		0.787	0.68	0.382	1.04	0.39	1.73	2.82		1.89		
Silver	7440-22-4	mg/kg	2	< 0.264	< 0.286		< 0.268	0.13	< 0.308	< 0.289072	0.28	0.587	0.837		< 0.33		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.881	< 0.953		< 0.894	< 1	< 1.03	< 0.963572	< 1	< 1.159703	2.87		1.29		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	326	93.2		40.2	280	58.7	40.2	705	192	2120		338		
Moisture																	
Percent Solids	SOLID	percent		87.3	86	93.7	85.4	89	91.9	80.5	88.9	78.4	77		87.4		
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 761	< 772		< 778	< 82	< 725	< 825.92	< 890	< 850.448	< 8660		< 762		

Kennedy Jenks

			Location	I10-2079-05	I10-2080-02	I10-2155-03	I10-E50-01	I11-1-03	I11-2326-01	I11-7-01	I11-8260-02	I11-8260-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/19/2000	9/12/2000	8/2/2000	7/19/2000	8/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I10-2079-051.25N	I10-2080-021N	I10-2155-031N	I10-E50-011N	I11-1-031N	I11-2326-011N	I11-7-011N	I11-8260-021N	I11-8260-031.25N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 381	< 386		< 389	100	< 363	< 412	< 4400	< 425	< 4330		< 381		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 381	< 386		< 389	< 410	< 363	< 412	< 4400	< 425	< 4330		< 381		
2-Chloronaphthalene	91-58-7	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
2-Chlorophenol	95-57-8	ug/kg	243	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 381	< 386		< 389	< 41	< 363		< 440		< 4330		< 381		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 761	< 772		< 778	< 82	< 725	< 825.92	< 890	< 850.448	< 8660		< 762		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 761	< 772		< 778	< 82	< 725	< 825.92	< 890	< 850.448	< 8660		< 762		
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
4-Nitrophenol	100-02-7	ug/kg	7000	< 761	< 772		< 778	< 82	< 725		< 890		< 8660		< 762		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Acenaphthylene	208-96-8	ug/kg	682000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	268		60.6		
Anthracene	120-12-7	ug/kg	1480000	< 381	< 386		75.1	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		56.4		
Benzidine	92-87-5	ug/kg	1310	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 381	42.1		500	< 41	81.6	180	530	241	< 4330		175		
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 381	40.9		372	27	65.6	185	550	279	< 4330		185		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 381	< 386		793	< 41	115	313	900	532	< 4330		319		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 381	< 386		182	< 41	< 363	99	< 440	193	2430		166		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 381	< 386		276	< 41	< 363	94	< 440	128	< 4330		137		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	25.5	36.3		< 389	670	< 363	42	4800	80	< 4330		< 381		
Butylbenzylphthalate	85-68-7	ug/kg	239	< 381	< 386		< 389	23000	< 363	< 412.96	16000	< 425.224	< 4330		< 381		
Chrysene	218-01-9	ug/kg	4730	< 381	< 386		528	< 41	125	223	640	318	< 4330		310		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	1630		89.6		
Diethylphthalate	84-66-2	ug/kg	24800	< 381	230		< 389	< 41	< 363	< 412.96	< 440	< 425.224	424		< 381		
Dimethylphthalate	131-11-3	ug/kg	734000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Di-n-butylphthalate	84-74-2	ug/kg	150	123	287		225	< 41	< 363	443	21000	192	7870		419		
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 381	< 386		< 389	87	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Fluoranthene	206-44-0	ug/kg	122000	< 381	90		984	< 41	212	295	1100	463	< 4330		476		
Fluorene	86-73-7	ug/kg	122000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Hexachlorobenzene	118-74-1	ug/kg	199	< 381	< 386		< 389	< 41	< 363		< 440		< 4330		< 381		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Hexachloroethane	67-72-1	ug/kg	596	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 381	< 386		196	< 41	< 363	87	< 440	191	1790		128		
Isophorone	78-59-1	ug/kg	139000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Naphthalene	91-20-3	ug/kg	99.4	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Nitrobenzene	98-95-3	ug/kg	1310		< 386				< 363				< 4330				
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	60.5	434		137	< 41	54.4	54	5200	194	< 4330		< 381		
Pentachlorophenol	87-86-5	ug/kg	2100	< 761	< 772		< 778	< 82	< 725	< 825.92	< 890	< 850.448	< 8660		< 762		
Phenanthrene	85-01-8	ug/kg	45700	< 381	< 386		117	< 41	116	240	410	229	< 4330		226		
Phenol	108-95-2	ug/kg	30000	< 381	< 386		< 389	< 41	< 363	< 412.96	< 440	< 425.224	< 4330		< 381		
Pyrene	129-00-0	ug/kg	78500	< 381	104		839	< 41	221	384	< 440	646	< 4330		428		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg						41400			62800		308000				
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg												< 658		< 534	< 539
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127											< 658		< 534	< 539

			Location	I10-2079-05	I10-2080-02	I10-2155-03	I10-E50-01	I11-1-03	I11-2326-01	I11-7-01	I11-8260-02	I11-8260-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/19/2000	9/12/2000	8/2/2000	7/19/2000	8/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	I10-2079-051.25N	I10-2080-021N	I10-2155-031N	I10-E50-011N	I11-1-031N	I11-2326-011N	I11-7-011N	I11-8260-021N	I11-8260-031.25N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg												< 658		< 534	< 539
1,1-Dichloroethane	75-34-3	ug/kg												< 658		< 534	< 539
1,1-Dichloroethene	75-35-4	ug/kg	8280											< 658		< 534	< 539
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000											< 658		< 534	< 539
1,2-Dichlorobenzene	95-50-1	ug/kg	2960											< 658		< 534	< 539
1,2-Dichloroethane	107-06-2	ug/kg												< 658		< 534	< 539
1,2-Dichloropropane	78-87-5	ug/kg												< 658		< 534	< 539
1,3-Dichlorobenzene	541-73-1	ug/kg	37700											< 658		< 534	< 539
1,4-Dichlorobenzene	106-46-7	ug/kg	546											< 658		< 534	< 539
2-Chloroethylvinylether	110-75-8	ug/kg												< 1320		< 1070	< 1080
Acetonitrile	75-05-8	ug/kg												< 658		< 534	< 539
Acrolein	107-02-8	ug/kg	5270											< 2630		< 2140	< 2160
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255											< 658		< 534	< 539
Bromodichloromethane	75-27-4	ug/kg	540											< 658		< 534	< 539
Bromoform	75-25-2	ug/kg												< 658		< 534	< 539
Bromomethane	74-83-9	ug/kg	235											< 1320		< 1070	< 1080
Carbon Tetrachloride	56-23-5	ug/kg	2980											< 658		< 534	< 539
Chlorobenzene	108-90-7	ug/kg	13100											< 658		< 534	< 539
Chloroethane	75-00-3	ug/kg												< 1320		< 1070	< 1080
Chloroform	67-66-3	ug/kg	1190											< 658		< 534	< 539
Chloromethane	74-87-3	ug/kg	10400											< 1320		< 1070	< 1080
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg												< 658		< 534	< 539
Dibromochloromethane	124-48-1	ug/kg	2050											< 658		< 534	< 539
Ethylbenzene	100-41-4	ug/kg	5160											< 658		< 534	< 539
Hexachlorobutadiene	87-68-3	ug/kg	39.8											< 658		< 534	< 539
Methylene Chloride	75-09-2	ug/kg	4050											< 658		< 534	< 539
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920											< 658		< 534	< 539
Toluene	108-88-3	ug/kg	200000											< 658		< 534	< 539
trans-1,2-Dichloroethene	156-60-5	ug/kg												< 658		< 534	< 539
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400											500		< 534	< 539
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646											< 1320		< 1070	< 1080
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I11-8504-06	I11-9301-02	I12-10-01	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04	I12-11-09	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
			Sample Date	6/2/2000	7/25/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I11-8504-060.5N830	I11-9301-021N	I12-10-011.5N	I12-1-020.5N	I12-1-041FD	I12-1-041N	I12-11-020.5N	I12-11-040.5N	I12-11-091N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
			Parent ID					I12-1-041N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250													
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250													
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250													
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250													
2-Nitrotoluene	88-72-2	ug/kg		< 500													
3-Nitrotoluene	99-08-1	ug/kg		< 500													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250													
4-Nitrotoluene	99-99-0	ug/kg		< 250													
Nitrobenzene	98-95-3	ug/kg	1310	130													
Nitrocellulose	9004-70-0	ug/kg		359000													
Nitroglycerin	55-63-0	ug/kg	65000	< 6550													
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500													
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500													
Tetryl	479-45-8	ug/kg	25000	< 500													
GenChem																	
pH	pH	su															5.53
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%								77.1			96.1		66.9		78.2
Sieve Size #10 - Percent Finer	SIEVE_#010	%								63			83.8		58.1		65.4
Sieve Size #100 - Percent Finer	SIEVE_#100	%								34.5			24.4		27.1		33.7
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%								53.1			64.2		50.7		61.2
Sieve Size #200 - Percent Finer	SIEVE_#200	%								29.1			17.4		22		25.5
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%								69.2			91.8		61.8		70.7
Sieve Size #40 - Percent Finer	SIEVE_#040	%								45.8			47.9		41.5		53.6
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%								39.7			34.5		31.4		44.1
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%								81.8			100		72.9		89.2
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%								81.8					83.8		100
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%								100					100		
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I11-8504-06	I11-9301-02	I12-10-01	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04	I12-11-09	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
			Sample Date	6/2/2000	7/25/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I11-8504-060.5N830	I11-9301-021N	I12-10-011.5N	I12-1-020.5N	I12-1-041FD	I12-1-041N	I12-11-020.5N	I12-11-040.5N	I12-11-091N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
			Parent ID					I12-1-041N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.763	< 0.986	10.2	0.899	0.96	0.859	< 0.596	< 0.645	0.804			< 0.654		< 6.53
Arsenic	7440-38-2	mg/kg	9.9	227	20.7	10.2	7.83	13.8	13.2	3.83	7.24	4.82			4.76		29.1
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.466	0.367	0.244	0.503	0.306	0.308	0.093	0.259	0.243			0.168		0.154
Cadmium	7440-43-9	mg/kg	0.36	0.287	1.57	0.707	0.251	0.184	0.182	0.57	1.63	0.999			< 0.327		< 3.27
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	13.4	17.7	33.3	13.1	22.1	21.8	9.26	18.5	18.8			10.1		52.8
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	31.7	33.7	133	26.1	41.4	41.4	66.6	511	66.6			19.2		33.7
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	51	92.2	256	67.9	123	125	75.7	176	143			33		138
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.422	4.13	0.957	0.25	0.316	0.349	0.139	0.235	0.4			0.105		0.183
Nickel	7440-02-0	mg/kg	38	11.3	13.3	11.2	8.5	11.1	12.2	6.36	12	11.5			4.45		57.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	11.5	3.2	1.37	0.462	1.73	1.42	0.507	1.71	1.01			0.848		< 5.44
Silver	7440-22-4	mg/kg	2	0.243	< 0.493	0.253	0.453	0.113	0.139	< 0.298	< 0.323	< 0.304			< 0.327		< 3.27
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	3.58	< 1.64	< 1.1	< 1.23	< 1.28	< 1.27	< 0.993	< 1.08	< 1.01			0.621		< 10.9
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	72.7	131	457	84.1	127	118	129	650	314			53.2		5320
Moisture																	
Percent Solids	SOLID	percent		76.4	83.9	89.2	80.8	75.2	76.5	96.8	93	94	94.4		88.2		90.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 872	< 792	< 3730	< 825	< 886	< 872	< 688	< 717	< 709	< 706		< 756		< 739

			Location	I11-8504-06	I11-9301-02	I12-10-01	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04	I12-11-09	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
			Sample Date	6/2/2000	7/25/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I11-8504-060.5N830	I11-9301-021N	I12-10-011.5N	I12-1-020.5N	I12-1-041FD	I12-1-041N	I12-11-020.5N	I12-11-040.5N	I12-11-091N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
			Parent ID					I12-1-041N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 436	88.7	< 1870	< 413	2200	< 436	< 344	114	< 355	< 353		< 378		< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 436	< 396	< 1870	< 413	77.6	< 436	< 344	126	< 355	< 353		< 378		< 370
2-Chloronaphthalene	91-58-7	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2-Chlorophenol	95-57-8	ug/kg	243	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 872	< 792	< 3730	< 825	< 886	< 872	< 688	< 717	< 709	< 706		< 756		< 739
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 872	< 792	< 3730	< 825	< 886	< 872	< 688	< 717	< 709	< 706		< 756		< 739
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
4-Nitrophenol	100-02-7	ug/kg	7000	< 872	< 792	< 3730	< 825	< 886	< 872	< 688	< 717	< 709	< 706		< 756		< 739
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Acenaphthylene	208-96-8	ug/kg	682000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Anthracene	120-12-7	ug/kg	1480000	< 436	102	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Benzidine	92-87-5	ug/kg	1310	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	62.8	527	940	67.7	112	122	54.7	183	116	46.6		82		69.5
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 436	555	808	66.9	129	122	45.1	142	108	< 353		66.9		56.9
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	89	1220	1440	110	288	280	86.7	309	220	60.4		133		153
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 436	464	582	< 413	< 443	< 436	< 344	126	106	< 353		< 378		< 370
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 436	266	524	< 413	< 443	< 436	< 344	109	78.7	< 353		< 378		< 370
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 436	43.2	< 1870	< 413	< 443	< 436	< 344	38	27.7	282		< 378		< 370
Butylbenzylphthalate	85-68-7	ug/kg	239	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Chrysene	218-01-9	ug/kg	4730	88.6	608	1140	94.9	207	226	62.3	214	155	< 353		93		112
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 436	132	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Diethylphthalate	84-66-2	ug/kg	24800	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Dimethylphthalate	131-11-3	ug/kg	734000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Di-n-butylphthalate	84-74-2	ug/kg	150	146	196	< 1870	< 413	81.6	101	< 344	< 358	152	< 353		< 378		120
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Fluoranthene	206-44-0	ug/kg	122000	120	887	1620	156	345	338	86	252	194	< 353		103		106
Fluorene	86-73-7	ug/kg	122000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Hexachlorobenzene	118-74-1	ug/kg	199	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Hexachloroethane	67-72-1	ug/kg	596	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 436	433	560	< 413	< 443	< 436	< 344	121	98.9	< 353		< 378		< 370
Isophorone	78-59-1	ug/kg	139000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Naphthalene	91-20-3	ug/kg	99.4	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Nitrobenzene	98-95-3	ug/kg	1310		< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 436	662	< 1870	< 413	298	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Pentachlorophenol	87-86-5	ug/kg	2100	< 872	< 792	< 3730	< 825	< 886	< 872	< 688	< 717	< 709	< 706		< 756		< 739
Phenanthrene	85-01-8	ug/kg	45700	86.8	317	817	94.9	158	151	< 344	55.6	72.7	< 353		< 378		32.2
Phenol	108-95-2	ug/kg	30000	< 436	< 396	< 1870	< 413	< 443	< 436	< 344	< 358	< 355	< 353		< 378		< 370
Pyrene	129-00-0	ug/kg	78500	< 436	904	1450	185	246	250	72.3	256	152	< 353		83.1		< 370
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg							116000				5170		21900		17900
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg												< 525		< 508	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127											< 525		< 508	

			Location	I11-8504-06	I11-9301-02	I12-10-01	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04	I12-11-09	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
			Sample Date	6/2/2000	7/25/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
			Sample Depths	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I11-8504-060.5N830	I11-9301-021N	I12-10-011.5N	I12-1-020.5N	I12-1-041FD	I12-1-041N	I12-11-020.5N	I12-11-040.5N	I12-11-091N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
			Parent ID					I12-1-041N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg												< 525		< 508	
1,1-Dichloroethane	75-34-3	ug/kg												< 525		< 508	
1,1-Dichloroethene	75-35-4	ug/kg	8280											< 525		< 508	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000											< 525		< 508	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960											< 525		< 508	
1,2-Dichloroethane	107-06-2	ug/kg														< 508	
1,2-Dichloropropane	78-87-5	ug/kg												< 525		< 508	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700											< 525		< 508	
1,4-Dichlorobenzene	106-46-7	ug/kg	546											< 525		< 508	
2-Chloroethylvinylether	110-75-8	ug/kg												< 1050		< 1020	
Acetonitrile	75-05-8	ug/kg												< 525		< 508	
Acrolein	107-02-8	ug/kg	5270											< 2100		< 2030	
Acrylonitrile	107-13-1	ug/kg	23.9											< 525			
Benzene	71-43-2	ug/kg	255											144		< 508	
Bromodichloromethane	75-27-4	ug/kg	540											< 525		< 508	
Bromoform	75-25-2	ug/kg												< 525		< 508	
Bromomethane	74-83-9	ug/kg	235											< 1250		< 1020	
Carbon Tetrachloride	56-23-5	ug/kg	2980											< 525		< 508	
Chlorobenzene	108-90-7	ug/kg	13100											< 525		< 508	
Chloroethane	75-00-3	ug/kg												< 1250		< 1020	
Chloroform	67-66-3	ug/kg	1190											< 525		< 508	
Chloromethane	74-87-3	ug/kg	10400											< 1250		< 1020	
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg												< 525		< 508	
Dibromochloromethane	124-48-1	ug/kg	2050											< 525		< 508	
Ethylbenzene	100-41-4	ug/kg	5160											< 525		< 508	
Hexachlorobutadiene	87-68-3	ug/kg	39.8											< 525		< 508	
Methylene Chloride	75-09-2	ug/kg	4050											< 525		< 508	
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920											< 525		< 508	
Toluene	108-88-3	ug/kg	200000											< 525		< 508	
trans-1,2-Dichloroethene	156-60-5	ug/kg												< 525		< 508	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400											< 525		401	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646													< 1020	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	I12-2010-05	I12-2011-01	I12-2012-02	I12-2012-03	I12-2184-01	I12-2287-04	I12-2341-03	I12-8101-02	I12-8581-01	I12-8581-04	I12-8581-04	I12-9111-01	I12-9111-01	I12-9111-04
			Sample Date	6/2/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	8/2/2000	9/13/2000	6/2/2000	6/2/2000	9/13/2000	9/13/2000	6/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I12-2010-051.5N	I12-2011-011.5N	I12-2012-021.5N	I12-2012-031N	I12-2184-011.5N	I12-2287-040.5N	I12-2341-031N	I12-8101-021N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9111-011N	I12-9111-010.5N	I12-9111-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376								< 227.275		< 238				
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655								< 227.275		< 238				
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000								< 227.275		< 238				
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000								< 227.275		< 238				
2-Nitrotoluene	88-72-2	ug/kg									< 454.55		< 476				
3-Nitrotoluene	99-08-1	ug/kg									< 454.55		< 476				
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000								< 227.275		< 238				
4-Nitrotoluene	99-99-0	ug/kg									< 454.55		< 238				
Nitrobenzene	98-95-3	ug/kg	1310								< 227.275		< 238				
Nitrocellulose	9004-70-0	ug/kg									250000		177000				
Nitroglycerin	55-63-0	ug/kg	65000								21600		21100				
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000								< 454.55		< 476				
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000								< 454.55		< 476				
Tetryl	479-45-8	ug/kg	25000								< 454.55		< 476				
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%		87.1	84.9	92.3		94.3		84.4			811.1				69.1
Sieve Size #10 - Percent Finer	SIEVE_#010	%		79.1	71.3	72		79.9		58.3			48.8				47.6
Sieve Size #100 - Percent Finer	SIEVE_#100	%		37	36.1	33.3		57.9		23.8			29.5				12.9
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%		71.8	60.7	59.2		73		46.3			44.7				37.1
Sieve Size #200 - Percent Finer	SIEVE_#200	%		26.9	30.2	25.4		53.2		17.7			20.9				9.8
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%		84	78.4	79.1		87.4		68.4			52.6				58
Sieve Size #40 - Percent Finer	SIEVE_#040	%		59.8	49.9	49.9		67.1		36.7			40.1				26.8
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%		47.5	42.1	41.6		62.3		29.7			35.4				18.3
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%		100	92.1	100		100		100			100				100
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%			100												
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I12-2010-05	I12-2011-01	I12-2012-02	I12-2012-03	I12-2184-01	I12-2287-04	I12-2341-03	I12-8101-02	I12-8581-01	I12-8581-04	I12-8581-04	I12-9111-01	I12-9111-01	I12-9111-04
			Sample Date	6/2/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	8/2/2000	9/13/2000	6/2/2000	6/2/2000	9/13/2000	9/13/2000	6/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I12-2010-051.5N	I12-2011-011.5N	I12-2012-021.5N	I12-2012-031N	I12-2184-011.5N	I12-2287-040.5N	I12-2341-031N	I12-8101-021N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9111-011N	I12-9111-010.5N	I12-9111-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	1.14	< 0.623	< 0.614	0.31	< 0.614	0.327	7.82	< 0.502922		< 0.604		< 0.633		< 0.651
Arsenic	7440-38-2	mg/kg	9.9	4.76	6.82	6.25	7.39	390	59.7	14.3	6		3.23		3.8		4.32
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.164	0.333	0.153	0.119	0.532	0.075	0.529	0.325		0.487		0.647		0.846
Cadmium	7440-43-9	mg/kg	0.36	0.081	0.738	0.319	< 0.292	0.14	0.44	1.69	0.413		0.31		0.373		0.242
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	15.1	16.1	8.57	12.6	12	10.2	9.66	17.9		14.8		19.9		14
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	38.7	69	20.5	37.9	15.2	33.7	114	23.6		20.6		51.1		23.1
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	144	93.9	24.3	90.4	11.7	54.7	73600	40.5		25.2		45.8		15.7
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	1.31	0.264	0.079	0.417	0.022	0.031	0.512	0.06		0.053		0.432		0.035
Nickel	7440-02-0	mg/kg	38	7.57	11.2	5.81	4.62	7.15	5.03	14.1	10.5		10.2		18.9		10.3
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.08	0.459	0.526	0.48	1.04	1.2	2.97	0.824		0.567		< 0.528		0.85
Silver	7440-22-4	mg/kg	2	< 0.326	< 0.312	< 0.307	< 0.292	< 0.307	< 0.304	5.56	< 0.251461		< 0.302		0.535		< 0.326
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	0.602	0.594	< 1.02	< 0.972	0.881	< 1.01	2.82	< 0.838203		0.701		< 1.06		1.29
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	104	406	52	175	46.1	38.5	429	88.6		83.6		293		1150
Moisture																	
Percent Solids	SOLID	percent		86.1	92.6	92.2	94.4	93.9	94.8	87.5	80.6		96.4		89.4		90.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 774	< 719	< 723	< 705	< 710	< 703	< 762	< 805.546		< 690		< 745		< 738

			Location	I12-2010-05	I12-2011-01	I12-2012-02	I12-2012-03	I12-2184-01	I12-2287-04	I12-2341-03	I12-8101-02	I12-8581-01	I12-8581-04	I12-8581-04	I12-9111-01	I12-9111-01	I12-9111-04
			Sample Date	6/2/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	8/2/2000	9/13/2000	6/2/2000	6/2/2000	9/13/2000	9/13/2000	6/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I12-2010-051.5N	I12-2011-011.5N	I12-2012-021.5N	I12-2012-031N	I12-2184-011.5N	I12-2287-040.5N	I12-2341-031N	I12-8101-021N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9111-011N	I12-9111-010.5N	I12-9111-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 387	< 360	< 362	< 352	< 355	< 351	104	< 402		< 345		< 373		< 369
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402		< 345		< 373		< 369
2-Chloronaphthalene	91-58-7	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
2-Chlorophenol	95-57-8	ug/kg	243	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381			< 345		< 373		< 369
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 774	< 719	< 723	< 705	< 710	< 703	< 762	< 805.546		< 690		< 745		< 738
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 774	< 719	< 723	< 705	< 710	< 703	< 762	< 805.546		< 690		< 745		< 738
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
4-Nitrophenol	100-02-7	ug/kg	7000	< 774	< 719	< 723	< 705	< 710	< 703	< 762			< 690		< 745		< 738
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 387	< 360	< 362	< 352	< 355	49.5	< 381	< 402.773		42.4		< 373		73.1
Acenaphthylene	208-96-8	ug/kg	682000	773	55.4	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Anthracene	120-12-7	ug/kg	1480000	1180	< 360	< 362	80	< 355	55.5	< 381	< 402.773		98.3		< 373		259
Benzidine	92-87-5	ug/kg	1310	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	6340	119	47	340	74.5	268	109	< 402.773		117		132		1130
Benzo[a]pyrene	50-32-8	ug/kg	1520	4110	304	< 362	172	83.8	288	84.6	< 402.773		70.4		135		948
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	5370	355	83.2	555	102	529	151	< 402.773		92.8		190		1200
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	1880	207	< 362	113	< 355	285	89.2	< 402.773		< 345		95.8		535
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	2220	153	< 362	185	< 355	201	< 381	< 402.773		< 345		60.8		467
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 387	< 360	< 362	21.2	< 355	< 351	< 381	< 402.773		1190		< 373		5620
Butylbenzylphthalate	85-68-7	ug/kg	239	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		60		165
Chrysene	218-01-9	ug/kg	4730	5060	128	67.3	481	79.1	442	192	< 402.773		97		138		980
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	649	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		187
Diethylphthalate	84-66-2	ug/kg	24800	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		205		< 373		< 369
Dimethylphthalate	131-11-3	ug/kg	734000	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Di-n-butylphthalate	84-74-2	ug/kg	150	125	159	< 362	< 352	< 355	< 351	50.7	912		11000		< 373		293
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Fluoranthene	206-44-0	ug/kg	122000	9470	162	< 362	684	165	912	218	< 402.773		277		204		1980
Fluorene	86-73-7	ug/kg	122000	92.5	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		61.4		< 373		71.6
Hexachlorobenzene	118-74-1	ug/kg	199	< 387	< 360	< 362	< 352	< 355	< 351	< 381			< 345		< 373		< 369
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Hexachloroethane	67-72-1	ug/kg	596	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	2050	205	< 362	115	< 355	254	< 381	< 402.773		< 345		87.2		515
Isophorone	78-59-1	ug/kg	139000	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Naphthalene	91-20-3	ug/kg	99.4	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Nitrobenzene	98-95-3	ug/kg	1310	< 387	< 360	< 362	< 352	< 355	< 351	< 381					< 373		< 369
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 387	159	< 362	< 352	< 355	< 351	< 381	244		1190		27.6		751
Pentachlorophenol	87-86-5	ug/kg	2100	< 774	< 719	< 723	< 705	< 710	< 703	< 762	< 805.546		< 690		< 745		< 738
Phenanthrene	85-01-8	ug/kg	45700	1920	34.2	< 362	55.3	71.3	520	125	< 402.773		342		71.2		1060
Phenol	108-95-2	ug/kg	30000	< 387	< 360	< 362	< 352	< 355	< 351	< 381	< 402.773		< 345		< 373		< 369
Pyrene	129-00-0	ug/kg	78500	5580	151	< 362	552	138	753	175	< 402.773		185		201		1520
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		21100	16400	47500		27700		85700			12300				19300
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg										< 601		< 521		< 525	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127									< 601		< 521		< 525	

			Location	I12-2010-05	I12-2011-01	I12-2012-02	I12-2012-03	I12-2184-01	I12-2287-04	I12-2341-03	I12-8101-02	I12-8581-01	I12-8581-04	I12-8581-04	I12-9111-01	I12-9111-01	I12-9111-04
			Sample Date	6/2/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	6/2/2000	8/2/2000	9/13/2000	6/2/2000	6/2/2000	9/13/2000	9/13/2000	6/2/2000
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Sample ID	I12-2010-051.5N	I12-2011-011.5N	I12-2012-021.5N	I12-2012-031N	I12-2184-011.5N	I12-2287-040.5N	I12-2341-031N	I12-8101-021N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9111-011N	I12-9111-010.5N	I12-9111-041N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg										< 601		< 521		< 525	
1,1-Dichloroethane	75-34-3	ug/kg										< 601		< 521		< 525	
1,1-Dichloroethene	75-35-4	ug/kg	8280									< 601		< 521		< 525	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000									< 601		< 521		< 525	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960									< 601		< 521		< 525	
1,2-Dichloroethane	107-06-2	ug/kg										< 601		< 521		< 525	
1,2-Dichloropropane	78-87-5	ug/kg										< 601		< 521		< 525	
1,3-Dichlorobenzene	541-73-1	ug/kg	37700									< 601		< 521		< 525	
1,4-Dichlorobenzene	106-46-7	ug/kg	546									< 601		< 521		< 525	
2-Chloroethylvinylether	110-75-8	ug/kg										< 1200		< 1040		< 1050	
Acetonitrile	75-05-8	ug/kg										< 601		< 521		< 525	
Acrolein	107-02-8	ug/kg	5270									< 2400		< 2080		< 2100	
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255									< 601		< 521		< 525	
Bromodichloromethane	75-27-4	ug/kg	540									< 601		< 521		< 525	
Bromoform	75-25-2	ug/kg										< 601		< 521		< 525	
Bromomethane	74-83-9	ug/kg	235									< 1200		< 1040		< 1050	
Carbon Tetrachloride	56-23-5	ug/kg	2980									< 601		< 521		< 525	
Chlorobenzene	108-90-7	ug/kg	13100									< 601		< 521		< 525	
Chloroethane	75-00-3	ug/kg										< 1200		< 1040		< 1050	
Chloroform	67-66-3	ug/kg	1190									< 601		< 521		< 525	
Chloromethane	74-87-3	ug/kg	10400									< 1200		< 1040		< 1050	
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg										< 601		< 521		< 525	
Dibromochloromethane	124-48-1	ug/kg	2050									< 601		< 521		< 525	
Ethylbenzene	100-41-4	ug/kg	5160									< 601		< 521		< 525	
Hexachlorobutadiene	87-68-3	ug/kg	39.8									< 601		< 521		< 525	
Methylene Chloride	75-09-2	ug/kg	4050									613		< 521		567	
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920									< 601		< 521		< 525	
Toluene	108-88-3	ug/kg	200000									< 601		< 521		< 525	
trans-1,2-Dichloroethene	156-60-5	ug/kg										< 601		< 521		< 525	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400									< 601		306		< 525	
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646									< 1200		< 1040		< 1050	
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I6-8-01	I6-8-01	I6-8171C-02	I6-8171C-02	I6-8174-04	I6-8181-02	I6-E3-04
			Sample Date	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-9111-040.5N	I12-9112-030.5FD	I12-9112-030.5N	I12-9112-041FD	I12-9112-041N	I12-9120-020.5N	I12-9120-031N	I6-8-010.5N	I6-8-011N	I6-8171C-021FD	I6-8171C-021N	I6-8174-041.5N	I6-8181-021N	I6-E3-041N
			Parent ID		I12-9112-030.5N		I12-9112-041N						I6-8171C-021N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376										< 217	< 227.275		< 238.1	< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655										< 217	< 227.275		< 238.1	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000										< 217	< 227.275		< 238.1	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280										< 217				
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8										< 217	< 227			< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000										< 217	< 227.275		< 238.1	< 250
2-Nitrotoluene	88-72-2	ug/kg											< 434	< 454.55		< 476.2	< 500
3-Nitrotoluene	99-08-1	ug/kg											< 434	< 454.55		< 476.2	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000										< 217	< 227.275		< 238.1	< 250
4-Nitrotoluene	99-99-0	ug/kg											< 434	< 454.55		< 476.2	< 500
Nitrobenzene	98-95-3	ug/kg	1310										< 217	< 227.275		< 238.1	< 250
Nitrocellulose	9004-70-0	ug/kg											< 443	< 442.379		49100	80400
Nitroglycerin	55-63-0	ug/kg	65000										< 6060	< 5632.533	< 5861.664	< 6038.647	< 6211.18
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000										< 434	< 454.55		< 476.2	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000										< 434	< 454.55		< 476.2	< 500
Tetryl	479-45-8	ug/kg	25000										< 434	< 454.55		< 476.2	< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%						87.2	95.4			78.2					
Sieve Size #10 - Percent Finer	SIEVE_#010	%						71.1	81			65					
Sieve Size #100 - Percent Finer	SIEVE_#100	%						33.7	47.6			33.3					
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%						64.3	78.1			56.2					
Sieve Size #200 - Percent Finer	SIEVE_#200	%						25.7	36.6			25.2					
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%						77.4	89.5			70.7					
Sieve Size #40 - Percent Finer	SIEVE_#040	%						53.8	70.7			48.9					
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%						43.4	60.1			39.9					
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%						100	100			100					
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I6-8-01	I6-8-01	I6-8171C-02	I6-8171C-02	I6-8174-04	I6-8181-02	I6-E3-04
			Sample Date	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-9111-040.5N	I12-9112-030.5FD	I12-9112-030.5N	I12-9112-041FD	I12-9112-041N	I12-9120-020.5N	I12-9120-031N	I6-8-010.5N	I6-8-011N	I6-8171C-021FD	I6-8171C-021N	I6-8174-041.5N	I6-8181-021N	I6-E3-041N
			Parent ID		I12-9112-030.5N		I12-9112-041N						I6-8171C-021N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 0.62	< 0.625	1.75	< 3.27	< 0.566901	< 0.733						< 0.560748	
Arsenic	7440-38-2	mg/kg	9.9		11.6	15.4	19.2	18.3	3.68	3.86						8.96	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.08	0.087	0.14	0.137	0.049	0.129						1.07	
Cadmium	7440-43-9	mg/kg	0.36		0.41	0.438	< 1.63	< 1.63	< 0.283451	< 0.367						0.797	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		13	15	52	52.3	25.8	13.8						20.8	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		37.2	43.9	63.4	67.5	13.5	15.8						11.6	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		73.8	88.8	371	345	35.7	47.7						26.7	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.366	0.38	2.1	1.72	0.039	0.031						0.144	
Nickel	7440-02-0	mg/kg	38		4.17	4.93	12.9	14.4	12.3	5.87						8.78	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		0.858	0.833	< 2.72	2.95	0.527	0.439						< 0.46729	
Silver	7440-22-4	mg/kg	2		< 0.31	< 0.312	< 1.63	< 1.63	< 0.283451	< 0.367						0.356	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 1.03	< 1.04	< 5.43	< 5.44	< 0.944836	< 1.22						< 0.93458	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		58.6	80.2	127	150	18.1	15.1						168	
Moisture																	
Percent Solids	SOLID	percent			94.9	95.1	89.4	85.8	95.35	81		91.63	80.52	80.74	85.31	72.74	80.51
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
1,2-Diphenylhydrazine	122-66-7	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
2,4-Dimethylphenol	105-67-9	ug/kg	10		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9		< 702	< 700	< 746	< 775	< 698.48	< 823						< 905.796	

			Location	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I6-8-01	I6-8-01	I6-8171C-02	I6-8171C-02	I6-8174-04	I6-8181-02	I6-E3-04
			Sample Date	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-9111-040.5N	I12-9112-030.5FD	I12-9112-030.5N	I12-9112-041FD	I12-9112-041N	I12-9120-020.5N	I12-9120-031N	I6-8-010.5N	I6-8-011N	I6-8171C-021FD	I6-8171C-021N	I6-8174-041.5N	I6-8181-021N	I6-E3-041N
			Parent ID		I12-9112-030.5N		I12-9112-041N						I6-8171C-021N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280		< 351	< 350	< 373	< 388	< 349	< 412						< 452	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 351	< 350	< 373	< 388	< 349	< 412						< 452	
2-Chloronaphthalene	91-58-7	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
2-Chlorophenol	95-57-8	ug/kg	243		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg			< 351	< 350	< 373	< 388		< 412							
2-Nitrotoluene	88-72-2	ug/kg							< 349.24								
3,3-Dichlorobenzidine	91-94-1	ug/kg	646		< 702	< 700	< 746	< 775	< 698.48	< 823						< 905.796	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144		< 702	< 700	< 746	< 775	< 698.48	< 823						< 905.796	
4-Bromophenyl-phenylether	101-55-3	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
4-Chloro-3-methylphenol	59-50-7	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
4-Nitrophenol	100-02-7	ug/kg	7000		< 702	< 700	< 746	< 775		< 823							
4-Nitrotoluene	99-99-0	ug/kg							< 698.48								
Acenaphthene	83-32-9	ug/kg	20000		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Acenaphthylene	208-96-8	ug/kg	682000		160	< 350	136	140	< 349.24	< 412						< 452.898	
Anthracene	120-12-7	ug/kg	1480000		118	< 350	208	164	< 349.24	< 412						< 452.898	
Benzidine	92-87-5	ug/kg	1310		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210		997	192	688	604	33.53	< 412						< 452.898	
Benzo[a]pyrene	50-32-8	ug/kg	1520		539	159	520	502	35.62	< 412						< 452.898	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800		1320	413	854	853	< 349.24	< 412						< 452.898	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000		366	144	299	363	< 349.24	< 412						< 452.898	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000		467	114	346	348	< 349.24	< 412						< 452.898	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925		30.5	30.5	342	< 388	37.37	26.3						< 452.898	
Butylbenzylphthalate	85-68-7	ug/kg	239		< 351	< 350	< 373	< 388	< 349.24	< 412	< 1086.956					< 452.898	
Chrysene	218-01-9	ug/kg	4730		1450	298	823	786	49.59	< 412						< 452.898	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400		< 351	< 350	101	110	< 349.24	< 412						< 452.898	
Diethylphthalate	84-66-2	ug/kg	24800		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Dimethylphthalate	131-11-3	ug/kg	734000		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Di-n-butylphthalate	84-74-2	ug/kg	150		< 351	< 350	58.6	70.2	45.75	51.9						181	
Di-n-octylphthalate	117-84-0	ug/kg	7090		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Fluoranthene	206-44-0	ug/kg	122000		839	315	1610	1390	113	< 412						< 452.898	
Fluorene	86-73-7	ug/kg	122000		< 351	< 350	69.4	< 388	< 349.24	< 412						< 452.898	
Hexachlorobenzene	118-74-1	ug/kg	199		< 351	< 350	< 373	< 388	< 349.24	< 412							
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Hexachlorocyclopentadiene	77-47-4	ug/kg			< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Hexachloroethane	67-72-1	ug/kg	596		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000		362	138	304	353	< 349.24	< 412						< 452.898	
Isophorone	78-59-1	ug/kg	139000		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Naphthalene	91-20-3	ug/kg	99.4		< 351	< 350	< 373	< 388		< 412						< 452.898	
Nitrobenzene	98-95-3	ug/kg	1310		< 351	< 350	< 373	< 388	< 349.24	< 412							
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Pentachlorophenol	87-86-5	ug/kg	2100		< 702	< 700	< 746	< 775	< 698.48	< 823						< 905.796	
Phenanthrene	85-01-8	ug/kg	45700		94.4	70.8	1080	638	< 349.24	< 412						< 452.898	
Phenol	108-95-2	ug/kg	30000		< 351	< 350	< 373	< 388	< 349.24	< 412						< 452.898	
Pyrene	129-00-0	ug/kg	78500		821	256	1060	894	< 349.24	< 412						< 452.898	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg						39200	14800			44000					
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 525							< 543.4782						
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 525							< 543.4782						

			Location	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I6-8-01	I6-8-01	I6-8171C-02	I6-8171C-02	I6-8174-04	I6-8181-02	I6-E3-04
			Sample Date	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	7/14/2000	7/14/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000	6/21/2000
			Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	I12-9111-040.5N	I12-9112-030.5FD	I12-9112-030.5N	I12-9112-041FD	I12-9112-041N	I12-9120-020.5N	I12-9120-031N	I6-8-010.5N	I6-8-011N	I6-8171C-021FD	I6-8171C-021N	I6-8174-041.5N	I6-8181-021N	I6-E3-041N
			Parent ID		I12-9112-030.5N		I12-9112-041N						I6-8171C-021N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 525							< 543.4782						
1,1-Dichloroethane	75-34-3	ug/kg		< 525							< 543.4782						
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 525							< 543.4782						
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 525							< 543.4782						
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 525							< 543.4782						
1,2-Dichloroethane	107-06-2	ug/kg		< 525							< 543.4782						
1,2-Dichloropropane	78-87-5	ug/kg		< 525							< 543.4782						
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 525							< 543.4782						
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 525							< 543.4782						
2-Chloroethylvinylether	110-75-8	ug/kg		< 1050							< 1086.956						
Acetonitrile	75-05-8	ug/kg		< 525													
Acrolein	107-02-8	ug/kg	5270	< 2100							< 2173.913						
Acrylonitrile	107-13-1	ug/kg	23.9								< 543.4782						
Benzene	71-43-2	ug/kg	255	< 525							< 543.4782						
Bromodichloromethane	75-27-4	ug/kg	540	< 525							< 543.4782						
Bromoform	75-25-2	ug/kg		< 525							< 543.4782						
Bromomethane	74-83-9	ug/kg	235	< 1050													
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 525							< 543.4782						
Chlorobenzene	108-90-7	ug/kg	13100	< 525							< 543.4782						
Chloroethane	75-00-3	ug/kg		< 1050							< 1086.956						
Chloroform	67-66-3	ug/kg	1190	< 525							< 543.4782						
Chloromethane	74-87-3	ug/kg	10400	< 1050							287						
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg									< 543.4782						
Cis-1,3-Dichloropropene	10061-01-5	ug/kg		< 525													
Dibromochloromethane	124-48-1	ug/kg	2050	< 525							< 543.4782						
Ethylbenzene	100-41-4	ug/kg	5160	< 525							< 543.4782						
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 525							< 543.4782						
Methylene Chloride	75-09-2	ug/kg	4050	< 525					< 349.24		997						
Naphthalene	91-20-3	ug/kg	99.4								< 543.4782						
Tetrachloroethene	127-18-4	ug/kg	9920	< 525							< 543.4782						
Toluene	108-88-3	ug/kg	200000	< 525							< 543.4782						
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 525							< 543.4782						
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 525							< 543.4782						
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 1050							< 1086.956						
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I6-E4-01	I6-E4-01	I7-15-04	I7-15-04	I7-8181-04	I7-8181-04	I8-2170-04	I8-2170-04	I8-2299-03	I8-2328A-03	I8-2332-01	I8-2333-03	I8-2405A-01	I8-2409-04
			Sample Date	7/14/2000	7/14/2000	7/19/2000	7/19/2000	7/21/2000	7/21/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	I6-E4-011N	I6-E4-010.5N	I7-15-041.25FD	I7-15-041.25N	I7-8181-041.5N	I7-8181-040.5N	I8-2170-041FD	I8-2170-041N	I8-2299-031N	I8-2328A-031N	I8-2332-011.25N	I8-2333-031.5N	I8-2405A-011.5N	I8-2409-041N
			Parent ID			I7-15-041.25N				I8-2170-041N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 227.275		< 192	< 208			< 250	< 250	< 217	< 250	< 227		< 227	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 227.275		< 192	< 208			< 250	< 250	< 217	< 250	< 227		< 227	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 227.275		< 192	< 208			< 250	< 250	< 217	1810	< 227		< 227	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 227.275		< 192	< 208			< 250	< 250	< 217	< 250	< 227		< 227	
2-Nitrotoluene	88-72-2	ug/kg		< 454.55		< 385	< 417			< 500	< 500	< 435	< 500	< 455		< 455	
3-Nitrotoluene	99-08-1	ug/kg		< 454.55		< 385	< 417			< 500	< 500	< 435	< 500	< 455		< 455	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 227.275		< 192	< 208			< 250	< 250	< 217	< 250	< 227		< 227	
4-Nitrotoluene	99-99-0	ug/kg		< 454.55		< 385	< 417			< 500	< 500	< 435	< 500	< 455		< 455	
Nitrobenzene	98-95-3	ug/kg	1310	< 227.275		< 192	< 208			< 250	< 250	< 217	135	< 227		< 227	
Nitrocellulose	9004-70-0	ug/kg		42900		108000	114000			93900	1190000	< 40.5	14900000	< 41.2		149000	
Nitroglycerin	55-63-0	ug/kg	65000	< 5492.694		16200	29200			< 5550	4280	< 5820	< 4990	< 6110		7630	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 454.55		< 385	< 417			< 500	< 500	< 435	1640	< 455		< 455	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 454.55		< 385	< 417			< 500	< 500	< 435	< 500	< 455		< 455	
Tetryl	479-45-8	ug/kg	25000	< 454.55		< 385	< 417			< 500	< 500	< 435	< 500	< 455		< 455	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%		93													
Sieve Size #10 - Percent Finer	SIEVE_#010	%		82.1													
Sieve Size #100 - Percent Finer	SIEVE_#100	%		41.3													
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%		70.8													
Sieve Size #200 - Percent Finer	SIEVE_#200	%		35.1													
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%		87.8													
Sieve Size #40 - Percent Finer	SIEVE_#040	%		58.4													
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%		48.2													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%		100													
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I6-E4-01	I6-E4-01	I7-15-04	I7-15-04	I7-8181-04	I7-8181-04	I8-2170-04	I8-2170-04	I8-2299-03	I8-2328A-03	I8-2332-01	I8-2333-03	I8-2405A-01	I8-2409-04
			Sample Date	7/14/2000	7/14/2000	7/19/2000	7/19/2000	7/21/2000	7/21/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	I6-E4-011N	I6-E4-010.5N	I7-15-041.25FD	I7-15-041.25N	I7-8181-041.5N	I7-8181-040.5N	I8-2170-041FD	I8-2170-041N	I8-2299-031N	I8-2328A-031N	I8-2332-011.25N	I8-2333-031.5N	I8-2405A-011.5N	I8-2409-041N
			Parent ID			I7-15-041.25N				I8-2170-041N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.639926		< 0.458	< 0.512	< 0.504		< 0.612	< 0.684	< 0.612	< 0.646	< 0.643	< 0.646	< 0.508	< 0.542
Arsenic	7440-38-2	mg/kg	9.9	4.08		6.08	4.11	3.55		8.87	19.1	4.52	6.46	3.56	6.03	3.46	3.58
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.53		0.702	0.58	0.6		0.57	0.555	0.741	0.466	0.655	0.973	0.634	0.599
Cadmium	7440-43-9	mg/kg	0.36	0.314		0.674	0.626	0.702		0.771	0.813	0.665	0.541	0.622	0.875	0.687	0.505
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	12.2		67	19	26.7		15	15.3	21.5	51.1	14	32.5	14.6	13.4
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.3		15.5	12.9	20.2		21.8	24.5	32	34	15	63	21.3	13.6
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	10.3		20.7	13.7	14.2		63.5	61.2	9.43	12.6	10.4	12.1	6.64	5.86
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.031		0.045	0.046	0.158		0.14	0.176	0.057	0.197	0.028	0.068	0.04	0.018
Nickel	7440-02-0	mg/kg	38	6.59		28.7	6.38	8.61		9.06	10.8	11.9	10.7	8.62	16.6	8.89	7.57
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.12		0.707	1.01	0.796		1.41	1.74	0.635	0.652	0.965	1.16	0.588	0.762
Silver	7440-22-4	mg/kg	2	< 0.319963		< 0.229	< 0.256	< 0.252		< 0.306	< 0.342	< 0.306	< 0.323	< 0.322	< 0.323	< 0.254	< 0.271
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.066543		< 0.764	< 0.853	< 0.84		< 1.02	< 1.14	< 1.02	< 1.08	< 1.07	< 1.08	< 0.846	< 0.903
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	56.2		115	96.5	178		150	160	63.2	101	61	57	218	53.9
Moisture																	
Percent Solids	SOLID	percent		91.04		90.3	90.2	86.9		83.8	81.3	86	91.1	81.8	86	88.2	89.3
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 731.626		< 738	< 739	< 762		< 793	< 821	< 776	< 7320	< 815	< 775	< 754	< 747

			Location	I6-E4-01	I6-E4-01	I7-15-04	I7-15-04	I7-8181-04	I7-8181-04	I8-2170-04	I8-2170-04	I8-2299-03	I8-2328A-03	I8-2332-01	I8-2333-03	I8-2405A-01	I8-2409-04
			Sample Date	7/14/2000	7/14/2000	7/19/2000	7/19/2000	7/21/2000	7/21/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	I6-E4-011N	I6-E4-010.5N	I7-15-041.25FD	I7-15-041.25N	I7-8181-041.5N	I7-8181-040.5N	I8-2170-041FD	I8-2170-041N	I8-2299-031N	I8-2328A-031N	I8-2332-011.25N	I8-2333-031.5N	I8-2405A-011.5N	I8-2409-041N
			Parent ID			I7-15-041.25N				I8-2170-041N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 366		205	275	430		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 366		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2-Chloronaphthalene	91-58-7	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2-Chlorophenol	95-57-8	ug/kg	243	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 731.626		< 738	< 739	< 762		< 793	< 821	< 776	< 7320	< 815	< 775	< 754	< 747
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 731.626		< 738	< 739	< 762		< 793	< 821	< 776	< 7320	< 815	< 775	< 754	< 747
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
4-Nitrophenol	100-02-7	ug/kg	7000			< 738	< 739	< 762		< 793	< 821	< 776	< 7320	< 815	< 775	< 754	< 747
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 365.813		77.2	58.8	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Acenaphthylene	208-96-8	ug/kg	682000	< 365.813		261	225	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Anthracene	120-12-7	ug/kg	1480000	< 365.813		343	302	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Benzidine	92-87-5	ug/kg	1310	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	37.31		1620	1410	< 381		97.6	104	< 388	< 3660	< 407	< 388	< 377	< 373
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 365.813		1660	1350	< 381		93.6	103	< 388	< 3660	< 407	< 388	< 377	< 373
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 365.813		2480	1980	< 381		154	181	< 388	< 3660	< 407	< 388	< 377	< 373
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 365.813		941	741	< 381		90.8	85.7	< 388	< 3660	< 407	< 388	< 377	< 373
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 365.813		797	746	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	30.36		< 369	< 370	32		< 397	< 410	25.6	626	22.4	< 388	30.9	< 373
Butylbenzylphthalate	85-68-7	ug/kg	239	< 365.813	< 1106	< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Chrysene	218-01-9	ug/kg	4730	< 365.813		2130	1670	< 381		202	207	< 388	< 3660	< 407	< 388	< 377	< 373
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 365.813		313	261	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Diethylphthalate	84-66-2	ug/kg	24800	< 365.813		< 369	< 370	< 381		655	417	< 388	3780	< 407	< 388	< 377	< 373
Dimethylphthalate	131-11-3	ug/kg	734000	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Di-n-butylphthalate	84-74-2	ug/kg	150	< 365.813		146	135	235		< 397	< 410	< 388	4450	< 407	64	55.8	< 373
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Fluoranthene	206-44-0	ug/kg	122000	< 365.813		3100	2930	< 381		139	213	< 388	< 3660	< 407	< 388	< 377	< 373
Fluorene	86-73-7	ug/kg	122000	< 365.813		415	323	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Hexachlorobenzene	118-74-1	ug/kg	199			< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Hexachloroethane	67-72-1	ug/kg	596	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 365.813		974	751	< 381		73.4	71	< 388	< 3660	< 407	< 388	< 377	< 373
Isophorone	78-59-1	ug/kg	139000	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Naphthalene	91-20-3	ug/kg	99.4	< 365.813		49.1	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Nitrobenzene	98-95-3	ug/kg	1310					< 381							< 388		< 373
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 365.813		195	257	129		50.4	30.8	69.8	2200	< 407	1070	385	< 373
Pentachlorophenol	87-86-5	ug/kg	2100	< 731.626		< 738	< 739	< 762		< 793	< 821	< 776	< 7320	< 815	< 775	< 754	< 747
Phenanthrene	85-01-8	ug/kg	45700	< 365.813		2710	2460	< 381		115	139	< 388	< 3660	< 407	< 388	< 377	< 373
Phenol	108-95-2	ug/kg	30000	< 365.813		< 369	< 370	< 381		< 397	< 410	< 388	< 3660	< 407	< 388	< 377	< 373
Pyrene	129-00-0	ug/kg	78500	< 365.813		3500	3010	< 381		248	277	< 388	< 3660	< 407	< 388	< 377	< 373
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		14200													
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg			< 553.0973				< 613								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127		< 553.0973				< 613								

			Location	I6-E4-01	I6-E4-01	I7-15-04	I7-15-04	I7-8181-04	I7-8181-04	I8-2170-04	I8-2170-04	I8-2299-03	I8-2328A-03	I8-2332-01	I8-2333-03	I8-2405A-01	I8-2409-04
			Sample Date	7/14/2000	7/14/2000	7/19/2000	7/19/2000	7/21/2000	7/21/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	I6-E4-011N	I6-E4-010.5N	I7-15-041.25FD	I7-15-041.25N	I7-8181-041.5N	I7-8181-040.5N	I8-2170-041FD	I8-2170-041N	I8-2299-031N	I8-2328A-031N	I8-2332-011.25N	I8-2333-031.5N	I8-2405A-011.5N	I8-2409-041N
			Parent ID			I7-15-041.25N				I8-2170-041N							
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg			< 553.0973				< 613								
1,1-Dichloroethane	75-34-3	ug/kg			< 553.0973				< 613								
1,1-Dichloroethene	75-35-4	ug/kg	8280		< 553.0973				< 613								
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000		< 553				< 613								
1,2-Dichlorobenzene	95-50-1	ug/kg	2960		< 553.0973				< 613								
1,2-Dichloroethane	107-06-2	ug/kg			< 553.0973												
1,2-Dichloropropane	78-87-5	ug/kg			< 553.0973				< 613								
1,3-Dichlorobenzene	541-73-1	ug/kg	37700		< 553				< 613								
1,4-Dichlorobenzene	106-46-7	ug/kg	546		< 553				< 613								
2-Chloroethylvinylether	110-75-8	ug/kg			< 1106.194				< 1230								
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270		< 2212.389				< 2450								
Acrylonitrile	107-13-1	ug/kg	23.9		< 553.0973				< 6130								
Benzene	71-43-2	ug/kg	255		< 553.0973				< 613								
Bromodichloromethane	75-27-4	ug/kg	540		< 553.0973				< 613								
Bromoform	75-25-2	ug/kg			< 553.0973				< 613								
Bromomethane	74-83-9	ug/kg	235						< 1230								
Carbon Tetrachloride	56-23-5	ug/kg	2980		< 553.0973				< 613								
Chlorobenzene	108-90-7	ug/kg	13100		< 553.0973				< 613								
Chloroethane	75-00-3	ug/kg			< 1106.194				< 1230								
Chloroform	67-66-3	ug/kg	1190		< 553.0973				< 613								
Chloromethane	74-87-3	ug/kg	10400		252				< 1230								
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg			< 553.0973												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg							< 613								
Dibromochloromethane	124-48-1	ug/kg	2050		< 553.0973				< 613								
Ethylbenzene	100-41-4	ug/kg	5160		< 553.0973				< 613								
Hexachlorobutadiene	87-68-3	ug/kg	39.8		< 553				< 613								
Methylene Chloride	75-09-2	ug/kg	4050		905				< 2450								
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920		< 553.0973				< 613								
Toluene	108-88-3	ug/kg	200000		< 553.0973				< 613								
trans-1,2-Dichloroethene	156-60-5	ug/kg			< 553.0973				< 613								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400		< 553.0973				< 613								
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646		< 1106.194												
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	I8-525-04	I8-560-01	I8-9334-02	I9-2-02	I9-5-05	I9-516-02	I9-519-03	I9-520-05	I9-523-05	J10-6-01	J10-609-01	J10-609-01	J11-1-08	J11-1-08
			Sample Date	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/20/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	8/2/2000	8/2/2000	8/1/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	I8-525-041N	I8-560-011N	I8-9334-021N	I9-2-021.5N	I9-5-051.5N	I9-516-021N	I9-519-030.5N	I9-520-051.5N	I9-523-051N	J10-6-011.25N	J10-609-011.5FD	J10-609-011.5N	J11-1-081N	J11-1-080.5N
			Parent ID											J10-609-011.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 227	< 250	< 238		< 238	< 200	< 217	< 238	< 238	< 217				
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 227	< 250	< 238		< 238	< 200	< 217	< 238	< 238	< 217				
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 227	< 250	< 238		< 238	< 200	< 217	< 238	119	< 217				
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8					< 238									
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 227	< 250	< 238		< 238	< 200	< 217	< 238	< 238	< 217				
2-Nitrotoluene	88-72-2	ug/kg		< 455	< 500	< 476		< 476	< 400	< 435	< 476	< 476	< 435				
3-Nitrotoluene	99-08-1	ug/kg		< 455	< 500	< 476		< 476	< 400	< 435	< 476	< 476	< 435				
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 227	< 250	< 238		< 238	< 200	< 217	< 238	< 238	< 217				
4-Nitrotoluene	99-99-0	ug/kg		< 455	< 500	< 476		< 476	< 400	< 435	< 476	< 476	< 435				
Nitrobenzene	98-95-3	ug/kg	1310	< 227	< 250	< 238		< 238	< 200	< 217	< 238	< 238	< 217				
Nitrocellulose	9004-70-0	ug/kg		1170000	145000	1030000		210000	43400	58200	148000	417000	49300				
Nitroglycerin	55-63-0	ug/kg	65000	< 5600	< 6220	39100		2380	< 5810	< 5730	< 6000	23400	< 5650				
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 455	< 500	< 476		< 476	< 400	< 435	< 476	< 476	< 435				
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 455	< 500	< 476		< 476	< 400	< 435	< 476	< 476	< 435				
Tetryl	479-45-8	ug/kg	25000	< 455	< 500	< 476		< 476	< 400	< 435	< 476	< 476	< 435				
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%											4				
Gravel	Gravel	%											25.4				
Sand	Sand	%											30.9				
Silt	Silt	%											39.8				
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I8-525-04	I8-560-01	I8-9334-02	I9-2-02	I9-5-05	I9-516-02	I9-519-03	I9-520-05	I9-523-05	J10-6-01	J10-609-01	J10-609-01	J11-1-08	J11-1-08
			Sample Date	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/20/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	8/2/2000	8/2/2000	8/1/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	I8-525-041N	I8-560-011N	I8-9334-021N	I9-2-021.5N	I9-5-051.5N	I9-516-021N	I9-519-030.5N	I9-520-051.5N	I9-523-051N	J10-6-011.25N	J10-609-011.5FD	J10-609-011.5N	J11-1-081N	J11-1-080.5N
			Parent ID											J10-609-011.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.534	< 0.632	< 0.469	< 0.654		< 0.671	< 0.678	< 0.673	< 0.619		< 0.688	0.436		
Arsenic	7440-38-2	mg/kg	9.9	7.39	6.96	8.03	9.52		4.26	6.96	11.5	10.9		6.78	4.72		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.554	0.781	0.433	0.88		0.685	0.633	0.761	0.499		0.71	0.807		
Cadmium	7440-43-9	mg/kg	0.36	0.632	0.608	0.516	0.766		0.741	0.482	0.276	0.264		0.533	0.437		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	14.7	17.6	21.4	21.7		16.9	17.2	22.1	34		35.8	19.6		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	53.2	16.9	24	21.5		17.2	37.2	23.9	47		20.4	10		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	72.7	46.4	22.4	37		34.9	1370	156	58.1		77.9	20.6		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.039	0.173	0.064	0.097		0.068	0.135	0.144	0.101		0.151	0.122		
Nickel	7440-02-0	mg/kg	38	7.45	9.95	9.4	11.2		11.5	11	13.6	12.7		48.7	11.2		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.03	1.7	0.435	1.42		1.24	1.4	1.74	1.07		0.717	0.536		
Silver	7440-22-4	mg/kg	2	< 0.267	< 0.316	< 0.234	< 0.327		< 0.335	< 0.339	< 0.336	< 0.31		< 0.344	< 0.378472		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 0.889	< 1.05	< 0.782	< 1.09		< 1.12	< 1.13	< 1.12	< 1.03		< 1.147	< 1.261575		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	97.4	88.3	74.2	76.4		59.8	243	93.7	115		90.2	75.1		
Moisture																	
Percent Solids	SOLID	percent		89.3	80.4	92	79.1	92.5	86	85.1	83.4	89.7	85.3	70.3	72.1	78.7	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 745	< 829	< 7220	< 843		< 775	< 784	< 800	< 743	< 78	< 941	< 925.154	< 846.668	

			Location	I8-525-04	I8-560-01	I8-9334-02	I9-2-02	I9-5-05	I9-516-02	I9-519-03	I9-520-05	I9-523-05	J10-6-01	J10-609-01	J10-609-01	J11-1-08	J11-1-08
			Sample Date	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/20/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	8/2/2000	8/2/2000	8/1/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	I8-525-041N	I8-560-011N	I8-9334-021N	I9-2-021.5N	I9-5-051.5N	I9-516-021N	I9-519-030.5N	I9-520-051.5N	I9-523-051N	J10-6-011.25N	J10-609-011.5FD	J10-609-011.5N	J11-1-081N	J11-1-080.5N
			Parent ID											J10-609-011.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	146	< 390	< 470	< 462	< 423	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 390	< 470	< 462	< 423	
2-Chloronaphthalene	91-58-7	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
2-Chlorophenol	95-57-8	ug/kg	243	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39				
2-Nitrotoluene	88-72-2	ug/kg												< 470	< 462.577	< 423.334	
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 745	< 829	< 7220	< 843		< 775	< 784	< 800	< 743	< 78	< 941	< 925.154	< 846.668	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 745	< 829	< 7220	< 843		< 775	< 784	< 800	< 743	< 78	< 941	< 925.154	< 846.668	
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
4-Nitrophenol	100-02-7	ug/kg	7000	< 745	< 829	< 7220	< 843		< 775	< 784	< 800	< 743	< 78				
4-Nitrotoluene	99-99-0	ug/kg												< 941	< 925.154	< 846.668	
Acenaphthene	83-32-9	ug/kg	20000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Acenaphthylene	208-96-8	ug/kg	682000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Anthracene	120-12-7	ug/kg	1480000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Benzidine	92-87-5	ug/kg	1310	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	153	359	< 3610	72.9		< 388	< 392	64.4	< 372	120	1250	133	< 423.334	
Benzo[a]pyrene	50-32-8	ug/kg	1520	185	258	< 3610	62		< 388	< 392	< 400	< 372	100	1600	131	< 423.334	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	350	389	< 3610	116		< 388	< 392	118	< 372	140	1590	191	< 423.334	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	105	189	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	847	102	< 423.334	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	131	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	392	81	< 423.334	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	54.4	21.6	184	34.6		33.7	21.2	< 400	59.1	< 39	< 470	< 462.577	30.1	
Butylbenzylphthalate	85-68-7	ug/kg	239	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	< 954
Chrysene	218-01-9	ug/kg	4730	172	703	< 3610	90.6		< 388	< 392	97	< 372	100	2010	174	< 423.334	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 372	170	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	831	< 462.577	< 423.334	
Diethylphthalate	84-66-2	ug/kg	24800	1060	208	< 3610	< 421		< 388	< 392	< 400	143	< 39	< 470	< 462.577	< 423.334	
Dimethylphthalate	131-11-3	ug/kg	734000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Di-n-butylphthalate	84-74-2	ug/kg	150	< 372	121	902	55.6		54.3	< 392	< 400	< 372	< 39	184	147	623	
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Fluoranthene	206-44-0	ug/kg	122000	184	174	< 3610	< 421		< 388	< 392	149	< 372	240	404	370	< 423.334	
Fluorene	86-73-7	ug/kg	122000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Hexachlorobenzene	118-74-1	ug/kg	199	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39				
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Hexachloroethane	67-72-1	ug/kg	596	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	109	121	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	650	88	< 423.334	
Isophorone	78-59-1	ug/kg	139000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Naphthalene	91-20-3	ug/kg	99.4	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Nitrobenzene	98-95-3	ug/kg	1310				< 421							< 470	< 462.577	< 423.334	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	65.5	< 414	1840	< 421		< 388	38	25.2	172	< 39	< 470	< 462.577	141	
Pentachlorophenol	87-86-5	ug/kg	2100	< 745	< 829	< 7220	< 843		< 775	< 784	< 800	< 743	< 78	< 941	< 925.154	< 846.668	
Phenanthrene	85-01-8	ug/kg	45700	< 372	121	< 3610	57.7		< 388	< 392	65.6	< 372	56	240	201	< 423.334	
Phenol	108-95-2	ug/kg	30000	< 372	< 414	< 3610	< 421		< 388	< 392	< 400	< 372	< 39	< 470	< 462.577	< 423.334	
Pyrene	129-00-0	ug/kg	78500	242	214	< 3610	113		< 388	< 392	< 400	< 372	160	425	335	< 423.334	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg											25200				
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															< 477.0992
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														< 477.0992

			Location	I8-525-04	I8-560-01	I8-9334-02	I9-2-02	I9-5-05	I9-516-02	I9-519-03	I9-520-05	I9-523-05	J10-6-01	J10-609-01	J10-609-01	J11-1-08	J11-1-08
			Sample Date	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/20/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	7/19/2000	8/2/2000	8/2/2000	8/1/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft
			Sample ID	I8-525-041N	I8-560-011N	I8-9334-021N	I9-2-021.5N	I9-5-051.5N	I9-516-021N	I9-519-030.5N	I9-520-051.5N	I9-523-051N	J10-6-011.25N	J10-609-011.5FD	J10-609-011.5N	J11-1-081N	J11-1-080.5N
			Parent ID											J10-609-011.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															< 477.0992
1,1-Dichloroethane	75-34-3	ug/kg															< 477.0992
1,1-Dichloroethene	75-35-4	ug/kg	8280														< 477.0992
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														< 477
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														< 477
1,2-Dichloroethane	107-06-2	ug/kg															< 477.0992
1,2-Dichloropropane	78-87-5	ug/kg															< 477.0992
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														< 477
1,4-Dichlorobenzene	106-46-7	ug/kg	546														< 477
2-Chloroethylvinylether	110-75-8	ug/kg															< 954.1985
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														< 1908.397
Acrylonitrile	107-13-1	ug/kg	23.9														< 4770.992
Benzene	71-43-2	ug/kg	255														< 477.0992
Bromodichloromethane	75-27-4	ug/kg	540														< 477.0992
Bromoform	75-25-2	ug/kg															< 477.0992
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														< 477.0992
Chlorobenzene	108-90-7	ug/kg	13100														< 477.0992
Chloroethane	75-00-3	ug/kg															< 954.1985
Chloroform	67-66-3	ug/kg	1190														< 477.0992
Chloromethane	74-87-3	ug/kg	10400														< 954.1985
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															< 477.0992
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														< 477.0992
Ethylbenzene	100-41-4	ug/kg	5160														< 477.0992
Hexachlorobutadiene	87-68-3	ug/kg	39.8														< 477
Methylene Chloride	75-09-2	ug/kg	4050														< 1908.397
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														< 477.0992
Toluene	108-88-3	ug/kg	200000														< 477.0992
trans-1,2-Dichloroethene	156-60-5	ug/kg															< 477.0992
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														< 477.0992
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														< 954.1985
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-B83-03	J12-2-02	J6-1-01	J6-2245-03	J6-9200-01	J7-2246-02	J7-2246-02	J7-241-04	J7-8240-01	J7-8281-01
			Sample Date	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	J11-1-120.5FD	J11-1-120.5N	J11-1-161N	J11-1-160.5N	J11-B83-030.75N	J12-2-021N	J6-1-011.5N	J6-2245-031N	J6-9200-011N	J7-2246-021.5FD	J7-2246-021.5N	J7-241-041.25N	J7-8240-011N	J7-8281-010.5N
			Parent ID	J11-1-120.5N									J7-2246-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376					< 238	< 227.275	< 250	< 250	< 248			< 238		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655					< 238	< 227.275	< 250	< 250	< 248			< 238		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000					< 238	< 227.275	< 250	< 250	< 248			154		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8												< 238		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000					< 238	< 227.275	< 250	< 250	< 248			< 238		
2-Nitrotoluene	88-72-2	ug/kg						< 476	< 454.55	< 500	< 500	< 495			< 476		
3-Nitrotoluene	99-08-1	ug/kg						< 476	< 454.55	< 500	< 500	< 495			< 476		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000					< 238	< 227.275	< 250	< 250	< 248			< 238		
4-Nitrotoluene	99-99-0	ug/kg						< 476	< 454.55	< 500	< 500	< 495			< 476		
Nitrobenzene	98-95-3	ug/kg	1310					134	< 227.275	< 250	< 250	< 248			< 238		
Nitrocellulose	9004-70-0	ug/kg						304000	< 42266.36	< 34.9	< 34.3	69400			369000		
Nitroglycerin	55-63-0	ug/kg	65000					< 6640	< 5734.471	< 5120	< 5280	< 6250			41300		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000					< 476	< 454.55	< 500	< 500	< 495			< 476		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000					< 476	< 454.55	< 500	< 500	< 495			< 476		
Tetryl	479-45-8	ug/kg	25000					< 476	< 454.55	< 500	< 500	< 495			< 476		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-B83-03	J12-2-02	J6-1-01	J6-2245-03	J6-9200-01	J7-2246-02	J7-2246-02	J7-241-04	J7-8240-01	J7-8281-01
			Sample Date	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	J11-1-120.5FD	J11-1-120.5N	J11-1-161N	J11-1-160.5N	J11-B83-030.75N	J12-2-021N	J6-1-011.5N	J6-2245-031N	J6-9200-011N	J7-2246-021.5FD	J7-2246-021.5N	J7-241-041.25N	J7-8240-011N	J7-8281-010.5N
			Parent ID	J11-1-120.5N									J7-2246-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27					< 0.766	< 0.478506	< 0.577	< 0.571	< 0.588	< 0.604	< 0.483		0.625	0.374
Arsenic	7440-38-2	mg/kg	9.9					8.93	3.95	4.51	3.18	4.76	7.1	10.5		6.91	18.3
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10					0.337	0.277	0.635	0.553	0.842	0.594	0.524		0.619	1.3
Cadmium	7440-43-9	mg/kg	0.36					< 0.383	0.367	0.506	0.4	1	0.705	0.735		1.41	1.05
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4					21	18.5	14.3	21.8	14.6	20	18.8		17.8	21.7
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4					28.7	15.8	13.2	13.9	15.8	13.9	15.2		19.7	32.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11					121	10.1	14.4	6.46	59.4	11.4	17.4		155	74
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1					0.149	< 0.038413	0.068	0.047	0.352	0.092	0.101		0.1	0.249
Nickel	7440-02-0	mg/kg	38					11.4	8.96	9.14	8.39	9.88	10.1	8.43		10.9	11.5
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52					1.4	0.428	0.993	0.444	1.7	0.772	0.94		0.878	1.25
Silver	7440-22-4	mg/kg	2					< 0.383	< 0.239253	< 0.288	< 0.286	< 0.294	< 0.302	< 0.242		< 0.291	0.255
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1					< 1.28	< 0.797509	< 0.962	< 0.952	< 0.98	< 1.01	< 0.806		< 0.97	< 1.03
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5					82.2	47.9	88.4	107	106	92.4	71.1		323	179
Moisture																	
Percent Solids	SOLID	percent				73.6		75.3	83	90.9	92.3	71.1	87.2	88.7	82.4	84.5	74.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 906.166		< 885	< 776.93	< 733	< 722	< 937	< 762	< 747		< 787	< 895

			Location	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-B83-03	J12-2-02	J6-1-01	J6-2245-03	J6-9200-01	J7-2246-02	J7-2246-02	J7-241-04	J7-8240-01	J7-8281-01
			Sample Date	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	J11-1-120.5FD	J11-1-120.5N	J11-1-161N	J11-1-160.5N	J11-B83-030.75N	J12-2-021N	J6-1-011.5N	J6-2245-031N	J6-9200-011N	J7-2246-021.5FD	J7-2246-021.5N	J7-241-041.25N	J7-8240-011N	J7-8281-010.5N
			Parent ID	J11-1-120.5N									J7-2246-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 453		< 443	< 388	< 366	< 361	< 469	< 381	< 374		< 393	264
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 453		< 443	< 388	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2-Chloronaphthalene	91-58-7	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2-Chlorophenol	95-57-8	ug/kg	243			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg						< 443		< 366	< 361	< 469	< 381	< 374		< 393	< 448
2-Nitrotoluene	88-72-2	ug/kg				< 453.083											
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 906.166		< 885	< 776.93	< 733	< 722	< 937	< 762	< 747		< 787	< 895
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 906.166		< 885	< 776.93	< 733	< 722	< 937	< 762	< 747		< 787	< 895
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
4-Nitrophenol	100-02-7	ug/kg	7000					< 885		< 733	< 722	< 937	< 762	< 747		< 787	< 895
4-Nitrotoluene	99-99-0	ug/kg				< 906.166											
Acenaphthene	83-32-9	ug/kg	20000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Acenaphthylene	208-96-8	ug/kg	682000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Anthracene	120-12-7	ug/kg	1480000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Benzidine	92-87-5	ug/kg	1310			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			< 453.083		77	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	66.7
Benzo[a]pyrene	50-32-8	ug/kg	1520			< 453.083		54.4	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	69
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			< 453.083		173	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	159
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			29		29.2	< 388.465	< 366	< 361	55.8	22.1	< 374		34.6	39.4
Butylbenzylphthalate	85-68-7	ug/kg	239	< 1290	< 1320	< 453.083	< 977	< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Chrysene	218-01-9	ug/kg	4730			< 453.083		138	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	90
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Diethylphthalate	84-66-2	ug/kg	24800			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Dimethylphthalate	131-11-3	ug/kg	734000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Di-n-butylphthalate	84-74-2	ug/kg	150			332		69.5	< 388.465	< 366	< 361	< 469	67.8	173		71.6	831
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Fluoranthene	206-44-0	ug/kg	122000			< 453.083		204	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	131
Fluorene	86-73-7	ug/kg	122000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Hexachlorobenzene	118-74-1	ug/kg	199					< 443		< 366	< 361	< 469	< 381	< 374		< 393	< 448
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Hexachloroethane	67-72-1	ug/kg	596			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Isophorone	78-59-1	ug/kg	139000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Naphthalene	91-20-3	ug/kg	99.4			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Nitrobenzene	98-95-3	ug/kg	1310			< 453.083							< 381	< 374		< 393	< 448
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		210	357
Pentachlorophenol	87-86-5	ug/kg	2100			< 906.166		< 885	< 776.93	< 733	< 722	< 937	< 762	< 747		< 787	< 895
Phenanthrene	85-01-8	ug/kg	45700			< 453.083		104	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Phenol	108-95-2	ug/kg	30000			< 453.083		< 443	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	< 448
Pyrene	129-00-0	ug/kg	78500			< 453.083		178	< 388.465	< 366	< 361	< 469	< 381	< 374		< 393	146
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 644	< 657.8947		< 488.2812										
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 644	< 657.8947		< 488.2812										

			Location	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-B83-03	J12-2-02	J6-1-01	J6-2245-03	J6-9200-01	J7-2246-02	J7-2246-02	J7-241-04	J7-8240-01	J7-8281-01
			Sample Date	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000	7/20/2000
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	J11-1-120.5FD	J11-1-120.5N	J11-1-161N	J11-1-160.5N	J11-B83-030.75N	J12-2-021N	J6-1-011.5N	J6-2245-031N	J6-9200-011N	J7-2246-021.5FD	J7-2246-021.5N	J7-241-041.25N	J7-8240-011N	J7-8281-010.5N
			Parent ID	J11-1-120.5N									J7-2246-021.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 644	< 657.8947		< 488.2812										
1,1-Dichloroethane	75-34-3	ug/kg		< 644	< 657.8947		< 488.2812										
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 644	< 657.8947		< 488.2812										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	213	< 658		< 488										
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 644	< 658		< 488										
1,2-Dichloroethane	107-06-2	ug/kg		< 644	< 657.8947		< 488.2812										
1,2-Dichloropropane	78-87-5	ug/kg		< 644	< 657.8947		< 488.2812										
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 644	< 658		< 488										
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 644	< 658		< 488										
2-Chloroethylvinylether	110-75-8	ug/kg		< 1290	< 1315.789		< 976.5625										
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 2580	< 2631.579		< 1953.125										
Acrylonitrile	107-13-1	ug/kg	23.9	< 6440	< 6578.947		< 4882.812										
Benzene	71-43-2	ug/kg	255	< 644	< 657.8947		< 488.2812										
Bromodichloromethane	75-27-4	ug/kg	540	< 644	< 657.8947		< 488.2812										
Bromoform	75-25-2	ug/kg		< 644	< 657.8947		< 488.2812										
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 644	< 657.8947		< 488.2812										
Chlorobenzene	108-90-7	ug/kg	13100	< 644	< 657.8947		< 488.2812										
Chloroethane	75-00-3	ug/kg		< 1290	< 1315.789		< 976.5625										
Chloroform	67-66-3	ug/kg	1190	< 644	< 657.8947		< 488.2812										
Chloromethane	74-87-3	ug/kg	10400	< 1290	< 1315.789		< 976.5625										
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg		< 644	< 657.8947		< 488.2812										
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050	< 644	< 657.8947		< 488.2812										
Ethylbenzene	100-41-4	ug/kg	5160	< 644	< 657.8947		< 488.2812										
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 644	< 658		< 488										
Methylene Chloride	75-09-2	ug/kg	4050	< 2577.319	< 2631.579		< 1953.125										
Naphthalene	91-20-3	ug/kg	99.4	586													
Tetrachloroethene	127-18-4	ug/kg	9920	< 644	< 657.8947		< 488.2812										
Toluene	108-88-3	ug/kg	200000	388	243		237										
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 644	< 657.8947		< 488.2812										
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400	< 644	< 657.8947		< 488.2812										
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646	< 1290	< 1315.789		< 976.5625										
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	J8-1-02	J8-2354A-03	J9-2111-04	J9-6-01	K10-602B-02	K10-79A-03	K11-2301-02	K6-529-01	K8-393-01	K8-9207-04	K8-9207-04	K8-9212A-04	K8-9212A-04	K9-1-01
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/25/2000	8/1/2000	8/1/2000	8/1/2000	7/7/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-1-021N	J8-2354A-030.5N	J9-2111-041N	J9-6-011N	K10-602B-020.5N	K10-79A-031.5N	K11-2301-021N	K6-529-011.5N	K8-393-011N	K8-9207-041.5N835	K8-9207-041.5N900	K8-9212A-041FD	K8-9212A-041N	K9-1-011N
			Parent ID												K8-9212A-041N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 227	< 200	< 200	< 238	< 227			< 485.425	< 250	< 250				< 250
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 227	< 200	< 200	< 238	< 227			< 485.425	< 250	< 250				< 250
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 227	< 200	280	< 238	< 227			< 485.425	< 250	4140				< 250
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 227	< 200	< 200	< 238	< 227					< 250				
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 227	< 200	< 200	< 238	< 227			< 485.425	< 250	844				< 250
2-Nitrotoluene	88-72-2	ug/kg		< 455	< 400	< 400	< 476	< 455			< 970.85	< 500	< 500				< 500
3-Nitrotoluene	99-08-1	ug/kg		< 455	< 400	< 400	< 476	< 455			< 970.85	< 500	< 500				< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 227	< 200	< 200	< 238	< 227			< 485.425	< 250	533				< 250
4-Nitrotoluene	99-99-0	ug/kg		< 455	< 400	< 400	< 476	< 455			< 970.85	< 500	< 500				< 500
Nitrobenzene	98-95-3	ug/kg	1310	< 227	< 200	< 200	< 238	< 227			< 485.425	< 250	< 250				< 250
Nitrocellulose	9004-70-0	ug/kg		< 49.3	< 37.1	942000	195000	140000			51300	< 38.4	165000				< 43.7
Nitroglycerin	55-63-0	ug/kg	65000	< 7050	< 5090	42700	11800	< 6710			< 378	< 4960	13900				< 6090
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 455	< 400	< 400	< 476	< 455			< 970.85	< 500	< 500				< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 455	< 400	< 400	< 476	< 455			< 970.85	< 500	< 500				< 500
Tetryl	479-45-8	ug/kg	25000	< 455	< 400	< 400	< 476	< 455			< 970.85	< 500	< 500				< 500
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	J8-1-02	J8-2354A-03	J9-2111-04	J9-6-01	K10-602B-02	K10-79A-03	K11-2301-02	K6-529-01	K8-393-01	K8-9207-04	K8-9207-04	K8-9212A-04	K8-9212A-04	K9-1-01
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/25/2000	8/1/2000	8/1/2000	8/1/2000	7/7/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-1-021N	J8-2354A-030.5N	J9-2111-041N	J9-6-011N	K10-602B-020.5N	K10-79A-031.5N	K11-2301-021N	K6-529-011.5N	K8-393-011N	K8-9207-041.5N835	K8-9207-041.5N900	K8-9212A-041FD	K8-9212A-041N	K9-1-011N
			Parent ID												K8-9212A-041N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27						< 0.776	0.598	0.658	< 0.519			< 0.737	< 0.771	< 0.734
Arsenic	7440-38-2	mg/kg	9.9						11.1	9.5	3.71	4.15			15.1	14.4	7.4
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10						0.7	0.247	0.379	0.777			0.658	0.573	0.538
Cadmium	7440-43-9	mg/kg	0.36						< 0.388	< 0.411	0.577	0.846			0.774	0.691	< 0.367
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4						20.3	39.9	11.7	23			20.4	21.1	22.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4						13.4	144	87	36.8			18	15.7	16.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11						40.8	145	321	9.42			40.2	34.5	25.3
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1						0.097	0.971	1.41	0.05			0.127	0.137	0.074
Nickel	7440-02-0	mg/kg	38						11.8	25.7	8.29	12.2			12.1	12	13.7
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52						1.79	1.85	1.12	0.921			2.08	1.94	1.34
Silver	7440-22-4	mg/kg	2						< 0.388	0.789	< 0.329219	< 0.259			< 0.369	< 0.385	< 0.367
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1						1.38	< 1.37	< 1.097396	< 0.865			< 1.23	< 1.29	1.21
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5						71.2	239	62.3	53.1			96	85.2	50.1
Moisture																	
Percent Solids	SOLID	percent		70.9	93.6	78.5	67.1	74.5	75.8	69.5	87.6	89.6	86.1		78.2	77.8	80.1
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
1,2-Dichlorobenzene	95-50-1	ug/kg	2960						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
1,2-Diphenylhydrazine	122-66-7	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
1,4-Dichlorobenzene	106-46-7	ug/kg	546						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
2,4-Dimethylphenol	105-67-9	ug/kg	10						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
2,4-Dinitrophenol	51-28-5	ug/kg	60.9						< 879	< 959	< 755.822	< 741		< 774	< 852	< 854	< 831

			Location	J8-1-02	J8-2354A-03	J9-2111-04	J9-6-01	K10-602B-02	K10-79A-03	K11-2301-02	K6-529-01	K8-393-01	K8-9207-04	K8-9207-04	K8-9212A-04	K8-9212A-04	K9-1-01
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/25/2000	8/1/2000	8/1/2000	8/1/2000	7/7/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-1-021N	J8-2354A-030.5N	J9-2111-041N	J9-6-011N	K10-602B-020.5N	K10-79A-031.5N	K11-2301-021N	K6-529-011.5N	K8-393-011N	K8-9207-041.5N835	K8-9207-041.5N900	K8-9212A-041FD	K8-9212A-041N	K9-1-011N
			Parent ID												K8-9212A-041N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280						< 439	110	< 378	< 371		361	< 426	< 427	< 416
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 439	< 480	< 378	< 371		60	< 426	< 427	< 416
2-Chloronaphthalene	91-58-7	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
2-Chlorophenol	95-57-8	ug/kg	243						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg							< 439	< 480		< 371		< 387	< 426	< 427	< 416
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646						< 879	< 959	< 755.822	< 741		< 774	< 852	< 854	< 831
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144						< 879	< 959	< 755.822	< 741		< 774	< 852	< 854	< 831
4-Bromophenyl-phenylether	101-55-3	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
4-Chloro-3-methylphenol	59-50-7	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
4-Chlorophenyl-phenylether	7005-72-3	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
4-Nitrophenol	100-02-7	ug/kg	7000						< 879	< 959		< 741		< 774	< 852	< 854	< 831
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Acenaphthylene	208-96-8	ug/kg	682000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Anthracene	120-12-7	ug/kg	1480000						< 439	< 480	85.4	< 371		66.6	< 426	< 427	< 416
Benzidine	92-87-5	ug/kg	1310						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210						< 439	152	437	< 371		438	51.6	51.7	83.1
Benzo[a]pyrene	50-32-8	ug/kg	1520						< 439	195	388	< 371		361	53.3	52.5	84
Benzo[b]fluoranthene	205-99-2	ug/kg	59800						< 439	518	553	< 371		457	92.9	92.2	200
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000						< 439	254	181	< 371		211	< 426	< 427	< 416
Benzo[k]fluoranthene	207-08-9	ug/kg	148000						< 439	227	216	< 371		171	< 426	< 427	74
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Bis(2-Chloroethyl)ether	111-44-4	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925						27.3	83.9	< 377.911	< 371		33.7	27.7	28.2	25.4
Butylbenzylphthalate	85-68-7	ug/kg	239						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Chrysene	218-01-9	ug/kg	4730						< 439	306	451	< 371		360	94.2	99.5	141
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Diethylphthalate	84-66-2	ug/kg	24800						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Dimethylphthalate	131-11-3	ug/kg	734000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Di-n-butylphthalate	84-74-2	ug/kg	150						< 439	3260	< 377.911	< 371		87.5	< 426	< 427	< 416
Di-n-octylphthalate	117-84-0	ug/kg	7090						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Fluoranthene	206-44-0	ug/kg	122000						< 439	341	1040	< 371		603	104	106	242
Fluorene	86-73-7	ug/kg	122000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Hexachlorobenzene	118-74-1	ug/kg	199						< 439	< 480		< 371		< 387	< 426	< 427	< 416
Hexachlorobutadiene	87-68-3	ug/kg	39.8						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Hexachlorocyclopentadiene	77-47-4	ug/kg							< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Hexachloroethane	67-72-1	ug/kg	596						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000						< 439	233	200	< 371		212	< 426	< 427	69.8
Isophorone	78-59-1	ug/kg	139000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Naphthalene	91-20-3	ug/kg	99.4						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Nitrobenzene	98-95-3	ug/kg	1310						< 439	< 480				< 387	< 426	< 427	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
N-Nitrosodiphenylamine	86-30-6	ug/kg	545						< 439	1170		< 371		< 387	< 426	< 427	< 416
Pentachlorophenol	87-86-5	ug/kg	2100						< 879	< 959	< 755.822	< 741		< 774	< 852	< 854	< 831
Phenanthrene	85-01-8	ug/kg	45700						< 439	165	566	< 371		147	83.1	84.5	126
Phenol	108-95-2	ug/kg	30000						< 439	< 480	< 377.911	< 371		< 387	< 426	< 427	< 416
Pyrene	129-00-0	ug/kg	78500						< 439	339	586	< 371		585	113	116	223
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	J8-1-02	J8-2354A-03	J9-2111-04	J9-6-01	K10-602B-02	K10-79A-03	K11-2301-02	K6-529-01	K8-393-01	K8-9207-04	K8-9207-04	K8-9212A-04	K8-9212A-04	K9-1-01
			Sample Date	7/20/2000	7/20/2000	7/20/2000	7/25/2000	8/1/2000	8/1/2000	8/1/2000	7/7/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	8/1/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	J8-1-021N	J8-2354A-030.5N	J9-2111-041N	J9-6-011N	K10-602B-020.5N	K10-79A-031.5N	K11-2301-021N	K6-529-011.5N	K8-393-011N	K8-9207-041.5N835	K8-9207-041.5N900	K8-9212A-041FD	K8-9212A-041N	K9-1-011N
			Parent ID												K8-9212A-041N		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	K9-4-01	L10-2-01	L10-2088-01	L10-2242-02	L10-4-02	L10-6-01	L10-8215-01	L10-B462-01	L6-370-03	L6-370-03	L6-4-03	L6-5-02	L7-1-01	L7-8115-04
			Sample Date	8/1/2000	8/2/2000	8/2/2000	8/2/2000	7/25/2000	8/2/2000	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000	8/2/2000	7/25/2000
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	K9-4-010.5N	L10-2-011.5N	L10-2088-011N	L10-2242-021N	L10-4-021N	L10-6-011N	L10-8215-011N	L10-B462-011.25N	L6-370-031.5FD	L6-370-031.5N	L6-4-031.5N	L6-5-021.25N	L7-1-011.5N	L7-8115-041N
			Parent ID									L6-370-031.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 250	< 250	< 250	< 227	< 238.1		< 200	< 249	< 250		< 485.425		
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 250	< 250	< 250	< 227	< 238.1		< 200	< 249	< 250		< 485.425		
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		255	1010	< 250	< 227	610		< 200	< 249	< 250		< 485.425		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 238								
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 250	367	< 250	< 227	< 238.1		< 200	< 249	< 250		< 485.425		
2-Nitrotoluene	88-72-2	ug/kg			< 500	< 500	< 500	< 455	< 476.2		< 400	< 498	< 500		< 970.85		
3-Nitrotoluene	99-08-1	ug/kg			< 500	< 500	< 500	< 455	< 476.2		< 400	< 498	< 500		< 970.85		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 250	316	< 250	< 227	< 238.1		< 200	< 249	< 250		< 485.425		
4-Nitrotoluene	99-99-0	ug/kg			< 500	< 500	< 500	< 455	< 476.2		< 400	< 498	< 500		< 970.85		
Nitrobenzene	98-95-3	ug/kg	1310		< 250	< 250	< 250	< 227	< 238.1		< 200	< 249	< 250		< 485.425		
Nitrocellulose	9004-70-0	ug/kg			83200	89000	40200	181000	39800		56300	111000	1140000		< 291000		
Nitroglycerin	55-63-0	ug/kg	65000		3600	11000	< 5141.916	< 5140	< 4850.86		< 5359.315	5350	4580	< 381.737	< 388		
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 500	< 500	< 500	< 455	< 476.2		< 400	< 498	< 500		< 970.85		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 500	< 500	< 500	< 455	< 476.2		< 400	< 498	< 500		< 970.85		
Tetryl	479-45-8	ug/kg	25000		< 500	< 500	< 500	< 455	< 476.2		< 400	< 498	< 500		< 970.85		
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	K9-4-01	L10-2-01	L10-2088-01	L10-2242-02	L10-4-02	L10-6-01	L10-8215-01	L10-B462-01	L6-370-03	L6-370-03	L6-4-03	L6-5-02	L7-1-01	L7-8115-04
			Sample Date	8/1/2000	8/2/2000	8/2/2000	8/2/2000	7/25/2000	8/2/2000	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000	8/2/2000	7/25/2000
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	K9-4-010.5N	L10-2-011.5N	L10-2088-011N	L10-2242-021N	L10-4-021N	L10-6-011N	L10-8215-011N	L10-B462-011.25N	L6-370-031.5FD	L6-370-031.5N	L6-4-031.5N	L6-5-021.25N	L7-1-011.5N	L7-8115-041N
			Parent ID									L6-370-031.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.663	< 0.477072	0.43	< 0.538677	< 0.453		< 0.490427	< 0.41987	< 0.594	< 0.556	< 0.644315	< 0.651143	< 0.657114	< 0.562
Arsenic	7440-38-2	mg/kg	9.9	4.49	6.2	10.1	3.3	4.4		3.6	9.23	3.95	3.9	4.32	3.1	7.38	5.42
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.523	0.48	0.28	0.61	0.5		0.385	0.444	0.617	0.632	0.548	0.791	0.735	0.742
Cadmium	7440-43-9	mg/kg	0.36	< 0.332	0.19	0.05	0.12	0.702		< 0.245213	0.377	1.54	1.16	0.681	0.522	0.602	0.725
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	15.4	12.6	12	13.9	13.6		10	15.4	13.5	12.9	15	13	19	20.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	12.7	22.3	15.2	21	25.4		21.9	55.1	93.6	94.6	37.2	11.4	15.2	19.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	10.3	109	34.8	10.6	55.6		31.4	17.4	604	450	125	9.27	34.3	34.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.039	0.113	0.033	< 0.037029	0.125		0.035	0.043	1.09	1.49	0.286	0.051	0.098	0.093
Nickel	7440-02-0	mg/kg	38	10.1	9.2	6.9	8.84	7.31		7.77	9.13	8.47	8.94	12.1	8.86	11.5	11.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.9	0.88	0.68	0.72	0.921		0.75	0.322	0.884	1.1	0.629	0.909	1.17	0.833
Silver	7440-22-4	mg/kg	2	< 0.332	< 0.238536	< 0.212339	< 0.269339	< 0.227		< 0.245213	< 0.209935	< 0.297	0.204	< 0.322158	< 0.325572	< 0.328557	< 0.281
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.45	< 1.170176	1.11	< 1.06719	< 0.755		0.68	< 0.699783	< 0.99	< 0.926	< 1.073859	< 1.085239	< 1.095189	< 0.936
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	51.6	84.5	39	52.5	77.5		44.1	262	555	400	98.2	73.3	150	97.6
Moisture																	
Percent Solids	SOLID	percent		87.8	80.6	89.4	88.4	92.6	89.6	85	91	88.1	88.4	87	85.3	77.4	82.2
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 759	< 826.098	< 744.552	< 752.894	< 7200		< 784.42	< 732.44	< 756	< 754	< 763.474	< 776.198	< 861.548	< 809

Kennedy Jenks

			Location	K9-4-01	L10-2-01	L10-2088-01	L10-2242-02	L10-4-02	L10-6-01	L10-8215-01	L10-B462-01	L6-370-03	L6-370-03	L6-4-03	L6-5-02	L7-1-01	L7-8115-04
			Sample Date	8/1/2000	8/2/2000	8/2/2000	8/2/2000	7/25/2000	8/2/2000	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000	8/2/2000	7/25/2000
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	K9-4-010.5N	L10-2-011.5N	L10-2088-011N	L10-2242-021N	L10-4-021N	L10-6-011N	L10-8215-011N	L10-B462-011.25N	L6-370-031.5FD	L6-370-031.5N	L6-4-031.5N	L6-5-021.25N	L7-1-011.5N	L7-8115-041N
			Parent ID									L6-370-031.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 380	648	177	1350	< 3600		733	< 366	< 378	< 377	< 382	< 388	< 430	< 404
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 380	92.9	55.5	63.2	< 3600		< 392	< 366	< 378	< 377	< 382	< 388	< 430	< 404
2-Chloronaphthalene	91-58-7	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
2-Chlorophenol	95-57-8	ug/kg	243	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 380				< 3600				< 378	< 377				< 404
2-Nitrotoluene	88-72-2	ug/kg								< 392.21				< 381.737		< 430.774	
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 759	< 826.098	< 744.552	< 752.894	< 7200		< 784.42	< 732.44	< 756	< 754	< 763.474	< 776.198	< 861.548	< 809
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 759	< 826.098	< 744.552	< 752.894	< 7200		< 784.42	< 732.44	< 756	< 754	< 763.474	< 776.198	< 861.548	< 809
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
4-Nitrophenol	100-02-7	ug/kg	7000	< 759				< 7200				< 756	< 754				< 809
4-Nitrotoluene	99-99-0	ug/kg								< 784.42				< 763.474		< 861.548	
Acenaphthene	83-32-9	ug/kg	20000	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Acenaphthylene	208-96-8	ug/kg	682000	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Anthracene	120-12-7	ug/kg	1480000	< 380	< 413.049	108	487	< 3600		< 392.21	< 366.22	76.4	93.8	< 381.737	< 388.099	< 430.774	< 404
Benzidine	92-87-5	ug/kg	1310	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 380	163	450	2030	< 3600		151	< 366.22	765	931	< 381.737	< 388.099	< 430.774	< 404
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 380	170	441	1910	< 3600		149	31	565	688	< 381.737	< 388.099	52	< 404
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 380	233	762	2640	< 3600		202	< 366.22	915	1070	< 381.737	< 388.099	< 430.774	< 404
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 380	106	359	1140	< 3600		87.1	< 366.22	361	453	< 381.737	< 388.099	< 430.774	< 404
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 380	124	232	1040	< 3600		113	< 366.22	258	403	< 381.737	< 388.099	< 430.774	< 404
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 380	< 413.049	33.1	< 376.447	< 3600		< 392.21	42	< 378	< 377	< 381.737	< 388.099	< 430.774	29.1
Butylbenzylphthalate	85-68-7	ug/kg	239	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Chrysene	218-01-9	ug/kg	4730	< 380	164	492	1690	< 3600		145	< 366.22	659	755	< 381.737	< 388.099	< 430.774	< 404
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 380	< 413.049	105	344	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Diethylphthalate	84-66-2	ug/kg	24800	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Dimethylphthalate	131-11-3	ug/kg	734000	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Di-n-butylphthalate	84-74-2	ug/kg	150	< 380	1380	758	646	817		1610	130	< 378	< 377	140	< 388.099	< 430.774	< 404
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	48	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Fluoranthene	206-44-0	ug/kg	122000	< 380	353	1040	4440	< 3600		324	< 366.22	1440	1710	< 381.737	< 388.099	< 430.774	< 404
Fluorene	86-73-7	ug/kg	122000	< 380	< 413.049	< 372.276	186	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Hexachlorobenzene	118-74-1	ug/kg	199	< 380				< 3600				< 378	< 377				< 404
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Hexachloroethane	67-72-1	ug/kg	596	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 380	95	321	1170	< 3600		85.1	< 366.22	358	445	< 381.737	< 388.099	< 430.774	< 404
Isophorone	78-59-1	ug/kg	139000	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Naphthalene	91-20-3	ug/kg	99.4	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Nitrobenzene	98-95-3	ug/kg	1310	< 380						< 392.21				< 381.737		< 430.774	< 404
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 380	218	185	332	< 3600		223	< 366.22	228	25.6			48	< 404
Pentachlorophenol	87-86-5	ug/kg	2100	< 759	< 826.098	< 744.552	< 752.894	< 7200		< 784.42	< 732.44	< 756	< 754	< 763.474	< 776.198	< 861.548	< 809
Phenanthrene	85-01-8	ug/kg	45700	< 380	110	451	1930	< 3600		124	< 366.22	467	367	< 381.737	< 388.099	< 430.774	< 404
Phenol	108-95-2	ug/kg	30000	< 380	< 413.049	< 372.276	< 376.447	< 3600		< 392.21	< 366.22	< 378	< 377	< 381.737	< 388.099	< 430.774	< 404
Pyrene	129-00-0	ug/kg	78500	< 380	234	750	3030	< 3600		231	< 366.22	1000	984	< 381.737	< 388.099	105	< 404
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

Kennedy Jenks

			Location	K9-4-01	L10-2-01	L10-2088-01	L10-2242-02	L10-4-02	L10-6-01	L10-8215-01	L10-B462-01	L6-370-03	L6-370-03	L6-4-03	L6-5-02	L7-1-01	L7-8115-04
			Sample Date	8/1/2000	8/2/2000	8/2/2000	8/2/2000	7/25/2000	8/2/2000	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000	8/2/2000	7/25/2000
			Sample Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	K9-4-010.5N	L10-2-011.5N	L10-2088-011N	L10-2242-021N	L10-4-021N	L10-6-011N	L10-8215-011N	L10-B462-011.25N	L6-370-031.5FD	L6-370-031.5N	L6-4-031.5N	L6-5-021.25N	L7-1-011.5N	L7-8115-041N
			Parent ID									L6-370-031.5N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	L7-9206-02	L7-9315-02	L8-1-01	L8-1-05	L8-1-05	L8-8235-02	L9-79B-03	L9-79B-03	M10-1-04	M10-2262-04	M10-7-03	M10-7-03	M10-724-03	M10-724-03
			Sample Date	8/2/2000	8/2/2000	7/13/2000	7/13/2000	7/13/2000	7/25/2000	9/13/2000	9/13/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	L7-9206-021N	L7-9315-021N	L8-1-011N	L8-1-051FD	L8-1-051N	L8-8235-021N	L9-79B-031FD	L9-79B-031N	M10-1-041N	M10-2262-041.5N	M10-7-031.5FD	M10-7-031.5N	M10-724-031.5N	M10-724-030.5N
			Parent ID				L8-1-051N			L9-79B-031N				M10-7-031.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250	< 185.175							< 227.275	< 200	108	< 192.3	< 250	
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250	< 185.175							< 227.275	< 200	< 250	< 192.3	< 250	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250	< 185.175							467	< 200	3110	13400	< 250	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280											66.7			
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250	< 185									< 250	< 192		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250	< 185.175							< 227.275	< 200	552	626	< 250	
2-Nitrotoluene	88-72-2	ug/kg		< 500	< 370.35							< 454.55	< 400	< 500	< 384.6	< 500	
3-Nitrotoluene	99-08-1	ug/kg		< 500	< 370.35							< 454.55	< 400	< 500	< 384.6	< 500	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250	< 185.175							< 227.275	< 200	647	743	< 250	
4-Nitrotoluene	99-99-0	ug/kg		< 500	< 370.35							< 454.55	< 400	< 500	< 384.6	< 500	
Nitrobenzene	98-95-3	ug/kg	1310	< 250	< 185.175							< 227.275	< 200	< 250	< 192.3	311	
Nitrocellulose	9004-70-0	ug/kg		80800	95100							< 42516.47	47800	68200	44100	121000	
Nitroglycerin	55-63-0	ug/kg	65000	< 4851.401	< 6335.951	< 405.159	< 364	< 367.063				< 5642.56	< 4408.286	< 4600	< 4982.561	33400	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500	< 370.35							< 454.55	< 400	< 500	< 384.6	< 500	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500	< 370.35							< 454.55	< 400	< 500	< 384.6	< 500	
Tetryl	479-45-8	ug/kg	25000	< 500	< 370.35							< 454.55	< 400	< 500	< 384.6	< 500	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%				80											
Sieve Size #10 - Percent Finer	SIEVE_#010	%				64.8											
Sieve Size #100 - Percent Finer	SIEVE_#100	%				32.4											
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%				55.5											
Sieve Size #200 - Percent Finer	SIEVE_#200	%				27											
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%				73.8											
Sieve Size #40 - Percent Finer	SIEVE_#040	%				46.3											
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%				38.3											
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%				100											
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	L7-9206-02	L7-9315-02	L8-1-01	L8-1-05	L8-1-05	L8-8235-02	L9-79B-03	L9-79B-03	M10-1-04	M10-2262-04	M10-7-03	M10-7-03	M10-724-03	M10-724-03
			Sample Date	8/2/2000	8/2/2000	7/13/2000	7/13/2000	7/13/2000	7/25/2000	9/13/2000	9/13/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	L7-9206-021N	L7-9315-021N	L8-1-011N	L8-1-051FD	L8-1-051N	L8-8235-021N	L9-79B-031FD	L9-79B-031N	M10-1-041N	M10-2262-041.5N	M10-7-031.5FD	M10-7-031.5N	M10-724-031.5N	M10-724-030.5N
			Parent ID				L8-1-051N			L9-79B-031N				M10-7-031.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.722788	< 0.614	< 0.648408	< 0.589	0.961	0.732	< 0.632948	< 0.434912			< 0.466305	
Arsenic	7440-38-2	mg/kg	9.9			6.88	97.4	102	9.18	12.7	12	5.87	3.09			2.74	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.6	0.439	0.453	0.91	0.874	0.906	0.326	0.351			0.245	
Cadmium	7440-43-9	mg/kg	0.36			0.264	0.534	0.542	0.844	0.228	0.22	0.316	0.289			0.277	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			17.2	33	32.9	23.9	18.6	21.2	20.3	12.7			8.39	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			24.1	73.2	79.2	17.7	17.7	21.4	13	31.2			38.3	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			42.1	19.6	20.7	40.5	71.2	63.1	443	17.7			37.2	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.121	0.039	0.057	0.108	0.194	0.158	0.177	< 0.028089			0.137	
Nickel	7440-02-0	mg/kg	38			9.84	7.78	7.75	16.1	12.2	13.2	9.75	9.52			5.57	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			1.98	1.11	1.37	1.5	0.948	0.96	0.667	< 0.362426			0.268	
Silver	7440-22-4	mg/kg	2			< 0.361394	< 0.307	< 0.324204	< 0.295	0.312	0.246	< 0.316474	< 0.217456			< 0.233152	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 1.204647	< 1.02	< 1.080679	< 0.982	< 1.32	< 1.34	< 1.054914	< 0.724853			< 0.777175	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			62.7	61.6	62.6	101	75.8	81.2	49.6	49			49.6	
Moisture																	
Percent Solids	SOLID	percent		89.6	77	82.2	91.4	90.7	80.8	75.7	74.2	82.4	92.6	88.8	89.2	86.9	
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 810.318	< 729	< 734.126	< 825	< 880	< 899	< 808.766	< 720.02			< 759.22	

			Location	L7-9206-02	L7-9315-02	L8-1-01	L8-1-05	L8-1-05	L8-8235-02	L9-79B-03	L9-79B-03	M10-1-04	M10-2262-04	M10-7-03	M10-7-03	M10-724-03	M10-724-03
			Sample Date	8/2/2000	8/2/2000	7/13/2000	7/13/2000	7/13/2000	7/25/2000	9/13/2000	9/13/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	L7-9206-021N	L7-9315-021N	L8-1-011N	L8-1-051FD	L8-1-051N	L8-8235-021N	L9-79B-031FD	L9-79B-031N	M10-1-041N	M10-2262-041.5N	M10-7-031.5FD	M10-7-031.5N	M10-724-031.5N	M10-724-030.5N
			Parent ID				L8-1-051N			L9-79B-031N				M10-7-031.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 405	< 364	< 367	< 413	< 440	< 450	< 404	< 360			< 379	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 405	< 364	< 367	< 413	< 440	< 450	< 404	< 360			< 379	
2-Chloronaphthalene	91-58-7	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
2-Chlorophenol	95-57-8	ug/kg	243			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg							< 413	< 440	< 450						
2-Nitrotoluene	88-72-2	ug/kg				< 405.159	< 364	< 367.063									
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 810.318	< 729	< 734.126	< 825	< 880	< 899	< 808.766	< 720.02			< 759.22	
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 810.318	< 729	< 734.126	< 825	< 880	< 899	< 808.766	< 720.02			< 759.22	
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
4-Nitrophenol	100-02-7	ug/kg	7000						< 825	< 880	< 899						
4-Nitrotoluene	99-99-0	ug/kg				< 810.318	< 729	< 734.126									
Acenaphthene	83-32-9	ug/kg	20000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			431	
Acenaphthylene	208-96-8	ug/kg	682000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Anthracene	120-12-7	ug/kg	1480000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			1410	
Benzidine	92-87-5	ug/kg	1310			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			58.3	< 364	< 367.063	101	59	44.5	112	82			4980	
Benzo[a]pyrene	50-32-8	ug/kg	1520			72.1	< 364	< 367.063	101	58.1	44.1	88	69			4670	
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			85.9	< 364	< 367.063	192	< 440	67.4	180	123			6830	
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			102	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			2880	
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	73	48			2420	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			45.4	32.1	25.3	24.8	< 440	< 450	< 404.383	< 360.01			48	
Butylbenzylphthalate	85-68-7	ug/kg	239			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	< 1077
Chrysene	218-01-9	ug/kg	4730			77	< 364	< 367.063	144	81	60.2	140	84			5100	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			796	
Diethylphthalate	84-66-2	ug/kg	24800			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			215	
Dimethylphthalate	131-11-3	ug/kg	734000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Di-n-butylphthalate	84-74-2	ug/kg	150			51.9	< 364	66.8	< 413	< 440	< 450	167	< 360.01			479	
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Fluoranthene	206-44-0	ug/kg	122000			117	< 364	< 367.063	229	131	98.9	160	177			8770	
Fluorene	86-73-7	ug/kg	122000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			803	
Hexachlorobenzene	118-74-1	ug/kg	199						< 413	< 440	< 450						
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Hexachloroethane	67-72-1	ug/kg	596			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			82.7	< 364	< 367.063	71	< 440	< 450	< 404.383	< 360.01			2840	
Isophorone	78-59-1	ug/kg	139000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Naphthalene	91-20-3	ug/kg	99.4			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			92	
Nitrobenzene	98-95-3	ug/kg	1310			< 405.159	< 364	< 367.063	< 413	< 440	< 450						
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
N-Nitrosodiphenylamine	86-30-6	ug/kg	545						< 413	< 440	< 450	< 404.383	< 360.01			696	
Pentachlorophenol	87-86-5	ug/kg	2100			< 810.318	< 729	< 734.126	< 825	< 880	< 899	< 808.766	< 720.02			< 759.22	
Phenanthrene	85-01-8	ug/kg	45700			65.2	< 364	< 367.063	85.8	89.8	58.9	< 404.383	60			7330	
Phenol	108-95-2	ug/kg	30000			< 405.159	< 364	< 367.063	< 413	< 440	< 450	< 404.383	< 360.01			< 379.61	
Pyrene	129-00-0	ug/kg	78500			195	< 364	< 367.063	229	152	110	145	153			9620	
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				80100											
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															< 538.7931
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														< 538.7931

			Location	L7-9206-02	L7-9315-02	L8-1-01	L8-1-05	L8-1-05	L8-8235-02	L9-79B-03	L9-79B-03	M10-1-04	M10-2262-04	M10-7-03	M10-7-03	M10-724-03	M10-724-03
			Sample Date	8/2/2000	8/2/2000	7/13/2000	7/13/2000	7/13/2000	7/25/2000	9/13/2000	9/13/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	L7-9206-021N	L7-9315-021N	L8-1-011N	L8-1-051FD	L8-1-051N	L8-8235-021N	L9-79B-031FD	L9-79B-031N	M10-1-041N	M10-2262-041.5N	M10-7-031.5FD	M10-7-031.5N	M10-724-031.5N	M10-724-030.5N
			Parent ID				L8-1-051N			L9-79B-031N				M10-7-031.5N			
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															< 538.7931
1,1-Dichloroethane	75-34-3	ug/kg															< 538.7931
1,1-Dichloroethene	75-35-4	ug/kg	8280														< 538.7931
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														< 538
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														< 538
1,2-Dichloroethane	107-06-2	ug/kg															< 538.7931
1,2-Dichloropropane	78-87-5	ug/kg															< 538.7931
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														< 538
1,4-Dichlorobenzene	106-46-7	ug/kg	546														< 538
2-Chloroethylvinylether	110-75-8	ug/kg															< 1077.586
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														< 2155.172
Acrylonitrile	107-13-1	ug/kg	23.9														< 5387.931
Benzene	71-43-2	ug/kg	255														< 538.7931
Bromodichloromethane	75-27-4	ug/kg	540														< 538.7931
Bromoform	75-25-2	ug/kg															< 538.7931
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														< 538.7931
Chlorobenzene	108-90-7	ug/kg	13100														< 538.7931
Chloroethane	75-00-3	ug/kg															< 1077.586
Chloroform	67-66-3	ug/kg	1190														< 538.7931
Chloromethane	74-87-3	ug/kg	10400														< 1077.586
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															< 538.7931
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														< 538.7931
Ethylbenzene	100-41-4	ug/kg	5160														< 538.7931
Hexachlorobutadiene	87-68-3	ug/kg	39.8														< 538
Methylene Chloride	75-09-2	ug/kg	4050														< 538.7931
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														< 538.7931
Toluene	108-88-3	ug/kg	200000														< 538.7931
trans-1,2-Dichloroethene	156-60-5	ug/kg															< 538.7931
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														< 538.7931
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														< 1077.586
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	M10-B14-02	M11-3-03	M5-8166-03	M5-8166A-B-C-01	M6-1-07	M8-3-02	M9-2261-02	M9-2292-02	M9-8151-02	M9-8151-03	M9-8151-03	N4-3-03	N5-581-05	N7-571-02
			Sample Date	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/19/2000	7/25/2000	8/2/2000	8/2/2000	7/13/2000	9/27/2000	9/27/2000	7/7/2000	7/25/2000	7/26/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	M10-B14-020.5N	M11-3-030.5N	M5-8166-031N	5-8166A-B-C-011.25	M6-1-070.5N	M8-3-021.25N	M9-2261-021N	M9-2292-021N	M9-8151-021.25N	M9-8151-031.5FD	M9-8151-031.5N	N4-3-030.75N	N5-581-051.5N	N7-571-021N
			Parent ID										M9-8151-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 208.325			< 25		< 227.275	< 227.275	< 250	< 95.2	< 100			< 227
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655		< 208.325			< 25		< 227.275	< 227.275	< 250	< 95.2	< 100			< 227
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 208.325			< 25		< 227.275	< 227.275	< 250	< 95.2	< 100			< 227
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8					< 250			< 227						
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 208.325			< 25		< 227.275	< 227.275	< 250	< 95.2	< 100			< 227
2-Nitrotoluene	88-72-2	ug/kg			< 416.65			< 50		< 454.55	< 454.55	< 500	< 190	< 200			< 455
3-Nitrotoluene	99-08-1	ug/kg			< 416.65			< 50		< 454.55	< 454.55	< 500	< 190	< 200			< 455
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 208.325			340		< 227.275	< 227.275	< 250	< 95.2	< 100			< 227
4-Nitrotoluene	99-99-0	ug/kg			< 416.65			< 50		< 454.55	< 454.55	< 500	< 190	< 200			< 455
Nitrobenzene	98-95-3	ug/kg	1310		< 208.325			< 25		442	< 227.275	< 250	< 95.2	< 100			< 227
Nitrocellulose	9004-70-0	ug/kg			133000			604000		75400	42400	< 36232.19	< 38200	< 35.6			< 45.9
Nitroglycerin	55-63-0	ug/kg	65000		< 7844.367			13000		< 5248.434	< 4880.143	< 349	< 5590	< 5400			< 5930
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 416.65			< 50		< 454.55	< 454.55	< 500	< 190	< 200			< 455
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 416.65			< 50		< 454.55	< 454.55	< 500	< 190	< 200			< 455
Tetryl	479-45-8	ug/kg	25000		< 416.65			< 50		< 454.55	< 454.55	< 500	< 190	< 200			< 455
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%										93.1					
Sieve Size #10 - Percent Finer	SIEVE_#010	%										70.8					
Sieve Size #100 - Percent Finer	SIEVE_#100	%										22.6					
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%										56.2					
Sieve Size #200 - Percent Finer	SIEVE_#200	%										18.1					
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%										81.7					
Sieve Size #40 - Percent Finer	SIEVE_#040	%										41.9					
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%										30.3					
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%										100					
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	M10-B14-02	M11-3-03	M5-8166-03	M5-8166A-B-C-01	M6-1-07	M8-3-02	M9-2261-02	M9-2292-02	M9-8151-02	M9-8151-03	M9-8151-03	N4-3-03	N5-581-05	N7-571-02
			Sample Date	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/19/2000	7/25/2000	8/2/2000	8/2/2000	7/13/2000	9/27/2000	9/27/2000	7/7/2000	7/25/2000	7/26/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	M10-B14-020.5N	M11-3-030.5N	M5-8166-031N	5-8166A-B-C-011.25	M6-1-070.5N	M8-3-021.25N	M9-2261-021N	M9-2292-021N	M9-8151-021.25N	M9-8151-031.5FD	M9-8151-031.5N	N4-3-030.75N	N5-581-051.5N	N7-571-021N
			Parent ID										M9-8151-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	1.09	1.18	< 0.566	< 0.55		< 0.464			< 0.581429	< 0.664	< 0.658	1.15	< 0.642	0.59
Arsenic	7440-38-2	mg/kg	9.9	4.89	13.4	4.96	3.84		2.73			2.92	3.73	3.45	4.13	5.65	7.57
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.519	0.27	0.552	0.622		0.525			0.454	0.701	0.63	0.567	0.555	0.546
Cadmium	7440-43-9	mg/kg	0.36	0.452	0.647	0.575	0.502		0.732			0.204	0.064	0.054	140	< 0.321	< 0.251
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	19.1	12.5	12.3	16.9		14.6			10.6	11.5	10.6	14.4	19.4	22.9
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	24.2	19.8	41.6	10.6		16.2			13.4	14.4	13.2	2210	16.6	17.6
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	391	490	13.8	6.94		21.1			10.6	11	9.03	30.7	19.8	47.2
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.105	0.29	0.035	0.041		0.043			0.027	0.021	0.02	0.214	0.066	0.078
Nickel	7440-02-0	mg/kg	38	11.2	5.33	8.25	10.9		9.19			7.37	9.1	8.47	10.1	12.4	12.4
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.727	1.54	1	0.922		0.784			0.892	< 0.554	< 0.548	2.99	1.27	0.683
Silver	7440-22-4	mg/kg	2	< 0.358551	0.28	< 0.283	< 0.275		< 0.232			< 0.290715	< 0.332	< 0.329	0.192	< 0.321	< 0.251
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 1.195172	< 1.40078	< 0.943	< 0.917		< 0.773			< 0.969049	< 1.11	< 1.1	< 0.917	1.57	1.43
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	94.7	119	87	65.3		79.2			45.6	47.6	46	309	75.9	67.7
Moisture																	
Percent Solids	SOLID	percent		83.7	63.7	87.1	89.1	65	90.4	88.6	85.4	95.6	89.4	90.3	92.7	85	76.6
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 796.78	< 1045.914	< 765	< 748		< 737	< 7497.766		< 697.018	< 746	< 738	< 719	< 787	< 869

			Location	M10-B14-02	M11-3-03	M5-8166-03	M5-8166A-B-C-01	M6-1-07	M8-3-02	M9-2261-02	M9-2292-02	M9-8151-02	M9-8151-03	M9-8151-03	N4-3-03	N5-581-05	N7-571-02
			Sample Date	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/19/2000	7/25/2000	8/2/2000	8/2/2000	7/13/2000	9/27/2000	9/27/2000	7/7/2000	7/25/2000	7/26/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	M10-B14-020.5N	M11-3-030.5N	M5-8166-031N	5-8166A-B-C-011.25	M6-1-070.5N	M8-3-021.25N	M9-2261-021N	M9-2292-021N	M9-8151-021.25N	M9-8151-031.5FD	M9-8151-031.5N	N4-3-030.75N	N5-581-051.5N	N7-571-021N
			Parent ID										M9-8151-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 398	< 522	< 382	< 374		< 369	< 3748		< 349	2690	< 369	135	< 394	< 435
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 398	< 522	< 382	< 374		< 369	< 3748		< 349	133	< 369	< 359	< 394	< 435
2-Chloronaphthalene	91-58-7	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
2-Chlorophenol	95-57-8	ug/kg	243	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 382	< 374		< 369				< 373	< 369	< 359	< 394	< 435
2-Nitrotoluene	88-72-2	ug/kg		< 398.39													
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 796.78	< 1045.914	< 765	< 748		< 737	< 7497.766		< 697.018	< 746	< 738	< 719	< 787	< 869
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 796.78	< 1045.914	< 765	< 748		< 737	< 7497.766		< 697.018	< 746	< 738	< 719	< 787	< 869
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
4-Nitrophenol	100-02-7	ug/kg	7000			< 765	< 748		< 737				< 746	< 738	< 719	< 787	< 869
4-Nitrotoluene	99-99-0	ug/kg		< 796.78													
Acenaphthene	83-32-9	ug/kg	20000	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Acenaphthylene	208-96-8	ug/kg	682000	< 398.39	178	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Anthracene	120-12-7	ug/kg	1480000	< 398.39	319	< 382	< 374		< 369	2100		< 348.509	< 373	68.3	< 359	< 394	< 435
Benzidine	92-87-5	ug/kg	1310	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	148	2350	< 382	< 374		< 369	15300		194	130	250	< 359	43.3	< 435
Benzo[a]pyrene	50-32-8	ug/kg	1520	172	1420	< 382	< 374		< 369	24000		173	123	227	< 359	36.6	< 435
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	239	6030	< 382	< 374		< 369	28200		244	170	305	< 359	< 394	< 435
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	100	1490	< 382	< 374		< 369	21400		138	< 373	137	< 359	< 394	< 435
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	126	1550	< 382	< 374		< 369	10600		92.4	< 373	102	< 359	< 394	< 435
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	21	98	39.8	< 374		< 369	< 3748.883		23.4	< 373	24.4	32.7	20.5	< 435
Butylbenzylphthalate	85-68-7	ug/kg	239	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Chrysene	218-01-9	ug/kg	4730	205	6720	< 382	< 374		< 369	15300		192	139	250	< 359	< 394	< 435
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 398.39	388	< 382	< 374		< 369	4990		< 348.509	< 373	< 369	< 359	< 394	< 435
Diethylphthalate	84-66-2	ug/kg	24800	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	99.2	< 394	< 435
Dimethylphthalate	131-11-3	ug/kg	734000	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Di-n-butylphthalate	84-74-2	ug/kg	150	200	428	60.8	< 374		167	724		< 348.509	2550	50.2	925	< 394	< 435
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Fluoranthene	206-44-0	ug/kg	122000	487	12000	< 382	< 374		< 369	23000		480	333	639	< 359	110	< 435
Fluorene	86-73-7	ug/kg	122000	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Hexachlorobenzene	118-74-1	ug/kg	199			< 382	< 374		< 369				< 373	< 369	< 359	< 394	< 435
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Hexachloroethane	67-72-1	ug/kg	596	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	92	1370	< 382	< 374		< 369	18500		127	74.2	134	< 359	< 394	< 435
Isophorone	78-59-1	ug/kg	139000	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Naphthalene	91-20-3	ug/kg	99.4	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Nitrobenzene	98-95-3	ug/kg	1310	< 398.39		< 382	< 374		< 369						< 359	< 394	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		21.6	< 373	< 369	< 359	< 394	< 435
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 398.39	< 522.957	< 382	< 374		< 369	2310			215	< 369	61.4	< 394	40.4
Pentachlorophenol	87-86-5	ug/kg	2100	< 796.78	< 1045.914	< 765	< 748		< 737	< 7497.766		< 697.018	< 746	< 738	< 719	< 787	< 869
Phenanthrene	85-01-8	ug/kg	45700	213	2340	< 382	< 374		< 369	5810		166	157	385	< 359	92.1	< 435
Phenol	108-95-2	ug/kg	30000	< 398.39	< 522.957	< 382	< 374		< 369	< 3748.883		< 348.509	< 373	< 369	< 359	< 394	< 435
Pyrene	129-00-0	ug/kg	78500	339	12100	< 382	< 374		< 369	31100		414	299	561	< 359	93.3	< 435
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg										15100					
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	M10-B14-02	M11-3-03	M5-8166-03	M5-8166A-B-C-01	M6-1-07	M8-3-02	M9-2261-02	M9-2292-02	M9-8151-02	M9-8151-03	M9-8151-03	N4-3-03	N5-581-05	N7-571-02
			Sample Date	8/2/2000	8/2/2000	7/7/2000	7/7/2000	7/19/2000	7/25/2000	8/2/2000	8/2/2000	7/13/2000	9/27/2000	9/27/2000	7/7/2000	7/25/2000	7/26/2000
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
			Sample ID	M10-B14-020.5N	M11-3-030.5N	M5-8166-031N	5-8166A-B-C-011.25	M6-1-070.5N	M8-3-021.25N	M9-2261-021N	M9-2292-021N	M9-8151-021.25N	M9-8151-031.5FD	M9-8151-031.5N	N4-3-030.75N	N5-581-051.5N	N7-571-021N
			Parent ID										M9-8151-031.5N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	N7-574-03	N8-389-04	N9-1-01	N9-2260-01	N9-2267-03	N9-3-04	N9-B4-01	N9-B41-10-01	N9-B4-11-03	O5-2-04	O5-5-02	O5-534-02	O5-537-02	O5-537-02
			Sample Date	7/26/2000	8/2/2000	9/13/2000	7/13/2000	6/15/2000	8/2/2000	9/12/2000	9/12/2000	9/12/2000	7/25/2000	7/25/2000	9/27/2000	7/25/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	N7-574-031N	N8-389-041.5N	N9-1-011N	N9-2260-011N	N9-2267-031.5N	N9-3-041N	N9-B4-011.5N	N9-B41-10-011N	N9-B4-11-031.5N	O5-2-041N	O5-5-021.5N	O5-534-021N	O5-537-021FD	O5-537-021N
			Parent ID													O5-537-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 238	< 200		< 250	< 250	< 172.425		< 238	< 250				< 250	< 227
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 238	< 200		< 250	< 250	< 172.425		< 238	< 250				< 250	< 227
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 238	< 200		< 250	3750	< 172.425		< 238	< 250				< 250	< 227
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280													< 250	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8		< 200											< 250	< 227
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 238	< 200		< 250	< 250	< 172.425		< 238	< 250				< 250	< 227
2-Nitrotoluene	88-72-2	ug/kg		< 476	< 400		< 500	< 500	< 344.85		< 476	< 500				< 500	< 455
3-Nitrotoluene	99-08-1	ug/kg		< 476	< 400		< 500	< 500	< 344.85		< 476	< 500				< 500	< 455
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 238	< 200		< 250	< 250	< 172.425		< 238	< 250				< 250	< 227
4-Nitrotoluene	99-99-0	ug/kg		< 476	< 400		< 500	< 500	< 344.85		< 476	< 500				< 500	< 455
Nitrobenzene	98-95-3	ug/kg	1310	< 238	< 200		< 250	177	< 172.425		< 238	< 250				< 250	< 227
Nitrocellulose	9004-70-0	ug/kg		< 42.2	48000		130000	14500000	93300		< 40.2	< 29.5				< 40700	100000
Nitroglycerin	55-63-0	ug/kg	65000	< 5980	< 5945.656		< 351	552000	< 6096.408		< 5740	< 4890				6400	7750
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 476	< 400		< 500	< 500	< 344.85		< 476	< 500				< 500	< 455
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 476	< 400		< 500	< 500	< 344.85		< 476	< 500				< 500	< 455
Tetryl	479-45-8	ug/kg	25000	< 476	< 400		< 500	< 500	< 344.85		< 476	< 500				< 500	< 455
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%					87.1	77.1									
Sieve Size #10 - Percent Finer	SIEVE_#010	%					77.5	61.2									
Sieve Size #100 - Percent Finer	SIEVE_#100	%					52.4	21.9									
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%					70.8	50									
Sieve Size #200 - Percent Finer	SIEVE_#200	%					47.7	15.2									
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%					82.3	68.7									
Sieve Size #40 - Percent Finer	SIEVE_#040	%					64.3	38.7									
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%					57.9	29.2									
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%					96.5	91.3									
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%					100	91.3									
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%						100									
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	N7-574-03	N8-389-04	N9-1-01	N9-2260-01	N9-2267-03	N9-3-04	N9-B4-01	N9-B41-10-01	N9-B4-11-03	O5-2-04	O5-5-02	O5-534-02	O5-537-02	O5-537-02
			Sample Date	7/26/2000	8/2/2000	9/13/2000	7/13/2000	6/15/2000	8/2/2000	9/12/2000	9/12/2000	9/12/2000	7/25/2000	7/25/2000	9/27/2000	7/25/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	N7-574-031N	N8-389-041.5N	N9-1-011N	N9-2260-011N	N9-2267-031.5N	N9-3-041N	N9-B4-011.5N	N9-B41-10-011N	N9-B4-11-031.5N	O5-2-041N	O5-5-021.5N	O5-534-021N	O5-537-021FD	O5-537-021N
			Parent ID													O5-537-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.569			< 0.625655	< 0.643	< 0.760542	< 0.617	< 0.638	< 0.604	< 0.556	< 0.528	< 0.832		
Arsenic	7440-38-2	mg/kg	9.9	4.03			5.95	3.89	7.54	3.19	5.2	1.77	12.3	5.86	7.36		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.663			0.252	0.442	0.194	0.42	0.299	0.099	0.561	0.513	1.2		
Cadmium	7440-43-9	mg/kg	0.36	< 0.285			0.221	0.646	0.358	1.47	1.19	< 0.302	< 0.278	< 0.264	0.144		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	14.9			22.8	15.5	15.3	10.2	17.1	5.94	17.8	14.1	13.8		
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	23.4			33.4	32.8	96.7	20.4	168	6.85	24.9	17.2	15.4		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	16			37.4	38.8	135	26.8	45.6	8.92	34.4	37.5	65.5		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.024			0.075	0.155	0.115	0.043	0.204	< 0.033	0.053	0.052	0.253		
Nickel	7440-02-0	mg/kg	38	10.8			11.4	8.5	6.03	8.38	13	2.75	13	9.67	5.61		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.698			0.915	0.816	1.07	1.01	1.12	0.345	0.891	0.988	0.626		
Silver	7440-22-4	mg/kg	2	< 0.285			< 0.312827	< 0.322	< 0.380271	< 0.308	0.192	< 0.302	< 0.278	< 0.264	0.392		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.47			< 1.042758	< 1.07	< 1.26757	< 1.03	< 1.06	< 1.01	1.06	1.41	< 1.39		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	81.8			58.5	338	45.2	907	397	31.2	112	95.1	66.5		
Moisture																	
Percent Solids	SOLID	percent		83.7	76.5	88	95	86.4	78.1	90.1	87.1	97.3	89.1	88	70.7	86.2	86.4
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371			< 39.9											
Aroclor-1221	11104-28-2	ug/kg	371			< 39.9											
Aroclor-1232	11141-16-5	ug/kg	371			< 39.9											
Aroclor-1242	53469-21-9	ug/kg	371			< 39.9											
Aroclor-1248	12672-29-6	ug/kg	371			< 39.9											
Aroclor-1254	11097-69-1	ug/kg	371			< 39.9											
Aroclor-1260	11096-82-5	ug/kg	371			< 79.9											
Polychlorinated biphenyls	1336-36-3	ug/kg	371			< 79.9											
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 796			< 701.422	< 772	< 853.496	< 739	< 764	< 684	< 748	< 757	< 940		

			Location	N7-574-03	N8-389-04	N9-1-01	N9-2260-01	N9-2267-03	N9-3-04	N9-B4-01	N9-B41-10-01	N9-B4-11-03	O5-2-04	O5-5-02	O5-534-02	O5-537-02	O5-537-02
			Sample Date	7/26/2000	8/2/2000	9/13/2000	7/13/2000	6/15/2000	8/2/2000	9/12/2000	9/12/2000	9/12/2000	7/25/2000	7/25/2000	9/27/2000	7/25/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	N7-574-031N	N8-389-041.5N	N9-1-011N	N9-2260-011N	N9-2267-031.5N	N9-3-041N	N9-B4-011.5N	N9-B41-10-011N	N9-B4-11-031.5N	O5-2-041N	O5-5-021.5N	O5-534-021N	O5-537-021FD	O5-537-021N
			Parent ID													O5-537-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 398			51.2	63.7	< 426	< 369	< 382	< 342	< 374	< 379	< 470		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 398			< 351	< 386	< 426	< 369	< 382	< 342	< 374	< 379	< 470		
2-Chloronaphthalene	91-58-7	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
2-Chlorophenol	95-57-8	ug/kg	243	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 398				< 386		< 369	< 382	< 342	< 374	< 379	< 470		
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 796			< 701.422	< 772	< 853.496	< 739	< 764	< 684	< 748	< 757	< 940		
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 796			< 701.422	< 772	< 853.496	< 739	< 764	< 684	< 748	< 757	< 940		
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
4-Nitrophenol	100-02-7	ug/kg	7000	< 796				< 772		< 739	< 764	< 684	< 748	< 757	< 940		
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 398			91.5	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Acenaphthylene	208-96-8	ug/kg	682000	< 398			< 350.711	24.3	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Anthracene	120-12-7	ug/kg	1480000	< 398			426	56.7	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Benzidine	92-87-5	ug/kg	1310	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 398			1920	202	156	93.5	46.2	< 342	< 374	37.1	< 470		
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 398			1840	215	121	82.4	45.5	< 342	< 374	40.5	41.4		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 398			2560	427	253	137	< 382	< 342	< 374	93.9	< 470		
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 398			1450	172	97	< 369	< 382	< 342	< 374	< 379	< 470		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 398			965	182	101	< 369	< 382	< 342	< 374	< 379	< 470		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 398			44.2	101	< 426.748	21.1	< 382	< 342	< 374	19.3	37.1		
Butylbenzylphthalate	85-68-7	ug/kg	239	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Chrysene	218-01-9	ug/kg	4730	< 398			2190	221	222	126	67.6	< 342	< 374	62.1	< 470		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 398			417	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Diethylphthalate	84-66-2	ug/kg	24800	< 398			< 350.711	86	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Dimethylphthalate	131-11-3	ug/kg	734000	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Di-n-butylphthalate	84-74-2	ug/kg	150	55.4			262	80900	208	< 369	81	80.1	< 374	< 379	< 470		
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Fluoranthene	206-44-0	ug/kg	122000	< 398			3560	387	322	298	142	< 342	< 374	126	< 470		
Fluorene	86-73-7	ug/kg	122000	< 398			176	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Hexachlorobenzene	118-74-1	ug/kg	199	< 398				< 386		< 369	< 382	< 342	< 374	< 379	< 470		
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Hexachloroethane	67-72-1	ug/kg	596	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 398			1340	152	83	< 369	< 382	< 342	< 374	< 379	< 470		
Isophorone	78-59-1	ug/kg	139000	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Naphthalene	91-20-3	ug/kg	99.4	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Nitrobenzene	98-95-3	ug/kg	1310							< 369			< 374	< 379	< 470		
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 398			793	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 398				19900	2210	54.3	< 382	< 342	< 374	< 379	< 470		
Pentachlorophenol	87-86-5	ug/kg	2100	< 796			< 701.422	< 772	< 853.496	< 739	< 764	< 684	< 748	< 757	< 940		
Phenanthrene	85-01-8	ug/kg	45700	< 398			2450	155	156	130	74.5	< 342	< 374	147	66.3		
Phenol	108-95-2	ug/kg	30000	< 398			< 350.711	< 386	< 426.748	< 369	< 382	< 342	< 374	< 379	< 470		
Pyrene	129-00-0	ug/kg	78500	< 398			5660	414	296	228	144	< 342	< 374	95	< 470		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg				38700	33600	19000									
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	N7-574-03	N8-389-04	N9-1-01	N9-2260-01	N9-2267-03	N9-3-04	N9-B4-01	N9-B41-10-01	N9-B4-11-03	O5-2-04	O5-5-02	O5-534-02	O5-537-02	O5-537-02
			Sample Date	7/26/2000	8/2/2000	9/13/2000	7/13/2000	6/15/2000	8/2/2000	9/12/2000	9/12/2000	9/12/2000	7/25/2000	7/25/2000	9/27/2000	7/25/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	N7-574-031N	N8-389-041.5N	N9-1-011N	N9-2260-011N	N9-2267-031.5N	N9-3-041N	N9-B4-011.5N	N9-B41-10-011N	N9-B4-11-031.5N	O5-2-041N	O5-5-021.5N	O5-534-021N	O5-537-021FD	O5-537-021N
			Parent ID													O5-537-021N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	O5-578-02	O5-579-01	O5-580.5-05	O5-580.75-04	O5-6-03	O6-577-01	O6-650-01	O7-2-01	O7-391-02	O7-395-03	O7-615E-04	O8-2252-01	O8-2268-01	O8-4-01
			Sample Date	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/25/2000	9/12/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	O5-578-021N	O5-579-010.5N	O5-580.5-051N	O5-580.75-041N	O5-6-031N	O6-577-011N	O6-650-010.5N	O7-2-011N	O7-391-021N	O7-395-031N	O7-615E-041.25N	O8-2252-011N	O8-2268-010.5N	O8-4-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250	< 250		< 238	< 250	< 250	< 250	< 250	< 250	< 250				< 238
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250	< 250		< 238	< 250	< 250	< 250	< 250	< 250	< 250				< 238
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250	< 250		< 238	< 250	< 250	< 250	< 250	< 250	< 250				< 238
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 250	< 250		< 238		< 250			< 250					
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250	< 250		< 238	< 250	< 250	< 250	< 250	< 250	< 250				< 238
2-Nitrotoluene	88-72-2	ug/kg		< 500	< 500		< 476	< 500	< 500	< 500	< 500	< 500	< 500				< 476
3-Nitrotoluene	99-08-1	ug/kg		< 500	< 500		< 476	< 500	< 500	< 500	< 500	< 500	< 500				< 476
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250	< 250		< 238	< 250	< 250	< 250	< 250	< 250	< 250				< 238
4-Nitrotoluene	99-99-0	ug/kg		< 500	< 500		< 476	< 500	< 500	< 500	< 500	< 500	< 500				< 476
Nitrobenzene	98-95-3	ug/kg	1310	< 250	< 250		< 238	< 250	< 250	< 250	< 250	< 250	< 250				< 238
Nitrocellulose	9004-70-0	ug/kg		< 45.1	312000		< 38.5	< 39.9	< 42.1	< 41.6	< 42.4	< 45.1	151000				51900
Nitroglycerin	55-63-0	ug/kg	65000	< 6250	< 8810		< 5410	< 5680	< 5690	< 5790	< 6010	< 6130	5540				< 5590
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500	< 500		< 476	< 500	< 500	< 500	< 500	< 500	< 500				< 476
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500	< 500		< 476	< 500	< 500	< 500	< 500	< 500	< 500				< 476
Tetryl	479-45-8	ug/kg	25000	< 500	< 500		< 476	< 500	< 500	< 500	< 500	< 500	< 500				< 476
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	O5-578-02	O5-579-01	O5-580.5-05	O5-580.75-04	O5-6-03	O6-577-01	O6-650-01	O7-2-01	O7-391-02	O7-395-03	O7-615E-04	O8-2252-01	O8-2268-01	O8-4-01
			Sample Date	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/25/2000	9/12/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	O5-578-021N	O5-579-010.5N	O5-580.5-051N	O5-580.75-041N	O5-6-031N	O6-577-011N	O6-650-010.5N	O7-2-011N	O7-391-021N	O7-395-031N	O7-615E-041.25N	O8-2252-011N	O8-2268-010.5N	O8-4-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 0.639		0.367		< 0.712	< 0.43		< 0.728	0.314	< 0.547	< 0.607	< 0.61
Arsenic	7440-38-2	mg/kg	9.9			4.84		7.26		4.12	2.56		5.38	3.84	2.84	3.63	1.54
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.709		0.43		0.78	0.386		0.846	0.325	0.494	0.369	0.585
Cadmium	7440-43-9	mg/kg	0.36			< 0.319		< 0.299		< 0.356	< 0.215		< 0.364	< 0.321	1.94	< 0.303	0.6
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4			20.3		16.7		14.3	9.1		17.5	7.29	25.4	9.07	10.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			20.3		17.2		15.3	13.8		15.4	21.3	18.1	11.7	16.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			15.6		50.8		31.8	17.6		63.9	18.3	10.6	25	4.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.247		0.083		0.097	0.047		0.173	0.199	0.019	0.032	< 0.035
Nickel	7440-02-0	mg/kg	38			13.9		9.95		11.7	5.5		9.98	7.81	13.3	5.05	5.95
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			1.05		1.14		0.835	0.531		1.22	0.831	0.594	0.645	0.424
Silver	7440-22-4	mg/kg	2			< 0.319		< 0.299		< 0.356	< 0.215		< 0.364	< 0.321	< 0.273	< 0.303	< 0.305
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			1.35		1.14		1.31	0.808		1.93	< 1.07	< 0.911	< 1.01	< 1.02
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			90.5		60.2		96.9	39.9		189	52.7	552	28.8	39.8
Moisture																	
Percent Solids	SOLID	percent		78.1	54.1	87	90.2	88	83.7	84.3	83.1	77.7	78.5	83.4	89.9	96.9	89.5
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
1,2-Diphenylhydrazine	122-66-7	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 766		< 758		< 791	< 802		< 850	< 800	< 741	< 687	< 745

			Location	O5-578-02	O5-579-01	O5-580.5-05	O5-580.75-04	O5-6-03	O6-577-01	O6-650-01	O7-2-01	O7-391-02	O7-395-03	O7-615E-04	O8-2252-01	O8-2268-01	O8-4-01
			Sample Date	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/25/2000	9/12/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	O5-578-021N	O5-579-010.5N	O5-580.5-051N	O5-580.75-041N	O5-6-031N	O6-577-011N	O6-650-010.5N	O7-2-011N	O7-391-021N	O7-395-031N	O7-615E-041.25N	O8-2252-011N	O8-2268-010.5N	O8-4-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2-Chloronaphthalene	91-58-7	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2-Chlorophenol	95-57-8	ug/kg	243			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 766		< 758		< 791	< 802		< 850	< 800	< 741	< 687	< 745
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 766		< 758		< 791	< 802		< 850	< 800	< 741	< 687	< 745
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
4-Nitrophenol	100-02-7	ug/kg	7000			< 766		< 758		< 791	< 802		< 850	< 800	< 741	< 687	17.5
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Acenaphthylene	208-96-8	ug/kg	682000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Anthracene	120-12-7	ug/kg	1480000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Benzidine	92-87-5	ug/kg	1310			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			130		62.1		< 395	< 401		263	< 400	58.9	< 344	140
Benzo[a]pyrene	50-32-8	ug/kg	1520			98.1		63.3		< 395	< 401		232	< 400	48.9	< 344	88.3
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			141		98.5		< 395	< 401		277	< 400	< 371	< 344	108
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			< 383		< 379		< 395	< 401		137	< 400	< 371	< 344	< 373
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			< 383		< 379		< 395	< 401		102	< 400	< 371	< 344	< 373
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			< 383		44		26.1	< 401		< 425	131	34.5	< 344	< 373
Butylbenzylphthalate	85-68-7	ug/kg	239			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Chrysene	218-01-9	ug/kg	4730			128		85.6		< 395	< 401		205	< 400	66	< 344	129
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Diethylphthalate	84-66-2	ug/kg	24800			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Dimethylphthalate	131-11-3	ug/kg	734000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Di-n-butylphthalate	84-74-2	ug/kg	150			< 383		188		< 395	63.4		< 425	< 400	< 371	< 344	142
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Fluoranthene	206-44-0	ug/kg	122000			235		161		< 395	< 401		436	< 400	104	< 344	243
Fluorene	86-73-7	ug/kg	122000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Hexachlorobenzene	118-74-1	ug/kg	199			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Hexachloroethane	67-72-1	ug/kg	596			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			< 383		< 379		< 395	< 401		131	< 400	< 371	< 344	< 373
Isophorone	78-59-1	ug/kg	139000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Naphthalene	91-20-3	ug/kg	99.4			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Nitrobenzene	98-95-3	ug/kg	1310			< 383								< 400	< 371	< 344	
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 383		< 379		< 395	< 401		< 425	< 400	52.6	< 344	< 373
Pentachlorophenol	87-86-5	ug/kg	2100			< 766		< 758		< 791	< 802		< 850	< 800	< 741	< 687	< 745
Phenanthrene	85-01-8	ug/kg	45700			102		107		< 395	< 401		140	< 400	51.2	< 344	258
Phenol	108-95-2	ug/kg	30000			< 383		< 379		< 395	< 401		< 425	< 400	< 371	< 344	< 373
Pyrene	129-00-0	ug/kg	78500			185		147		< 395	< 401		348	< 400	126	< 344	300
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	O5-578-02	O5-579-01	O5-580.5-05	O5-580.75-04	O5-6-03	O6-577-01	O6-650-01	O7-2-01	O7-391-02	O7-395-03	O7-615E-04	O8-2252-01	O8-2268-01	O8-4-01
			Sample Date	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/25/2000	9/12/2000	7/25/2000
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Sample ID	O5-578-021N	O5-579-010.5N	O5-580.5-051N	O5-580.75-041N	O5-6-031N	O6-577-011N	O6-650-010.5N	O7-2-011N	O7-391-021N	O7-395-031N	O7-615E-041.25N	O8-2252-011N	O8-2268-010.5N	O8-4-011N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	P5-2-03	P6-541-01	P6-651-04	Q6-583-02	Q6-584-01	Q6-8-05	Q6-9311-01	R5-1-03	R5-1-03	S6-1-02	S7-1-01	SD-C13-1-01	SD-C14-1-01	SD-D10-1-01
			Sample Date	7/26/2000	7/26/2000	7/26/2000	9/13/2000	7/26/2000	7/26/2000	9/27/2000	7/26/2000	7/26/2000	7/27/2000	7/27/2000	5/1/2001	4/12/2001	5/1/2001
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	P5-2-031.5N	P6-541-011N	P6-651-041N	Q6-583-020.5N	Q6-584-011N	Q6-8-050.5N	Q6-9311-011N	R5-1-031FD	R5-1-031N	S6-1-021N	S7-1-011.5N	SD-C13-1-011N	SD-C14-1-011N	SD-D10-1-011N
			Parent ID								R5-1-031N						
			Note										update sampling_company_code from Arcadis/BB to ARCADIS			Update sampling company 7/2016 from	
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 250	< 238	< 250		< 250	< 250	< 100			< 250	< 250			< 110
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 250	< 238	< 250		< 250	< 250	< 100			< 250	< 250			< 110
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 250	< 238	< 250		< 250	501	< 100			< 250	< 250			< 110
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 250	< 238	< 250		< 250	< 250	< 100			< 250	< 250			< 110
2-Nitrotoluene	88-72-2	ug/kg		< 500	< 476	< 500		< 500	< 500	< 200			< 500	< 500			< 110
3-Nitrotoluene	99-08-1	ug/kg		< 500	< 476	< 500		< 500	< 500	< 200			< 500	< 500			< 110
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 250	< 238	< 250		< 250	< 250	< 100			< 250	< 250			< 110
4-Nitrotoluene	99-99-0	ug/kg		< 500	< 476	< 500		< 500	< 500	< 200			< 500	< 500			< 110
Nitrobenzene	98-95-3	ug/kg	1310	< 250	< 238	< 250		< 250	142	< 100			< 250	< 250			< 110
Nitrocellulose	9004-70-0	ug/kg		< 40	< 42.4	60000		58600	377000	< 33.3			48300	< 43.7			< 67000
Nitroglycerin	55-63-0	ug/kg	65000	< 5320	< 5750	< 5420		< 5250	43900	< 5420			< 6450	< 6460			< 2200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 500	< 476	< 500		< 500	< 500	< 200			< 500	< 500			< 110
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														< 2200
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 500	< 476	< 500		< 500	< 500	< 200			< 500	< 500			< 110
Tetryl	479-45-8	ug/kg	25000	< 500	< 476	< 500		< 500	< 500	< 200			< 500	< 500			< 110
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															4.7
Sieve Size #16 - Percent Finer	SIEVE_#016	%															47.7
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															1.5
Sieve Size #30 - Percent Finer	SIEVE_#030	%															29.2
Sieve Size #4 - Percent Finer	SIEVE_#004	%															73.9
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															12.9
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															98.3
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															100
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															100
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															69.6
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															65.3
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	P5-2-03	P6-541-01	P6-651-04	Q6-583-02	Q6-584-01	Q6-8-05	Q6-9311-01	R5-1-03	R5-1-03	S6-1-02	S7-1-01	SD-C13-1-01	SD-C14-1-01	SD-D10-1-01
			Sample Date	7/26/2000	7/26/2000	7/26/2000	9/13/2000	7/26/2000	7/26/2000	9/27/2000	7/26/2000	7/26/2000	7/27/2000	7/27/2000	5/1/2001	4/12/2001	5/1/2001
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	P5-2-031.5N	P6-541-011N	P6-651-041N	Q6-583-020.5N	Q6-584-011N	Q6-8-050.5N	Q6-9311-011N	R5-1-031FD	R5-1-031N	S6-1-021N	S7-1-011.5N	SD-C13-1-011N	SD-C14-1-011N	SD-D10-1-011N
			Parent ID								R5-1-031N						
			Note										update sampling_company_code from Arcadis/BB to ARCADIS/Lancaster	update sampling_company_code from			
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 0.624	< 0.467	< 0.661		< 0.525	< 0.501	< 0.637	< 0.752	< 0.746	< 0.629	< 0.68			< 0.72
Arsenic	7440-38-2	mg/kg	9.9	5.63	5.41	261		2.96	10.3	3.13	4.58	5.37	6.56	14.9			3.6
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.555	0.612	0.362		0.352	0.598	0.784	0.276	0.301	0.563	0.384			0.24
Cadmium	7440-43-9	mg/kg	0.36	< 0.312	< 0.234	< 0.33		< 0.263	< 0.251	0.079	< 0.376	< 0.373	< 0.315	0.511			< 0.061
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	14	14.8	11.2		8.79	19.4	11.4	12.5	8.52	13.9	16.9			13.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	20.5	21.6	13.2		8.8	26.1	16.8	15.1	15.2	12.5	18.4			16.4
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	23	455	47		10.9	21.2	10.2	41.1	40.9	56.8	108			62.8
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.03	0.515	0.079		0.03	< 0.034	< 0.035	0.176	0.213	0.073	0.101			0.057
Nickel	7440-02-0	mg/kg	38	11.3	11.4	7.12		5.51	9.34	6.5	6.77	5.32	8.76	11.9			7.2
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.925	0.744	4.89		0.551	0.828	< 0.531	1.07	1.54	1.08	0.935			0.66
Silver	7440-22-4	mg/kg	2	< 0.312	< 0.234	< 0.33		< 0.263	< 0.251	0.269	< 0.376	< 0.373	< 0.315	< 0.34			< 0.15
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.11	1.11	2.96		0.615	0.999	< 1.06	< 1.25	< 1.24	1.15	0.923			0.97
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	73.5	178	41.4		60.3	73.3	75.7	62.2	60.3	87	286			46.7
Moisture																	
Percent Solids	SOLID	percent		87.5	82.8	89.9		86.5	86.7	92.3	75.3	79.6	77.6	77.4			
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 745	< 804	< 736		< 748	< 766	< 722	< 894	< 819	< 846	< 8310			< 750

			Location	P5-2-03	P6-541-01	P6-651-04	Q6-583-02	Q6-584-01	Q6-8-05	Q6-9311-01	R5-1-03	R5-1-03	S6-1-02	S7-1-01	SD-C13-1-01	SD-C14-1-01	SD-D10-1-01
			Sample Date	7/26/2000	7/26/2000	7/26/2000	9/13/2000	7/26/2000	7/26/2000	9/27/2000	7/26/2000	7/26/2000	7/27/2000	7/27/2000	5/1/2001	4/12/2001	5/1/2001
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	P5-2-031.5N	P6-541-011N	P6-651-041N	Q6-583-020.5N	Q6-584-011N	Q6-8-050.5N	Q6-9311-011N	R5-1-031FD	R5-1-031N	S6-1-021N	S7-1-011.5N	SD-C13-1-011N	SD-C14-1-011N	SD-D10-1-011N
			Parent ID								R5-1-031N						
			Note										update sampling_company_code from Arcadis/BB to ARCADIS	update sampling_company_code from			
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
2-Chloronaphthalene	91-58-7	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
2-Chlorophenol	95-57-8	ug/kg	243	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 745	< 804	< 736		< 748	< 766	< 722	< 894	< 819	< 846	< 8310			< 75
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 745	< 804	< 736		< 748	< 766	< 722	< 894	< 819	< 846	< 8310			< 190
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
4-Nitrophenol	100-02-7	ug/kg	7000	< 745	< 804	< 736		< 748	< 766	< 722	< 894	< 819	< 846	< 8310			< 190
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	1750			610
Acenaphthylene	208-96-8	ug/kg	682000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			720
Anthracene	120-12-7	ug/kg	1480000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	2730			2500
Benzidine	92-87-5	ug/kg	1310	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 750
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 372	< 402	< 368		< 374	36.8	< 361	< 447	< 409	< 423	5850			2900
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 372	< 402	< 368		< 374	40.6	< 361	< 447	< 409	< 423	4080			2500
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 372	< 402	< 368		< 374	85.1	< 361	< 447	< 409	< 423	6220			4300
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	2510			1300
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	2330			1900
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	26.8	26.1	24.7		23.2	54.8	< 361	25.9	26.6	23.3	< 4160			420
Butylbenzylphthalate	85-68-7	ug/kg	239	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
Chrysene	218-01-9	ug/kg	4730	< 372	< 402	< 368		< 374	53.6	< 361	< 447	< 409	< 423	5190			4400
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	914			500
Diethylphthalate	84-66-2	ug/kg	24800	< 372	< 402	< 368		< 374	1280	< 361	< 447	< 409	< 423	< 4160			< 75
Dimethylphthalate	131-11-3	ug/kg	734000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
Di-n-butylphthalate	84-74-2	ug/kg	150	169	< 402	51.2		< 374	138	< 361	< 447	< 409	< 423	< 4160			< 75
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
Fluoranthene	206-44-0	ug/kg	122000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	15000			6200
Fluorene	86-73-7	ug/kg	122000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	1750			1000
Hexachlorobenzene	118-74-1	ug/kg	199	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 190
Hexachloroethane	67-72-1	ug/kg	596	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	2470			1700
Isophorone	78-59-1	ug/kg	139000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
Naphthalene	91-20-3	ug/kg	99.4	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	682			62
Nitrobenzene	98-95-3	ug/kg	1310								< 447	< 409					
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 190
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 372	38.2	< 368		< 374	519	< 361	< 447	< 409	< 423	< 4160			55
Pentachlorophenol	87-86-5	ug/kg	2100	< 745	< 804	< 736		< 748	< 766	< 722	< 894	< 819	< 846	< 8310			< 190
Phenanthrene	85-01-8	ug/kg	45700	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	15400			4000
Phenol	108-95-2	ug/kg	30000	< 372	< 402	< 368		< 374	< 383	< 361	< 447	< 409	< 423	< 4160			< 75
Pyrene	129-00-0	ug/kg	78500	< 372	< 402	< 368		< 374	95.4	< 361	< 447	< 409	< 423	11500			5300
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															9500
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg													< 13000	< 12000	< 11000
Di-N-Propyl Ether	111-43-3	ug/kg													< 13000	< 12000	< 11000
Ethanol	64-17-5	ug/kg													< 13000	< 12000	< 11000
Ethyl ether	60-29-7	ug/kg													< 13000	< 12000	< 11000
Methanol	67-56-1	ug/kg													< 13000	< 12000	< 11000
N-butyl ether	142-96-1	ug/kg													< 13000	< 12000	< 11000
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg					< 590								< 130	< 130	< 130
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127				< 590								< 130	< 130	< 130

			Location	P5-2-03	P6-541-01	P6-651-04	Q6-583-02	Q6-584-01	Q6-8-05	Q6-9311-01	R5-1-03	R5-1-03	S6-1-02	S7-1-01	SD-C13-1-01	SD-C14-1-01	SD-D10-1-01
			Sample Date	7/26/2000	7/26/2000	7/26/2000	9/13/2000	7/26/2000	7/26/2000	9/27/2000	7/26/2000	7/26/2000	7/27/2000	7/27/2000	5/1/2001	4/12/2001	5/1/2001
			Sample Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	P5-2-031.5N	P6-541-011N	P6-651-041N	Q6-583-020.5N	Q6-584-011N	Q6-8-050.5N	Q6-9311-011N	R5-1-031FD	R5-1-031N	S6-1-021N	S7-1-011.5N	SD-C13-1-011N	SD-C14-1-011N	SD-D10-1-011N
			Parent ID								R5-1-031N						
			Note										update sampling_company_code from Arcadis/BB to ARCADIS	update sampling_company_code from			
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg					< 590								< 130	< 130	< 130
1,1-Dichloroethane	75-34-3	ug/kg					< 590								< 130	< 130	< 130
1,1-Dichloroethene	75-35-4	ug/kg	8280				< 590								< 130	< 130	< 130
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 590										
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 590										
1,2-Dichloroethane	107-06-2	ug/kg					< 590								< 130	< 130	< 130
1,2-Dichloropropane	78-87-5	ug/kg					< 590								< 130	< 130	< 130
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 590										
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 590										
2-Chloroethylvinylether	110-75-8	ug/kg					< 1180								< 270	< 260	< 260
Acetonitrile	75-05-8	ug/kg					< 590										
Acrolein	107-02-8	ug/kg	5270				< 2360								< 2700	< 2600	< 2600
Acrylonitrile	107-13-1	ug/kg	23.9												< 540	< 520	< 510
Benzene	71-43-2	ug/kg	255				< 590								< 130	< 130	< 130
Bromodichloromethane	75-27-4	ug/kg	540				< 590								< 130	< 130	< 130
Bromoform	75-25-2	ug/kg					< 590								< 130	< 130	< 130
Bromomethane	74-83-9	ug/kg	235				< 1180								< 270	< 260	< 260
Carbon Tetrachloride	56-23-5	ug/kg	2980				< 590								< 130	< 130	< 130
Chlorobenzene	108-90-7	ug/kg	13100				< 590								< 130	< 130	< 130
Chloroethane	75-00-3	ug/kg					< 1180								< 270	< 260	< 260
Chloroform	67-66-3	ug/kg	1190				< 590								< 130	< 130	< 130
Chloromethane	74-87-3	ug/kg	10400				< 1180								< 270	< 260	< 260
cis-1,2-Dichloroethene	156-59-2	ug/kg													< 130	< 130	< 130
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg					< 590								< 130	< 130	< 130
Dibromochloromethane	124-48-1	ug/kg	2050				< 590								< 130	< 130	< 130
Ethylbenzene	100-41-4	ug/kg	5160				< 590								< 130	< 130	< 130
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 590										
Methylene Chloride	75-09-2	ug/kg	4050				670								< 270	< 260	< 260
Naphthalene	91-20-3	ug/kg	99.4				< 590										
Tetrachloroethene	127-18-4	ug/kg	9920				< 590								< 130	< 130	< 130
Toluene	108-88-3	ug/kg	200000				< 590								< 130	< 130	< 130
trans-1,2-Dichloroethene	156-60-5	ug/kg					< 590								< 130	< 130	< 130
Trans-1,3-Dichloropropene	10061-02-6	ug/kg													< 130	< 130	< 130
Trichloroethene	79-01-6	ug/kg	12400				< 590								< 130	< 130	< 130
Trichlorofluoromethane	75-69-4	ug/kg	16400												< 270	< 260	< 260
Vinyl Chloride	75-01-4	ug/kg	646				< 1180								< 130	< 130	< 130
Xylenes (total)	1330-20-7	ug/kg													< 130	< 130	< 130

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SD-D12-1-01	SD-D14-3-01	SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-F10-1-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F8-1-01	SD-F9-1-01	SD-F9-2-01
			Sample Date	4/16/2001	4/10/2001	4/17/2001	4/16/2001	4/16/2001	4/17/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/25/2001	4/25/2001	5/1/2001
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-D12-1-011N	SD-D14-3-011N	SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-F10-1-011N	SD-F10-2-011N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F8-1-011N	SD-F9-1-011N	SD-F9-2-011N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	DIS for consistency by vhk 11/7/2016		
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	SD-D12-1-01	SD-D14-3-01	SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-F10-1-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F8-1-01	SD-F9-1-01	SD-F9-2-01
			Sample Date	4/16/2001	4/10/2001	4/17/2001	4/16/2001	4/16/2001	4/17/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/25/2001	4/25/2001	5/1/2001
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-D12-1-011N	SD-D14-3-011N	SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-F10-1-011N	SD-F10-2-011N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F8-1-011N	SD-F9-1-011N	SD-F9-2-011N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	DIS for consistency by vhk 11/7/2016		
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36														
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11														
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1														
Nickel	7440-02-0	mg/kg	38														
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2														
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	SD-D12-1-01	SD-D14-3-01	SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-F10-1-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F8-1-01	SD-F9-1-01	SD-F9-2-01
			Sample Date	4/16/2001	4/10/2001	4/17/2001	4/16/2001	4/16/2001	4/17/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/25/2001	4/25/2001	5/1/2001
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-D12-1-011N	SD-D14-3-011N	SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-F10-1-011N	SD-F10-2-011N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F8-1-011N	SD-F9-1-011N	SD-F9-2-011N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	DIS for consistency by vhk 11/7/2016		
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg		< 19000	< 21000	< 19000	< 14000	< 24000	< 17000	< 14000	< 14000	< 22000	< 14000	< 16000	< 10000	< 10000	< 13000
Di-N-Propyl Ether	111-43-3	ug/kg		< 19000	< 21000	< 19000	< 14000	< 24000	< 17000	< 14000	< 14000	< 22000	< 14000	< 16000	< 10000	< 10000	< 13000
Ethanol	64-17-5	ug/kg		< 19000	< 21000	< 19000	< 14000	< 24000	< 17000	< 14000	< 14000	< 22000	< 14000	< 16000	< 10000	< 10000	< 13000
Ethyl ether	60-29-7	ug/kg		< 19000	< 21000	< 19000	< 14000	< 24000	< 17000	< 14000	< 14000	< 22000	< 14000	< 16000	< 10000	< 10000	< 13000
Methanol	67-56-1	ug/kg		< 19000	< 21000	< 19000	< 14000	< 24000	< 17000	< 14000	< 14000	< 22000	< 14000	< 16000	< 10000	< 10000	< 13000
N-butyl ether	142-96-1	ug/kg		< 19000	< 21000	< 19000	< 14000	< 24000	< 17000	< 14000	< 14000	< 22000	< 14000	< 16000	< 10000	< 10000	< 13000
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160

			Location	SD-D12-1-01	SD-D14-3-01	SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-F10-1-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F8-1-01	SD-F9-1-01	SD-F9-2-01
			Sample Date	4/16/2001	4/10/2001	4/17/2001	4/16/2001	4/16/2001	4/17/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/25/2001	4/25/2001	5/1/2001
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-D12-1-011N	SD-D14-3-011N	SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-F10-1-011N	SD-F10-2-011N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F8-1-011N	SD-F9-1-011N	SD-F9-2-011N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	DIS for consistency by vhk 11/7/2016		
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
1,1-Dichloroethane	75-34-3	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
1,2-Dichloropropane	78-87-5	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg		< 450	< 490	< 420	< 310	< 610	< 400	< 340	< 310	< 640	< 360	< 380	< 250	< 250	< 320
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 4500	< 5000	< 4200	< 3100	< 6100	< 4000	< 3400	< 3100	< 6400	< 3600	< 3800	< 2500	< 2500	< 3200
Acrylonitrile	107-13-1	ug/kg	23.9	< 910	< 990	< 840	< 610	< 1200	< 790	< 670	< 630	< 1300	< 730	< 770	< 500	< 510	< 630
Benzene	71-43-2	ug/kg	255	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Bromodichloromethane	75-27-4	ug/kg	540	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Bromoform	75-25-2	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 250	< 250	< 160
Bromomethane	74-83-9	ug/kg	235	< 450	< 490	< 420	< 310	< 610	< 400	< 340	< 310	< 640	< 360	< 380	< 250	< 250	< 320
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Chlorobenzene	108-90-7	ug/kg	13100	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Chloroethane	75-00-3	ug/kg		< 450	< 490	< 420	< 310	< 610	< 400	< 340	< 310	< 640	< 360	< 380	< 250	< 250	< 320
Chloroform	67-66-3	ug/kg	1190	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Chloromethane	74-87-3	ug/kg	10400	< 450	< 490	< 420	< 310	< 610	< 400	< 340	< 310	< 640	< 360	< 380	< 250	< 250	< 320
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Dibromochloromethane	124-48-1	ug/kg	2050	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Ethylbenzene	100-41-4	ug/kg	5160	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 450	< 490	< 420	< 310	< 610	< 400	< 340	< 310	< 640	< 360	< 380	< 250	< 250	< 320
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Toluene	108-88-3	ug/kg	200000	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Trans-1,3-Dichloropropene	10061-02-6	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Trichloroethene	79-01-6	ug/kg	12400	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Trichlorofluoromethane	75-69-4	ug/kg	16400	< 450	< 490	< 420	< 310	< 610	< 400	< 340	< 310	< 640	< 360	< 380	< 250	< 250	< 320
Vinyl Chloride	75-01-4	ug/kg	646	< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160
Xylenes (total)	1330-20-7	ug/kg		< 230	< 250	< 210	< 150	< 300	< 200	< 170	< 160	< 320	< 180	< 190	< 130	< 130	< 160

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-I10-2-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SB-R0-M8-02	SB-R0-M8-05	SB-R0-M9-02
			Sample Date	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/20/2001	4/23/2001	4/23/2001	4/23/2001	12/21/2005	12/21/2005	12/22/2005
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft
			Sample ID	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-I10-2-011N	SD-I7-1-011N	SD-I8-1-011N	SD-J10-1-011N	SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	B-R0-M8-021.0N133	B-R0-M8-051.0N141	B-R0-M9-020.67N11
			Parent ID									SD-P4-1-012N					
			Note		update sampling_company_code from Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016												
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 170			< 120				< 370			
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655				< 170			< 120				< 370	< 330	< 320	
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000				< 170			6920				< 370	< 330	< 320	
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000				< 170			< 120				< 370	< 330	< 320	
2-Nitrotoluene	88-72-2	ug/kg					< 170			< 120				< 370			
3-Nitrotoluene	99-08-1	ug/kg					< 170			< 120				< 370			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000				< 170			< 120				< 370	< 330	< 320	
4-Nitrotoluene	99-99-0	ug/kg					< 170			< 120				< 370			
Nitrobenzene	98-95-3	ug/kg	1310				< 170			< 120				< 370			
Nitrocellulose	9004-70-0	ug/kg					< 100000			500000				< 220000	< 130000	< 130000	
Nitroglycerin	55-63-0	ug/kg	65000				< 3500			< 5000				< 7400	< 6500	< 6500	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000				< 170			< 120				< 370	< 810	< 810	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000				< 3500			< 2500				< 7400			
RDX (Cyclonite)	121-82-4	ug/kg	98000				< 170			< 120				< 370	< 330	< 320	
Tetryl	479-45-8	ug/kg	25000				< 170			< 120				< 370			
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%					12.5			11.6				18.6			
Sieve Size #16 - Percent Finer	SIEVE_#016	%					61.5			55.4				79.5			
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%					4.9			5.5				7.2			
Sieve Size #30 - Percent Finer	SIEVE_#030	%					45.9			35.5				59.1			
Sieve Size #4 - Percent Finer	SIEVE_#004	%					82.4			77.6				96			
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%					28.2			21.2				39.3			
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%					87.9			99.9				97.7			
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%					100			100				98.7			
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%					100			100				100			
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%					79.5			72.6				94.9			
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%					76.4			69.6				92			
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-I10-2-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SB-R0-M8-02	SB-R0-M8-05	SB-R0-M9-02
			Sample Date	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/20/2001	4/23/2001	4/23/2001	4/23/2001	12/21/2005	12/21/2005	12/22/2005
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft
			Sample ID	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-I10-2-011N	SD-I7-1-011N	SD-I8-1-011N	SD-J10-1-011N	SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	B-R0-M8-021.0N133	B-R0-M8-051.0N141	B-R0-M9-020.67N11
			Parent ID									SD-P4-1-012N					
			Note		update sampling_company_code from Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016												
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27				1.2			< 0.8				< 0.65	< 1.99		
Arsenic	7440-38-2	mg/kg	9.9				10			8				1.4	3.29		
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10				0.53			0.63				0.43	0.458		
Cadmium	7440-43-9	mg/kg	0.36				< 0.095			< 0.068				0.13	1.35		
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				12.4			161				4.5			
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4				28.9			38.7				6	30		
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				310			578				34.1	77.5		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1				0.49			0.11				0.1	0.0345		
Nickel	7440-02-0	mg/kg	38				6.3			11.1				3.1	7.48		
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52				1.1			< 0.59				0.88	< 1.99		
Silver	7440-22-4	mg/kg	2				< 0.24			< 0.17				0.14	5.19		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1				< 1.5			2				< 0.85	< 1.99		
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5				51.7			97.3				29.7	174		
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%													7.7	7.5	< 0.5
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000				< 57			< 41				< 120			
1,2-Dichlorobenzene	95-50-1	ug/kg	2960				< 57			< 41				< 120			
1,2-Diphenylhydrazine	122-66-7	ug/kg					< 57			< 41				< 120			
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700				< 57			< 41				< 120			
1,4-Dichlorobenzene	106-46-7	ug/kg	546				< 57			< 41				< 120			< 170
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg					< 120			< 83				< 250			
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg					< 120			< 83				< 250			
2,4-Dimethylphenol	105-67-9	ug/kg	10				< 120			< 83				< 250			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9				< 1200			< 830				< 2500			< 2000

			Location	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-I10-2-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SB-R0-M8-02	SB-R0-M8-05	SB-R0-M9-02
			Sample Date	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/20/2001	4/23/2001	4/23/2001	4/23/2001	12/21/2005	12/21/2005	12/22/2005
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft
			Sample ID	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-I10-2-011N	SD-I7-1-011N	SD-I8-1-011N	SD-J10-1-011N	SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	B-R0-M8-021.0N133	B-R0-M8-051.0N141	B-R0-M9-020.67N11
			Parent ID									SD-P4-1-012N					
			Note		update sampling_company_code from Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016												
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280				< 120			< 83				< 250			73000
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8				< 57			< 41				< 120			3100
2-Chloronaphthalene	91-58-7	ug/kg					< 57			< 41				< 120			
2-Chlorophenol	95-57-8	ug/kg	243				< 57			< 41				< 120			
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg					< 120			< 83				< 250			
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646				< 120			< 83				< 250			
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144				< 290			< 210				< 630			
4-Bromophenyl-phenylether	101-55-3	ug/kg					< 120			< 83				< 250			
4-Chloro-3-methylphenol	59-50-7	ug/kg					< 120			< 83				< 250			
4-Chlorophenyl-phenylether	7005-72-3	ug/kg					< 57			< 41				< 120			
4-Nitrophenol	100-02-7	ug/kg	7000				< 290			< 210				< 630			
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000				< 57			< 41				< 120			
Acenaphthylene	208-96-8	ug/kg	682000				< 57			< 41				< 120			
Anthracene	120-12-7	ug/kg	1480000				< 57			< 41				< 120			
Benzidine	92-87-5	ug/kg	1310				< 1200			< 830				< 2500			
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210				130			< 41				< 120			260
Benzo[a]pyrene	50-32-8	ug/kg	1520				120			< 41				< 120			270
Benzo[b]fluoranthene	205-99-2	ug/kg	59800				250			75				< 120			470
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000				130			< 41				< 120			
Benzo[k]fluoranthene	207-08-9	ug/kg	148000				100			< 41				< 120			190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg					< 120			< 83				< 250			
Bis(2-Chloroethyl)ether	111-44-4	ug/kg					< 57			< 41				< 120			
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900				< 57			< 41				< 120			
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925				< 120			100				< 250			< 330
Butylbenzylphthalate	85-68-7	ug/kg	239				< 120			< 83				< 250			< 170
Chrysene	218-01-9	ug/kg	4730				190			49				< 120			300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400				< 57			< 41				< 120			57
Diethylphthalate	84-66-2	ug/kg	24800				< 120			770				< 250			< 170
Dimethylphthalate	131-11-3	ug/kg	734000				< 120			< 83				< 250			
Di-n-butylphthalate	84-74-2	ug/kg	150				< 120			1200				< 250			240
Di-n-octylphthalate	117-84-0	ug/kg	7090				< 120			< 83				< 250			
Fluoranthene	206-44-0	ug/kg	122000				200			50				< 120			
Fluorene	86-73-7	ug/kg	122000				< 57			< 41				< 120			
Hexachlorobenzene	118-74-1	ug/kg	199				< 57			< 41				< 120			
Hexachlorobutadiene	87-68-3	ug/kg	39.8				< 120			< 83				< 250			
Hexachlorocyclopentadiene	77-47-4	ug/kg					< 290			< 210				< 630			
Hexachloroethane	67-72-1	ug/kg	596				< 57			< 41				< 120			
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000				150			< 41				< 120			180
Isophorone	78-59-1	ug/kg	139000				< 57			< 41				< 120			
Naphthalene	91-20-3	ug/kg	99.4				< 57			< 41				< 120			
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321				< 120			< 83				< 630			
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544				< 57			< 41				< 120			< 170
N-Nitrosodiphenylamine	86-30-6	ug/kg	545				< 57			650				< 120			1600
Pentachlorophenol	87-86-5	ug/kg	2100				< 290			< 210				< 630			
Phenanthrene	85-01-8	ug/kg	45700				76			< 41				< 120			
Phenol	108-95-2	ug/kg	30000				< 120			< 83				< 250			
Pyrene	129-00-0	ug/kg	78500				170			45				< 120			
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg					54900			19200				205000			
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg		< 16000	< 16000	< 13000	< 17000	< 13000	< 12000	< 12000	< 12000		< 19000	< 37000			
Di-N-Propyl Ether	111-43-3	ug/kg		< 16000	< 16000	< 13000	< 17000	< 13000	< 12000	< 12000	< 12000		< 19000	< 37000			
Ethanol	64-17-5	ug/kg		< 16000	< 16000	< 13000	< 17000	< 13000	< 12000	< 12000	< 12000		< 19000	< 37000			
Ethyl ether	60-29-7	ug/kg		< 16000	< 16000	< 13000	< 17000	< 13000	< 12000	< 12000	< 12000		< 19000	< 37000			
Methanol	67-56-1	ug/kg		< 16000	< 16000	< 13000	< 17000	< 13000	< 12000	< 12000	< 12000		< 19000	< 37000			
N-butyl ether	142-96-1	ug/kg		< 16000	< 16000	< 13000	< 17000	< 13000	< 12000	< 12000	< 12000		< 19000	< 37000			
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			

			Location	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-I10-2-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SB-R0-M8-02	SB-R0-M8-05	SB-R0-M9-02
			Sample Date	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/20/2001	4/23/2001	4/23/2001	4/23/2001	12/21/2005	12/21/2005	12/22/2005
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft
			Sample ID	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-I10-2-011N	SD-I7-1-011N	SD-I8-1-011N	SD-J10-1-011N	SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	B-R0-M8-021.0N133	B-R0-M8-051.0N141	B-R0-M9-020.67N11
			Parent ID									SD-P4-1-012N					
			Note		update sampling_company_code from Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016												
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
1,1-Dichloroethane	75-34-3	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
1,2-Dichloropropane	78-87-5	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg		< 490	< 340	< 340	< 420	< 440	< 330	< 290	< 290	< 430	< 590	< 960			
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270	< 4900	< 3400	< 3400	< 4200	< 4400	< 3300	< 2900	< 2900	< 4300	< 5900	< 9500			
Acrylonitrile	107-13-1	ug/kg	23.9	< 970	< 670	< 680	< 830	< 890	< 660	< 580	< 590	< 850	< 1200	< 1900			
Benzene	71-43-2	ug/kg	255	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Bromodichloromethane	75-27-4	ug/kg	540	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Bromoform	75-25-2	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Bromomethane	74-83-9	ug/kg	235	< 490	< 340	< 340	< 420	< 440	< 330	< 290	< 290	< 430	< 590	< 960			
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Chlorobenzene	108-90-7	ug/kg	13100	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Chloroethane	75-00-3	ug/kg		< 490	< 340	< 340	< 420	< 440	< 330	< 290	< 290	< 430	< 590	< 960			
Chloroform	67-66-3	ug/kg	1190	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Chloromethane	74-87-3	ug/kg	10400	< 490	< 340	< 340	< 420	< 440	< 330	< 290	< 290	< 430	< 590	< 960			
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Dibromochloromethane	124-48-1	ug/kg	2050	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Ethylbenzene	100-41-4	ug/kg	5160	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 490	< 340	< 340	< 420	< 440	< 330	< 290	< 290	< 430	< 590	< 960			
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Toluene	108-88-3	ug/kg	200000	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Trichloroethene	79-01-6	ug/kg	12400	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Trichlorofluoromethane	75-69-4	ug/kg	16400	< 490	< 340	< 340	< 420	< 440	< 330	< 290	< 290	< 430	< 590	< 960			
Vinyl Chloride	75-01-4	ug/kg	646	< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			
Xylenes (total)	1330-20-7	ug/kg		< 240	< 170	< 170	< 210	< 220	< 170	< 140	< 150	< 210	< 300	< 480			

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R0-M9-03	SB-R0-M9-09	SB-R-A14-01	SB-R-B14-02	SB-R-B14-04	SB-R-C13-03	SB-R-C14-04	SB-R-D10-01	SB-R-D10-03	SB-R-D10-03	SB-R-D12-01	SB-R-D12-02	SB-R-D13-01	SB-R-D14-02
			Sample Date	12/22/2005	12/22/2005	5/18/2006	5/18/2006	6/6/2006	5/31/2006	6/6/2006	6/1/2006	6/1/2006	6/1/2006	5/30/2006	6/6/2006	5/19/2006	6/6/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	B-R0-M9-031.0N105	B-R0-M9-091.0N153	SB-R-A14-011.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C13-031.0N	SB-R-C14-041.0N	SB-R-D10-011.0N	SB-R-D10-031.0FD	SB-R-D10-031.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D13-011.0N	SB-R-D14-021.0N
			Parent ID									SB-R-D10-031.0N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 360	< 370	< 360	< 350	< 360	< 310	< 350	< 350	< 360	< 370	< 430	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 360	< 370	< 360	< 350	< 360	< 310	< 350	< 350	< 360	< 370	< 430	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 360	< 370	< 360	< 350	< 360	< 310	< 350	< 350	< 360	< 370	< 430	< 370
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 360	< 370	< 360	< 350	< 360	< 310	< 350	< 350	< 360	< 370	< 430	< 370
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg				< 140000	< 150000	< 150000	< 140000	< 140000	< 130000	< 140000	< 140000	< 140000	< 150000	< 170000	< 150000
Nitroglycerin	55-63-0	ug/kg	65000			< 7300	< 7500	< 7300	< 7100	< 7200	< 6300	< 6900	< 7000	< 7200	< 7400	< 8600	< 7400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 910	< 940	< 910	< 880	< 900	< 780	< 870	< 870	< 890	< 920	< 1100	< 920
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 360	< 370	< 360	< 350	< 360	< 310	< 350	< 350	< 360	< 370	< 430	< 370
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R0-M9-03	SB-R0-M9-09	SB-R-A14-01	SB-R-B14-02	SB-R-B14-04	SB-R-C13-03	SB-R-C14-04	SB-R-D10-01	SB-R-D10-03	SB-R-D10-03	SB-R-D12-01	SB-R-D12-02	SB-R-D13-01	SB-R-D14-02
			Sample Date	12/22/2005	12/22/2005	5/18/2006	5/18/2006	6/6/2006	5/31/2006	6/6/2006	6/1/2006	6/1/2006	6/1/2006	5/30/2006	6/6/2006	5/19/2006	6/6/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	B-R0-M9-031.0N105	B-R0-M9-091.0N153	SB-R-A14-011.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C13-031.0N	SB-R-C14-041.0N	SB-R-D10-011.0N	SB-R-D10-031.0FD	SB-R-D10-031.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D13-011.0N	SB-R-D14-021.0N
			Parent ID									SB-R-D10-031.0N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27			< 2.38	< 2.42	1.39	1.12	1.65	< 2.07	< 2.26	< 2.27	< 2.36	1.54	< 2.85	1.14
Arsenic	7440-38-2	mg/kg	9.9			3.55	2.85	5.44	2.3	4.2	1.52	3.66	2.91	17.5	19.9	6.66	2.7
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10			0.711	0.817	0.653	0.608	0.75	0.179	0.457	0.415	0.328	0.559	0.463	0.5
Cadmium	7440-43-9	mg/kg	0.36			< 2.97	< 0.606	< 2.97	< 2.83	0.504	< 0.517	< 2.83	< 2.84	< 2.95	< 3.06	< 3.56	0.21
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4			10.4	9.2	13	10.9	10.3	6.67	21.7	17.7	6.47	20.7	28.3	7.02
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			11	10.4	10	4.37	6.32	39.9	59.8	44.3	29.6	1160	3.92	8.52
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1			0.0352	0.0751	0.125	0.0141	0.0224	0.0207	0.2	0.239	0.415	0.333	0.0205	0.0393
Nickel	7440-02-0	mg/kg	38			8.74	7.43	8.95	6.98	9.09	3.13	11.2	10.7	4.51	8.19	13.2	8.57
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52			< 2.38	< 2.42	1.34	< 2.27	< 2.37	< 2.07	< 2.26	< 2.27	< 2.36	2.11	1.6	< 2.41
Silver	7440-22-4	mg/kg	2			< 0.595	< 0.606	< 0.593	< 0.566	< 0.591	< 0.517	0.322	0.218	< 0.59	< 0.613	< 0.712	< 0.603
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1			< 2.38	< 2.42	1.79	< 2.27	< 2.37	< 2.07	1.78	2.15	< 2.36	< 2.45	< 2.85	< 2.41
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5			59.7	53.6	50.2	40.8	48.4	11.9	64.6	58	29.6	30.3	28.3	46.7
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		12.8	10.5	17.6	19.9	17.4	15.1	16.3	4.2	13.4	13.8	16.1	18.4	30.5	18.7
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	< 20	< 20	< 20	< 21	< 24	< 21
Aroclor-1221	11104-28-2	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	< 20	< 20	< 20	< 21	< 24	< 21
Aroclor-1232	11141-16-5	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	< 20	< 20	< 20	< 21	< 24	< 21
Aroclor-1242	53469-21-9	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	< 20	< 20	< 20	< 21	< 24	< 21
Aroclor-1248	12672-29-6	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	< 20	< 20	< 20	< 21	< 24	< 21
Aroclor-1254	11097-69-1	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	40	21	< 20	< 21	< 24	< 21
Aroclor-1260	11096-82-5	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	< 20	< 20	< 20	< 21	< 24	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	371			< 21	< 21	< 21	< 20	< 20	< 18	40	21	< 20	< 21	< 24	< 21
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 190	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2300	< 2200	< 2400	< 2500	< 2400	< 2400	< 2400	< 2100	< 2300	< 2300	< 2400	< 2500	< 2900	< 2500

			Location	SB-R0-M9-03	SB-R0-M9-09	SB-R-A14-01	SB-R-B14-02	SB-R-B14-04	SB-R-C13-03	SB-R-C14-04	SB-R-D10-01	SB-R-D10-03	SB-R-D10-03	SB-R-D12-01	SB-R-D12-02	SB-R-D13-01	SB-R-D14-02
			Sample Date	12/22/2005	12/22/2005	5/18/2006	5/18/2006	6/6/2006	5/31/2006	6/6/2006	6/1/2006	6/1/2006	6/1/2006	5/30/2006	6/6/2006	5/19/2006	6/6/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	B-R0-M9-031.0N105	B-R0-M9-091.0N153	SB-R-A14-011.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C13-031.0N	SB-R-C14-041.0N	SB-R-D10-011.0N	SB-R-D10-031.0FD	SB-R-D10-031.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D13-011.0N	SB-R-D14-021.0N
			Parent ID									SB-R-D10-031.0N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 190	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 190	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	100	570	< 200	< 210	< 200	< 200	< 200	< 170	580	780	< 200	64	< 240	< 210
Benzo[a]pyrene	50-32-8	ug/kg	1520	81	620	< 200	< 210	< 200	< 200	< 200	< 170	490	670	< 200	43	< 240	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	140	820	< 200	< 210	< 200	< 200	< 200	< 170	870	1100	< 200	91	51	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	58	400	< 200	< 210	< 200	< 200	< 200	< 170	350	480	< 200	< 200	< 240	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 380	< 370	< 400	< 420	< 400	< 390	< 400	< 350	390	< 390	< 400	< 410	< 480	< 410
Butylbenzylphthalate	85-68-7	ug/kg	239	< 190	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
Chrysene	218-01-9	ug/kg	4730	120	650	< 200	< 210	< 200	< 200	< 200	< 170	630	830	< 200	100	140	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 190	120	< 200	< 210	< 200	< 200	< 200	< 170	140	140	< 200	< 200	< 240	< 210
Diethylphthalate	84-66-2	ug/kg	24800	< 190	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	940	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	46	390	< 200	< 210	< 200	< 200	< 200	< 170	360	430	< 200	< 200	< 240	< 210
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 190	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	220	< 190	< 200	< 210	< 200	< 200	< 200	< 170	< 190	< 190	< 200	< 200	< 240	< 210
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R0-M9-03	SB-R0-M9-09	SB-R-A14-01	SB-R-B14-02	SB-R-B14-04	SB-R-C13-03	SB-R-C14-04	SB-R-D10-01	SB-R-D10-03	SB-R-D10-03	SB-R-D12-01	SB-R-D12-02	SB-R-D13-01	SB-R-D14-02
			Sample Date	12/22/2005	12/22/2005	5/18/2006	5/18/2006	6/6/2006	5/31/2006	6/6/2006	6/1/2006	6/1/2006	6/1/2006	5/30/2006	6/6/2006	5/19/2006	6/6/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	B-R0-M9-031.0N105	B-R0-M9-091.0N153	SB-R-A14-011.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C13-031.0N	SB-R-C14-041.0N	SB-R-D10-011.0N	SB-R-D10-031.0FD	SB-R-D10-031.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D13-011.0N	SB-R-D14-021.0N
			Parent ID									SB-R-D10-031.0N					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9			< 3400	< 3300	< 3100	< 2900	< 2900	< 2700	< 3000	< 2900	< 3100	< 3000	< 3600	< 3200
Benzene	71-43-2	ug/kg	255			< 850	< 810	< 780	< 730	< 740	< 670	< 740	< 730	< 770	< 750	< 910	< 800
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100			< 850	< 810	< 780	< 730	< 740	< 670	< 740	< 730	< 770	< 750	< 910	< 800
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050			< 850	< 810	< 780	< 730	< 740	< 670	< 740	< 730	< 770	< 750	< 910	< 800
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920			< 850	< 810	< 780	< 730	< 740	< 670	< 740	< 730	< 770	< 750	< 910	< 800
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-D14-03	SB-R-E10-02	SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02	SB-R-E12-04	SB-R-E13-01
			Sample Date	7/6/2006	6/1/2006	6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006	6/8/2006	5/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-D14-031.0N	SB-R-E10-021.0N	SB-R-E10-031.0FD	SB-R-E10-031.0N	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0FD	SB-R-E12-011.0N	SB-R-E12-021.0N	SB-R-E12-041.0N	SB-R-E13-011.0N
			Parent ID			SB-R-E10-031.0N							SB-R-E12-011.0N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 2100	< 350	< 340	< 330	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400	< 380	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 2100	< 350	< 340	< 330	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400	< 380	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 2100	< 350	< 340	< 330	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400	< 380	< 340
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 2100	< 350	< 340	< 330	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400	< 380	< 340
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 810000	220000	< 130000	< 130000	< 140000	< 150000	90000	< 150000	< 140000	< 150000	< 150000	< 160000	< 150000	< 130000
Nitroglycerin	55-63-0	ug/kg	65000	< 41000	< 7000	< 6700	< 6700	< 7000	< 7600	4100	< 7700	< 6900	< 7600	< 7700	< 7900	< 7600	< 6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 5100	< 870	< 840	< 840	< 880	< 950	< 980	< 960	< 860	< 950	< 960	< 990	< 950	< 840
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 2100	< 350	< 340	< 330	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400	< 380	< 340
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-D14-03	SB-R-E10-02	SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02	SB-R-E12-04	SB-R-E13-01
			Sample Date	7/6/2006	6/1/2006	6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006	6/8/2006	5/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-D14-031.0N	SB-R-E10-021.0N	SB-R-E10-031.0FD	SB-R-E10-031.0N	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0FD	SB-R-E12-011.0N	SB-R-E12-021.0N	SB-R-E12-041.0N	SB-R-E13-011.0N
			Parent ID			SB-R-E10-031.0N							SB-R-E12-011.0N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 13.4	< 2.33	< 2.24	1.06	1.22	1.67	< 2.59	< 2.5	< 2.24	< 2.53	< 2.49	< 2.54	< 2.53	< 2.18
Arsenic	7440-38-2	mg/kg	9.9	< 13.4	3.59	45.8	75.6	3.48	2.68	3.03	10.8	11.2	2.28	2.6	1.98	2.34	4.48
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.524	0.648	0.463	0.462	0.419	0.521	0.595	0.648	0.6	0.463	0.501	0.404	0.627	0.483
Cadmium	7440-43-9	mg/kg	0.36	< 3.36	< 0.581	< 2.8	< 2.78	< 2.81	< 0.613	0.836	1.47	< 2.8	< 0.634	< 0.622	< 0.635	< 3.17	< 2.72
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	9.61	15	20.7	17.9	5.94	7.3	8.56	23.1	14.1	3.77	4.07	5.71	13.4	16.1
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	13.4	36	45.3	50.8	5.36	55.3	262	166	14.1	5.72	5.44	11.4	1.77	17.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	< 0.674	0.0606	0.0761	0.0659	0.0316	0.0352	0.0629	0.295	0.0209	0.0208	0.0245	0.0244	0.0234	0.0978
Nickel	7440-02-0	mg/kg	38	4.94	9.41	13.4	6.72	4.59	7.16	6.38	10.3	6.89	5.41	5.96	5.97	6.97	8.9
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 13.4	< 2.33	< 2.24	< 2.23	< 2.25	< 2.45	< 2.59	< 2.5	< 2.24	< 2.53	< 2.49	< 2.54	< 2.53	< 2.18
Silver	7440-22-4	mg/kg	2	< 3.36	< 0.581	< 0.559	< 0.557	< 0.562	< 0.613	< 0.646	0.246	< 0.559	< 0.634	< 0.622	< 0.635	< 0.634	< 0.545
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 13.4	< 2.33	< 2.24	< 2.23	< 2.25	< 2.45	< 2.59	< 2.5	< 2.24	< 2.53	< 2.49	< 2.54	< 2.53	< 2.18
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	35.9	51.7	62.9	45.1	21.7	48.1	64	92.6	54.4	26.6	30.5	38	41.4	45.6
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		85.4	14	10.6	10.2	14.5	20.8	23.4	21.6	13.2	21.1	21.9	24.3	21.1	10.9
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 120	< 20	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22	< 22	< 19
Aroclor-1221	11104-28-2	ug/kg	371	< 120	< 20	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22	< 22	< 19
Aroclor-1232	11141-16-5	ug/kg	371	< 120	< 20	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22	< 22	< 19
Aroclor-1242	53469-21-9	ug/kg	371	< 120	< 20	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22	< 22	< 19
Aroclor-1248	12672-29-6	ug/kg	371	< 120	< 20	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22	< 22	< 19
Aroclor-1254	11097-69-1	ug/kg	371	< 120	4.2	24	5.2	< 20	< 21	< 22	19	8	< 22	< 22	< 22	< 22	< 19
Aroclor-1260	11096-82-5	ug/kg	371	< 120	< 20	5.2	< 19	< 20	< 21	< 22	< 22	6.1	< 22	39	< 22	< 22	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 120	4.2	29.2	5.2	< 20	< 21	< 22	19	14.1	< 22	39	< 22	< 22	< 19
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 1100	< 190	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 14000	< 2300	< 2200	< 2200	< 2300	< 2500	< 2600	< 2600	< 2300	< 2500	< 2600	< 2600	< 2500	< 2200

			Location	SB-R-D14-03	SB-R-E10-02	SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02	SB-R-E12-04	SB-R-E13-01
			Sample Date	7/6/2006	6/1/2006	6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006	6/8/2006	5/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-D14-031.0N	SB-R-E10-021.0N	SB-R-E10-031.0FD	SB-R-E10-031.0N	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0FD	SB-R-E12-011.0N	SB-R-E12-021.0N	SB-R-E12-041.0N	SB-R-E13-011.0N
			Parent ID			SB-R-E10-031.0N							SB-R-E12-011.0N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 1100	< 190	< 190	< 190	< 190	< 210	< 220	150	< 190	< 210	< 210	< 220	< 210	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 1100	< 190	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 1100	< 190	180	160	< 190	< 210	< 220	110	350	< 210	< 210	< 220	49	61
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 1100	< 190	150	150	< 190	< 210	< 220	160	240	< 210	< 210	< 220	50	69
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 1100	54	290	320	< 190	< 210	64	300	410	< 210	< 210	< 220	59	180
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 1100	< 190	130	160	< 190	< 210	< 220	120	170	< 210	< 210	< 220	< 210	60
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 2300	< 390	< 370	< 370	< 390	< 420	< 440	< 430	< 380	< 420	< 430	< 440	< 420	< 370
Butylbenzylphthalate	85-68-7	ug/kg	239	< 1100	< 190	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
Chrysene	218-01-9	ug/kg	4730	< 1100	< 190	210	230	< 190	< 210	< 220	250	320	< 210	< 210	< 220	51	83
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 1100	< 190	< 190	42	< 190	< 210	< 220	55	41	< 210	< 210	< 220	< 210	< 190
Diethylphthalate	84-66-2	ug/kg	24800	< 1100	< 190	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 1100	550	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 1100	< 190	120	110	< 190	< 210	< 220	130	120	< 210	< 210	< 220	< 210	50
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 1100	< 190	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 1100	41	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220	< 210	< 190
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-D14-03	SB-R-E10-02	SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02	SB-R-E12-04	SB-R-E13-01
			Sample Date	7/6/2006	6/1/2006	6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006	6/8/2006	5/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-D14-031.0N	SB-R-E10-021.0N	SB-R-E10-031.0FD	SB-R-E10-031.0N	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0FD	SB-R-E12-011.0N	SB-R-E12-021.0N	SB-R-E12-041.0N	SB-R-E13-011.0N
			Parent ID			SB-R-E10-031.0N							SB-R-E12-011.0N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 18000	< 3000	< 2900	< 2900	< 3000	< 3400	< 3200	< 3300	< 2900	< 3300	< 3400	< 3400	< 3200	< 2800
Benzene	71-43-2	ug/kg	255	< 4400	< 750	< 730	< 720	< 760	< 840	< 800	< 820	< 720	< 820	< 840	< 840	< 800	< 710
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 4400	< 750	< 730	< 720	< 760	< 840	< 800	< 820	< 720	< 820	< 840	< 840	< 800	< 710
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 4400	< 750	< 730	< 720	< 760	< 840	< 800	< 820	< 720	< 820	< 840	< 840	< 800	< 710
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 4400	< 750	< 730	< 720	< 760	< 840	< 800	< 820	< 720	< 820	< 840	< 840	< 800	< 710
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-E13-02	SB-R-E13-03	SB-R-E14-02	SB-R-E9-01	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02	SB-R-F13-03	SB-R-F13-03
			Sample Date	5/30/2006	6/2/2006	7/6/2006	5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006	5/30/2006	5/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N	SB-R-F13-031.0FD	SB-R-F13-031.0N
			Parent ID													SB-R-F13-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 350	< 450	< 2300	< 320	< 320	< 380	< 340	< 400	< 370	< 360	< 400	< 380	< 390	< 390
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 350	< 450	< 2300	< 320	< 320	< 380	< 340	< 400	< 370	< 360	< 400	< 380	< 390	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 350	< 450	< 2300	< 320	< 320	< 380	< 340	< 400	< 370	< 360	< 400	< 380	< 390	< 390
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 350	< 450	< 2300	< 320	< 320	< 380	< 340	< 400	< 370	< 360	< 400	< 380	< 390	< 390
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 140000	< 180000	< 890000	480000	< 130000	< 150000	< 140000	< 160000	< 150000	< 150000	< 160000	< 150000	< 150000	< 160000
Nitroglycerin	55-63-0	ug/kg	65000	< 7000	< 9000	< 45000	25000	< 6400	< 7600	< 6800	< 8000	< 7400	< 7300	< 8100	< 7700	< 7700	< 7800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 870	< 1100	< 5600	< 790	< 810	< 950	< 850	< 1000	< 920	< 910	< 1000	< 960	< 960	< 980
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 350	< 450	< 2300	< 320	< 320	< 380	< 340	< 400	< 370	< 360	< 400	< 380	< 390	< 390
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-E13-02	SB-R-E13-03	SB-R-E14-02	SB-R-E9-01	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02	SB-R-F13-03	SB-R-F13-03
			Sample Date	5/30/2006	6/2/2006	7/6/2006	5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006	5/30/2006	5/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N	SB-R-F13-031.0FD	SB-R-F13-031.0N
			Parent ID													SB-R-F13-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.32	< 2.99	< 14.7	< 2.06	< 2.13	< 2.51	0.984	3.48	< 2.36	1.46	< 2.64	< 2.51	< 2.57	< 2.56
Arsenic	7440-38-2	mg/kg	9.9	25.4	19.8	9.96	3.67	3.57	79.6	6.98	351	2.62	4.98	1.8	2.75	1.69	1.92
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	1.46	0.616	< 3.69	0.325	0.575	0.322	0.532	0.662	0.633	0.494	0.47	0.583	0.557	0.591
Cadmium	7440-43-9	mg/kg	0.36	< 0.579	< 0.747	0.995	0.387	0.65	0.785	0.139	< 0.654	0.937	< 3	< 0.66	< 3.14	< 0.642	< 3.2
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.6	66	15.7	10.8	13.6	33.7	45.8	69.9	8.6	12.6	3.45	8.92	7.75	9.11
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	10.2	44.9	151	29.3	12	70.6	133	143	6.43	17.6	12.6	6.14	13.9	16
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	1.69	0.444	0.124	0.0434	0.0307	0.415	0.216	0.269	0.0296	0.0569	0.0436	0.0372	0.0239	0.0303
Nickel	7440-02-0	mg/kg	38	6.73	13.5	< 7.37	6.21	8.77	9.31	11.8	13.8	8.03	7.82	4.06	7.19	6.58	6.34
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.57	< 2.99	8.49	< 2.06	< 2.13	1.81	1.28	2.16	< 2.36	< 2.4	< 2.64	< 2.51	< 2.57	< 2.56
Silver	7440-22-4	mg/kg	2	0.291	< 0.747	< 3.69	< 0.514	0.356	0.255	< 0.552	< 0.654	< 0.589	< 0.601	0.239	< 0.628	0.344	0.288
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2.32	< 2.99	< 14.7	< 2.06	1.21	< 2.51	< 2.21	< 2.62	< 2.36	< 2.4	< 2.64	< 2.51	1.81	< 2.56
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	15.9	87.4	357	36.3	53.4	44.2	75.4	208	57	43.7	23.6	67.6	53.9	54.4
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		13.7	33.1	86.7	5.6	6.9	21.2	12.1	25.1	18.4	17.6	25.7	22	22.1	23.3
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 20	< 25	< 130	< 18	< 18	< 22	< 19	< 23	< 21	< 21	< 23	< 22	< 22	< 22
Aroclor-1221	11104-28-2	ug/kg	371	< 20	< 25	< 130	< 18	< 18	< 22	< 19	< 23	< 21	< 21	< 23	< 22	< 22	< 22
Aroclor-1232	11141-16-5	ug/kg	371	< 20	< 25	< 130	< 18	< 18	< 22	< 19	< 23	< 21	< 21	< 23	< 22	< 22	< 22
Aroclor-1242	53469-21-9	ug/kg	371	< 20	< 25	< 130	< 18	< 18	< 22	< 19	< 23	< 21	< 21	< 23	< 22	< 22	< 22
Aroclor-1248	12672-29-6	ug/kg	371	< 20	< 25	< 130	< 18	< 18	< 22	< 19	< 23	< 21	< 21	< 23	< 22	< 22	< 22
Aroclor-1254	11097-69-1	ug/kg	371	< 20	< 25	< 130	< 18	< 18	< 22	< 19	140	< 21	7.5	< 23	< 22	< 22	< 22
Aroclor-1260	11096-82-5	ug/kg	371	< 20	< 25	< 130	< 18	< 18	35	< 19	46	< 21	7.3	< 23	< 22	< 22	< 22
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 20	< 25	< 130	< 18	< 18	35	< 19	186	< 21	14.8	< 23	< 22	< 22	< 22
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 190	< 250	< 1300	< 880	< 180	< 210	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2300	< 3000	< 15000	< 11000	< 2100	< 2500	< 2300	< 2700	< 2500	< 2400	< 2700	< 2600	< 2600	< 2600

			Location	SB-R-E13-02	SB-R-E13-03	SB-R-E14-02	SB-R-E9-01	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02	SB-R-F13-03	SB-R-F13-03
			Sample Date	5/30/2006	6/2/2006	7/6/2006	5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006	5/30/2006	5/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N	SB-R-F13-031.0FD	SB-R-F13-031.0N
			Parent ID													SB-R-F13-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 190	< 250	< 1300	< 880	< 180	< 210	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 190	< 250	< 1300	< 880	< 180	< 210	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 190	120	< 1300	< 880	< 180	810	220	400	< 200	< 200	< 220	< 210	< 210	< 220
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 190	300	< 1300	< 880	< 180	720	210	340	< 200	< 200	< 220	< 210	< 210	< 220
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	42	500	< 1300	< 880	47	1500	350	870	< 200	< 200	< 220	< 210	< 210	< 220
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 190	150	< 1300	< 880	< 180	560	130	350	< 200	< 200	< 220	< 210	< 210	< 220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 390	< 500	< 2500	< 1800	< 360	< 420	< 380	< 450	< 410	< 400	< 450	< 430	< 430	< 430
Butylbenzylphthalate	85-68-7	ug/kg	239	< 190	< 250	< 1300	< 880	< 180	< 210	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
Chrysene	218-01-9	ug/kg	4730	73	310	< 1300	< 880	< 180	800	330	460	< 200	< 200	< 220	< 210	< 210	< 220
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 190	82	< 1300	< 880	< 180	120	< 190	85	< 200	< 200	< 220	< 210	< 210	< 220
Diethylphthalate	84-66-2	ug/kg	24800	< 190	< 250	< 1300	< 880	< 180	130	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 190	< 250	< 1300	< 880	< 180	< 210	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 190	220	< 1300	< 880	< 180	380	150	230	< 200	< 200	< 220	< 210	< 210	< 220
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 190	< 250	< 1300	< 880	< 180	< 210	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 190	< 250	< 1300	< 880	< 180	86	< 190	< 220	< 200	< 200	< 220	< 210	< 210	< 220
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-E13-02	SB-R-E13-03	SB-R-E14-02	SB-R-E9-01	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02	SB-R-F13-03	SB-R-F13-03
			Sample Date	5/30/2006	6/2/2006	7/6/2006	5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006	5/30/2006	5/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N	SB-R-F13-031.0FD	SB-R-F13-031.0N
			Parent ID													SB-R-F13-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2900	< 3900	< 19000	< 2600	< 2500	< 3200	< 3100	< 3500	< 3100	< 3100	< 3600	< 3300	< 3400	< 3300
Benzene	71-43-2	ug/kg	255	< 710	< 980	< 4800	< 660	< 610	< 810	< 780	< 870	< 760	< 780	< 890	< 840	< 840	< 830
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 710	< 980	< 4800	< 660	< 610	< 810	< 780	< 870	< 760	< 780	< 890	< 840	< 840	< 830
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 710	< 980	< 4800	< 660	< 610	< 810	< 780	< 870	< 760	< 780	< 890	< 840	< 840	< 830
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 710	< 980	< 4800	< 660	< 610	< 810	< 780	< 870	< 760	< 780	< 890	< 840	< 840	< 830
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-G11-01	SB-R-G12-01	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G6-01	SB-R-G7-02
			Sample Date	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/5/2006	5/5/2006	5/5/2006	5/16/2006	5/16/2006	5/15/2006	7/5/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-G11-011.0N	SB-R-G12-011.0N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G6-011.0N	SB-R-G7-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 340	< 340	< 360	< 350	< 340	< 360	< 430
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 340	< 340	< 360	< 350	< 340	< 360	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 340	< 340	< 360	< 350	< 340	< 360	< 430
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 340	< 340	< 360	< 350	< 340	< 360	< 430
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 160000	< 170000	< 140000	< 140000	< 130000	< 160000	1700000	< 130000	< 140000	< 140000	< 140000	< 130000	< 140000	< 170000
Nitroglycerin	55-63-0	ug/kg	65000	< 8200	< 8300	< 7000	< 6800	< 6400	< 7900	350000	< 6700	< 6800	< 7200	< 7000	< 6800	< 7200	< 8500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 1000	< 1000	< 880	< 850	< 800	< 990	< 850	< 840	< 840	< 900	< 880	< 850	< 900	< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 340	< 340	< 360	< 350	< 340	< 360	< 430
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-G11-01	SB-R-G12-01	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G6-01	SB-R-G7-02
			Sample Date	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/5/2006	5/5/2006	5/5/2006	5/16/2006	5/16/2006	5/15/2006	7/5/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-G11-011.0N	SB-R-G12-011.0N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G6-011.0N	SB-R-G7-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.68	< 2.67	1.08	1.17	< 2.11	< 2.64	3.08	< 2.18	< 2.17	< 2.32	< 2.34	< 2.22	< 2.35	< 2.82
Arsenic	7440-38-2	mg/kg	9.9	4.92	2.33	2.84	2.93	2.76	< 2.64	82.3	45.3	14.2	10.3	18.3	6.64	5.38	4.32
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.482	0.507	0.457	0.523	0.37	0.441	0.445	0.557	0.193	0.323	0.611	0.357	0.527	0.0972
Cadmium	7440-43-9	mg/kg	0.36	< 0.669	< 0.669	< 2.83	< 2.74	< 0.528	< 0.66	2.34	0.739	0.232	0.351	1.15	0.431	0.118	0.21
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	3.75	5.4	3.47	9.3	10.5	2.85	149	35.2	17.9	49.7	15.9	13.2	15.6	7.25
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	4.06	6.33	2.94	7.95	4.7	6.39	2230	54	28.1	132	53.5	13.8	22.9	59.9
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0311	0.0258	0.0139	0.0386	0.0314	0.0254	0.277	0.348	0.0797	0.198	0.215	0.115	0.124	0.174
Nickel	7440-02-0	mg/kg	38	4.96	6.11	4.07	6.08	4.8	3.39	14.2	16.6	6.01	8.05	11.1	6.43	8.41	6.33
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.68	< 2.67	< 2.27	< 2.19	< 2.11	< 2.64	1.42	1.83	< 2.17	3.01	< 2.34	< 2.22	< 2.35	< 2.82
Silver	7440-22-4	mg/kg	2	< 0.669	< 0.669	< 0.566	< 0.548	< 0.528	< 0.66	0.435	0.225	< 0.541	< 0.579	0.313	< 0.555	< 0.588	< 0.704
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2.68	< 2.67	< 2.27	< 2.19	< 2.11	< 2.64	< 2.24	< 2.18	< 2.17	< 2.32	< 2.34	< 2.22	< 2.35	< 2.82
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	32.6	41.6	35.8	46.5	32	25.3	757	26.3	10.1	15.9	244	10.5	39.5	22.5
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		26.7	28.1	14.3	12.2	6.2	24.2	11.5	11.1	11.2	17	14.5	11.6	16.6	29.7
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 96	< 19	< 20	< 20	< 19	< 20	< 24
Aroclor-1221	11104-28-2	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 96	< 19	< 20	< 20	< 19	< 20	< 24
Aroclor-1232	11141-16-5	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 96	< 19	< 20	< 20	< 19	< 20	< 24
Aroclor-1242	53469-21-9	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 96	< 19	< 20	< 20	< 19	< 20	< 24
Aroclor-1248	12672-29-6	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 96	< 19	< 20	< 20	< 19	< 20	< 24
Aroclor-1254	11097-69-1	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	290	< 19	< 20	< 20	< 19	< 20	< 24
Aroclor-1260	11096-82-5	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	350	35	< 20	4.6	< 19	< 20	28
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 23	< 24	< 20	< 19	< 18	< 22	< 190	640	35	< 20	4.6	< 19	< 20	28
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	< 200	< 190	< 190	< 200	< 240
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2700	< 2800	< 2300	< 2300	< 2100	< 2600	< 23000	< 2200	< 2300	< 2400	< 2300	< 2300	< 2400	< 2800

			Location	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-G11-01	SB-R-G12-01	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G6-01	SB-R-G7-02
			Sample Date	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/5/2006	5/5/2006	5/5/2006	5/16/2006	5/16/2006	5/15/2006	7/5/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-G11-011.0N	SB-R-G12-011.0N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G6-011.0N	SB-R-G7-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	< 200	< 190	< 190	< 200	< 240
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	69	< 190	< 190	< 200	< 240
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	3400	< 190	< 200	65	220	590	69
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	1800	< 190	< 200	71	230	690	81
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	4100	110	65	120	380	1000	140
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	1600	41	< 200	47	140	370	< 240
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 450	< 460	< 390	< 380	< 360	< 440	< 3800	< 370	< 380	< 400	< 390	< 380	< 400	< 470
Butylbenzylphthalate	85-68-7	ug/kg	239	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	< 200	< 190	< 190	< 200	< 240
Chrysene	218-01-9	ug/kg	4730	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	3700	140	100	99	330	740	110
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	320	< 190	< 200	< 190	43	120	< 240
Diethylphthalate	84-66-2	ug/kg	24800	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	< 200	< 190	< 190	< 200	< 240
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	< 200	< 190	< 190	< 200	< 240
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	780	< 190	< 200	49	140	430	58
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190	< 190	< 200	< 190	< 190	< 200	< 240
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 230	< 230	< 190	< 190	< 180	< 220	6500	< 190	< 190	< 200	< 190	< 190	< 200	< 240
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-G11-01	SB-R-G12-01	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G6-01	SB-R-G7-02
			Sample Date	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/5/2006	5/5/2006	5/5/2006	5/16/2006	5/16/2006	5/15/2006	7/5/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-G11-011.0N	SB-R-G12-011.0N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G6-011.0N	SB-R-G7-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 3400	< 3500	< 2700	< 2700	< 2600	< 3500	< 3000	< 3200	< 3000	< 3000	< 3100	< 3100	< 3000	< 3500
Benzene	71-43-2	ug/kg	255	< 850	< 880	< 680	< 680	< 650	< 870	280	< 810	< 750	< 760	< 780	< 780	< 740	< 870
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 850	< 880	< 680	< 680	< 650	< 870	< 740	< 810	< 750	< 760	< 780	< 780	< 740	< 870
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 850	< 880	< 680	< 680	< 650	< 870	< 740	< 810	< 750	< 760	< 780	< 780	< 740	< 870
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 850	< 880	< 680	< 680	< 650	< 870	< 740	< 810	< 750	< 760	< 780	< 780	< 740	< 870
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-G8-02	SB-R-G9-03	SB-R-H10-02	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03
			Sample Date	5/10/2006	5/10/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-G8-021.0N	SB-R-G9-031.0N	SB-R-H10-021.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 320	< 350	< 330	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360	< 370	< 380	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 320	< 350	< 330	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360	< 370	< 380	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 320	< 350	< 330	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360	< 370	< 380	< 340
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 320	< 350	< 330	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360	< 370	< 380	< 340
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 130000	110000	< 130000	< 140000	< 140000	< 160000	< 150000	< 160000	< 140000	< 150000	< 150000	< 150000	< 150000	< 140000
Nitroglycerin	55-63-0	ug/kg	65000	< 6500	< 7100	6300	< 7000	< 7200	< 7900	< 7400	< 7900	< 7100	< 7400	< 7300	19000	< 7600	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	2900	< 880	< 820	< 870	< 900	< 990	< 920	< 990	< 890	< 920	< 910	< 920	< 950	< 860
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 320	< 350	< 330	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360	160	< 380	< 340
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-G8-02	SB-R-G9-03	SB-R-H10-02	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03
			Sample Date	5/10/2006	5/10/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-G8-021.0N	SB-R-G9-031.0N	SB-R-H10-021.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.913	1.07	< 2.14	1.42	< 11.7	< 2.55	0.837	1.35	1.63	< 2.43	< 2.41	< 2.39	< 2.43	< 2.28
Arsenic	7440-38-2	mg/kg	9.9	2.63	9.33	11.3	31.4	6.38	24.1	7.33	11.5	11.1	9.31	5.25	14.9	2.81	4.56
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.757	0.528	0.584	0.817	0.662	0.272	0.445	0.44	0.543	0.597	0.995	0.486	0.401	0.575
Cadmium	7440-43-9	mg/kg	0.36	0.156	0.114	0.862	< 0.558	< 2.93	0.494	< 0.487	0.227	0.443	0.292	1.16	< 0.599	< 0.608	1.1
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	20	24.5	27.6	29	8.18	10	62.2	23	42.4	12.2	20	24.5	11.8	12.4
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	63.7	63.4	562	28	5.93	12.5	319	126	87.2	83.5	69.2	26.9	15.3	12.7
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0419	0.101	0.116	0.0572	0.0166	0.0439	0.632	0.107	0.182	0.201	3.24	0.177	0.161	0.0532
Nickel	7440-02-0	mg/kg	38	7.99	10.6	10.6	10.8	5.07	5.23	10	7.52	12.9	7.05	12.4	13.3	9.5	11.2
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.09	< 2.31	< 2.14	< 2.23	< 11.7	< 2.55	1.53	< 2.62	< 2.29	< 2.43	< 2.41	1.31	< 2.43	< 2.28
Silver	7440-22-4	mg/kg	2	< 0.522	< 0.577	0.303	< 0.558	< 2.93	< 0.638	< 0.487	< 0.655	< 0.572	< 0.608	0.445	< 0.599	< 0.608	0.299
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.92	1.7	1.72	1.59	< 11.7	< 2.55	1.5	< 2.62	< 2.29	< 2.43	< 2.41	4.39	< 2.43	< 2.28
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	79.8	63.9	127	74.5	41	43.2	57.5	38.8	141	104	124	71.7	70	53.4
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		7	15	8.4	13.8	16.3	23.9	18.4	24.4	16	18.6	17.7	18.9	20.9	13
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 18	< 20	< 19	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 21	< 21	< 21	< 20
Aroclor-1221	11104-28-2	ug/kg	371	< 18	< 20	< 19	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 21	< 21	< 21	< 20
Aroclor-1232	11141-16-5	ug/kg	371	< 18	< 20	< 19	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 21	< 21	< 21	< 20
Aroclor-1242	53469-21-9	ug/kg	371	< 18	< 20	< 19	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 21	< 21	< 21	< 20
Aroclor-1248	12672-29-6	ug/kg	371	< 18	< 20	< 19	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 21	< 21	< 21	< 20
Aroclor-1254	11097-69-1	ug/kg	371	120	< 20	190	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 21	< 21	< 21	< 20
Aroclor-1260	11096-82-5	ug/kg	371	< 18	< 20	110	11	< 20	< 22	< 21	< 22	37	< 21	16	< 21	< 21	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	371	120	< 20	300	11	< 20	< 22	< 21	< 22	37	< 21	16	< 21	< 21	< 20
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 180	< 200	< 180	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2200	< 2400	< 2200	< 2300	< 2400	< 2600	< 2600	< 2600	< 2400	< 2500	< 4900	< 2500	< 2500	< 2300

Kennedy Jenks

			Location	SB-R-G8-02	SB-R-G9-03	SB-R-H10-02	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03
			Sample Date	5/10/2006	5/10/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-G8-021.0N	SB-R-G9-031.0N	SB-R-H10-021.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 180	< 200	230	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 180	< 200	45	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 180	< 200	120	1500	< 200	< 220	< 210	< 220	950	120	160	69	< 210	< 190
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 180	< 200	160	1500	< 200	< 220	< 210	< 220	1100	130	170	69	< 210	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	43	52	320	2300	< 200	< 220	65	63	1800	190	240	170	< 210	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 180	< 200	140	1100	< 200	< 220	< 210	< 220	600	76	110	65	< 210	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 360	< 390	< 360	< 390	< 400	< 440	97	< 440	< 400	< 410	< 810	< 410	< 420	< 380
Butylbenzylphthalate	85-68-7	ug/kg	239	< 180	< 200	< 180	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
Chrysene	218-01-9	ug/kg	4730	< 180	80	230	1500	< 200	< 220	88	72	1400	150	220	130	< 210	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 180	< 200	50	360	< 200	< 220	< 210	< 220	210	< 200	< 410	< 210	< 210	< 190
Diethylphthalate	84-66-2	ug/kg	24800	< 180	< 200	< 180	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180	< 200	< 180	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 180	< 200	140	1200	< 200	< 220	< 210	< 220	740	93	120	45	< 210	< 190
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 180	< 200	< 180	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 410	< 210	< 210	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	230	< 200	< 180	140	< 200	< 220	< 210	< 220	< 200	< 200	< 410	240	< 210	< 190
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-G8-02	SB-R-G9-03	SB-R-H10-02	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03
			Sample Date	5/10/2006	5/10/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-G8-021.0N	SB-R-G9-031.0N	SB-R-H10-021.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2700	< 3000	< 2700	< 2900	< 3000	< 3400	< 3100	< 3200	< 3000	< 3200	< 3100	< 3000	< 3500	< 2800
Benzene	71-43-2	ug/kg	255	< 680	< 750	< 690	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770	< 750	< 880	< 710
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 680	< 750	< 690	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770	< 750	< 880	< 710
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 680	< 750	< 690	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770	< 750	< 880	< 710
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 680	< 750	< 690	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770	< 750	< 880	< 710
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-H7-04	SB-R-H8-01	SB-R-H9-02	SB-R-H9-04	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I11-03	SB-R-I11-04	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I6-01	SB-R-I7-01
			Sample Date	5/11/2006	5/10/2006	5/9/2006	5/10/2006	3/31/2006	3/31/2006	4/3/2006	5/3/2006	5/4/2006	5/15/2006	5/15/2006	5/12/2006	4/7/2006	4/7/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H9-021.0N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I6-011.0N	SB-R-I7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 330	< 330	< 350	< 360	< 340	< 360	< 340	< 360	< 350	< 340	< 360	< 370	< 390	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 330	< 330	< 350	< 360	< 340	< 360	< 340	< 360	< 350	< 340	< 360	< 370	< 390	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 330	< 330	< 350	< 360	< 340	< 360	< 340	< 360	< 350	< 340	< 360	< 370	< 390	< 370
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 330	< 330	< 350	< 360	< 340	< 360	< 340	< 360	< 350	< 340	< 360	< 370	< 390	< 370
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		54000	< 130000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	< 130000	< 140000	< 150000	< 160000	< 150000
Nitroglycerin	55-63-0	ug/kg	65000	< 6700	< 6600	< 7100	< 7200	< 6800	< 7200	< 6900	< 7200	< 7100	< 6800	< 7200	< 7400	< 7800	< 7500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 840	< 830	< 890	< 900	< 850	< 900	< 860	< 890	< 890	< 840	< 900	< 930	< 980	< 930
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 330	< 330	< 350	< 360	< 340	< 360	< 340	< 360	< 350	< 340	< 360	< 370	< 390	< 370
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-H7-04	SB-R-H8-01	SB-R-H9-02	SB-R-H9-04	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I11-03	SB-R-I11-04	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I6-01	SB-R-I7-01
			Sample Date	5/11/2006	5/10/2006	5/9/2006	5/10/2006	3/31/2006	3/31/2006	4/3/2006	5/3/2006	5/4/2006	5/15/2006	5/15/2006	5/12/2006	4/7/2006	4/7/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H9-021.0N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I6-011.0N	SB-R-I7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.23	1.37	< 2.27	< 2.35	< 2.21	< 2.39	< 2.22	1.01	1.15	1.15	< 2.34	1.2	< 2.55	< 2.44
Arsenic	7440-38-2	mg/kg	9.9	5.66	4.45	3.4	7.48	3.38	4.09	4.04	15.3	25.2	6.81	13.9	6.76	13.8	4.26
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.33	0.74	0.803	0.915	0.554	0.909	0.969	0.167	0.651	0.567	0.305	0.178	0.648	0.244
Cadmium	7440-43-9	mg/kg	0.36	0.562	0.103	< 0.568	0.847	< 0.553	< 0.597	< 2.78	< 0.591	0.993	0.361	< 0.586	< 0.613	< 0.638	< 3.05
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.4	16.9	11	28.3	56.2	13.2	21.9	17.4	36.8	31.3	15.4	31.1	16.6	124
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	40	31	12.5	70.3	12.1	14.2	5.69	48.1	85.1	89.8	182	95.4	18.4	69.2
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	2.31	0.245	0.0733	0.11	0.0405	0.123	0.045	0.286	4.71	9.23	0.283	0.372	0.21	0.0873
Nickel	7440-02-0	mg/kg	38	13.4	10.9	10.2	17	8.09	10.6	11.8	4.52	12.1	8.81	9.26	5.96	9.56	7.68
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.23	< 2.19	< 2.27	< 2.35	1.28	2.15	3.8	< 2.36	< 2.31	< 2.21	< 2.34	< 2.45	1.96	< 2.44
Silver	7440-22-4	mg/kg	2	0.276	< 0.546	< 0.568	< 0.587	< 0.553	< 0.597	< 0.556	< 0.591	0.83	0.581	< 0.586	< 0.613	< 0.638	< 0.61
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2.23	1.74	1.79	1.6	1.33	1.48	2.29	< 2.36	1.81	< 2.21	1.28	< 2.45	1.65	< 2.44
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	34.2	63.9	126	503	87.3	74	50.4	22.4	91.5	111	19.3	34.7	42.4	66.3
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		10.3	9.4	15.3	16.5	11.4	16.3	12.7	16.2	15.3	11.2	16.3	19.2	23.2	19.6
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19	< 19	< 20	< 20	< 19	< 20	< 19	< 20	< 20	< 96	< 20	< 210	< 22	< 21
Aroclor-1221	11104-28-2	ug/kg	371	< 19	< 19	< 20	< 20	< 19	< 20	< 19	< 20	< 20	< 96	< 20	< 210	< 22	< 21
Aroclor-1232	11141-16-5	ug/kg	371	< 19	< 19	< 20	< 20	< 19	< 20	< 19	< 20	< 20	< 96	< 20	< 210	< 22	< 21
Aroclor-1242	53469-21-9	ug/kg	371	< 19	< 19	< 20	< 20	< 19	< 20	< 19	< 20	< 20	< 96	< 20	< 210	< 22	< 21
Aroclor-1248	12672-29-6	ug/kg	371	< 19	< 19	< 20	< 20	< 19	< 20	< 19	< 20	< 20	< 96	< 20	< 210	< 22	< 21
Aroclor-1254	11097-69-1	ug/kg	371	10	43	< 20	< 20	< 19	< 20	< 19	< 20	< 20	340	< 20	< 210	< 22	< 21
Aroclor-1260	11096-82-5	ug/kg	371	8.8	16	< 20	< 20	< 19	4.3	< 19	19	240	280	< 20	870		< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	371	18.8	59	< 20	< 20	< 19	4.3	< 19	19	240	620	< 20	870	< 22	< 21
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 190	< 180	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2200	< 2200	< 2400	< 2400	< 2300	< 2400	< 2300	< 2400	< 2400	< 2300	< 2400	< 2500	< 2600	< 2500

			Location	SB-R-H7-04	SB-R-H8-01	SB-R-H9-02	SB-R-H9-04	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I11-03	SB-R-I11-04	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I6-01	SB-R-I7-01
			Sample Date	5/11/2006	5/10/2006	5/9/2006	5/10/2006	3/31/2006	3/31/2006	4/3/2006	5/3/2006	5/4/2006	5/15/2006	5/15/2006	5/12/2006	4/7/2006	4/7/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H9-021.0N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I6-011.0N	SB-R-I7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	110	< 180	< 200	100	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 190	< 180	< 200	58	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 190	< 180	< 200	120	< 190	130	< 190	1900	740	600	< 200	91	< 220	120
Benzo[a]pyrene	50-32-8	ug/kg	1520	37	< 180	< 200	170	< 190	130	< 190	1800	860	610	< 200	83	< 220	130
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	64	< 180	< 200	360	< 190	160	< 190	2800	1300	870	40	180	< 220	220
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 190	< 180	< 200	170	< 190	85	< 190	1200	660	380	< 200	68	< 220	87
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 370	< 370	< 390	< 400	< 380	< 400	< 380	< 400	150	580	< 400	< 410	< 430	< 410
Butylbenzylphthalate	85-68-7	ug/kg	239	< 190	< 180	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
Chrysene	218-01-9	ug/kg	4730	87	< 180	< 200	170	< 190	170	< 190	1900	960	730	120	150	46	190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 190	< 180	< 200	43	< 190	< 200	< 190	370	180	120	< 200	< 210	< 220	< 210
Diethylphthalate	84-66-2	ug/kg	24800	400	< 180	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	200	< 180	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 190	< 180	< 200	110	< 190	90	< 190	1300	590	440	< 200	73	< 220	88
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 190	< 180	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 190	< 200	< 210	< 220	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	160	< 180	< 200	< 200	< 190	< 200	< 190	< 200	< 200	100	< 200	< 210	< 220	< 210
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-H7-04	SB-R-H8-01	SB-R-H9-02	SB-R-H9-04	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I11-03	SB-R-I11-04	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I6-01	SB-R-I7-01
			Sample Date	5/11/2006	5/10/2006	5/9/2006	5/10/2006	3/31/2006	3/31/2006	4/3/2006	5/3/2006	5/4/2006	5/15/2006	5/15/2006	5/12/2006	4/7/2006	4/7/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H9-021.0N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I6-011.0N	SB-R-I7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2900	< 2900	< 3200	< 3000	< 2900	< 3300	< 2900	< 3000	< 3000	< 2800	< 2900	< 3300	< 3200	< 3200
Benzene	71-43-2	ug/kg	255	< 740	< 710	< 790	< 740	< 720	< 830	< 730	< 740	< 760	< 690	< 740	< 820	< 790	< 810
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 740	< 710	< 790	< 740	< 720	< 830	< 730	< 740	< 760	< 690	< 740	< 820	< 790	< 810
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 740	< 710	< 790	< 740	< 720	< 830	< 730	< 740	< 760	< 690	< 740	< 820	< 790	< 810
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 740	< 710	< 790	< 740	< 720	< 830	< 730	< 740	< 760	< 690	< 740	< 820	< 790	< 810
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-I7-02	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03	SB-R-I8-04	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J11-01	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J7-01
			Sample Date	4/7/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/31/2006	3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-I7-021.0N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N	SB-R-I8-041.0N	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J11-011.0N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 340	< 360	< 350	< 380	< 390	< 350	< 380
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 360	660	< 340	< 360	< 340	23000	< 350	< 340	< 360	< 350	< 380	< 390	< 350	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 340	< 360	< 350	< 380	< 390	< 7500	< 380
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 340	< 360	< 350	< 380	< 390	< 350	< 380
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 140000	160000	< 140000	77000	< 140000	1000000	< 140000	< 140000	< 140000	< 140000	< 150000	< 160000	< 140000	< 150000
Nitroglycerin	55-63-0	ug/kg	65000	< 7300	76000	< 6800	3900	< 6800	130000	3500	< 6900	< 7200	< 7000	< 7500	< 7900	< 7000	< 7600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	2000	< 880	< 840	< 900	< 850	< 880	< 880	< 860	< 910	< 880	< 940	< 980	< 880	< 950
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	1000	< 350	< 340	< 360	< 340	< 350	< 350	< 340	< 360	< 350	< 380	< 390	< 350	< 380
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-I7-02	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03	SB-R-I8-04	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J11-01	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J7-01
			Sample Date	4/7/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/31/2006	3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-I7-021.0N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N	SB-R-I8-041.0N	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J11-011.0N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.41	< 2.33	< 2.23	< 2.4	< 2.24	< 2.36	< 2.29	< 2.27	< 2.35	< 2.34	< 2.38	< 2.57	< 2.3	< 2.43
Arsenic	7440-38-2	mg/kg	9.9	4.82	11.8	4.01	9.19	4.85	14.1	3.9	3.29	7.12	7.25	5.67	7.49	7.2	4.43
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.584	0.72	0.783	0.56	0.664	0.4	0.701	0.784	0.867	0.582	0.379	0.852	0.486	0.734
Cadmium	7440-43-9	mg/kg	0.36	< 3.01	1.25	0.784	0.599	< 0.56	< 0.589	0.698	0.557	< 0.586	0.129	< 0.596	< 0.642	< 0.575	1.19
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	15.8	15.7	19.3	14	16	17.6	15.6	13.3	276	22	13.1	20.9	47.4	13.9
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	21.1	27.1	9.74	20.9	23.1	67.8	22.7	6.56	37.5	45.9	20.2	43.3	610	21
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.104	0.0368	0.0184	0.0469	0.0425	0.0411	0.12	0.0125	0.0784	0.0721	0.0143	0.202	0.0039	0.0594
Nickel	7440-02-0	mg/kg	38	8.98	10	12.3	6.25	8.83	8.4	9.57	10.3	10.5	8.13	10.8	9.54	12.9	9.74
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.41	< 2.33	1.3	< 2.4	2.19	1.79	< 2.29	< 2.27	2.33	< 2.34	< 2.38	< 2.57	< 2.3	< 2.43
Silver	7440-22-4	mg/kg	2	< 0.602	0.271	< 0.557	< 0.601	< 0.56	< 0.589	< 0.572	< 0.568	< 0.586	0.289	< 0.596	< 0.642	< 0.575	0.232
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.9	1.74	< 2.23	< 2.4	1.13	< 2.36	< 2.29	< 2.27	1.61	< 2.34	< 2.38	< 2.57	1.41	1.92
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	57	172	67.4	47.2	74.5	96.7	114	54.9	85.3	54.8	88.6	86.3	142	106
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		17.8	15.1	11.2	16.8	11.6	15.1	15.1	12.9	17.2	14.6	20.1	23.6	14.7	20.7
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 21	< 20	< 19	< 20	< 19	< 20	< 20	< 20	< 21	< 20	< 21	< 22	< 20	< 21
Aroclor-1221	11104-28-2	ug/kg	371	< 21	< 20	< 19	< 20	< 19	< 20	< 20	< 20	< 21	< 20	< 21	< 22	< 20	< 21
Aroclor-1232	11141-16-5	ug/kg	371	< 21	< 20	< 19	< 20	< 19	< 20	< 20	< 20	< 21	< 20	< 21	< 22	< 20	< 21
Aroclor-1242	53469-21-9	ug/kg	371	< 21	< 20	< 19	< 20	< 19	< 20	< 20	< 20	< 21	< 20	< 21	< 22	< 20	< 21
Aroclor-1248	12672-29-6	ug/kg	371	< 21	< 20	< 19	< 20	< 19	< 20	< 20	< 20	< 21	< 20	< 21	< 22	< 20	< 21
Aroclor-1254	11097-69-1	ug/kg	371	< 21	< 20	10	< 20	< 19	< 20	170	< 20	< 21	61	< 21	5.5	< 20	< 21
Aroclor-1260	11096-82-5	ug/kg	371	< 21	< 20	< 19	9.2	< 19	< 20	19	< 20	6.9	22	< 21	13	< 20	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 21	< 20	10	9.2	< 19	< 20	189	< 20	6.9	83	< 21	18.5	< 20	< 21
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 200	< 200	< 190	< 200	< 190	< 390	< 200	< 190	< 200	< 200	< 210	< 220	< 200	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2400	< 2400	< 2300	< 2400	< 2300	< 4700	< 2400	< 2300	< 2400	< 2300	< 2500	< 2600	< 2300	< 2500

Kennedy Jenks

			Location	SB-R-I7-02	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03	SB-R-I8-04	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J11-01	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J7-01
			Sample Date	4/7/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/31/2006	3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-I7-021.0N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N	SB-R-I8-041.0N	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J11-011.0N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 200	6700	< 190	< 200	< 190	7100	< 200	< 190	< 200	< 200	< 210	560	51000	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 200	87	< 190	< 200	< 190	510	< 200	< 190	< 200	< 200	< 210	< 220	180000	< 210
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 200	500	340	110	< 190	< 390	< 200	< 190	360	110	< 210	110	< 200	< 210
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 200	700	310	120	< 190	< 390	< 200	< 190	250	120	< 210	120	< 200	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 200	2300	370	190	< 190	510	< 200	< 190	500	200	< 210	240	< 200	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 200	1200	170	95	< 190	210	< 200	< 190	170	86	< 210	110	< 200	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 410	< 390	< 380	< 400	< 380	< 790	< 390	< 380	< 400	190	< 420	< 440	< 390	< 420
Butylbenzylphthalate	85-68-7	ug/kg	239	< 200	< 200	< 190	< 200	< 190	< 390	< 200	< 190	< 200	< 200	< 210	< 220	< 200	< 210
Chrysene	218-01-9	ug/kg	4730	< 200	660	310	150	< 190	190	< 200	< 190	380	140	< 210	170	< 200	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 200	280	52	< 200	< 190	< 390	< 200	< 190	43	< 200	< 210	< 220	< 200	< 210
Diethylphthalate	84-66-2	ug/kg	24800	< 200	510	< 190	< 200	< 190	450	890	< 190	< 200	< 200	< 210	< 220	< 200	< 210
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 200	470	< 190	96	< 190	5100	85	< 190	< 200	320	< 210	270	< 200	< 210
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 200	870	210	82	< 190	120	< 200	< 190	140	89	< 210	85	< 200	< 210
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 200	< 200	< 190	< 200	< 190	< 390	< 200	< 190	< 200	< 200	< 210	< 220	< 200	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 200	460	< 190	99	< 190	2700	< 200	< 190	150	45	< 210	< 220	< 200	< 210
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-I7-02	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03	SB-R-I8-04	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J11-01	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J7-01
			Sample Date	4/7/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/31/2006	3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/11/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-I7-021.0N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N	SB-R-I8-041.0N	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J11-011.0N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J7-011.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 3000	< 3200	< 3000	< 2900	< 2900	< 3100	< 2800	< 3000	< 3000	< 3100	< 3100	< 3200	< 2900	< 3500
Benzene	71-43-2	ug/kg	255	< 750	< 790	< 740	< 740	< 730	< 770	< 700	< 750	< 740	< 780	< 790	< 810	< 730	< 870
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 750	< 790	< 740	< 740	< 730	< 770	< 700	< 750	< 740	< 780	< 790	< 810	< 730	< 870
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 750	< 790	< 740	< 740	< 730	< 770	< 700	< 750	< 740	< 780	< 790	< 810	< 730	< 870
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 750	< 790	< 740	< 740	< 730	< 770	< 700	< 750	< 740	< 780	< 790	< 810	< 730	< 870
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-02	SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02
			Sample Date	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	4/13/2006	4/24/2006	5/2/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-021.0FD	SB-R-J8-021.0N	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N
			Parent ID				SB-R-J8-021.0N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 360	< 330	< 360	< 350	< 360	< 370	< 350	< 360	< 360	< 380	< 370	< 360	< 410	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	390	< 330	< 360	< 350	< 360	< 370	< 350	< 360	< 360	< 380	< 370	< 360	< 410	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 360	< 330	< 360	< 350	< 360	< 370	< 350	< 360	< 360	< 380	< 370	< 360	< 410	< 370
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 360	< 330	< 360	< 350	< 360	< 370	< 350	< 360	< 360	< 380	< 370	< 360	< 410	< 370
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		420000	< 130000	< 150000	< 140000	< 140000	< 150000	< 140000	< 140000	< 140000	< 150000	< 150000	< 150000	< 160000	< 150000
Nitroglycerin	55-63-0	ug/kg	65000	120000	< 6500	< 7200	< 6900	< 7100	< 7400	< 6900	< 7100	< 7200	< 7500	< 7400	< 7200	< 8200	< 7500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 900	< 820	< 900	< 870	< 890	< 920	< 870	< 890	< 900	< 940	< 930	< 910	< 1000	< 930
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 360	< 330	< 360	< 350	< 360	< 370	< 350	< 360	< 360	< 380	< 370	< 360	< 410	< 370
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-02	SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02
			Sample Date	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	4/13/2006	4/24/2006	5/2/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-021.0FD	SB-R-J8-021.0N	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N
			Parent ID				SB-R-J8-021.0N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.39	< 2.09	< 2.31	< 2.28	< 2.37	< 2.39	< 11.5	< 2.31	< 2.32	< 2.51	< 2.4	< 2.42	< 2.69	< 2.01
Arsenic	7440-38-2	mg/kg	9.9	97.8	1.21	1.61	4.81	4.56	3.82	< 11.5	3.94	4.83	5.81	6.07	6.25	2.11	2.93
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.332	0.542	0.583	0.829	0.872	0.798	0.855	0.744	0.661	0.832	0.802	0.864	0.599	0.878
Cadmium	7440-43-9	mg/kg	0.36	1.15	0.91	0.762	0.25	0.257	< 0.597	< 2.89	0.619	0.249	0.91	< 3	0.847	< 0.674	< 0.504
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	13.3	8.88	13.4	15.4	16	13.8	12.1	12.8	12.9	12.6	12.3	12	14.2	11.7
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	31.2	4.39	7.76	6.77	6.62	22.3	5.47	5.76	8.69	9.76	10	11.2	7.67	17.4
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.257	0.013	0.0363	0.0286	0.0116	0.019	0.0131	0.0079	0.039	0.0198	0.0423	0.0476	0.0286	0.0717
Nickel	7440-02-0	mg/kg	38	8.47	7.62	6.05	12.3	12.5	9.55	11.5	10.9	12.3	13	15.4	15.2	9.49	11.4
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.39	< 2.09	< 2.31	1.29	1.25	2.27	< 11.5	< 2.31	1.19	1.35	2.96	< 2.42	< 2.69	< 2.01
Silver	7440-22-4	mg/kg	2	< 0.596	< 0.523	< 0.577	< 0.571	< 0.592	< 0.597	< 2.89	< 0.577	< 0.581	< 0.628	< 0.599	0.319	< 0.674	< 0.504
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.55	< 2.09	< 2.31	1.37	1.33	1.25	< 11.5	< 2.31	1.17	< 2.51	2.58	2.23	< 2.69	1.37
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	54.4	40	39.9	49.1	68.1	81.9	62.4	115	56.6	64.2	76.8	58	110	123
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		17	8.1	16.7	13.3	15.5	18.7	13.4	15.8	16.4	20.4	19	17.2	26.5	19.7
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 20	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Aroclor-1221	11104-28-2	ug/kg	371	< 20	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Aroclor-1232	11141-16-5	ug/kg	371	< 20	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Aroclor-1242	53469-21-9	ug/kg	371	< 20	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Aroclor-1248	12672-29-6	ug/kg	371	< 20	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Aroclor-1254	11097-69-1	ug/kg	371	60	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Aroclor-1260	11096-82-5	ug/kg	371	11	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	371	71	< 18	< 20	< 20	< 20	< 21	< 20	< 20	< 20	< 21	< 21	< 21	< 23	< 21
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 200	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2400	< 2200	< 2400	< 2300	< 2400	< 2500	< 2300	< 2400	< 2400	< 2500	< 2500	< 2400	< 2700	< 2500

			Location	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-02	SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02
			Sample Date	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	4/13/2006	4/24/2006	5/2/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-021.0FD	SB-R-J8-021.0N	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N
			Parent ID				SB-R-J8-021.0N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	300	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 200	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	160	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Benzo[a]pyrene	50-32-8	ug/kg	1520	170	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	750	< 180	< 200	< 190	< 200	< 210		< 200	< 200	< 210	< 210	< 200	< 230	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	350	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 400	< 360	< 400	< 380	< 390	< 410	< 380	< 400	< 400	87	< 410	< 400	< 450	< 410
Butylbenzylphthalate	85-68-7	ug/kg	239	< 200	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Chrysene	218-01-9	ug/kg	4730	310	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	70	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Diethylphthalate	84-66-2	ug/kg	24800	650	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	970	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	170	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 200	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	310	< 180	< 200	< 190	< 200	< 210	< 190	< 200	< 200	< 210	< 210	< 200	< 230	< 210
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-02	SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02
			Sample Date	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	4/13/2006	4/24/2006	5/2/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-021.0FD	SB-R-J8-021.0N	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N
			Parent ID				SB-R-J8-021.0N										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 3100	< 2700	< 3200	< 2900	< 2400	< 3400	< 2900	< 3100	< 3000	< 3300	< 3200	< 3100	< 3300	< 3000
Benzene	71-43-2	ug/kg	255	< 770	< 670	< 790	< 710	< 600	< 860	< 720	< 780	< 750	< 810	< 790	< 770	< 840	< 750
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 770	< 670	< 790	< 710	< 600	< 860	< 720	< 780	< 750	< 810	< 790	< 770	< 840	< 750
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 770	< 670	< 790	< 710	< 600	< 860	< 720	< 780	< 750	< 810	< 790	< 770	< 840	< 750
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 770	< 670	< 790	< 710	< 600	< 860	< 720	< 780	< 750	< 810	< 790	< 770	< 840	< 750
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-K6-01	SB-R-K6-02	SB-R-K7-01	SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04	SB-R-L10-01	SB-R-L10-02
			Sample Date	4/20/2006	4/20/2006	4/11/2006	4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006	3/23/2006	3/23/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft
			Sample ID	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K7-011.0N	SB-R-K7-041.0N	SB-R-K8-021.0FD	SB-R-K8-021.0N	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N	SB-R-L10-010.75N	SB-R-L10-021.0N
			Parent ID					SB-R-K8-021.0N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 340	< 350	< 340	< 330	< 330	< 350	< 330	< 360	< 360	< 370	< 380	< 370	< 370	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 340	< 350	< 340	< 330	< 330	< 350	< 330	< 360	< 360	< 370	< 380	< 370	< 370	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 340	< 420	< 340	< 330	< 330	< 350	< 330	< 360	< 360	< 370	< 380	< 370	< 370	< 340
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 340	< 350	< 340	< 330	< 330	< 350	< 330	< 360	< 360	< 370	< 380	< 370	< 370	< 340
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 140000	< 140000	< 130000	< 130000	< 130000	< 140000	< 130000	< 140000	< 150000	< 150000	< 150000	< 150000	< 150000	< 140000
Nitroglycerin	55-63-0	ug/kg	65000	< 6800	< 6900	< 6700	< 6600	< 6600	< 7000	< 6600	< 7200	< 7300	< 7400	< 7600	< 7400	< 7500	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 860	< 1800	< 840	< 820	< 830	< 870	< 830	< 900	< 910	< 930	< 950	< 920	< 930	< 860
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 340	< 350	< 340	< 330	< 330	< 350	< 330	< 360	< 360	< 370	< 380	< 370	< 370	< 340
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-K6-01	SB-R-K6-02	SB-R-K7-01	SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04	SB-R-L10-01	SB-R-L10-02
			Sample Date	4/20/2006	4/20/2006	4/11/2006	4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006	3/23/2006	3/23/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft
			Sample ID	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K7-011.0N	SB-R-K7-041.0N	SB-R-K8-021.0FD	SB-R-K8-021.0N	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N	SB-R-L10-010.75N	SB-R-L10-021.0N
			Parent ID					SB-R-K8-021.0N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.17	0.968	< 2.22	< 2.1	< 2.19	< 2.27	< 2.15	< 2.37	< 2.42	< 2.42	< 2.48	< 2.41	< 2.39	< 2.27
Arsenic	7440-38-2	mg/kg	9.9	4.53	4.34	17.9	3.14	2.76	4.41	5.49	5.27	9.01	5.8	278	39.3	5.57	5.26
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.737	0.747	0.583	0.588	0.476	0.525	0.0548	1.02	0.525	0.684	0.741	0.752	0.774	0.556
Cadmium	7440-43-9	mg/kg	0.36	< 2.72	< 0.564	0.896	< 2.68	< 0.548	< 0.568	< 2.69	< 2.96	< 0.605	0.206	0.181	< 0.602	0.88	0.955
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.2	11.5	10.5	15.9	12.5	13.4	18.7	12.2	24.4	19.4	17.7	15.6	12.1	22.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	9.89	6.66	4.8	7.37	22.7	30.3	8.17	11	19.5	9.95	18.5	36.3	17.3	57.5
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0293	0.0226	0.0143	0.0322	0.0589	0.051	0.0246	0.028	0.0296	0.0272	0.055	0.0752	0.0418	0.104
Nickel	7440-02-0	mg/kg	38	13.2	12.9	9.47	9.38	6.63	6.89	7.79	16.7	16.7	14	16.8	12.3	12.5	9.25
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.17	< 2.26	< 2.22	< 2.1	< 2.19	1.27	< 2.15	1.15	2.28	1.82	1.7	5.77	< 2.39	1.17
Silver	7440-22-4	mg/kg	2	< 0.544	< 0.564	0.287	0.292	< 0.548	< 0.568	< 0.538	0.276	< 0.605	< 0.605	< 0.621	< 0.602	< 0.597	< 0.568
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	2.33	< 2.26	< 2.22	1.05	< 11	< 2.27	3.42	< 2.37	1.95	< 2.42	< 2.48	2.28	< 2.39	< 2.27
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	72.3	71.6	71	81.4	46.5	40.4	26.7	66.6	61.2	54.8	65.3	53.3	58.9	111
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		12.4	13.1	11	8.6	9.7	13.7	9.7	16.4	17.3	19	21	18.6	19.5	12.9
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19	< 20	< 19	< 19	< 19	< 20	< 19	< 20	< 21	< 21	< 22	< 21	< 21	< 20
Aroclor-1221	11104-28-2	ug/kg	371	< 19	< 20	< 19	< 19	< 19	< 20	< 19	< 20	< 21	< 21	< 22	< 21	< 21	< 20
Aroclor-1232	11141-16-5	ug/kg	371	< 19	< 20	< 19	< 19	< 19	< 20	< 19	< 20	< 21	< 21	< 22	< 21	< 21	< 20
Aroclor-1242	53469-21-9	ug/kg	371	< 19	< 20	< 19	< 19	< 19	< 20	< 19	< 20	< 21	< 21	< 22	< 21	< 21	< 20
Aroclor-1248	12672-29-6	ug/kg	371	< 19	< 20	< 19	< 19	< 19	< 20	< 19	< 20	< 21	< 21	< 22	< 21	< 21	< 20
Aroclor-1254	11097-69-1	ug/kg	371	< 19	< 20	< 19	< 19	44	< 20	< 19	< 20	< 21	< 21	< 22	< 21	< 21	17
Aroclor-1260	11096-82-5	ug/kg	371	< 19	< 20	< 19	< 19	< 19	< 20	< 19	< 20	8.3	< 21	< 22	< 21	< 21	9.6
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 19	< 20	< 19	< 19	44	< 20	< 19	< 20	8.3	< 21	< 22	< 21	< 21	26.6
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2300	< 2300	< 2200	< 2200	< 2200	< 2300	< 2200	< 2400	< 2400	< 2500	< 2500	< 2500	< 2500	< 2300

Kennedy Jenks

			Location	SB-R-K6-01	SB-R-K6-02	SB-R-K7-01	SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04	SB-R-L10-01	SB-R-L10-02
			Sample Date	4/20/2006	4/20/2006	4/11/2006	4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006	3/23/2006	3/23/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft
			Sample ID	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K7-011.0N	SB-R-K7-041.0N	SB-R-K8-021.0FD	SB-R-K8-021.0N	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N	SB-R-L10-010.75N	SB-R-L10-021.0N
			Parent ID					SB-R-K8-021.0N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 190	< 190	< 190	< 180	130	310	< 180	< 200	79	< 210	75	54	< 210	170
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 190	< 190	< 190	< 180	130	320	< 180	< 200	86	< 210	68	41	< 210	210
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 190	< 190	< 190	< 180	220	430	< 180	41	140	< 210	220	92	< 210	380
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 190	< 190	< 190	< 180	77	220	< 180	< 200	58	< 210	83	< 200	< 210	140
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 380	< 380	< 370	< 360	< 370	< 390	< 370	< 400	< 400	< 410	< 420	< 410	95	< 380
Butylbenzylphthalate	85-68-7	ug/kg	239	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
Chrysene	218-01-9	ug/kg	4730	< 190	< 190	< 190	< 180	150	380	< 180	< 200	92	< 210	220	140	< 210	250
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 190	< 190	< 190	< 180	< 180	55	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
Diethylphthalate	84-66-2	ug/kg	24800	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	320
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 190	< 190	< 190	< 180	89	210	< 180	< 200	63	< 210	49	< 200	< 210	160
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 190	< 190	< 190	< 180	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 190	< 190	< 190	140	< 180	< 190	< 180	< 200	< 200	< 210	< 210	< 200	< 210	< 190
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-K6-01	SB-R-K6-02	SB-R-K7-01	SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04	SB-R-L10-01	SB-R-L10-02
			Sample Date	4/20/2006	4/20/2006	4/11/2006	4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006	3/23/2006	3/23/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft
			Sample ID	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K7-011.0N	SB-R-K7-041.0N	SB-R-K8-021.0FD	SB-R-K8-021.0N	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N	SB-R-L10-010.75N	SB-R-L10-021.0N
			Parent ID					SB-R-K8-021.0N									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2700	< 3000	< 2700	< 2800	< 2700	< 2900	< 3000	< 3100	< 3100	< 3500	< 3200	< 3100	< 2900	< 2800
Benzene	71-43-2	ug/kg	255	< 680	< 740	< 690	< 700	< 670	< 710	< 750	< 770	< 770	< 870	< 800	< 790	< 740	< 700
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 680	< 740	< 690	< 700	< 670	< 710	< 750	< 770	< 770	< 870	< 800	< 790	< 740	< 700
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 680	< 740	< 690	< 700	< 670	< 710	< 750	< 770	< 770	< 870	< 800	< 790	< 740	< 700
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 680	< 740	< 690	< 700	< 670	< 710	< 750	< 770	< 770	< 870	< 800	< 790	< 740	< 700
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-02	SB-R-L11-03	SB-R-L6-01	SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01
			Sample Date	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/29/2006	4/13/2006	4/13/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L10-031.0N	SB-R-L10-041.0FD	SB-R-L10-041.0N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L6-011.0N	SB-R-L6-021.0N	SB-R-L6-031.0FD	SB-R-L6-031.0N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N
			Parent ID		SB-R-L10-041.0N						SB-R-L6-031.0N						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 340	< 320	< 330	< 330	< 340	< 350	< 340	< 340	< 360	< 350	< 390	< 360	< 370	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 340	< 320	< 330	< 330	< 340	< 350	< 340	< 340	< 360	< 350	< 390	< 360	< 370	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 340	< 320	< 330	< 330	< 340	< 350	< 340	< 340	< 360	< 350	< 390	< 360	< 370	< 350
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 340	< 320	< 330	< 330	< 340	< 350	< 340	< 340	< 360	< 350	< 390	< 360	< 370	< 350
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 130000	< 130000	< 130000	< 130000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	170000	< 140000	< 150000	< 140000
Nitroglycerin	55-63-0	ug/kg	65000	< 6700	< 6500	< 6700	4800	< 6800	< 7100	< 6800	< 6900	< 7200	< 7000	< 7800	< 7100	5100	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 840	< 810	< 830	< 830	< 850	< 880	< 840	< 860	< 900	< 880	< 970	< 890	< 930	< 880
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 340	< 320	< 330	< 330	< 340	< 350	< 340	< 340	< 360	< 350	< 390	< 360	< 370	< 350
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-02	SB-R-L11-03	SB-R-L6-01	SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01
			Sample Date	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/29/2006	4/13/2006	4/13/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L10-031.0N	SB-R-L10-041.0FD	SB-R-L10-041.0N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L6-011.0N	SB-R-L6-021.0N	SB-R-L6-031.0FD	SB-R-L6-031.0N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N
			Parent ID		SB-R-L10-041.0N						SB-R-L6-031.0N						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.16	< 2.14	< 2.17	< 2.14	0.934	< 2.36	< 2.25	1.41	1.36	< 2.32	< 2.54	< 2.31	< 2.4	< 2.36
Arsenic	7440-38-2	mg/kg	9.9	2.83	2.42	4.99	20	8.52	3.85	20.4	4.58	4.24	2.67	8.29	2.61	7.75	70.1
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.67	0.637	0.642	0.56	0.49	0.788	0.199	0.76	0.884	0.662	1.15	0.775	0.756	0.0566
Cadmium	7440-43-9	mg/kg	0.36	< 2.7	< 2.67	< 2.72	0.968	< 0.559	28.1	0.113	0.489	< 2.96	< 2.9	< 3.17	< 2.91	< 3.03	< 2.95
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	12.3	13.3	11.4	41	128	9.12	27.1	12	11.4	12.4	12.6	12.7	20.6	13.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	7.99	9.48	9.87	41.8	852	7.7	44.5	6.67	6.8	7.22	19.1	15.8	66.1	15.1
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0255	0.0145	0.0173	0.0316	0.171	0.0407	0.497	0.0168	0.0058	0.0147	0.0758	0.0602	0.162	0.0255
Nickel	7440-02-0	mg/kg	38	12.6	9.03	8.5	10.3	15.5	10.8	8.88	11	12.3	12.8	9.51	10.1	9.37	6.89
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.16	< 2.14	< 2.17	< 2.14	< 2.24	< 2.36	1.3	< 2.22	< 2.37	< 2.32	< 2.54	< 2.31	< 2.4	6.48
Silver	7440-22-4	mg/kg	2	0.268	0.235	< 0.543	< 0.535	< 0.559	0.269	< 0.563	< 0.556	< 0.592	0.294	0.489	0.354	0.484	< 0.59
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.43	< 2.14	1.15	< 2.14	< 2.24	< 2.36	< 2.25	2.68	2.32	< 2.32	1.34	1.86	< 2.4	< 11.8
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	52	75.1	39.5	59.9	741	92.3	50.5	56.1	67.8	102	89.4	111	115	59.1
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		11	7.4	9.8	9.2	11.5	15.1	11.2	12.7	16.4	14.5	22.8	15.8	19.1	15.2
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19	< 18	< 19	< 19	< 19	< 20	< 19	< 19	< 20	< 20	< 22	< 20	< 21	< 20
Aroclor-1221	11104-28-2	ug/kg	371	< 19	< 18	< 19	< 19	< 19	< 20	< 19	< 19	< 20	< 20	< 22	< 20	< 21	< 20
Aroclor-1232	11141-16-5	ug/kg	371	< 19	< 18	< 19	< 19	< 19	< 20	< 19	< 19	< 20	< 20	< 22	< 20	< 21	< 20
Aroclor-1242	53469-21-9	ug/kg	371	< 19	< 18	< 19	< 19	< 19	< 20	< 19	< 19	< 20	< 20	< 22	< 20	< 21	< 20
Aroclor-1248	12672-29-6	ug/kg	371	< 19	< 18	< 19	< 19	< 19	< 20	< 19	< 19	< 20	< 20	< 22	< 20	< 21	< 20
Aroclor-1254	11097-69-1	ug/kg	371	< 19	< 18	< 19	58	< 19	< 20	< 19	< 19	< 20	< 20	< 22	< 20	15	< 20
Aroclor-1260	11096-82-5	ug/kg	371	< 19	< 18	< 19	18	< 19	< 20	< 19	< 19	< 20	< 20	< 22	10	26	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 19	< 18	< 19	76	< 19	< 20	< 19	< 19	< 20	< 20	< 22	10	41	< 20
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 190	< 180	< 180	< 180	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2200	< 2200	< 2200	< 2200	< 2300	< 2400	< 2400	< 2300	< 2400	< 2300	< 2600	< 2400	< 2500	< 2400

			Location	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-02	SB-R-L11-03	SB-R-L6-01	SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01
			Sample Date	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/29/2006	4/13/2006	4/13/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L10-031.0N	SB-R-L10-041.0FD	SB-R-L10-041.0N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L6-011.0N	SB-R-L6-021.0N	SB-R-L6-031.0FD	SB-R-L6-031.0N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N
			Parent ID		SB-R-L10-041.0N						SB-R-L6-031.0N						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 190	< 180	< 180	360	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 190	< 180	< 180	240	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 190	< 180	< 180	10000	100	< 200	72	< 190	< 200	< 190	< 220	< 200	130	< 200
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 190	< 180	< 180	8400	92	< 200	50	< 190	< 200	< 190	< 220	< 200	210	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 190	< 180	< 180	12000	160	< 200	96	< 190	< 200	< 190	51	< 200	260	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 190	< 180	< 180	4400	49	< 200	51	< 190	< 200	< 190	< 220	< 200	130	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 370	< 360	< 370	100	< 380	< 390	< 400	< 380	< 400	< 390	< 430	< 400	< 410	< 390
Butylbenzylphthalate	85-68-7	ug/kg	239	< 190	< 180	< 180	< 180	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
Chrysene	218-01-9	ug/kg	4730	< 190	< 180	< 180	8400	180	< 200	99	< 190	< 200	< 190	< 220	< 200	250	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 190	< 180	< 180	1600	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
Diethylphthalate	84-66-2	ug/kg	24800	< 190	< 180	< 180	160	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 190	< 180	< 180	1200	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 190	< 180	< 180	5400	67	< 200	< 200	< 190	< 200	< 190	< 220	< 200	120	< 200
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 190	< 180	< 180	< 180	< 190	< 200	< 200	< 190	< 200	< 190	< 220	< 200	< 210	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 190	< 180	< 180	330	< 190	< 200	57	< 190	< 200	< 190	140	< 200	< 210	< 200
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-02	SB-R-L11-03	SB-R-L6-01	SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01
			Sample Date	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/29/2006	4/13/2006	4/13/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L10-031.0N	SB-R-L10-041.0FD	SB-R-L10-041.0N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L6-011.0N	SB-R-L6-021.0N	SB-R-L6-031.0FD	SB-R-L6-031.0N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N
			Parent ID		SB-R-L10-041.0N						SB-R-L6-031.0N						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2900	< 2600	< 3200	< 2600	< 2800	< 2900	< 2600	< 3000	< 3300	< 2900	< 3200	< 2900	< 3100	< 3000
Benzene	71-43-2	ug/kg	255	< 730	< 640	< 810	< 650	< 700	< 740	< 640	< 750	< 820	< 730	< 790	< 730	97	< 740
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 730	< 640	< 810	< 650	< 700	< 740	< 640	< 750	< 820	< 730	< 790	< 730	< 780	< 740
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 730	< 640	< 810	< 650	< 700	< 740	< 640	< 750	< 820	< 730	< 790	< 730	< 780	< 740
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 730	< 640	< 810	< 650	< 700	< 740	< 640	< 750	< 820	< 730	< 790	< 730	< 780	< 740
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-L8-02	SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01	SB-R-M10-02	SB-R-M7-01	SB-R-M7-02	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02
			Sample Date	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006	3/30/2006	4/17/2006	4/17/2006	4/6/2006	3/29/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L8-021.0N	SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-021.0N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N	SB-R-M10-021.0N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 330	< 360	< 330	< 390	< 350	< 370	< 380	< 340	< 380	< 350	< 380	< 340	< 310	< 360
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 330	< 360	< 330	< 390	< 350	< 370	< 380	< 340	< 380	< 350	< 380	< 340	< 310	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 330	< 360	< 330	< 390	< 350	< 370	< 380	< 340	< 380	< 350	< 380	< 340	< 310	< 360
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 330	< 360	< 330	< 390	< 350	< 370	< 380	< 340	< 380	< 350	< 380	< 340	< 310	< 360
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 130000	< 140000	< 130000	< 150000	< 140000	< 150000	< 150000	< 130000	< 150000	< 140000	< 150000	54000	< 120000	< 140000
Nitroglycerin	55-63-0	ug/kg	65000	< 6500	< 7100	< 6700	< 7800	< 7100	< 7500	< 7700	130000	< 7500	< 7100	< 7500	< 6800	< 6300	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 810	< 890	< 830	< 970	< 890	< 940	< 960	< 850	< 940	< 880	< 940	< 850	< 790	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 330	< 360	< 330	< 390	< 350	< 370	< 380	< 340	< 380	< 350	< 380	240	< 310	< 360
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-L8-02	SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01	SB-R-M10-02	SB-R-M7-01	SB-R-M7-02	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02
			Sample Date	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006	3/30/2006	4/17/2006	4/17/2006	4/6/2006	3/29/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L8-021.0N	SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-021.0N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N	SB-R-M10-021.0N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.17	< 2.35	< 2.13	< 2.53	< 2.34	< 2.47	< 2.48	< 2.24	< 2.42	< 2.31	< 2.47	< 2.19	< 2.01	< 2.37
Arsenic	7440-38-2	mg/kg	9.9	7.01	3.02	6.34	6.79	8.35	3.78	5.49	4.72	3.77	5.31	13	18	2.73	3.27
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.266	0.397	0.629	0.885	0.65	0.803	0.93	0.44	0.438	0.329	0.935	0.287	0.402	0.297
Cadmium	7440-43-9	mg/kg	0.36	< 2.71	< 2.94	< 2.67	< 0.633	< 0.585	< 3.09	< 0.619	< 0.561	< 0.604	< 0.577	< 0.617	< 2.74	0.212	< 0.593
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	16.2	8.69	13.5	10.7	14	8.65	9.37	15.3	6.61	15.6	28.2	22.4	11.5	24.5
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	12.5	10.6	9.41	19.9	17.9	11.4	10.5	54.7	16.3	24.6	159	50.4	14.2	46.2
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0174	0.0176	0.0062	0.0459	0.0452	0.0156	0.0505	0.0568	0.0199	0.624	0.171	0.0453	0.0217	0.0721
Nickel	7440-02-0	mg/kg	38	8.44	8.85	8.11	14.3	13.8	11.9	12.8	10.1	6.06	10.2	13	10.9	5.52	6.02
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.17	< 2.35	< 2.13	2.86	2.54	< 2.47	< 2.48	< 2.24	< 2.42	< 2.31	< 2.47	< 2.19	< 2.01	< 2.37
Silver	7440-22-4	mg/kg	2	< 0.543	< 0.589	0.277	< 0.633	0.864	0.377	< 0.619	< 0.561	< 0.604	< 0.577	< 0.617	< 0.548	< 0.503	< 0.593
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	2.93	< 2.35	< 2.13	1.99	1.17	< 2.47	1.85	1.26	< 2.42	< 2.31	1.9	2.8	< 2.01	< 2.37
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	84.8	76.6	82.1	96.2	53.4	75.6	69.7	110	32.8	56.4	57.1	73.8	35.4	170
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		7.9	15.9	9.8	22.6	15.4	19.9	21.6	11.7	20.4	15.1	20.5	12.2	4.5	15.7
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	< 20	< 21	< 19	< 18	< 20
Aroclor-1221	11104-28-2	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	< 20	< 21	< 19	< 18	< 20
Aroclor-1232	11141-16-5	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	< 20	< 21	< 19	< 18	< 20
Aroclor-1242	53469-21-9	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	< 20	< 21	< 19	< 18	< 20
Aroclor-1248	12672-29-6	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	< 20	< 21	< 19	< 18	< 20
Aroclor-1254	11097-69-1	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	< 20	< 21	< 19	< 18	< 20
Aroclor-1260	11096-82-5	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	23	< 21	< 19	< 18	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 18	< 20	< 19	< 22	< 20	< 21	< 22	< 19	< 21	23	< 21	< 19	< 18	< 20
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 180	< 200	< 180	< 220	< 200	< 210	< 210	< 190	< 210	< 200	< 210	< 190	< 170	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2200	< 2400	< 2200	< 2600	< 2400	< 2500	< 2600	< 2300	< 2500	< 2400	< 2500	< 2300	< 2100	< 2400

Kennedy Jenks

			Location	SB-R-L8-02	SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01	SB-R-M10-02	SB-R-M7-01	SB-R-M7-02	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02
			Sample Date	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006	3/30/2006	4/17/2006	4/17/2006	4/6/2006	3/29/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L8-021.0N	SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-021.0N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N	SB-R-M10-021.0N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 180	< 200	< 180	< 220	< 200	< 210	< 210	< 190	< 210	< 200	< 210	< 190	< 170	150000
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 180	< 200	< 180	< 220	< 200	< 210	< 210	< 190	< 210	< 200	< 210	< 190	< 170	6700
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 180	< 200	1800	< 220	< 200	< 210	< 210	7600	< 210	< 200	63	220	41000	54
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 180	< 200	2000	< 220	40	< 210	< 210	6100	< 210	< 200	62	240	32000	74
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 180	< 200	3300	< 220	74	< 210	< 210	7700	< 210	< 200	94	350	47000	160
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 180	< 200	1200	< 220	< 200	< 210	< 210	3400	< 210	< 200	< 210	140	16000	40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 360	< 400	< 370	< 430	< 390	< 420	< 430	< 380	< 420	< 390	< 420	< 380	< 350	< 400
Butylbenzylphthalate	85-68-7	ug/kg	239	< 180	< 200	< 180	< 220	< 200	< 210	< 210	< 190	< 210	< 200	< 210	< 190	< 170	< 200
Chrysene	218-01-9	ug/kg	4730	< 180	< 200	2000	< 220	78	< 210	< 210	6100	< 210	< 200	120	270	35000	78
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 180	< 200	460	< 220	< 200	< 210	< 210	1300	< 210	< 200	< 210	43	6500	< 200
Diethylphthalate	84-66-2	ug/kg	24800	< 180	< 200	< 180	< 220	< 200	< 210	< 210	< 190	< 210	< 200	< 210	< 190	< 170	< 200
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180	< 200	< 180	< 220	< 200	< 210	< 210	150	< 210	< 200	< 210	< 190	< 170	< 200
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 180	< 200	1700	< 220	< 200	< 210	< 210	4000	< 210	< 200	< 210	170	20000	50
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 180	< 200	< 180	< 220	< 200	< 210	< 210	< 190	< 210	< 200	< 210	< 190	< 170	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 180	< 200	< 180	< 220	< 200	< 210	< 210	290	< 210	< 200	< 210	210	310	13000
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-L8-02	SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01	SB-R-M10-02	SB-R-M7-01	SB-R-M7-02	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02
			Sample Date	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006	3/30/2006	4/17/2006	4/17/2006	4/6/2006	3/29/2006	3/30/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-L8-021.0N	SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-021.0N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N	SB-R-M10-021.0N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2800	< 2800	< 3000	< 3600	< 3000	< 3200	< 3100	< 3000	< 3100	< 3300	< 3200	< 2800	< 2600	< 3000
Benzene	71-43-2	ug/kg	255	< 700	< 710	< 750	< 910	< 750	< 810	< 770	< 750	< 770	< 820	< 790	< 710	< 660	< 750
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 700	< 710	< 750	< 910	< 750	< 810	< 770	< 750	< 770	< 820	< 790	< 710	< 660	< 750
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 700	< 710	< 750	< 910	< 750	< 810	< 770	< 750	< 770	< 820	< 790	< 710	< 660	< 750
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 700	< 710	< 750	< 910	< 750	< 810	< 770	< 750	< 770	< 820	< 790	< 710	< 660	< 750
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-M9-03	SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N7-01	SB-R-N9-01	SB-R-N9-02	SB-R-O5-01	SB-R-O5-03	SB-R-O5-03
			Sample Date	3/30/2006	4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	4/17/2006	3/29/2006	3/30/2006	4/26/2006	4/27/2006	4/27/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-M9-031.0N	SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	B-R-N5-021.0N095	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N7-011.0N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-O5-011.0N	SB-R-O5-031.0FD	SB-R-O5-031.0N
			Parent ID													SB-R-O5-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 330	< 380	< 1400	< 370	< 430		< 350	< 350	< 370	< 360	< 350	< 350	< 340	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 330	< 380	< 1400	< 370	< 430		< 350	< 350	< 370	< 360	< 350	< 350	< 340	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 330	< 380	< 1400	< 370	< 430		< 350	< 350	< 370	< 360	< 350	< 350	< 340	< 340
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 330	< 380	< 2800	< 370	< 430		< 350	< 350	< 370	< 360	< 350	< 350	< 340	< 340
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 130000	< 150000	< 560000	< 150000	< 170000		< 140000	< 140000	< 150000	< 140000	< 140000	< 140000	< 140000	< 130000
Nitroglycerin	55-63-0	ug/kg	65000	< 6600	< 7500	< 28000	< 7500	< 8500		< 6900	< 6900	< 7400	< 7200	< 6900	< 6900	< 6800	< 6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 830	< 940	< 3500	< 930	< 1100		< 870	< 870	< 920	< 900	< 870	< 870	< 850	< 840
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 330	< 380	470	< 370	< 430		120	< 350	< 370	< 360	< 350	< 350	< 340	< 340
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-M9-03	SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N7-01	SB-R-N9-01	SB-R-N9-02	SB-R-O5-01	SB-R-O5-03	SB-R-O5-03
			Sample Date	3/30/2006	4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	4/17/2006	3/29/2006	3/30/2006	4/26/2006	4/27/2006	4/27/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-M9-031.0N	SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N085	SB-R-N5-021.0N095	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N7-011.0N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-O5-011.0N	SB-R-O5-031.0FD	SB-R-O5-031.0N
			Parent ID													SB-R-O5-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.14	< 2.43	< 9.35	< 2.48		< 1.97	< 9.96	< 2.25	1.45	< 2.4	< 2.26	< 1.96	< 2.23	0.904
Arsenic	7440-38-2	mg/kg	9.9	3.78	5.64	< 9.35	2.19		1.74	7.92	2.53	5.96	6.55	3.35	5.26	3.12	4.05
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.518	0.785	< 2.34	< 0.621		0.522	0.957	0.708	0.768	0.307	0.322	0.427	0.865	1.11
Cadmium	7440-43-9	mg/kg	0.36	< 0.536	< 0.608	0.481	0.24		0.164	< 2.49	< 0.562	< 0.59	< 0.599	< 0.565	0.439	< 0.557	< 0.54
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	14.3	10.6	17.6	8.3		16	33.5	7.7	19.3	18.8	4.79	10	16.1	22.2
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	7.41	10.1	14.4	14		8.68	8.39	5.87	7.51	32.2	6.2	25.1	3.14	3.48
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0431	0.0413	0.184	0.0252		0.0493	0.0368	0.0166	0.0189	0.05	0.0188	0.041	0.0273	0.0201
Nickel	7440-02-0	mg/kg	38	12.8	13.4	4.59	3.48		10.8	18.1	9.86	13.5	10.1	7.1	12.2	9.06	10.4
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	1.57	< 2.43	< 9.35	< 2.48		< 1.97	< 9.96	< 2.25	< 2.36	1.73	< 2.26	< 1.96	< 2.23	< 2.16
Silver	7440-22-4	mg/kg	2	< 0.536	< 0.608	< 2.34	< 0.621		< 0.492	< 2.49	< 0.562	< 0.59	< 0.599	< 0.565	< 0.49	< 0.557	< 0.54
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	1.55	2.15	< 9.35	< 2.48		< 1.97	< 9.96	1.47	2.21	1.54	< 2.26	< 1.96	1.18	1.8
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	56.8	83.2	63.2	21.7		60.5	113	69.1	82.7	85.6	41.6	210	63	84.5
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		9.4	20.2	78.6	19.5	29.5	3.3	13.6	13.6	18.5	16.5	13.3	13.3	12	10.9
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19	< 21	< 79	< 21	< 24		< 20	< 20	< 21	< 20	< 20	< 20	< 19	< 19
Aroclor-1221	11104-28-2	ug/kg	371	< 19	< 21	< 79	< 21	< 24		< 20	< 20	< 21	< 20	< 20	< 20	< 19	< 19
Aroclor-1232	11141-16-5	ug/kg	371	< 19	< 21	< 79	< 21	< 24		< 20	< 20	< 21	< 20	< 20	< 20	< 19	< 19
Aroclor-1242	53469-21-9	ug/kg	371	< 19	< 21	< 79	< 21	< 24		< 20	< 20	< 21	< 20	< 20	< 20	< 19	< 19
Aroclor-1248	12672-29-6	ug/kg	371	< 19	< 21	< 79	< 21	< 24		< 20	< 20	< 21	< 20	< 20	< 20	< 19	< 19
Aroclor-1254	11097-69-1	ug/kg	371	< 19	< 21	< 79	< 21	< 24		< 20	< 20	< 21	72	< 20	< 20	< 19	< 19
Aroclor-1260	11096-82-5	ug/kg	371	< 19	< 21	< 79	< 21	< 24		9.3	< 20	< 21	28	< 20	< 20	< 19	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 19	< 21	< 79	< 21	< 24		9.3	< 20	< 21	100	< 20	< 20	< 19	< 19
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2200	< 2500	< 9300	< 2500		< 3400	< 2300	< 2300	< 2500	< 2400	< 2300	< 2300	< 2300	< 2200

			Location	SB-R-M9-03	SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N7-01	SB-R-N9-01	SB-R-N9-02	SB-R-O5-01	SB-R-O5-03	SB-R-O5-03
			Sample Date	3/30/2006	4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	4/17/2006	3/29/2006	3/30/2006	4/26/2006	4/27/2006	4/27/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-M9-031.0N	SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N085	SB-R-N5-021.0N095	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N7-011.0N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-O5-011.0N	SB-R-O5-031.0FD	SB-R-O5-031.0N
			Parent ID													SB-R-O5-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	190	< 210	< 780	< 210		< 280	< 190	< 190	< 200	170	< 190	< 200	< 190	< 190
Benzo[a]pyrene	50-32-8	ug/kg	1520	180	< 210	< 780	< 210		61	< 190	< 190	< 200	180	< 190	< 200	< 190	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	260	< 210	< 780	< 210		< 280	< 190	< 190	< 200	250	< 190	< 200	< 190	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	120	< 210	< 780	< 210		< 280	< 190	< 190	< 200	120	< 190	< 200	< 190	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 370	< 420	< 1600	< 410		< 560	< 390	< 390	< 410	< 400	< 380	< 390	< 380	< 370
Butylbenzylphthalate	85-68-7	ug/kg	239	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
Chrysene	218-01-9	ug/kg	4730	270	< 210	< 780	< 210		< 280	< 190	< 190	< 200	190	< 190	< 200	< 190	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	47	< 190	< 200	< 190	< 190
Diethylphthalate	84-66-2	ug/kg	24800	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	120	< 210	< 780	< 210		< 280	< 190	< 190	< 200	130	< 190	< 200	< 190	< 190
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	< 200	< 190	< 200	< 190	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 180	< 210	< 780	< 210		< 280	< 190	< 190	< 200	42	< 190	< 200	< 190	< 190
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-M9-03	SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N7-01	SB-R-N9-01	SB-R-N9-02	SB-R-O5-01	SB-R-O5-03	SB-R-O5-03
			Sample Date	3/30/2006	4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	4/17/2006	3/29/2006	3/30/2006	4/26/2006	4/27/2006	4/27/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-M9-031.0N	SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N095	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N7-011.0N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-O5-011.0N	SB-R-O5-031.0FD	SB-R-O5-031.0N
			Parent ID													SB-R-O5-031.0N	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2800	< 3200	< 13000	< 3000	< 4500		< 3000	< 2800	< 3100	< 3400	< 2900	< 2900	< 3000	< 2900
Benzene	71-43-2	ug/kg	255	< 710	< 790	< 3200	< 750	< 1100		< 760	< 700	< 780	< 850	< 710	< 730	< 750	< 720
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 710	< 790	< 3200	< 750	< 1100		< 760	< 700	< 780	< 850	< 710	< 730	< 750	< 720
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 710	< 790	< 3200	< 750	< 1100		< 760	< 700	< 780	< 850	< 710	< 730	< 750	< 720
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 710	< 790	< 3200	< 750	< 1100		< 760	< 700	< 780	< 850	< 710	< 730	< 750	< 720
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	SB-R-O5-04	SB-R-O6-01	SB-R-O6-02	SB-R-O7-02	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04
			Sample Date	5/2/2006	4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-O5-041.0N	SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-021.0N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 410	< 350	< 360	< 360	< 350	< 360	< 320	< 330	< 340	< 350	< 340	< 360		< 350
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 410	< 350	< 360	< 360	< 350	< 360	< 320	< 330	< 340	< 350	< 340	< 360		< 350
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 410	< 350	< 360	< 360	< 350	< 360	< 320	< 330	< 340	< 350	< 340	< 360		< 350
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 410	< 350	< 360	< 360	< 350	< 360	< 320	< 330	< 340	< 350	< 340	< 360		< 350
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 170000	< 140000	< 140000	< 140000	< 140000	< 140000	< 130000	< 130000	< 140000	< 140000	< 140000	< 140000		< 140000
Nitroglycerin	55-63-0	ug/kg	65000	< 8300	< 6900	< 7200	< 7100	< 7000	< 7200	< 6500	< 6600	< 6800	< 6900	< 6900	< 7200		< 7000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 1000	< 870	< 900	< 890	< 870	< 900	< 810	< 820	< 850	< 870	< 860	< 890		< 880
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 410	< 350	< 360	< 360	< 350	< 360	< 320	< 330	< 340	< 350	< 340	< 360		< 350
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-O5-04	SB-R-O6-01	SB-R-O6-02	SB-R-O7-02	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04
			Sample Date	5/2/2006	4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-O5-041.0N	SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-021.0N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	0.936	1	< 10.1	< 2.32	< 2.24	< 2.34	< 2.1	< 2.08	1.14	1.92	< 1.99		< 2	< 1.98
Arsenic	7440-38-2	mg/kg	9.9	1.52	4.16	6.76	3.53	22.3	3.63	2.34	2.31	3.59	5.28	5.46		6.93	5.16
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.441	0.771	1.03	0.635	0.578	0.518	0.763	0.486	0.762	0.726	0.575		0.806	0.61
Cadmium	7440-43-9	mg/kg	0.36	0.168	< 0.562	< 2.52	< 2.9	< 2.8	< 0.586	< 2.62	< 0.52	0.641	0.489	0.326		< 0.5	0.492
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	12	18.9	14.2	10.8	19.9	11.3	16.1	17.9	18.1	13.7	15		23.4	15.8
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	4.76	12.3	12.7	5.29	23.2	16.1	4.39	4.73	7.18	7.07	7.47		9.44	8.35
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0288	0.0249	0.0662	0.0151	0.188	0.0127	0.009	0.0195	0.0124	0.0219	0.0347		0.0288	0.0342
Nickel	7440-02-0	mg/kg	38	5.35	9.11	18.4	10.2	11.8	11.2	8.5	8.15	11	11.1	14		17	15.6
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.01	< 2.25	< 10.1	< 2.32	< 2.24	< 2.34	< 2.1	< 2.08	< 2.28	< 2.25	< 1.99		< 2	< 1.98
Silver	7440-22-4	mg/kg	2	< 0.503	< 0.562	< 2.52	< 0.58	< 0.559	< 0.586	2.33	< 0.52	< 0.569	< 0.562	< 0.498		< 0.5	< 0.495
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2.01	1.39	< 10.1	2.3	2.53	< 2.34	2.86	1.29	< 2.28	1.99	1.06		< 2	< 1.98
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	38.4	58.7	141	61.6	47.6	56.5	51.6	45.9	80.8	61.4	110		82	96
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		27.6	13.6	16.9	15.5	14	16.3	7.4	8.5	12.1	13.6	12.9	16.2	16.2	14.6
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 23	< 20	< 20	< 20	< 20	< 20	< 18	< 19	< 19	< 20	< 20	< 20		< 20
Aroclor-1221	11104-28-2	ug/kg	371	< 23	< 20	< 20	< 20	< 20	< 20	< 18	< 19	< 19	< 20	< 20	< 20		< 20
Aroclor-1232	11141-16-5	ug/kg	371	< 23	< 20	< 20	< 20	< 20	< 20	< 18	< 19	< 19	< 20	< 20	< 20		< 20
Aroclor-1242	53469-21-9	ug/kg	371	< 23	< 20	< 20	< 20	< 20	< 20	< 18	< 19	< 19	< 20	< 20	< 20		< 20
Aroclor-1248	12672-29-6	ug/kg	371	< 23	< 20	< 20	< 20	< 20	< 20	< 18	< 19	< 19	< 20	< 20	< 20		< 20
Aroclor-1254	11097-69-1	ug/kg	371	< 23	< 20	< 20	< 20	< 20	18	230	48	< 19	< 20	< 20	< 20		< 20
Aroclor-1260	11096-82-5	ug/kg	371	< 23	< 20	< 20	< 20	< 20	7.1	64	< 19	< 19	< 20	< 20	< 20		< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 23	< 20	< 20	< 20	< 20	25.1	294	48	< 19	< 20	< 20	< 20		< 20
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2700	< 2300	< 2400	< 2400	< 2300	< 2400	< 2200	< 2200	< 2300	< 2300	< 2300		< 2400	< 2400

			Location	SB-R-O5-04	SB-R-O6-01	SB-R-O6-02	SB-R-O7-02	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04
			Sample Date	5/2/2006	4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-O5-041.0N	SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-021.0N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 230	< 190	< 200	< 200	40	< 200	< 180	140	< 190	< 190	< 190		< 200	< 200
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 230	< 190	< 200	< 200	< 190	< 200	< 180	100	< 190	< 190	< 190		< 200	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 230	< 190	< 200	< 200	86	< 200	< 180	140	< 190	< 190	< 190		< 200	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 230	< 190	< 200	< 200	< 190	< 200	< 180	55	< 190	< 190	< 190		< 200	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 460	< 390	< 400	< 390	< 390	< 400	200	< 360	< 380	< 390	< 390		< 400	< 400
Butylbenzylphthalate	85-68-7	ug/kg	239	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
Chrysene	218-01-9	ug/kg	4730	< 230	< 190	< 200	< 200	71	< 200	< 180	150	< 190	< 190	< 190		< 200	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
Diethylphthalate	84-66-2	ug/kg	24800	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 230	< 190	< 200	< 200	< 190	< 200	< 180	53	< 190	< 190	< 190		< 200	< 200
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 230	< 190	< 200	< 200	< 190	< 200	< 180	< 180	< 190	< 190	< 190		< 200	< 200
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-O5-04	SB-R-O6-01	SB-R-O6-02	SB-R-O7-02	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04
			Sample Date	5/2/2006	4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-O5-041.0N	SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-021.0N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 3700	< 2900	< 3200	< 3100	< 2900	< 3200	< 2600	< 2800	< 3000	< 2900	< 2800	< 2800		< 2800
Benzene	71-43-2	ug/kg	255	< 930	< 720	< 810	< 770	< 720	< 790	< 660	< 690	< 740	< 740	< 710	< 700		< 700
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 930	< 720	< 810	< 770	< 720	< 790	< 660	< 690	< 740	< 740	< 710	< 700		< 700
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 930	< 720	< 810	< 770	< 720	< 790	< 660	< 690	< 740	< 740	< 710	< 700		< 700
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 930	< 720	< 810	< 770	< 720	< 790	< 660	< 690	< 740	< 740	< 710	< 700		< 700
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-P6-01	SB-R-P6-03	SB-R-P7-01	SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-02	SB-R-R6-03
			Sample Date	4/18/2006	4/25/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/24/2006	5/1/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-P6-011.0N	SB-R-P6-031.0N	SB-R-P7-011.0FD	SB-R-P7-011.0N	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011FD	SB-R-Q7-011N	SB-R-Q7-021.0N	SB-R-R6-021N	R-R6-03_5/1/2006_0
			Parent ID			SB-R-P7-011.0N							SB-R-Q7-011N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 350	< 380	< 330	< 340	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 340	< 380 U
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 350	< 380	< 330	< 340	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 340	< 380 U
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 350	< 380	< 330	< 340	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 340	< 380 U
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 350	< 380	< 330	< 340	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 340	< 380 U
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 140000	< 150000	< 130000	< 140000	< 140000	< 140000	< 140000	< 150000	< 140000	< 140000	< 140000	< 140000	< 130000	< 150000 U
Nitroglycerin	55-63-0	ug/kg	65000	< 7100	< 7700	< 6500	< 6900	< 7000	< 7000	< 6800	< 7500	< 6800	< 7100	< 7200	< 7100	< 6700	< 7600 U
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 890	< 960	< 820	< 860	< 880	< 880	< 840	< 930	< 850	< 890	< 900	< 890	< 840	< 950 U
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 350	< 380	< 330	< 340	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 340	< 380 U
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-P6-01	SB-R-P6-03	SB-R-P7-01	SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-02	SB-R-R6-03
			Sample Date	4/18/2006	4/25/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/24/2006	5/1/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-P6-011.0N	SB-R-P6-031.0N	SB-R-P7-011.0FD	SB-R-P7-011.0N	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011FD	SB-R-Q7-011N	SB-R-Q7-021.0N	SB-R-R6-021N	R-R6-03_5/1/2006_0
			Parent ID			SB-R-P7-011.0N							SB-R-Q7-011N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.3	< 2.49	< 2.14	< 22.4	< 2.34	< 2.3	< 1.98	< 2.49	< 2.2	< 2.35	< 2.34	< 2.3	< 2.24	1.02 J
Arsenic	7440-38-2	mg/kg	9.9	4.4	2.92	4.26	< 22.4	4.26	4.39	5.79	3.36	4.25	2.99	2.89	3.68	2.49	6.57
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.717	0.941	0.799	0.774	0.803	0.641	0.617	1.03	0.295	0.149	0.164	0.689	0.283	1.09
Cadmium	7440-43-9	mg/kg	0.36	< 2.87	< 0.622	< 2.67	< 5.61	< 2.93	< 2.87	0.275	< 0.622	< 0.55	< 0.587	< 0.585	0.103	< 0.561	< 0.621 U
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	12	8.18	16	17.6	11.7	15.6	18.8	11.6	15.1	5.86	6.52	13	11.7	9.18
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	11.8	6.48	19.8	38.4	17.7	6.54	7.62	9.23	7.95	8.24	10	5.36	3.82	15
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.0245	0.0361	0.0181	0.0239	0.0681	0.0343	0.028	0.0137	0.0056	0.0175	0.0178	0.0176	0.0108	0.0347 J
Nickel	7440-02-0	mg/kg	38	10.5	9.03	8.2	11.9	10.5	13.8	15.3	10.1	10.8	5.98	6.3	9.98	8.25	11.1
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.3	< 2.49	< 2.14	< 22.4	< 2.34	< 2.3	< 1.98	< 2.49	< 2.2	< 2.35	< 2.34	< 2.3	< 2.24	< 2.48 U
Silver	7440-22-4	mg/kg	2	< 0.574	< 0.622	< 0.534	< 5.61	< 0.585	< 0.575	< 0.495	< 0.622	< 0.55	< 0.587	< 0.585	< 0.576	< 0.561	< 0.621 U
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	2.44	2.26	3.11	< 22.4	2.67	2.84	1.17	< 2.49	< 2.2	< 2.35	1.55	< 2.3	1.5	< 2.48 U
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	70.6	108	120	259	68.3	69.3	92.4	80	50.2	42.2	39.3	41.1	51.4	110
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		15.4	22	8.2	12.6	14.6	14.7	11.2	19.6	11.7	15.7	17	15.7	10.9	
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Aroclor-1221	11104-28-2	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Aroclor-1232	11141-16-5	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Aroclor-1242	53469-21-9	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Aroclor-1248	12672-29-6	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Aroclor-1254	11097-69-1	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Aroclor-1260	11096-82-5	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 20	< 22	< 19	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 19	< 22 U
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															< 42 U
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2400	< 2600	< 2200	< 2300	< 2300	< 2300	< 2200	< 2500	< 2300	< 2400	< 2400	< 2400	< 2200	< 2500 U

			Location	SB-R-P6-01	SB-R-P6-03	SB-R-P7-01	SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-02	SB-R-R6-03
			Sample Date	4/18/2006	4/25/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/24/2006	5/1/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-P6-011.0N	SB-R-P6-031.0N	SB-R-P7-011.0FD	SB-R-P7-011.0N	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011FD	SB-R-Q7-011N	SB-R-Q7-021.0N	SB-R-R6-021N	R-R6-03_5/1/2006_0
			Parent ID			SB-R-P7-011.0N							SB-R-Q7-011N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 200	< 210	94	96	< 200	< 200	< 190	< 210	41	< 200	< 200	< 200	< 190	< 210 U
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 200	< 210	87	100	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	80	< 210	130	130	< 200	< 200	< 190	< 210	57	< 200	< 200	< 200	< 190	< 210 U
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 200	< 210	51	69	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 390	< 430	< 360	< 380	< 390	< 390	< 370	< 410	< 380	< 400	< 400	< 400	< 370	< 420 U
Butylbenzylphthalate	85-68-7	ug/kg	239	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Chrysene	218-01-9	ug/kg	4730	69	< 210	90	92	< 200	< 200	< 190	< 210	44	< 200	< 200	< 200	< 190	< 210 U
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Diethylphthalate	84-66-2	ug/kg	24800	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 200	< 210	49	58	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 200	< 210	< 180	< 190	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 190	< 210 U
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-P6-01	SB-R-P6-03	SB-R-P7-01	SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-02	SB-R-R6-03
			Sample Date	4/18/2006	4/25/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/24/2006	5/1/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-P6-011.0N	SB-R-P6-031.0N	SB-R-P7-011.0FD	SB-R-P7-011.0N	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011FD	SB-R-Q7-011N	SB-R-Q7-021.0N	SB-R-R6-021N	R-R6-03_5/1/2006_0
			Parent ID			SB-R-P7-011.0N							SB-R-Q7-011N				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 3100	< 3400	< 2800	< 2800	< 2900	< 2600	< 2700	< 3100	< 2800	< 3300	< 3000	< 2900	< 2800	< 3000 U
Benzene	71-43-2	ug/kg	255	< 780	< 840	< 690	< 710	< 720	< 640	< 670	< 770	< 710	< 810	< 740	< 730	< 690	< 750 U
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 780	< 840	< 690	< 710	< 720	< 640	< 670	< 770	< 710	< 810	< 740	< 730	< 690	< 750 U
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 780	< 840	< 690	< 710	< 720	< 640	< 670	< 770	< 710	< 810	< 740	< 730	< 690	< 750 U
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 780	< 840	< 690	< 710	< 720	< 640	< 670	< 770	< 710	< 810	< 740	< 730	< 690	< 750 U
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-R7-01	SB-R-R7-02	SB-R-S7-01	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02	SD-R-D12-08	SD-R-D12-11	SD-R-D12-12	SD-R-D14-10	SD-R-E10-01	SD-R-E10-01	SD-R-E10-02	SD-R-E11-04
			Sample Date	4/25/2006	4/25/2006	5/1/2006	5/23/2006	5/23/2006	5/23/2006	5/15/2006	5/16/2006	5/16/2006	6/29/2006	5/17/2006	5/17/2006	6/13/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-R7-011N	SB-R-R7-021N	R-S7-01 _5/1/2006_0	SD-R-C13-011.0N	SD-R-C13-021.0FD	SD-R-C13-021.0N	SD-R-D12-081.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D14-101.0N	SD-R-E10-011.0N	SD-R-E10-011N	SD-R-E10-021.0N	SD-R-E11-041.0N
			Parent ID					SD-R-C13-021.0N									
			Note		update sampling_company_code from		Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376				< 410	< 430	< 430	< 580	< 430	< 390	< 580		< 600	< 1600	< 500
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 330	< 360	< 380 U											
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 330	< 360	< 380 U	< 410	< 430	< 430	< 580	< 430	< 390	< 580		< 600	< 1600	< 500
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 330	< 360	< 380 U	< 410	< 430	< 430	< 580	< 430	< 390	230		< 600	< 1600	< 500
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 330	< 360	< 380 U	< 410	< 430	< 430	< 580	< 430	< 390	660		< 600	< 1600	< 500
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310				< 410	< 430	< 430	< 580	< 430	< 390	< 580		< 600	< 1600	< 500
Nitrocellulose	9004-70-0	ug/kg		< 130000	< 140000	< 150000 U	< 160000	< 170000	< 170000	< 230000	< 170000	< 150000	< 230000		< 240000	< 630000	< 200000
Nitroglycerin	55-63-0	ug/kg	65000	< 6700	< 7200	< 7600 U	< 8100	< 8500	< 8500	< 12000	< 8500	< 7700	< 12000		< 12000	< 32000	< 10000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 830	< 900	< 950 U	< 1000	< 1100	< 1100	< 1500	< 1100	< 970	< 1400		< 1500	< 3900	< 1300
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000				< 8100	< 8500	< 8500	< 12000	< 8500	< 7700	< 12000		< 12000	< 32000	< 10000
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 330	< 360	< 380 U	< 410	< 430	< 430	< 580	< 430	< 390	< 580		< 600	< 1600	< 500
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%					99.6	97.4	93.3	99.4	100	100	98.7	99.9		100	100
Sieve Size #37 - Percent Finer	SIEVE_#037	%					99.6	100	100	100	100	100	100	100		100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%					100	100	100	100	100	100	100	100		100	100
Sieve, 1 micron, % passing	SIEVE_1U	%					< 1	< 1	< 1	2	< 1	< 1	3	3		1	1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%					55.4	38.1	38.6	77.5	69.7	72.1	59	77.3		50.9	78.4
Sieve, 150 micron, % passing	SIEVE_150U	%					8.7	4	4.2	24	12.9	14.1	30.8	41.2		37.4	38.6
Sieve, 2 micron, % passing	SIEVE_2U	%					< 1	< 1	< 1	2	< 1	< 1	4	3		5	5
Sieve, 20 micron, % passing	SIEVE_20U	%					0.5	< 1	< 1	4.5	2.5	3	14.5	9		18	25
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%					62.4	47.4	48.6	89.1	75.1	81.3	65.9	84.9		52.6	83.8
Sieve, 300 micron, % passing	SIEVE_300U	%					24.5	9.6	9	45.8	30.2	34.1	38.3	51.9		42.7	51.1

			Location	SB-R-R7-01	SB-R-R7-02	SB-R-S7-01	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02	SD-R-D12-08	SD-R-D12-11	SD-R-D12-12	SD-R-D14-10	SD-R-E10-01	SD-R-E10-01	SD-R-E10-02	SD-R-E11-04
			Sample Date	4/25/2006	4/25/2006	5/1/2006	5/23/2006	5/23/2006	5/23/2006	5/15/2006	5/16/2006	5/16/2006	6/29/2006	5/17/2006	5/17/2006	6/13/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-R7-011N	SB-R-R7-021N	R-S7-01 _5/1/2006_0	SD-R-C13-011.0N	SD-R-C13-021.0FD	SD-R-C13-021.0N	SD-R-D12-081.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D14-101.0N	SD-R-E10-011.0N	SD-R-E10-011N	SD-R-E10-021.0N	SD-R-E11-041.0N
			Parent ID					SD-R-C13-021.0N									
			Note		update sampling_company_code from		Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%					69.9	55.8	56.5	93.3	83.1	88.1	73.8	91.3		85.3	90.3
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%					77.1	64.1	64.7	95.5	89.2	93.8	82.6	96.4		91.1	95.5
Sieve, 5 micron, % passing	SIEVE_5U	%					< 1	< 1	< 1	2	< 1	1	7	3		10	9.5
Sieve, 50 micron, % passing	SIEVE_50U	%					3	1	1	8.5	7	4.5	21	27		27	27.5
Sieve, 600 micron, % passing	SIEVE_600U	%					45.6	25.6	24.9	64.9	56.1	56.4	48.5	64.8		47.6	67
Sieve, 64 micron, % passing	SIEVE_64U	%					4.5	2.5	2.5	11	8.5	6.5	25	31.5		31	30.5
Sieve, 75 micron, % passing	SIEVE_75U	%					4.9	3.1	2.9	13.3	9.8	7.4	26.6	33.5		33.5	31.9
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27	< 2.13	< 2.39	1.16 J											
Arsenic	7440-38-2	mg/kg	9.9	56.1	42.4	5.65	2.24	1.99	2.34	< 3.89	35.9	3.24	1.8		7.18	44.8	8.37
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10	0.303	0.262	0.846											
Cadmium	7440-43-9	mg/kg	0.36	< 0.533	< 0.597	< 0.622 U	< 0.669	< 0.696	< 0.685	0.414	0.782	< 0.632	0.547		3.8	< 2.55	0.517
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				11.8	8.61	9.13	21.5	8.99	11.9	19.7		15.2	13.1	9.5
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	14.7	21.2	15.4	26	11.5	13.4	4.74	25.5	12.2	31.9		306	179	22
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	19.2	53.5	11.7	12	20.3	20.1	6.47	82	12.8	35.2		262	469	62
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.065	0.108	0.0429 J	0.0278	0.0557	0.046	0.0246	0.0869	0.0093	0.148		4.51	0.437	0.405
Nickel	7440-02-0	mg/kg	38	10.3	9.23	14.4	13.5	6.04	6.95	6.23	29.4	6.26	11.4		24.2	81.9	8.21
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	< 2.13	1.68	< 2.49 U											
Silver	7440-22-4	mg/kg	2	< 0.533	< 0.597	< 0.622 U	< 0.669	< 0.696	< 0.685	0.504	< 3.52	< 0.632	< 0.963		< 4.83	< 2.55	< 0.8
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1	< 2.13	< 2.39	< 2.49 U											
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	43	68.6	140	54.9	44.1	42.2	30.6	294	46.3	88.9		601	1550	76.9
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		9.8	17.1		26	29.6	29.8	48.6	29.7	22.4	48.1		49.7	81	40.5
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19	< 21	< 22 U											
Aroclor-1221	11104-28-2	ug/kg	371	< 19	< 21	< 22 U											
Aroclor-1232	11141-16-5	ug/kg	371	< 19	< 21												
Aroclor-1242	53469-21-9	ug/kg	371	< 19	< 21												
Aroclor-1248	12672-29-6	ug/kg	371	< 19	< 21												
Aroclor-1254	11097-69-1	ug/kg	371	26	< 21												
Aroclor-1260	11096-82-5	ug/kg	371	7.8	< 21												
Polychlorinated biphenyls	1336-36-3	ug/kg	371	33.8	< 21												
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 920	< 200	< 210 U											
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg				< 42 U											
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 11000	< 2400	< 2500 U											

			Location	SB-R-R7-01	SB-R-R7-02	SB-R-S7-01	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02	SD-R-D12-08	SD-R-D12-11	SD-R-D12-12	SD-R-D14-10	SD-R-E10-01	SD-R-E10-01	SD-R-E10-02	SD-R-E11-04
			Sample Date	4/25/2006	4/25/2006	5/1/2006	5/23/2006	5/23/2006	5/23/2006	5/15/2006	5/16/2006	5/16/2006	6/29/2006	5/17/2006	5/17/2006	6/13/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-R7-011N	SB-R-R7-021N	R-S7-01 _5/1/2006_0	SD-R-C13-011.0N	SD-R-C13-021.0FD	SD-R-C13-021.0N	SD-R-D12-081.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D14-101.0N	SD-R-E10-011.0N	SD-R-E10-011N	SD-R-E10-021.0N	SD-R-E11-041.0N
			Parent ID					SD-R-C13-021.0N									
			Note		update sampling_company_code from		Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 920	< 200												< 280
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 920	< 200												< 280
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														< 280
Acenaphthylene	208-96-8	ug/kg	682000														< 280
Anthracene	120-12-7	ug/kg	1480000														< 280
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	590	< 200	< 210 U											230
Benzo[a]pyrene	50-32-8	ug/kg	1520	570	< 200	< 210 U											290
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	990	61	< 210 U											
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														210
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	400	< 200	< 210 U											140
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 1800	< 400	< 420 U											
Butylbenzylphthalate	85-68-7	ug/kg	239	< 920	< 200	< 210 U											
Chrysene	218-01-9	ug/kg	4730	750	51	< 210 U											320
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 920	< 200	< 210 U											62
Diethylphthalate	84-66-2	ug/kg	24800	< 920	< 200	< 210 U											
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 920	< 200	< 210 U											
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														420
Fluorene	86-73-7	ug/kg	122000														< 280
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	210	< 200												
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														< 280
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 920	< 200												
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 920	< 200	< 210 U											
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														160
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														460
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg					6400	13000	16000	19000	21000	1100	18000		160000	62000	29000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-R7-01	SB-R-R7-02	SB-R-S7-01	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02	SD-R-D12-08	SD-R-D12-11	SD-R-D12-12	SD-R-D14-10	SD-R-E10-01	SD-R-E10-01	SD-R-E10-02	SD-R-E11-04
			Sample Date	4/25/2006	4/25/2006	5/1/2006	5/23/2006	5/23/2006	5/23/2006	5/15/2006	5/16/2006	5/16/2006	6/29/2006	5/17/2006	5/17/2006	6/13/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SB-R-R7-011N	SB-R-R7-021N	R-S7-01 _5/1/2006_0	SD-R-C13-011.0N	SD-R-C13-021.0FD	SD-R-C13-021.0N	SD-R-D12-081.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D14-101.0N	SD-R-E10-011.0N	SD-R-E10-011N	SD-R-E10-021.0N	SD-R-E11-041.0N
			Parent ID					SD-R-C13-021.0N									
			Note		update sampling_company_code from		Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9	< 2500	< 2900												
Benzene	71-43-2	ug/kg	255	< 630	< 720	< 790 U											
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100	< 630	< 720	< 790 U											
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 630	< 720	< 790 U											
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 630	< 720	< 790 U											
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	SD-R-E11-05	SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
			Sample Date	5/17/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-E11-051.0N	SD-R-E12-011.0FD	SD-R-E12-011.0N	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
			Parent ID		SD-R-E12-011.0N												
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 420	< 450	< 440	< 560	< 460	< 540		< 570		< 470		< 390		< 470
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 420	< 450	< 440	< 560	< 460	< 540		< 570		< 470		< 390		< 470
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 420	< 450	< 440	< 560	< 460	< 540		< 570		< 470		< 390		< 470
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 420	< 450	< 440	< 560	< 460	< 540		< 570		< 470		< 390		< 470
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310	< 420	< 450	< 440	< 560	< 460	< 540		< 570		< 470		< 390		< 470
Nitrocellulose	9004-70-0	ug/kg		< 170000	< 180000	< 180000	< 220000	< 180000	< 210000		< 230000		310000		78000		96000
Nitroglycerin	55-63-0	ug/kg	65000	< 8400	< 8900	< 8800	< 11000	< 9200	< 11000		< 11000		< 9500		< 7900		3600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 1000	< 1100	< 1100	< 1400	< 1200	< 1300		< 1400		< 1200		< 990		< 1200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	< 8400	< 8900	< 8800	< 11000	< 9200	< 11000		< 11000		< 9500		< 7900		< 9500
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 420	< 450	< 440	< 560	< 460	< 540		< 570		< 470		< 390		< 470
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%		94.6	99.8	100	96.7	100	99.6	100		99.7		100		96.3	
Sieve Size #37 - Percent Finer	SIEVE_#037	%		100	100	100	100	100	99.7	100		100		100		100	
Sieve Size #75 - Percent Finer	SIEVE_#075	%		100	100	100	100	100	100	100		100		100		100	
Sieve, 1 micron, % passing	SIEVE_1U	%		1	< 1	< 1	1.5	< 1	2	2		1.5		0.5		2	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%		41.5	73.2	73.4	63.6	70.3	67.9	69.9		66.7		59.5		69.2	
Sieve, 150 micron, % passing	SIEVE_150U	%		11.6	26	20.7	23.2	22.6	22.7	25.2		24.5		27.9		40.1	
Sieve, 2 micron, % passing	SIEVE_2U	%		1	< 1	0.5	1.5	2.5	2	2		1.5		2		2.5	
Sieve, 20 micron, % passing	SIEVE_20U	%		4	6	5.5	6	9.5	2.5	9		7		11.5		16	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%		47.8	78.6	79.3	67.4	76.9	80.3	77.7		75.3		66.9		72.5	
Sieve, 300 micron, % passing	SIEVE_300U	%		19.1	44.5	38.2	43.3	39.3	40.3	39.7		39.7		39.2		50.5	

			Location	SD-R-E11-05	SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
			Sample Date	5/17/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-E11-051.0N	SD-R-E12-011.0FD	SD-R-E12-011.0N	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
			Parent ID		SD-R-E12-011.0N												
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%		56.7	85.7	87.4	74.6	84.2	87	86		79.1		75.6		78.7	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%		69.1	91.6	93.5	82.8	92	92.1	92		83.3		82.3		83	
Sieve, 5 micron, % passing	SIEVE_5U	%		2	0.5	2.5	2.5	5.5	2	2		2		5.5		7	
Sieve, 50 micron, % passing	SIEVE_50U	%		8	11	9.5	12	12.5	7	13		13		18.5		28	
Sieve, 600 micron, % passing	SIEVE_600U	%		31.3	62.4	60	57.4	57.2	55.2	57.1		55.4		50.5		62.1	
Sieve, 64 micron, % passing	SIEVE_64U	%		8.5	15.5	13	14.5	15	12.5	19		15.5		20		31	
Sieve, 75 micron, % passing	SIEVE_75U	%		8.6	17.9	14.6	16	16.1	15.3	20.9		16.9		21.1		32.9	
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9	11.8	5.12	5.39	16.6	3.1	15.8		8.19		4.63		2.05		3.45
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36	1.24	< 0.737	< 0.73	0.684	0.42	< 4.38		0.235		0.621		0.256		0.505
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4	18.7	10.8	12.3	10.6	6.65	13.8		7.86		9.03		29.7		14.1
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4	63.9	16.1	15.4	23.5	13.6	17.6		9.81		63.6		16.9		56.3
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11	44	23.2	24.7	42.1	25.2	89.7		39.3		40.5		123		44.6
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1	0.194	0.135	0.134	0.333	0.247	0.138		0.0444		0.419		0.0692		0.689
Nickel	7440-02-0	mg/kg	38	27	6.93	7.1	17.5	9.66	7.07		4.77		7.27		6.97		10.2
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2	< 0.696	< 0.737	< 0.73	< 0.901	< 0.74	< 4.38		< 0.925		< 0.789		< 0.651		< 0.791
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5	181	61.3	64.9	188	70.7	39.6		31.4		211		95.4		222
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		28.2	32.8	32.2	46.1	35	44		47		36.6		23.9		36.8
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	SD-R-E11-05	SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
			Sample Date	5/17/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-E11-051.0N	SD-R-E12-011.0FD	SD-R-E12-011.0N	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
			Parent ID		SD-R-E12-011.0N												
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 230	< 250	< 250	< 310	< 260									
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 230	< 250	< 250	< 310	< 260									
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 230	< 250	< 250	< 310	< 260									
Acenaphthylene	208-96-8	ug/kg	682000	200	< 250	< 250	63	53									
Anthracene	120-12-7	ug/kg	1480000	160	< 250	< 250	< 310	< 260									
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	910	79	79	270	160									
Benzo[a]pyrene	50-32-8	ug/kg	1520	870	78	84	310	230									
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	460	63	65	200	170									
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	620	60	66	220	120									
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730	1100	93	110	360	260									
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	190	< 250	< 250	70	< 260									
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000	1100	120	150	450	330									
Fluorene	86-73-7	ug/kg	122000	< 230	< 250	< 250	< 310	< 260									
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4	< 230	< 250	< 250	< 310	< 260									
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700	120	60	72	170	140									
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500	1500	160	200	500	360									
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		8600	2500	9500	18000	16000	28000		42000		62000		7900		30000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SD-R-E11-05	SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
			Sample Date	5/17/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-E11-051.0N	SD-R-E12-011.0FD	SD-R-E12-011.0N	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
			Parent ID		SD-R-E12-011.0N												
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04	SD-R-F11-05	SD-R-F11-05
			Sample Date	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N	SD-R-F11-051.0N	SD-R-F11-051N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 420		< 380		< 490		< 610		< 550		< 390		< 470
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 420		< 380		< 490		< 610		< 550		< 390		< 470
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 420		< 380		< 490		< 610		< 550		< 390		< 470
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 420		< 380		< 490		< 610		< 550		< 390		< 470
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310		< 420		< 380		< 490		< 610		< 550		< 390		< 470
Nitrocellulose	9004-70-0	ug/kg			110000		330000		< 190000		< 240000		< 220000		< 160000		< 190000
Nitroglycerin	55-63-0	ug/kg	65000		75000		11000		14000		14000		8200		< 7900		6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 1000		< 940		< 1200		< 1500		< 1400		< 990		< 1200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000		< 8400		< 7600		< 9800		< 12000		< 11000		< 7900		< 9400
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 420		< 380		< 490		< 610		< 550		< 390		< 470
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%		82.6		93.3		95		99.9		98.5		100		86.8	
Sieve Size #37 - Percent Finer	SIEVE_#037	%		100		100		100		100		100		100		100	
Sieve Size #75 - Percent Finer	SIEVE_#075	%		100		100		100		100		100		100		100	
Sieve, 1 micron, % passing	SIEVE_1U	%		3		1.5		3		7		4		1.5		4.5	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%		56.3		66.4		57.6		65.6		46.9		61.8		52.6	
Sieve, 150 micron, % passing	SIEVE_150U	%		32.6		23.5		29.3		38.4		29.4		29.2		35.6	
Sieve, 2 micron, % passing	SIEVE_2U	%		3.5		1.5		3		7.5		5		2.5		5.5	
Sieve, 20 micron, % passing	SIEVE_20U	%		15.5		8		14.5		23.5		15.5		12		18.5	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%		60.3		73.8		65.6		73.4		51.1		69.1		55.9	
Sieve, 300 micron, % passing	SIEVE_300U	%		40.3		37.6		37.8		46.4		35.7		39.9		42.3	

Kennedy Jenks

			Location	SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04	SD-R-F11-05	SD-R-F11-05
			Sample Date	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N	SD-R-F11-051.0N	SD-R-F11-051N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%		66.8		79.3		72		82.4		59.1		74.5		62.6	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%		71.8		82.9		76.8		89.9		68.5		79.6		68.2	
Sieve, 5 micron, % passing	SIEVE_5U	%		6		3		4.5		10.5		8		6		9	
Sieve, 50 micron, % passing	SIEVE_50U	%		24		13.5		21		31.5		22.5		19		26	
Sieve, 600 micron, % passing	SIEVE_600U	%		49.3		54.5		48.3		56.3		42		52.5		48.6	
Sieve, 64 micron, % passing	SIEVE_64U	%		26.5		15.5		23		33		24		22		29.5	
Sieve, 75 micron, % passing	SIEVE_75U	%		27.8		16.7		24.1		33.3		25.2		23.5		31.7	
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9		20.2		2.76		13.1		18.4		6.46		6.54		22.3
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36		0.92		0.408		0.653		0.736		0.623		0.372		0.417
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		20.5		10.5		10.6		17.1		16.6		17.5		22
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		110		40.4		31.6		25		18.4		18.8		35.8
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		182		29		105		896		26.3		31.7		50.1
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		1.45		0.631		1.24		2.66		0.707		0.0844		2.99
Nickel	7440-02-0	mg/kg	38		18.8		10.3		12.9		12.8		10.8		9.47		15.8
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2		0.328		< 0.611		< 0.804		< 0.994		< 0.887		< 0.639		< 0.772
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		478		98.6		127		93.3		74.7		74.2		85.1
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%			28.3		20.6		39		50.7		45.3		24		36.5
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04	SD-R-F11-05	SD-R-F11-05
			Sample Date	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N	SD-R-F11-051.0N	SD-R-F11-051N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280						< 270		< 340				< 220		
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8						< 270		< 340				< 220		
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000						320		79				< 220		
Acenaphthylene	208-96-8	ug/kg	682000						660		600				< 220		
Anthracene	120-12-7	ug/kg	1480000						1600		540				< 220		
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210						6100		1400				< 220		
Benzo[a]pyrene	50-32-8	ug/kg	1520						2500		1300				< 220		
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000						1100		1200				< 220		
Benzo[k]fluoranthene	207-08-9	ug/kg	148000						2600		1200				< 220		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730						6100		1900				< 220		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400						540		370				< 220		
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000						7800		1400				< 220		
Fluorene	86-73-7	ug/kg	122000						300		170				< 220		
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4						< 270		130				< 220		
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700						1700		1200				< 220		
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500						16000		4100				< 220		
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			16000		5400		30000		65000		36000		12000		34000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04	SD-R-F11-05	SD-R-F11-05
			Sample Date	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N	SD-R-F11-051.0N	SD-R-F11-051N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-G12-03	SD-R-G12-04	SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-12
			Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/12/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0FD	SD-R-F12-021.0N	SD-R-F12-021FD	SD-R-F12-021N	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-G12-031.0N	SD-R-G12-041.0N	SD-R-G12-051.0FD	SD-R-G12-051.0N	SD-R-G12-061N	SD-R-G12-121.0N
			Parent ID			SD-R-F12-021.0N		SD-R-F12-021N						SD-R-G12-051.0N			
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376		< 580			< 470	< 470		< 790	< 360	< 490	< 410	< 400	< 690	< 540
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000		< 580			< 470	< 470		< 790	< 360	< 490	< 410	< 400	< 690	< 540
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000		< 580			< 470	< 470		< 790	< 360	< 490	< 410	< 400	< 690	< 540
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000		< 580			< 470	< 470		< 790	< 360	< 490	< 410	< 400	< 690	< 540
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310		< 580			< 470	< 470		< 790	< 360	< 490	< 410	< 400	< 690	< 540
Nitrocellulose	9004-70-0	ug/kg			< 230000			< 190000	< 190000		< 320000	< 140000	< 190000	210000	< 160000	< 280000	< 220000
Nitroglycerin	55-63-0	ug/kg	65000		< 12000			< 9400	< 9400		< 16000	< 7200	< 9800	< 8300	< 8000	< 14000	< 11000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000		< 1500			< 1200	< 1200		< 2000	< 900	< 1200	< 1000	< 1000	< 1700	< 1400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000		< 12000			< 9400	< 9400		< 16000	< 7200	< 9800	< 8300	< 8000		6400
RDX (Cyclonite)	121-82-4	ug/kg	98000		< 580			< 470	< 470		< 790	< 360	< 490	< 410	< 400	< 690	< 540
Tetryl	479-45-8	ug/kg	25000													< 690	
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%		99.5		100	98.4			100		95.2	97	81	91.6	100	93.9
Sieve Size #37 - Percent Finer	SIEVE_#037	%		100		100	100			100		100	100	100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%		100		100	100			100		100	100	100	100	100	100
Sieve, 1 micron, % passing	SIEVE_1U	%		5.5		1	1			< 1		2	0.5	0.5	< 1	1.5	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%		64.7		61.4	64.5			68.4		56.9	42.7	30.6	49.5	64.1	40
Sieve, 150 micron, % passing	SIEVE_150U	%		39.3		26.7	27.4			37.9		20.2	18	7.7	10.8	22.4	13.3
Sieve, 2 micron, % passing	SIEVE_2U	%		6.5		2.5	2.5			< 1		2	1	1	1	1.5	1
Sieve, 20 micron, % passing	SIEVE_20U	%		19.5		11	15.5			6		5	6	3	5	6.5	6
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%		69.7		67.7	71			75.3		62.7	49.5	37.6	63.7	63.1	44.7
Sieve, 300 micron, % passing	SIEVE_300U	%		46.6		38.4	39.5			47		33.4	26.7	12.7	17.2	33.1	19.7

			Location	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-G12-03	SD-R-G12-04	SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-12
			Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/12/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0FD	SD-R-F12-021.0N	SD-R-F12-021FD	SD-R-F12-021N	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-G12-031.0N	SD-R-G12-041.0N	SD-R-G12-051.0FD	SD-R-G12-051.0N	SD-R-G12-061N	SD-R-G12-121.0N
			Parent ID			SD-R-F12-021.0N		SD-R-F12-021N						SD-R-G12-051.0N			
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%		78.4		77.3	80.7			88.1		70.4	58.7	44.4	76.1	71.8	55.4
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%		86.3		84.9	86.4			94		76.7	68.6	51.7	80.5	79.1	65.3
Sieve, 5 micron, % passing	SIEVE_5U	%		8.5		3.5	4.5			< 1		2	2.5	1.5	3.5	2	3
Sieve, 50 micron, % passing	SIEVE_50U	%		28.5		16.5	18.5			12		10.5	10.5	5	6	12	8.5
Sieve, 600 micron, % passing	SIEVE_600U	%		56.6		52.1	54.7			58.4		46.5	35.2	21.4	31	44.8	29.7
Sieve, 64 micron, % passing	SIEVE_64U	%		34		20	21			26.5		13	12.5	6	7	15	9
Sieve, 75 micron, % passing	SIEVE_75U	%		35.8		21.5	22.1			33.1		14.4	13	5.8	8.2	16.5	10.2
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9		< 19.2			2.97	4.04		< 25.3	4.05				28.9	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36		< 4.79			0.277	0.367		< 6.33	0.737				< 1.15	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4		9.93			9.98	11.2		12.5	143				20.3	
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		4.02			10.7	12.6		8.7	6.5				63.8	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		20			35.4	33.5		116	5.25				992	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.123			0.0461	0.0714		0.0894	0.099				1.08	
Nickel	7440-02-0	mg/kg	38		5.26			6.2	6.58		5.5	5.24				15.2	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2		< 4.79			< 0.766	< 0.762		< 6.33	< 0.581				< 1.15	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		34.1			32	37.9		42.5	42.4				128	
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%			48.3			36	36.3		62	16.4	38.9	27.6	25.4	56.6	44.9
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-G12-03	SD-R-G12-04	SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-12
			Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/12/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0FD	SD-R-F12-021.0N	SD-R-F12-021FD	SD-R-F12-021N	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-G12-031.0N	SD-R-G12-041.0N	SD-R-G12-051.0FD	SD-R-G12-051.0N	SD-R-G12-061N	SD-R-G12-121.0N
			Parent ID			SD-R-F12-021.0N		SD-R-F12-021N						SD-R-G12-051.0N			
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280									< 200	< 270	< 230	< 220	< 380	< 300
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8									< 200	< 270	< 230	< 220	< 380	< 300
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000									< 200	< 270	< 230	< 220	< 380	< 300
Acenaphthylene	208-96-8	ug/kg	682000									< 200	< 270	< 230	< 220	87	< 300
Anthracene	120-12-7	ug/kg	1480000									< 200	< 270	< 230	< 220	< 380	< 300
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210									< 200	63	< 230	< 220	280	< 300
Benzo[a]pyrene	50-32-8	ug/kg	1520									< 200	60	< 230	< 220	280	< 300
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000									< 200	< 270	< 230	< 220	210	< 300
Benzo[k]fluoranthene	207-08-9	ug/kg	148000									< 200	< 270	< 230	< 220	310	< 300
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730									< 200	80	< 230	< 220	520	< 300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400									< 200	< 270	< 230	< 220	110	< 300
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000									47	120	< 230	< 220	410	< 300
Fluorene	86-73-7	ug/kg	122000									< 200	< 270	< 230	< 220	< 380	< 300
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4									< 200	< 270	< 230	< 220	< 380	< 300
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700									< 200	< 270	< 230	< 220	190	< 300
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500									59	100	< 230	< 220	350	69
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			36000			24000	21000		120000	1200	29000	9100	3100	16000	13000
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-G12-03	SD-R-G12-04	SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-12
			Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/12/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0FD	SD-R-F12-021.0N	SD-R-F12-021FD	SD-R-F12-021N	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-G12-031.0N	SD-R-G12-041.0N	SD-R-G12-051.0FD	SD-R-G12-051.0N	SD-R-G12-061N	SD-R-G12-121.0N
			Parent ID			SD-R-F12-021.0N		SD-R-F12-021N						SD-R-G12-051.0N			
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SD-R-H11-05	SD-R-H11-06	SD-R-H12-07	SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-G8-2110-3	TP-R-G9-4-1	TP-R-J7-1-1
			Sample Date	5/12/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	8/15/2006	8/15/2006	8/9/2006	8/9/2006	8/9/2006	8/18/2006	8/8/2006	7/28/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H12-071.0N	SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	TP-R-D11-2031-11.0	TP-R-D11-2031-21.0	R-E9-2119/E9-1-11	R-E9-2119/E9-1-21	R-E9-2119/E9-1-31	TP-R-G8-2110-31.0N	TP-R-G9-4-11.0N	TP-R-J7-1-11.0N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016								
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 360			< 420		< 370								
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655									< 310	< 320	< 330	< 310	< 340	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 360			< 420		< 370			< 310	140	160	520	< 340	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 360			< 420		< 370			200	380	< 330	< 310	< 340	< 330
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 360			< 420		< 370			< 630	< 650	< 650	< 630	< 690	< 660
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310	< 360			< 420		< 370								
Nitrocellulose	9004-70-0	ug/kg		140000			< 170000		< 150000			590000	440000	< 130000	1000000	< 140000	< 130000
Nitroglycerin	55-63-0	ug/kg	65000	< 7100			< 8500		< 7400			15000	30000	< 6500	82000	< 6900	< 6600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 890			< 1100		< 930			< 790	< 810	< 810	< 780	< 860	< 820
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	< 7100			< 8500		< 7400								
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 360			< 420		< 370			< 310	150	< 330	< 310	< 340	< 330
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%		75.4	91.3	100		97.7									
Sieve Size #37 - Percent Finer	SIEVE_#037	%		100	100	100		100									
Sieve Size #75 - Percent Finer	SIEVE_#075	%		100	100	100		100									
Sieve, 1 micron, % passing	SIEVE_1U	%		< 1	5	3		4.5									
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%		27.7	54	55.5		60.2									
Sieve, 150 micron, % passing	SIEVE_150U	%		14.3	27.8	29.6		35.1									
Sieve, 2 micron, % passing	SIEVE_2U	%		2	5	4		5									
Sieve, 20 micron, % passing	SIEVE_20U	%		7.5	11.5	11.5		16									
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%		30.1	57.8	62		64.3									
Sieve, 300 micron, % passing	SIEVE_300U	%		17.9	35.9	37.8		43.4									

			Location	SD-R-H11-05	SD-R-H11-06	SD-R-H12-07	SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-G8-2110-3	TP-R-G9-4-1	TP-R-J7-1-1
			Sample Date	5/12/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	8/15/2006	8/15/2006	8/9/2006	8/9/2006	8/9/2006	8/18/2006	8/8/2006	7/28/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H12-071.0N	SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	TP-R-D11-2031-11.0	TP-R-D11-2031-21.0	TP-R-E9-2119/E9-1-11	TP-R-E9-2119/E9-1-21	TP-R-E9-2119/E9-1-31	TP-R-G8-2110-31.0N	TP-R-G9-4-11.0N	TP-R-J7-1-11.0N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016								
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%		37	63.8	70.6		76.3									
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%		44.8	69.1	79.2		84.8									
Sieve, 5 micron, % passing	SIEVE_5U	%		3.5	6	5.5		8									
Sieve, 50 micron, % passing	SIEVE_50U	%		11	18.5	20		25									
Sieve, 600 micron, % passing	SIEVE_600U	%		23	45.6	47		53.3									
Sieve, 64 micron, % passing	SIEVE_64U	%		12	21	23		28.5									
Sieve, 75 micron, % passing	SIEVE_75U	%		12.4	23	24.6		30.2									
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27													< 2.22	
Arsenic	7440-38-2	mg/kg	9.9				12.2		5.05							3.7	
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10													0.198	
Cadmium	7440-43-9	mg/kg	0.36				0.332		0.216							< 0.556	
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4				13.6		17.5								
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4				24.1		19							26.5	
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				80.2		141							69.9	
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1				0.334		0.318							0.0945	
Nickel	7440-02-0	mg/kg	38				7.98		9.85							10.5	
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52													< 2.22	
Silver	7440-22-4	mg/kg	2				0.292		0.261							< 0.556	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1													< 2.22	
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5				83.9		59.4							452	
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		16			29.1		19	6.1	7.7	4.7	7	7.9	4.2	12.7	8.9
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371													< 19	
Aroclor-1221	11104-28-2	ug/kg	371													< 19	
Aroclor-1232	11141-16-5	ug/kg	371													< 19	
Aroclor-1242	53469-21-9	ug/kg	371													< 19	
Aroclor-1248	12672-29-6	ug/kg	371													< 19	
Aroclor-1254	11097-69-1	ug/kg	371													< 19	
Aroclor-1260	11096-82-5	ug/kg	371													< 19	
Polychlorinated biphenyls	1336-36-3	ug/kg	371													< 19	
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546							< 180	< 180	< 170	< 180	< 180	< 870	< 190	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9							< 2100	< 2200	< 2100	< 2200	< 2200	< 10000	< 2300	< 2200

			Location	SD-R-H11-05	SD-R-H11-06	SD-R-H12-07	SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-G8-2110-3	TP-R-G9-4-1	TP-R-J7-1-1
			Sample Date	5/12/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	8/15/2006	8/15/2006	8/9/2006	8/9/2006	8/9/2006	8/18/2006	8/8/2006	7/28/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H12-071.0N	SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	TP-R-D11-2031-11.0	TP-R-D11-2031-21.0	TP-R-E9-2119/E9-1-11	TP-R-E9-2119/E9-1-21	TP-R-E9-2119/E9-1-31	TP-R-G8-2110-31.0N	TP-R-G9-4-11.0N	TP-R-J7-1-11.0N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016								
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 200						< 180	26000	< 170	< 180	< 180	570	< 190	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 200						< 180	23000	< 170	< 180	< 180	< 870	< 190	< 180
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 200													
Acenaphthylene	208-96-8	ug/kg	682000	< 200													
Anthracene	120-12-7	ug/kg	1480000	< 200													
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 200						< 180	< 180	53	< 180	< 180	3100	< 190	< 180
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 200						< 180	< 180	170	39	< 180	2500	< 190	< 180
Benzo[b]fluoranthene	205-99-2	ug/kg	59800							< 180	< 180	260	55	< 180	16000	< 190	< 180
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 200													
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 200						< 180	< 180	87	< 180	< 180	6700	< 190	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925							< 350	< 360	< 350	< 360	< 360	< 1700	< 380	< 370
Butylbenzylphthalate	85-68-7	ug/kg	239							< 180	< 180	< 170	< 180	< 180	< 870	< 190	< 180
Chrysene	218-01-9	ug/kg	4730	< 200						< 180	< 180	61	< 180	< 180	8600	< 190	< 180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 200						< 180	< 180	< 170	< 180	< 180	1100	< 190	< 180
Diethylphthalate	84-66-2	ug/kg	24800							< 180	< 180	540	290	< 180	< 870	< 190	< 180
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150							< 180	< 180	80	72	< 180	810	< 190	< 180
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000	< 200													
Fluorene	86-73-7	ug/kg	122000	< 200													
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000							< 180	< 180	63	< 180	< 180	3500	< 190	< 180
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4	< 200													
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544							< 180	< 180	< 170	< 180	< 180	< 870	< 190	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	545							< 180	< 180	340	280	< 180	3600	< 190	< 180
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700	< 200													
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500	< 200													
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		3000			10000		3700								
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SD-R-H11-05	SD-R-H11-06	SD-R-H12-07	SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-E9-2119/E9-1-	TP-R-G8-2110-3	TP-R-G9-4-1	TP-R-J7-1-1
			Sample Date	5/12/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	8/15/2006	8/15/2006	8/9/2006	8/9/2006	8/9/2006	8/18/2006	8/8/2006	7/28/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H12-071.0N	SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	TP-R-D11-2031-11.0	TP-R-D11-2031-21.0	R-E9-2119/E9-1-11	R-E9-2119/E9-1-21	R-E9-2119/E9-1-31	TP-R-G8-2110-31.0N	TP-R-G9-4-11.0N	TP-R-J7-1-11.0N
			Parent ID														
			Note	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCA	Arcadis/BB to ARCADIS for consistency by vhk 11/7/2016								
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9													< 2900	
Benzene	71-43-2	ug/kg	255													< 710	
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100													< 710	
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050													< 710	
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920													< 710	
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	TP-R-J7-1-4	TP-R-J7-1-6	TP-R-J7-1-7	TP-R-M8-1-10	TP-R-M8-1-13	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	D14-667-03	E10-2101-12	E10-8277-01	F10-20-02	F11-2-03	F11-43-02
			Sample Date	7/28/2006	7/28/2006	7/28/2006	7/20/2006	7/20/2006	7/19/2006	7/19/2006	7/19/2006	4/16/2019	4/28/2020	3/17/2021	5/20/2020	5/18/2020	3/17/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	TP-R-J7-1-41.0N	TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-M8-1-101.0N	TP-R-M8-1-131.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	)14-667-03(00.0-00.5	V_E10-2101-12_0.5-	W-E10-8277-01_0.5-	W_F10-20-02_0.5-1	GW_F11-2-03_0.5-1	GW-F11-43-02_0.5-1
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376									< 22					
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 330	< 330	< 330	< 330	< 340	< 330	< 520	< 330	< 22					
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 330	< 330	< 330	< 330	< 340	< 330	< 520	< 330	680					
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280									110					
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8									< 22					
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 330	< 330	< 330	< 330	< 340	< 330	< 520	< 330	260					
2-Nitrotoluene	88-72-2	ug/kg										< 22					
3-Nitrotoluene	99-08-1	ug/kg										< 22					
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 660	< 660	< 660	< 670	< 680	< 660	< 1000	< 650	400					
4-Nitrotoluene	99-99-0	ug/kg										< 22					
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg		< 130000	< 130000	< 130000	< 130000	< 140000	< 130000	< 210000	< 130000	< 22					
Nitroglycerin	55-63-0	ug/kg	65000	< 6600	< 6600	< 6600	< 6700	< 6800	< 6600	58000	< 6500	570					
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 820	< 830	< 830	< 840	< 850	< 820	< 1300	< 810	< 22					
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000									46					
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 330	< 330	< 330	< 330	< 340	< 330	< 520	< 330	< 22					
Tetryl	479-45-8	ug/kg	25000									< 22					
GenChem																	
pH	pH	su											7.04	5.5	5.09	4.84	6.2
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	TP-R-J7-1-4	TP-R-J7-1-6	TP-R-J7-1-7	TP-R-M8-1-10	TP-R-M8-1-13	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	D14-667-03	E10-2101-12	E10-8277-01	F10-20-02	F11-2-03	F11-43-02
			Sample Date	7/28/2006	7/28/2006	7/28/2006	7/20/2006	7/20/2006	7/19/2006	7/19/2006	7/19/2006	4/16/2019	4/28/2020	3/17/2021	5/20/2020	5/18/2020	3/17/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	TP-R-J7-1-41.0N	TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-M8-1-101.0N	TP-R-M8-1-131.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	D14-667-03(00.0-00.5	V_E10-2101-12_0.5-	W-E10-8277-01_0.5-	W_F10-20-02_0.5-1	W_F11-2-03_0.5-1	W-F11-43-02_0.5-1
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		< 2.2		< 2.21	1.44	< 2.18	< 3.34	< 2.11					1040	
Arsenic	7440-38-2	mg/kg	9.9		2.7		2.75	4.17	2.52	5.23	2.54						
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10		0.166		0.484	0.632	0.477	0.315	0.398						
Cadmium	7440-43-9	mg/kg	0.36		0.0979		0.387	0.441	< 0.546	< 0.834	< 0.527						
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4		9.94		11	14.6	20.2	22.6	13						
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		23		7.16	10.7	19.2	77.6	7.7			350	1770		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1		0.277		0.0407	0.0293	0.0994	0.136	< 0.101		0.197				
Nickel	7440-02-0	mg/kg	38		5.34		7.17	8.6	9.35	6.51	6.29						11
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52		< 2.2		< 2.21	< 2.23	< 2.18	< 3.34	< 2.11						
Silver	7440-22-4	mg/kg	2		< 0.55		< 0.553	< 0.558	0.251	0.524	0.27					4.18	
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1		< 2.2		< 2.21	< 2.23	< 2.18	< 3.34	< 2.11						
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5		11.5		38.6	54.1	46.8	125	34.1						
Moisture																	
Percent Solids	SOLID	percent										72.5					
Percent Moisture	MOIST	%		8.9	9.1	9.4	10.4	12.2	8.4	41.8	7.9						
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371				< 19	< 97	< 19	< 29	< 18						
Aroclor-1221	11104-28-2	ug/kg	371				< 19	< 97	< 19	< 29	< 18						
Aroclor-1232	11141-16-5	ug/kg	371				< 19	< 97	< 19	< 29	< 18						
Aroclor-1242	53469-21-9	ug/kg	371				< 19	< 97	< 19	< 29	< 18						
Aroclor-1248	12672-29-6	ug/kg	371				< 19	< 97	< 19	< 29	< 18						
Aroclor-1254	11097-69-1	ug/kg	371				< 19	340	25	23	< 18						
Aroclor-1260	11096-82-5	ug/kg	371				< 19	< 97	6.3	26	< 18						
Polychlorinated biphenyls	1336-36-3	ug/kg	371				< 19	340	31.3	49	< 18						
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 180	< 180	< 180	< 190	< 190	< 180	< 290	< 180						
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 2200	< 2200	< 2200	< 2200	< 2300	< 2200	< 3400	< 2200						

			Location	TP-R-J7-1-4	TP-R-J7-1-6	TP-R-J7-1-7	TP-R-M8-1-10	TP-R-M8-1-13	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	D14-667-03	E10-2101-12	E10-8277-01	F10-20-02	F11-2-03	F11-43-02
			Sample Date	7/28/2006	7/28/2006	7/28/2006	7/20/2006	7/20/2006	7/19/2006	7/19/2006	7/19/2006	4/16/2019	4/28/2020	3/17/2021	5/20/2020	5/18/2020	3/17/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	TP-R-J7-1-41.0N	TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-M8-1-101.0N	TP-R-M8-1-131.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	D14-667-03(00.0-00.5	W_E10-2101-12_0.5-	W-E10-8277-01_0.5-	W_F10-20-02_0.5-1	W_F11-2-03_0.5-1	W-F11-43-02_0.5-1
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 180	< 180	< 180	< 190	890	< 180	< 290	< 180						
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 180	< 180	< 180	< 190	57	< 180	< 290	< 180						
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 180	< 180	< 180	180	72	< 180	< 290	< 180						
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 180	< 180	< 180	230	93	< 180	< 290	< 180						
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	41	< 180	< 180	390	130	< 180	91	< 180						
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 180	< 180	< 180	130	71	< 180	< 290	< 180						
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 370	< 370	< 370	< 370	< 380	< 360	< 570	< 360						
Butylbenzylphthalate	85-68-7	ug/kg	239	< 180	< 180	< 180	< 190	< 190	< 180	< 290	< 180						
Chrysene	218-01-9	ug/kg	4730	37	< 180	< 180	290	84	< 180	71	< 180						
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 180	< 180	< 180	40	< 190	< 180	< 290	< 180						
Diethylphthalate	84-66-2	ug/kg	24800	< 180	< 180	< 180	< 190	< 190	< 180	< 290	< 180						
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180	< 180	< 180	< 190	< 190	< 180	140	< 180						
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 180	< 180	< 180	180	79	< 180	< 290	< 180						
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 180	< 180	< 180	< 190	< 190	< 180	< 290	< 180						
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 180	< 180	< 180	< 190	630	< 180	< 290	< 180						
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg										104000	9100	247000	506000	89000	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	TP-R-J7-1-4	TP-R-J7-1-6	TP-R-J7-1-7	TP-R-M8-1-10	TP-R-M8-1-13	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	D14-667-03	E10-2101-12	E10-8277-01	F10-20-02	F11-2-03	F11-43-02
			Sample Date	7/28/2006	7/28/2006	7/28/2006	7/20/2006	7/20/2006	7/19/2006	7/19/2006	7/19/2006	4/16/2019	4/28/2020	3/17/2021	5/20/2020	5/18/2020	3/17/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	TP-R-J7-1-41.0N	TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-M8-1-101.0N	TP-R-M8-1-131.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	14-667-03(00.0-00.5	V_E10-2101-12_0.5-	W-E10-8277-01_0.5-	W_F10-20-02_0.5-1	W_F11-2-03_0.5-1	W-F11-43-02_0.5-1
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9				< 2700	< 3000	< 3300	< 4100	< 2900						
Benzene	71-43-2	ug/kg	255				< 670	< 760	< 810	< 1000	< 720						
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100				< 670	< 760	< 810	< 1000	< 720						
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050				< 670	< 760	< 810	< 1000	< 720						
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920				< 670	< 760	< 810	< 1000	< 720						
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	F11-A2-01	F8-2117-07	F8-2118-02	F8-2118-02	F8-2150-05	F8-573-02	G10-1-02	G10-2-03	G10-8106B-04	G10-8108-07	G10-8108-08	G10-8502-07	G10-8503-03	G10-8522-01-05
			Sample Date	3/17/2021	4/30/2020	4/29/2020	4/29/2020	4/30/2020	4/30/2020	5/15/2020	5/21/2020	5/18/2020	7/22/2019	5/15/2020	5/15/2020	3/17/2021	10/14/2019
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	SW-F11-A2-01_0.5-1	W_F8-2117-07_0.5-	DUP-01_042920	W_F8-2118-02_0.5-	W_F8-2150-05_0.0-0	W_F8-573-02_0.5-1	GW_G10-1-02_0.5-1	GW_G10-2-03_0.5-1	_G10-8106B-04_0.5	10-8108-07(00.0-01	V_G10-8108-08_0.5	W_G10-8502-07_0.5	W-G10-8503-03_0.5	0-8522-01-05(00.0-0
			Parent ID		IGW_F8-2118-02_0.5-1.0												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su		6.8	6.43	4.68	7.5	5.79	6.39	7.07	6.42	6.98		7.58	7.3	7.3	
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	F11-A2-01	F8-2117-07	F8-2118-02	F8-2118-02	F8-2150-05	F8-573-02	G10-1-02	G10-2-03	G10-8106B-04	G10-8108-07	G10-8108-08	G10-8502-07	G10-8503-03	G10-8522-01-05
			Sample Date	3/17/2021	4/30/2020	4/29/2020	4/29/2020	4/30/2020	4/30/2020	5/15/2020	5/21/2020	5/18/2020	7/22/2019	5/15/2020	5/15/2020	3/17/2021	10/14/2019
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	SW-F11-A2-01_0.5-1	W_F8-2117-07_0.5-	DUP-01_042920	W_F8-2118-02_0.5-	W_F8-2150-05_0.0-0	W_F8-573-02_0.5-1	SW_G10-1-02_0.5-1	SW_G10-2-03_0.5-1	_G10-8106B-04_0.5	10-8108-07(00.0-01	V_G10-8108-08_0.5	W_G10-8502-07_0.5	W-G10-8503-03_0.5	0-8522-01-05(00.0-0
			Parent ID			IGW_F8-2118-02_0.5-1.0											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27									1.44					
Arsenic	7440-38-2	mg/kg	9.9	32	23.4		22.4										
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10													0.18	
Cadmium	7440-43-9	mg/kg	0.36														
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11			644		290						3870			
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1														
Nickel	7440-02-0	mg/kg	38								38.2	17.8					
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52							10.9					2.74		
Silver	7440-22-4	mg/kg	2									0.578					
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371										< 25.9				< 357
Aroclor-1221	11104-28-2	ug/kg	371										< 25.9				< 357
Aroclor-1232	11141-16-5	ug/kg	371										< 25.9				< 357
Aroclor-1242	53469-21-9	ug/kg	371										< 25.9				< 357
Aroclor-1248	12672-29-6	ug/kg	371										< 25.9				< 357
Aroclor-1254	11097-69-1	ug/kg	371										225				900
Aroclor-1260	11096-82-5	ug/kg	371										170				< 357
Polychlorinated biphenyls	1336-36-3	ug/kg	371										395				900
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

Kennedy Jenks

			Location	F11-A2-01	F8-2117-07	F8-2118-02	F8-2118-02	F8-2150-05	F8-573-02	G10-1-02	G10-2-03	G10-8106B-04	G10-8108-07	G10-8108-08	G10-8502-07	G10-8503-03	G10-8522-01-05
			Sample Date	3/17/2021	4/30/2020	4/29/2020	4/29/2020	4/30/2020	4/30/2020	5/15/2020	5/21/2020	5/18/2020	7/22/2019	5/15/2020	5/15/2020	3/17/2021	10/14/2019
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	GW-F11-A2-01_0.5-1	W_F8-2117-07_0.5-	DUP-01_042920	W_F8-2118-02_0.5-	W_F8-2150-05_0.0-0	W_F8-573-02_0.5-1	GW_G10-1-02_0.5-1	GW_G10-2-03_0.5-1	_G10-8106B-04_0.5	10-8108-07(00.0-01	V_G10-8108-08_0.5	W_G10-8502-07_0.5	GW-G10-8503-03_0.5	0-8522-01-05(00.0-0
			Parent ID			IGW_F8-2118-02_0.5-1.0											
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		56000	37100	47200	23300	31100	16000	336000	953000	41400		159000	134000	360000	
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	F11-A2-01	F8-2117-07	F8-2118-02	F8-2118-02	F8-2150-05	F8-573-02	G10-1-02	G10-2-03	G10-8106B-04	G10-8108-07	G10-8108-08	G10-8502-07	G10-8503-03	G10-8522-01-05
			Sample Date	3/17/2021	4/30/2020	4/29/2020	4/29/2020	4/30/2020	4/30/2020	5/15/2020	5/21/2020	5/18/2020	7/22/2019	5/15/2020	5/15/2020	3/17/2021	10/14/2019
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	SW-F11-A2-01_0.5-1	W_F8-2117-07_0.5-	DUP-01_042920	W_F8-2118-02_0.5-	W_F8-2150-05_0.0-0	W_F8-573-02_0.5-1	SW_G10-1-02_0.5-1	SW_G10-2-03_0.5-1	_G10-8106B-04_0.5	10-8108-07(00.0-01	V_G10-8108-08_0.5	W_G10-8502-07_0.5	SW-G10-8503-03_0.5	0-8522-01-05(00.0-0
			Parent ID	IGW_F8-2118-02_0.5-1.0													
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	G10-8522-01-06	G10-8522-01-07	G10-9106A-01-11	G10-9106A-01-11	G10-9106A-01-12	G10-9106A-01-13	G10-9106A-01-14	G10-9515-02	G11-9309-01	G11-9309-01	G6-8129-06	G6-8243-03	G6-8244-03	G8-2114-06
			Sample Date	10/14/2019	10/14/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	12/6/2019	5/15/2020	5/19/2020	3/17/2021	5/21/2020	5/21/2020	5/4/2020	3/18/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	0-8522-01-06(00.0-00	8522-01-07(00.0-0	BD110519A	-9106A-01-11(00.0-0	9106A-01-12(00.0-0	9106A-01-13(00.0-0	9106A-01-14(00.0-0	V_G10-9515-02_0.5	V_G11-9309-01_0.0-	W-G11-9309-01_0.0	W_G6-8129-06_0.0-	W_G6-8243-03_0.5-	W_G6-8244-03_0.5-	W-G8-2114-06_0.5-
			Parent ID		G10-9106A-01-11(00.0-00.5)												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su									7.9	6.05	7.7	5.8	7.45	5.81	5.2
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	G10-8522-01-06	G10-8522-01-07	G10-9106A-01-11	G10-9106A-01-11	G10-9106A-01-12	G10-9106A-01-13	G10-9106A-01-14	G10-9515-02	G11-9309-01	G11-9309-01	G6-8129-06	G6-8243-03	G6-8244-03	G8-2114-06
			Sample Date	10/14/2019	10/14/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	12/6/2019	5/15/2020	5/19/2020	3/17/2021	5/21/2020	5/21/2020	5/4/2020	3/18/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	0-8522-01-06(00.0-00	8522-01-07(00.0-0	BD110519A	-9106A-01-11(00.0-0	9106A-01-12(00.0-0	9106A-01-13(00.0-0	9106A-01-14(00.0-0	V_G10-9515-02_0.5	V_G11-9309-01_0.0-	W-G11-9309-01_0.0	W_G6-8129-06_0.0-	W_G6-8243-03_0.5-	W_G6-8244-03_0.5-	W-G8-2114-06_0.5-
			Parent ID		G10-9106A-01-11(00.0-00.5)												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36									1.31	0.41	0.562			
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														72
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11								869				359		
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1														
Nickel	7440-02-0	mg/kg	38														
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2														
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 374	< 387	< 211	< 211	< 38.8	< 20.6	< 21.7							
Aroclor-1221	11104-28-2	ug/kg	371	< 374	< 387	< 211	< 211	< 38.8	< 20.6	< 21.7							
Aroclor-1232	11141-16-5	ug/kg	371	< 374	< 387	< 211	< 211	< 38.8	< 20.6	< 21.7							
Aroclor-1242	53469-21-9	ug/kg	371	< 374	< 387	< 211	< 211	< 38.8	< 20.6	< 21.7							
Aroclor-1248	12672-29-6	ug/kg	371	< 374	< 387	< 211	< 211	< 38.8	< 20.6	< 21.7							
Aroclor-1254	11097-69-1	ug/kg	371	794	< 387	411	378	173	24.1	170							
Aroclor-1260	11096-82-5	ug/kg	371	< 374	< 387	354	410	136	< 20.6	164							
Polychlorinated biphenyls	1336-36-3	ug/kg	371	794	< 387	764	788	309	40.6	334							
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

Kennedy Jenks

			Location	G10-8522-01-06	G10-8522-01-07	G10-9106A-01-11	G10-9106A-01-11	G10-9106A-01-12	G10-9106A-01-13	G10-9106A-01-14	G10-9515-02	G11-9309-01	G11-9309-01	G6-8129-06	G6-8243-03	G6-8244-03	G8-2114-06
			Sample Date	10/14/2019	10/14/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	12/6/2019	5/15/2020	5/19/2020	3/17/2021	5/21/2020	5/21/2020	5/4/2020	3/18/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	0-8522-01-06(00.0-00	8522-01-07(00.0-0	BD110519A	-9106A-01-11(00.0-0	9106A-01-12(00.0-0	9106A-01-13(00.0-0	9106A-01-14(00.0-0	V_G10-9515-02_0.5	W_G11-9309-01_0.0-	W-G11-9309-01_0.0	W_G6-8129-06_0.0-	W_G6-8243-03_0.5-	W_G6-8244-03_0.5-	W-G8-2114-06_0.5-
			Parent ID		G10-9106A-01-11(00.0-00.5)												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg									183000	223000	76000	41100	79500	312000	9100
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	G10-8522-01-06	G10-8522-01-07	G10-9106A-01-11	G10-9106A-01-11	G10-9106A-01-12	G10-9106A-01-13	G10-9106A-01-14	G10-9515-02	G11-9309-01	G11-9309-01	G6-8129-06	G6-8243-03	G6-8244-03	G8-2114-06
			Sample Date	10/14/2019	10/14/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	12/6/2019	5/15/2020	5/19/2020	3/17/2021	5/21/2020	5/21/2020	5/4/2020	3/18/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	0-8522-01-06(00.0-00	8522-01-07(00.0-0	BD110519A	-9106A-01-11(00.0-0	9106A-01-12(00.0-0	9106A-01-13(00.0-0	9106A-01-14(00.0-0	V_G10-9515-02_0.5	V_G11-9309-01_0.0	W-G11-9309-01_0.0	W_G6-8129-06_0.0-	W_G6-8243-03_0.5-	W_G6-8244-03_0.5-	W-G8-2114-06_0.5-
			Parent ID		G10-9106A-01-11(00.0-00.5)												
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	G9-2-03	G9-2-03	GA-A_02	GA-A_02	GA-A_02-E	GA-A_02-N	GA-A_02-S	GA-A_02-W	GA-A_03	GA-A_06	GA-A_08	GA-A_09	GA-A_14	GA-A_15
			Sample Date	7/22/2019	3/17/2021	5/26/2021	6/28/2024	6/28/2024	6/28/2024	6/27/2024	6/28/2024	6/2/2021	6/2/2021	6/2/2021	6/2/2021	5/27/2021	5/27/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	G9-2-03(00.0-01.0)	GW-G9-2-03_0.5-1.(	GA-A_02_0.0-0.5	GA-A_02(0-0.5)	GA-A_02-E(0.0-0.5)	GA-A_02-N(0.0-0.5)	GA-A_02-S(0.0-0.5)	GA-A_02-W(0-0.5)	GA-A_03_0.0-0.5	GA-A_06_0.0-0.5	GA-A_08_0.0-0.5	GA-A_09_0.0-0.5	GA-A_14_0.5-1.0	GA-A_15_0.0-0.5
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 79 U						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg				< 200 U						< 210 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg				< 200 U						< 210 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 79 U						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 130 U						< 140 U	< 140 U	< 130 U	< 140 U	< 130 U	< 130 U
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			30 J						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 99 U						< 100 U	< 100 U	< 100 U	< 100 U	< 98 U	< 98 U
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 130 U						< 140 U	< 140 U	< 130 U	< 140 U	< 130 U	< 130 U
2-Nitrotoluene	88-72-2	ug/kg				< 99 U						< 100 U	< 100 U	< 100 U	< 100 U	< 98 U	< 98 U
3-Nitrotoluene	99-08-1	ug/kg				< 99 U						< 100 U	< 100 U	< 100 U	< 100 U	< 98 U	< 98 U
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 79 U						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
4-Nitrotoluene	99-99-0	ug/kg				< 99 U						< 100 U	< 100 U	< 100 U	< 100 U	< 98 U	< 98 U
Nitrobenzene	98-95-3	ug/kg	1310			< 79 U						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
Nitrocellulose	9004-70-0	ug/kg				< 79 U						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
Nitroglycerin	55-63-0	ug/kg	65000			< 1600 U						< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 130 U						< 140 U	< 140 U	< 130 U	< 140 U	< 130 U	< 130 U
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000			< 1600 U						< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 79 U						< 82 U	< 81 U	< 80 U	< 81 U	< 78 U	< 78 U
Tetryl	479-45-8	ug/kg	25000			< 99 U						< 100 U	< 100 U	< 100 U	< 100 U	< 98 U	< 98 U
GenChem																	
pH	pH	su			6.8												
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	G9-2-03	G9-2-03	GA-A_02	GA-A_02	GA-A_02-E	GA-A_02-N	GA-A_02-S	GA-A_02-W	GA-A_03	GA-A_06	GA-A_08	GA-A_09	GA-A_14	GA-A_15
			Sample Date	7/22/2019	3/17/2021	5/26/2021	6/28/2024	6/28/2024	6/28/2024	6/27/2024	6/28/2024	6/2/2021	6/2/2021	6/2/2021	6/2/2021	5/27/2021	5/27/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	G9-2-03(00.0-01.0)	GW-G9-2-03_0.5-1.(	GA-A_02_0.0-0.5	GA-A_02(0-0.5)	GA-A_02-E(0.0-0.5)	GA-A_02-N(0.0-0.5)	GA-A_02-S(0.0-0.5)	GA-A_02-W(0-0.5)	GA-A_03_0.0-0.5	GA-A_06_0.0-0.5	GA-A_08_0.0-0.5	GA-A_09_0.0-0.5	GA-A_14_0.5-1.0	GA-A_15_0.0-0.5
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50			22000						15000	19000	21000	12000	24000	10000
Antimony	7440-36-0	mg/kg	0.27			0.85						0.46	< 0.21 U	0.93	0.97	< 0.16 U	< 0.16 U
Arsenic	7440-38-2	mg/kg	9.9			38	10	6.2	8.1	8.4	12	5.2	3.4	9.2	110	5	3
Barium	7440-39-3	mg/kg	283			70						46	54	84	29	98	50
Beryllium	7440-41-7	mg/kg	10			1.1						0.58	0.6	1.2	0.53	0.9	0.66
Cadmium	7440-43-9	mg/kg	0.36			0.43						0.11	0.073 J	0.35	0.088 J	0.089	0.094
Calcium	7440-70-2	mg/kg				710						1300	600	740	910	620	1600
Chromium	7440-47-3	mg/kg	0.4			19						13	17	16	12	19	11
Cobalt	7440-48-4	mg/kg	0.14			6.3						3.9	4.5	5.4	3.6	6.6	5.2
Copper	7440-50-8	mg/kg	5.4		2400	30						13	10	17	13	10	12
Iron	7439-89-6	mg/kg				29000						25000	27000	20000	17000	25000	23000
Lead	7439-92-1	mg/kg	11			93						40	11	98	29	13	4
Magnesium	7439-95-4	mg/kg				1800						2100	1900	1600	1800	2300	1700
Manganese	7439-96-5	mg/kg	220			1400						250	130	640	280	560	340
Mercury	7439-97-6	mg/kg	0.1			0.16						0.09	0.037 J	0.21	0.053 J	0.039 J	< 0.066 U
Nickel	7440-02-0	mg/kg	38			12						7.2	9.3	12	7.7	13	8.4
Potassium	7440-09-7	mg/kg				500						500	560	610	520	710	770
Selenium	7782-49-2	mg/kg	0.52			1.5						0.72	0.55	1.5	0.45	0.58	< 0.32 U
Silver	7440-22-4	mg/kg	2			0.21						0.12	0.052 J	0.29	0.083 J	0.043 J	< 0.079 U
Sodium	7440-23-5	mg/kg				59						69	46 J	49 J	74	56	96
Thallium	7440-28-0	mg/kg	1			0.17						0.12	0.13	0.23	0.079 J	0.16	0.062 J
Vanadium	7440-62-2	mg/kg	2			38						27	32	36	24	38	21
Zinc	7440-66-6	mg/kg	8.5			220 B						63	68	90	79	89 B	64
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19.5													
Aroclor-1221	11104-28-2	ug/kg	371	< 19.5													
Aroclor-1232	11141-16-5	ug/kg	371	< 19.5													
Aroclor-1242	53469-21-9	ug/kg	371	< 19.5													
Aroclor-1248	12672-29-6	ug/kg	371	< 19.5													
Aroclor-1254	11097-69-1	ug/kg	371	153													
Aroclor-1260	11096-82-5	ug/kg	371	118													
Polychlorinated biphenyls	1336-36-3	ug/kg	371	270													
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg				< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 56 U						< 56 U	< 51 U	< 72 U	< 500 U	< 50 U	< 47 U
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 1300 U						< 1300 U	< 1200 U	< 1700 U	< 12000 U	< 1200 U	< 1100 U

			Location	G9-2-03	G9-2-03	GA-A_02	GA-A_02	GA-A_02-E	GA-A_02-N	GA-A_02-S	GA-A_02-W	GA-A_03	GA-A_06	GA-A_08	GA-A_09	GA-A_14	GA-A_15
			Sample Date	7/22/2019	3/17/2021	5/26/2021	6/28/2024	6/28/2024	6/28/2024	6/27/2024	6/28/2024	6/2/2021	6/2/2021	6/2/2021	6/2/2021	5/27/2021	5/27/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	G9-2-03(00.0-01.0)	GW-G9-2-03_0.5-1.(	GA-A_02_0.0-0.5	GA-A_02(0-0.5)	GA-A_02-E(0.0-0.5)	GA-A_02-N(0.0-0.5)	GA-A_02-S(0.0-0.5)	GA-A_02-W(0-0.5)	GA-A_03_0.0-0.5	GA-A_06_0.0-0.5	GA-A_08_0.0-0.5	GA-A_09_0.0-0.5	GA-A_14_0.5-1.0	GA-A_15_0.0-0.5
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			100 J						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
2-Chloronaphthalene	91-58-7	ug/kg				< 43 U						< 43 U	< 39 U	< 55 U	< 380 U	< 38 U	< 36 U
2-Chlorophenol	95-57-8	ug/kg	243			< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
2-Methylnaphthalene	91-57-6	ug/kg	3240			30						19 J	< 20 U	49	< 190 U	< 19 U	< 18 U
2-Methylphenol	95-48-7	ug/kg				< 65 U						< 64 U	< 59 U	< 83 U	< 580 U	< 58 U	< 54 U
2-Nitroaniline	88-74-4	ug/kg				< 65 U						< 64 U	< 59 U	< 83 U	< 580 U	< 58 U	< 54 U
2-Nitrophenol	88-75-5	ug/kg				< 65 U						< 64 U	< 59 U	< 83 U	< 580 U	< 58 U	< 54 U
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
3-Nitrotoluene	99-08-1	ug/kg				< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 650 U						< 640 U	< 590 U	< 830 U	< 5800 U	< 580 U	< 540 U
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 65 U						< 64 U	< 59 U	< 83 U	< 580 U	< 58 U	< 54 U
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
4-Nitrophenol	100-02-7	ug/kg	7000			< 650 U						< 640 U	< 590 U	< 830 U	< 5800 U	< 580 U	< 540 U
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 22 U						< 21 U	< 20 U	< 28 U	< 190 U	< 19 U	< 18 U
Acenaphthylene	208-96-8	ug/kg	682000			< 22 U						14 J	< 20 U	88	< 190 U	< 19 U	< 18 U
Anthracene	120-12-7	ug/kg	1480000			< 22 U						11 J	< 20 U	110	< 190 U	< 19 U	< 18 U
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			33						34	< 20 U	240	45 J	6.6 J	4.4 J
Benzo[a]pyrene	50-32-8	ug/kg	1520			38						< 21 U	< 20 U	230	< 190 U	< 19 U	< 18 U
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			84						70	< 20 U	380	55 J	7.7 J	6.8 J
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			34						< 21 U	< 20 U	140	< 190 U	< 19 U	< 18 U
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			24						21	< 20 U	120	< 190 U	4.4 J	< 18 U
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 56 U						< 56 U	< 51 U	< 72 U	< 500 U	< 50 U	< 47 U
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Butylbenzylphthalate	85-68-7	ug/kg	239			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Chrysene	218-01-9	ug/kg	4730			86						56	6.6 J	310	66 J	7.9 J	4.3 J
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 22 U						< 21 U	< 20 U	41	< 190 U	< 19 U	< 18 U
Diethylphthalate	84-66-2	ug/kg	24800			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Dimethylphthalate	131-11-3	ug/kg	734000			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Di-n-butylphthalate	84-74-2	ug/kg	150			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Fluoranthene	206-44-0	ug/kg	122000			110						88	6.5 J	710	55 J	7.3 J	3.8 J
Fluorene	86-73-7	ug/kg	122000			< 22 U						< 21 U	< 20 U	82	< 190 U	< 19 U	< 18 U
Hexachlorobenzene	118-74-1	ug/kg	199			< 22 U						< 21 U	< 20 U	< 28 U	< 190 U	< 19 U	< 18 U
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 65 U						< 64 U	< 59 U	< 83 U	< 580 U	< 58 U	< 54 U
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 650 U						< 640 U	< 590 U	< 830 U	< 5800 U	< 580 U	< 540 U
Hexachloroethane	67-72-1	ug/kg	596			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			32						< 21 U	< 20 U	120	< 190 U	< 19 U	< 18 U
Isophorone	78-59-1	ug/kg	139000			< 87 U						< 86 U	< 79 U	< 110 U	< 770 U	< 77 U	< 72 U
Naphthalene	91-20-3	ug/kg	99.4			48						42	< 20 U	96	< 190 U	< 19 U	< 18 U
Nitrobenzene	98-95-3	ug/kg	1310			< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 87 U						< 86 U	< 79 U	< 110 U	< 770 U	< 77 U	< 72 U
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
Pentachlorophenol	87-86-5	ug/kg	2100			< 220 U						< 210 U	< 200 U	< 280 U	< 1900 U	< 190 U	< 180 U
Phenanthrene	85-01-8	ug/kg	45700			76						70	5.6 J	740	< 190 U	5.4 J	< 18 U
Phenol	108-95-2	ug/kg	30000			< 48 U						< 47 U	< 43 U	< 61 U	< 420 U	< 42 U	< 40 U
Pyrene	129-00-0	ug/kg	78500			71						71	6.3 J	510	65 J	8.1 J	4.9 J
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			130000												
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

Kennedy Jenks

			Location	G9-2-03	G9-2-03	GA-A_02	GA-A_02	GA-A_02-E	GA-A_02-N	GA-A_02-S	GA-A_02-W	GA-A_03	GA-A_06	GA-A_08	GA-A_09	GA-A_14	GA-A_15
			Sample Date	7/22/2019	3/17/2021	5/26/2021	6/28/2024	6/28/2024	6/28/2024	6/27/2024	6/28/2024	6/2/2021	6/2/2021	6/2/2021	6/2/2021	5/27/2021	5/27/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft
			Sample ID	G9-2-03(00.0-01.0)	GW-G9-2-03_0.5-1.(	GA-A_02_0.0-0.5	GA-A_02(0-0.5)	GA-A_02-E(0.0-0.5)	GA-A_02-N(0.0-0.5)	GA-A_02-S(0.0-0.5)	GA-A_02-W(0-0.5)	GA-A_03_0.0-0.5	GA-A_06_0.0-0.5	GA-A_08_0.0-0.5	GA-A_09_0.0-0.5	GA-A_14_0.5-1.0	GA-A_15_0.0-0.5
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	GA-A_20	GA-A_21	GA-A_22	GA-A_23	GA-A_24	GA-A_26	GA-A_27	GA-A_28	GA-A_29	GA-A_30	GA-A_34	GA-A_35	GA-A_35	GA-A_41
			Sample Date	5/28/2021	6/1/2021	5/28/2021	6/1/2021	5/27/2021	6/1/2021	6/1/2021	6/1/2021	6/1/2021	6/2/2021	5/25/2021	6/7/2021	6/7/2021	6/7/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft
			Sample ID	GA-A_20_0.0-0.5	GA-A_21_0.0-0.5	GA-A_22_0.0-0.5	GA-A_23_0.5-1.0	GA-A_24_0.0-0.5	GA-A_26_0.0-0.5	GA-A_27_0.0-0.5	GA-A_28_0.0-0.5	GA-A_29_0.0-0.5	GA-A_30_0.0-0.5	GA-A_34_0.0-0.5	DUP_060721_02	GA-A_35_0.0-0.5	GA-A_41_0.5-1.0
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	< 78 U
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg		< 200 U	< 210 U	< 200 U	< 200 U	< 190 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U	< 300 U	< 200 U	< 200 U	< 200 U
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg		< 200 U	< 210 U	< 200 U	< 200 U	< 190 U	< 200 U	< 200 U	150 J	78 J	< 210 U	< 300 U	< 200 U	< 200 U	< 200 U
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	< 78 U
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 130 U	< 140 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 140 U	< 200 U	< 130 U	< 130 U	650
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	670
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 99 U	< 100 U	< 98 U	< 100 U	< 97 U	< 98 U	< 100 U	< 99 U	< 98 U	< 100 U	< 150 U	< 100 U	< 99 U	130
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 130 U	< 140 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 140 U	< 200 U	< 130 U	< 130 U	69 J
2-Nitrotoluene	88-72-2	ug/kg		< 99 U	< 100 U	< 98 U	< 100 U	< 97 U	< 98 U	< 100 U	< 99 U	< 98 U	< 100 U	< 150 U	< 100 U	< 99 U	< 98 U
3-Nitrotoluene	99-08-1	ug/kg		< 99 U	< 100 U	< 98 U	< 100 U	< 97 U	< 98 U	< 100 U	< 99 U	< 98 U	< 100 U	< 150 U	< 100 U	< 99 U	< 98 U
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	98
4-Nitrotoluene	99-99-0	ug/kg		< 99 U	< 100 U	< 98 U	< 100 U	< 97 U	< 98 U	< 100 U	< 99 U	< 98 U	< 100 U	< 150 U	< 100 U	< 99 U	< 98 U
Nitrobenzene	98-95-3	ug/kg	1310	< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	< 78 U
Nitrocellulose	9004-70-0	ug/kg		< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	< 78 U
Nitroglycerin	55-63-0	ug/kg	65000	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 2400 U	< 1600 U	< 1600 U	< 1600 U
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 130 U	< 140 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 140 U	< 200 U	< 130 U	< 130 U	< 130 U
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 2400 U	< 1600 U	< 1600 U	< 1600 U
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 79 U	< 82 U	< 78 U	< 80 U	< 78 U	< 78 U	< 81 U	< 79 U	< 78 U	< 82 U	< 120 U	< 80 U	< 79 U	< 78 U
Tetryl	479-45-8	ug/kg	25000	< 99 U	< 100 U	< 98 U	< 100 U	< 97 U	< 98 U	< 100 U	< 99 U	< 98 U	< 100 U	< 150 U	< 100 U	< 99 U	< 98 U
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	GA-A_20	GA-A_21	GA-A_22	GA-A_23	GA-A_24	GA-A_26	GA-A_27	GA-A_28	GA-A_29	GA-A_30	GA-A_34	GA-A_35	GA-A_35	GA-A_41
			Sample Date	5/28/2021	6/1/2021	5/28/2021	6/1/2021	5/27/2021	6/1/2021	6/1/2021	6/1/2021	6/1/2021	6/2/2021	5/25/2021	6/7/2021	6/7/2021	6/7/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft
			Sample ID	GA-A_20_0.0-0.5	GA-A_21_0.0-0.5	GA-A_22_0.0-0.5	GA-A_23_0.5-1.0	GA-A_24_0.0-0.5	GA-A_26_0.0-0.5	GA-A_27_0.0-0.5	GA-A_28_0.0-0.5	GA-A_29_0.0-0.5	GA-A_30_0.0-0.5	GA-A_34_0.0-0.5	DUP_060721_02	GA-A_35_0.0-0.5	GA-A_41_0.5-1.0
			Parent ID												GA-A_35_0.0-0.5		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50	21000	20000	17000	4500	15000	27000	28000	23000	16000	15000	13000	4000	5400	12000
Antimony	7440-36-0	mg/kg	0.27	0.16 J	0.24	0.58	< 0.17 U	0.11 J	0.71	0.44	1.2	< 0.23 U	1.2	0.34	1.4	1.2	0.98
Arsenic	7440-38-2	mg/kg	9.9	4.7	6.6	6.5	2.5	4.9	9	6.8	15	4.6	7.1	5.1	3.9	3.5	6.8
Barium	7440-39-3	mg/kg	283	77	85	85	23	46	210	170	130	62	230	30	49	35	66
Beryllium	7440-41-7	mg/kg	10	0.93	0.97	0.71	0.42	0.54	1.7	1.6	1.1	0.71	0.95	0.23	0.16 J	0.2	0.47
Cadmium	7440-43-9	mg/kg	0.36	0.12	0.21	0.33	0.062 J	0.093	0.58	0.33	0.51	0.073 J	0.31	< 0.094 U	0.37	0.23	0.19
Calcium	7440-70-2	mg/kg		710 B	950	810 B	1200	1800	1200	750	1400	890	530	180	740 B	420	2600 B
Chromium	7440-47-3	mg/kg	0.4	15	19	13	6.5	12	20	20	23	14	13	12	6.7	9.7 B	14
Cobalt	7440-48-4	mg/kg	0.14	6.4	7.2	5	3.1	6.6	5.4	6.2	9.7	7.6	3.1	1.1	1.5	1.6	5.2
Copper	7440-50-8	mg/kg	5.4	11	21	11	8.4	16	21	16	41	20	18	4.3	14	12	40
Iron	7439-89-6	mg/kg		25000 B	28000	21000 B	13000	36000	19000	20000	140000	20000	13000	14000	5400	7800	17000
Lead	7439-92-1	mg/kg	11	15	46	53	7.1	6.4	82	41	78	9.6	110	25	77	60	92
Magnesium	7439-95-4	mg/kg		1800 B	2300	1200 B	1500	2100	2100	1900	1700	1900	980	540	370	360	2200
Manganese	7439-96-5	mg/kg	220	480	740	970	300	420	3700	2600	2400	410	370	28	26	29 B	150
Mercury	7439-97-6	mg/kg	0.1	0.053 J	0.13	0.11	0.026 J	< 0.061 U	0.23	0.14	0.25	0.052 J	0.25	0.035 J	0.35	0.24	0.046 J
Nickel	7440-02-0	mg/kg	38	12	13	9.4	4.7	9.5	16	15	17	11	11	3.7	8.5	8.8 B	13
Potassium	7440-09-7	mg/kg		670	720	450	490	860	1100	780	820	700	640	450	530	500	740
Selenium	7782-49-2	mg/kg	0.52	0.43 J	0.73	0.87	< 0.34 U	0.26 J	2	1.4	1.3	0.28 J	1.6	0.43	1.1	1.1	0.27 J
Silver	7440-22-4	mg/kg	2	0.087 J	0.081 J	0.17	< 0.085 U	< 0.072 U	0.37	0.21	0.28	< 0.11 U	0.36	0.064 J	0.32	0.34	< 0.077 U
Sodium	7440-23-5	mg/kg		68	49 J	60	91	200	46 J	42 J	38 J	59	58 J	< 47 U	79 J	83 J	77
Thallium	7440-28-0	mg/kg	1	0.15	0.17	0.17	0.036 J	0.089	0.38	0.28	0.28	0.099 J	0.25	0.13	0.23	0.22	0.093
Vanadium	7440-62-2	mg/kg	2	31	36	31	13	23	38	35	34	35	27	25	16	19	24
Zinc	7440-66-6	mg/kg	8.5	74	120	73	24 J	64 B	140	130	140	43	83	22 J	110	69	210
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg		< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 51 U	< 56 U	< 55 U	< 46 U	< 46 U	< 69 U	< 66 U	< 72 U	< 51 U	< 760 U	< 53 U	< 110 U	< 88 U	< 240 U
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 1200 U	< 1300 U	< 1300 U	< 1100 U	< 1100 U	< 1600 U	< 1500 U	< 1700 U	< 1200 U	< 18000 U	< 1200 U	< 2500 U	< 2000 U	< 5500 U

			Location	GA-A_20	GA-A_21	GA-A_22	GA-A_23	GA-A_24	GA-A_26	GA-A_27	GA-A_28	GA-A_29	GA-A_30	GA-A_34	GA-A_35	GA-A_35	GA-A_41
			Sample Date	5/28/2021	6/1/2021	5/28/2021	6/1/2021	5/27/2021	6/1/2021	6/1/2021	6/1/2021	6/1/2021	6/2/2021	5/25/2021	6/7/2021	6/7/2021	6/7/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft
			Sample ID	GA-A_20_0.0-0.5	GA-A_21_0.0-0.5	GA-A_22_0.0-0.5	GA-A_23_0.5-1.0	GA-A_24_0.0-0.5	GA-A_26_0.0-0.5	GA-A_27_0.0-0.5	GA-A_28_0.0-0.5	GA-A_29_0.0-0.5	GA-A_30_0.0-0.5	GA-A_34_0.0-0.5	DUP_060721_02	GA-A_35_0.0-0.5	GA-A_41_0.5-1.0
			Parent ID												GA-A_35_0.0-0.5		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	190 J
2-Chloronaphthalene	91-58-7	ug/kg		< 39 U	< 43 U	< 42 U	< 36 U	< 35 U	< 53 U	< 51 U	< 55 U	< 39 U	< 580 U	< 41 U	< 84 U	< 68 U	< 180 U
2-Chlorophenol	95-57-8	ug/kg	243	< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
2-Methylnaphthalene	91-57-6	ug/kg	3240	< 20 U	9.8 J	25	< 18 U	< 18 U	< 27 U	< 25 U	< 28 U	14 J	< 290 U	15 J	62	47	110
2-Methylphenol	95-48-7	ug/kg		< 59 U	< 64 U	< 63 U	< 53 U	< 53 U	< 80 U	< 76 U	< 83 U	< 59 U	< 880 U	< 61 U	88 J	< 100 U	< 280 U
2-Nitroaniline	88-74-4	ug/kg		< 59 U	< 64 U	< 63 U	< 53 U	< 53 U	< 80 U	< 76 U	< 83 U	< 59 U	< 880 U	< 61 U	< 130 U	< 100 U	< 280 U
2-Nitrophenol	88-75-5	ug/kg		< 59 U	< 64 U	< 63 U	< 53 U	< 53 U	< 80 U	< 76 U	< 83 U	< 59 U	< 880 U	< 61 U	< 130 U	< 100 U	< 280 U
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
3-Nitrotoluene	99-08-1	ug/kg		< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 590 U	< 640 U	< 630 U	< 530 U	< 530 U	< 800 U	< 760 U	< 830 U	< 590 U	< 8800 U	< 610 U	< 1300 U	< 1000 U	< 2800 U
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 59 U	< 64 U	< 63 U	< 53 U	< 53 U	< 80 U	< 76 U	< 83 U	< 59 U	< 880 U	< 61 U	< 130 U	< 100 U	< 280 U
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
4-Nitrophenol	100-02-7	ug/kg	7000	< 590 U	< 640 U	< 630 U	< 530 U	< 530 U	< 800 U	< 760 U	< 830 U	< 590 U	< 8800 U	< 610 U	< 1300 U	< 1000 U	< 2800 U
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 20 U	< 21 U	< 21 U	< 18 U	< 18 U	< 27 U	< 25 U	< 28 U	< 20 U	< 290 U	< 20 U	< 42 U	< 34 U	1600
Acenaphthylene	208-96-8	ug/kg	682000	< 20 U	< 21 U	< 21 U	< 18 U	< 18 U	13 J	< 25 U	43	12 J	< 290 U	< 20 U	67	< 34 U	320
Anthracene	120-12-7	ug/kg	1480000	< 20 U	11 J	8.7 J	4.4 J	10 J	16 J	24 J	32	13 J	< 290 U	17 J	67	< 34 U	6100
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	9.6 J	52	30	11 J	35	< 27 U	< 25 U	< 28 U	< 20 U	72 J	53	150	100	14000
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 20 U	64	< 21 U	19	27	37	36	< 28 U	23	< 290 U	64	160	87	12000
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	13 J	93	63	20	52	42	67	110	35	100 J	83	290	180	15000
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	11 J	51	27	< 18 U	19	< 27 U	< 25 U	< 28 U	< 20 U	78 J	41	96	< 34 U	6700
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 20 U	34	21	< 18 U	13 J	< 27 U	21 J	< 28 U	13 J	< 290 U	33	99	66	6500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 51 U	< 56 U	< 55 U	< 46 U	< 46 U	< 69 U	< 66 U	< 72 U	< 51 U	< 760 U	< 53 U	< 110 U	< 88 U	< 240 U
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Butylbenzylphthalate	85-68-7	ug/kg	239	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Chrysene	218-01-9	ug/kg	4730	14 J	73	61	14 J	34	50	62	97	25	100 J	72	270	150	12000
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 20 U	< 21 U	< 21 U	< 18 U	7.8 J	< 27 U	< 25 U	< 28 U	< 20 U	< 290 U	< 20 U	94	< 34 U	1800
Diethylphthalate	84-66-2	ug/kg	24800	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Dimethylphthalate	131-11-3	ug/kg	734000	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Di-n-butylphthalate	84-74-2	ug/kg	150	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	420	< 920 U
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Fluoranthene	206-44-0	ug/kg	122000	17 J	99	87	14 J	53	71	110	140	33	110 J	130	440	280	33000
Fluorene	86-73-7	ug/kg	122000	< 20 U	< 21 U	< 21 U	< 18 U	< 18 U	< 27 U	< 25 U	< 28 U	< 20 U	< 290 U	< 20 U	< 42 U	< 34 U	2200
Hexachlorobenzene	118-74-1	ug/kg	199	< 20 U	< 21 U	< 21 U	< 18 U	< 18 U	< 27 U	< 25 U	< 28 U	< 20 U	< 290 U	< 20 U	< 42 U	< 34 U	< 92 U
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 59 U	< 64 U	< 63 U	< 53 U	< 53 U	< 80 U	< 76 U	< 83 U	< 59 U	< 880 U	< 61 U	< 130 U	< 100 U	< 280 U
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 590 U	< 640 U	< 630 U	< 530 U	< 530 U	< 800 U	< 760 U	< 830 U	< 590 U	< 8800 U	< 610 U	< 1300 U	< 1000 U	< 2800 U
Hexachloroethane	67-72-1	ug/kg	596	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	7.7 J	58	24	< 18 U	20	< 27 U	< 25 U	< 28 U	< 20 U	78 J	49	100	< 34 U	6500
Isophorone	78-59-1	ug/kg	139000	< 79 U	< 86 U	< 84 U	< 71 U	< 71 U	< 110 U	< 100 U	< 110 U	< 79 U	< 1200 U	< 82 U	< 170 U	< 140 U	< 370 U
Naphthalene	91-20-3	ug/kg	99.4	< 20 U	30	100	< 18 U	< 18 U	19 J	46	44	11 J	< 290 U	18 J	140	< 34 U	88 J
Nitrobenzene	98-95-3	ug/kg	1310	< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 79 U	< 86 U	< 84 U	< 71 U	< 71 U	< 110 U	< 100 U	< 110 U	< 79 U	< 1200 U	< 82 U	< 170 U	< 140 U	< 370 U
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	< 75 U	< 200 U
Pentachlorophenol	87-86-5	ug/kg	2100	< 200 U	< 210 U	< 210 U	< 180 U	< 180 U	< 270 U	< 250 U	< 280 U	< 200 U	< 2900 U	< 200 U	< 420 U	< 340 U	< 920 U
Phenanthrene	85-01-8	ug/kg	45700	11 J	51	100	5.3 J	26	41	80	120	16 J	81 J	84	320	200	18000
Phenol	108-95-2	ug/kg	30000	< 43 U	< 47 U	< 46 U	< 39 U	< 39 U	< 59 U	< 56 U	< 61 U	< 43 U	< 640 U	< 45 U	< 93 U	300	< 200 U
Pyrene	129-00-0	ug/kg	78500	18 J	80	66	15 J	47	59	83	120	31	96 J	110	380	220	25000
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															< 5 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														< 5 U

			Location	GA-A_20	GA-A_21	GA-A_22	GA-A_23	GA-A_24	GA-A_26	GA-A_27	GA-A_28	GA-A_29	GA-A_30	GA-A_34	GA-A_35	GA-A_35	GA-A_41
			Sample Date	5/28/2021	6/1/2021	5/28/2021	6/1/2021	5/27/2021	6/1/2021	6/1/2021	6/1/2021	6/1/2021	6/2/2021	5/25/2021	6/7/2021	6/7/2021	6/7/2021
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft
			Sample ID	GA-A_20_0.0-0.5	GA-A_21_0.0-0.5	GA-A_22_0.0-0.5	GA-A_23_0.5-1.0	GA-A_24_0.0-0.5	GA-A_26_0.0-0.5	GA-A_27_0.0-0.5	GA-A_28_0.0-0.5	GA-A_29_0.0-0.5	GA-A_30_0.0-0.5	GA-A_34_0.0-0.5	DUP_060721_02	GA-A_35_0.0-0.5	GA-A_41_0.5-1.0
			Parent ID												GA-A_35_0.0-0.5		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															< 5 U
1,1-Dichloroethane	75-34-3	ug/kg															< 5 U
1,1-Dichloroethene	75-35-4	ug/kg	8280														< 5 U
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														< 10 U
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														< 5 U
1,2-Dichloroethane	107-06-2	ug/kg															< 5 U
1,2-Dichloropropane	78-87-5	ug/kg															< 5 U
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														< 5 U
1,4-Dichlorobenzene	106-46-7	ug/kg	546														< 5 U
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														< 5 U
Bromodichloromethane	75-27-4	ug/kg	540														< 5 U
Bromoform	75-25-2	ug/kg															< 10 U
Bromomethane	74-83-9	ug/kg	235														< 5 U
Carbon Tetrachloride	56-23-5	ug/kg	2980														< 5 U
Chlorobenzene	108-90-7	ug/kg	13100														< 5 U
Chloroethane	75-00-3	ug/kg															< 5 U
Chloroform	67-66-3	ug/kg	1190														< 5 U
Chloromethane	74-87-3	ug/kg	10400														< 5 U
cis-1,2-Dichloroethene	156-59-2	ug/kg															< 5 U
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															< 5 U
Dibromochloromethane	124-48-1	ug/kg	2050														< 5 U
Ethylbenzene	100-41-4	ug/kg	5160														< 5 U
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														< 5 U
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														< 5 U
Toluene	108-88-3	ug/kg	200000														< 5 U
trans-1,2-Dichloroethene	156-60-5	ug/kg															< 5 U
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															< 5 U
Trichloroethene	79-01-6	ug/kg	12400														< 5 U
Trichlorofluoromethane	75-69-4	ug/kg	16400														< 5 U
Vinyl Chloride	75-01-4	ug/kg	646														< 5 U
Xylenes (total)	1330-20-7	ug/kg															< 10 U

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	GA-A_48	GA-A_49	GA-A_50	GA-A_51	GA-A_52	GA-A_53	H10-154B-03	H10-262-02-167	H10-262-02-179	H10-262-02-179	H10-262-02-180	H10-262-02-181	H10-262-02-184	H10-262-02-185
			Sample Date	6/1/2021	5/27/2021	5/27/2021	5/27/2021	6/1/2021	5/27/2021	7/22/2019	1/2/2020	2/4/2020	2/4/2020	2/4/2020	2/4/2020	3/3/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	GA-A_48_0.0-0.5	GA-A_49_0.0-0.5	GA-A_50_0.0-0.5	GA-A_51_0.0-0.5	GA-A_52_0.0-0.5	GA-A_53_0.0-0.5	10-154B-03(00.0-01	)-262-02-167(00.0-0	BD02042020	)-262-02-179(00.0-00	-262-02-180(00.0-00	-262-02-181(00.0-00	-262-02-184(00.0-00	-262-02-185(00.0-0
			Parent ID									H10-262-02-179(00.0-00.5)					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg		< 190 U	< 200 U	< 200 U	< 200 U	< 190 U	< 200 U								
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg		< 190 U	< 200 U	< 200 U	< 200 U	< 190 U	< 200 U								
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 130 U	84 J	< 130 U	< 130 U	< 130 U	< 130 U								
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 97 U	< 98 U	< 98 U	< 100 U	< 97 U	< 100 U								
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U								
2-Nitrotoluene	88-72-2	ug/kg		< 97 U	< 98 U	< 98 U	< 100 U	< 97 U	< 100 U								
3-Nitrotoluene	99-08-1	ug/kg		< 97 U	< 98 U	< 98 U	< 100 U	< 97 U	< 100 U								
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
4-Nitrotoluene	99-99-0	ug/kg		< 97 U	< 98 U	< 98 U	< 100 U	< 97 U	< 100 U								
Nitrobenzene	98-95-3	ug/kg	1310	< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
Nitrocellulose	9004-70-0	ug/kg		< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
Nitroglycerin	55-63-0	ug/kg	65000	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U								
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U	< 130 U								
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U	< 1600 U								
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 78 U	< 78 U	< 78 U	< 80 U	< 78 U	< 81 U								
Tetryl	479-45-8	ug/kg	25000	< 97 U	< 98 U	< 98 U	< 100 U	< 97 U	< 100 U								
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	GA-A_48	GA-A_49	GA-A_50	GA-A_51	GA-A_52	GA-A_53	H10-154B-03	H10-262-02-167	H10-262-02-179	H10-262-02-179	H10-262-02-180	H10-262-02-181	H10-262-02-184	H10-262-02-185
			Sample Date	6/1/2021	5/27/2021	5/27/2021	5/27/2021	6/1/2021	5/27/2021	7/22/2019	1/2/2020	2/4/2020	2/4/2020	2/4/2020	2/4/2020	3/3/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	GA-A_48_0.0-0.5	GA-A_49_0.0-0.5	GA-A_50_0.0-0.5	GA-A_51_0.0-0.5	GA-A_52_0.0-0.5	GA-A_53_0.0-0.5	10-154B-03(00.0-01	0-262-02-167(00.0-0	BD02042020	0-262-02-179(00.0-00	0-262-02-180(00.0-00	0-262-02-181(00.0-00	0-262-02-184(00.0-00	0-262-02-185(00.0-0
			Parent ID									H10-262-02-179(00.0-00.5)					
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50	9900	9900	25000	32000	3600	18000								
Antimony	7440-36-0	mg/kg	0.27	0.21 J	1.6	0.42	0.38	0.42	0.14 J								
Arsenic	7440-38-2	mg/kg	9.9	6.4	54	9.1	8.1	48	4.8								
Barium	7440-39-3	mg/kg	283	60	46	120	110	20	74								
Beryllium	7440-41-7	mg/kg	10	0.57	0.62	1.2	0.91	0.29	0.75								
Cadmium	7440-43-9	mg/kg	0.36	0.14	0.15	0.39	0.17	0.070 J	0.092								
Calcium	7440-70-2	mg/kg		3100	1700	1100	770	880	1100								
Chromium	7440-47-3	mg/kg	0.4	11	18	20	23	6.2	16								
Cobalt	7440-48-4	mg/kg	0.14	4.7	10	7	8	2.7	6.8								
Copper	7440-50-8	mg/kg	5.4	18	20	21	13	9.2	12								
Iron	7439-89-6	mg/kg		16000	38000	27000	30000	9900	25000								
Lead	7439-92-1	mg/kg	11	76	53	79	40	31	9.9								
Magnesium	7439-95-4	mg/kg		2300	2000	2200	2300	1000	2300								
Manganese	7439-96-5	mg/kg	220	290	560	2700	860	150	490								
Mercury	7439-97-6	mg/kg	0.1	0.084	0.049 J	0.1	0.087	0.038 J	0.034 J								
Nickel	7440-02-0	mg/kg	38	6.8	13	14	13	5.5	12								
Potassium	7440-09-7	mg/kg		600	820	1100	1100	420	770								
Selenium	7782-49-2	mg/kg	0.52	0.33 J	0.32 J	0.94	0.98	0.34	0.37								
Silver	7440-22-4	mg/kg	2	0.066 J	0.056 J	0.14	0.11 J	< 0.086 U	< 0.085 U								
Sodium	7440-23-5	mg/kg		79	110	65	36 J	50	79								
Thallium	7440-28-0	mg/kg	1	0.093 J	0.095	0.23	0.3	0.044 J	0.11								
Vanadium	7440-62-2	mg/kg	2	23	27	36	44	16	34								
Zinc	7440-66-6	mg/kg	8.5	110	93	130	89	26	97 B								
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371							< 18.3	< 202	< 99.8	< 96.5	< 115	< 112	< 113	< 102
Aroclor-1221	11104-28-2	ug/kg	371							< 18.3	< 202	< 99.8	< 96.5	< 115	< 112	< 113	< 102
Aroclor-1232	11141-16-5	ug/kg	371							< 18.3	< 202	< 99.8	< 96.5	< 115	< 112	< 113	< 102
Aroclor-1242	53469-21-9	ug/kg	371							< 18.3	< 202	< 99.8	< 96.5	< 115	< 112	< 113	< 102
Aroclor-1248	12672-29-6	ug/kg	371							< 18.3	< 202	< 99.8	< 96.5	< 115	< 112	< 113	< 102
Aroclor-1254	11097-69-1	ug/kg	371							166	214	228	100	147	< 112	563	300
Aroclor-1260	11096-82-5	ug/kg	371							153	< 202	134	100	139	< 112	< 113	247
Polychlorinated biphenyls	1336-36-3	ug/kg	371							319	402	363	201	286	< 112	563	547
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg		< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 51 U	< 46 U	< 57 U	< 55 U	< 460 U	< 48 U								
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 1200 U	< 1100 U	< 1300 U	< 1300 U	< 11000 U	< 1100 U								

Kennedy Jenks

			Location	GA-A_48	GA-A_49	GA-A_50	GA-A_51	GA-A_52	GA-A_53	H10-154B-03	H10-262-02-167	H10-262-02-179	H10-262-02-179	H10-262-02-180	H10-262-02-181	H10-262-02-184	H10-262-02-185
			Sample Date	6/1/2021	5/27/2021	5/27/2021	5/27/2021	6/1/2021	5/27/2021	7/22/2019	1/2/2020	2/4/2020	2/4/2020	2/4/2020	2/4/2020	3/3/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	GA-A_48_0.0-0.5	GA-A_49_0.0-0.5	GA-A_50_0.0-0.5	GA-A_51_0.0-0.5	GA-A_52_0.0-0.5	GA-A_53_0.0-0.5	10-154B-03(00.0-01	0-262-02-167(00.0-0	BD02042020	0-262-02-179(00.0-00	0-262-02-180(00.0-00	0-262-02-181(00.0-00	0-262-02-184(00.0-00	0-262-02-185(00.0-0
			Parent ID								H10-262-02-179(00.0-00.5)						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
2-Chloronaphthalene	91-58-7	ug/kg		< 39 U	< 35 U	< 44 U	< 42 U	< 360 U	< 37 U								
2-Chlorophenol	95-57-8	ug/kg	243	< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
2-Methylnaphthalene	91-57-6	ug/kg	3240	8.9 J	8.4 J	9.0 J	< 21 U	59 J	27								
2-Methylphenol	95-48-7	ug/kg		< 59 U	96	< 66 U	< 63 U	< 530 U	< 56 U								
2-Nitroaniline	88-74-4	ug/kg		< 59 U	< 53 U	< 66 U	< 63 U	< 530 U	< 56 U								
2-Nitrophenol	88-75-5	ug/kg		< 59 U	< 53 U	< 66 U	< 63 U	< 530 U	< 56 U								
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
3-Nitrotoluene	99-08-1	ug/kg		< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 590 U	< 530 U	< 660 U	< 630 U	< 5300 U	< 560 U								
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 59 U	< 53 U	< 66 U	< 63 U	< 530 U	< 56 U								
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
4-Nitrophenol	100-02-7	ug/kg	7000	< 590 U	< 530 U	< 660 U	< 630 U	< 5300 U	< 560 U								
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 20 U	< 18 U	< 22 U	< 21 U	< 180 U	22								
Acenaphthylene	208-96-8	ug/kg	682000	28	820	12 J	8.1 J	< 180 U	22								
Anthracene	120-12-7	ug/kg	1480000	27	680	16 J	10 J	< 180 U	53								
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	210	2300	< 22 U	< 21 U	69 J	91								
Benzo[a]pyrene	50-32-8	ug/kg	1520	220	2000	33	24	84 J	70								
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	340	4800	55	39	190	89								
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	180	1200	28	< 21 U	59 J	41								
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	110	1600	22	< 21 U	40 J	35								
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 51 U	< 46 U	< 57 U	< 55 U	< 460 U	< 48 U								
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Butylbenzylphthalate	85-68-7	ug/kg	239	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Chrysene	218-01-9	ug/kg	4730	280	2600 B	52 B	29 B	140 J	84								
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	66	490	< 22 U	< 21 U	< 180 U	16 J								
Diethylphthalate	84-66-2	ug/kg	24800	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Dimethylphthalate	131-11-3	ug/kg	734000	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Di-n-butylphthalate	84-74-2	ug/kg	150	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Fluoranthene	206-44-0	ug/kg	122000	380	3000	71	44	220	130								
Fluorene	86-73-7	ug/kg	122000	< 20 U	36	< 22 U	< 21 U	< 180 U	33								
Hexachlorobenzene	118-74-1	ug/kg	199	< 20 U	< 18 U	< 22 U	< 21 U	< 180 U	< 19 U								
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 59 U	< 53 U	< 66 U	< 63 U	< 530 U	< 56 U								
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 590 U	< 530 U	< 660 U	< 630 U	< 5300 U	< 560 U								
Hexachloroethane	67-72-1	ug/kg	596	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	160	1400	26	19 J	120 J	40								
Isophorone	78-59-1	ug/kg	139000	< 78 U	< 71 U	< 88 U	< 84 U	< 710 U	< 74 U								
Naphthalene	91-20-3	ug/kg	99.4	11 J	14 J	< 22 U	< 21 U	< 180 U	21								
Nitrobenzene	98-95-3	ug/kg	1310	< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 78 U	< 71 U	< 88 U	< 84 U	< 710 U	< 74 U								
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	20 J	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
Pentachlorophenol	87-86-5	ug/kg	2100	< 200 U	< 180 U	< 220 U	< 210 U	< 1800 U	< 190 U								
Phenanthrene	85-01-8	ug/kg	45700	130	120	37	26	140 J	49								
Phenol	108-95-2	ug/kg	30000	< 43 U	< 39 U	< 48 U	< 46 U	< 390 U	< 41 U								
Pyrene	129-00-0	ug/kg	78500	330	4000	62	40	170 J	110								
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	GA-A_48	GA-A_49	GA-A_50	GA-A_51	GA-A_52	GA-A_53	H10-154B-03	H10-262-02-167	H10-262-02-179	H10-262-02-179	H10-262-02-180	H10-262-02-181	H10-262-02-184	H10-262-02-185
			Sample Date	6/1/2021	5/27/2021	5/27/2021	5/27/2021	6/1/2021	5/27/2021	7/22/2019	1/2/2020	2/4/2020	2/4/2020	2/4/2020	2/4/2020	3/3/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	GA-A_48_0.0-0.5	GA-A_49_0.0-0.5	GA-A_50_0.0-0.5	GA-A_51_0.0-0.5	GA-A_52_0.0-0.5	GA-A_53_0.0-0.5	10-154B-03(00.0-01	0-262-02-167(00.0-0	BD02042020	0-262-02-179(00.0-00	262-02-180(00.0-00	262-02-181(00.0-00	0-262-02-184(00.0-00	262-02-185(00.0-0
			Parent ID								H10-262-02-179(00.0-00.5)						
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H10-262-02-186	H10-262-02-187	H10-262-02-188	H10-262-02-189	H10-262-02-199	H10-262-02-206	H10-262-02-210	H11-9-04	H13-8164-05	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-01
			Sample Date	3/3/2020	3/3/2020	3/3/2020	3/3/2020	4/10/2020	4/17/2020	4/17/2020	5/19/2020	3/15/2021	5/4/2020	3/19/2021	5/4/2020	8/12/2019	10/3/2019
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	0-262-02-186(00.0-00	262-02-187(00.0-00	262-02-188(00.0-00	262-02-189(00.0-00	262-02-199(00.0-00	262-02-206(00.0-00	262-02-210(00.0-00	W_H11-9-04_0.5-1	8164-05_0.5-1.0_03	W_H6-8285-05_0.3-	W-H6-8285-07_0.5-	W_H6-8285-08_0.5-	BD081219	6-8520-01(00.0-01.0
			Parent ID													H6-8520-01(00.0-01.0)	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su									5.37	7.3	5.15	7.2	7.41		
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	H10-262-02-186	H10-262-02-187	H10-262-02-188	H10-262-02-189	H10-262-02-199	H10-262-02-206	H10-262-02-210	H11-9-04	H13-8164-05	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-01
			Sample Date	3/3/2020	3/3/2020	3/3/2020	3/3/2020	4/10/2020	4/17/2020	4/17/2020	5/19/2020	3/15/2021	5/4/2020	3/19/2021	5/4/2020	8/12/2019	10/3/2019
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	0-262-02-186(00.0-00	0-262-02-187(00.0-00	0-262-02-188(00.0-00	0-262-02-189(00.0-00	0-262-02-199(00.0-00	0-262-02-206(00.0-00	0-262-02-210(00.0-00	GW_H11-9-04_0.5-1	8164-05_0.5-1.0_03	W_H6-8285-05_0.3-	W-H6-8285-07_0.5-	W_H6-8285-08_0.5-	BD081219	6-8520-01(00.0-01.0
			Parent ID													H6-8520-01(00.0-01.0)	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36									0.46					
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11											61			
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1										2.06				
Nickel	7440-02-0	mg/kg	38														
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2														
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1								3.47						
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent						88.3	81	79.3							
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 200	< 18.8	< 213	< 239	< 110	< 120	< 130						< 584	< 496
Aroclor-1221	11104-28-2	ug/kg	371	< 200	< 18.8	< 213	< 239	< 110	< 120	< 130						< 584	< 496
Aroclor-1232	11141-16-5	ug/kg	371	< 200	< 18.8	< 213	< 239	< 110	< 120	< 130						< 584	< 496
Aroclor-1242	53469-21-9	ug/kg	371	< 200	< 18.8	< 213	< 239	< 110	< 120	< 130						< 584	< 496
Aroclor-1248	12672-29-6	ug/kg	371	< 200	< 18.8	< 213	< 239	< 110	< 120	< 130						< 584	< 496
Aroclor-1254	11097-69-1	ug/kg	371	343	64.8	246	561	< 110	< 120	< 130						< 584	< 496
Aroclor-1260	11096-82-5	ug/kg	371	306	56.5	< 213	281	250	< 120	390						< 584	< 496
Polychlorinated biphenyls	1336-36-3	ug/kg	371	649	121	430	843	250	< 120	390						< 584	< 496
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	H10-262-02-186	H10-262-02-187	H10-262-02-188	H10-262-02-189	H10-262-02-199	H10-262-02-206	H10-262-02-210	H11-9-04	H13-8164-05	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-01
			Sample Date	3/3/2020	3/3/2020	3/3/2020	3/3/2020	4/10/2020	4/17/2020	4/17/2020	5/19/2020	3/15/2021	5/4/2020	3/19/2021	5/4/2020	8/12/2019	10/3/2019
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	0-262-02-186(00.0-00	-262-02-187(00.0-00	-262-02-188(00.0-00	-262-02-189(00.0-00	-262-02-199(00.0-00	-262-02-206(00.0-00	-262-02-210(00.0-00	GW_H11-9-04_0.5-1	8164-05_0.5-1.0_03	W_H6-8285-05_0.3-	W-H6-8285-07_0.5-	W_H6-8285-08_0.5-	BD081219	6-8520-01(00.0-01.0
			Parent ID													H6-8520-01(00.0-01.0)	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg									72000	17000	8470	12000	242000		
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	H10-262-02-186	H10-262-02-187	H10-262-02-188	H10-262-02-189	H10-262-02-199	H10-262-02-206	H10-262-02-210	H11-9-04	H13-8164-05	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-01
			Sample Date	3/3/2020	3/3/2020	3/3/2020	3/3/2020	4/10/2020	4/17/2020	4/17/2020	5/19/2020	3/15/2021	5/4/2020	3/19/2021	5/4/2020	8/12/2019	10/3/2019
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	0-262-02-186(00.0-00	262-02-187(00.0-00	262-02-188(00.0-00	262-02-189(00.0-00	262-02-199(00.0-00	262-02-206(00.0-00	262-02-210(00.0-00	GW_H11-9-04_0.5-1	8164-05_0.5-1.0_03	W_H6-8285-05_0.3-	W-H6-8285-07_0.5-	W_H6-8285-08_0.5-	BD081219	6-8520-01(00.0-01.0
			Parent ID													H6-8520-01(00.0-01.0)	
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	H6-8520-02	H7-13-05	H7-13-05B	H7-8123A-03	H7-8123A-05	H7-8123A-05	H7-8123A-05	H7-8142-05	H7-8142-05	H7-8255-02	H8-9221-04	H9-8155-02	I10-3-02	I10-3-02
			Sample Date	8/12/2019	4/30/2020	4/30/2020	3/19/2021	5/4/2020	3/19/2021	3/19/2021	5/1/2020	3/18/2021	5/1/2020	5/1/2020	5/11/2020	5/8/2020	3/16/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	6-8520-02(00.0-01.0	W_H7-13-05_0.5-1.0	W_H7-13-05_0.5-1.0	W-H7-8123A-03_0.5	V_H7-8123A-05_0.5	DUP_031921	GW-H7-8123A-05_0.5	W_H7-8142-05_0.5-	GW-H7-8142-05_0.5	W_H7-8255-02_0.5-	W_H8-9221-04_0.5-	W_H9-8155-02_0.5-	GW_I10-3-02_0.5-1.	0-3-2_0.5-1.0_03162
			Parent ID					R-IGW-H7-8123A-05_0.5-1.0									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su			6.74	5.13	6.7	6.61	6.7	6.6	6.35	7	5.77	5.53	6.13	6.11	6.6
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	H6-8520-02	H7-13-05	H7-13-05B	H7-8123A-03	H7-8123A-05	H7-8123A-05	H7-8123A-05	H7-8142-05	H7-8142-05	H7-8255-02	H8-9221-04	H9-8155-02	I10-3-02	I10-3-02
			Sample Date	8/12/2019	4/30/2020	4/30/2020	3/19/2021	5/4/2020	3/19/2021	3/19/2021	5/1/2020	3/18/2021	5/1/2020	5/1/2020	5/11/2020	5/8/2020	3/16/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	6-8520-02(00.0-01.0	W_H7-13-05_0.5-1.0	W_H7-13-05_0.5-1.0	W-H7-8123A-03_0.5	V_H7-8123A-05_0.5-	DUP_031921	W-H7-8123A-05_0.5	W_H7-8142-05_0.5-	GW-H7-8142-05_0.5	W_H7-8255-02_0.5-	W_H8-9221-04_0.5-	W_H9-8155-02_0.5-	GW_I10-3-02_0.5-1.	0-3-2_0.5-1.0_03162
			Parent ID					R-IGW-H7-8123A-05_0.5-1.0									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27		21.6	61.6										< 0.119 U	
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36					0.169		0.3							
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4													14.1	41
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11				60		150								
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1								3.16						
Nickel	7440-02-0	mg/kg	38		21.2												
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52					0.389									
Silver	7440-22-4	mg/kg	2					0.107		< 1	0.259	1.7			2.54		
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5										113	132			
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 554													
Aroclor-1221	11104-28-2	ug/kg	371	< 554													
Aroclor-1232	11141-16-5	ug/kg	371	< 554													
Aroclor-1242	53469-21-9	ug/kg	371	< 554													
Aroclor-1248	12672-29-6	ug/kg	371	< 554													
Aroclor-1254	11097-69-1	ug/kg	371	5210													
Aroclor-1260	11096-82-5	ug/kg	371	< 554													
Polychlorinated biphenyls	1336-36-3	ug/kg	371	5210													
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	H6-8520-02	H7-13-05	H7-13-05B	H7-8123A-03	H7-8123A-05	H7-8123A-05	H7-8123A-05	H7-8142-05	H7-8142-05	H7-8255-02	H8-9221-04	H9-8155-02	I10-3-02	I10-3-02
			Sample Date	8/12/2019	4/30/2020	4/30/2020	3/19/2021	5/4/2020	3/19/2021	3/19/2021	5/1/2020	3/18/2021	5/1/2020	5/1/2020	5/11/2020	5/8/2020	3/16/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	6-8520-02(00.0-01.0	W_H7-13-05_0.5-1.0	W_H7-13-05_0.5-1.0	W-H7-8123A-03_0.5-	V_H7-8123A-05_0.5-	DUP_031921	GW-H7-8123A-05_0.5	W_H7-8142-05_0.5-	GW-H7-8142-05_0.5	W_H7-8255-02_0.5-	W_H8-9221-04_0.5-	W_H9-8155-02_0.5-	GW_I10-3-02_0.5-1.	0-3-2_0.5-1.0_03162
			Parent ID					R-IGW-H7-8123A-05_0.5-1.0									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg			78400		11000	16500	15000	37000	14000	6100	9990	29600	119000	3710	6900
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	H6-8520-02	H7-13-05	H7-13-05B	H7-8123A-03	H7-8123A-05	H7-8123A-05	H7-8123A-05	H7-8142-05	H7-8142-05	H7-8255-02	H8-9221-04	H9-8155-02	I10-3-02	I10-3-02
			Sample Date	8/12/2019	4/30/2020	4/30/2020	3/19/2021	5/4/2020	3/19/2021	3/19/2021	5/1/2020	3/18/2021	5/1/2020	5/1/2020	5/11/2020	5/8/2020	3/16/2021
			Sample Depths	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	6-8520-02(00.0-01.0	W_H7-13-05_0.5-1.0	W_H7-13-05_0.5-1.0	W-H7-8123A-03_0.5	V_H7-8123A-05_0.5	DUP_031921	GW-H7-8123A-05_0.5	W_H7-8142-05_0.5-	GW-H7-8142-05_0.5	W_H7-8255-02_0.5-	W_H8-9221-04_0.5-	W_H9-8155-02_0.5-	GW_I10-3-02_0.5-1.	0-3-2_0.5-1.0_03162
			Parent ID					R-IGW-H7-8123A-05_0.5-1.0									
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg							< 1.0								
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	I10-550-02	I11-8260-02	I11-8504-06	I12-2186-13	I12-2341-03	I12-4-01	I12-4-01	I6-8125-07	I7-2133A-03	I7-2133A-03B	I8-2138-03	I8-2333-02	I9-524-01	J10-2-11
			Sample Date	5/8/2020	5/19/2020	5/6/2020	3/15/2021	3/15/2021	3/15/2021	3/15/2021	5/4/2020	5/14/2020	5/14/2020	5/11/2020	5/11/2020	5/11/2020	3/16/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	W_I10-550-02_0.5-1	W_I11-8260-02_0.5-	W_I11-8504-06_0.5-	2186-13_0.5-1.0_03	2341-03_0.5-1.0_031	DUP_031521	2-4-01_0.5-1.0_0315	W_I6-8125-07_0.5-1	I7-2133A-03_0.5-1	I7-2133A-03_0.5-1	W_I8-2138-03_0.5-1	W_I8-2333-02_0.5-1	SW_I9-524-01_0.5-1.0	D-2-11_0.5-1.0_0316
			Parent ID						I12-4-01_0.5-1.0_031521								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su		6.75	7.06	5.61	7.5	7.4	6.9	5.7	7.2	5.51	5.68	5.95	5.55	5.35	6.8
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	I10-550-02	I11-8260-02	I11-8504-06	I12-2186-13	I12-2341-03	I12-4-01	I12-4-01	I6-8125-07	I7-2133A-03	I7-2133A-03B	I8-2138-03	I8-2333-02	I9-524-01	J10-2-11
			Sample Date	5/8/2020	5/19/2020	5/6/2020	3/15/2021	3/15/2021	3/15/2021	3/15/2021	5/4/2020	5/14/2020	5/14/2020	5/11/2020	5/11/2020	5/11/2020	3/16/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	W_I10-550-02_0.5-1	W_I11-8260-02_0.5-	W_I11-8504-06_0.5-	2186-13_0.5-1.0_03	2341-03_0.5-1.0_031	DUP_031521	2-4-01_0.5-1.0_0315	W_I6-8125-07_0.5-1	I7-2133A-03_0.5-1	I7-2133A-03_0.5-1	W_I8-2138-03_0.5-1	W_I8-2333-02_0.5-	W_I9-524-01_0.5-1.0	D-2-11_0.5-1.0_0316
			Parent ID						I12-4-01_0.5-1.0_031521								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27												0.379		
Arsenic	7440-38-2	mg/kg	9.9											192		10.9	71
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36				0.24										
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11		48.7												
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1								4.13						
Nickel	7440-02-0	mg/kg	38						5.2	4.7							
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52	0.373		7.85						0.534	0.653				
Silver	7440-22-4	mg/kg	2					2.2									
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	I10-550-02	I11-8260-02	I11-8504-06	I12-2186-13	I12-2341-03	I12-4-01	I12-4-01	I6-8125-07	I7-2133A-03	I7-2133A-03B	I8-2138-03	I8-2333-02	I9-524-01	J10-2-11
			Sample Date	5/8/2020	5/19/2020	5/6/2020	3/15/2021	3/15/2021	3/15/2021	3/15/2021	5/4/2020	5/14/2020	5/14/2020	5/11/2020	5/11/2020	5/11/2020	3/16/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	W_I10-550-02_0.5-1	W_I11-8260-02_0.5-	W_I11-8504-06_0.5-	2186-13_0.5-1.0_03	2341-03_0.5-1.0_031	DUP_031521	2-4-01_0.5-1.0_0315	W_I6-8125-07_0.5-1	I7-2133A-03_0.5-1	I7-2133A-03_0.5-1	W_I8-2138-03_0.5-1	W_I8-2333-02_0.5-1	SW_I9-524-01_0.5-1.0	D-2-11_0.5-1.0_0316
			Parent ID						I12-4-01_0.5-1.0_031521								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		3530	29500	364000	520	47000	7100	8800	126000	49300	47600	62000	84700	131000	7200
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	I10-550-02	I11-8260-02	I11-8504-06	I12-2186-13	I12-2341-03	I12-4-01	I12-4-01	I6-8125-07	I7-2133A-03	I7-2133A-03B	I8-2138-03	I8-2333-02	I9-524-01	J10-2-11
			Sample Date	5/8/2020	5/19/2020	5/6/2020	3/15/2021	3/15/2021	3/15/2021	3/15/2021	5/4/2020	5/14/2020	5/14/2020	5/11/2020	5/11/2020	5/11/2020	3/16/2021
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	W_I10-550-02_0.5-1	W_I11-8260-02_0.5-	W_I11-8504-06_0.5-	2186-13_0.5-1.0_03	2341-03_0.5-1.0_031	DUP_031521	2-4-01_0.5-1.0_0315	W_I6-8125-07_0.5-1	I7-2133A-03_0.5-1	I7-2133A-03_0.5-1	W_I8-2138-03_0.5-1	W_I8-2333-02_0.5-1	W_I9-524-01_0.5-1.0	J-2-11_0.5-1.0_0316
			Parent ID						I12-4-01_0.5-1.0_031521								
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	J11-317-03	J7-2133-06	J7-2133-06B	J7-2133-06C	J7-2324-06	J7-8281-02	L10-8210-03	L9-8210-05	N9-2260-01	P5-535-04	P6-541-01	PT-1	PT-10	PT-11
			Sample Date	5/20/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/7/2020	3/16/2021	5/7/2020	5/13/2020	5/13/2020	11/6/2014	11/6/2014	11/6/2014
			Sample Depths	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.0 ft	0.0 ft
			Sample ID	W_J11-317-03_0.3-0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	W_J7-2324-06_0.5-1	W_J7-8281-02_0.5-1	W_L10-8210-03_0.5-	210-05_0.5-1.0_031	_N9-2260-01_0.5-1.0	W_P5-535-04_0.5-1	W_P6-541-01_0.5-1	PT-1-110614	PT-10-110614	PT-11-110614
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su		4.87	5.45	5.29	5.59	5.11	5.16	6.72	7	5.95	4.99	5.34			
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	J11-317-03	J7-2133-06	J7-2133-06B	J7-2133-06C	J7-2324-06	J7-8281-02	L10-8210-03	L9-8210-05	N9-2260-01	P5-535-04	P6-541-01	PT-1	PT-10	PT-11
			Sample Date	5/20/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/7/2020	3/16/2021	5/7/2020	5/13/2020	5/13/2020	11/6/2014	11/6/2014	11/6/2014
			Sample Depths	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.0 ft	0.0 ft
			Sample ID	W_J11-317-03_0.3-0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	W_J7-2324-06_0.5-1	W_J7-8281-02_0.5-1	W_L10-8210-03_0.5-	210-05_0.5-1.0_031	_N9-2260-01_0.5-1.0	W_P5-535-04_0.5-1	W_P6-541-01_0.5-1	PT-1-110614	PT-10-110614	PT-11-110614
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50												13000	13900	13000
Antimony	7440-36-0	mg/kg	0.27												< 2.20 U	< 2.21 U	< 2.26 U
Arsenic	7440-38-2	mg/kg	9.9		6.86			23.2							2.82	2.48	3.07
Barium	7440-39-3	mg/kg	283												48.9	47.9	47.7
Beryllium	7440-41-7	mg/kg	10						1.32						0.74	0.822	0.778
Cadmium	7440-43-9	mg/kg	0.36												0.319 J	0.354 J	0.384 J
Calcium	7440-70-2	mg/kg													1400	1510	1650
Chromium	7440-47-3	mg/kg	0.4												15.2	16.1	14.2
Cobalt	7440-48-4	mg/kg	0.14												6.26	7.39	7.57
Copper	7440-50-8	mg/kg	5.4												13.8	16.7	16.8
Iron	7439-89-6	mg/kg													26200	29600	26100
Lead	7439-92-1	mg/kg	11										33.8	98.5	14	15.6	25.3
Magnesium	7439-95-4	mg/kg													1920	2310	2080
Manganese	7439-96-5	mg/kg	220												301	328	308
Mercury	7439-97-6	mg/kg	0.1	11.4				1.26							0.0153 J	0.0186 J	0.0165 J
Nickel	7440-02-0	mg/kg	38												9.43	12.4	9.88
Potassium	7440-09-7	mg/kg													881	905	905
Selenium	7782-49-2	mg/kg	0.52												0.744 J	< 2.21 U	0.798 J
Silver	7440-22-4	mg/kg	2								< 0.88				< 0.550 U	< 0.553 U	< 0.564 U
Sodium	7440-23-5	mg/kg													134	143	144
Thallium	7440-28-0	mg/kg	1												< 3.30 U	< 3.32 U	< 3.39 U
Vanadium	7440-62-2	mg/kg	2												33.9	34.6	31.7
Zinc	7440-66-6	mg/kg	8.5												48.3	52.5	49.7
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%													10	9.6	11.4
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371												< 19 U	< 19 U	< 19 U
Aroclor-1221	11104-28-2	ug/kg	371												< 19 U	< 19 U	< 19 U
Aroclor-1232	11141-16-5	ug/kg	371												< 19 U	< 19 U	< 19 U
Aroclor-1242	53469-21-9	ug/kg	371												< 19 U	< 19 U	< 19 U
Aroclor-1248	12672-29-6	ug/kg	371												< 19 U	< 19 U	< 19 U
Aroclor-1254	11097-69-1	ug/kg	371												< 19 U	< 19 U	< 19 U
Aroclor-1260	11096-82-5	ug/kg	371												< 19 U	< 19 U	< 19 U
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
4-4-DDE	72-55-9	ug/kg													< 1.9 U	0.70 J	< 1.9 U
4-4-DDT	50-29-3	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
a-BHC	319-84-6	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
Aldrin	309-00-2	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
alpha-Chlordane	5103-71-9	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
b-BHC	319-85-7	ug/kg													< 1.1 U	< 1.1 U	< 1.1 U
d-BHC	319-86-8	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
Dieldrin	60-57-1	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
Endosulfan I	959-98-8	ug/kg													< 0.91 U	< 0.92 U	0.32 JP
Endosulfan II	33213-65-9	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
Endosulfan Sulfate	1031-07-8	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
Endrin	72-20-8	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
Endrin Aldehyde	7421-93-4	ug/kg													< 1.9 U	< 1.9 U	< 1.9 U
Endrin Ketone	53494-70-5	ug/kg													< 2.0 U	< 2.0 U	< 2.0 U
gamma-Chlordane	5103-74-2	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
Heptachlor	76-44-8	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
Heptachlor Epoxide	1024-57-3	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
Lindane	58-89-9	ug/kg													< 0.91 U	< 0.92 U	< 0.93 U
Methoxychlor	72-43-5	ug/kg													< 7.4 U	< 7.4 U	< 7.5 U
Toxaphene	8001-35-2	ug/kg													< 36 U	< 36 U	< 37 U
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg													< 36 U	< 37 U	< 37 U
2,4,6-Trichlorophenol	88-06-2	ug/kg													< 36 U	< 37 U	< 37 U
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg													< 36 U	< 37 U	< 37 U
2,4-Dimethylphenol	105-67-9	ug/kg	10												< 36 U	< 37 U	< 37 U
2,4-Dinitrophenol	51-28-5	ug/kg	60.9												< 1100 U	< 1100 U	< 1100 U

			Location	J11-317-03	J7-2133-06	J7-2133-06B	J7-2133-06C	J7-2324-06	J7-8281-02	L10-8210-03	L9-8210-05	N9-2260-01	P5-535-04	P6-541-01	PT-1	PT-10	PT-11
			Sample Date	5/20/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/7/2020	3/16/2021	5/7/2020	5/13/2020	5/13/2020	11/6/2014	11/6/2014	11/6/2014
			Sample Depths	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.0 ft	0.0 ft
			Sample ID	W_J11-317-03_0.3-0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	W_J7-2324-06_0.5-1	W_J7-8281-02_0.5-1	W_L10-8210-03_0.5-	210-05_0.5-1.0_031	_N9-2260-01_0.5-1.0	W_P5-535-04_0.5-1	W_P6-541-01_0.5-1	PT-1-110614	PT-10-110614	PT-11-110614
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280												< 180 U	< 180 U	< 190 U
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8												< 36 U	< 37 U	< 37 U
2-Chloronaphthalene	91-58-7	ug/kg													< 36 U	< 37 U	< 37 U
2-Chlorophenol	95-57-8	ug/kg	243												< 36 U	< 37 U	< 37 U
2-Methylnaphthalene	91-57-6	ug/kg	3240												< 19 U	< 19 U	< 19 U
2-Methylphenol	95-48-7	ug/kg													< 36 U	< 37 U	< 37 U
2-Nitroaniline	88-74-4	ug/kg													< 36 U	< 37 U	< 37 U
2-Nitrophenol	88-75-5	ug/kg													< 36 U	< 37 U	< 37 U
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646												< 360 U	< 370 U	< 370 U
3-Nitrotoluene	99-08-1	ug/kg													< 180 U	< 180 U	< 190 U
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144												< 550 U	< 550 U	< 560 U
4-Bromophenyl-phenylether	101-55-3	ug/kg													< 36 U	< 37 U	< 37 U
4-Chloro-3-methylphenol	59-50-7	ug/kg													< 36 U	< 37 U	< 37 U
4-Chlorophenyl-phenylether	7005-72-3	ug/kg													< 36 U	< 37 U	< 37 U
4-Nitrophenol	100-02-7	ug/kg	7000												< 550 U	< 550 U	< 560 U
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000												< 19 U	< 19 U	< 19 U
Acenaphthylene	208-96-8	ug/kg	682000												< 19 U	< 19 U	< 19 U
Anthracene	120-12-7	ug/kg	1480000												< 19 U	< 19 U	< 19 U
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210												< 19 U	< 19 U	5 J
Benzo[a]pyrene	50-32-8	ug/kg	1520												< 19 U	< 19 U	6 J
Benzo[b]fluoranthene	205-99-2	ug/kg	59800												< 19 U	< 19 U	11 J
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000												< 19 U	< 19 U	6 J
Benzo[k]fluoranthene	207-08-9	ug/kg	148000												< 19 U	< 19 U	5 J
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg													< 36 U	< 37 U	< 37 U
Bis(2-Chloroethyl)ether	111-44-4	ug/kg													< 36 U	< 37 U	< 37 U
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900												< 36 U	< 37 U	< 37 U
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925												< 190 U	< 190 U	< 190 U
Butylbenzylphthalate	85-68-7	ug/kg	239												< 180 U	< 180 U	< 190 U
Chrysene	218-01-9	ug/kg	4730												< 19 U	< 19 U	9 J
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400												< 19 U	< 19 U	< 19 U
Diethylphthalate	84-66-2	ug/kg	24800												< 180 U	< 180 U	< 190 U
Dimethylphthalate	131-11-3	ug/kg	734000												< 180 U	< 180 U	< 190 U
Di-n-butylphthalate	84-74-2	ug/kg	150												< 180 U	< 180 U	< 190 U
Di-n-octylphthalate	117-84-0	ug/kg	7090												< 180 U	< 180 U	< 190 U
Fluoranthene	206-44-0	ug/kg	122000												< 19 U	< 19 U	13 J
Fluorene	86-73-7	ug/kg	122000												< 19 U	< 19 U	< 19 U
Hexachlorobenzene	118-74-1	ug/kg	199												< 19 U	< 19 U	< 19 U
Hexachlorobutadiene	87-68-3	ug/kg	39.8												< 36 U	< 37 U	< 37 U
Hexachlorocyclopentadiene	77-47-4	ug/kg													< 550 U	< 550 U	< 560 U
Hexachloroethane	67-72-1	ug/kg	596												< 180 U	< 180 U	< 190 U
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000												< 19 U	< 19 U	5 J
Isophorone	78-59-1	ug/kg	139000												< 36 U	< 37 U	< 37 U
Naphthalene	91-20-3	ug/kg	99.4												< 19 U	< 19 U	< 19 U
Nitrobenzene	98-95-3	ug/kg	1310												< 36 U	< 37 U	< 37 U
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544												< 36 U	< 37 U	< 37 U
N-Nitrosodiphenylamine	86-30-6	ug/kg	545												< 36 U	< 37 U	< 37 U
Pentachlorophenol	87-86-5	ug/kg	2100												< 190 U	< 190 U	< 190 U
Phenanthrene	85-01-8	ug/kg	45700												< 19 U	< 19 U	10 J
Phenol	108-95-2	ug/kg	30000												< 36 U	< 37 U	< 37 U
Pyrene	129-00-0	ug/kg	78500												< 19 U	< 19 U	13 J
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		24300	33000	44400	17600	15500	58900	18400	6100	56800	10400	12900			
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg													< 11 U	< 11 U	< 11 U
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg													< 11 U	< 11 U	< 11 U
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg													< 11 U	< 11 U	< 11 U
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg													< 11 U	< 11 U	< 11 U
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg													< 11 U	< 11 U	< 11 U
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg													< 11 U	< 11 U	< 11 U
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg													< 11 U	< 11 U	< 11 U
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg													< 11 U	< 11 U	< 11 U
Total Aliphatics	TOTALIPH	mg/kg													< 11 U	< 11 U	< 11 U
Total Aromatics	TOTAROM	mg/kg													< 11 U	< 11 U	< 11 U
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg													< 11 U	< 11 U	< 11 U
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg													< 6 U	< 6 U	< 5 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127												< 6 U	< 6 U	< 5 U

			Location	J11-317-03	J7-2133-06	J7-2133-06B	J7-2133-06C	J7-2324-06	J7-8281-02	L10-8210-03	L9-8210-05	N9-2260-01	P5-535-04	P6-541-01	PT-1	PT-10	PT-11
			Sample Date	5/20/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/12/2020	5/7/2020	3/16/2021	5/7/2020	5/13/2020	5/13/2020	11/6/2014	11/6/2014	11/6/2014
			Sample Depths	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.0 ft	0.0 ft
			Sample ID	W_J11-317-03_0.3-0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	_J7-2133-06_0.5-1.0	W_J7-2324-06_0.5-1	W_J7-8281-02_0.5-1	W_L10-8210-03_0.5-	210-05_0.5-1.0_031	_N9-2260-01_0.5-1.0	W_P5-535-04_0.5-1	W_P6-541-01_0.5-1	PT-1-110614	PT-10-110614	PT-11-110614
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg													< 6 U	< 6 U	< 5 U
1,1-Dichloroethane	75-34-3	ug/kg													< 6 U	< 6 U	< 5 U
1,1-Dichloroethene	75-35-4	ug/kg	8280												< 6 U	< 6 U	< 5 U
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000												< 6 U	< 6 U	< 5 U
1,2-Dichlorobenzene	95-50-1	ug/kg	2960												< 6 U	< 6 U	< 5 U
1,2-Dichloroethane	107-06-2	ug/kg													< 6 U	< 6 U	< 5 U
1,2-Dichloropropane	78-87-5	ug/kg													< 6 U	< 6 U	< 5 U
1,3-Dichlorobenzene	541-73-1	ug/kg	37700												< 6 U	< 6 U	< 5 U
1,4-Dichlorobenzene	106-46-7	ug/kg	546												< 6 U	< 6 U	< 5 U
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255												< 6 U	< 6 U	< 5 U
Bromodichloromethane	75-27-4	ug/kg	540												< 6 U	< 6 U	< 5 U
Bromoform	75-25-2	ug/kg													< 6 U	< 6 U	< 5 U
Bromomethane	74-83-9	ug/kg	235												< 6 U	< 6 U	< 5 U
Carbon Tetrachloride	56-23-5	ug/kg	2980												< 6 U	< 6 U	< 5 U
Chlorobenzene	108-90-7	ug/kg	13100												< 6 U	< 6 U	< 5 U
Chloroethane	75-00-3	ug/kg													< 6 U	< 6 U	< 5 U
Chloroform	67-66-3	ug/kg	1190												< 6 U	< 6 U	< 5 U
Chloromethane	74-87-3	ug/kg	10400												< 6 U	< 6 U	< 5 U
cis-1,2-Dichloroethene	156-59-2	ug/kg													< 6 U	< 6 U	< 5 U
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg													< 6 U	< 6 U	< 5 U
Dibromochloromethane	124-48-1	ug/kg	2050												< 6 U	< 6 U	< 5 U
Ethylbenzene	100-41-4	ug/kg	5160												< 6 U	< 6 U	< 5 U
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050												< 6 U	< 6 U	< 5 U
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920												< 6 U	< 6 U	< 5 U
Toluene	108-88-3	ug/kg	200000												< 6 U	< 6 U	< 5 U
trans-1,2-Dichloroethene	156-60-5	ug/kg													< 6 U	< 6 U	< 5 U
Trans-1,3-Dichloropropene	10061-02-6	ug/kg													< 6 U	< 6 U	< 5 U
Trichloroethene	79-01-6	ug/kg	12400												< 6 U	< 6 U	< 5 U
Trichlorofluoromethane	75-69-4	ug/kg	16400												< 6 U	< 6 U	< 5 U
Vinyl Chloride	75-01-4	ug/kg	646												< 6 U	< 6 U	< 5 U
Xylenes (total)	1330-20-7	ug/kg													< 6 U	< 6 U	< 5 U

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	PT-2	PT-3	PT-4	PT-4	PT-5	PT-6	PT-7	PT-8	PT-9	SB-MNTDNT-5	SB-NGDNT	SB-R-F11-02-01	SB-R-F11-02-02	SB-R-F11-02-03
			Sample Date	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/18/2014	11/17/2014	10/15/2019	10/15/2019	10/15/2019
			Sample Depths	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	PT-2-110614	PT-3-110614	BD-110614	PT-4-110614	PT-5-110614	PT-6-110614	PT-7-110614	PT-8-110614	PT-9-110614	BD-111814FD	SB-NGDNT-111714	R-F11-02-01(00.0-0	R-F11-02-02(00.0-0	R-F11-02-03(00.0-0
			Parent ID			PT-4-110614							SB-MNTDNT-5-111814				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg											< 380 U	< 370 U			
1,3,5-Trichlorobenzene	108-70-3	ug/kg											< 380 U	< 370 U			
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376										< 800 U	< 370 U			
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655										500	< 370 U			
1,4-Dinitrobenzene	100-25-4	ug/kg											< 380 U	< 370 U			
1-Nitronaphthalene	86-57-7	ug/kg											< 8600 U	< 370 U			
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000										30000 J	< 370 U			
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280										9200000	1600			
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8										19000000	< 800 U			
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000										< 38000 U	< 370 U			
2-Nitrotoluene	88-72-2	ug/kg											5600	< 370 U			
3-Nitrotoluene	99-08-1	ug/kg											< 3600 U	< 370 U			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000										< 38000 U	< 370 U			
4-Nitrotoluene	99-99-0	ug/kg											< 4700 U	< 370 U			
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg											< 380 U	< 370 U			
Nitroglycerin	55-63-0	ug/kg	65000										< 7600 U	< 7400 U			
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000										< 950 U	< 930 U			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000										< 7600 U	< 7400 U			
RDX (Cyclonite)	121-82-4	ug/kg	98000										< 380 U	< 370 U			
Tetryl	479-45-8	ug/kg	25000										< 380 U	< 370 U			
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

Kennedy Jenks

			Location	PT-2	PT-3	PT-4	PT-4	PT-5	PT-6	PT-7	PT-8	PT-9	SB-MNTDNT-5	SB-NGDNT	SB-R-F11-02-01	SB-R-F11-02-02	SB-R-F11-02-03
			Sample Date	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/18/2014	11/17/2014	10/15/2019	10/15/2019	10/15/2019
			Sample Depths	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	PT-2-110614	PT-3-110614	BD-110614	PT-4-110614	PT-5-110614	PT-6-110614	PT-7-110614	PT-8-110614	PT-9-110614	BD-111814FD	SB-NGDNT-111714	R-F11-02-01(00.0-0	R-F11-02-02(00.0-0	R-F11-02-03(00.0-0
			Parent ID			PT-4-110614							SB-MNTDNT-5-111814				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50	12300	13100	13300	12600	13100	12300	12100	11900	12500					
Antimony	7440-36-0	mg/kg	0.27	< 2.23 U	< 2.23 U	< 2.18 U	< 2.16 U	< 2.23 U	< 2.18 U	< 2.11 U	< 2.10 U	< 2.27 U					
Arsenic	7440-38-2	mg/kg	9.9	2.81	3.18	2.23	2.49	2.73	2.11 J	2.77	3.25	2.82					
Barium	7440-39-3	mg/kg	283	42.8	51.7	43.1	42.9	44.6	44.1	39.1	41.9	60.4					
Beryllium	7440-41-7	mg/kg	10	0.744	0.775	0.722	0.683	0.711	1.39	0.649	0.697	0.756					
Cadmium	7440-43-9	mg/kg	0.36	0.390 J	0.245 J	0.382 J	0.329 J	0.223 J	0.479 J	0.219 J	0.238 J	0.323 J					
Calcium	7440-70-2	mg/kg		1630	1530	1510	1540	1200	1400	1420	1440	1690					
Chromium	7440-47-3	mg/kg	0.4	15.3	15.9	14.1	13.4	13.9	14.4	13.3	15	15					
Cobalt	7440-48-4	mg/kg	0.14	7.34	6.9	6.53	7.62	8.86	7.51	7.1	7.31	6.01					
Copper	7440-50-8	mg/kg	5.4	19.5	16.4	14.7	13.9	14.8	17.2	14.3	14.7	14.7					
Iron	7439-89-6	mg/kg		28600	28700	25600	25500	23100	34000	23800	26500	25400					
Lead	7439-92-1	mg/kg	11	16.6	18.2	13.5	13.1	13.3	16.6	12.6	6.95	13.1					
Magnesium	7439-95-4	mg/kg		1970	2190	2140	2060	2190	1960	2150	2130	2050					
Manganese	7439-96-5	mg/kg	220	293	335	277	298	252	302	295	283	261					
Mercury	7439-97-6	mg/kg	0.1	< 0.110 U	0.0153 J	0.0159 J	0.0166 J	0.0150 J	0.0176 J	0.0127 J	0.0137 J	< 0.111 U					
Nickel	7440-02-0	mg/kg	38	10.7	10.5	9.66	9.56	10.4	12.2	10	9.54	9.27					
Potassium	7440-09-7	mg/kg		955	1020	914	1000	1010	878	881	925	1140					
Selenium	7782-49-2	mg/kg	0.52	0.591 J	0.903 J	0.580 J	0.477 J	< 2.23 U	0.800 J	0.531 J	< 2.10 U	0.943 J					
Silver	7440-22-4	mg/kg	2	< 0.557 U	< 0.557 U	< 0.546 U	< 0.540 U	< 0.557 U	< 0.544 U	< 0.527 U	< 0.526 U	< 0.567 U					
Sodium	7440-23-5	mg/kg		152	155	147	161	122	137	143	124	149					
Thallium	7440-28-0	mg/kg	1	< 3.34 U	< 3.34 U	< 3.28 U	< 3.24 U	< 3.34 U	1.12 J	< 3.16 U	< 3.16 U	< 3.40 U					
Vanadium	7440-62-2	mg/kg	2	35.7	35.8	31.8	30.6	29.8	33.9	29.1	32.3	27.5					
Zinc	7440-66-6	mg/kg	8.5	50.1	48.4	45.7	43.3	46.4	57.4	44.7	48.8	49.9					
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		10.3	11.2	10.2	10.9	12.8	9	9.7	8.6	11.8	31.2	23.2			
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Aroclor-1221	11104-28-2	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Aroclor-1232	11141-16-5	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Aroclor-1242	53469-21-9	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Aroclor-1248	12672-29-6	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Aroclor-1254	11097-69-1	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Aroclor-1260	11096-82-5	ug/kg	371	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U			< 142	< 112	< 92.3
Polychlorinated biphenyls	1336-36-3	ug/kg	371												< 142	< 112	< 92.3
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
4-4-DDE	72-55-9	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	0.74 J	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
4-4-DDT	50-29-3	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
a-BHC	319-84-6	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
Aldrin	309-00-2	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
alpha-Chlordane	5103-71-9	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
b-BHC	319-85-7	ug/kg		< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U					
d-BHC	319-86-8	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
Dieldrin	60-57-1	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
Endosulfan I	959-98-8	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 UV	0.35 J	< 0.90 U	< 0.90 U	< 0.93 U					
Endosulfan II	33213-65-9	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
Endosulfan Sulfate	1031-07-8	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
Endrin	72-20-8	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
Endrin Aldehyde	7421-93-4	ug/kg		< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.8 U	< 1.9 U					
Endrin Ketone	53494-70-5	ug/kg		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.0 U	< 2.0 U	< 1.9 U	< 2.0 U					
gamma-Chlordane	5103-74-2	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
Heptachlor	76-44-8	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
Heptachlor Epoxide	1024-57-3	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
Lindane	58-89-9	ug/kg		< 0.92 U	< 0.93 U	< 0.92 U	< 0.92 U	< 0.95 U	< 0.91 U	< 0.90 U	< 0.90 U	< 0.93 U					
Methoxychlor	72-43-5	ug/kg		< 7.4 U	< 7.5 U	< 7.4 U	< 7.4 U	< 7.6 U	< 7.4 U	< 7.3 U	< 7.3 U	< 7.5 U					
Toxaphene	8001-35-2	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 36 U	< 36 U	< 37 U					
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U	< 1100 U					

Kennedy Jenks

			Location	PT-2	PT-3	PT-4	PT-4	PT-5	PT-6	PT-7	PT-8	PT-9	SB-MNTDNT-5	SB-NGDNT	SB-R-F11-02-01	SB-R-F11-02-02	SB-R-F11-02-03
			Sample Date	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/18/2014	11/17/2014	10/15/2019	10/15/2019	10/15/2019
			Sample Depths	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	PT-2-110614	PT-3-110614	BD-110614	PT-4-110614	PT-5-110614	PT-6-110614	PT-7-110614	PT-8-110614	PT-9-110614	BD-111814FD	SB-NGDNT-111714	R-F11-02-01(00.0-0	R-F11-02-02(00.0-0	R-F11-02-03(00.0-0
			Parent ID			PT-4-110614							SB-MNTDNT-5-111814				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2-Chloronaphthalene	91-58-7	ug/kg		< 37 U	< 37 U	< 36 U	< 37 U	< 37 U	< 36 U	< 36 U	< 36 U	< 37 U					
2-Chlorophenol	95-57-8	ug/kg	243	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2-Methylnaphthalene	91-57-6	ug/kg	3240	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
2-Methylphenol	95-48-7	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2-Nitroaniline	88-74-4	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2-Nitrophenol	88-75-5	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 370 U	< 370 U	< 370 U	< 370 U	< 380 U	< 360 U	< 370 U	< 360 U	< 370 U					
3-Nitrotoluene	99-08-1	ug/kg		< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 550 U	< 560 U	< 550 U	< 560 U	< 570 U	< 540 U	< 550 U	< 540 U	< 560 U					
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
4-Nitrophenol	100-02-7	ug/kg	7000	< 550 U	< 560 U	< 550 U	< 560 U	< 570 U	< 540 U	< 550 U	< 540 U	< 560 U					
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Acenaphthylene	208-96-8	ug/kg	682000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Anthracene	120-12-7	ug/kg	1480000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Benzo[a]pyrene	50-32-8	ug/kg	1520	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 190 U	< 190 U	< 190 U	< 190 U	< 190 U	< 180 U	< 190 U	< 180 U	< 190 U					
Butylbenzylphthalate	85-68-7	ug/kg	239	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
Chrysene	218-01-9	ug/kg	4730	< 19 U	4 J	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Diethylphthalate	84-66-2	ug/kg	24800	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
Dimethylphthalate	131-11-3	ug/kg	734000	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
Fluoranthene	206-44-0	ug/kg	122000	< 19 U	5 J	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Fluorene	86-73-7	ug/kg	122000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Hexachlorobenzene	118-74-1	ug/kg	199	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 550 U	< 560 U	< 550 U	< 560 U	< 570 U	< 540 U	< 550 U	< 540 U	< 560 U					
Hexachloroethane	67-72-1	ug/kg	596	< 180 U	< 190 U	< 180 U	< 190 U	< 190 U	< 180 U	< 180 U	< 180 U	< 190 U					
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Isophorone	78-59-1	ug/kg	139000	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
Naphthalene	91-20-3	ug/kg	99.4	< 19 U	< 19 U	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Nitrobenzene	98-95-3	ug/kg	1310	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	24 J	< 37 U	< 36 U	< 37 U					
Pentachlorophenol	87-86-5	ug/kg	2100	< 190 U	< 190 U	< 190 U	< 190 U	< 190 U	< 180 U	< 190 U	< 180 U	< 190 U					
Phenanthrene	85-01-8	ug/kg	45700	< 19 U	4 J	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Phenol	108-95-2	ug/kg	30000	< 37 U	< 37 U	< 37 U	< 37 U	< 38 U	< 36 U	< 37 U	< 36 U	< 37 U					
Pyrene	129-00-0	ug/kg	78500	< 19 U	5 J	< 19 U	< 19 U	< 19 U	< 18 U	< 19 U	< 18 U	< 19 U					
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
Total Aliphatics	TOTALIPH	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
Total Aromatics	TOTAROM	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg		< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U					
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					

			Location	PT-2	PT-3	PT-4	PT-4	PT-5	PT-6	PT-7	PT-8	PT-9	SB-MNTDNT-5	SB-NGDNT	SB-R-F11-02-01	SB-R-F11-02-02	SB-R-F11-02-03
			Sample Date	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/18/2014	11/17/2014	10/15/2019	10/15/2019	10/15/2019
			Sample Depths	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	PT-2-110614	PT-3-110614	BD-110614	PT-4-110614	PT-5-110614	PT-6-110614	PT-7-110614	PT-8-110614	PT-9-110614	BD-111814FD	SB-NGDNT-111714	R-F11-02-01(00.0-0	R-F11-02-02(00.0-0	R-F11-02-03(00.0-0
			Parent ID			PT-4-110614							SB-MNTDNT-5-111814				
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,1-Dichloroethane	75-34-3	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,2-Dichloroethane	107-06-2	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,2-Dichloropropane	78-87-5	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Bromodichloromethane	75-27-4	ug/kg	540	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Bromoform	75-25-2	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Bromomethane	74-83-9	ug/kg	235	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Chlorobenzene	108-90-7	ug/kg	13100	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Chloroethane	75-00-3	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Chloroform	67-66-3	ug/kg	1190	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Chloromethane	74-87-3	ug/kg	10400	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Dibromochloromethane	124-48-1	ug/kg	2050	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Ethylbenzene	100-41-4	ug/kg	5160	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Toluene	108-88-3	ug/kg	200000	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Trans-1,3-Dichloropropene	10061-02-6	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Trichloroethene	79-01-6	ug/kg	12400	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Trichlorofluoromethane	75-69-4	ug/kg	16400	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Vinyl Chloride	75-01-4	ug/kg	646	< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					
Xylenes (total)	1330-20-7	ug/kg		< 6 U	< 5 U	< 6 U	< 6 U	< 6 U	< 5 U	< 5 U	< 6 U	< 6 U					

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-F11-02-04	SB-R-F11-02-05	SB-R-F11-02-06	SB-R-F11-02-07	SB-R-F11-02-08	SB-R-F8-01	SB-R-H11-02-11	SB-R-H11-02-14	SB-R-H11-02-15	SB-R-H11-02-16	SB-R-H11-02-17	SB-R-H11-02-19	SB-R-H11-02-21	SB-R-H11-02-29
			Sample Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	4/30/2020	11/5/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	1/2/2020	1/2/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-F11-02-04(00.0-0	R-F11-02-05(00.0-0	R-F11-02-06(00.0-0	R-F11-02-07(00.0-0	R-F11-02-08(00.0-0	W_SB-R-F8-01_0.5-	R-H11-02-11(00.0-0	R-H11-02-14(00.0-0	R-H11-02-15(00.0-0	R-H11-02-16(00.0-0	R-H11-02-17(00.0-0	R-H11-02-19(00.0-0	R-H11-02-21(00.0-0	R-H11-02-29(00.0-0
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su							6.77								
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-F11-02-04	SB-R-F11-02-05	SB-R-F11-02-06	SB-R-F11-02-07	SB-R-F11-02-08	SB-R-F8-01	SB-R-H11-02-11	SB-R-H11-02-14	SB-R-H11-02-15	SB-R-H11-02-16	SB-R-H11-02-17	SB-R-H11-02-19	SB-R-H11-02-21	SB-R-H11-02-29
			Sample Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	4/30/2020	11/5/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	1/2/2020	1/2/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-F11-02-04(00.0-0	R-F11-02-05(00.0-0	R-F11-02-06(00.0-0	R-F11-02-07(00.0-0	R-F11-02-08(00.0-0	W_SB-R-F8-01_0.5-	R-H11-02-11(00.0-0	R-H11-02-14(00.0-0	R-H11-02-15(00.0-0	R-H11-02-16(00.0-0	R-H11-02-17(00.0-0	R-H11-02-19(00.0-0	R-H11-02-21(00.0-0	R-H11-02-29(00.0-0
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36														
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11														
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1														
Nickel	7440-02-0	mg/kg	38														
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2														
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	< 125	< 119	< 106	< 21.5	< 25.1	< 384	< 92.0
Aroclor-1221	11104-28-2	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	< 125	< 119	< 106	< 21.5	< 25.1	< 384	< 92.0
Aroclor-1232	11141-16-5	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	< 125	< 119	< 106	< 21.5	< 25.1	< 384	< 92.0
Aroclor-1242	53469-21-9	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	< 125	< 119	< 106	< 21.5	< 25.1	< 384	< 92.0
Aroclor-1248	12672-29-6	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	< 125	< 119	< 106	< 21.5	< 25.1	< 384	< 92.0
Aroclor-1254	11097-69-1	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	199	276	231	118	< 25.1	< 384	< 92.0
Aroclor-1260	11096-82-5	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	219	330	161	77.5	209	< 384	< 92.0
Polychlorinated biphenyls	1336-36-3	ug/kg	371	< 93.2	< 92.0	< 90.0	< 90.7	< 92.9		< 107	418	606	392	195	209	< 384	< 92.0
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	SB-R-F11-02-04	SB-R-F11-02-05	SB-R-F11-02-06	SB-R-F11-02-07	SB-R-F11-02-08	SB-R-F8-01	SB-R-H11-02-11	SB-R-H11-02-14	SB-R-H11-02-15	SB-R-H11-02-16	SB-R-H11-02-17	SB-R-H11-02-19	SB-R-H11-02-21	SB-R-H11-02-29
			Sample Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	4/30/2020	11/5/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	1/2/2020	1/2/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-F11-02-04(00.0-0	R-F11-02-05(00.0-0	R-F11-02-06(00.0-0	R-F11-02-07(00.0-0	R-F11-02-08(00.0-0	W_SB-R-F8-01_0.5-	R-H11-02-11(00.0-0	R-H11-02-14(00.0-0	R-H11-02-15(00.0-0	R-H11-02-16(00.0-0	R-H11-02-17(00.0-0	R-H11-02-19(00.0-0	R-H11-02-21(00.0-0	R-H11-02-29(00.0-0
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg							292000								
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-F11-02-04	SB-R-F11-02-05	SB-R-F11-02-06	SB-R-F11-02-07	SB-R-F11-02-08	SB-R-F8-01	SB-R-H11-02-11	SB-R-H11-02-14	SB-R-H11-02-15	SB-R-H11-02-16	SB-R-H11-02-17	SB-R-H11-02-19	SB-R-H11-02-21	SB-R-H11-02-29
			Sample Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	4/30/2020	11/5/2019	11/5/2019	11/5/2019	11/5/2019	12/6/2019	1/2/2020	1/2/2020	3/3/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-F11-02-04(00.0-0	R-F11-02-05(00.0-0	R-F11-02-06(00.0-0	R-F11-02-07(00.0-0	R-F11-02-08(00.0-0	W_SB-R-F8-01_0.5-	R-H11-02-11(00.0-0	R-H11-02-14(00.0-0	R-H11-02-15(00.0-0	R-H11-02-16(00.0-0	R-H11-02-17(00.0-0	R-H11-02-19(00.0-0	R-H11-02-21(00.0-0	R-H11-02-29(00.0-0
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SB-R-H11-02-30	SB-R-H11-02-39	SB-R-H11-02-39	SB-R-H11-02-40	SB-R-H11-02-40	SB-R-H11-02-41	SB-R-H11-02-44	SB-R-H11-02-47	SB-R-H11-02-50	SB-R-H11-02-52	SB-R-H11-02-54	SB-R-H11-02-56	SB-R-H11-03-19	SB-R-H11-03-20
			Sample Date	3/3/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	4/1/2020	4/1/2020	4/1/2020	4/9/2020	4/9/2020	2/4/2020	1/2/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-H11-02-30(00.0-0	BD033020-2	R-H11-02-39(00.0-0	BD033020-4	R-H11-02-40(00.0-0	R-H11-02-41(00.0-0	R-H11-02-44(00.0-0	R-H11-02-47(00.0-0	R-H11-02-50(00.0-0	R-H11-02-52(00.0-0	R-H11-02-54(00.0-0	R-H11-02-56(00.0-0	R-H11-03-19(00.0-0	R-H11-03-20(00.0-0
			Parent ID	SB-R-H11-02-39(00.0-00.5)			SB-R-H11-02-40(00.0-00.5)										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg															
1,3,5-Trichlorobenzene	108-70-3	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655														
1,4-Dinitrobenzene	100-25-4	ug/kg															
1-Nitronaphthalene	86-57-7	ug/kg															
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000														
2-Nitrotoluene	88-72-2	ug/kg															
3-Nitrotoluene	99-08-1	ug/kg															
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000														
4-Nitrotoluene	99-99-0	ug/kg															
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg															
Nitroglycerin	55-63-0	ug/kg	65000														
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000														
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000														
RDX (Cyclonite)	121-82-4	ug/kg	98000														
Tetryl	479-45-8	ug/kg	25000														
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-H11-02-30	SB-R-H11-02-39	SB-R-H11-02-39	SB-R-H11-02-40	SB-R-H11-02-40	SB-R-H11-02-41	SB-R-H11-02-44	SB-R-H11-02-47	SB-R-H11-02-50	SB-R-H11-02-52	SB-R-H11-02-54	SB-R-H11-02-56	SB-R-H11-03-19	SB-R-H11-03-20
			Sample Date	3/3/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	4/1/2020	4/1/2020	4/1/2020	4/9/2020	4/9/2020	2/4/2020	1/2/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-H11-02-30(00.0-0	BD033020-2	R-H11-02-39(00.0-0	BD033020-4	R-H11-02-40(00.0-0	R-H11-02-41(00.0-0	R-H11-02-44(00.0-0	R-H11-02-47(00.0-0	R-H11-02-50(00.0-0	R-H11-02-52(00.0-0	R-H11-02-54(00.0-0	R-H11-02-56(00.0-0	R-H11-03-19(00.0-0	R-H11-03-20(00.0-0
			Parent ID	SB-R-H11-02-39(00.0-00.5)			SB-R-H11-02-40(00.0-00.5)										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50														
Antimony	7440-36-0	mg/kg	0.27														
Arsenic	7440-38-2	mg/kg	9.9														
Barium	7440-39-3	mg/kg	283														
Beryllium	7440-41-7	mg/kg	10														
Cadmium	7440-43-9	mg/kg	0.36														
Calcium	7440-70-2	mg/kg															
Chromium	7440-47-3	mg/kg	0.4														
Cobalt	7440-48-4	mg/kg	0.14														
Copper	7440-50-8	mg/kg	5.4														
Iron	7439-89-6	mg/kg															
Lead	7439-92-1	mg/kg	11														
Magnesium	7439-95-4	mg/kg															
Manganese	7439-96-5	mg/kg	220														
Mercury	7439-97-6	mg/kg	0.1														
Nickel	7440-02-0	mg/kg	38														
Potassium	7440-09-7	mg/kg															
Selenium	7782-49-2	mg/kg	0.52														
Silver	7440-22-4	mg/kg	2														
Sodium	7440-23-5	mg/kg															
Thallium	7440-28-0	mg/kg	1														
Vanadium	7440-62-2	mg/kg	2														
Zinc	7440-66-6	mg/kg	8.5														
Moisture																	
Percent Solids	SOLID	percent			56.2	57.8	53.7	49.5	69.9	64.7	53.6	64.7	75	75	79.1		
Percent Moisture	MOIST	%															
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371	< 105	< 180	< 170	< 190	< 200	< 140	< 150	< 190	< 150	< 130	< 130	<130	< 126	< 117
Aroclor-1221	11104-28-2	ug/kg	371	< 105	< 180	< 170	< 190	< 200	< 140	< 150	< 190	< 150	< 130	< 130	<130	< 126	< 117
Aroclor-1232	11141-16-5	ug/kg	371	< 105	< 180	< 170	< 190	< 200	< 140	< 150	< 190	< 150	< 130	< 130	<130	< 126	< 117
Aroclor-1242	53469-21-9	ug/kg	371	< 105	< 180	< 170	< 190	< 200	< 140	< 150	< 190	< 150	< 130	< 130	<130	< 126	< 117
Aroclor-1248	12672-29-6	ug/kg	371	< 105	< 180	< 170	< 190	< 200	< 140	< 150	< 190	< 150	< 130	< 130	<130	< 126	< 117
Aroclor-1254	11097-69-1	ug/kg	371	507	< 180	< 170	< 190	< 200	< 140	< 150	< 190	< 150	< 130	< 130	<130	543	196
Aroclor-1260	11096-82-5	ug/kg	371	339	250	280	470	380	< 140	170	< 190	210	220	< 130	300	314	< 117
Polychlorinated biphenyls	1336-36-3	ug/kg	371	846	250	460	820	380	< 140	170	< 190	210	220	< 130	300	857	309
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg															
2,4,6-Trichlorophenol	88-06-2	ug/kg															
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg															
2,4-Dimethylphenol	105-67-9	ug/kg	10														
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														

			Location	SB-R-H11-02-30	SB-R-H11-02-39	SB-R-H11-02-39	SB-R-H11-02-40	SB-R-H11-02-40	SB-R-H11-02-41	SB-R-H11-02-44	SB-R-H11-02-47	SB-R-H11-02-50	SB-R-H11-02-52	SB-R-H11-02-54	SB-R-H11-02-56	SB-R-H11-03-19	SB-R-H11-03-20
			Sample Date	3/3/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	4/1/2020	4/1/2020	4/1/2020	4/9/2020	4/9/2020	2/4/2020	1/2/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-H11-02-30(00.0-0	BD033020-2	R-H11-02-39(00.0-0	BD033020-4	R-H11-02-40(00.0-0	R-H11-02-41(00.0-0	R-H11-02-44(00.0-0	R-H11-02-47(00.0-0	R-H11-02-50(00.0-0	R-H11-02-52(00.0-0	R-H11-02-54(00.0-0	R-H11-02-56(00.0-0	R-H11-03-19(00.0-0	R-H11-03-20(00.0-0
			Parent ID	SB-R-H11-02-39(00.0-00.5)			SB-R-H11-02-40(00.0-00.5)										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Chloronaphthalene	91-58-7	ug/kg															
2-Chlorophenol	95-57-8	ug/kg	243														
2-Methylnaphthalene	91-57-6	ug/kg	3240														
2-Methylphenol	95-48-7	ug/kg															
2-Nitroaniline	88-74-4	ug/kg															
2-Nitrophenol	88-75-5	ug/kg															
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646														
3-Nitrotoluene	99-08-1	ug/kg															
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144														
4-Bromophenyl-phenylether	101-55-3	ug/kg															
4-Chloro-3-methylphenol	59-50-7	ug/kg															
4-Chlorophenyl-phenylether	7005-72-3	ug/kg															
4-Nitrophenol	100-02-7	ug/kg	7000														
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000														
Acenaphthylene	208-96-8	ug/kg	682000														
Anthracene	120-12-7	ug/kg	1480000														
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210														
Benzo[a]pyrene	50-32-8	ug/kg	1520														
Benzo[b]fluoranthene	205-99-2	ug/kg	59800														
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000														
Benzo[k]fluoranthene	207-08-9	ug/kg	148000														
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg															
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900														
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925														
Butylbenzylphthalate	85-68-7	ug/kg	239														
Chrysene	218-01-9	ug/kg	4730														
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400														
Diethylphthalate	84-66-2	ug/kg	24800														
Dimethylphthalate	131-11-3	ug/kg	734000														
Di-n-butylphthalate	84-74-2	ug/kg	150														
Di-n-octylphthalate	117-84-0	ug/kg	7090														
Fluoranthene	206-44-0	ug/kg	122000														
Fluorene	86-73-7	ug/kg	122000														
Hexachlorobenzene	118-74-1	ug/kg	199														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Hexachlorocyclopentadiene	77-47-4	ug/kg															
Hexachloroethane	67-72-1	ug/kg	596														
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000														
Isophorone	78-59-1	ug/kg	139000														
Naphthalene	91-20-3	ug/kg	99.4														
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544														
N-Nitrosodiphenylamine	86-30-6	ug/kg	545														
Pentachlorophenol	87-86-5	ug/kg	2100														
Phenanthrene	85-01-8	ug/kg	45700														
Phenol	108-95-2	ug/kg	30000														
Pyrene	129-00-0	ug/kg	78500														
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg															
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127														

			Location	SB-R-H11-02-30	SB-R-H11-02-39	SB-R-H11-02-39	SB-R-H11-02-40	SB-R-H11-02-40	SB-R-H11-02-41	SB-R-H11-02-44	SB-R-H11-02-47	SB-R-H11-02-50	SB-R-H11-02-52	SB-R-H11-02-54	SB-R-H11-02-56	SB-R-H11-03-19	SB-R-H11-03-20
			Sample Date	3/3/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	3/30/2020	4/1/2020	4/1/2020	4/1/2020	4/9/2020	4/9/2020	2/4/2020	1/2/2020
			Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	R-H11-02-30(00.0-0	BD033020-2	R-H11-02-39(00.0-0	BD033020-4	R-H11-02-40(00.0-0	R-H11-02-41(00.0-0	R-H11-02-44(00.0-0	R-H11-02-47(00.0-0	R-H11-02-50(00.0-0	R-H11-02-52(00.0-0	R-H11-02-54(00.0-0	R-H11-02-56(00.0-0	R-H11-03-19(00.0-0	R-H11-03-20(00.0-0
			Parent ID	SB-R-H11-02-39(00.0-00.5)			SB-R-H11-02-40(00.0-00.5)										
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg															
1,1-Dichloroethane	75-34-3	ug/kg															
1,1-Dichloroethene	75-35-4	ug/kg	8280														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Dichloroethane	107-06-2	ug/kg															
1,2-Dichloropropane	78-87-5	ug/kg															
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255														
Bromodichloromethane	75-27-4	ug/kg	540														
Bromoform	75-25-2	ug/kg															
Bromomethane	74-83-9	ug/kg	235														
Carbon Tetrachloride	56-23-5	ug/kg	2980														
Chlorobenzene	108-90-7	ug/kg	13100														
Chloroethane	75-00-3	ug/kg															
Chloroform	67-66-3	ug/kg	1190														
Chloromethane	74-87-3	ug/kg	10400														
cis-1,2-Dichloroethene	156-59-2	ug/kg															
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg															
Dibromochloromethane	124-48-1	ug/kg	2050														
Ethylbenzene	100-41-4	ug/kg	5160														
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050														
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920														
Toluene	108-88-3	ug/kg	200000														
trans-1,2-Dichloroethene	156-60-5	ug/kg															
Trans-1,3-Dichloropropene	10061-02-6	ug/kg															
Trichloroethene	79-01-6	ug/kg	12400														
Trichlorofluoromethane	75-69-4	ug/kg	16400														
Vinyl Chloride	75-01-4	ug/kg	646														
Xylenes (total)	1330-20-7	ug/kg															

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Kennedy Jenks

			Location	SB-R-H7-01	SB-R-K8-03	SD-H7-2-01	SD-H7-2-01B	SD-I11-2-01	SD-I5-2-01	SD-R2-E-10-1	SD-R-E10-02	D-G11-9304-C-SIDE	SO-R2-C-14-1	SO-R2-C-14-1	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1
			Sample Date	5/1/2020	5/11/2020	5/1/2020	5/1/2020	5/28/2020	5/28/2020	4/28/2020	4/28/2020	5/19/2020	11/15/2013	11/15/2013	11/15/2013	11/15/2013	11/14/2013
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft
			Sample ID	W_SB-R-H7-01_0.5-	W_SB-R-K8-03_0.5-	_SD-H7-2-01_0.5-1	_SD-H7-2-01_0.5-1	_SD-I11-2-01FD_0.5	W_SD-I5-2-01_0.5-	_SD-R2-E-10-1_0.0	SD-R-E10-02_0.5-	-G11-9304-C-SIDEW	-DUP-06FD_201311	O-R2-C-14-1_201311	-DUP-04FD_201311	O-R2-E-9-1_201311	O-R2-F-12-1_201311
			Parent ID										SO-R2-C-14-1_20131115		SO-R2-E-9-1_20131115		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg															
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg															
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg															
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg															
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg															
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg															
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg															
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg															
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg															
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg															
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg															
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15														
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg															
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg											< 340	< 390	< 330	< 340	< 380
1,3,5-Trichlorobenzene	108-70-3	ug/kg											< 340	< 390	< 330	< 340	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376										< 340	< 390	< 330	< 340	< 380
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655										< 340	< 390	< 330	< 340	< 380
1,4-Dinitrobenzene	100-25-4	ug/kg											< 340	< 390	< 330	< 340	< 380
1-Nitronaphthalene	86-57-7	ug/kg											< 340	< 390	< 330	< 340	< 380
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000										< 340	< 390	< 330	< 340	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000										< 340	< 390	< 330	< 340	< 380
2-Nitrotoluene	88-72-2	ug/kg											< 340	< 390	< 330	< 340	< 380
3-Nitrotoluene	99-08-1	ug/kg											< 340	< 390	< 330	< 340	< 380
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000										< 340	< 390	< 330	< 340	< 380
4-Nitrotoluene	99-99-0	ug/kg											< 340	< 390	< 330	< 340	< 380
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg											< 340	< 390	< 330	< 340	< 380
Nitroglycerin	55-63-0	ug/kg	65000										< 6800	< 7800	2300	93000	< 7600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000										< 850	< 970	< 830	< 850	< 950
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000										< 6800	< 7800	< 6700	< 6800	< 7600
RDX (Cyclonite)	121-82-4	ug/kg	98000										< 340	< 390	< 330	< 340	< 380
Tetryl	479-45-8	ug/kg	25000										< 340	< 390	< 330	< 340	< 380
GenChem																	
pH	pH	su		5.9	5.42	5.97	6.48	6.8	6.66	5.82	5.94	5.87					
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SB-R-H7-01	SB-R-K8-03	SD-H7-2-01	SD-H7-2-01B	SD-I11-2-01	SD-I5-2-01	SD-R2-E-10-1	SD-R-E10-02	D-G11-9304-C-SIDE	SO-R2-C-14-1	SO-R2-C-14-1	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1
			Sample Date	5/1/2020	5/11/2020	5/1/2020	5/1/2020	5/28/2020	5/28/2020	4/28/2020	4/28/2020	5/19/2020	11/15/2013	11/15/2013	11/15/2013	11/15/2013	11/14/2013
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft
			Sample ID	W_SB-R-H7-01_0.5-	W_SB-R-K8-03_0.5-	_SD-H7-2-01_0.5-1	_SD-H7-2-01_0.5-1	_SD-I11-2-01FD_0.5	W_SD-I5-2-01_0.5-1	_SD-R2-E-10-1_0.0	SD-R-E10-02_0.5-1	-G11-9304-C-SIDEW	-DUP-06FD_201311	-R2-C-14-1_201311	-DUP-04FD_201311	-R2-E-9-1_201311	-R2-F-12-1_201311
			Parent ID										SO-R2-C-14-1_20131115		SO-R2-E-9-1_20131115		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50										12500	15900	8240	8800	17200
Antimony	7440-36-0	mg/kg	0.27										< 2.24	< 2.59	< 2.18	< 2.19	< 2.52
Arsenic	7440-38-2	mg/kg	9.9										3.49	5.14	7.01	5.41	3.87
Barium	7440-39-3	mg/kg	283										40.7	60.4	50.7	111	48
Beryllium	7440-41-7	mg/kg	10										0.706	0.781	0.38	0.613	0.535
Cadmium	7440-43-9	mg/kg	0.36										< 2.8	< 0.647	< 0.545	0.0854	< 0.631
Calcium	7440-70-2	mg/kg											854	1330	214	263	383
Chromium	7440-47-3	mg/kg	0.4										13.9	16.9	13.8	8.52	14.5
Cobalt	7440-48-4	mg/kg	0.14										7.32	5.6	1.31	3.03	2.47
Copper	7440-50-8	mg/kg	5.4										16.3	11.6	10.5	16	7.89
Iron	7439-89-6	mg/kg											30000	29300	9110	10400	26400
Lead	7439-92-1	mg/kg	11										5.52	28	62.3	50.3	10.1
Magnesium	7439-95-4	mg/kg											1970	2390	446	539	1250
Manganese	7439-96-5	mg/kg	220										301	474	191	2270	86.2
Mercury	7439-97-6	mg/kg	0.1										< 0.108	0.11	0.16	0.204	0.0354
Nickel	7440-02-0	mg/kg	38								13		9.24	10.8	7.28	5.9	6.36
Potassium	7440-09-7	mg/kg											539	608	335	318	309
Selenium	7782-49-2	mg/kg	0.52										< 2.24	< 2.59	1.23	< 2.19	1.67
Silver	7440-22-4	mg/kg	2							0.62		0.0561 J	< 2.8	< 0.647	< 0.545	0.294	< 0.631
Sodium	7440-23-5	mg/kg											93	170	< 109	< 109	33.9
Thallium	7440-28-0	mg/kg	1	0.252	0.0837	0.127		0.211	0.120 J				< 3.36	< 3.88	< 3.27	2.73	< 3.78
Vanadium	7440-62-2	mg/kg	2										39.6	36.6	18.9	17.3	34.4
Zinc	7440-66-6	mg/kg	8.5								191		41.4	63.9	35.9	41.2	36.7
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%											11.5	22.7	10	11.3	20.7
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg											< 37	< 43	< 37	< 370	< 42
2,4,6-Trichlorophenol	88-06-2	ug/kg											< 37	< 43	< 37	< 370	< 42
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg											< 37	< 43	< 37	< 370	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	10										< 37	< 43	< 37	< 370	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	60.9										< 1100	< 1300	< 1100	< 11000	< 1300

			Location	SB-R-H7-01	SB-R-K8-03	SD-H7-2-01	SD-H7-2-01B	SD-I11-2-01	SD-I5-2-01	SD-R2-E-10-1	SD-R-E10-02	O-G11-9304-C-SIDE	SO-R2-C-14-1	SO-R2-C-14-1	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1
			Sample Date	5/1/2020	5/11/2020	5/1/2020	5/1/2020	5/28/2020	5/28/2020	4/28/2020	4/28/2020	5/19/2020	11/15/2013	11/15/2013	11/15/2013	11/15/2013	11/14/2013
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft
			Sample ID	W_SB-R-H7-01_0.5-	W_SB-R-K8-03_0.5-	_SD-H7-2-01_0.5-1	_SD-H7-2-01_0.5-1	_SD-I11-2-01FD_0.5	W_SD-I5-2-01_0.5-1	_SD-R2-E-10-1_0.0	SD-R-E10-02_0.5-1	-G11-9304-C-SIDEW	-DUP-06FD_201311	O-R2-C-14-1_201311	-DUP-04FD_201311	O-R2-E-9-1_201311	O-R2-F-12-1_201311
			Parent ID										SO-R2-C-14-1_20131115		SO-R2-E-9-1_20131115		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280										< 190	< 210	< 180	< 1900	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8										< 37	< 43	< 37	< 370	< 42
2-Chloronaphthalene	91-58-7	ug/kg											< 37	< 42	< 36	< 370	< 41
2-Chlorophenol	95-57-8	ug/kg	243										< 37	< 43	< 37	< 370	< 42
2-Methylnaphthalene	91-57-6	ug/kg	3240										< 19	< 22	< 19	< 190	< 21
2-Methylphenol	95-48-7	ug/kg											< 37	< 43	< 37	< 370	< 42
2-Nitroaniline	88-74-4	ug/kg											< 37	< 43	< 37	< 370	< 42
2-Nitrophenol	88-75-5	ug/kg											< 37	< 43	< 37	< 370	< 42
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646										< 370	< 430	< 370	< 3700	< 420
3-Nitrotoluene	99-08-1	ug/kg											< 190	< 210	< 180	< 1900	< 210
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144										< 560	< 640	< 550	< 5600	< 630
4-Bromophenyl-phenylether	101-55-3	ug/kg											< 37	< 43	< 37	< 370	< 42
4-Chloro-3-methylphenol	59-50-7	ug/kg											< 37	< 43	< 37	< 370	< 42
4-Chlorophenyl-phenylether	7005-72-3	ug/kg											< 37	< 43	< 37	< 370	< 42
4-Nitrophenol	100-02-7	ug/kg	7000										< 560	< 640	< 550	< 5600	< 630
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000										< 19	< 22	< 19	< 190	< 21
Acenaphthylene	208-96-8	ug/kg	682000										< 19	< 22	12	< 190	< 21
Anthracene	120-12-7	ug/kg	1480000										< 19	< 22	8	< 190	< 21
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210										< 19	10	23	< 190	8
Benzo[a]pyrene	50-32-8	ug/kg	1520										< 19	16	35	< 190	12
Benzo[b]fluoranthene	205-99-2	ug/kg	59800										< 19	17	54	71	13
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000										< 19	14	< 19	< 190	6
Benzo[k]fluoranthene	207-08-9	ug/kg	148000										< 19	< 22	25	< 190	5
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg											< 37	< 43	< 37	< 370	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg											< 37	< 43	< 37	< 370	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900										< 37	< 43	< 37	< 370	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925										< 190	140	< 190	< 1900	< 210
Butylbenzylphthalate	85-68-7	ug/kg	239										< 190	< 210	< 180	< 1900	< 210
Chrysene	218-01-9	ug/kg	4730										< 19	14	49	53	9
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400										< 19	< 22	< 19	< 190	7
Diethylphthalate	84-66-2	ug/kg	24800										< 190	< 210	< 180	1400	< 210
Dimethylphthalate	131-11-3	ug/kg	734000										< 190	< 210	< 180	< 1900	< 210
Di-n-butylphthalate	84-74-2	ug/kg	150										< 190	< 210	< 180	< 1900	< 210
Di-n-octylphthalate	117-84-0	ug/kg	7090										< 190	< 210	< 180	< 1900	< 210
Fluoranthene	206-44-0	ug/kg	122000										< 19	21	80	71	19
Fluorene	86-73-7	ug/kg	122000										< 19	< 22	< 19	< 190	< 21
Hexachlorobenzene	118-74-1	ug/kg	199										< 19	< 22	< 19	< 190	< 21
Hexachlorobutadiene	87-68-3	ug/kg	39.8										< 37	< 43	< 37	< 370	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg											< 560	< 640	< 550	< 5600	< 630
Hexachloroethane	67-72-1	ug/kg	596										< 190	< 210	< 180	< 1900	< 210
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000										< 19	< 22	< 19	38	7
Isophorone	78-59-1	ug/kg	139000										< 37	< 43	< 37	< 370	< 42
Naphthalene	91-20-3	ug/kg	99.4										< 19	< 22	11	< 190	< 21
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544										< 37	< 43	< 37	< 370	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	545										< 37	< 43	< 37	760	< 42
Pentachlorophenol	87-86-5	ug/kg	2100										< 190	< 220	< 190	< 1900	< 210
Phenanthrene	85-01-8	ug/kg	45700										< 19	15	50	43	10
Phenol	108-95-2	ug/kg	30000										< 37	< 43	< 37	< 370	< 42
Pyrene	129-00-0	ug/kg	78500										< 19	23	65	68	19
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg		211000	12000	40300	55300	58800	67200	366000	196000	244000					
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg											< 5	< 6	< 8	< 8	< 6
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127										< 5	< 6	< 8	< 8	< 6

			Location	SB-R-H7-01	SB-R-K8-03	SD-H7-2-01	SD-H7-2-01B	SD-I11-2-01	SD-I5-2-01	SD-R2-E-10-1	SD-R-E10-02	D-G11-9304-C-SIDE	SO-R2-C-14-1	SO-R2-C-14-1	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1
			Sample Date	5/1/2020	5/11/2020	5/1/2020	5/1/2020	5/28/2020	5/28/2020	4/28/2020	4/28/2020	5/19/2020	11/15/2013	11/15/2013	11/15/2013	11/15/2013	11/14/2013
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft
			Sample ID	W_SB-R-H7-01_0.5-	W_SB-R-K8-03_0.5-	_SD-H7-2-01_0.5-1	_SD-H7-2-01_0.5-1	_SD-I11-2-01FD_0.5	W_SD-I5-2-01_0.5-	_SD-R2-E-10-1_0.0	SD-R-E10-02_0.5-	G11-9304-C-SIDEW	-DUP-06FD_201311	O-R2-C-14-1_201311	-DUP-04FD_201311	O-R2-E-9-1_201311	O-R2-F-12-1_201311
			Parent ID										SO-R2-C-14-1_20131115		SO-R2-E-9-1_20131115		
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg											< 5	< 6	< 8	< 8	< 6
1,1-Dichloroethane	75-34-3	ug/kg											< 5	< 6	< 8	< 8	< 6
1,1-Dichloroethene	75-35-4	ug/kg	8280										< 5	< 6	< 8	< 8	< 6
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000										< 5	< 6	< 8	< 8	< 6
1,2-Dichlorobenzene	95-50-1	ug/kg	2960										< 5	< 6	< 8	< 8	< 6
1,2-Dichloroethane	107-06-2	ug/kg											< 5	< 6	< 8	< 8	< 6
1,2-Dichloropropane	78-87-5	ug/kg											< 5	< 6	< 8	< 8	< 6
1,3-Dichlorobenzene	541-73-1	ug/kg	37700										< 5	< 6	< 8	< 8	< 6
1,4-Dichlorobenzene	106-46-7	ug/kg	546										< 5	< 6	< 8	< 8	< 6
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255										< 5	< 6	< 8	< 8	< 6
Bromodichloromethane	75-27-4	ug/kg	540										< 5	< 6	< 8	< 8	< 6
Bromoform	75-25-2	ug/kg											< 5	< 6	< 8	< 8	< 6
Bromomethane	74-83-9	ug/kg	235										< 5	< 6	< 8	< 8	< 6
Carbon Tetrachloride	56-23-5	ug/kg	2980										< 5	< 6	< 8	< 8	< 6
Chlorobenzene	108-90-7	ug/kg	13100										< 5	< 6	< 8	< 8	< 6
Chloroethane	75-00-3	ug/kg											< 5	< 6	< 8	< 8	< 6
Chloroform	67-66-3	ug/kg	1190										< 5	< 6	< 8	< 8	< 6
Chloromethane	74-87-3	ug/kg	10400										< 5	< 6	< 8	< 8	< 6
cis-1,2-Dichloroethene	156-59-2	ug/kg											< 5	< 6	< 8	< 8	< 6
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg											< 5	< 6	< 8	< 8	< 6
Dibromochloromethane	124-48-1	ug/kg	2050										< 5	< 6	< 8	< 8	< 6
Ethylbenzene	100-41-4	ug/kg	5160										< 5	< 6	< 8	< 8	< 6
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050										< 5	< 6	< 8	< 8	< 6
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920										< 5	< 6	< 8	< 8	< 6
Toluene	108-88-3	ug/kg	200000										< 5	< 6	< 8	< 8	< 6
trans-1,2-Dichloroethene	156-60-5	ug/kg											< 5	< 6	< 8	< 8	< 6
Trans-1,3-Dichloropropene	10061-02-6	ug/kg											< 5	< 6	< 8	< 8	< 6
Trichloroethene	79-01-6	ug/kg	12400										< 5	< 6	< 8	< 8	< 6
Trichlorofluoromethane	75-69-4	ug/kg	16400										< 5	< 6	< 8	< 8	< 6
Vinyl Chloride	75-01-4	ug/kg	646										< 5	< 6	< 8	< 8	< 6
Xylenes (total)	1330-20-7	ug/kg											< 5	< 6	< 8	< 8	< 6

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SO-R2-G-11-1	SO-R2-G-11-2	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1	SO-R2-H-11-2	SO-R2-H-13-1	SO-R2-H-13-2	SO-R2-H-9-1	SO-R2-I-13-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-9-1
			Sample Date	11/11/2013	11/11/2013	11/13/2013	11/14/2013	11/12/2013	11/11/2013	11/11/2013	11/11/2013	11/14/2013	11/11/2013	11/11/2013	11/13/2013	11/13/2013	11/15/2013
			Sample Depths	0.0-0.6 ft	0.0-0.7 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft	0.3-0.8 ft	0.3-0.8 ft	0.0-0.5 ft	0.1-0.6 ft	0.5-1.0 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.5-1.0 ft
			Sample ID	D-R2-G-11-1_201311	D-R2-G-11-2_201311	D-R2-G-5-1_201311	D-R2-G-7-1_201311	D-R2-H-10-1_201311	D-R2-H-11-2_201311	D-R2-H-13-1_201311	D-R2-H-13-2_201311	D-R2-H-9-1_201311	D-R2-I-13-1_201311	D-R2-I-13-2_201311	D-R2-J-5-1_201311	D-R2-J-5-2_201311	D-R2-K-9-1_201311
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Dioxins and Furans																	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg		29.2	21.2				0.778	22.1	7.37		8.77				
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg		1120	237				12.4	260	2370		2420				
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg		18.1	19.3				0.693	20.8	5.71		5.57				
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg		48.8	28				0.995	30.6	23.6		23.8				
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg		1.7	2.07				0.112	1.95	0.773		0.548				
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg		1.93	4.55				0.212	4.19	1.48		1.23				
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg		1.11	0.811				0.129	0.943	0.425		0.437				
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg		2.82	4.32				0.187	9.28	1.41		1.35				
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg		2.43	3.88				0.13	2.14	0.725		0.704				
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg		0.73	1.22				0.114	1.09	0.48		0.96				
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg		1.84	2.09				0.15	2.57	0.568		0.607				
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg		1.4	3.51				0.35	7.79	1.44		2.25				
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg		0.843	0.779				0.235	0.807	0.346		0.301				
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg		2.53	4.73				0.31	5.18	1.69		1.32				
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg		1.66	4.76				0.226	5.36	1.82		1.5				
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg		< 1.09	6.88				0.235	5.01	1.33		1.24				
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15	0.543	0.35				0.124	0.408	0.137		0.082				
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg		3.91	5.87				0.13	5.57	2.16		2.27				
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
1,3,5-Trichlorobenzene	108-70-3	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg															
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg															
1,3-Dinitrobenzene	99-65-0	ug/kg	655			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
1,4-Dinitrobenzene	100-25-4	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
1-Nitronaphthalene	86-57-7	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	60.9														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280														
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
2-Nitrotoluene	88-72-2	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
3-Nitrotoluene	99-08-1	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
4-Nitrotoluene	99-99-0	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
Nitrobenzene	98-95-3	ug/kg	1310														
Nitrocellulose	9004-70-0	ug/kg				< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
Nitroglycerin	55-63-0	ug/kg	65000			< 6700	< 6900	< 6700				< 6900		< 7500	< 7000	5100	< 7700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000			< 840	< 860	< 830				< 870		< 940	< 880	< 820	< 970
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000			< 6700	< 6900	< 6700				< 6900		< 7500	< 7000	< 6600	< 7700
RDX (Cyclonite)	121-82-4	ug/kg	98000			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
Tetryl	479-45-8	ug/kg	25000			< 340	< 340	< 330				< 350		< 380	< 350	< 330	< 390
GenChem																	
pH	pH	su															
Grain Size																	
Clay	Clay	%															
Gravel	Gravel	%															
Sand	Sand	%															
Silt	Silt	%															
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%															
Sieve Size #10 - Percent Finer	SIEVE_#010	%															
Sieve Size #100 - Percent Finer	SIEVE_#100	%															
Sieve Size #16 - Percent Finer	SIEVE_#016	%															
Sieve Size #20 - Percent Finer	SIEVE_#020	%															
Sieve Size #200 - Percent Finer	SIEVE_#200	%															
Sieve Size #30 - Percent Finer	SIEVE_#030	%															
Sieve Size #4 - Percent Finer	SIEVE_#004	%															
Sieve Size #40 - Percent Finer	SIEVE_#040	%															
Sieve Size #50 - Percent Finer	SIEVE_#050	%															
Sieve Size #60 - Percent Finer	SIEVE_#060	%															
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%															
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%															
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%															
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%															
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%															
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%															
Sieve Size #19 - Percent Finer	SIEVE_#019	%															
Sieve Size #37 - Percent Finer	SIEVE_#037	%															
Sieve Size #75 - Percent Finer	SIEVE_#075	%															
Sieve, 1 micron, % passing	SIEVE_1U	%															
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%															
Sieve, 150 micron, % passing	SIEVE_150U	%															
Sieve, 2 micron, % passing	SIEVE_2U	%															
Sieve, 20 micron, % passing	SIEVE_20U	%															
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%															
Sieve, 300 micron, % passing	SIEVE_300U	%															

			Location	SO-R2-G-11-1	SO-R2-G-11-2	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1	SO-R2-H-11-2	SO-R2-H-13-1	SO-R2-H-13-2	SO-R2-H-9-1	SO-R2-I-13-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-9-1
			Sample Date	11/11/2013	11/11/2013	11/13/2013	11/14/2013	11/12/2013	11/11/2013	11/11/2013	11/11/2013	11/14/2013	11/11/2013	11/11/2013	11/13/2013	11/13/2013	11/15/2013
			Sample Depths	0.0-0.6 ft	0.0-0.7 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft	0.3-0.8 ft	0.3-0.8 ft	0.0-0.5 ft	0.1-0.6 ft	0.5-1.0 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.5-1.0 ft
			Sample ID	D-R2-G-11-1_201311	D-R2-G-11-2_201311	D-R2-G-5-1_201311	D-R2-G-7-1_201311	D-R2-H-10-1_201311	D-R2-H-11-2_201311	D-R2-H-13-1_201311	D-R2-H-13-2_201311	D-R2-H-9-1_201311	D-R2-I-13-1_201311	D-R2-I-13-2_201311	D-R2-J-5-1_201311	D-R2-J-5-2_201311	D-R2-K-9-1_201311
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%															
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%															
Sieve, 5 micron, % passing	SIEVE_5U	%															
Sieve, 50 micron, % passing	SIEVE_50U	%															
Sieve, 600 micron, % passing	SIEVE_600U	%															
Sieve, 64 micron, % passing	SIEVE_64U	%															
Sieve, 75 micron, % passing	SIEVE_75U	%															
Metals																	
Aluminum	7429-90-5	mg/kg	50			19700	19900	15800				14800		4320	14800	10600	19500
Antimony	7440-36-0	mg/kg	0.27			< 2.17	< 2.25	< 2.18				< 2.26		1.68	< 2.3	< 2.2	< 2.57
Arsenic	7440-38-2	mg/kg	9.9			2.83	5.67	10.7				5.68		16	14.3	3.47	26.8
Barium	7440-39-3	mg/kg	283			70.1	83.6	86				65		22.8	129	90.6	126
Beryllium	7440-41-7	mg/kg	10			0.764	0.892	0.732				0.789		< 0.62	0.591	0.4	0.561
Cadmium	7440-43-9	mg/kg	0.36			0.269	< 0.563	< 1.09				< 0.566		< 0.62	0.709	0.515	< 3.22
Calcium	7440-70-2	mg/kg				1220	773	816				1140		225	12800	18900	382
Chromium	7440-47-3	mg/kg	0.4			15.9	18.1	20.7				15.7		9.05	20.4	12.7	19.6
Cobalt	7440-48-4	mg/kg	0.14			6.84	10	7.49				6.54		1.13	5.63	3.55	3.93
Copper	7440-50-8	mg/kg	5.4			22.4	27.4	20.7				26.6		16.3	54.5	34	12.5
Iron	7439-89-6	mg/kg				22400	31600	30000				31700		15500	27900	18300	40400
Lead	7439-92-1	mg/kg	11			16.1	9.76	18.5				21.7		147	179	42.6	20
Magnesium	7439-95-4	mg/kg				2200	2780	2280				2000		231	2070	2960	1960
Manganese	7439-96-5	mg/kg	220			310	660	527				484		28.5	455	169	609
Mercury	7439-97-6	mg/kg	0.1			0.036	0.0478	0.031				0.13		0.331	25	0.176	0.0273
Nickel	7440-02-0	mg/kg	38			10.3	16.7	12.8				11.3		5.16	11.3	6.62	10.9
Potassium	7440-09-7	mg/kg				682	835	988				636		279	1020	773	888
Selenium	7782-49-2	mg/kg	0.52			< 2.17	< 2.25	< 2.18				1.54		< 2.48	< 2.3	< 2.2	1.17
Silver	7440-22-4	mg/kg	2			< 0.542	< 0.563	0.885				< 0.566		< 0.62	< 0.575	< 0.549	< 0.644
Sodium	7440-23-5	mg/kg				151	81.8	69.3				78.9		< 124	117	116	78.8
Thallium	7440-28-0	mg/kg	1			< 3.25	0.764	< 3.26				< 3.4		< 3.72	< 3.45	< 3.29	< 3.86
Vanadium	7440-62-2	mg/kg	2			35.5	40.9	46				36.3		27.6	32.5	23.2	37.2
Zinc	7440-66-6	mg/kg	8.5			72.8	53	94.2				84.7		104	202	95.9	52.8
Moisture																	
Percent Solids	SOLID	percent															
Percent Moisture	MOIST	%		11.9	17.2	10.5	13	9.9	7.8	24.8	10	13.4	24.6	20.2	14.8	8.9	22.3
PCBs																	
Aroclor-1016	12674-11-2	ug/kg	371														
Aroclor-1221	11104-28-2	ug/kg	371														
Aroclor-1232	11141-16-5	ug/kg	371														
Aroclor-1242	53469-21-9	ug/kg	371														
Aroclor-1248	12672-29-6	ug/kg	371														
Aroclor-1254	11097-69-1	ug/kg	371														
Aroclor-1260	11096-82-5	ug/kg	371														
Polychlorinated biphenyls	1336-36-3	ug/kg	371														
Pest/PCBs																	
4-4-DDD	72-54-8	ug/kg															
4-4-DDE	72-55-9	ug/kg															
4-4-DDT	50-29-3	ug/kg															
a-BHC	319-84-6	ug/kg															
Aldrin	309-00-2	ug/kg															
alpha-Chlordane	5103-71-9	ug/kg															
b-BHC	319-85-7	ug/kg															
d-BHC	319-86-8	ug/kg															
Dieldrin	60-57-1	ug/kg															
Endosulfan I	959-98-8	ug/kg															
Endosulfan II	33213-65-9	ug/kg															
Endosulfan Sulfate	1031-07-8	ug/kg															
Endrin	72-20-8	ug/kg															
Endrin Aldehyde	7421-93-4	ug/kg															
Endrin Ketone	53494-70-5	ug/kg															
gamma-Chlordane	5103-74-2	ug/kg															
Heptachlor	76-44-8	ug/kg															
Heptachlor Epoxide	1024-57-3	ug/kg															
Lindane	58-89-9	ug/kg															
Methoxychlor	72-43-5	ug/kg															
Toxaphene	8001-35-2	ug/kg															
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000														
1,2-Dichlorobenzene	95-50-1	ug/kg	2960														
1,2-Diphenylhydrazine	122-66-7	ug/kg															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376														
1,3-Dichlorobenzene	541-73-1	ug/kg	37700														
1,4-Dichlorobenzene	106-46-7	ug/kg	546														
2,4,5-Trichlorophenol	95-95-4	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2,4,6-Trichlorophenol	88-06-2	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg															
2,4-Dichlorophenol	120-83-2	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2,4-Dimethylphenol	105-67-9	ug/kg	10			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2,4-Dinitrophenol	51-28-5	ug/kg	60.9			< 11000	< 1100	< 5500				< 1100		< 12000	< 12000	< 11000	< 1300

			Location	SO-R2-G-11-1	SO-R2-G-11-2	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1	SO-R2-H-11-2	SO-R2-H-13-1	SO-R2-H-13-2	SO-R2-H-9-1	SO-R2-I-13-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-9-1
			Sample Date	11/11/2013	11/11/2013	11/13/2013	11/14/2013	11/12/2013	11/11/2013	11/11/2013	11/11/2013	11/14/2013	11/11/2013	11/11/2013	11/13/2013	11/13/2013	11/15/2013
			Sample Depths	0.0-0.6 ft	0.0-0.7 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft	0.3-0.8 ft	0.3-0.8 ft	0.0-0.5 ft	0.1-0.6 ft	0.5-1.0 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.5-1.0 ft
			Sample ID	D-R2-G-11-1_201311	D-R2-G-11-2_201311	D-R2-G-5-1_201311	D-R2-G-7-1_201311	D-R2-H-10-1_201311	D-R2-H-11-2_201311	D-R2-H-13-1_201311	D-R2-H-13-2_201311	D-R2-H-9-1_201311	D-R2-I-13-1_201311	D-R2-I-13-2_201311	D-R2-J-5-1_201311	D-R2-J-5-2_201311	D-R2-K-9-1_201311
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
2,4-Dinitrotoluene	121-14-2	ug/kg	1280			< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2-Chloronaphthalene	91-58-7	ug/kg				< 370	< 38	< 180				< 38		< 410	< 390	< 360	< 42
2-Chlorophenol	95-57-8	ug/kg	243			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2-Methylnaphthalene	91-57-6	ug/kg	3240			< 190	< 19	< 93				< 19		< 210	44	< 190	< 22
2-Methylphenol	95-48-7	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2-Nitroaniline	88-74-4	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2-Nitrophenol	88-75-5	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
2-Nitrotoluene	88-72-2	ug/kg															
3,3-Dichlorobenzidine	91-94-1	ug/kg	646			< 3700	< 380	< 1800				< 380		< 4200	< 3900	< 3700	< 430
3-Nitrotoluene	99-08-1	ug/kg				< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144			< 5600	< 570	< 2700				< 570		< 6200	< 5900	< 5500	< 640
4-Bromophenyl-phenylether	101-55-3	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
4-Chloro-3-methylphenol	59-50-7	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
4-Chlorophenyl-phenylether	7005-72-3	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
4-Nitrophenol	100-02-7	ug/kg	7000			< 5600	< 570	< 2700				< 570		< 6200	< 5900	< 5500	< 640
4-Nitrotoluene	99-99-0	ug/kg															
Acenaphthene	83-32-9	ug/kg	20000			< 190	< 19	< 93				< 19		< 210	47	< 190	< 22
Acenaphthylene	208-96-8	ug/kg	682000			60	< 19	53				< 19		< 210	200	< 190	< 22
Anthracene	120-12-7	ug/kg	1480000			< 190	< 19	52				< 19		59	270	< 190	< 22
Benzidine	92-87-5	ug/kg	1310														
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100														
Benzo[a]anthracene	56-55-3	ug/kg	5210			100	< 19	160				< 19		98	1400	60	< 22
Benzo[a]pyrene	50-32-8	ug/kg	1520			130	< 19	170				6		97	2000	85	13
Benzo[b]fluoranthene	205-99-2	ug/kg	59800			210	< 19	270				6		150	2700	130	14
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000			96	< 19	110				5		100	1300	72	9
Benzo[k]fluoranthene	207-08-9	ug/kg	148000			85	< 19	110				5		< 210	1200	59	< 22
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
Bis(2-Chloroethyl)ether	111-44-4	ug/kg				< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925			< 1900	< 190	< 930				< 190		< 2100	< 2000	< 1900	92
Butylbenzylphthalate	85-68-7	ug/kg	239			< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
Chrysene	218-01-9	ug/kg	4730			150	< 19	240				5		150	1600	82	15
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400			< 190	< 19	47				< 19		< 210	270	< 190	< 22
Diethylphthalate	84-66-2	ug/kg	24800			< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
Dimethylphthalate	131-11-3	ug/kg	734000			< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
Di-n-butylphthalate	84-74-2	ug/kg	150			< 1900	< 190	< 910				< 190		< 2100	970	< 1800	< 210
Di-n-octylphthalate	117-84-0	ug/kg	7090			< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
Fluoranthene	206-44-0	ug/kg	122000			280	< 19	340				9		250	2600	82	10
Fluorene	86-73-7	ug/kg	122000			< 190	< 19	< 93				< 19		< 210	53	< 190	< 22
Hexachlorobenzene	118-74-1	ug/kg	199			< 190	< 19	< 93				< 19		< 210	< 200	< 190	< 22
Hexachlorobutadiene	87-68-3	ug/kg	39.8			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
Hexachlorocyclopentadiene	77-47-4	ug/kg				< 5600	< 570	< 2700				< 570		< 6200	< 5900	< 5500	< 640
Hexachloroethane	67-72-1	ug/kg	596			< 1900	< 190	< 910				< 190		< 2100	< 2000	< 1800	< 210
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000			72	< 19	120				4		75	1100	63	10
Isophorone	78-59-1	ug/kg	139000			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
Naphthalene	91-20-3	ug/kg	99.4			< 190	< 19	22				< 19		90	96	< 190	< 22
Nitrobenzene	98-95-3	ug/kg	1310														
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321														
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
N-Nitrosodiphenylamine	86-30-6	ug/kg	545			< 370	< 38	< 180				< 38		< 420	< 390	1500	< 43
Pentachlorophenol	87-86-5	ug/kg	2100			< 1900	< 190	< 930				< 190		< 2100	< 2000	< 1900	< 220
Phenanthrene	85-01-8	ug/kg	45700			140	< 19	180				6		190	670	< 190	11
Phenol	108-95-2	ug/kg	30000			< 370	< 38	< 180				< 38		< 420	< 390	< 370	< 43
Pyrene	129-00-0	ug/kg	78500			280	< 19	330				9		230	2600	110	10
Total Organic Carbon																	
Total Organic Carbon	TOC	mg/kg															
TPH																	
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg															
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg															
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg															
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg															
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg															
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg															
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg															
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg															
Total Aliphatics	TOTALIPH	mg/kg															
Total Aromatics	TOTAROM	mg/kg															
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg															
Amyl alcohol	71-41-0	ug/kg															
Di-N-Propyl Ether	111-43-3	ug/kg															
Ethanol	64-17-5	ug/kg															
Ethyl ether	60-29-7	ug/kg															
Methanol	67-56-1	ug/kg															
N-butyl ether	142-96-1	ug/kg															
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7

			Location	SO-R2-G-11-1	SO-R2-G-11-2	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1	SO-R2-H-11-2	SO-R2-H-13-1	SO-R2-H-13-2	SO-R2-H-9-1	SO-R2-I-13-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-9-1
			Sample Date	11/11/2013	11/11/2013	11/13/2013	11/14/2013	11/12/2013	11/11/2013	11/11/2013	11/11/2013	11/14/2013	11/11/2013	11/11/2013	11/13/2013	11/13/2013	11/15/2013
			Sample Depths	0.0-0.6 ft	0.0-0.7 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft	0.3-0.8 ft	0.3-0.8 ft	0.0-0.5 ft	0.1-0.6 ft	0.5-1.0 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.5-1.0 ft
			Sample ID	D-R2-G-11-1_201311	D-R2-G-11-2_201311	D-R2-G-5-1_201311	D-R2-G-7-1_201311	D-R2-H-10-1_201311	D-R2-H-11-2_201311	D-R2-H-13-1_201311	D-R2-H-13-2_201311	D-R2-H-9-1_201311	D-R2-I-13-1_201311	D-R2-I-13-2_201311	D-R2-J-5-1_201311	D-R2-J-5-2_201311	D-R2-K-9-1_201311
			Parent ID														
			Note														
Chemical	**CAS Number**	**Units**	**Soil ESB**														
1,1,2-Trichloroethane	79-00-5	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,1-Dichloroethane	75-34-3	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,1-Dichloroethene	75-35-4	ug/kg	8280			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,2-Dichlorobenzene	95-50-1	ug/kg	2960			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,2-Dichloroethane	107-06-2	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,2-Dichloropropane	78-87-5	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,3-Dichlorobenzene	541-73-1	ug/kg	37700			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
1,4-Dichlorobenzene	106-46-7	ug/kg	546			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
2-Chloroethylvinylether	110-75-8	ug/kg															
Acetonitrile	75-05-8	ug/kg															
Acrolein	107-02-8	ug/kg	5270														
Acrylonitrile	107-13-1	ug/kg	23.9														
Benzene	71-43-2	ug/kg	255			< 6	< 6	< 6				< 6		< 10	1	< 6	< 7
Bromodichloromethane	75-27-4	ug/kg	540			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Bromoform	75-25-2	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Bromomethane	74-83-9	ug/kg	235			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Carbon Tetrachloride	56-23-5	ug/kg	2980			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Chlorobenzene	108-90-7	ug/kg	13100			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Chloroethane	75-00-3	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Chloroform	67-66-3	ug/kg	1190			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Chloromethane	74-87-3	ug/kg	10400			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
cis-1,2-Dichloroethene	156-59-2	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
cis-1,2-Dichloropropene	6923-20-2	ug/kg															
Cis-1,3-Dichloropropene	10061-01-5	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Dibromochloromethane	124-48-1	ug/kg	2050			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Ethylbenzene	100-41-4	ug/kg	5160			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Hexachlorobutadiene	87-68-3	ug/kg	39.8														
Methylene Chloride	75-09-2	ug/kg	4050			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Naphthalene	91-20-3	ug/kg	99.4														
Tetrachloroethene	127-18-4	ug/kg	9920			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Toluene	108-88-3	ug/kg	200000			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
trans-1,2-Dichloroethene	156-60-5	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Trans-1,3-Dichloropropene	10061-02-6	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Trichloroethene	79-01-6	ug/kg	12400			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Trichlorofluoromethane	75-69-4	ug/kg	16400			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Vinyl Chloride	75-01-4	ug/kg	646			< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7
Xylenes (total)	1330-20-7	ug/kg				< 6	< 6	< 6				< 6		< 10	< 7	< 6	< 7

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

			Location	SO-R2-N-4-1	SO-R2-O-8-1	SO-R2-P-4-1	SO-R2-Q-5-1	SO-R2-Q-6-1	SO-R2-Q-6--2	SO-R2-Q-6--3	SO-R2-Q-6--4	SO-R2-R-4-1	SO-R2-R-7-1
			Sample Date	11/12/2013	11/15/2013	11/13/2013	11/13/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013
			Sample Depths	0.2-0.7 ft	0.0-0.5 ft	0.3-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.2-0.7 ft	0.2-0.7 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	D-R2-N-4-1_201311	D-R2-O-8-1_201311	D-R2-P-4-1_201311	D-R2-Q-5-1_201311	D-R2-Q-6-1_201311	D-R2-Q-6--2_201311	D-R2-Q-6--3_201311	D-R2-Q-6--4_201311	D-R2-R-4-1_201311	D-R2-R-7-1_201311
			Parent ID										
			Note										
Chemical	**CAS Number**	**Units**	**Soil ESB**										
Dioxins and Furans													
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	ng/kg						0.611	1.52	1.75	3.53		
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	ng/kg						2450	2950	4720	567		
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	ng/kg						0.354	0.991	1.11	2.45		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	ng/kg						13.9	15.3	24.8	7.33		
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	ng/kg						0.0662	0.148	0.19	0.267		
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	ng/kg						0.0977	0.294	0.36	0.772		
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	ng/kg						0.128	0.146	0.245	0.244		
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	ng/kg						0.0831	0.252	0.279	0.528		
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	ng/kg						0.101	0.226	0.271	0.383		
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	ng/kg						0.052	0.117	0.131	0.203		
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	ng/kg						0.151	0.254	0.351	0.351		
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	ng/kg						0.0991	0.396	0.451	1.31		
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	ng/kg						0.0642	0.159	0.154	< 5.61		
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	ng/kg						0.0774	0.262	0.317	0.612		
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	ng/kg						0.123	0.301	0.419	0.841		
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	ng/kg						0.0762	0.219	0.374	0.803		
Dibenzo-p-Dioxins (PCDD) 2,3,7,8 TCDD	1746-01-6	ng/kg	3.15					0.0388	< 1.09	0.0565	0.0526		
TEQ WHO2005 ND=0	ARC-TEQWHO050.0	ng/kg						0.997	1.43	1.95	0.567		
Explosives													
1,2-Dinitrobenzene	528-29-0	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
1,3,5-Trichlorobenzene	108-70-3	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376	< 330	< 340	< 390	< 350					< 330	< 350
1,3-Benzenediamine, 2-methyl	59229-75-3	ug/kg											
1,3-Benzenediamine, 4-methyl	6629-29-4	ug/kg											
1,3-Dinitrobenzene	99-65-0	ug/kg	655	< 330	< 340	< 390	< 350					< 330	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
1-Nitronaphthalene	86-57-7	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
2,4,6-Trinitrotoluene	118-96-7	ug/kg	6000	< 330	< 340	< 390	< 350					< 330	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	60.9										
2,4-Dinitrotoluene	121-14-2	ug/kg	1280										
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8										
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	80000	< 330	< 340	< 390	< 350					< 330	< 350
2-Nitrotoluene	88-72-2	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
3-Nitrotoluene	99-08-1	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	80000	< 330	< 340	< 390	< 350					< 330	< 350
4-Nitrotoluene	99-99-0	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
Nitrobenzene	98-95-3	ug/kg	1310										
Nitrocellulose	9004-70-0	ug/kg		< 330	< 340	< 390	< 350					< 330	< 350
Nitroglycerin	55-63-0	ug/kg	65000	< 6600	< 6700	< 7700	< 7000					< 6600	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	600000	< 820	< 840	< 970	< 880					< 830	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	65000	< 6600	< 6700	< 7700	< 7000					< 6600	< 7100
RDX (Cyclonite)	121-82-4	ug/kg	98000	< 330	< 340	< 390	< 350					< 330	< 350
Tetryl	479-45-8	ug/kg	25000	< 330	< 340	< 390	< 350					< 330	< 350
GenChem													
pH	pH	su											
Grain Size													
Clay	Clay	%											
Gravel	Gravel	%											
Sand	Sand	%											
Silt	Silt	%											
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%											
Sieve Size #10 - Percent Finer	SIEVE_#010	%											
Sieve Size #100 - Percent Finer	SIEVE_#100	%											
Sieve Size #16 - Percent Finer	SIEVE_#016	%											
Sieve Size #20 - Percent Finer	SIEVE_#020	%											
Sieve Size #200 - Percent Finer	SIEVE_#200	%											
Sieve Size #30 - Percent Finer	SIEVE_#030	%											
Sieve Size #4 - Percent Finer	SIEVE_#004	%											
Sieve Size #40 - Percent Finer	SIEVE_#040	%											
Sieve Size #50 - Percent Finer	SIEVE_#050	%											
Sieve Size #60 - Percent Finer	SIEVE_#060	%											
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%											
Sieve Size 1 inch - Percent Finer	SIEVE_1 inch	%											
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%											
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%											
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%											
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%											
Sieve Size #19 - Percent Finer	SIEVE_#019	%											
Sieve Size #37 - Percent Finer	SIEVE_#037	%											
Sieve Size #75 - Percent Finer	SIEVE_#075	%											
Sieve, 1 micron, % passing	SIEVE_1U	%											
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%											
Sieve, 150 micron, % passing	SIEVE_150U	%											
Sieve, 2 micron, % passing	SIEVE_2U	%											
Sieve, 20 micron, % passing	SIEVE_20U	%											
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%											
Sieve, 300 micron, % passing	SIEVE_300U	%											

			Location	SO-R2-N-4-1	SO-R2-O-8-1	SO-R2-P-4-1	SO-R2-Q-5-1	SO-R2-Q-6-1	SO-R2-Q-6--2	SO-R2-Q-6--3	SO-R2-Q-6--4	SO-R2-R-4-1	SO-R2-R-7-1
			Sample Date	11/12/2013	11/15/2013	11/13/2013	11/13/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013
			Sample Depths	0.2-0.7 ft	0.0-0.5 ft	0.3-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.2-0.7 ft	0.2-0.7 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	D-R2-N-4-1_201311	D-R2-O-8-1_201311	D-R2-P-4-1_201311	D-R2-Q-5-1_201311	D-R2-Q-6-1_201311	D-R2-Q-6--2_201311	D-R2-Q-6--3_201311	D-R2-Q-6--4_201311	D-R2-R-4-1_201311	D-R2-R-7-1_201311
			Parent ID										
			Note										
Chemical	**CAS Number**	**Units**	**Soil ESB**										
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%											
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%											
Sieve, 5 micron, % passing	SIEVE_5U	%											
Sieve, 50 micron, % passing	SIEVE_50U	%											
Sieve, 600 micron, % passing	SIEVE_600U	%											
Sieve, 64 micron, % passing	SIEVE_64U	%											
Sieve, 75 micron, % passing	SIEVE_75U	%											
Metals													
Aluminum	7429-90-5	mg/kg	50	16800	9800	22300	20900					17000	28200
Antimony	7440-36-0	mg/kg	0.27	< 2.15	< 2.18	< 2.56	< 2.31					< 2.18	< 2.34
Arsenic	7440-38-2	mg/kg	9.9	5.81	2.43	9.65	2.97					185	9.86
Barium	7440-39-3	mg/kg	283	62.2	47.2	65.7	47.3					36.6	96.2
Beryllium	7440-41-7	mg/kg	10	0.638	0.754	0.898	0.958					0.636	0.833
Cadmium	7440-43-9	mg/kg	0.36	< 0.536	< 2.72	0.455	0.346					< 0.545	< 0.585
Calcium	7440-70-2	mg/kg		1040	1430	473	718					704	390
Chromium	7440-47-3	mg/kg	0.4	15.9	13.2	18.2	16.4					15.8	28.4
Cobalt	7440-48-4	mg/kg	0.14	6.34	7.25	5.63	3.52					5.38	6.46
Copper	7440-50-8	mg/kg	5.4	12.6	17.3	16	11.4					15.4	16.1
Iron	7439-89-6	mg/kg		27900	26800	27900	26700					25900	34100
Lead	7439-92-1	mg/kg	11	9.65	5.31	24.3	16.6					10.6	15.4
Magnesium	7439-95-4	mg/kg		2310	1580	1810	1450					2220	3050
Manganese	7439-96-5	mg/kg	220	342	359	934	378					250	202
Mercury	7439-97-6	mg/kg	0.1	0.0168	< 0.108	0.0862	0.0708					0.0247	0.0236
Nickel	7440-02-0	mg/kg	38	9.21	7.66	9.45	7.86					8.7	13.1
Potassium	7440-09-7	mg/kg		563	646	585	366					780	1010
Selenium	7782-49-2	mg/kg	0.52	< 2.15	< 2.18	1.3	< 2.31					< 2.18	< 2.34
Silver	7440-22-4	mg/kg	2	0.541	< 0.544	< 0.639	< 0.578					0.635	0.758
Sodium	7440-23-5	mg/kg		82.3	102	43	46.6					68.7	32.5
Thallium	7440-28-0	mg/kg	1	< 3.22	< 3.27	< 3.83	< 3.47					< 3.27	< 3.51
Vanadium	7440-62-2	mg/kg	2	32.4	30.5	32.3	31.9					35	54.1
Zinc	7440-66-6	mg/kg	8.5	122	171	102	87.4					111	70.7
Moisture													
Percent Solids	SOLID	percent											
Percent Moisture	MOIST	%		8.6	10.8	22.5	14.4	10.7	8.7	10	12.4	9.2	15.4
PCBs													
Aroclor-1016	12674-11-2	ug/kg	371										
Aroclor-1221	11104-28-2	ug/kg	371										
Aroclor-1232	11141-16-5	ug/kg	371										
Aroclor-1242	53469-21-9	ug/kg	371										
Aroclor-1248	12672-29-6	ug/kg	371										
Aroclor-1254	11097-69-1	ug/kg	371										
Aroclor-1260	11096-82-5	ug/kg	371										
Polychlorinated biphenyls	1336-36-3	ug/kg	371										
Pest/PCBs													
4-4-DDD	72-54-8	ug/kg											
4-4-DDE	72-55-9	ug/kg											
4-4-DDT	50-29-3	ug/kg											
a-BHC	319-84-6	ug/kg											
Aldrin	309-00-2	ug/kg											
alpha-Chlordane	5103-71-9	ug/kg											
b-BHC	319-85-7	ug/kg											
d-BHC	319-86-8	ug/kg											
Dieldrin	60-57-1	ug/kg											
Endosulfan I	959-98-8	ug/kg											
Endosulfan II	33213-65-9	ug/kg											
Endosulfan Sulfate	1031-07-8	ug/kg											
Endrin	72-20-8	ug/kg											
Endrin Aldehyde	7421-93-4	ug/kg											
Endrin Ketone	53494-70-5	ug/kg											
gamma-Chlordane	5103-74-2	ug/kg											
Heptachlor	76-44-8	ug/kg											
Heptachlor Epoxide	1024-57-3	ug/kg											
Lindane	58-89-9	ug/kg											
Methoxychlor	72-43-5	ug/kg											
Toxaphene	8001-35-2	ug/kg											
SVOCs													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000										
1,2-Dichlorobenzene	95-50-1	ug/kg	2960										
1,2-Diphenylhydrazine	122-66-7	ug/kg											
1,3,5-Trinitrobenzene	99-35-4	ug/kg	376										
1,3-Dichlorobenzene	541-73-1	ug/kg	37700										
1,4-Dichlorobenzene	106-46-7	ug/kg	546										
2,4,5-Trichlorophenol	95-95-4	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2,4,6-Trichlorophenol	88-06-2	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2,4/2,6-DINITROTOLUENE_E&E	24DNT&26DNT	ug/kg											
2,4-Dichlorophenol	120-83-2	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	10	< 36	< 180	< 430	< 39					< 180	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	60.9	< 1100	< 5500	< 13000	< 1200					< 5500	< 1200

			Location	SO-R2-N-4-1	SO-R2-O-8-1	SO-R2-P-4-1	SO-R2-Q-5-1	SO-R2-Q-6-1	SO-R2-Q-6--2	SO-R2-Q-6--3	SO-R2-Q-6--4	SO-R2-R-4-1	SO-R2-R-7-1
			Sample Date	11/12/2013	11/15/2013	11/13/2013	11/13/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013
			Sample Depths	0.2-0.7 ft	0.0-0.5 ft	0.3-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.2-0.7 ft	0.2-0.7 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	D-R2-N-4-1_201311	D-R2-O-8-1_201311	D-R2-P-4-1_201311	D-R2-Q-5-1_201311	D-R2-Q-6-1_201311	D-R2-Q-6--2_201311	D-R2-Q-6--3_201311	D-R2-Q-6--4_201311	D-R2-R-4-1_201311	D-R2-R-7-1_201311
			Parent ID										
			Note										
Chemical	**CAS Number**	**Units**	**Soil ESB**										
2,4-Dinitrotoluene	121-14-2	ug/kg	1280	< 180	< 920	< 2200	< 190					< 920	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	32.8	< 36	< 180	< 430	< 39					< 180	< 39
2-Chloronaphthalene	91-58-7	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2-Chlorophenol	95-57-8	ug/kg	243	< 36	< 180	< 430	< 39					< 180	< 39
2-Methylnaphthalene	91-57-6	ug/kg	3240	< 18	< 94	< 220	< 20					< 94	< 20
2-Methylphenol	95-48-7	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2-Nitroaniline	88-74-4	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2-Nitrophenol	88-75-5	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
2-Nitrotoluene	88-72-2	ug/kg											
3,3-Dichlorobenzidine	91-94-1	ug/kg	646	< 360	< 1800	< 4300	< 390					< 1800	< 390
3-Nitrotoluene	99-08-1	ug/kg		< 180	< 920	< 2200	< 190					< 920	< 200
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	144	< 540	< 2800	< 6500	< 580					< 2800	< 590
4-Bromophenyl-phenylether	101-55-3	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
4-Chloro-3-methylphenol	59-50-7	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
4-Chlorophenyl-phenylether	7005-72-3	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
4-Nitrophenol	100-02-7	ug/kg	7000	< 540	< 2800	< 6500	< 580					< 2800	< 590
4-Nitrotoluene	99-99-0	ug/kg											
Acenaphthene	83-32-9	ug/kg	20000	< 18	< 94	< 220	< 20					< 94	< 20
Acenaphthylene	208-96-8	ug/kg	682000	< 18	< 94	< 220	< 20					< 94	< 20
Anthracene	120-12-7	ug/kg	1480000	< 18	< 94	< 220	< 20					< 94	< 20
Benzidine	92-87-5	ug/kg	1310										
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	1100										
Benzo[a]anthracene	56-55-3	ug/kg	5210	< 18	< 94	< 220	7					< 94	< 20
Benzo[a]pyrene	50-32-8	ug/kg	1520	6	< 94	< 220	8					18	5
Benzo[b]fluoranthene	205-99-2	ug/kg	59800	4	< 94	50	15					< 94	5
Benzo[g,h,i]perylene	191-24-2	ug/kg	119000	7	< 94	< 220	8					< 94	5
Benzo[k]fluoranthene	207-08-9	ug/kg	148000	< 18	< 94	< 220	6					< 94	4
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg		< 36	< 180	< 430	< 39					< 180	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	19900	< 36	< 180	< 430	< 39					< 180	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	925	< 180	< 940	< 2200	< 200					< 940	< 200
Butylbenzylphthalate	85-68-7	ug/kg	239	< 180	< 920	< 2200	< 190					< 920	< 200
Chrysene	218-01-9	ug/kg	4730	< 18	< 94	59	13					< 94	< 20
Dibenzo[a,h]anthracene	53-70-3	ug/kg	18400	< 18	< 94	< 220	< 20					< 94	< 20
Diethylphthalate	84-66-2	ug/kg	24800	< 180	< 920	< 2200	< 190					< 920	< 200
Dimethylphthalate	131-11-3	ug/kg	734000	< 180	< 920	< 2200	< 190					< 920	< 200
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180	< 920	< 2200	< 190					< 920	< 200
Di-n-octylphthalate	117-84-0	ug/kg	7090	< 180	< 920	< 2200	< 190					< 920	< 200
Fluoranthene	206-44-0	ug/kg	122000	< 18	< 94	82	17					< 94	< 20
Fluorene	86-73-7	ug/kg	122000	< 18	< 94	< 220	< 20					< 94	< 20
Hexachlorobenzene	118-74-1	ug/kg	199	< 18	< 94	< 220	< 20					< 94	< 20
Hexachlorobutadiene	87-68-3	ug/kg	39.8	< 36	< 180	< 430	< 39					< 180	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg		< 540	< 2800	< 6500	< 580					< 2800	< 590
Hexachloroethane	67-72-1	ug/kg	596	< 180	< 920	< 2200	< 190					< 920	< 200
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	109000	5	< 94	< 220	8					< 94	4
Isophorone	78-59-1	ug/kg	139000	< 36	< 180	< 430	< 39					< 180	< 39
Naphthalene	91-20-3	ug/kg	99.4	< 18	< 94	53	7					< 94	< 20
Nitrobenzene	98-95-3	ug/kg	1310										
N-Nitrosodimethylamine	62-75-9	ug/kg	0.0321										
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	544	< 36	< 180	< 430	< 39					< 180	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	545	< 36	< 180	< 430	< 39					< 180	< 39
Pentachlorophenol	87-86-5	ug/kg	2100	< 180	< 940	< 2200	< 200					< 940	< 200
Phenanthrene	85-01-8	ug/kg	45700	< 18	< 94	85	14					< 94	< 20
Phenol	108-95-2	ug/kg	30000	< 36	< 180	< 430	< 39					< 180	< 39
Pyrene	129-00-0	ug/kg	78500	< 18	< 94	67	18					< 94	< 20
Total Organic Carbon													
Total Organic Carbon	TOC	mg/kg											
TPH													
C10-C12 Aliphatic Hydrocarbons	C10-C12 ALI	mg/kg											
C12-C16 Aliphatic Hydrocarbons	C12-C16 ALIP	mg/kg											
C12-C16 Aromatic Hydrocarbons	C12-C16 ARO	mg/kg											
C16-C21 Aliphatic Hydrocarbons	C16-C21 ALIP	mg/kg											
C16-C21 Aromatic Hydrocarbons	C16-C21 ARO	mg/kg											
C21-C36 Aromatic Hydrocarbons	C21-C36 ARO	mg/kg											
C21-C40 Aliphatic Hydrocarbons	C21-C40 ALIP	mg/kg											
C9-C12 Aliphatic Hydrocarbons	C9-C12 ALIP	mg/kg											
Total Aliphatics	TOTALIPH	mg/kg											
Total Aromatics	TOTAROM	mg/kg											
Total Petroleum Hydrocarbon (TPH)	PHC	mg/kg											
Amyl alcohol	71-41-0	ug/kg											
Di-N-Propyl Ether	111-43-3	ug/kg											
Ethanol	64-17-5	ug/kg											
Ethyl ether	60-29-7	ug/kg											
Methanol	67-56-1	ug/kg											
N-butyl ether	142-96-1	ug/kg											
VOCs													
1,1,1-Trichloroethane	71-55-6	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	127	< 6	< 6	< 7	< 7					< 5	< 6

			Location	SO-R2-N-4-1	SO-R2-O-8-1	SO-R2-P-4-1	SO-R2-Q-5-1	SO-R2-Q-6-1	SO-R2-Q-6--2	SO-R2-Q-6--3	SO-R2-Q-6--4	SO-R2-R-4-1	SO-R2-R-7-1
			Sample Date	11/12/2013	11/15/2013	11/13/2013	11/13/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013
			Sample Depths	0.2-0.7 ft	0.0-0.5 ft	0.3-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.2-0.7 ft	0.2-0.7 ft	0.0-0.5 ft	0.0-0.5 ft
			Sample ID	D-R2-N-4-1_201311	D-R2-O-8-1_201311	D-R2-P-4-1_201311	D-R2-Q-5-1_201311	D-R2-Q-6-1_201311	D-R2-Q-6--2_201311	D-R2-Q-6--3_201311	D-R2-Q-6--4_201311	D-R2-R-4-1_201311	D-R2-R-7-1_201311
			Parent ID										
			Note										
Chemical	**CAS Number**	**Units**	**Soil ESB**										
1,1,2-Trichloroethane	79-00-5	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
1,1-Dichloroethane	75-34-3	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
1,1-Dichloroethene	75-35-4	ug/kg	8280	< 6	< 6	< 7	< 7					< 5	< 6
1,2,4-Trichlorobenzene	120-82-1	ug/kg	20000	< 6	< 6	< 7	< 7					< 5	< 6
1,2-Dichlorobenzene	95-50-1	ug/kg	2960	< 6	< 6	< 7	< 7					< 5	< 6
1,2-Dichloroethane	107-06-2	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
1,2-Dichloropropane	78-87-5	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
1,3-Dichlorobenzene	541-73-1	ug/kg	37700	< 6	< 6	< 7	< 7					< 5	< 6
1,4-Dichlorobenzene	106-46-7	ug/kg	546	< 6	< 6	< 7	< 7					< 5	< 6
2-Chloroethylvinylether	110-75-8	ug/kg											
Acetonitrile	75-05-8	ug/kg											
Acrolein	107-02-8	ug/kg	5270										
Acrylonitrile	107-13-1	ug/kg	23.9										
Benzene	71-43-2	ug/kg	255	< 6	< 6	< 7	< 7					< 5	< 6
Bromodichloromethane	75-27-4	ug/kg	540	< 6	< 6	< 7	< 7					< 5	< 6
Bromoform	75-25-2	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
Bromomethane	74-83-9	ug/kg	235	< 6	< 6	< 7	< 7					< 5	< 6
Carbon Tetrachloride	56-23-5	ug/kg	2980	< 6	< 6	< 7	< 7					< 5	< 6
Chlorobenzene	108-90-7	ug/kg	13100	< 6	< 6	< 7	< 7					< 5	< 6
Chloroethane	75-00-3	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
Chloroform	67-66-3	ug/kg	1190	< 6	< 6	< 7	< 7					< 5	< 6
Chloromethane	74-87-3	ug/kg	10400	< 6	< 6	< 7	< 7					< 5	< 6
cis-1,2-Dichloroethene	156-59-2	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
cis-1,2-Dichloropropene	6923-20-2	ug/kg											
Cis-1,3-Dichloropropene	10061-01-5	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
Dibromochloromethane	124-48-1	ug/kg	2050	< 6	< 6	< 7	< 7					< 5	< 6
Ethylbenzene	100-41-4	ug/kg	5160	< 6	< 6	< 7	< 7					< 5	< 6
Hexachlorobutadiene	87-68-3	ug/kg	39.8										
Methylene Chloride	75-09-2	ug/kg	4050	< 6	< 6	< 7	< 7					< 5	< 6
Naphthalene	91-20-3	ug/kg	99.4										
Tetrachloroethene	127-18-4	ug/kg	9920	< 6	< 6	< 7	< 7					< 5	< 6
Toluene	108-88-3	ug/kg	200000	< 6	< 6	< 7	< 7					< 5	< 6
trans-1,2-Dichloroethene	156-60-5	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
Trans-1,3-Dichloropropene	10061-02-6	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6
Trichloroethene	79-01-6	ug/kg	12400	< 6	< 6	< 7	< 7					< 5	< 6
Trichlorofluoromethane	75-69-4	ug/kg	16400	< 6	< 6	< 7	< 7					< 5	< 6
Vinyl Chloride	75-01-4	ug/kg	646	< 6	< 6	< 7	< 7					< 5	< 6
Xylenes (total)	1330-20-7	ug/kg		< 6	< 6	< 7	< 7					< 5	< 6

Notes:
< = non-detect result
J = estimated concentration
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
Shaded cells exceed soil ecological screening benchmarks (ESB)

Appendix E.2

ERA Dataset – Sediment Data

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-E14-1-01	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-03	SD-ERA-D14-CDB-01	SD-ERA-D14-CDB-08	SD-ERA-D14-CDB-09	SD-ERA-E13-CDB-04	SD-ERA-E14-CDB-05	SD-ERA-E14-CDB-06	SD-ERA-E14-CDB-07
				Sample Date	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/11/2001	6/14/2016	6/14/2016	6/14/2016	6/15/2016	6/15/2016	6/15/2016	6/14/2016	6/14/2016	6/14/2016	6/14/2016
				Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
				Sample ID	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-E14-1-011N	SD-BD061416	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-03	SD-ERA-D14-CDB-01	SD-ERA-D14-CDB-08	SD-ERA-D14-CDB-09	SD-ERA-E13-CDB-04	SD-ERA-E14-CDB-05	SD-ERA-E14-CDB-06	SD-ERA-E14-CDB-07
				Parent ID		SD-D14-1-011N				SD-ERA-D13-CDB-02									
				Subdrainage Area	Central Drainage Basin	Central Drainage Basin	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL															
Explosives																			
1,2-Dinitrobenzene	528-29-0	ug/kg	--																
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160																
1,3-Dinitrobenzene	99-65-0	ug/kg	500																
1,4-Dinitrobenzene	100-25-4	ug/kg	--																
1-Nitronaphthalene	86-57-7	ug/kg	--																
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100																
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8																
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300																
2-Nitrotoluene	88-72-2	ug/kg	620000																
3-Nitrotoluene	99-08-1	ug/kg	190000																
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500																
4-Nitrotoluene	99-99-0	ug/kg	68000																
Nitrobenzene	98-95-3	ug/kg	145																
Nitrocellulose	9004-70-0	ug/kg	--																
Nitroglycerin	55-63-0	ug/kg	127000																
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380																
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000																
RDX (Cyclonite)	121-82-4	ug/kg	1200																
Tetryl	479-45-8	ug/kg	600																
Field																			
Dissolved Oxygen	7782-44-7	mg/l	--								2.41	1.79	4.39			6.74	4.39	2.35	2.44
pH	PH	su	--							6.99	6.82 6.96	6.94 7.24	6.91 7.32	6.93	6.97	7.06 7.07	7.03 7.10	7.09 7.85	7.17 7.51
Specific Conductance	SC	us/cm	--								0.577	0.814	0.955			0.584	0.594	0.693	0.711
Temperature	TEMP	deg c	--								18.52	15.64	14.28			14.91	13.97	14.45	15.18
Turbidity	TURBIDITY	ntu	--								71000.0	70.0	71000.0			12.6	71000.0	628.0	800.0
GenChem			--																
Acid Volatile Sulfide	1313-84-4	umol/g	--							9.5	5.4	< 0.63 U	4.5	22.0	23.8	5.6	< 0.63 U	4.0	2.1
Grain Size																			
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--																
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--																
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--																
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--										< 0.50 U		< 0.50 U				
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--										< 0.50 U		< 0.50 U				
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--										0.50		1.5				
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--										5.0		6.0				
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--										13.0		12.0				
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--										16.5		17.0				
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--										20.1		19.3				
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--										36.4		28.6				
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--										60.8		48.7				
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--										88.7		68.5				
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--										94.7		74.6				
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--										100		100				
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--										94.7		75.6				
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--										94.9		75.6				
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--										100		100				
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--										95.1		75.6				
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--										100		100				
Sieve, 1 micron, % passing	SIEVE_1U	%	--																
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--																
Sieve, 150 micron, % passing	SIEVE_150U	%	--																
Sieve, 2 micron, % passing	SIEVE_2U	%	--																
Sieve, 20 micron, % passing	SIEVE_20U	%	--																
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--																
Sieve, 300 micron, % passing	SIEVE_300U	%	--																
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--																
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--																
Sieve, 5 micron, % passing	SIEVE_5U	%	--																
Sieve, 50 micron, % passing	SIEVE_50U	%	--																
Sieve, 600 micron, % passing	SIEVE_600U	%	--																
Sieve, 64 micron, % passing	SIEVE_64U	%	--																
Sieve, 75 micron, % passing	SIEVE_75U	%	--																
Metals																			
Aluminum	7429-90-5	mg/kg	25500																
Antimony	7440-36-0	mg/kg	3	3															
Arsenic	7440-38-2	mg/kg	6	33															
Barium	7440-39-3	mg/kg	7000																
Beryllium	7440-41-7	mg/kg	NA																
Cadmium	7440-43-9	mg/kg	0.6	10															
Cadmium	7440-43-9	umol/g	0.6	1000000						0.00376 B	0.00337 B	0.000601 B	0.00118	0.00122	0.00123	0.00260 B	0.00106 B	0.000883 B	0.000910 B
Calcium	7440-70-2	mg/kg	--																
Chromium	7440-47-3	mg/kg	26	110															
Cobalt	7440-48-4	mg/kg	50																
Copper	7440-50-8	mg/kg	16	110															
Copper	7440-50-8	umol/g	16	1000000						0.0962	0.0865	0.0115	0.0741	0.0473	0.0977	0.0916	0.0122	0.0214	0.0102
Iron	7439-89-6	mg/kg	20000																
Lead	7439-92-1	mg/kg	31	250						563	459	98.1	832	639	317	1720	186	35.4	330
Lead	7439-92-1	umol/g	31	1000000						0.413	0.356	0.0233	0.219	0.156	0.432	0.766	0.0592	0.0274	0.223
Magnesium	7439-95-4	mg/kg	460																

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-E14-1-01	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-03	SD-ERA-D14-CDB-01	SD-ERA-D14-CDB-08	SD-ERA-D14-CDB-09	SD-ERA-E13-CDB-04	SD-ERA-E14-CDB-05	SD-ERA-E14-CDB-06	SD-ERA-E14-CDB-07
				Sample Date	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/11/2001	6/14/2016	6/14/2016	6/14/2016	6/15/2016	6/15/2016	6/15/2016	6/14/2016	6/14/2016	6/14/2016	6/14/2016
				Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
				Sample ID	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-E14-1-011N	SD-BD061416	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-03	SD-ERA-D14-CDB-01	SD-ERA-D14-CDB-08	SD-ERA-D14-CDB-09	SD-ERA-E13-CDB-04	SD-ERA-E14-CDB-05	SD-ERA-E14-CDB-06	SD-ERA-E14-CDB-07
				Parent ID		SD-D14-1-011N				SD-ERA-D13-CDB-02									
				Subdrainage Area	Central Drainage Basin	Central Drainage Basin	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL															
Manganese	7439-96-5	mg/kg	630	1100															
Mercury	7439-97-6	mg/kg	0.2	2						1.17	1.21	0.241 J	1.17	0.288 J	1.34	25.4	0.340 J	0.119 J	0.512 J
Mercury	7439-97-6	umol/g	0.2	1000000						< 0.0000072 U	< 0.0000073 U	< 0.0000073 U	< 0.0000071 U	< 0.0000073 U	< 0.0000073 U	< 0.0000073 U	< 0.0000072 U	< 0.0000073 U	< 0.0000073 U
Nickel	7440-02-0	mg/kg	16	75															
Nickel	7440-02-0	umol/g	16	1000000						0.0343	0.0342	0.218	0.0857	0.0424	0.0888	0.0901	0.0484	0.0511	0.0134
Potassium	7440-09-7	mg/kg	--																
Selenium	7782-49-2	mg/kg	2																
Silver	7440-22-4	mg/kg	1																
Sodium	7440-23-5	mg/kg	--																
Thallium	7440-28-0	mg/kg	--																
Vanadium	7440-62-2	mg/kg	57																
Zinc	7440-66-6	mg/kg	120	820															
Zinc	7440-66-6	umol/g	120	1000000						1.30	1.22	0.162	0.339	0.534	1.11	0.935	0.209	0.168	0.254
Moisture																			
Percent Moisture	MOIST	%	--							76.1	79.5	89.6	88.8	88.6	85.0	82.8	90.5	89.1	89.4
Total Solids	TSO	%	--							18.33	70.09	9.24	10.13	12.46	15.88	24.11	7.63	10.96	9.74
SVOCs																			
1-Methylnaphthalene	90-12-0	ug/kg	20.2																
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4																
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8																
2-Methylnaphthalene	91-57-6	ug/kg	70																
Acenaphthene	83-32-9	ug/kg	16							< 2.8 U	< 3.2 U	< 6.3 U	640	< 5.8 U	< 4.4 U	< 3.8 U	< 7.0 U	< 6.1 U	< 6.2 U
Acenaphthylene	208-96-8	ug/kg	44							11	3.5 J	< 6.3 U	1700	< 5.8 U	< 4.4 U	< 3.8 U	< 7.0 U	< 6.1 U	< 6.2 U
Anthracene	120-12-7	ug/kg	220	370000						17	6.6 J	< 6.3 U	1600	< 5.8 U	8.8 J	< 3.8 U	< 7.0 U	< 6.1 U	< 6.2 U
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000						88	30	< 6.3 U	13000	9.7 J	23	8.8 J	7.7 J	< 6.1 U	< 6.2 U
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000						81	22	< 6.3 U	13000	9.3 J	21	8.5 J	8.6 J	< 6.1 U	< 6.2 U
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200						86	23	< 6.3 U	11000	9.6 J	22	7.6 J	7.6 J	< 6.1 U	< 6.2 U
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000						51	14	< 6.3 U	7800	6.6 J	14	6.0 J	< 7.0 U	< 6.1 U	< 6.2 U
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000						85	25	< 6.3 U	12000	8.3 J	17	7.3 J	7.6 J	< 6.1 U	< 6.2 U
Chrysene	218-01-9	ug/kg	340	460000						96	31	< 6.3 U	11000	10 J	23	9.5 J	9.9 J	< 6.1 U	< 6.2 U
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000						14	3.9 J	< 6.3 U	2700	< 5.8 U	< 4.4 U	< 3.8 U	< 7.0 U	< 6.1 U	< 6.2 U
Fluoranthene	206-44-0	ug/kg	750	1020000						140	43	< 6.3 U	21000	19	35	16	22	6.6 J	7.7 J
Fluorene	86-73-7	ug/kg	190	160000						7.0	3.6 J	< 6.3 U	960	< 5.8 U	< 4.4 U	< 3.8 U	< 7.0 U	< 6.1 U	< 6.2 U
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000						49	12	< 6.3 U	7200	6.4 J	12	5.5 J	< 7.0 U	< 6.1 U	< 6.2 U
Naphthalene	91-20-3	ug/kg	160	2100000						12	< 3.2 U	< 6.3 U	1000	17	110	< 3.8 U	9.2 J	< 6.1 U	< 6.2 U
Phenanthrene	85-01-8	ug/kg	560	950000						60	23	< 6.3 U	9500	12 J	14	8.6 J	17 J	< 6.1 U	< 6.2 U
Pyrene	129-00-0	ug/kg	490	850000						130	44	< 6.3 U	20000	18	31	14	17 J	< 6.1 U	< 6.2 U

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-E14-1-01	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-03	SD-ERA-D14-CDB-01	SD-ERA-D14-CDB-08	SD-ERA-D14-CDB-09	SD-ERA-E13-CDB-04	SD-ERA-E14-CDB-05	SD-ERA-E14-CDB-06	SD-ERA-E14-CDB-07
				Sample Date	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/11/2001	6/14/2016	6/14/2016	6/14/2016	6/15/2016	6/15/2016	6/15/2016	6/14/2016	6/14/2016	6/14/2016	6/14/2016
				Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
				Sample ID	SD-D13-6-01N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-E14-1-011N	SD-BD061416	SD-ERA-D13-CDB-02	SD-ERA-D13-CDB-03	SD-ERA-D14-CDB-01	SD-ERA-D14-CDB-08	SD-ERA-D14-CDB-09	SD-ERA-E13-CDB-04	SD-ERA-E14-CDB-05	SD-ERA-E14-CDB-06	SD-ERA-E14-CDB-07
				Parent ID		SD-D14-1-011N				SD-ERA-D13-CDB-02									
				Subdrainage Area	Central Drainage Basin	Central Drainage Basin	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL															
Total Organic Carbon																			
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--							68100	109000	409000	192000	182000	162000	115000	456000	355000	314000
Total Organic Carbon	TOC	mg/kg	--																
TPH																			
Amyl alcohol	71-41-0	ug/kg	--		< 19000		< 38000	< 96000	< 45000										
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 19000		< 38000	< 96000	< 45000										
Ethanol	64-17-5	ug/kg	--		< 19000		< 38000	< 96000	< 45000										
Ethyl ether	60-29-7	ug/kg	--		< 19000		< 38000	< 96000	< 45000										
Methanol	67-56-1	ug/kg	--		< 19000		< 38000	< 96000	65000										
N-butyl ether	142-96-1	ug/kg	--		< 19000		< 38000	< 96000	< 45000										
VOCs																			
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 290	< 470	< 550	< 1200	< 580										
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
1,1-Dichloroethane	75-34-3	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 290	< 470	< 550	< 1200	< 580										
1,2-Dichloroethane	107-06-2	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
1,2-Dichloropropane	78-87-5	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 580	< 930	< 1100	< 2300	< 1100										
Acrolein	107-02-8	ug/kg	0.00152		< 5800	< 9300	< 11000	< 23000	< 11000										
Acrylonitrile	107-13-1	ug/kg	1.2		< 1200	< 1900	< 2200	< 4600	< 2300										
Benzene	71-43-2	ug/kg	340		< 290	< 470	< 550	< 1200	< 580										
Bromodichloromethane	75-27-4	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Bromoform	75-25-2	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Bromomethane	74-83-9	ug/kg	1.37		< 580	< 930	< 1100	< 2300	< 1100										
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 290	< 470	< 550	< 1200	< 580										
Chlorobenzene	108-90-7	ug/kg	291		< 290	< 470	< 550	< 1200	< 580										
Chloroethane	75-00-3	ug/kg	--		< 580	< 930	< 1100	< 2300	< 1100										
Chloroform	67-66-3	ug/kg	121		< 290	< 470	< 550	< 1200	< 580										
Chloromethane	74-87-3	ug/kg	--		< 580	< 930	< 1100	< 2300	< 1100										
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Dibromochloromethane	124-48-1	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Ethylbenzene	100-41-4	ug/kg	1400		< 290	< 470	< 550	< 1200	< 580										
Methylene Chloride	75-09-2	ug/kg	159		< 580	< 930	< 1100	< 2300	< 1100										
Tetrachloroethene	127-18-4	ug/kg	450		< 290	< 470	< 550	< 1200	< 580										
Toluene	108-88-3	ug/kg	2500		< 290	< 470	< 550	< 1200	< 580										
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										
Trichloroethene	79-01-6	ug/kg	1600		< 290	< 470	< 550	< 1200	< 580										
Trichlorofluoromethane	75-69-4	ug/kg	--		< 580	< 930	< 1100	< 2300	< 1100										
Vinyl Chloride	75-01-4	ug/kg	202		< 290	< 470	< 550	< 1200	< 580										
Xylenes (total)	1330-20-7	ug/kg	--		< 290	< 470	< 550	< 1200	< 580										

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-ERA-E14-CDB-10	SD-R2-D-14-1	SD-R2-E-13-1	SD-R-D13-01	SD-R-D13-02	SD-R-D13-03	SD-R-D13-14	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03
					Sample Date	6/15/2016	11/5/2013	11/6/2013	5/4/2006	5/17/2006	5/17/2006	6/23/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006
					Sample Depths	0.0-0.5 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-ERA-E14-CDB-10	R2-D-14-1_201311	D-R2-E-13-1_201311	SD-R-D13-011.0N	SD-R-D13-021.0N	SD-R-D13-031.0N	SD-R-D13-141.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N
					Parent ID																
					Subdrainage Area	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,2-Dinitrobenzene	528-29-0	ug/kg	--			< 4500	< 3500														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 4500	< 3500	< 2300	< 1600	< 2500	< 2900	< 2200	< 1400	< 540	< 820	< 2900	< 550	< 360	< 2500	< 2800	
1,3-Dinitrobenzene	99-65-0	ug/kg	500			< 4500	< 3500														
1,4-Dinitrobenzene	100-25-4	ug/kg	--			< 4500	< 3500														
1-Nitronaphthalene	86-57-7	ug/kg	--			< 4500	< 3500														
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 4500	< 3500	< 2300	< 1600	< 2500	< 2900	< 2200	< 1400	19000	< 820	< 2900	< 550	< 360	< 2500	< 2800	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 4500	< 3500														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 4500	< 3500	< 2300	< 1600	< 2500	< 2900	< 2200	< 1400	< 540	< 820	< 2900	< 550	< 360	< 2500	< 2800	
2-Nitrotoluene	88-72-2	ug/kg	620000			< 4500	< 3500														
3-Nitrotoluene	99-08-1	ug/kg	190000			< 4500	< 3500														
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 4500	< 3500	< 2300	< 1600	< 2500	< 2900	< 2200	< 1400	< 540	< 820	< 2900	< 550	< 360	< 2500	< 2800	
4-Nitrotoluene	99-99-0	ug/kg	68000			< 4500	< 3500														
Nitrobenzene	98-95-3	ug/kg	145			< 4500	< 3500	< 2300	< 1600	< 2500	< 2900	< 2200	< 1400	< 54000	< 820	< 2900	< 550	< 360	< 2500	< 2800	
Nitrocellulose	9004-70-0	ug/kg	--					< 920000	240000	< 1000000	< 1100000	< 880000	< 540000	< 210000	420000	< 1200000	200000	< 140000	< 990000	< 1100000	
Nitroglycerin	55-63-0	ug/kg	127000			< 90000	< 71000	< 47000	< 32000	< 51000	< 57000	< 44000	< 27000	< 11000	< 16000	< 59000	< 11000	< 7100	< 50000	< 56000	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 11000	< 8800	< 5800	< 4000	< 6400	< 7100	< 5500	< 3400	< 1300	< 2000	< 7400	< 1400	< 890	< 6200	< 7000	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 90000	< 71000	< 47000	< 32000	< 51000	< 57000	< 44000	< 27000	< 11000	< 16000	< 59000	< 11000	< 7100	< 50000	< 56000	
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 4500	< 3500	< 2300	< 1600	< 2500	< 2900	< 2200	< 1400	< 540	< 820	< 2900	< 550	< 360	< 2500	< 2800	
Tetryl	479-45-8	ug/kg	600			< 4500	< 3500														
Field																					
Dissolved Oxygen	7782-44-7	mg/l	--		3.16																
pH	PH	su	--		7.47 6.98																
Specific Conductance	SC	us/cm	--		0.846																
Temperature	TEMP	deg c	--		15.40																
Turbidity	TURBIDITY	ntu	--		1000 >																
GenChem			--																		
Acid Volatile Sulfide	1313-84-4	umol/g	--		15.2																
Grain Size																					
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--						100	100	98.4			96.7	100		100	100			
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--						100	100	100			100	100		100	100			
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--						100	100	100			100	100		100	100			
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--		< 0.50 U																
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--		< 0.50 U																
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--		< 0.50 U																
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--		2.5																
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--		4.5																
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--		5.0																
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--		5.0																
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--		6.9																
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--		12.2																
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--		23.1																
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--		36.4																
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--		100																
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--		52.8																
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--		59.7																
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--		100																
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--		67.1																
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--		100																
Sieve, 1 micron, % passing	SIEVE_1U	%	--						0.5	< 1	4			1.5	2.5		1.5	1.5			
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--						43.8	42.9	67.5			58.3	90.6		58.8	49.3			
Sieve, 150 micron, % passing	SIEVE_150U	%	--						16.9	25.3	36.9			23.1	61.3		24.2	9.5			
Sieve, 2 micron, % passing	SIEVE_2U	%	--						2.5	< 1	4			1.5	5.5		1.5	1.5			
Sieve, 20 micron, % passing	SIEVE_20U	%	--						8	11	26.5			7.5	40		7.5	3.5			
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--						62.5	51	79.7			63.3	95.3		64.6	58.5			
Sieve, 300 micron, % passing	SIEVE_300U	%	--						23.2	30	45.5			35.4	73.1		34.4	20.6			
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--						79.7	69.1	90.3			69.4	97.7		70.5	64.3			
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--						91.9	87.6	95.4			75.4	98.8		76.8	69.3			
Sieve, 5 micron, % passing	SIEVE_5U	%	--						4	2	4			2.5	11.5		1.5	1.5			
Sieve, 50 micron, % passing	SIEVE_50U	%	--						15	26	60			13.5	45		14	6			
Sieve, 600 micron, % passing	SIEVE_600U	%	--						32.2	35.6	55.4			48.9	83.6		48.2	36.5			
Sieve, 64 micron, % passing	SIEVE_64U	%	--						14	24	40			14.5	47.5		17	6.5			
Sieve, 75 micron, % passing	SIEVE_75U	%	--						13.3	21.7	30.9			16.2	48.9		18.2	6.6			
Metals																					
Aluminum	7429-90-5	mg/kg	25500			1670	4630														
Antimony	7440-36-0	mg/kg	3	3		< 296	< 24.2														
Arsenic	7440-38-2	mg/kg	6	33		< 296	10.4	75.8	15	30.4	55.7	97.3	40.9	17.2	7.98	16	4.56	2.64		< 18.3	
Barium	7440-39-3	mg/kg	7000			64.1	82.3														
Beryllium	7440-41-7	mg/kg	NA			< 73.9	< 6.05														
Cadmium	7440-43-9	mg/kg	0.6	10		< 73.9	1.65	0.814	1.35	1.7	< 4.62	1	1.08	< 4.29	0.51	< 4.81	< 0.894	2.37		< 4.58	
Cadmium	7440-43-9	umol/g	0.6	1000000	0.00134																
Calcium	7440-70-2	mg/kg	--			16500	47200														
Chromium	7440-47-3	mg/kg	26	110		< 222	14.9	32.9	10.4	18.4	26.9	46.1	27.7	13.6	23.4	10.9	11.3	13.1		42.9	
Cobalt	7440-48-4	mg/kg	50			< 73.9	2.6														
Copper	7440-50-8	mg/kg	16	110		< 148	50	44.6	22.2	49.7	37.8	82.9	91.8	48.7	217	17.4	50	13.1		14.4	
Copper	7440-50-8	umol/g	16	1000000	0.180																
Iron	7439-89-6	mg/kg	20000			22200	10900														
Lead	7439-92-1	mg/kg	31	250	90.8	81	222	1320	235	464	738	2090	1160	894	3400	315	532	9.43		54.5	
Lead	7439-92-1	umol/g	31	1000000	0.255																
Magnesium	7439-95-4	mg/kg	460			2060	6000														

					Location	SD-ERA-E14-CDB-10	SD-R2-D-14-1	SD-R2-E-13-1	SD-R-D13-01	SD-R-D13-02	SD-R-D13-03	SD-R-D13-14	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03
					Sample Date	6/15/2016	11/5/2013	11/6/2013	5/4/2006	5/17/2006	5/17/2006	6/23/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006
					Sample Depths	0.0-0.5 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-ERA-E14-CDB-10	R2-D-14-1_201311	0-R2-E-13-1_201311	SD-R-D13-011.0N	SD-R-D13-021.0N	SD-R-D13-031.0N	SD-R-D13-141.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N
					Parent ID																
					Subdrainage Area	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Manganese	7439-96-5	mg/kg	630	1100		2400	697														
Mercury	7439-97-6	mg/kg	0.2	2	0.164	0.219	0.485	4.62	0.815	1.77	5.74	6.55	5.22	0.391	0.713	0.285	0.272	0.0205		0.0957
Mercury	7439-97-6	umol/g	0.2	1000000	< 0.0000073 U															
Nickel	7440-02-0	mg/kg	16	75		< 148	17.2	16.8	5.69	12.1	8.76	25.1	27.9	12.1	13.1	7.11	6.97	6.12		8.48
Nickel	7440-02-0	umol/g	16	1000000	0.691															
Potassium	7440-09-7	mg/kg	--			< 7390	489													
Selenium	7782-49-2	mg/kg	2			< 296	< 24.2													
Silver	7440-22-4	mg/kg	1			< 73.9	2.4	< 3.84	< 2.65	< 4.24	< 4.62	< 3.68	< 2.19	0.561	0.583	< 4.81	< 0.894	< 0.587		< 4.58
Sodium	7440-23-5	mg/kg	--			< 14800	808													
Thallium	7440-28-0	mg/kg	--			< 443	< 36.3													
Vanadium	7440-62-2	mg/kg	57			< 73.9	33.3													
Zinc	7440-66-6	mg/kg	120	820		207	185	253	155	327	146	341	426	72	296	81.1	132	42.8		70.2
Zinc	7440-66-6	umol/g	120	1000000	0.642															
Moisture																				
Percent Moisture	MOIST	%	--		24.2	93.3	91.9	87.1	81.1	88.2	89.5	86.4	78	44	63.4	89.8	45.7	15.7	88	89.3
Total Solids	TSO	%	--		80.23															
SVOCs																				
1-Methylnaphthalene	90-12-0	ug/kg	20.2			< 1500	< 420													
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4											< 30000			< 310	< 200	< 1400	< 1600
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8											< 30000			< 310	< 200	< 1400	< 1600
2-Methylnaphthalene	91-57-6	ug/kg	70			< 1500	100													
Acenaphthene	83-32-9	ug/kg	16		1.5 J	< 1500	< 420							140000			250	< 200	< 1400	< 1600
Acenaphthylene	208-96-8	ug/kg	44		5.0	< 1500	< 420							900000			340	< 200	< 1400	< 1600
Anthracene	120-12-7	ug/kg	220	370000	6.5	< 1500	< 420							1100000			200	< 200	< 1400	< 1600
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	43	< 1500	150							1500000			540	72	< 1400	< 1600
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	40	< 1500	200							900000			630	70	< 1400	< 1600
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	46	350	360													
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	25	< 1500	170							470000			490	51	< 1400	< 1600
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	41	< 1500	110							580000			390	41	< 1400	< 1600
Chrysene	218-01-9	ug/kg	340	460000	44	< 1500	270							1100000			650	70	< 1400	< 1600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	6.2	< 1500	< 420							180000			120	< 200	< 1400	< 1600
Fluoranthene	206-44-0	ug/kg	750	1020000	92	520	430							3500000			1600	110	330	< 1600
Fluorene	86-73-7	ug/kg	190	160000	2.0 J	< 1500	< 420							1200000			98	< 200	< 1400	< 1600
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	26	< 1500	160													
Naphthalene	91-20-3	ug/kg	160	2100000	4.5	< 1500	150							240000			< 310	< 200	< 1400	< 1600
Phenanthrene	85-01-8	ug/kg	560	950000	33	< 1500	290							5300000			240	< 200	< 1400	< 1600
Pyrene	129-00-0	ug/kg	490	850000	90	470	400							2600000			1300	100	300	< 1600

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-ERA-E14-CDB-10	SD-R2-D-14-1	SD-R2-E-13-1	SD-R-D13-01	SD-R-D13-02	SD-R-D13-03	SD-R-D13-14	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03
					Sample Date	6/15/2016	11/5/2013	11/6/2013	5/4/2006	5/17/2006	5/17/2006	6/23/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006
					Sample Depths	0.0-0.5 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-ERA-E14-CDB-10	SD-R2-D-14-1_20131	SD-R2-E-13-1_20131	SD-R-D13-011.0N	SD-R-D13-021.0N	SD-R-D13-031.0N	SD-R-D13-141.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N
					Parent ID																
					Subdrainage Area	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi	Central Drainage Basi
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Total Organic Carbon																					
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--			4780															
Total Organic Carbon	TOC	mg/kg	--				258000	316000	190000	34000	280000	35000	310000	110000	56000	36000	420000	9900	170	350000	110000
TPH																					
Amyl alcohol	71-41-0	ug/kg	--																		
Di-N-Propyl Ether	111-43-3	ug/kg	--																		
Ethanol	64-17-5	ug/kg	--																		
Ethyl ether	60-29-7	ug/kg	--																		
Methanol	67-56-1	ug/kg	--																		
N-butyl ether	142-96-1	ug/kg	--																		
VOCs																					
1,1,1-Trichloroethane	71-55-6	ug/kg	--																		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850																		
1,1,2-Trichloroethane	79-00-5	ug/kg	--																		
1,1-Dichloroethane	75-34-3	ug/kg	--																		
1,1-Dichloroethene	75-35-4	ug/kg	19.4																		
1,2-Dichloroethane	107-06-2	ug/kg	--																		
1,2-Dichloropropane	78-87-5	ug/kg	--																		
2-Chloroethylvinylether	110-75-8	ug/kg	--																		
Acrolein	107-02-8	ug/kg	0.00152																		
Acrylonitrile	107-13-1	ug/kg	1.2																		
Benzene	71-43-2	ug/kg	340																		
Bromodichloromethane	75-27-4	ug/kg	--																		
Bromoform	75-25-2	ug/kg	--																		
Bromomethane	74-83-9	ug/kg	1.37																		
Carbon Tetrachloride	56-23-5	ug/kg	1450																		
Chlorobenzene	108-90-7	ug/kg	291																		
Chloroethane	75-00-3	ug/kg	--																		
Chloroform	67-66-3	ug/kg	121																		
Chloromethane	74-87-3	ug/kg	--																		
cis-1,2-Dichloroethene	156-59-2	ug/kg	--																		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--																		
Dibromochloromethane	124-48-1	ug/kg	--																		
Ethylbenzene	100-41-4	ug/kg	1400																		
Methylene Chloride	75-09-2	ug/kg	159																		
Tetrachloroethene	127-18-4	ug/kg	450																		
Toluene	108-88-3	ug/kg	2500																		
trans-1,2-Dichloroethene	156-60-5	ug/kg	--																		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--																		
Trichloroethene	79-01-6	ug/kg	1600																		
Trichlorofluoromethane	75-69-4	ug/kg	--																		
Vinyl Chloride	75-01-4	ug/kg	202																		
Xylenes (total)	1330-20-7	ug/kg	--																		

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E14-04
				Sample Date	5/4/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E14-041.0N
				Parent ID	
				Subdrainage Area	Central Drainage Basin
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Explosives					
1,2-Dinitrobenzene	528-29-0	ug/kg	--		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 2500
1,3-Dinitrobenzene	99-65-0	ug/kg	500		
1,4-Dinitrobenzene	100-25-4	ug/kg	--		
1-Nitronaphthalene	86-57-7	ug/kg	--		
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 2500
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 2500
2-Nitrotoluene	88-72-2	ug/kg	620000		
3-Nitrotoluene	99-08-1	ug/kg	190000		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 2500
4-Nitrotoluene	99-99-0	ug/kg	68000		
Nitrobenzene	98-95-3	ug/kg	145		< 2500
Nitrocellulose	9004-70-0	ug/kg	--		< 990000
Nitroglycerin	55-63-0	ug/kg	127000		< 50000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 6200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 50000
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 2500
Tetryl	479-45-8	ug/kg	600		
Field					
Dissolved Oxygen	7782-44-7	mg/l	--		
pH	PH	su	--		
Specific Conductance	SC	us/cm	--		
Temperature	TEMP	deg c	--		
Turbidity	TURBIDITY	ntu	--		
GenChem			--		
Acid Volatile Sulfide	1313-84-4	umol/g	--		
Grain Size					
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--		
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--		
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--		
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--		
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--		
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--		
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--		
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--		
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--		
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--		
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--		
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--		
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--		
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--		
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--		
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--		
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--		
Sieve, 1 micron, % passing	SIEVE_1U	%	--		
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		
Sieve, 150 micron, % passing	SIEVE_150U	%	--		
Sieve, 2 micron, % passing	SIEVE_2U	%	--		
Sieve, 20 micron, % passing	SIEVE_20U	%	--		
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		
Sieve, 300 micron, % passing	SIEVE_300U	%	--		
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		
Sieve, 5 micron, % passing	SIEVE_5U	%	--		
Sieve, 50 micron, % passing	SIEVE_50U	%	--		
Sieve, 600 micron, % passing	SIEVE_600U	%	--		
Sieve, 64 micron, % passing	SIEVE_64U	%	--		
Sieve, 75 micron, % passing	SIEVE_75U	%	--		
Metals					
Aluminum	7429-90-5	mg/kg	25500		
Antimony	7440-36-0	mg/kg	3	3	
Arsenic	7440-38-2	mg/kg	6	33	5.82
Barium	7440-39-3	mg/kg	7000		
Beryllium	7440-41-7	mg/kg	NA		
Cadmium	7440-43-9	mg/kg	0.6	10	< 4.09
Cadmium	7440-43-9	umol/g	0.6	1000000	
Calcium	7440-70-2	mg/kg	--		
Chromium	7440-47-3	mg/kg	26	110	25
Cobalt	7440-48-4	mg/kg	50		
Copper	7440-50-8	mg/kg	16	110	6.88
Copper	7440-50-8	umol/g	16	1000000	
Iron	7439-89-6	mg/kg	20000		
Lead	7439-92-1	mg/kg	31	250	< 16.4
Lead	7439-92-1	umol/g	31	1000000	
Magnesium	7439-95-4	mg/kg	460		

				Location	SD-R-E14-04
				Sample Date	5/4/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E14-041.0N
				Parent ID	
				Subdrainage Area	Central Drainage Basin
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Manganese	7439-96-5	mg/kg	630	1100	
Mercury	7439-97-6	mg/kg	0.2	2	0.0217
Mercury	7439-97-6	umol/g	0.2	1000000	
Nickel	7440-02-0	mg/kg	16	75	3.85
Nickel	7440-02-0	umol/g	16	1000000	
Potassium	7440-09-7	mg/kg	--		
Selenium	7782-49-2	mg/kg	2		
Silver	7440-22-4	mg/kg	1		< 4.09
Sodium	7440-23-5	mg/kg	--		
Thallium	7440-28-0	mg/kg	--		
Vanadium	7440-62-2	mg/kg	57		
Zinc	7440-66-6	mg/kg	120	820	24.6
Zinc	7440-66-6	umol/g	120	1000000	
Moisture					
Percent Moisture	MOIST	%	--		87.9
Total Solids	TSO	%	--		
SVOCs					
1-Methylnaphthalene	90-12-0	ug/kg	20.2		
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		
2-Methylnaphthalene	91-57-6	ug/kg	70		
Acenaphthene	83-32-9	ug/kg	16		
Acenaphthylene	208-96-8	ug/kg	44		
Anthracene	120-12-7	ug/kg	220	370000	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	
Chrysene	218-01-9	ug/kg	340	460000	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	
Fluoranthene	206-44-0	ug/kg	750	1020000	
Fluorene	86-73-7	ug/kg	190	160000	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	
Naphthalene	91-20-3	ug/kg	160	2100000	
Phenanthrene	85-01-8	ug/kg	560	950000	
Pyrene	129-00-0	ug/kg	490	850000	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E14-04
				Sample Date	5/4/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E14-041.0N
				Parent ID	
				Subdrainage Area	Central Drainage Basin
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Total Organic Carbon					
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--		
Total Organic Carbon	TOC	mg/kg	--		330000
TPH					
Amyl alcohol	71-41-0	ug/kg	--		
Di-N-Propyl Ether	111-43-3	ug/kg	--		
Ethanol	64-17-5	ug/kg	--		
Ethyl ether	60-29-7	ug/kg	--		
Methanol	67-56-1	ug/kg	--		
N-butyl ether	142-96-1	ug/kg	--		
VOCs					
1,1,1-Trichloroethane	71-55-6	ug/kg	--		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		
1,1,2-Trichloroethane	79-00-5	ug/kg	--		
1,1-Dichloroethane	75-34-3	ug/kg	--		
1,1-Dichloroethene	75-35-4	ug/kg	19.4		
1,2-Dichloroethane	107-06-2	ug/kg	--		
1,2-Dichloropropane	78-87-5	ug/kg	--		
2-Chloroethylvinylether	110-75-8	ug/kg	--		
Acrolein	107-02-8	ug/kg	0.00152		
Acrylonitrile	107-13-1	ug/kg	1.2		
Benzene	71-43-2	ug/kg	340		
Bromodichloromethane	75-27-4	ug/kg	--		
Bromoform	75-25-2	ug/kg	--		
Bromomethane	74-83-9	ug/kg	1.37		
Carbon Tetrachloride	56-23-5	ug/kg	1450		
Chlorobenzene	108-90-7	ug/kg	291		
Chloroethane	75-00-3	ug/kg	--		
Chloroform	67-66-3	ug/kg	121		
Chloromethane	74-87-3	ug/kg	--		
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		
Dibromochloromethane	124-48-1	ug/kg	--		
Ethylbenzene	100-41-4	ug/kg	1400		
Methylene Chloride	75-09-2	ug/kg	159		
Tetrachloroethene	127-18-4	ug/kg	450		
Toluene	108-88-3	ug/kg	2500		
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		
Trichloroethene	79-01-6	ug/kg	1600		
Trichlorofluoromethane	75-69-4	ug/kg	--		
Vinyl Chloride	75-01-4	ug/kg	202		
Xylenes (total)	1330-20-7	ug/kg	--		

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-H7-1-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01	SD-I6-1-01	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
					Sample Date	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-H7-1-011N	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011FD	SD-I5-2-011N	SD-I6-1-011N	SD-R-H6-011.0FD	SD-R-H6-011.0N	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
					Parent ID			SD-I5-2-011N	SD-I5-2-011N			SD-R-H6-011.0N						
					Subdrainage Area	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
Explosives																		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 130		< 150	< 130		< 410	< 420	< 610	< 360	< 460	< 410	< 450	
1,3-Dinitrobenzene	99-65-0	ug/kg	500			< 130		< 150	< 130									
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 130		< 150	< 130		< 410	< 420	< 610	< 360	< 460	< 410	< 450	
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 130		< 150	< 130		< 410	< 420	< 610	< 360	< 460	< 410	< 450	
2-Nitrotoluene	88-72-2	ug/kg	620000			< 130		< 150	< 130									
3-Nitrotoluene	99-08-1	ug/kg	190000			< 130		< 150	< 130									
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 130		< 150	< 130		< 410	< 420	< 610	< 360	< 460	< 410	< 450	
4-Nitrotoluene	99-99-0	ug/kg	68000			< 130		< 150	< 130									
Nitrobenzene	98-95-3	ug/kg	145			< 130		< 150	< 130		< 410	< 420	< 610	< 360	< 460	< 410	< 450	
Nitrocellulose	9004-70-0	ug/kg	--			< 76000		< 88000	< 80000		< 170000	< 170000	< 240000	< 140000	< 180000	< 160000	< 180000	
Nitroglycerin	55-63-0	ug/kg	127000			< 2500		< 2900	< 2700		< 8300	< 8500	< 12000	< 7300	< 9100	< 8100	< 9100	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 130		< 150	< 130		< 1000	< 1100	< 1500	< 910	< 1100	< 1000	< 1100	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 2500		< 2900	< 2700		< 8300	< 8500	< 12000	< 7300	< 9100	< 8100	< 9100	
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 130		< 150	< 130		< 410	< 420	< 610	< 360	< 460	< 410	< 450	
Tetryl	479-45-8	ug/kg	600			< 130		< 150	< 130									
Grain Size																		
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--			3.2			4.2									
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--			34.8			52.9									
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--								74	89.6	100	97.6	100	100	100	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--			1.1			1.4									
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--			20.2			32.5									
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--								100	100	100	100	100	100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--			63			78.7									
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--			9			12									
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--								100	100	100	100	100	100	100	
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--			91.8			100									
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--			100			100									
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--			100			100									
Sieve, 1 micron, % passing	SIEVE_1U	%	--								5	6	1	4	< 1	< 1	6	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--								57.2	72.2	71.4	28.3	63.9	57.6	86.4	
Sieve, 150 micron, % passing	SIEVE_150U	%	--								38.7	47.8	38.7	18.1	16.4	13.4	65	
Sieve, 2 micron, % passing	SIEVE_2U	%	--								6.5	8	2	4	< 1	< 1	9.5	
Sieve, 20 micron, % passing	SIEVE_20U	%	--								19.5	25	15.5	10.5	6	5	28	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--								60.1	74.9	76	32.6	73.4	67.4	87.8	
Sieve, 300 micron, % passing	SIEVE_300U	%	--								46.3	58.3	50	20.4	30.2	26.3	74.6	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--								64.2	79.2	81.9	41.3	80.4	74.1	94.7	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--								66.5	81.7	87.5	50.7	87	81.5	97.5	
Sieve, 5 micron, % passing	SIEVE_5U	%	--								10.5	12	5	6	2	2	15.5	
Sieve, 50 micron, % passing	SIEVE_50U	%	--								28	34	24	13.5	7	6.5	46	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--			55.8			72.5									
Sieve, 600 micron, % passing	SIEVE_600U	%	--								52.6	66.9	62.5	23.9	48.2	44.7	82.5	
Sieve, 64 micron, % passing	SIEVE_64U	%	--								30.5	38	28.5	15.5	7.5	7	52	
Sieve, 75 micron, % passing	SIEVE_75U	%	--								32.8	39.8	31.3	16.5	8.6	8	56	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--			48.6			65.7									
Metals																		
Antimony	7440-36-0	mg/kg	3	3		0.91		< 0.95	1.9									
Arsenic	7440-38-2	mg/kg	6	33		3.9		4.9	4.5		4.16	3.86	5.75	3.59	4.61	3.76	1.91	
Beryllium	7440-41-7	mg/kg	NA			0.73		0.45	0.75									
Cadmium	7440-43-9	mg/kg	0.6	10		< 0.069		< 0.081	< 0.073		< 0.671	< 0.69	0.256	0.378	0.777	0.418	< 3.79	
Chromium	7440-47-3	mg/kg	26	110		6.3		11.3	8.7		18.5	18.3	17.1	15.3	11.4	9.23	18.5	
Copper	7440-50-8	mg/kg	16	110		8.3		18.1	13		18.4	19.5	25.4	14.2	59.4	20.4	6.55	
Lead	7439-92-1	mg/kg	31	250		14.2		31.8	22.1		15.2	17.1	48.5	7.75	75.6	77.6	8.32	
Mercury	7439-97-6	mg/kg	0.2	2		0.011		0.018	0.022		0.193	0.375	0.332	< 0.113	0.0404	0.0607	0.0652	
Nickel	7440-02-0	mg/kg	16	75		3.7		6.9	5.2		13.5	13.3	10.8	10.8	7.07	6.09	8.19	
Selenium	7782-49-2	mg/kg	2			< 0.6		< 0.7	4.7									
Silver	7440-22-4	mg/kg	1			< 0.17		< 0.21	< 0.19		< 0.671	< 0.69	< 1.01	< 0.583	1.17	< 0.67	< 0.758	
Thallium	7440-28-0	mg/kg	--			5.4		3.3	11.1									
Zinc	7440-66-6	mg/kg	120	820		123		114	167		85	86.8	237	71	155	96.4	146	
Moisture																		
Percent Moisture	MOIST	%	--			21.3		31.8	25.4		27.7	29	50.9	17.6	34.2	26.1	34	
SVOCs																		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062			< 42		< 48	< 44									
1,2-Dichlorobenzene	95-50-1	ug/kg	294			< 42		< 48	< 44									
1,2-Diphenylhydrazine	122-66-7	ug/kg	--			< 42		< 48	< 44									
1,3-Dichlorobenzene	541-73-1	ug/kg	1315			< 42		< 48	< 44									
1,4-Dichlorobenzene	106-46-7	ug/kg	318			< 42		< 48	< 44									
2,4,6-Trichlorophenol	88-06-2	ug/kg	--			< 85		< 98	< 90									
2,4-Dichlorophenol	120-83-2	ug/kg	--			< 85		< 98	< 90									
2,4-Dimethylphenol	105-67-9	ug/kg	304			< 85		< 98	< 90									
2,4-Dinitrophenol	51-28-5	ug/kg	6.21			< 850		< 980	< 900									
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4			< 85		< 98	< 90									
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 42		< 48	< 44									
2-Chloronaphthalene	91-58-7	ug/kg	--			< 42		< 48	< 44									
2-Chlorophenol	95-57-8	ug/kg	31.9			< 42		< 48	< 44									
2-Nitrophenol	88-75-5	ug/kg	--			< 85		< 98	< 90									
3,3-Dichlorobenzidine	91-94-1	ug/kg	127			< 85		< 98	< 90									
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104			< 220		< 250	< 230									
4-Bromophenyl-phenylether	101-55-3	ug/kg	--			< 85		< 98	< 90									
4-Chloro-3-methylphenol	59-50-7	ug/kg	--			< 85		< 98	< 90									
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--			< 42		< 48	< 44									

					Location	SD-H7-1-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01	SD-I6-1-01	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
					Sample Date	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-H7-1-011N	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011FD	SD-I5-2-011N	SD-I6-1-011N	SD-R-H6-011.0FD	SD-R-H6-011.0N	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
					Parent ID			SD-I5-2-011N	SD-I5-2-011N			SD-R-H6-011.0N						
					Subdrainage Area	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
4-Nitrophenol	100-02-7	ug/kg	13.3			< 220		< 250	< 230									
Acenaphthene	83-32-9	ug/kg	16			< 42		< 48	< 44									
Acenaphthylene	208-96-8	ug/kg	44			< 42		< 48	< 44									
Anthracene	120-12-7	ug/kg	220	370000		< 42		< 48	< 44									
Benzidine	92-87-5	ug/kg	--			< 850		< 980	< 900									
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000		< 42		140	120									
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000		< 42		110	93									
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200		< 42		220	130									
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000		< 42		< 48	60									
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000		< 42		72	50									
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--			< 85		< 98	< 90									
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--			< 42		< 48	< 44									
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--			< 42		< 48	< 44									
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750		97		< 98	< 90									
Butylbenzylphthalate	85-68-7	ug/kg	1970			< 85		< 98	< 90									
Chrysene	218-01-9	ug/kg	340	460000		< 42		140	130									
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000		< 42		< 48	< 44									
Diethylphthalate	84-66-2	ug/kg	295			< 85		< 98	< 90									
Dimethylphthalate	131-11-3	ug/kg	1000			< 85		< 98	< 90									
Di-n-butylphthalate	84-74-2	ug/kg	1114	110		< 85		< 98	< 90									
Di-n-octylphthalate	117-84-0	ug/kg	40600			< 85		< 98	< 90									
Fluoranthene	206-44-0	ug/kg	750	1020000		< 42		250	310									
Fluorene	86-73-7	ug/kg	190	160000		< 42		< 48	< 44									
Hexachlorobenzene	118-74-1	ug/kg	20	24000		< 42		< 48	< 44									
Hexachlorobutadiene	87-68-3	ug/kg	26.5			< 85		< 98	< 90									
Hexachlorocyclopentadiene	77-47-4	ug/kg	--			< 220		< 250	< 230									
Hexachloroethane	67-72-1	ug/kg	584			< 42		< 48	< 44									
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000		< 42		< 48	75									
Isophorone	78-59-1	ug/kg	432			< 42		< 48	< 44									
Naphthalene	91-20-3	ug/kg	160	2100000		< 42		< 48	< 44									
N-Nitrosodimethylamine	62-75-9	ug/kg	--			< 85		< 98	< 90									
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--			< 42		< 48	< 44									
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680			< 42		< 48	< 44									
Pentachlorophenol	87-86-5	ug/kg	23000			< 220		< 250	< 230									
Phenanthrene	85-01-8	ug/kg	560	950000		< 42		57	200									
Phenol	108-95-2	ug/kg	49.1	48		< 85		< 98	< 90									
Pyrene	129-00-0	ug/kg	490	850000		< 42		200	240									

					Location	SD-H7-1-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01	SD-I6-1-01	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
					Sample Date	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-H7-1-011N	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011FD	SD-I5-2-011N	SD-I6-1-011N	SD-R-H6-011.0FD	SD-R-H6-011.0N	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
					Parent ID			SD-I5-2-011N	SD-I5-2-011N			SD-R-H6-011.0N						
					Subdrainage Area	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
Total Organic Carbon																		
Total Organic Carbon	TOC	mg/kg	--			14000		39400	11200		9200	20000	40000	910	17000	3000	41000	
TPH																		
Amyl alcohol	71-41-0	ug/kg	--		< 14000	< 13000		< 15000	< 13000	< 16000								
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 14000	< 13000		< 15000	< 13000	< 16000								
Ethanol	64-17-5	ug/kg	--		< 14000	< 13000		< 15000	< 13000	< 16000								
Ethyl ether	60-29-7	ug/kg	--		< 14000	< 13000		< 15000	< 13000	< 16000								
Methanol	67-56-1	ug/kg	--		< 14000	< 13000		< 15000	< 13000	< 16000								
N-butyl ether	142-96-1	ug/kg	--		< 14000	< 13000		< 15000	< 13000	< 16000								
VOCs																		
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 170	< 140	< 180		< 150	< 220								
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
1,1-Dichloroethane	75-34-3	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 170	< 140	< 180		< 150	< 220								
1,2-Dichloroethane	107-06-2	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
1,2-Dichloropropane	78-87-5	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 340	< 280	< 350		< 290	< 450								
Acrolein	107-02-8	ug/kg	0.00152		< 3400	< 2800	< 3500		< 3000	< 4500								
Acrylonitrile	107-13-1	ug/kg	1.2		< 670	< 570	< 710		< 590	< 890								
Benzene	71-43-2	ug/kg	340		< 170	< 140	< 180		< 150	< 220								
Bromodichloromethane	75-27-4	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Bromoform	75-25-2	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Bromomethane	74-83-9	ug/kg	1.37		< 340	< 280	< 350		< 290	< 450								
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 170	< 140	< 180		< 150	< 220								
Chlorobenzene	108-90-7	ug/kg	291		< 170	< 140	< 180		< 150	< 220								
Chloroethane	75-00-3	ug/kg	--		< 340	< 280	< 350		< 290	< 450								
Chloroform	67-66-3	ug/kg	121		< 170	< 140	< 180		< 150	< 220								
Chloromethane	74-87-3	ug/kg	--		< 340	< 280	< 350		< 290	< 450								
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Dibromochloromethane	124-48-1	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Ethylbenzene	100-41-4	ug/kg	1400		< 170	< 140	< 180		< 150	< 220								
Methylene Chloride	75-09-2	ug/kg	159		< 340	< 280	< 350		< 290	< 450								
Tetrachloroethene	127-18-4	ug/kg	450		< 170	< 140	< 180		< 150	< 220								
Toluene	108-88-3	ug/kg	2500		< 170	< 140	< 180		< 150	< 220								
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 170	< 140	< 180		< 150	< 220								
Trichloroethene	79-01-6	ug/kg	1600		< 170	< 140	< 180		< 150	< 220								
Trichlorofluoromethane	75-69-4	ug/kg	--		< 340	< 280	< 350		< 290	< 450								
Vinyl Chloride	75-01-4	ug/kg	202		< 170	< 140	< 180		< 150	< 220								
Xylenes (total)	1330-20-7	ug/kg	--		< 170	< 140	< 180		< 150	< 220								

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
				Sample Date	6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
				Parent ID						
				Subdrainage Area	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
Explosives										
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 380	< 490	< 390	< 410	< 400	< 360
1,3-Dinitrobenzene	99-65-0	ug/kg	500							
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 380	< 490	< 390	< 410	< 400	< 360
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 380	< 490	< 390	< 410	< 400	< 360
2-Nitrotoluene	88-72-2	ug/kg	620000							
3-Nitrotoluene	99-08-1	ug/kg	190000							
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 380	< 490	< 390	< 410	< 400	< 360
4-Nitrotoluene	99-99-0	ug/kg	68000							
Nitrobenzene	98-95-3	ug/kg	145		< 380	< 490	< 390	< 410	< 400	< 360
Nitrocellulose	9004-70-0	ug/kg	--		< 150000	< 200000	< 150000	< 160000	< 160000	< 140000
Nitroglycerin	55-63-0	ug/kg	127000		< 7700	< 9900	< 7700	< 8200	< 8000	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 960	< 1200	< 960	< 1000	< 1000	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 7700	< 9900	< 7700	< 8200	< 8000	< 7100
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 380	< 490	< 390	< 410	< 400	< 360
Tetryl	479-45-8	ug/kg	600							
Grain Size										
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--							
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--							
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		96.7	100	87.5	100	96.4	89.8
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--							
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--							
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--							
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--							
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--							
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--							
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--							
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1	< 1	1.3	< 1	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		50.4	73.3	31.6	46.5	29.6	24.6
Sieve, 150 micron, % passing	SIEVE_150U	%	--		8.5	44.3	4.7	7.7	3.3	4.2
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1	3.5	< 1	1.3	< 1	< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--		< 1	25	1	2.8	1.5	1.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		63.9	85.1	42.7	62.7	42.2	33.9
Sieve, 300 micron, % passing	SIEVE_300U	%	--		16.4	52.4	8.5	16.9	6.6	8
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		72.1	90.6	47.2	69.8	49.8	41.1
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		80	93.6	50.8	76.6	59.3	50
Sieve, 5 micron, % passing	SIEVE_5U	%	--		< 1	8	1	1.3	0.5	0.5
Sieve, 50 micron, % passing	SIEVE_50U	%	--		3	35	3	3.8	3	3
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--							
Sieve, 600 micron, % passing	SIEVE_600U	%	--		30.5	62.1	17.4	31.8	16.6	15.5
Sieve, 64 micron, % passing	SIEVE_64U	%	--		4.5	41	3.5	5	3	3.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		5.5	43.8	3.7	5.5	2.7	3.9
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--							
Metals										
Antimony	7440-36-0	mg/kg	3	3						
Arsenic	7440-38-2	mg/kg	6	33	3.26	6.37	31.6	3.58	6.24	7.33
Beryllium	7440-41-7	mg/kg	NA							
Cadmium	7440-43-9	mg/kg	0.6	10	< 3.17	< 0.822	< 0.643	< 0.66	0.867	0.859
Chromium	7440-47-3	mg/kg	26	110	5.09	18.2	52.8	10.9	10.3	11.2
Copper	7440-50-8	mg/kg	16	110	7.94	23.1	7.6	9.27	13.1	8.11
Lead	7439-92-1	mg/kg	31	250	13.4	65.7	69.2	26.9	32.7	13.6
Mercury	7439-97-6	mg/kg	0.2	2	< 0.125	0.704	0.0225	0.0501	< 0.132	< 0.119
Nickel	7440-02-0	mg/kg	16	75	4.62	11.4	13.4	6.59	6.19	5.24
Selenium	7782-49-2	mg/kg	2							
Silver	7440-22-4	mg/kg	1		< 0.634	< 0.822	< 0.643	< 0.66	< 0.647	< 0.583
Thallium	7440-28-0	mg/kg	--							
Zinc	7440-66-6	mg/kg	120	820	102	229	191	174	177	177
Moisture										
Percent Moisture	MOIST	%	--		21.9	39.2	22.2	26.5	25	15.9
SVOCs										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062							
1,2-Dichlorobenzene	95-50-1	ug/kg	294							
1,2-Diphenylhydrazine	122-66-7	ug/kg	--							
1,3-Dichlorobenzene	541-73-1	ug/kg	1315							
1,4-Dichlorobenzene	106-46-7	ug/kg	318							
2,4,6-Trichlorophenol	88-06-2	ug/kg	--							
2,4-Dichlorophenol	120-83-2	ug/kg	--							
2,4-Dimethylphenol	105-67-9	ug/kg	304							
2,4-Dinitrophenol	51-28-5	ug/kg	6.21							
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4							
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8							
2-Chloronaphthalene	91-58-7	ug/kg	--							
2-Chlorophenol	95-57-8	ug/kg	31.9							
2-Nitrophenol	88-75-5	ug/kg	--							
3,3-Dichlorobenzidine	91-94-1	ug/kg	127							
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104							
4-Bromophenyl-phenylether	101-55-3	ug/kg	--							
4-Chloro-3-methylphenol	59-50-7	ug/kg	--							
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--							

				Location	SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
				Sample Date	6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
				Parent ID						
				Subdrainage Area	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
4-Nitrophenol	100-02-7	ug/kg	13.3							
Acenaphthene	83-32-9	ug/kg	16							
Acenaphthylene	208-96-8	ug/kg	44							
Anthracene	120-12-7	ug/kg	220	370000						
Benzidine	92-87-5	ug/kg	--							
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000						
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000						
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200						
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000						
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000						
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--							
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--							
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--							
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750						
Butylbenzylphthalate	85-68-7	ug/kg	1970							
Chrysene	218-01-9	ug/kg	340	460000						
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000						
Diethylphthalate	84-66-2	ug/kg	295							
Dimethylphthalate	131-11-3	ug/kg	1000							
Di-n-butylphthalate	84-74-2	ug/kg	1114	110						
Di-n-octylphthalate	117-84-0	ug/kg	40600							
Fluoranthene	206-44-0	ug/kg	750	1020000						
Fluorene	86-73-7	ug/kg	190	160000						
Hexachlorobenzene	118-74-1	ug/kg	20	24000						
Hexachlorobutadiene	87-68-3	ug/kg	26.5							
Hexachlorocyclopentadiene	77-47-4	ug/kg	--							
Hexachloroethane	67-72-1	ug/kg	584							
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000						
Isophorone	78-59-1	ug/kg	432							
Naphthalene	91-20-3	ug/kg	160	2100000						
N-Nitrosodimethylamine	62-75-9	ug/kg	--							
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--							
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680							
Pentachlorophenol	87-86-5	ug/kg	23000							
Phenanthrene	85-01-8	ug/kg	560	950000						
Phenol	108-95-2	ug/kg	49.1	48						
Pyrene	129-00-0	ug/kg	490	850000						

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
				Sample Date	6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
				Parent ID						
				Subdrainage Area	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams	Development Streams
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
Total Organic Carbon										
Total Organic Carbon	TOC	mg/kg	--		19000	52000	3800	24000	6700	4200
TPH										
Amyl alcohol	71-41-0	ug/kg	--							
Di-N-Propyl Ether	111-43-3	ug/kg	--							
Ethanol	64-17-5	ug/kg	--							
Ethyl ether	60-29-7	ug/kg	--							
Methanol	67-56-1	ug/kg	--							
N-butyl ether	142-96-1	ug/kg	--							
VOCs										
1,1,1-Trichloroethane	71-55-6	ug/kg	--							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850							
1,1,2-Trichloroethane	79-00-5	ug/kg	--							
1,1-Dichloroethane	75-34-3	ug/kg	--							
1,1-Dichloroethene	75-35-4	ug/kg	19.4							
1,2-Dichloroethane	107-06-2	ug/kg	--							
1,2-Dichloropropane	78-87-5	ug/kg	--							
2-Chloroethylvinylether	110-75-8	ug/kg	--							
Acrolein	107-02-8	ug/kg	0.00152							
Acrylonitrile	107-13-1	ug/kg	1.2							
Benzene	71-43-2	ug/kg	340							
Bromodichloromethane	75-27-4	ug/kg	--							
Bromoform	75-25-2	ug/kg	--							
Bromomethane	74-83-9	ug/kg	1.37							
Carbon Tetrachloride	56-23-5	ug/kg	1450							
Chlorobenzene	108-90-7	ug/kg	291							
Chloroethane	75-00-3	ug/kg	--							
Chloroform	67-66-3	ug/kg	121							
Chloromethane	74-87-3	ug/kg	--							
cis-1,2-Dichloroethene	156-59-2	ug/kg	--							
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--							
Dibromochloromethane	124-48-1	ug/kg	--							
Ethylbenzene	100-41-4	ug/kg	1400							
Methylene Chloride	75-09-2	ug/kg	159							
Tetrachloroethene	127-18-4	ug/kg	450							
Toluene	108-88-3	ug/kg	2500							
trans-1,2-Dichloroethene	156-60-5	ug/kg	--							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--							
Trichloroethene	79-01-6	ug/kg	1600							
Trichlorofluoromethane	75-69-4	ug/kg	--							
Vinyl Chloride	75-01-4	ug/kg	202							
Xylenes (total)	1330-20-7	ug/kg	--							

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-L5-2-01	SD-L5-2-01	SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01	SD-M7-1-01	SD-R-L5-01	SD-R-L5-02	SD-R-L5-12	SD-R-L5-13
					Sample Date	4/9/2001	4/9/2001	4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/5/2001	3/23/2006	3/23/2006	7/14/2006	7/14/2006
					Sample Depths	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-L5-2-010.5FD	SD-L5-2-011N	SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011FD	SD-L6-1-011N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N	SD-M7-1-011N	SD-R-L5-011.0N	SD-R-L5-021N	SD-R-L5-121.0N	SD-R-L5-131.0N
					Parent ID	SD-L5-2-011N			SD-L6-1-011N	SD-L6-1-011N											
					Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160							< 420								< 730	< 390	< 2200	< 2000
1,3-Dinitrobenzene	99-65-0	ug/kg	500							< 420											
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100							< 420								< 730	< 390	< 2200	< 2000
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300							< 420								< 730	< 390	< 2200	< 2000
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500							< 420								< 730	< 390	< 4400	< 4000
Nitrobenzene	98-95-3	ug/kg	145							< 420								< 730	< 390	< 2200	< 2000
Nitrocellulose	9004-70-0	ug/kg	--							< 250000								6000000	140000	< 890000	670000
Nitroglycerin	55-63-0	ug/kg	127000							< 8400								2700000	16000	< 44000	< 40000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380							< 420								< 1800	< 970	< 5500	< 5000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000							< 8400								< 15000	< 7800	< 44000	< 40000
RDX (Cyclonite)	121-82-4	ug/kg	1200							< 420								600	< 390	< 2200	< 2000
Tetryl	479-45-8	ug/kg	600							< 420											
Grain Size																					
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--							16.4											
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--							74.8											
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--															90.9	89.2	100	100
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--							5.4											
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--							51.2											
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--															100	100	100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--							88.2											
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--							35.6											
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--															100	100	100	100
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--							100											
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--							100											
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--							100											
Sieve, 1 micron, % passing	SIEVE_1U	%	--															0.5	1	3	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--															54.1	46.1	62.8	< 1
Sieve, 150 micron, % passing	SIEVE_150U	%	--															11.5	15	38.8	< 1
Sieve, 2 micron, % passing	SIEVE_2U	%	--															0.5	1.5	4	< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--															1.5	3.5	23	< 1
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--															63	53.3	66.5	82.3
Sieve, 300 micron, % passing	SIEVE_300U	%	--															23.6	24.8	45.1	< 1
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--															67.8	59.5	94.7	89.9
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--															72.3	66.3	98.9	93.1
Sieve, 5 micron, % passing	SIEVE_5U	%	--															0.5	2.5	7	< 1
Sieve, 50 micron, % passing	SIEVE_50U	%	--															2.5	6	44	< 1
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--							87.4											
Sieve, 600 micron, % passing	SIEVE_600U	%	--															40.6	36.3	49.8	< 1
Sieve, 64 micron, % passing	SIEVE_64U	%	--															5.5	9	34.5	< 1
Sieve, 75 micron, % passing	SIEVE_75U	%	--															6.4	10.3	31.5	< 1
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--							85.9											
Metals																					
Antimony	7440-36-0	mg/kg	3	3						< 2.7											
Arsenic	7440-38-2	mg/kg	6	33						10.8								5.44	6.59	9.37	11.5
Beryllium	7440-41-7	mg/kg	NA							0.86											
Cadmium	7440-43-9	mg/kg	0.6	10						0.5								1.05	0.754	1.98	1.97
Chromium	7440-47-3	mg/kg	26	110						24.5								13.5	12.7	20.3	21.5
Copper	7440-50-8	mg/kg	16	110						45.7								162	17.3	52.6	68.5
Lead	7439-92-1	mg/kg	31	250						132								851	40.6	168	277
Mercury	7439-97-6	mg/kg	0.2	2						0.33								0.133	0.0525	0.503	0.616
Nickel	7440-02-0	mg/kg	16	75						17.7								12.1	9.07	17.2	17.9
Selenium	7782-49-2	mg/kg	2							< 2											
Silver	7440-22-4	mg/kg	1							< 0.59								< 1.19	< 0.643	< 3.57	< 3.28
Thallium	7440-28-0	mg/kg	--							< 3.6											
Zinc	7440-66-6	mg/kg	120	820						214								508	164	797	746
Zinc	7440-66-6	umol/g	120	1000000																	
Moisture																					
Percent Moisture	MOIST	%	--							76.3								58.7	23	86.4	84.9
SVOCs																					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062							< 140											
1,2-Dichlorobenzene	95-50-1	ug/kg	294							< 140											
1,2-Diphenylhydrazine	122-66-7	ug/kg	--							< 140											
1,3-Dichlorobenzene	541-73-1	ug/kg	1315							< 140											
1,4-Dichlorobenzene	106-46-7	ug/kg	318							< 140											
2,4,6-Trichlorophenol	88-06-2	ug/kg	--							< 280											
2,4-Dichlorophenol	120-83-2	ug/kg	--							< 280											
2,4-Dimethylphenol	105-67-9	ug/kg	304							< 280											
2,4-Dinitrophenol	51-28-5	ug/kg	6.21							< 2800											
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4							< 280								4500	270	< 6100	< 5500
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8							< 140								< 4000	< 220	< 6100	< 5500
2-Chloronaphthalene	91-58-7	ug/kg	--							< 140											
2-Chlorophenol	95-57-8	ug/kg	31.9							< 140											
2-Nitrophenol	88-75-5	ug/kg	--							< 280											
3,3-Dichlorobenzidine	91-94-1	ug/kg	127							< 280											
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104							< 720											
4-Bromophenyl-phenylether	101-55-3	ug/kg	--							< 280											
4-Chloro-3-methylphenol	59-50-7	ug/kg	--							< 280											
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--							< 140											
4-Nitrophenol	100-02-7	ug/kg	13.3							< 720											
Acenaphthene	83-32-9	ug/kg	16							< 140								< 4000	< 220	< 6100	< 5500
Acenaphthylene	208-96-8	ug/kg	44							< 140								< 4000	< 220	< 6100	< 5500

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-L5-2-01	SD-L5-2-01	SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01	SD-M7-1-01	SD-R-L5-01	SD-R-L5-02	SD-R-L5-12	SD-R-L5-13
				Sample Date	4/9/2001	4/9/2001	4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/5/2001	3/23/2006	3/23/2006	7/14/2006	7/14/2006
				Sample Depths	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-L5-2-010.5FD	SD-L5-2-011N	SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011FD	SD-L6-1-011N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N	SD-M7-1-011N	SD-R-L5-011.0N	SD-R-L5-021N	SD-R-L5-121.0N	SD-R-L5-131.0N
				Parent ID	SD-L5-2-011N			SD-L6-1-011N	SD-L6-1-011N											
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Anthracene	120-12-7	ug/kg	220	370000					< 140								< 4000	< 220	< 6100	< 5500
Benzidine	92-87-5	ug/kg	--						< 2800											
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000					230								< 4000	53	< 6100	< 5500
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000					210								1100	67	< 6100	< 5500
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200					420											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000					270								< 4000	59	< 6100	< 5500
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000					170								1000	71	< 6100	< 5500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--						< 280											
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--						< 140											
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--						< 140											
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750					< 280											
Butylbenzylphthalate	85-68-7	ug/kg	1970						< 280											
Chrysene	218-01-9	ug/kg	340	460000					380								< 4000	79	< 6100	< 5500
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000					< 140								< 4000	< 220	< 6100	< 5500
Diethylphthalate	84-66-2	ug/kg	295						< 280											
Dimethylphthalate	131-11-3	ug/kg	1000						< 280											
Di-n-butylphthalate	84-74-2	ug/kg	1114	110					< 280											
Di-n-octylphthalate	117-84-0	ug/kg	40600						< 280											
Fluoranthene	206-44-0	ug/kg	750	1020000					580								< 4000	100	< 6100	< 5500
Fluorene	86-73-7	ug/kg	190	160000					< 140								< 4000	< 220	< 6100	< 5500
Hexachlorobenzene	118-74-1	ug/kg	20	24000					< 140											
Hexachlorobutadiene	87-68-3	ug/kg	26.5						< 280											
Hexachlorocyclopentadiene	77-47-4	ug/kg	--						< 720											
Hexachloroethane	67-72-1	ug/kg	584						< 140											
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000					270											
Isophorone	78-59-1	ug/kg	432						< 140											
Naphthalene	91-20-3	ug/kg	160	2100000					< 140								< 4000	< 220	< 6100	< 5500
N-Nitrosodimethylamine	62-75-9	ug/kg	--						< 280											
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--						< 140											
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680						160											
Pentachlorophenol	87-86-5	ug/kg	23000						< 720											
Phenanthrene	85-01-8	ug/kg	560	950000					270								< 4000	59	< 6100	< 5500
Phenol	108-95-2	ug/kg	49.1	48					< 280											
Pyrene	129-00-0	ug/kg	490	850000					490								< 4000	120	< 6100	< 5500

				Location	SD-L5-2-01	SD-L5-2-01	SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01	SD-M7-1-01	SD-R-L5-01	SD-R-L5-02	SD-R-L5-12	SD-R-L5-13
				Sample Date	4/9/2001	4/9/2001	4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/5/2001	3/23/2006	3/23/2006	7/14/2006	7/14/2006
				Sample Depths	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-L5-2-010.5FD	SD-L5-2-011N	SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011FD	SD-L6-1-011N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N	SD-M7-1-011N	SD-R-L5-011.0N	SD-R-L5-021N	SD-R-L5-121.0N	SD-R-L5-131.0N
				Parent ID	SD-L5-2-011N			SD-L6-1-011N	SD-L6-1-011N											
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--						96000								25000	860	190000	230000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--			< 42000	< 40000		< 42000	< 23000	< 32000	< 20000	< 120000	< 13000	< 15000	< 45000				
Di-N-Propyl Ether	111-43-3	ug/kg	--			< 42000	< 40000		< 42000	< 23000	< 32000	< 20000	< 120000	< 13000	< 15000	< 45000				
Ethanol	64-17-5	ug/kg	--			< 42000	< 40000		< 42000	< 23000	< 32000	< 20000	< 120000	< 13000	< 15000	< 45000				
Ethyl ether	60-29-7	ug/kg	--			< 42000	< 40000		< 42000	< 23000	< 32000	< 20000	< 120000	< 13000	< 15000	< 45000				
Methanol	67-56-1	ug/kg	--			< 42000	< 40000		< 42000	< 23000	< 32000	< 20000	< 120000	< 13000	< 15000	< 45000				
N-butyl ether	142-96-1	ug/kg	--			< 42000	< 40000		< 42000	< 23000	< 32000	< 20000	< 120000	< 13000	< 15000	< 45000				
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
1,1-Dichloroethane	75-34-3	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
1,2-Dichloroethane	107-06-2	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
1,2-Dichloropropane	78-87-5	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 940	< 940	< 900	< 1000		< 580	< 690	< 560	< 3000	< 270	< 340	< 1100				
Acrolein	107-02-8	ug/kg	0.00152		< 9400	< 9400	< 9000	< 10000		< 5800	< 6900	< 5500	< 30000	< 2700	< 3400	< 11000				
Acrylonitrile	107-13-1	ug/kg	1.2		< 1900	< 1900	< 1800	< 2000		< 1200	< 1400	< 1100	< 6000	< 550	< 670	< 2200				
Benzene	71-43-2	ug/kg	340		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Bromodichloromethane	75-27-4	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Bromoform	75-25-2	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Bromomethane	74-83-9	ug/kg	1.37		< 940	< 940	< 900	< 1000		< 580	< 690	< 560	< 3000	< 270	< 340	< 1100				
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Chlorobenzene	108-90-7	ug/kg	291		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Chloroethane	75-00-3	ug/kg	--		< 940	< 940	< 900	< 1000		< 580	< 690	< 560	< 3000	< 270	< 340	< 1100				
Chloroform	67-66-3	ug/kg	121		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Chloromethane	74-87-3	ug/kg	--		< 940	< 940	< 900	< 1000		< 580	< 690	< 560	< 3000	< 270	< 340	< 1100				
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Dibromochloromethane	124-48-1	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Ethylbenzene	100-41-4	ug/kg	1400		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Methylene Chloride	75-09-2	ug/kg	159		< 940	< 940	< 900	< 1000		< 580	< 690	< 560	< 3000	< 270	< 340	< 1100				
Tetrachloroethene	127-18-4	ug/kg	450		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Toluene	108-88-3	ug/kg	2500		< 470	< 470	< 450	660		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Trichloroethene	79-01-6	ug/kg	1600		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Trichlorofluoromethane	75-69-4	ug/kg	--		< 940	< 940	< 900	< 1000		< 580	< 690	< 560	< 3000	< 270	< 340	< 1100				
Vinyl Chloride	75-01-4	ug/kg	202		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				
Xylenes (total)	1330-20-7	ug/kg	--		< 470	< 470	< 450	< 510		< 290	< 340	< 280	< 1500	< 140	< 170	< 560				

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05	SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
					Sample Date	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006	4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N	SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
					Parent ID																
					Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 890	< 540	< 510	< 780	< 1100	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
1,3-Dinitrobenzene	99-65-0	ug/kg	500																		
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 890	< 540	< 510	< 780	< 1100	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 890	< 540	< 510	< 780	< 1100	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 890	< 540	< 510	< 780	< 1100	< 1400	< 1000	< 540	< 3100	< 5700	< 4900	< 780	< 380	< 380	< 600	< 840
Nitrobenzene	98-95-3	ug/kg	145			< 890	< 540	< 510	< 780	< 1100	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
Nitrocellulose	9004-70-0	ug/kg	--			< 360000	< 220000	< 200000	220000	260000	< 570000	< 410000	< 210000	< 610000	< 1100000	< 970000	< 310000	< 150000	< 150000	< 240000	< 330000
Nitroglycerin	55-63-0	ug/kg	127000			< 18000	4000	< 10000	25000	26000	< 29000	< 21000	5600	< 31000	< 57000	< 49000	13000	< 7700	< 7600	< 12000	< 17000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 2200	< 1300	< 1300	< 2000	< 2900	< 3600	< 2600	< 1300	< 3800	< 7100	< 6100	< 2000	< 960	< 960	< 1500	< 2100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 18000	< 11000	< 10000	< 16000	< 23000	< 29000	< 21000	< 11000	< 31000	< 57000	< 49000	< 16000	< 7700	< 7600	< 12000	< 17000
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 890	< 540	< 510	< 780	< 1100	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
Tetryl	479-45-8	ug/kg	600																		
Grain Size																					
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--																		
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--																		
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--			98.4	100	99.7	100	99.9	100	76.6	69.9	100	100	100	100	96.7	100	100	89.4
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--																		
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--																		
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--			100	100	100	100	100	100	100	72.8	100	100	100	100	100	100	100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--																		
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--																		
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--																		
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--																		
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--																		
Sieve, 1 micron, % passing	SIEVE_1U	%	--			1.5	1.5	0.5	1	5.5	< 1	< 1	0.5	1	3	3	0.5	1.5	1.5	< 1	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--			79	67.9	79.4	83.1	58.9	59.1	42.6	49.1	48.1	68.2	50.9	74.4	54.6	69.7	86.5	63.1
Sieve, 150 micron, % passing	SIEVE_150U	%	--			34.3	37.7	46.1	44.8	29.6	25.1	26.8	23.5	26.5	26.1	21.6	36.2	24.7	18	58.9	38.2
Sieve, 2 micron, % passing	SIEVE_2U	%	--			2	1.5	2.5	3	7.5	2.5	1.5	1	2.5	3	3	2.5	2	1.5	3.5	2.5
Sieve, 20 micron, % passing	SIEVE_20U	%	--			3.5	2.5	8.5	17	36	16	13.5	8	15	18	25	6	5	1.5	32.5	16
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--			82.5	72.5	82.2	88.3	86	68.5	46.6	53	60.4	74.8	56.2	77	59.1	88.4	92.9	68.6
Sieve, 300 micron, % passing	SIEVE_300U	%	--			53.1	49.3	57.9	60.6	36.2	33.9	30.2	31.5	31.5	37	29	51.1	35.6	31.9	68.8	46.6
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--			87.2	79.5	92.3	92.5	93.6	75.1	60.4	58.9	87.2	90.7	83.6	80.2	64.2	94.4	95.4	73.9
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--			90.1	85.5	95.8	94.9	96.9	78.4	68.3	62.5	95	97.1	91.3	91.2	69.3	96.2	96.1	77.5
Sieve, 5 micron, % passing	SIEVE_5U	%	--			2.5	1.5	6.5	5.5	13.5	6	4	2.5	4	3	3	4.5	3	1.5	9.5	5.5
Sieve, 50 micron, % passing	SIEVE_50U	%	--			9.5	10	14.5	31	41.5	23	21	12.5	31	40	36	13	8.5	8	42	25.5
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--																		
Sieve, 600 micron, % passing	SIEVE_600U	%	--			70.7	59.6	70.2	76	45.5	49.4	33.5	41.3	37.9	48.4	35.4	66.2	47.3	50.7	79.1	56.4
Sieve, 64 micron, % passing	SIEVE_64U	%	--			18.5	23	28.5	32	30	21	22.5	16.5	24	23	20	21.5	16.5	11	48	29.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--			23.5	28.4	37.7	34	25.6	20.2	23.3	18.7	22.1	16.3	14	26.5	18.4	12.5	51.6	32
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--																		
Metals																					
Antimony	7440-36-0	mg/kg	3	3																	
Arsenic	7440-38-2	mg/kg	6	33		5.73	2.6	1.96	3.52	11	14.8	10.1	2.13	5.4	< 18.3	< 15.6	6.63	3.4	3.01	25.2	5.48
Beryllium	7440-41-7	mg/kg	NA																		
Cadmium	7440-43-9	mg/kg	0.6	10		0.61	0.654	0.416	0.769	1.95	0.824	0.721	0.198	0.907	< 4.58	0.516	1.29	0.543	0.526	1.56	0.565
Chromium	7440-47-3	mg/kg	26	110		18.4	11.5	11	11.6	23.9	20.9	20	9.27	19.9	13.7	12.7	20.4	10.5	9.81	38	19
Copper	7440-50-8	mg/kg	16	110		35.3	19.1	13.1	37.4	110	71.5	62.4	13.4	34.4	20.6	18.4	45.8	10.9	7.67	52.5	41.7
Lead	7439-92-1	mg/kg	31	250		109	46.2	49.6	183	468	298	304	60.5	86.9	41.2	32.7	128	14.9	4.51	166	184
Mercury	7439-97-6	mg/kg	0.2	2		0.164	0.0663	0.101	0.333	0.682	0.511	0.51	0.106	0.31	0.157	0.0834	0.183	0.0201	0.011	0.224	0.327
Nickel	7440-02-0	mg/kg	16	75		12.9	7.67	7.83	9.66	20.9	17.5	15.5	6.87	14.7	9.8	8.92	20.8	7.59	3.22	20.3	15.3
Selenium	7782-49-2	mg/kg	2																		
Silver	7440-22-4	mg/kg	1			< 1.43	< 0.863	< 0.821	0.498	< 1.86	< 2.38	< 1.72	< 0.86	< 2.47	< 4.58	< 3.91	< 1.29	< 0.622	< 0.624	< 0.996	< 1.36
Thallium	7440-28-0	mg/kg	--																		
Zinc	7440-66-6	mg/kg	120	820		251	112	208	276	497	360	269	150	345	185	165	389	84.3	32	409	368
Zinc	7440-66-6	umol/g	120	1000000																	
Moisture																					
Percent Moisture	MOIST	%	--			66.4	44.3	40.9	61.6	73.9	79	71	44.1	80.5	89.4	87.7	61.6	21.9	21.5	49.8	64.4
SVOCs																					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062																		
1,2-Dichlorobenzene	95-50-1	ug/kg	294																		
1,2-Diphenylhydrazine	122-66-7	ug/kg	--																		
1,3-Dichlorobenzene	541-73-1	ug/kg	1315																		
1,4-Dichlorobenzene	106-46-7	ug/kg	318																		
2,4,6-Trichlorophenol	88-06-2	ug/kg	--																		
2,4-Dichlorophenol	120-83-2	ug/kg	--																		
2,4-Dimethylphenol	105-67-9	ug/kg	304																		
2,4-Dinitrophenol	51-28-5	ug/kg	6.21																		
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4														< 430	< 210		< 330	< 470
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8														< 430	< 210		< 330	< 470
2-Chloronaphthalene	91-58-7	ug/kg	--																		
2-Chlorophenol	95-57-8	ug/kg	31.9																		
2-Nitrophenol	88-75-5	ug/kg	--																		
3,3-Dichlorobenzidine	91-94-1	ug/kg	127																		
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104																		
4-Bromophenyl-phenylether	101-55-3	ug/kg	--																		
4-Chloro-3-methylphenol	59-50-7	ug/kg	--																		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--																		
4-Nitrophenol	100-02-7	ug/kg	13.3																		
Acenaphthene	83-32-9	ug/kg	16														< 430	< 210		< 330	< 470
Acenaphthylene	208-96-8	ug/kg	44														< 430	< 210		< 330	< 470

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05	SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
				Sample Date	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006	4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N	SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
				Parent ID																
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Anthracene	120-12-7	ug/kg	220	370000												< 430	< 210		< 330	< 470
Benzidine	92-87-5	ug/kg	--																	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000												88	< 210		140	130
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000												100	< 210		150	170
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200																
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000												< 430	< 210		130	120
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000												91	< 210		120	140
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--																	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--																	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--																	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750																
Butylbenzylphthalate	85-68-7	ug/kg	1970																	
Chrysene	218-01-9	ug/kg	340	460000												140	< 210		230	160
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000												< 430	< 210		< 330	< 470
Diethylphthalate	84-66-2	ug/kg	295																	
Dimethylphthalate	131-11-3	ug/kg	1000																	
Di-n-butylphthalate	84-74-2	ug/kg	1114	110																
Di-n-octylphthalate	117-84-0	ug/kg	40600																	
Fluoranthene	206-44-0	ug/kg	750	1020000												140	< 210		240	260
Fluorene	86-73-7	ug/kg	190	160000												< 430	< 210		< 330	< 470
Hexachlorobenzene	118-74-1	ug/kg	20	24000																
Hexachlorobutadiene	87-68-3	ug/kg	26.5																	
Hexachlorocyclopentadiene	77-47-4	ug/kg	--																	
Hexachloroethane	67-72-1	ug/kg	584																	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000																
Isophorone	78-59-1	ug/kg	432																	
Naphthalene	91-20-3	ug/kg	160	2100000												< 430	< 210		< 330	< 470
N-Nitrosodimethylamine	62-75-9	ug/kg	--																	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--																	
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680																	
Pentachlorophenol	87-86-5	ug/kg	23000																	
Phenanthrene	85-01-8	ug/kg	560	950000												< 430	< 210		< 330	< 470
Phenol	108-95-2	ug/kg	49.1	48																
Pyrene	129-00-0	ug/kg	490	850000												200	< 210		280	310

				Location	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05	SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
				Sample Date	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006	4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N	SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
				Parent ID																
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--		100000	37000	20000	110000	220000	54000	52000	21000	190000	300000	260000	65000	4800	3000	59000	25000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--																	
Di-N-Propyl Ether	111-43-3	ug/kg	--																	
Ethanol	64-17-5	ug/kg	--																	
Ethyl ether	60-29-7	ug/kg	--																	
Methanol	67-56-1	ug/kg	--																	
N-butyl ether	142-96-1	ug/kg	--																	
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--																	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850																	
1,1,2-Trichloroethane	79-00-5	ug/kg	--																	
1,1-Dichloroethane	75-34-3	ug/kg	--																	
1,1-Dichloroethene	75-35-4	ug/kg	19.4																	
1,2-Dichloroethane	107-06-2	ug/kg	--																	
1,2-Dichloropropane	78-87-5	ug/kg	--																	
2-Chloroethylvinylether	110-75-8	ug/kg	--																	
Acrolein	107-02-8	ug/kg	0.00152																	
Acrylonitrile	107-13-1	ug/kg	1.2																	
Benzene	71-43-2	ug/kg	340																	
Bromodichloromethane	75-27-4	ug/kg	--																	
Bromoform	75-25-2	ug/kg	--																	
Bromomethane	74-83-9	ug/kg	1.37																	
Carbon Tetrachloride	56-23-5	ug/kg	1450																	
Chlorobenzene	108-90-7	ug/kg	291																	
Chloroethane	75-00-3	ug/kg	--																	
Chloroform	67-66-3	ug/kg	121																	
Chloromethane	74-87-3	ug/kg	--																	
cis-1,2-Dichloroethene	156-59-2	ug/kg	--																	
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--																	
Dibromochloromethane	124-48-1	ug/kg	--																	
Ethylbenzene	100-41-4	ug/kg	1400																	
Methylene Chloride	75-09-2	ug/kg	159																	
Tetrachloroethene	127-18-4	ug/kg	450																	
Toluene	108-88-3	ug/kg	2500																	
trans-1,2-Dichloroethene	156-60-5	ug/kg	--																	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--																	
Trichloroethene	79-01-6	ug/kg	1600																	
Trichlorofluoromethane	75-69-4	ug/kg	--																	
Vinyl Chloride	75-01-4	ug/kg	202																	
Xylenes (total)	1330-20-7	ug/kg	--																	

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06	SD-R-M5-07	SD-R-M5-08	SD-R-M5-09	SD-R-M5-10	SD-R-M5-11	SD-R-M5-12	SD-R-M5-12
					Sample Date	4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	7/14/2006	7/14/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-031.0N	SD-R-M5-041.0FD	SD-R-M5-041.0N	SD-R-M5-051.0N	SD-R-M5-061.0N	SD-R-M5-071.0N	SD-R-M5-081.0N	SD-R-M5-091.0N	SD-R-M5-101.0N	SD-R-M5-111.0N	SD-R-M5-121.0N	SD-R-M5-121N
					Parent ID						SD-R-M5-041.0N										
					Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 510	< 820	< 520	< 360	< 400	< 430	< 440	< 570	< 550	< 410	< 3700	< 2600	< 3700	< 2000		< 1600
1,3-Dinitrobenzene	99-65-0	ug/kg	500																		
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 510	< 820	< 520	< 360	< 400	< 430	< 440	< 570	< 550	< 410	< 3700	< 2600	< 3700	< 2000		< 1600
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 510	< 820	< 520	< 360	< 400	< 430	< 440	< 570	< 550	< 410	< 3700	< 2600	< 3700	< 2000		< 1600
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 510	< 1600	< 1000	< 360	< 400	< 430	< 440	< 570	< 550	< 410	< 7300	< 5200	< 7400	< 4000		< 3100
Nitrobenzene	98-95-3	ug/kg	145			< 510	< 820	< 520	< 360	< 400	< 430	< 440	< 570	< 550	< 410	< 3700	< 2600	< 3700	< 2000		< 1600
Nitrocellulose	9004-70-0	ug/kg	--			< 210000	330000	340000	< 140000	< 160000	< 170000	< 170000	< 230000	95000	< 160000	< 1400000	750000	< 1500000	< 790000		< 630000
Nitroglycerin	55-63-0	ug/kg	127000			< 10000	< 16000	< 10000	9000	3600	3100	< 8800	20000	< 11000	< 8200	< 73000	< 52000	30000	< 40000		< 31000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 1300	< 2000	< 1300	< 900	< 1000	< 1100	< 1100	< 1400	< 1400	< 1000	< 9100	< 6500	< 9300	< 5000		< 3900
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 10000	< 16000	< 10000	< 7200	< 8100	< 8600	< 8800	< 11000	< 11000	< 8200	< 73000	< 52000	< 74000	< 40000		< 31000
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 510	< 820	< 520	< 360	< 400	< 430	< 440	< 570	< 550	< 410	< 3700	< 2600	< 3700	< 2000		< 1600
Tetryl	479-45-8	ug/kg	600																		
Grain Size																					
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--																		
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--																		
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--			99.6	100	100	83.8	78.2	88.4	89	78.6	100	98.3	100	100	100	100	100	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--																		
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--																		
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--			100	100	100	100	84.7	100	100	100	100	100	100	100	100	100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--																		
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--																		
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--																		
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--																		
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--																		
Sieve, 1 micron, % passing	SIEVE_1U	%	--			< 1	5	< 1	1.5	1	1.5	1.5	2	2	2	2.5	< 1	< 1	1	3	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--			56.8	84.9	67.2	50.8	48.4	67.1	61.6	46.4	83.9	59.5	60.3	< 1	< 1	56.8	31.2	
Sieve, 150 micron, % passing	SIEVE_150U	%	--			4.5	69.9	36.7	28.5	14.6	25.1	23.1	24.1	24	24.7	29.4	< 1	< 1	30.1	21.6	
Sieve, 2 micron, % passing	SIEVE_2U	%	--			< 1	6	2.5	4.5	1.5	1.5	1.5	3	2	3	2.5	< 1	< 1	3	3	
Sieve, 20 micron, % passing	SIEVE_20U	%	--			< 1	33	13	13.5	6.5	7	7	10.5	7	11	16	< 1	< 1	17	15	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--			81.6	87.6	69.1	54	54.5	71.6	66.9	48.9	87.8	69.1	69	79.9	76	79.1	33.2	
Sieve, 300 micron, % passing	SIEVE_300U	%	--			8.4	77.3	47.6	36.2	24.1	39.5	36.6	31.8	42.4	34.2	38.3	< 1	< 1	37.6	25.5	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--			94.4	91	84.9	59.4	57.8	77.7	71.2	53.6	91.6	75.5	90	88.7	87	89.9	59.2	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--			98.1	93.5	90.7	65.9	61.4	82	75.1	56.9	95.9	81.2	97	94.7	96.9	96.7	75	
Sieve, 5 micron, % passing	SIEVE_5U	%	--			< 1	9	5.5	8	2.5	2	2	5	2	5	2.5	< 1	< 1	5	3	
Sieve, 50 micron, % passing	SIEVE_50U	%	--			2	53.5	23	19	8.5	13.5	12	15.5	13	16.5	35	< 1	< 1	39	24.5	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--																		
Sieve, 600 micron, % passing	SIEVE_600U	%	--			23.3	82.1	59.4	44.5	38	56.4	51.5	40.2	65.5	46.9	48.1	< 1	< 1	45	28.2	
Sieve, 64 micron, % passing	SIEVE_64U	%	--			2	59	27	22	9.5	16	14.5	18	14	18.5	26	< 1	< 1	28.5	20	
Sieve, 75 micron, % passing	SIEVE_75U	%	--			2.7	61.8	29.5	23.5	10.1	17.5	15.6	19.5	14.6	19.6	22.3	< 1	< 1	25.3	17.7	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--																		
Metals																					
Antimony	7440-36-0	mg/kg	3	3																	
Arsenic	7440-38-2	mg/kg	6	33		1.59	3.25	3.18	20.3	1.57	< 2.82	1.27	1.96	2.37	1.81	< 24.1	41.1	< 24.2	< 12.7		< 10.1
Beryllium	7440-41-7	mg/kg	NA																		
Cadmium	7440-43-9	mg/kg	0.6	10		< 0.815	0.675	0.77	0.694	0.191	0.454	0.395	0.364	0.337	0.215	1	4.5	2.89	0.904		0.453
Chromium	7440-47-3	mg/kg	26	110		10.6	18.3	12.9	13.9	11.3	8.18	9.2	12.8	9.49	9.72	20.6	106	22.5	16.8		13.5
Copper	7440-50-8	mg/kg	16	110		80.6	19.6	19.5	16.3	11.9	24.1	24.8	17.8	28.2	11.2	42.2	556	96.9	26.3		23.7
Lead	7439-92-1	mg/kg	31	250		39.4	54.2	110	20.8	23.6	78.8	72	71.9	143	28.8	474	166	240	69.8		63.6
Mercury	7439-97-6	mg/kg	0.2	2		0.0805	0.126	0.147	0.0583	0.0043	0.108	0.0417	0.0688	0.147	0.0171	0.281	0.269	0.504	0.188		< 0.518
Nickel	7440-02-0	mg/kg	16	75		4.04	12.7	8.78	10.2	9.69	7.95	8.21	10	7.01	9.12	12.2	151	20.8	11.8		11.4
Selenium	7782-49-2	mg/kg	2																		
Silver	7440-22-4	mg/kg	1			< 0.815	< 1.37	< 0.864	< 0.589	< 0.652	< 0.705	< 0.719	< 0.919	< 0.907	< 0.665	< 6.04	< 4.22	< 6.05	< 3.18		< 2.52
Thallium	7440-28-0	mg/kg	--																		
Zinc	7440-66-6	mg/kg	120	820		172	254	301	53.8	148	212	221	196	141	141	435	1100	843	318		288
Zinc	7440-66-6	umol/g	120	1000000																	
Moisture																					
Percent Moisture	MOIST	%	--			41	63.4	42.1	16.8	25.6	30.5	31.8	47.2	45.4	27	91.8	88.5	91.9	84.9		80.9
SVOCs																					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062																		
1,2-Dichlorobenzene	95-50-1	ug/kg	294																		
1,2-Diphenylhydrazine	122-66-7	ug/kg	--																		
1,3-Dichlorobenzene	541-73-1	ug/kg	1315																		
1,4-Dichlorobenzene	106-46-7	ug/kg	318																		
2,4,6-Trichlorophenol	88-06-2	ug/kg	--																		
2,4-Dichlorophenol	120-83-2	ug/kg	--																		
2,4-Dimethylphenol	105-67-9	ug/kg	304																		
2,4-Dinitrophenol	51-28-5	ug/kg	6.21																		
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4			< 280	< 460	< 290	< 200	< 220	< 240	< 240	< 320	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 280	< 460	< 290	< 200	< 220	< 240	< 240	< 320	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
2-Chloronaphthalene	91-58-7	ug/kg	--																		
2-Chlorophenol	95-57-8	ug/kg	31.9																		
2-Nitrophenol	88-75-5	ug/kg	--																		
3,3-Dichlorobenzidine	91-94-1	ug/kg	127																		
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104																		
4-Bromophenyl-phenylether	101-55-3	ug/kg	--																		
4-Chloro-3-methylphenol	59-50-7	ug/kg	--																		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--																		
4-Nitrophenol	100-02-7	ug/kg	13.3																		
Acenaphthene	83-32-9	ug/kg	16			< 280	< 460	< 290	< 200	< 220	< 240	< 240	< 320	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Acenaphthylene	208-96-8	ug/kg	44			< 280	< 460	< 290	< 200	< 220	< 240	< 240	130	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06	SD-R-M5-07	SD-R-M5-08	SD-R-M5-09	SD-R-M5-10	SD-R-M5-11	SD-R-M5-12	SD-R-M5-12
				Sample Date	4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	7/14/2006	7/14/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-031.0N	SD-R-M5-041.0FD	SD-R-M5-041.0N	SD-R-M5-051.0N	SD-R-M5-061.0N	SD-R-M5-071.0N	SD-R-M5-081.0N	SD-R-M5-091.0N	SD-R-M5-101.0N	SD-R-M5-111.0N	SD-R-M5-121.0N	SD-R-M5-121N
				Parent ID						SD-R-M5-041.0N										
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Anthracene	120-12-7	ug/kg	220	370000	< 280	< 460	< 290	< 200	< 220	< 240	< 240	120	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Benzidine	92-87-5	ug/kg	--																	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	75	< 460	< 290	55	< 220	< 240	< 240	540	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	83	< 460	< 290	< 200	< 220	< 240	< 240	480	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200																
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	< 280	< 460	< 290	< 200	< 220	< 240	< 240	290	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	72	< 460	< 290	< 200	< 220	< 240	< 240	500	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--																	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--																	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--																	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750																
Butylbenzylphthalate	85-68-7	ug/kg	1970																	
Chrysene	218-01-9	ug/kg	340	460000	89	< 460	62	110	< 220	< 240	< 240	660	80	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 280	< 460	< 290	< 200	< 220	< 240	< 240	95	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Diethylphthalate	84-66-2	ug/kg	295																	
Dimethylphthalate	131-11-3	ug/kg	1000																	
Di-n-butylphthalate	84-74-2	ug/kg	1114	110																
Di-n-octylphthalate	117-84-0	ug/kg	40600																	
Fluoranthene	206-44-0	ug/kg	750	1020000	130	< 460	110	80	< 220	< 240	< 240	740	93	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Fluorene	86-73-7	ug/kg	190	160000	< 280	< 460	< 290	< 200	< 220	< 240	< 240	< 320	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Hexachlorobenzene	118-74-1	ug/kg	20	24000																
Hexachlorobutadiene	87-68-3	ug/kg	26.5																	
Hexachlorocyclopentadiene	77-47-4	ug/kg	--																	
Hexachloroethane	67-72-1	ug/kg	584																	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000																
Isophorone	78-59-1	ug/kg	432																	
Naphthalene	91-20-3	ug/kg	160	2100000	< 280	< 460	< 290	< 200	< 220	< 240	< 240	< 320	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
N-Nitrosodimethylamine	62-75-9	ug/kg	--																	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--																	
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680																	
Pentachlorophenol	87-86-5	ug/kg	23000																	
Phenanthrene	85-01-8	ug/kg	560	950000	< 280	< 460	< 290	< 200	< 220	< 240	< 240	75	< 310	< 230	< 20000	< 7200	< 2100	< 5500		< 870
Phenol	108-95-2	ug/kg	49.1	48																
Pyrene	129-00-0	ug/kg	490	850000	150	< 460	85	98	< 220	< 240	< 240	910	110	< 230	< 20000	< 7200	< 2100	< 5500		< 870

				Location	SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06	SD-R-M5-07	SD-R-M5-08	SD-R-M5-09	SD-R-M5-10	SD-R-M5-11	SD-R-M5-12	SD-R-M5-12
				Sample Date	4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	7/14/2006	7/14/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-031.0N	SD-R-M5-041.0FD	SD-R-M5-041.0N	SD-R-M5-051.0N	SD-R-M5-061.0N	SD-R-M5-071.0N	SD-R-M5-081.0N	SD-R-M5-091.0N	SD-R-M5-101.0N	SD-R-M5-111.0N	SD-R-M5-121.0N	SD-R-M5-121N
				Parent ID						SD-R-M5-041.0N										
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--		< 920	110000	55000	19000	5300	7100	5800	16000	45000	16000	370000	270000	220000	230000		120000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--																	
Di-N-Propyl Ether	111-43-3	ug/kg	--																	
Ethanol	64-17-5	ug/kg	--																	
Ethyl ether	60-29-7	ug/kg	--																	
Methanol	67-56-1	ug/kg	--																	
N-butyl ether	142-96-1	ug/kg	--																	
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--																	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850																	
1,1,2-Trichloroethane	79-00-5	ug/kg	--																	
1,1-Dichloroethane	75-34-3	ug/kg	--																	
1,1-Dichloroethene	75-35-4	ug/kg	19.4																	
1,2-Dichloroethane	107-06-2	ug/kg	--																	
1,2-Dichloropropane	78-87-5	ug/kg	--																	
2-Chloroethylvinylether	110-75-8	ug/kg	--																	
Acrolein	107-02-8	ug/kg	0.00152																	
Acrylonitrile	107-13-1	ug/kg	1.2																	
Benzene	71-43-2	ug/kg	340																	
Bromodichloromethane	75-27-4	ug/kg	--																	
Bromoform	75-25-2	ug/kg	--																	
Bromomethane	74-83-9	ug/kg	1.37																	
Carbon Tetrachloride	56-23-5	ug/kg	1450																	
Chlorobenzene	108-90-7	ug/kg	291																	
Chloroethane	75-00-3	ug/kg	--																	
Chloroform	67-66-3	ug/kg	121																	
Chloromethane	74-87-3	ug/kg	--																	
cis-1,2-Dichloroethene	156-59-2	ug/kg	--																	
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--																	
Dibromochloromethane	124-48-1	ug/kg	--																	
Ethylbenzene	100-41-4	ug/kg	1400																	
Methylene Chloride	75-09-2	ug/kg	159																	
Tetrachloroethene	127-18-4	ug/kg	450																	
Toluene	108-88-3	ug/kg	2500																	
trans-1,2-Dichloroethene	156-60-5	ug/kg	--																	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--																	
Trichloroethene	79-01-6	ug/kg	1600																	
Trichlorofluoromethane	75-69-4	ug/kg	--																	
Vinyl Chloride	75-01-4	ug/kg	202																	
Xylenes (total)	1330-20-7	ug/kg	--																	

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-R-M5-13	SD-R-M5-13	SD-R-M5-14	SD-R-M5-14	SD-R-M5-15	SD-R-M5-15	SD-R-M5-16	SD-R-M5-16	SD-R-M6-01	SD-R-M6-02	SD-R-M6-03	SD-R-M6-03	SD-R-M6-04	SD-R-M6-04	SD-R-M7-01	SD-R-M7-06
					Sample Date	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	3/22/2006	7/14/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-M5-131.0N	SD-R-M5-131N	SD-R-M5-141.0N	SD-R-M5-141N	SD-R-M5-151.0N	SD-R-M5-151N	SD-R-M5-161.0N	SD-R-M5-161N	SD-R-M6-011.0N	SD-R-M6-021.0N	SD-R-M6-031.0N	SD-R-M6-031N	SD-R-M6-041.0N	SD-R-M6-041N	SD-R-M7-011N	SD-R-M7-061.0N
					Parent ID																
					Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 970		< 1000		< 850		< 660	< 2300	< 3700		< 2100		< 1400	< 400	< 660
1,3-Dinitrobenzene	99-65-0	ug/kg	500																	
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 970		< 1000		< 850		< 660	< 2300	< 3700		< 2100		< 1400	< 400	< 660
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 970		< 1000		< 850		< 660	< 2300	< 3700		< 2100		< 1400	< 400	< 660
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 1900		< 2100		< 1700		< 1300	< 4500	< 7300		< 4200		< 2900	< 400	< 1300
Nitrobenzene	98-95-3	ug/kg	145			< 970		< 1000		< 850		< 660	< 2300	< 3700		< 2100		< 1400	< 400	< 660
Nitrocellulose	9004-70-0	ug/kg	--			< 390000		< 410000		3000000		330000	< 910000	< 1400000		< 850000		< 570000	< 160000	< 270000
Nitroglycerin	55-63-0	ug/kg	127000			< 19000		11000		200000		4900	< 45000	< 73000		< 42000		< 29000	< 8100	< 13000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 2400		< 2600		< 2100		< 1600	< 5700	< 9100		< 5300		< 3600	< 1000	< 1700
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 19000		< 21000		< 17000		< 13000	< 45000	< 73000		< 42000		< 29000	< 8100	< 13000
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 970		< 1000		< 850		< 660	< 2300	< 3700		< 2100		< 1400	< 400	< 660
Tetryl	479-45-8	ug/kg	600																	
Grain Size																				
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--																	
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--																	
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100		100		100		100		100	100	94.8		100		100	88.4
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--																	
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--																	
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100		100		100		100		100	100	100		100		100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--																	
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--																	
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100		100		100		100		100	100	100		100		100	100
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--																	
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--																	
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--																	
Sieve, 1 micron, % passing	SIEVE_1U	%	--		2		2		2		2		1	3.5	2		< 1		1	1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		66		37.4		54.5		63.4		69.4	60.4	78.5		85.9		51.3	67.1
Sieve, 150 micron, % passing	SIEVE_150U	%	--		43.7		23.8		33		37.9		40.3	29	48.1		65.8		14.3	36.3
Sieve, 2 micron, % passing	SIEVE_2U	%	--		2		2		2		2		3	3.5	3.5		0.5		1	2
Sieve, 20 micron, % passing	SIEVE_20U	%	--		15		10		11		16		24	13	31		21		1	14.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		69		38.4		57.7		68.3		76.4	67.7	83.9		87.6		61.3	71
Sieve, 300 micron, % passing	SIEVE_300U	%	--		52.4		30.7		40.6		47.4		48.6	38	58.8		76.1		21.5	46.4
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		87.5		64		80.8		89.7		89.8	84.5	90.4		94.5		73.9	79.4
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		94.4		78.5		90.2		94.6		96.7	94.4	93.6		97.3		76.6	83.8
Sieve, 5 micron, % passing	SIEVE_5U	%	--		2.5		2		2		3		6	3.5	7		3		1	4
Sieve, 50 micron, % passing	SIEVE_50U	%	--		30		17.5		21.5		29		54	30	57		30		6	24
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--																	
Sieve, 600 micron, % passing	SIEVE_600U	%	--		60.1		35.2		48.9		56.7		56.7	48.1	68		81.9		35.2	58.2
Sieve, 64 micron, % passing	SIEVE_64U	%	--		35		18		26		30		36	23.5	42		46		9	27.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		37.1		18.9		27.8		30.6		30.8	19.9	36.7		54.7		11.2	29.7
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--																	
Metals																				
Antimony	7440-36-0	mg/kg	3	3																
Arsenic	7440-38-2	mg/kg	6	33		5.14		4.53		26.2		15.9	< 15.2	< 24.4		< 13.8		< 9.34	21.7	4.19
Beryllium	7440-41-7	mg/kg	NA																	
Cadmium	7440-43-9	mg/kg	0.6	10		0.543		0.759		0.774		0.649	1.59	0.805		0.476		< 2.33	0.399	0.638
Chromium	7440-47-3	mg/kg	26	110		14.5		14.5		32		22.4	13.9	13.8		14.7		12.8	9.03	13.1
Copper	7440-50-8	mg/kg	16	110		21.3		35.5		107		101	29.4	23.2		31.6		13.2	19.4	22.3
Lead	7439-92-1	mg/kg	31	250		73.1		111		698		289	36.9	49.1		87		22.6	50.6	76.5
Mercury	7439-97-6	mg/kg	0.2	2		0.188		0.244		0.365		0.414	0.107	0.69		0.173		0.0825	0.481	0.166
Nickel	7440-02-0	mg/kg	16	75		11.1		11.5		18.5		14.3	10.4	9.84		12.1		9.65	7.83	10
Selenium	7782-49-2	mg/kg	2																	
Silver	7440-22-4	mg/kg	1			< 1.61		< 1.7		1.32		1.11	< 3.79	< 6.1		< 3.45		< 2.33	< 0.671	< 1.1
Thallium	7440-28-0	mg/kg	--																	
Zinc	7440-66-6	mg/kg	120	820		277		335		1110		675	205	215		350		289	69.9	150
Zinc	7440-66-6	umol/g	120	1000000																
Moisture																				
Percent Moisture	MOIST	%	--			69.2		71.2		64.8		54.5	86.8	91.8		85.8		79	25.5	54.7
SVOCs																				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062																	
1,2-Dichlorobenzene	95-50-1	ug/kg	294																	
1,2-Diphenylhydrazine	122-66-7	ug/kg	--																	
1,3-Dichlorobenzene	541-73-1	ug/kg	1315																	
1,4-Dichlorobenzene	106-46-7	ug/kg	318																	
2,4,6-Trichlorophenol	88-06-2	ug/kg	--																	
2,4-Dichlorophenol	120-83-2	ug/kg	--																	
2,4-Dimethylphenol	105-67-9	ug/kg	304																	
2,4-Dinitrophenol	51-28-5	ug/kg	6.21																	
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4			< 540		< 580		< 2400									< 220	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 540		< 580		< 2400									< 220	
2-Chloronaphthalene	91-58-7	ug/kg	--																	
2-Chlorophenol	95-57-8	ug/kg	31.9																	
2-Nitrophenol	88-75-5	ug/kg	--																	
3,3-Dichlorobenzidine	91-94-1	ug/kg	127																	
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104																	
4-Bromophenyl-phenylether	101-55-3	ug/kg	--																	
4-Chloro-3-methylphenol	59-50-7	ug/kg	--																	
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--																	
4-Nitrophenol	100-02-7	ug/kg	13.3																	
Acenaphthene	83-32-9	ug/kg	16			< 540		< 580		< 2400									< 220	
Acenaphthylene	208-96-8	ug/kg	44			< 540		< 580		< 2400									580	

				Location	SD-R-M5-13	SD-R-M5-13	SD-R-M5-14	SD-R-M5-14	SD-R-M5-15	SD-R-M5-15	SD-R-M5-16	SD-R-M5-16	SD-R-M6-01	SD-R-M6-02	SD-R-M6-03	SD-R-M6-03	SD-R-M6-04	SD-R-M6-04	SD-R-M7-01	SD-R-M7-06
				Sample Date	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	3/22/2006	7/14/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-M5-131.0N	SD-R-M5-131N	SD-R-M5-141.0N	SD-R-M5-141N	SD-R-M5-151.0N	SD-R-M5-151N	SD-R-M5-161.0N	SD-R-M5-161N	SD-R-M6-011.0N	SD-R-M6-021.0N	SD-R-M6-031.0N	SD-R-M6-031N	SD-R-M6-041.0N	SD-R-M6-041N	SD-R-M7-011N	SD-R-M7-061.0N
				Parent ID																
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Anthracene	120-12-7	ug/kg	220	370000		< 540		< 580		< 2400									560	
Benzidine	92-87-5	ug/kg	--																	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000		< 540		< 580		960									1800	
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000		< 540		< 580		1000									1500	
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200																
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000		< 540		< 580		850									780	
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000		< 540		< 580		600									1600	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--																	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--																	
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--																	
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750																
Butylbenzylphthalate	85-68-7	ug/kg	1970																	
Chrysene	218-01-9	ug/kg	340	460000		< 540		< 580		1000									2000	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000		< 540		< 580		< 2400									240	
Diethylphthalate	84-66-2	ug/kg	295																	
Dimethylphthalate	131-11-3	ug/kg	1000																	
Di-n-butylphthalate	84-74-2	ug/kg	1114	110																
Di-n-octylphthalate	117-84-0	ug/kg	40600																	
Fluoranthene	206-44-0	ug/kg	750	1020000		130		150		2000									2000	
Fluorene	86-73-7	ug/kg	190	160000		< 540		< 580		< 2400									< 220	
Hexachlorobenzene	118-74-1	ug/kg	20	24000																
Hexachlorobutadiene	87-68-3	ug/kg	26.5																	
Hexachlorocyclopentadiene	77-47-4	ug/kg	--																	
Hexachloroethane	67-72-1	ug/kg	584																	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000																
Isophorone	78-59-1	ug/kg	432																	
Naphthalene	91-20-3	ug/kg	160	2100000		< 540		< 580		< 2400									< 220	
N-Nitrosodimethylamine	62-75-9	ug/kg	--																	
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--																	
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680																	
Pentachlorophenol	87-86-5	ug/kg	23000																	
Phenanthrene	85-01-8	ug/kg	560	950000		< 540		< 580		770									110	
Phenol	108-95-2	ug/kg	49.1	48																
Pyrene	129-00-0	ug/kg	490	850000		130		120		1700									4000	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-M5-13	SD-R-M5-13	SD-R-M5-14	SD-R-M5-14	SD-R-M5-15	SD-R-M5-15	SD-R-M5-16	SD-R-M5-16	SD-R-M6-01	SD-R-M6-02	SD-R-M6-03	SD-R-M6-03	SD-R-M6-04	SD-R-M6-04	SD-R-M7-01	SD-R-M7-06
				Sample Date	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	3/22/2006	7/14/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-M5-131.0N	SD-R-M5-131N	SD-R-M5-141.0N	SD-R-M5-141N	SD-R-M5-151.0N	SD-R-M5-151N	SD-R-M5-161.0N	SD-R-M5-161N	SD-R-M6-011.0N	SD-R-M6-021.0N	SD-R-M6-031.0N	SD-R-M6-031N	SD-R-M6-041.0N	SD-R-M6-041N	SD-R-M7-011N	SD-R-M7-061.0N
				Parent ID																
				Subdrainage Area	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond	Duck Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--			89000		89000		90000		70000	240000	300000		180000		160000	4000	62000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--																	
Di-N-Propyl Ether	111-43-3	ug/kg	--																	
Ethanol	64-17-5	ug/kg	--																	
Ethyl ether	60-29-7	ug/kg	--																	
Methanol	67-56-1	ug/kg	--																	
N-butyl ether	142-96-1	ug/kg	--																	
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--																	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850																	
1,1,2-Trichloroethane	79-00-5	ug/kg	--																	
1,1-Dichloroethane	75-34-3	ug/kg	--																	
1,1-Dichloroethene	75-35-4	ug/kg	19.4																	
1,2-Dichloroethane	107-06-2	ug/kg	--																	
1,2-Dichloropropane	78-87-5	ug/kg	--																	
2-Chloroethylvinylether	110-75-8	ug/kg	--																	
Acrolein	107-02-8	ug/kg	0.00152																	
Acrylonitrile	107-13-1	ug/kg	1.2																	
Benzene	71-43-2	ug/kg	340																	
Bromodichloromethane	75-27-4	ug/kg	--																	
Bromoform	75-25-2	ug/kg	--																	
Bromomethane	74-83-9	ug/kg	1.37																	
Carbon Tetrachloride	56-23-5	ug/kg	1450																	
Chlorobenzene	108-90-7	ug/kg	291																	
Chloroethane	75-00-3	ug/kg	--																	
Chloroform	67-66-3	ug/kg	121																	
Chloromethane	74-87-3	ug/kg	--																	
cis-1,2-Dichloroethene	156-59-2	ug/kg	--																	
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--																	
Dibromochloromethane	124-48-1	ug/kg	--																	
Ethylbenzene	100-41-4	ug/kg	1400																	
Methylene Chloride	75-09-2	ug/kg	159																	
Tetrachloroethene	127-18-4	ug/kg	450																	
Toluene	108-88-3	ug/kg	2500																	
trans-1,2-Dichloroethene	156-60-5	ug/kg	--																	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--																	
Trichloroethene	79-01-6	ug/kg	1600																	
Trichlorofluoromethane	75-69-4	ug/kg	--																	
Vinyl Chloride	75-01-4	ug/kg	202																	
Xylenes (total)	1330-20-7	ug/kg	--																	

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

				Location	SD-M5-1-01	SD-N5-1-01	SD-N5-2-01	SD-N5-3-01	SD-N5-4-01	SD-N5-5-01	SD-N5-5-01	SD-N5-6-01	SD-R-M5-02	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03	SD-R-N5-04	SD-R-N5-04	SD-R-N5-05	SD-R-N5-05
				Sample Date	4/24/2001	4/25/2001	4/24/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/4/2006	4/4/2006	4/4/2006	4/4/2006	7/27/2006	7/27/2006	8/17/2006	8/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-M5-1-011N	SD-N5-1-011N	SD-N5-2-011N	SD-N5-3-011N	SD-N5-4-011N	SD-N5-5-010.5FD	SD-N5-5-011N	SD-N5-6-011N	SD-R-M5-021.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N	SD-R-N5-041.0N	SD-R-N5-041N	SD-R-N5-051.0N	SD-R-N5-051N
				Parent ID						SD-N5-5-011N										
				Subdrainage Area	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Explosives																				
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160										< 680	< 370	< 400	< 400		< 390		< 430
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100										< 680	< 370	< 400	< 400		< 390		1200
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300										< 680	< 370	< 400	< 400		< 390		280
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500										< 680	< 370	< 400	< 400		< 780		< 870
Nitrobenzene	98-95-3	ug/kg	145										< 680	< 370	< 400	< 400		< 390		< 430
Nitrocellulose	9004-70-0	ug/kg	--										< 270000	< 150000	< 160000	< 160000		< 150000		150000
Nitroglycerin	55-63-0	ug/kg	127000										< 14000	< 7500	< 8000	< 8000		< 7800		12000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380										< 1700	< 930	< 1000	< 1000		< 980		< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000										< 14000	< 7500	< 8000	< 8000		< 7800		< 8700
RDX (Cyclonite)	121-82-4	ug/kg	1200										< 680	< 370	< 400	< 400		< 390		< 430
Grain Size																				
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--										83.8	75	96.3	88	100		100	
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--										100	100	100	100	100		100	
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--										100	100	100	100	100		100	
Sieve, 1 micron, % passing	SIEVE_1U	%	--										0.5	< 1	3.3	4.3	< 1		< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--										37.8	28.2	68.6	61.2	59.1		88.1	
Sieve, 150 micron, % passing	SIEVE_150U	%	--										19.8	3.1	44.1	29	25.6		64.2	
Sieve, 2 micron, % passing	SIEVE_2U	%	--										1.5	< 1	5.3	5.3	< 1		3	
Sieve, 20 micron, % passing	SIEVE_20U	%	--										10	0.75	19.5	12.3	5		18	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--										46	41.9	77.2	69.4	78.7		89.3	
Sieve, 300 micron, % passing	SIEVE_300U	%	--										23.8	6.9	51.4	38	38.4		80.9	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--										52.4	47.6	85.9	76.6	91.2		92	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--										58	52.7	90.6	81.1	97.6		93.4	
Sieve, 5 micron, % passing	SIEVE_5U	%	--										2.3	< 1	9.5	7.3	1		9	
Sieve, 50 micron, % passing	SIEVE_50U	%	--										14	1	33	21.5	7		31.5	
Sieve, 600 micron, % passing	SIEVE_600U	%	--										30	15.1	59.7	49.8	48.1		86	
Sieve, 64 micron, % passing	SIEVE_64U	%	--										17	1.8	36.5	23.5	13		37	
Sieve, 75 micron, % passing	SIEVE_75U	%	--										18.9	2.1	38.6	24.7	15.9		42.3	
Metals																				
Arsenic	7440-38-2	mg/kg	6	33									1.98	1.17	11.7	2.18		2.87		3.37
Cadmium	7440-43-9	mg/kg	0.6	10									< 1.13	< 0.603	< 0.661	< 0.668		< 0.632		< 0.716
Chromium	7440-47-3	mg/kg	26	110									9.7	11.3	15.9	12.2		18.6		22.8
Copper	7440-50-8	mg/kg	16	110									12.6	25.7	14.9	10.4		17.8		189
Lead	7439-92-1	mg/kg	31	250									32.3	8.75	8.32	12		7.63		235
Mercury	7439-97-6	mg/kg	0.2	2									0.0734	0.0148	0.0242	0.0365		< 0.126		0.0987
Nickel	7440-02-0	mg/kg	16	75									8.02	6.25	10.8	8.85		13.9		9.93
Silver	7440-22-4	mg/kg	1										< 1.13	< 0.603	< 0.661	< 0.668		< 0.632		< 0.716
Zinc	7440-66-6	mg/kg	120	820									52.2	294	86.4	58.8		80.7		272
Moisture																				
Percent Moisture	MOIST	%	--										55.7	19.5	25.1	25.1		23.2		30.9

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-M5-1-01	SD-N5-1-01	SD-N5-2-01	SD-N5-3-01	SD-N5-4-01	SD-N5-5-01	SD-N5-5-01	SD-N5-6-01	SD-R-M5-02	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03	SD-R-N5-04	SD-R-N5-04	SD-R-N5-05	SD-R-N5-05
				Sample Date	4/24/2001	4/25/2001	4/24/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/4/2006	4/4/2006	4/4/2006	4/4/2006	7/27/2006	7/27/2006	8/17/2006	8/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-M5-1-011N	SD-N5-1-011N	SD-N5-2-011N	SD-N5-3-011N	SD-N5-4-011N	SD-N5-5-010.5FD	SD-N5-5-011N	SD-N5-6-011N	SD-R-M5-021.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N	SD-R-N5-041.0N	SD-R-N5-041N	SD-R-N5-051.0N	SD-R-N5-051N
				Parent ID						SD-N5-5-011N										
				Subdrainage Area	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary	Eastern Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--										73000	6300	15000	35000		8600		16000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--		< 9900	< 13000	< 10000	< 13000	< 13000		< 13000	< 19000								
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 9900	< 13000	< 10000	< 13000	< 13000		< 13000	< 19000								
Ethanol	64-17-5	ug/kg	--		< 9900	< 13000	< 10000	< 13000	< 13000		< 13000	< 19000								
Ethyl ether	60-29-7	ug/kg	--		< 9900	< 13000	< 10000	< 13000	< 13000		< 13000	< 19000								
Methanol	67-56-1	ug/kg	--		< 9900	< 13000	< 10000	< 13000	< 13000		< 13000	< 19000								
N-butyl ether	142-96-1	ug/kg	--		< 9900	< 13000	< 10000	< 13000	< 13000		< 13000	< 19000								
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
1,1-Dichloroethane	75-34-3	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
1,2-Dichloroethane	107-06-2	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
1,2-Dichloropropane	78-87-5	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 280	< 320	< 240	< 310	< 330	< 290	< 290	< 570								
Acrolein	107-02-8	ug/kg	0.00152		< 2800	< 3200	< 2300	< 3100	< 3300	< 2900	< 2900	< 5700								
Acrylonitrile	107-13-1	ug/kg	1.2		< 560	< 630	< 470	< 620	< 660	< 590	< 580	< 1100								
Benzene	71-43-2	ug/kg	340		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Bromodichloromethane	75-27-4	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Bromoform	75-25-2	ug/kg	--		< 280	< 160	< 230	< 150	< 160	< 150	< 140	< 290								
Bromomethane	74-83-9	ug/kg	1.37		< 280	< 320	< 240	< 310	< 330	< 290	< 290	< 570								
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Chlorobenzene	108-90-7	ug/kg	291		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Chloroethane	75-00-3	ug/kg	--		< 280	< 320	< 240	< 310	< 330	< 290	< 290	< 570								
Chloroform	67-66-3	ug/kg	121		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Chloromethane	74-87-3	ug/kg	--		< 280	< 320	< 240	< 310	< 330	< 290	< 290	< 570								
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Dibromochloromethane	124-48-1	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Ethylbenzene	100-41-4	ug/kg	1400		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Methylene Chloride	75-09-2	ug/kg	159		< 280	< 320	< 240	< 310	< 330	< 290	< 290	< 570								
Tetrachloroethene	127-18-4	ug/kg	450		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Toluene	108-88-3	ug/kg	2500		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Trichloroethene	79-01-6	ug/kg	1600		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Trichlorofluoromethane	75-69-4	ug/kg	--		< 280	< 320	< 240	< 310	< 330	< 290	< 290	< 570								
Vinyl Chloride	75-01-4	ug/kg	202		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								
Xylenes (total)	1330-20-7	ug/kg	--		< 140	< 160	< 120	< 150	< 160	< 150	< 140	< 290								

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-D11-1-01	SD-E10-1-01	SD-E11-1-01	SD-E11-2-01	SD-E11-2-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1	SD-R2-E-10-2	SD-R-D11-01	SD-R-D11-02
					Sample Date	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	6/15/2016	6/15/2016	6/15/2016	6/15/2016	11/6/2013	11/6/2013	5/16/2006	5/16/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-D11-1-011N	SD-E10-1-011N	SD-E11-1-011N	SD-E11-2-010.5FD	SD-E11-2-011N	SD-BD061516	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R-D11-011.0N	SD-R-D11-021.0N
					Parent ID				SD-E11-2-011N		SD-ERA-D11-MNG-01							
					Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
Explosives																		
1,2-Dinitrobenzene	528-29-0	ug/kg	--												< 1300	< 760		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160				< 180								< 1300	< 760	< 620	< 440
1,3-Dinitrobenzene	99-65-0	ug/kg	500				< 180								< 1300	< 760		
1,4-Dinitrobenzene	100-25-4	ug/kg	--												< 1300	< 760		
1-Nitronaphthalene	86-57-7	ug/kg	--												< 1300	< 760		
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100				< 180								< 1300	< 760	< 620	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												< 1300	< 760		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300				< 180								< 1300	< 760	< 620	< 440
2-Nitrotoluene	88-72-2	ug/kg	620000				< 180								< 1300	< 760		
3-Nitrotoluene	99-08-1	ug/kg	190000				< 180								< 1300	< 760		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500				< 180								< 1300	< 760	< 620	< 440
4-Nitrotoluene	99-99-0	ug/kg	68000				< 180								< 1300	< 760		
Nitrobenzene	98-95-3	ug/kg	145				< 180								< 1300	< 760	< 620	< 440
Nitrocellulose	9004-70-0	ug/kg	--				400000										1500000	< 180000
Nitroglycerin	55-63-0	ug/kg	127000				< 3600								< 26000	43000	15000	< 8900
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380				< 180								< 3300	< 1900	< 1600	< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000				< 3600								< 26000	< 15000	< 12000	< 8900
RDX (Cyclonite)	121-82-4	ug/kg	1200				< 180								< 1300	< 760	< 620	< 440
Tetryl	479-45-8	ug/kg	600				< 180								< 1300	< 760		
Field																		
Dissolved Oxygen	7782-44-7	mg/l	--											4.92				
pH	PH	su	--							5.85	6.03	5.56	6.78 5.51					
Specific Conductance	SC	us/cm	--											0.369				
Temperature	TEMP	deg c	--											18.01				
Turbidity	TURBIDITY	ntu	--											36.6				
GenChem			--															
Acid Volatile Sulfide	1313-84-4	umol/g	--							< 0.63 U	< 0.63 U	< 0.63 U	3.1					
Grain Size																		
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--				11.8											
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--				87.2											
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--														99.9	100
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--				3.3											
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--				71.2											
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--														100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--				97.6											
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--				40.3											
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--														100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--								< 0.50 U							
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--								< 0.50 U							
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--								< 0.50 U							
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--								4.0							
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--								8.0							
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--								10.0							
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--								11.9							
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--								23.8							
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--								54.8							
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--								82.6							
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--				100											
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--								93.9							
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--				100											
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--								100							
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--								97.0							
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--				100											
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--								97.0							
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--								100							
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--								97.0							
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--								100							
Sieve, 1 micron, % passing	SIEVE_1U	%	--														< 1	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--														95.4	61.4
Sieve, 150 micron, % passing	SIEVE_150U	%	--														51.5	18
Sieve, 2 micron, % passing	SIEVE_2U	%	--														< 1	< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--														13	4
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--														97.5	71.9
Sieve, 300 micron, % passing	SIEVE_300U	%	--														79.2	37.7
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--														98.8	80.2
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--														99.4	88
Sieve, 5 micron, % passing	SIEVE_5U	%	--														2	2
Sieve, 50 micron, % passing	SIEVE_50U	%	--														23	6.5
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--				95.7											
Sieve, 600 micron, % passing	SIEVE_600U	%	--														91.2	52.4
Sieve, 64 micron, % passing	SIEVE_64U	%	--														28.5	8
Sieve, 75 micron, % passing	SIEVE_75U	%	--														33.5	9.5
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--				93.1											
Metals																		
Aluminum	7429-90-5	mg/kg	25500												5250	18000		
Antimony	7440-36-0	mg/kg	3	3			< 1.2								< 91.3	< 27.2		
Arsenic	7440-38-2	mg/kg	6	33			4.5								< 91.3	43.1	10.3	3.22
Barium	7440-39-3	mg/kg	7000												128	186		
Beryllium	7440-41-7	mg/kg	NA				< 0.034								< 22.8	1.02		

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D11-1-01	SD-E10-1-01	SD-E11-1-01	SD-E11-2-01	SD-E11-2-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1	SD-R2-E-10-2	SD-R-D11-01	SD-R-D11-02
				Sample Date	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	6/15/2016	6/15/2016	6/15/2016	6/15/2016	11/6/2013	11/6/2013	5/16/2006	5/16/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-D11-1-011N	SD-E10-1-011N	SD-E11-1-011N	SD-E11-2-010.5FD	SD-E11-2-011N	SD-BD061516	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R-D11-011.0N	SD-R-D11-021.0N
				Parent ID				SD-E11-2-011N		SD-ERA-D11-MNG-01							
				Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL													
Cadmium	7440-43-9	mg/kg	0.6	10			< 0.099							< 22.8	2.62	1.46	0.475
Cadmium	7440-43-9	umol/g	0.6	1000000						0.00150	0.00118	0.00160	< 0.000104 U				
Calcium	7440-70-2	mg/kg	--											14500	2690		
Chromium	7440-47-3	mg/kg	26	110			7.8							15.4	20.2	21.5	11.6
Cobalt	7440-48-4	mg/kg	50											14.8	10		
Copper	7440-50-8	mg/kg	16	110			26.3			90.9	13.3	63.5	42.5	61.2	67.9	162	25.8
Copper	7440-50-8	umol/g	16	1000000						0.237	0.364	0.142	0.350				
Iron	7439-89-6	mg/kg	20000											44300	109000		
Lead	7439-92-1	mg/kg	31	250			138			462	117	351	98.0	12500	109	1250	151
Lead	7439-92-1	umol/g	31	1000000						0.416	0.595	0.348	0.330				
Magnesium	7439-95-4	mg/kg	460											1830	2660		
Manganese	7439-96-5	mg/kg	630	1100										1360	309		
Mercury	7439-97-6	mg/kg	0.2	2			0.28			0.135 J	0.0700 J	0.296 J	0.107 J	0.68	0.397	0.96	0.161
Mercury	7439-97-6	umol/g	0.2	1000000						< 0.0000074 U	< 0.0000074 U	< 0.0000071 U	0.000018 B				
Nickel	7440-02-0	mg/kg	16	75			5.1							32.3	20.8	13.4	7.79
Nickel	7440-02-0	umol/g	16	1000000						0.391	0.200	0.0139	0.445				
Potassium	7440-09-7	mg/kg	--											< 2280	699		
Selenium	7782-49-2	mg/kg	2				< 0.87							< 91.3	< 54.4		
Silver	7440-22-4	mg/kg	1				< 0.25							8.68	< 1.36	< 1.02	< 0.718
Sodium	7440-23-5	mg/kg	--											< 4570	251		
Thallium	7440-28-0	mg/kg	--				< 1.5							< 137	< 8.16		
Vanadium	7440-62-2	mg/kg	57											42.2	41.1		
Zinc	7440-66-6	mg/kg	120	820			89.7							82.3	464	315	31.7
Zinc	7440-66-6	umol/g	120	1000000						0.431	0.282	0.354	1.29				
Moisture																	
Percent Moisture	MOIST	%	--				44.7			72.5	53.0	74.0	35.7	78.1	64.3	51.9	32.4
Total Solids	TSO	%	--							21.91	48.45 M	30.01	79.81				
SVOCs																	
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062				< 60										
1,2-Dichlorobenzene	95-50-1	ug/kg	294				< 60										
1,2-Diphenylhydrazine	122-66-7	ug/kg	--				< 60										
1,3-Dichlorobenzene	541-73-1	ug/kg	1315				< 60										
1,4-Dichlorobenzene	106-46-7	ug/kg	318				< 60										
1-Methylnaphthalene	90-12-0	ug/kg	20.2											< 780	120		
2,4,6-Trichlorophenol	88-06-2	ug/kg	--				< 120										
2,4-Dichlorophenol	120-83-2	ug/kg	--				< 120										
2,4-Dimethylphenol	105-67-9	ug/kg	304				< 120										
2,4-Dinitrophenol	51-28-5	ug/kg	6.21				< 1200										
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4				< 120										
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8				< 60										
2-Chloronaphthalene	91-58-7	ug/kg	--				< 60										
2-Chlorophenol	95-57-8	ug/kg	31.9				< 60										
2-Methylnaphthalene	91-57-6	ug/kg	70											< 780	120		
2-Nitrophenol	88-75-5	ug/kg	--				< 120										
3,3-Dichlorobenzidine	91-94-1	ug/kg	127				< 120										
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104				< 310										
4-Bromophenyl-phenylether	101-55-3	ug/kg	--				< 120										
4-Chloro-3-methylphenol	59-50-7	ug/kg	--				< 120										
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--				< 60										
4-Nitrophenol	100-02-7	ug/kg	13.3				< 310										
Acenaphthene	83-32-9	ug/kg	16				< 60							< 780	< 480		
Acenaphthylene	208-96-8	ug/kg	44				< 60							< 780	180		
Anthracene	120-12-7	ug/kg	220	370000			150							< 780	170		
Benzidine	92-87-5	ug/kg	--				< 1200										
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000			230							170	440		
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000			240							200	410		
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200			390							390	730		
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000			180							200	280		
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000			160							170	280		
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--				< 120										
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--				< 60										
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--				< 60										
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750			130										
Butylbenzylphthalate	85-68-7	ug/kg	1970				< 120										
Chrysene	218-01-9	ug/kg	340	460000			230							400	660		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000			< 60							< 780	110		
Diethylphthalate	84-66-2	ug/kg	295				< 120										
Dimethylphthalate	131-11-3	ug/kg	1000				< 120										
Di-n-butylphthalate	84-74-2	ug/kg	1114	110			850										
Di-n-octylphthalate	117-84-0	ug/kg	40600				< 120										
Fluoranthene	206-44-0	ug/kg	750	1020000			540							490	660		
Fluorene	86-73-7	ug/kg	190	160000			< 60							< 780	< 480		
Hexachlorobenzene	118-74-1	ug/kg	20	24000			< 60										
Hexachlorobutadiene	87-68-3	ug/kg	26.5				< 120										
Hexachlorocyclopentadiene	77-47-4	ug/kg	--				< 310										
Hexachloroethane	67-72-1	ug/kg	584				< 60										
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000			190							170	260		
Isophorone	78-59-1	ug/kg	432				< 60										
Naphthalene	91-20-3	ug/kg	160	2100000			< 60							< 780	160		
N-Nitrosodimethylamine	62-75-9	ug/kg	--				< 120										
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--				< 60										

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D11-1-01	SD-E10-1-01	SD-E11-1-01	SD-E11-2-01	SD-E11-2-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1	SD-R2-E-10-2	SD-R-D11-01	SD-R-D11-02
				Sample Date	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	6/15/2016	6/15/2016	6/15/2016	6/15/2016	11/6/2013	11/6/2013	5/16/2006	5/16/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-D11-1-011N	SD-E10-1-011N	SD-E11-1-011N	SD-E11-2-010.5FD	SD-E11-2-011N	SD-BD061516	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R-D11-011.0N	SD-R-D11-021.0N
				Parent ID				SD-E11-2-011N		SD-ERA-D11-MNG-01							
				Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL													
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680				290										
Pentachlorophenol	87-86-5	ug/kg	23000				< 310										
Phenanthrene	85-01-8	ug/kg	560	950000			360							380	300		
Phenol	108-95-2	ug/kg	49.1	48			< 120										
Pyrene	129-00-0	ug/kg	490	850000			490							440	700		

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-D11-1-01	SD-E10-1-01	SD-E11-1-01	SD-E11-2-01	SD-E11-2-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1	SD-R2-E-10-2	SD-R-D11-01	SD-R-D11-02
					Sample Date	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	6/15/2016	6/15/2016	6/15/2016	6/15/2016	11/6/2013	11/6/2013	5/16/2006	5/16/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-D11-1-011N	SD-E10-1-011N	SD-E11-1-011N	SD-E11-2-010.5FD	SD-E11-2-011N	SD-BD061516	SD-ERA-D11-MNG-01	SD-ERA-D11-MNG-02	SD-ERA-E10-MNG-03	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R-D11-011.0N	SD-R-D11-021.0N
					Parent ID				SD-E11-2-011N		SD-ERA-D11-MNG-01							
					Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
Total Organic Carbon																		
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--								83200	47100	132000	< 1390 U				
Total Organic Carbon	TOC	mg/kg	--					32900							216000	50700	38000	15000
TPH																		
Amyl alcohol	71-41-0	ug/kg	--		< 19000	< 17000	< 18000		< 14000									
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 19000	< 17000	< 18000		< 14000									
Ethanol	64-17-5	ug/kg	--		< 19000	< 17000	< 18000		< 14000									
Ethyl ether	60-29-7	ug/kg	--		< 19000	< 17000	< 18000		< 14000									
Methanol	67-56-1	ug/kg	--		< 19000	< 17000	< 18000		< 14000									
N-butyl ether	142-96-1	ug/kg	--		< 19000	< 17000	< 18000		< 14000									
VOCs																		
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 240	< 210	< 460	< 170	< 160									
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
1,1-Dichloroethane	75-34-3	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 240	< 210	< 230	< 170	< 160									
1,2-Dichloroethane	107-06-2	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
1,2-Dichloropropane	78-87-5	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 490	< 410	< 460	< 350	< 320									
Acrolein	107-02-8	ug/kg	0.00152		< 4900	< 4100	< 460	< 3500	< 3200									
Acrylonitrile	107-13-1	ug/kg	1.2		< 970	< 820	< 460	< 700	< 630									
Benzene	71-43-2	ug/kg	340		< 240	< 210	< 230	< 170	< 160									
Bromodichloromethane	75-27-4	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
Bromoform	75-25-2	ug/kg	--		< 240	< 210	< 460	< 170	< 160									
Bromomethane	74-83-9	ug/kg	1.37		< 490	< 410	< 460	< 350	< 320									
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 240	< 210	< 230	< 170	< 160									
Chlorobenzene	108-90-7	ug/kg	291		< 240	< 210	< 460	< 170	< 160									
Chloroethane	75-00-3	ug/kg	--		< 490	< 410	< 460	< 350	< 320									
Chloroform	67-66-3	ug/kg	121		< 240	< 210	< 230	< 170	< 160									
Chloromethane	74-87-3	ug/kg	--		< 490	< 410	< 460	< 350	< 320									
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 240	< 210	< 460	< 170	< 160									
Dibromochloromethane	124-48-1	ug/kg	--		< 240	< 210	< 460	< 170	< 160									
Ethylbenzene	100-41-4	ug/kg	1400		< 240	< 210	< 460	< 170	< 160									
Methylene Chloride	75-09-2	ug/kg	159		< 490	< 410	< 460	< 350	< 320									
Tetrachloroethene	127-18-4	ug/kg	450		< 240	< 210	< 230	< 170	< 160									
Toluene	108-88-3	ug/kg	2500		< 240	< 210	< 230	< 170	< 160									
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 240	< 210	< 230	< 170	< 160									
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 240	< 210	< 460	< 170	< 160									
Trichloroethene	79-01-6	ug/kg	1600		< 240	< 210	< 230	< 170	< 160									
Trichlorofluoromethane	75-69-4	ug/kg	--		< 490	< 410	< 460	< 350	< 320									
Vinyl Chloride	75-01-4	ug/kg	202		< 240	< 210	< 230	< 170	< 160									
Xylenes (total)	1330-20-7	ug/kg	--		< 240	< 210	< 460	< 170	< 160									

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D12-09	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
					Sample Date	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	6/13/2006	6/23/2006	6/23/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0FD	SD-R-D11-051.0N	SD-R-D12-091.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-061.0N	SD-R-E11-071.0FD	SD-R-E11-071.0N
					Parent ID			SD-R-D11-051.0N								SD-R-E11-071.0N	
					Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL													
Explosives																	
1,2-Dinitrobenzene	528-29-0	ug/kg	--														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 510	< 520	< 400	< 380	< 650	< 560	< 540	< 460	< 410	< 480	< 580	< 470	
1,3-Dinitrobenzene	99-65-0	ug/kg	500														
1,4-Dinitrobenzene	100-25-4	ug/kg	--														
1-Nitronaphthalene	86-57-7	ug/kg	--														
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 510	< 520	< 400	< 380	< 650	< 560	< 540	< 460	< 410	< 480	< 580	< 470	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8														
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 510	< 520	< 400	< 380	< 650	< 560	< 540	< 460	< 410	< 480	< 580	< 470	
2-Nitrotoluene	88-72-2	ug/kg	620000														
3-Nitrotoluene	99-08-1	ug/kg	190000														
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 510	< 520	< 400	< 380	< 650	< 560	< 540	< 460	< 410	< 480	< 580	< 470	
4-Nitrotoluene	99-99-0	ug/kg	68000														
Nitrobenzene	98-95-3	ug/kg	145		< 510	< 520	< 400	< 380	< 650	< 560	< 540	< 460	< 410	< 480	< 580	< 470	
Nitrocellulose	9004-70-0	ug/kg	--		220000	320000	< 160000	< 150000	< 260000	290000	< 220000	< 190000	< 160000	< 190000	1100000	500000	
Nitroglycerin	55-63-0	ug/kg	127000		< 10000	< 10000	< 8000	< 7600	< 13000	16000	< 11000	< 9300	< 8100	< 9700	8500	< 9500	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1300	< 1300	< 990	< 950	< 1600	< 1400	< 1300	< 1200	< 1000	< 1200	< 1400	< 1200	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 10000	< 10000	< 8000	< 7600	< 13000	< 11000	< 11000	< 9300	< 8100	< 9700	< 12000	< 9500	
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 510	< 520	< 400	< 380	< 650	< 560	< 540	< 460	< 410	< 480	< 580	< 470	
Tetryl	479-45-8	ug/kg	600														
Field																	
Dissolved Oxygen	7782-44-7	mg/l	--														
pH	PH	su	--														
Specific Conductance	SC	us/cm	--														
Temperature	TEMP	deg c	--														
Turbidity	TURBIDITY	ntu	--														
GenChem			--														
Acid Volatile Sulfide	1313-84-4	umol/g	--														
Grain Size																	
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--														
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--														
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100	92.9	99.1	100	99.9	94.3	72.2	83.4	93.5	100	99.3	88.5	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--														
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--														
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	96.5	100	86.7	100	100	100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--														
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--														
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100	100	100	100	100	100	100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--														
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--														
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--														
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--														
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--														
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--														
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--														
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--														
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--														
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--														
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--														
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--														
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--														
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--														
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--														
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--														
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--														
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--														
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--														
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--														
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1	< 1	< 1	2	< 1	1	< 1	< 1	< 1	< 1	< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		76.2	71.8	52.3	48.9	86.5	44.3	48.4	28.9	66.4	81.9	76.4	59.4	
Sieve, 150 micron, % passing	SIEVE_150U	%	--		27.4	36.3	19.7	16.9	50.8	7.8	27.9	9.4	23.7	27	35.1	22.5	
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1	< 1	1	0.5	2	< 1	1	< 1	1	1	0.5	< 1	
Sieve, 20 micron, % passing	SIEVE_20U	%	--		6	6	4	4	15.5	3	7	2	6	10	7	5	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		85	77.4	58.1	57.7	92.7	58.4	51.3	33.9	74.3	89.1	82.2	66.4	
Sieve, 300 micron, % passing	SIEVE_300U	%	--		45.7	52.2	31.2	27.7	70	16.2	37.3	15.7	36	45.8	52.4	35.2	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		89.3	80.7	63.8	63	96.2	64.9	54.5	39.2	78.7	95.2	86.6	71.9	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		92.6	83.6	70.8	69.9	97.9	71.7	57.4	45.3	82.2	96.8	90	74.1	
Sieve, 5 micron, % passing	SIEVE_5U	%	--		2	2	2.5	1.5	3.5	0.5	2	0.5	3	3.5	2.5	1	
Sieve, 50 micron, % passing	SIEVE_50U	%	--		12	13.5	8	7	27.5	4.5	13	4.5	11	16	17	9	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--														
Sieve, 600 micron, % passing	SIEVE_600U	%	--		64.8	64.4	43.3	39.2	80.5	31.2	44.3	22.8	52.6	66.8	66.4	47.4	
Sieve, 64 micron, % passing	SIEVE_64U	%	--		14.5	18	11	9	31.5	5.5	17	5.5	15	18	20.5	11.5	
Sieve, 75 micron, % passing	SIEVE_75U	%	--		16.8	20.8	12.5	10.4	34.2	5.9	20	6.2	17	19.6	22.2	12.9	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--														
Metals																	
Aluminum	7429-90-5	mg/kg	25500														
Antimony	7440-36-0	mg/kg	3	3													
Arsenic	7440-38-2	mg/kg	6	33	3.9	4.6	5.25	5.53	4.08	38	8.28	13	61.3	12.2	7.86	6.68	
Barium	7440-39-3	mg/kg	7000														
Beryllium	7440-41-7	mg/kg	NA														

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D12-09	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
				Sample Date	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	6/13/2006	6/23/2006	6/23/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0FD	SD-R-D11-051.0N	SD-R-D12-091.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-061.0N	SD-R-E11-071.0FD	SD-R-E11-071.0N
				Parent ID			SD-R-D11-051.0N								SD-R-E11-071.0N	
				Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Cadmium	7440-43-9	mg/kg	0.6	10	0.896	0.929	0.892	0.813	0.58	< 4.69	< 0.89	< 3.76	1.12	< 3.95	< 0.937	< 0.766
Cadmium	7440-43-9	umol/g	0.6	1000000												
Calcium	7440-70-2	mg/kg	--													
Chromium	7440-47-3	mg/kg	26	110	10.9	16.7	21.8	28.2	13.9	12.1	13.5	15.4	17.6	12.4	15	11.7
Cobalt	7440-48-4	mg/kg	50													
Copper	7440-50-8	mg/kg	16	110	28.5	42.8	17.9	14.1	32	53.3	40.7	979	23	13.7	82.4	65.4
Copper	7440-50-8	umol/g	16	1000000												
Iron	7439-89-6	mg/kg	20000													
Lead	7439-92-1	mg/kg	31	250	132	207	46.5	32.3	298	53	149	2540	66.7	27.9	295	234
Lead	7439-92-1	umol/g	31	1000000												
Magnesium	7439-95-4	mg/kg	460													
Manganese	7439-96-5	mg/kg	630	1100												
Mercury	7439-97-6	mg/kg	0.2	2	0.277	0.305	0.148	0.0884	0.576	0.214	0.699	27	0.129	0.0722	0.469	0.403
Mercury	7439-97-6	umol/g	0.2	1000000												
Nickel	7440-02-0	mg/kg	16	75	8.41	6.69	4.04	8.11	11.4	8.86	8.55	16.6	6.19	6.47	14.3	8.64
Nickel	7440-02-0	umol/g	16	1000000												
Potassium	7440-09-7	mg/kg	--													
Selenium	7782-49-2	mg/kg	2													
Silver	7440-22-4	mg/kg	1		< 0.827	0.338	0.349	< 0.628	< 1.06	< 0.938	< 0.89	< 0.751	< 0.677	< 0.789	< 0.937	0.294
Sodium	7440-23-5	mg/kg	--													
Thallium	7440-28-0	mg/kg	--													
Vanadium	7440-62-2	mg/kg	57													
Zinc	7440-66-6	mg/kg	120	820	111	112	56.8	54.4	78.2	126	76.2	322	162	59.2	211	162
Zinc	7440-66-6	umol/g	120	1000000												
Moisture																
Percent Moisture	MOIST	%	--		40.7	42.3	24.6	21.2	54.1	46.7	44.4	35.4	26.1	37.9	48.2	36.6
Total Solids	TSO	%	--													
SVOCs																
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062													
1,2-Dichlorobenzene	95-50-1	ug/kg	294													
1,2-Diphenylhydrazine	122-66-7	ug/kg	--													
1,3-Dichlorobenzene	541-73-1	ug/kg	1315													
1,4-Dichlorobenzene	106-46-7	ug/kg	318													
1-Methylnaphthalene	90-12-0	ug/kg	20.2													
2,4,6-Trichlorophenol	88-06-2	ug/kg	--													
2,4-Dichlorophenol	120-83-2	ug/kg	--													
2,4-Dimethylphenol	105-67-9	ug/kg	304													
2,4-Dinitrophenol	51-28-5	ug/kg	6.21													
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4									< 260	< 230	< 270	560	120
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8									< 260	< 230	< 270	< 320	< 260
2-Chloronaphthalene	91-58-7	ug/kg	--													
2-Chlorophenol	95-57-8	ug/kg	31.9													
2-Methylnaphthalene	91-57-6	ug/kg	70													
2-Nitrophenol	88-75-5	ug/kg	--													
3,3-Dichlorobenzidine	91-94-1	ug/kg	127													
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104													
4-Bromophenyl-phenylether	101-55-3	ug/kg	--													
4-Chloro-3-methylphenol	59-50-7	ug/kg	--													
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--													
4-Nitrophenol	100-02-7	ug/kg	13.3													
Acenaphthene	83-32-9	ug/kg	16									< 260	< 230	< 270	< 320	98
Acenaphthylene	208-96-8	ug/kg	44									< 260	< 230	< 270	< 320	< 260
Anthracene	120-12-7	ug/kg	220	370000								< 260	< 230	< 270	< 320	520
Benzidine	92-87-5	ug/kg	--													
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000								150	< 230	< 270	100	2800
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000								160	< 230	< 270	81	2400
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200												
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000								130	< 230	< 270	< 320	1400
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000								99	160	< 270	< 320	1500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--													
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--													
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750												
Butylbenzylphthalate	85-68-7	ug/kg	1970													
Chrysene	218-01-9	ug/kg	340	460000								180	< 230	< 270	120	2600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000								< 260	< 230	< 270	< 320	470
Diethylphthalate	84-66-2	ug/kg	295													
Dimethylphthalate	131-11-3	ug/kg	1000													
Di-n-butylphthalate	84-74-2	ug/kg	1114	110												
Di-n-octylphthalate	117-84-0	ug/kg	40600													
Fluoranthene	206-44-0	ug/kg	750	1020000								220	< 230	< 270	180	4600
Fluorene	86-73-7	ug/kg	190	160000								< 260	< 230	< 270	< 320	120
Hexachlorobenzene	118-74-1	ug/kg	20	24000												
Hexachlorobutadiene	87-68-3	ug/kg	26.5													
Hexachlorocyclopentadiene	77-47-4	ug/kg	--													
Hexachloroethane	67-72-1	ug/kg	584													
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000												
Isophorone	78-59-1	ug/kg	432													
Naphthalene	91-20-3	ug/kg	160	2100000								< 260	< 230	< 270	< 320	< 260
N-Nitrosodimethylamine	62-75-9	ug/kg	--													
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--													

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D12-09	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
				Sample Date	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	6/13/2006	6/23/2006	6/23/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0FD	SD-R-D11-051.0N	SD-R-D12-091.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-061.0N	SD-R-E11-071.0FD	SD-R-E11-071.0N
				Parent ID			SD-R-D11-051.0N								SD-R-E11-071.0N	
				Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680													
Pentachlorophenol	87-86-5	ug/kg	23000													
Phenanthrene	85-01-8	ug/kg	560	950000								80	< 230	< 270	110	1700
Phenol	108-95-2	ug/kg	49.1	48												
Pyrene	129-00-0	ug/kg	490	850000								200	61	< 270	180	4900

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D12-09	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
					Sample Date	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	6/13/2006	6/23/2006	6/23/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0FD	SD-R-D11-051.0N	SD-R-D12-091.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-061.0N	SD-R-E11-071.0FD	SD-R-E11-071.0N
					Parent ID			SD-R-D11-051.0N								SD-R-E11-071.0N	
					Subdrainage Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area	Maintenance NG Area
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL													
Total Organic Carbon																	
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--														
Total Organic Carbon	TOC	mg/kg	--		15000	7400	12000	12000	29000	53000	38000	12000	7000	16000	64000	58000	
TPH																	
Amyl alcohol	71-41-0	ug/kg	--														
Di-N-Propyl Ether	111-43-3	ug/kg	--														
Ethanol	64-17-5	ug/kg	--														
Ethyl ether	60-29-7	ug/kg	--														
Methanol	67-56-1	ug/kg	--														
N-butyl ether	142-96-1	ug/kg	--														
VOCs																	
1,1,1-Trichloroethane	71-55-6	ug/kg	--														
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850														
1,1,2-Trichloroethane	79-00-5	ug/kg	--														
1,1-Dichloroethane	75-34-3	ug/kg	--														
1,1-Dichloroethene	75-35-4	ug/kg	19.4														
1,2-Dichloroethane	107-06-2	ug/kg	--														
1,2-Dichloropropane	78-87-5	ug/kg	--														
2-Chloroethylvinylether	110-75-8	ug/kg	--														
Acrolein	107-02-8	ug/kg	0.00152														
Acrylonitrile	107-13-1	ug/kg	1.2														
Benzene	71-43-2	ug/kg	340														
Bromodichloromethane	75-27-4	ug/kg	--														
Bromoform	75-25-2	ug/kg	--														
Bromomethane	74-83-9	ug/kg	1.37														
Carbon Tetrachloride	56-23-5	ug/kg	1450														
Chlorobenzene	108-90-7	ug/kg	291														
Chloroethane	75-00-3	ug/kg	--														
Chloroform	67-66-3	ug/kg	121														
Chloromethane	74-87-3	ug/kg	--														
cis-1,2-Dichloroethene	156-59-2	ug/kg	--														
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--														
Dibromochloromethane	124-48-1	ug/kg	--														
Ethylbenzene	100-41-4	ug/kg	1400														
Methylene Chloride	75-09-2	ug/kg	159														
Tetrachloroethene	127-18-4	ug/kg	450														
Toluene	108-88-3	ug/kg	2500														
trans-1,2-Dichloroethene	156-60-5	ug/kg	--														
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--														
Trichloroethene	79-01-6	ug/kg	1600														
Trichlorofluoromethane	75-69-4	ug/kg	--														
Vinyl Chloride	75-01-4	ug/kg	202														
Xylenes (total)	1330-20-7	ug/kg	--														

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-ERA-F13-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-G12-MDE-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01	SD-F14-1-01	SD-F14-2-01	SD-G12-1-01
					Sample Date	7/31/2019	7/31/2019	7/31/2019	7/31/2019	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/11/2001	4/16/2001
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-ERA-F13-MDE-01(00.0-00.5'	BD073119	SD-ERA-F14-MDE-01(00.0-00.5'	SD-ERA-G12-MDE-01(00.0-00.5'	SD-F13-1-010.5FD	SD-F13-1-011FD	SD-F13-1-011N	SD-F14-1-011N	SD-F14-2-011N	SD-G12-1-011N
					Parent ID		SD-ERA-F14-MDE-01(00.0-00.5)			SD-F13-1-011N	SD-F13-1-011N				
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
CALC															
Percent Moisture	MOIST	%	--		82.5	15.7	18.8	55.2							
Explosives															
1,2-Dinitrobenzene	528-29-0	ug/kg	--												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160							< 150	< 140	< 140		< 180	
1,3-Dinitrobenzene	99-65-0	ug/kg	500							< 150	< 140	< 140		< 180	
1,4-Dinitrobenzene	100-25-4	ug/kg	--												
1-Nitronaphthalene	86-57-7	ug/kg	--												
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100							< 150	< 140	< 140		< 180	
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4												
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300							< 150	< 140	< 140		< 180	
2-Nitrotoluene	88-72-2	ug/kg	620000							< 150	< 140	< 140		< 180	
3-Nitrotoluene	99-08-1	ug/kg	190000							< 150	< 140	< 140		< 180	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500							< 150	< 140	< 140		< 180	
4-Nitrotoluene	99-99-0	ug/kg	68000							< 150	< 140	< 140		< 180	
Nitrobenzene	98-95-3	ug/kg	145							< 150	< 140	< 140		< 180	
Nitrocellulose	9004-70-0	ug/kg	--							197000	215000	< 84000		< 110000	
Nitroglycerin	55-63-0	ug/kg	127000							< 2900	< 2800	< 2800		< 3500	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380							< 150	< 140	< 140		< 180	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000							< 2900	< 2800	< 2800		< 3500	
RDX (Cyclonite)	121-82-4	ug/kg	1200							< 150	< 140	< 140		< 180	
Tetryl	479-45-8	ug/kg	600							< 150	< 140	< 140		< 180	
Field															
pH	PH	su	--		6.61	7.99	7.77	7.31							
GenChem			--												
Acid Volatile Sulfide	1313-84-4	umol/g	--		26.0	< 0.63 U	< 0.63 U	< 0.63 U							
Grain Size															
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--								4.7	2.5		5.2	
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--								66.9	37.8		37.4	
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--												
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--								1.1	0.6		1.8	
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--								46.1	22.1		23.3	
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--												
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--								85.6	58.1		59.4	
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--								16.9	8.6		12.8	
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--												
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--				1.0	3.0							
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--				1.0	4.0							
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--				1.0	5.0							
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--				1.0	10.0							
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--				1.0	11.0							
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--				0.50	10.0							
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--				0.54	10.8							
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--				0.65	20.9							
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--				5.2	48.9							
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--				20.3	71.8							
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--								99.6	87.6		89.3	
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--				39.2	85.9							
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--								100	100		100	
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--				100	100							
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--				78.8	86.7							
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--								100	100		100	
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--				86.8	86.8							
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--				100	100							
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--				93.8	87.0							
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--				100	100							
Sieve, 1 micron, % passing	SIEVE_1U	%	--												
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--												
Sieve, 150 micron, % passing	SIEVE_150U	%	--												
Sieve, 2 micron, % passing	SIEVE_2U	%	--												
Sieve, 20 micron, % passing	SIEVE_20U	%	--												
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--												
Sieve, 300 micron, % passing	SIEVE_300U	%	--												
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--												
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--												
Sieve, 5 micron, % passing	SIEVE_5U	%	--												
Sieve, 50 micron, % passing	SIEVE_50U	%	--												
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--								79.6	52.1		51.7	
Sieve, 600 micron, % passing	SIEVE_600U	%	--												
Sieve, 64 micron, % passing	SIEVE_64U	%	--												
Sieve, 75 micron, % passing	SIEVE_75U	%	--												
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--								74.7	46.9		45.9	
Metals															
Aluminum	7429-90-5	mg/kg	25500												
Antimony	7440-36-0	mg/kg	3	3						< 0.95	< 0.87	< 0.88		1.2	
Arsenic	7440-38-2	mg/kg	6	33						2.8	2.8	1.1		7.1	
Barium	7440-39-3	mg/kg	7000												
Beryllium	7440-41-7	mg/kg	NA							0.39	0.3	< 0.026		0.49	
Cadmium	7440-43-9	mg/kg	0.6	10						< 0.081	0.11	< 0.075		0.28	
Cadmium	7440-43-9	umol/g	0.6	1000000	0.00325 B	0.000454 B	0.000706 B	0.00199							

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-ERA-F13-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-G12-MDE-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01	SD-F14-1-01	SD-F14-2-01	SD-G12-1-01
					Sample Date	7/31/2019	7/31/2019	7/31/2019	7/31/2019	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/11/2001	4/16/2001
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-ERA-F13-MDE-01(00.0-00.5)	BD073119	SD-ERA-F14-MDE-01(00.0-00.5)	SD-ERA-G12-MDE-01(00.0-00.5)	SD-F13-1-010.5FD	SD-F13-1-011FD	SD-F13-1-011N	SD-F14-1-011N	SD-F14-2-011N	SD-G12-1-011N
					Parent ID		SD-ERA-F14-MDE-01(00.0-00.5)			SD-F13-1-011N	SD-F13-1-011N				
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Calcium	7440-70-2	mg/kg	--												
Chromium	7440-47-3	mg/kg	26	110	31.6	7.41	6.42	17.5		17.1	21.4	15.7		15.4
Chromium III	16065-83-1	mg/kg	--		31.6	7.4	6.4	17.5							
Chromium, Hexavalent	18540-29-9	mg/kg	--		< 0.80 U	< 0.17 U	< 0.17 U	< 1.6 U							
Cobalt	7440-48-4	mg/kg	50												
Copper	7440-50-8	mg/kg	16	110						10.5	10.4	6.4			26.1
Copper	7440-50-8	umol/g	16	1000000	0.102	0.0125	0.141	0.145							
Iron	7439-89-6	mg/kg	20000												
Lead	7439-92-1	mg/kg	31	250						65.5	73.1	70			453
Lead	7439-92-1	umol/g	31	1000000	0.770	0.0787	0.0912	0.624							
Magnesium	7439-95-4	mg/kg	460												
Manganese	7439-96-5	mg/kg	630	1100											
Mercury	7439-97-6	mg/kg	0.2	2						0.57	0.56	0.26			0.68
Mercury	7439-97-6	umol/g	0.2	1000000	< 0.000023 U	0.000139	0.000128	0.000160							
Nickel	7440-02-0	mg/kg	16	75						4.3	5	3.6			8.3
Nickel	7440-02-0	umol/g	16	1000000	0.0782	0.00973	0.674	0.0396							
Potassium	7440-09-7	mg/kg	--												
Selenium	7782-49-2	mg/kg	2							< 0.7	< 0.64	< 0.65			1.2
Silver	7440-22-4	mg/kg	1							< 0.21	< 0.19	< 0.19			0.26
Sodium	7440-23-5	mg/kg	--												
Thallium	7440-28-0	mg/kg	--							< 1.2	< 1.1	< 1.2			< 1.5
Vanadium	7440-62-2	mg/kg	57												
Zinc	7440-66-6	mg/kg	120	820						81.8	85	55.4			76.7
Zinc	7440-66-6	umol/g	120	1000000	1.39	0.249	0.283	0.383							
Moisture															
Percent Moisture	MOIST	%	--							31.8	28.1	28.6			43.1
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062							< 48	< 46	< 46			< 58
1,2-Dichlorobenzene	95-50-1	ug/kg	294							< 48	< 46	< 46			< 58
1,2-Diphenylhydrazine	122-66-7	ug/kg	--							< 48	< 46	< 46			< 58
1,3-Dichlorobenzene	541-73-1	ug/kg	1315							< 48	< 46	< 46			< 58
1,4-Dichlorobenzene	106-46-7	ug/kg	318							< 48	< 46	< 46			< 58
1-Methylnaphthalene	90-12-0	ug/kg	20.2												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--							< 98	< 93	< 94			< 120
2,4-Dichlorophenol	120-83-2	ug/kg	--							< 98	< 93	< 94			< 120
2,4-Dimethylphenol	105-67-9	ug/kg	304							< 98	< 93	< 94			< 120
2,4-Dinitrophenol	51-28-5	ug/kg	6.21							< 980	< 930	< 940			< 1200
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4							< 98	< 93	< 94			< 120
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8							< 48	< 46	< 46			< 58
2-Chloronaphthalene	91-58-7	ug/kg	--							< 48	< 46	< 46			< 58
2-Chlorophenol	95-57-8	ug/kg	31.9							< 48	< 46	< 46			< 58
2-Methylnaphthalene	91-57-6	ug/kg	70												
2-Nitrophenol	88-75-5	ug/kg	--							< 98	< 93	< 94			< 120
3,3-Dichlorobenzidine	91-94-1	ug/kg	127							< 98	< 93	< 94			< 120
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104							< 250	< 240	< 240			< 300
4-Bromophenyl-phenylether	101-55-3	ug/kg	--							< 98	< 93	< 94			< 120
4-Chloro-3-methylphenol	59-50-7	ug/kg	--							< 98	< 93	< 94			< 120
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--							< 48	< 46	< 46			< 58
4-Nitrophenol	100-02-7	ug/kg	13.3							< 250	< 240	< 240			< 300
Acenaphthene	83-32-9	ug/kg	16		7.0 J	< 7.9 U	0.9 J	48		85	< 46	< 46			< 58
Acenaphthylene	208-96-8	ug/kg	44		37	< 7.9 U	9.5	150		250	63	< 46			< 58
Anthracene	120-12-7	ug/kg	220	370000	73	12 J	11	280		550	110	< 46			< 58
Benzidine	92-87-5	ug/kg	--							< 980	< 930	< 940			< 1200
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	220	33	26	1000		1200	280	120			160
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	260	28	23	820		1200	310	150			160
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	430	20	19	740		1700	500	220			240
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	180	16 J	15	540		770	230	110			110
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	300	28	20	800		690	220	110			90
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--							< 98	< 93	< 94			< 120
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--							< 48	< 46	< 46			< 58
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--							< 48	< 46	< 46			< 58
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750						< 98	< 93	< 94			< 120
Butylbenzylphthalate	85-68-7	ug/kg	1970							< 98	< 93	< 94			< 120
Chrysene	218-01-9	ug/kg	340	460000	450	39	31	1200		1300	360	160			270
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	54	< 7.9 U	3.9	150		230	60	< 46			< 58
Diethylphthalate	84-66-2	ug/kg	295							< 98	< 93	< 94			< 120
Dimethylphthalate	131-11-3	ug/kg	1000							< 98	< 93	< 94			< 120
Di-n-butylphthalate	84-74-2	ug/kg	1114	110						< 98	< 93	< 94			< 120
Di-n-octylphthalate	117-84-0	ug/kg	40600							< 98	< 93	< 94			< 120
Fluoranthene	206-44-0	ug/kg	750	1020000	360	66	40	2000		3200	760	260			430
Fluorene	86-73-7	ug/kg	190	160000	8.8 J	< 7.9 U	1.2 J	110		310	160	< 46			< 58
Hexachlorobenzene	118-74-1	ug/kg	20	24000						< 48	< 46	< 46			< 58
Hexachlorobutadiene	87-68-3	ug/kg	26.5							< 98	< 93	< 94			< 120
Hexachlorocyclopentadiene	77-47-4	ug/kg	--							< 250	< 240	< 240			< 300
Hexachloroethane	67-72-1	ug/kg	584							< 48	< 46	< 46			< 58
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	210	19 J	16	630		880	260	110			110
Isophorone	78-59-1	ug/kg	432							< 48	< 46	< 46			< 58
Naphthalene	91-20-3	ug/kg	160	2100000	380	< 7.9 U	3.0	37 J		< 48	< 46	< 46			< 58
N-Nitrosodimethylamine	62-75-9	ug/kg	--							< 98	< 93	< 94			< 120
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--							< 48	< 46	< 46			< 58
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680							1300	1100	420			87

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-ERA-F13-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-G12-MDE-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01	SD-F14-1-01	SD-F14-2-01	SD-G12-1-01
				Sample Date	7/31/2019	7/31/2019	7/31/2019	7/31/2019	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/11/2001	4/16/2001
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-ERA-F13-MDE-01(00.0-00.5)	BD073119	SD-ERA-F14-MDE-01(00.0-00.5)	SD-ERA-G12-MDE-01(00.0-00.5)	SD-F13-1-010.5FD	SD-F13-1-011FD	SD-F13-1-011N	SD-F14-1-011N	SD-F14-2-011N	SD-G12-1-011N
				Parent ID		SD-ERA-F14-MDE-01(00.0-00.5)			SD-F13-1-011N	SD-F13-1-011N				
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Pentachlorophenol	87-86-5	ug/kg	23000							< 250	< 240	< 240		< 300
Phenanthrene	85-01-8	ug/kg	560	950000	120	41	26	1500		2100	490	180		220
Phenol	108-95-2	ug/kg	49.1	48						< 98	< 93	< 94		< 120
Pyrene	129-00-0	ug/kg	490	850000	380	62	39	1800		2800	680	260		370

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-ERA-F13-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-F14-MDE-01	SD-ERA-G12-MDE-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01	SD-F14-1-01	SD-F14-2-01	SD-G12-1-01
				Sample Date	7/31/2019	7/31/2019	7/31/2019	7/31/2019	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/11/2001	4/16/2001
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-ERA-F13-MDE-01(00.0-00.5'	BD073119	SD-ERA-F14-MDE-01(00.0-00.5'	SD-ERA-G12-MDE-01(00.0-00.5'	SD-F13-1-010.5FD	SD-F13-1-011FD	SD-F13-1-011N	SD-F14-1-011N	SD-F14-2-011N	SD-G12-1-011N
				Parent ID		SD-ERA-F14-MDE-01(00.0-00.5)			SD-F13-1-011N	SD-F13-1-011N				
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Total Organic Carbon														
Total Organic Carbon	TOC	mg/kg	--		184000	5460	20100	61000		22600	13500	18200		39000
TPH														
Amyl alcohol	71-41-0	ug/kg	--							< 15000	< 14000	< 14000	< 15000	< 18000
Di-N-Propyl Ether	111-43-3	ug/kg	--							< 15000	< 14000	< 14000	< 15000	< 18000
Ethanol	64-17-5	ug/kg	--							< 15000	< 14000	< 14000	< 15000	< 18000
Ethyl ether	60-29-7	ug/kg	--							< 15000	< 14000	< 14000	< 15000	< 18000
Methanol	67-56-1	ug/kg	--							< 15000	< 14000	< 14000	< 15000	< 18000
N-butyl ether	142-96-1	ug/kg	--							< 15000	< 14000	< 14000	< 15000	< 18000
VOCs														
1,1,1-Trichloroethane	71-55-6	ug/kg	--						< 170		< 170	< 150	< 210	< 230
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850						< 170		< 170	< 150	< 210	< 230
1,1,2-Trichloroethane	79-00-5	ug/kg	--						< 170		< 170	< 150	< 210	< 230
1,1-Dichloroethane	75-34-3	ug/kg	--						< 170		< 170	< 150	< 210	< 230
1,1-Dichloroethene	75-35-4	ug/kg	19.4						< 170		< 170	< 150	< 210	< 230
1,2-Dichloroethane	107-06-2	ug/kg	--						< 170		< 170	< 150	< 210	< 230
1,2-Dichloropropane	78-87-5	ug/kg	--						< 170		< 170	< 150	< 210	< 230
2-Chloroethylvinylether	110-75-8	ug/kg	--						< 330		< 340	< 300	< 420	< 460
Acrolein	107-02-8	ug/kg	0.00152						< 3300		< 3400	< 3000	< 4200	< 4600
Acrylonitrile	107-13-1	ug/kg	1.2						< 660		< 680	< 600	< 840	< 920
Benzene	71-43-2	ug/kg	340						< 170		< 170	< 150	< 210	< 230
Bromodichloromethane	75-27-4	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Bromoform	75-25-2	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Bromomethane	74-83-9	ug/kg	1.37						< 330		< 340	< 300	< 420	< 460
Carbon Tetrachloride	56-23-5	ug/kg	1450						< 170		< 170	< 150	< 210	< 230
Chlorobenzene	108-90-7	ug/kg	291						< 170		< 170	< 150	< 210	< 230
Chloroethane	75-00-3	ug/kg	--						< 330		< 340	< 300	< 420	< 460
Chloroform	67-66-3	ug/kg	121						< 170		< 170	< 150	< 210	< 230
Chloromethane	74-87-3	ug/kg	--						< 330		< 340	< 300	< 420	< 460
cis-1,2-Dichloroethene	156-59-2	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Dibromochloromethane	124-48-1	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Ethylbenzene	100-41-4	ug/kg	1400						< 170		< 170	< 150	< 210	< 230
Methylene Chloride	75-09-2	ug/kg	159						< 330		< 340	< 300	< 420	< 460
Tetrachloroethene	127-18-4	ug/kg	450						< 170		< 170	< 150	< 210	< 230
Toluene	108-88-3	ug/kg	2500						< 170		< 170	< 150	< 210	< 230
trans-1,2-Dichloroethene	156-60-5	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--						< 170		< 170	< 150	< 210	< 230
Trichloroethene	79-01-6	ug/kg	1600						< 170		< 170	< 150	< 210	< 230
Trichlorofluoromethane	75-69-4	ug/kg	--						< 330		< 340	< 300	< 420	< 460
Vinyl Chloride	75-01-4	ug/kg	202						< 170		< 170	< 150	< 210	< 230
Xylenes (total)	1330-20-7	ug/kg	--						< 170		< 170	< 150	< 210	< 230

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-G12-2-01	SD-H12-2-01	SD-H12-3-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1
					Sample Date	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	11/5/2013	11/5/2013	11/5/2013
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
					Sample ID	SD-G12-2-011N	SD-H12-2-011N	SD-H12-3-011N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011FD	SD-I11-2-011N	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105
					Parent ID					SD-I11-2-011N	SD-I11-2-011N				
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
CALC															
Percent Moisture	MOIST	%	--												
Explosives															
1,2-Dinitrobenzene	528-29-0	ug/kg	--										< 1100	< 1500	< 2300
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
1,3-Dinitrobenzene	99-65-0	ug/kg	500			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
1,4-Dinitrobenzene	100-25-4	ug/kg	--									< 1100	< 1500	< 2300	
1-Nitronaphthalene	86-57-7	ug/kg	--									< 1100	< 1500	< 2300	
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4												
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8									< 1100	< 1500	< 2300	
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
2-Nitrotoluene	88-72-2	ug/kg	620000			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
3-Nitrotoluene	99-08-1	ug/kg	190000			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
4-Nitrotoluene	99-99-0	ug/kg	68000			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
Nitrobenzene	98-95-3	ug/kg	145			< 140		< 140		< 130	< 150	< 1100	< 1500	< 12000	
Nitrocellulose	9004-70-0	ug/kg	--			< 82000		< 85000		< 80000	< 92000				
Nitroglycerin	55-63-0	ug/kg	127000			< 2700		< 2800		< 2700	< 3100	< 22000	< 30000	< 46000	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 140		< 140		< 130	< 150	< 2700	< 3800	< 5700	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 2700		< 2800		< 2700	< 3100	< 22000	< 30000	< 46000	
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 140		< 140		< 130	< 150	< 1100	< 1500	< 2300	
Tetryl	479-45-8	ug/kg	600			< 140		< 140		< 130	< 150	< 1100	< 1500	< 6500	
Field															
pH	PH	su	--												
GenChem			--												
Acid Volatile Sulfide	1313-84-4	umol/g	--												
Grain Size															
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--			6.7		4.5			3				
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--			47.6		45.2			36.2				
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--												
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--			2.7		1.8			1.1				
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--			40.6		25.4			18.4				
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--												
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--			62		77.7			79.8				
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--			30.8		11.5			7.5				
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--												
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--												
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--												
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--												
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--												
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--												
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--												
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--												
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--												
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--												
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--												
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--			85		98			100				
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--												
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--			99.9		100			100				
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--												
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--												
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--			100		100			100				
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--												
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--												
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--												
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--												
Sieve, 1 micron, % passing	SIEVE_1U	%	--												
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--												
Sieve, 150 micron, % passing	SIEVE_150U	%	--												
Sieve, 2 micron, % passing	SIEVE_2U	%	--												
Sieve, 20 micron, % passing	SIEVE_20U	%	--												
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--												
Sieve, 300 micron, % passing	SIEVE_300U	%	--												
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--												
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--												
Sieve, 5 micron, % passing	SIEVE_5U	%	--												
Sieve, 50 micron, % passing	SIEVE_50U	%	--												
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--			59		72.9			68.5				
Sieve, 600 micron, % passing	SIEVE_600U	%	--												
Sieve, 64 micron, % passing	SIEVE_64U	%	--												
Sieve, 75 micron, % passing	SIEVE_75U	%	--												
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--			56		67.4			57.6				
Metals															
Aluminum	7429-90-5	mg/kg	25500									18300	16300	6210	
Antimony	7440-36-0	mg/kg	3	3		< 0.86		< 0.92		< 0.86	< 0.99	< 7.69	< 101	< 151	
Arsenic	7440-38-2	mg/kg	6	33		4.4		5.7		6.8	4.5	22.6	< 101	< 151	
Barium	7440-39-3	mg/kg	7000									71.1	78.2	52.8	
Beryllium	7440-41-7	mg/kg	NA			0.84		0.58		0.5	0.39	1.41	< 25.1	< 37.8	
Cadmium	7440-43-9	mg/kg	0.6	10		< 0.073		< 0.078		< 0.073	< 0.084	1.53	< 25.1	< 37.8	
Cadmium	7440-43-9	umol/g	0.6	1000000											

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-G12-2-01	SD-H12-2-01	SD-H12-3-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1
					Sample Date	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	11/5/2013	11/5/2013	11/5/2013
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
					Sample ID	SD-G12-2-011N	SD-H12-2-011N	SD-H12-3-011N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011FD	SD-I11-2-011N	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105
					Parent ID					SD-I11-2-011N	SD-I11-2-011N				
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Calcium	7440-70-2	mg/kg	--										10600	10200	10000
Chromium	7440-47-3	mg/kg	26	110		60.7			66.5		28.6	10	246	64.5	53.1
Chromium III	16065-83-1	mg/kg	--												
Chromium, Hexavalent	18540-29-9	mg/kg	--												
Cobalt	7440-48-4	mg/kg	50										8.81	10.4	< 37.8
Copper	7440-50-8	mg/kg	16	110		36.2			28.6		63.1	16.6	91.6	58	92.5
Copper	7440-50-8	umol/g	16	1000000											
Iron	7439-89-6	mg/kg	20000										28300	17700	12600
Lead	7439-92-1	mg/kg	31	250		25.1			35		29.1	20	1120	386	720
Lead	7439-92-1	umol/g	31	1000000											
Magnesium	7439-95-4	mg/kg	460										3080	3330	2460
Manganese	7439-96-5	mg/kg	630	1100									66.7	118	81.8
Mercury	7439-97-6	mg/kg	0.2	2		0.58			0.32		0.96	0.56	11	4.26	2.97
Mercury	7439-97-6	umol/g	0.2	1000000											
Nickel	7440-02-0	mg/kg	16	75		10.2			9.7		16.3	8.4	17.2	21.1	28
Nickel	7440-02-0	umol/g	16	1000000											
Potassium	7440-09-7	mg/kg	--										639	481	< 3780
Selenium	7782-49-2	mg/kg	2			< 0.63			< 0.68		< 0.64	< 0.73	< 7.69	< 101	< 151
Silver	7440-22-4	mg/kg	1			< 0.19			< 0.2		< 0.19	< 0.21	2.98	11.1	13.4
Sodium	7440-23-5	mg/kg	--										624	< 5030	< 7560
Thallium	7440-28-0	mg/kg	--			3.2			4.1		5.8	3	< 11.5	< 151	< 227
Vanadium	7440-62-2	mg/kg	57										43.5	49.1	62.4
Zinc	7440-66-6	mg/kg	120	820		108			120		1100	102	390	371	140
Zinc	7440-66-6	umol/g	120	1000000											
Moisture															
Percent Moisture	MOIST	%	--			26.6			29.2		24.7	34.5	75	80.3	86.9
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062			< 45			< 47		< 44	< 50			
1,2-Dichlorobenzene	95-50-1	ug/kg	294			< 45			< 47		< 44	< 50			
1,2-Diphenylhydrazine	122-66-7	ug/kg	--			< 45			< 47		< 44	< 50			
1,3-Dichlorobenzene	541-73-1	ug/kg	1315			< 45			< 47		< 44	< 50			
1,4-Dichlorobenzene	106-46-7	ug/kg	318			< 45			< 47		< 44	< 50			
1-Methylnaphthalene	90-12-0	ug/kg	20.2										810	170	< 3900
2,4,6-Trichlorophenol	88-06-2	ug/kg	--			< 91			< 95		< 89	< 100			
2,4-Dichlorophenol	120-83-2	ug/kg	--			< 91			< 95		< 89	< 100			
2,4-Dimethylphenol	105-67-9	ug/kg	304			< 91			< 95		< 89	< 100			
2,4-Dinitrophenol	51-28-5	ug/kg	6.21			< 910			< 950		< 890	< 1000			
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4			< 91			< 95		< 89	< 100			
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 45			< 47		< 44	< 50			
2-Chloronaphthalene	91-58-7	ug/kg	--			< 45			< 47		< 44	< 50			
2-Chlorophenol	95-57-8	ug/kg	31.9			< 45			< 47		< 44	< 50			
2-Methylnaphthalene	91-57-6	ug/kg	70										780	180	< 3900
2-Nitrophenol	88-75-5	ug/kg	--			< 91			< 95		< 89	< 100			
3,3-Dichlorobenzidine	91-94-1	ug/kg	127			< 91			< 95		< 89	< 100			
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104			< 230			< 240		< 230	< 260			
4-Bromophenyl-phenylether	101-55-3	ug/kg	--			< 91			< 95		< 89	< 100			
4-Chloro-3-methylphenol	59-50-7	ug/kg	--			< 91			< 95		< 89	< 100			
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--			< 45			< 47		< 44	< 50			
4-Nitrophenol	100-02-7	ug/kg	13.3			< 230			< 240		< 230	< 260			
Acenaphthene	83-32-9	ug/kg	16			< 45			< 47		79	< 50	480	< 520	< 3900
Acenaphthylene	208-96-8	ug/kg	44			< 45			140		170	< 50	2400	510	< 3900
Anthracene	120-12-7	ug/kg	220	370000		< 45			210		510	61	2100	410	< 3900
Benzidine	92-87-5	ug/kg	--			< 910			< 950		< 890	< 1000			
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000		91			670		1200	170	4300	1100	< 3900
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000		110			610		1000	190	4200	1400	< 3900
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200		170			860		1300	260	5500	2300	820
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000		83			470		720	150	2700	1100	< 3900
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000		70			320		560	110	2100	810	< 3900
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--			< 91			< 95		< 89	< 100			
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--			< 45			< 47		< 44	< 50			
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--			< 45			< 47		< 44	< 50			
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750		< 91			< 95		< 89	1400			
Butylbenzylphthalate	85-68-7	ug/kg	1970			< 91			< 95		< 89	< 100			
Chrysene	218-01-9	ug/kg	340	460000		140			780		1200	240	6600	1600	< 3900
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000		< 45			140		200	< 50	560	250	< 3900
Diethylphthalate	84-66-2	ug/kg	295			< 91			< 95		< 89	< 100			
Dimethylphthalate	131-11-3	ug/kg	1000			< 91			< 95		< 89	< 100			
Di-n-butylphthalate	84-74-2	ug/kg	1114	110		< 91			< 95		< 89	< 100			
Di-n-octylphthalate	117-84-0	ug/kg	40600			< 91			< 95		< 89	< 100			
Fluoranthene	206-44-0	ug/kg	750	1020000		200			1400		2900	360	11000	2900	960
Fluorene	86-73-7	ug/kg	190	160000		< 45			59		310	< 50	1500	230	< 3900
Hexachlorobenzene	118-74-1	ug/kg	20	24000		< 45			< 47		< 44	< 50			
Hexachlorobutadiene	87-68-3	ug/kg	26.5			< 91			< 95		< 89	< 100			
Hexachlorocyclopentadiene	77-47-4	ug/kg	--			< 230			< 240		< 230	< 260			
Hexachloroethane	67-72-1	ug/kg	584			< 45			< 47		< 44	< 50			
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000		82			500		750	150	2200	890	< 3900
Isophorone	78-59-1	ug/kg	432			< 45			< 47		< 44	< 50			
Naphthalene	91-20-3	ug/kg	160	2100000		< 45			< 47		< 44	< 50	770	170	< 3900
N-Nitrosodimethylamine	62-75-9	ug/kg	--			< 91			< 95		< 89	< 100			
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--			< 45			< 47		< 44	< 50			
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680			330			240		270	78			

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-G12-2-01	SD-H12-2-01	SD-H12-3-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1
					Sample Date	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	11/5/2013	11/5/2013	11/5/2013
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
					Sample ID	SD-G12-2-011N	SD-H12-2-011N	SD-H12-3-011N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011FD	SD-I11-2-011N	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105
					Parent ID					SD-I11-2-011N	SD-I11-2-011N				
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Pentachlorophenol	87-86-5	ug/kg	23000			< 230		< 240		< 230	< 260				
Phenanthrene	85-01-8	ug/kg	560	950000		100		830		2400	230	9700	1800	< 3900	
Phenol	108-95-2	ug/kg	49.1	48		< 91		< 95		< 89	< 100				
Pyrene	129-00-0	ug/kg	490	850000		210		1200		2600	400	13000	3100	960	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-G12-2-01	SD-H12-2-01	SD-H12-3-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1
				Sample Date	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	11/5/2013	11/5/2013	11/5/2013
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft
				Sample ID	SD-G12-2-011N	SD-H12-2-011N	SD-H12-3-011N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011FD	SD-I11-2-011N	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105
				Parent ID					SD-I11-2-011N	SD-I11-2-011N				
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Total Organic Carbon														
Total Organic Carbon	TOC	mg/kg	--			22100		14600		10000	16200	78700	53400	226000
TPH														
Amyl alcohol	71-41-0	ug/kg	--		< 13000	< 14000	< 14000	< 14000		< 13000	< 15000			
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 13000	< 14000	< 14000	< 14000		< 13000	< 15000			
Ethanol	64-17-5	ug/kg	--		< 13000	< 14000	< 14000	< 14000		< 13000	< 15000			
Ethyl ether	60-29-7	ug/kg	--		< 13000	< 14000	< 14000	< 14000		< 13000	< 15000			
Methanol	67-56-1	ug/kg	--		< 13000	< 14000	< 14000	< 14000		< 13000	< 15000			
N-butyl ether	142-96-1	ug/kg	--		< 13000	< 14000	< 14000	< 14000		< 13000	< 15000			
VOCs														
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 150	< 200	< 160	< 200	< 160		< 200			
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
1,1-Dichloroethane	75-34-3	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 150	< 200	< 160	< 200	< 160		< 200			
1,2-Dichloroethane	107-06-2	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
1,2-Dichloropropane	78-87-5	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 290	< 410	< 310	< 400	< 320		< 400			
Acrolein	107-02-8	ug/kg	0.00152		< 2900	< 4100	< 3100	< 4000	< 3200		< 4000			
Acrylonitrile	107-13-1	ug/kg	1.2		< 590	< 820	< 630	< 790	< 640		< 800			
Benzene	71-43-2	ug/kg	340		< 150	< 200	< 160	< 200	< 160		< 200			
Bromodichloromethane	75-27-4	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Bromoform	75-25-2	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Bromomethane	74-83-9	ug/kg	1.37		< 290	< 410	< 310	< 400	< 320		< 400			
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 150	< 200	< 160	< 200	< 160		< 200			
Chlorobenzene	108-90-7	ug/kg	291		< 150	< 200	< 160	< 200	< 160		< 200			
Chloroethane	75-00-3	ug/kg	--		< 290	< 410	< 310	< 400	< 320		< 400			
Chloroform	67-66-3	ug/kg	121		< 150	< 200	< 160	< 200	< 160		< 200			
Chloromethane	74-87-3	ug/kg	--		< 290	< 410	< 310	< 400	< 320		< 400			
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Dibromochloromethane	124-48-1	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Ethylbenzene	100-41-4	ug/kg	1400		< 150	< 200	< 160	< 200	< 160		< 200			
Methylene Chloride	75-09-2	ug/kg	159		< 290	< 410	< 310	< 400	< 320		< 400			
Tetrachloroethene	127-18-4	ug/kg	450		< 150	< 200	< 160	< 200	< 160		< 200			
Toluene	108-88-3	ug/kg	2500		< 150	< 200	< 160	< 200	< 160		< 200			
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			
Trichloroethene	79-01-6	ug/kg	1600		< 150	< 200	< 160	< 200	< 160		< 200			
Trichlorofluoromethane	75-69-4	ug/kg	--		< 290	< 410	< 310	< 400	< 320		< 400			
Vinyl Chloride	75-01-4	ug/kg	202		< 150	< 200	< 160	< 200	< 160		< 200			
Xylenes (total)	1330-20-7	ug/kg	--		< 150	< 200	< 160	< 200	< 160		< 200			

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-F13-01	SD-R-F13-01	SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04
					Sample Date	11/5/2013	11/5/2013	11/6/2013	11/6/2013	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-F13-011.0N	SD-R-F13-011N	SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N
					Parent ID	SD-R2-G-12-3_20131105									
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
CALC															
Percent Moisture	MOIST	%	--												
Explosives															
1,2-Dinitrobenzene	528-29-0	ug/kg	--		< 500	< 660	< 830	< 740							
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 500	< 660	< 830	< 740		< 390		< 420		< 400	< 400
1,3-Dinitrobenzene	99-65-0	ug/kg	500		< 500	< 660	< 830	< 740							
1,4-Dinitrobenzene	100-25-4	ug/kg	--		< 500	< 660	< 830	< 740							
1-Nitronaphthalene	86-57-7	ug/kg	--		< 500	< 660	< 830	< 740							
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 500	< 660	< 830	< 740		< 390		< 420		< 400	< 400
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 500										
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 500	< 660	< 830	< 740							
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 500	< 660	< 830	< 740		< 390		< 420		< 400	< 400
2-Nitrotoluene	88-72-2	ug/kg	620000		< 500	< 660	< 830	< 740							
3-Nitrotoluene	99-08-1	ug/kg	190000		< 500	< 660	< 830	< 740							
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 500	< 660	< 830	< 740		< 390		< 420		< 400	< 400
4-Nitrotoluene	99-99-0	ug/kg	68000		< 500	< 660	< 830	< 740							
Nitrobenzene	98-95-3	ug/kg	145		< 500	< 660	< 830	< 740		< 390		< 420		< 400	< 400
Nitrocellulose	9004-70-0	ug/kg	--							< 160000		84000		< 160000	< 160000
Nitroglycerin	55-63-0	ug/kg	127000		< 10000	< 13000	< 17000	< 15000		< 7800		7600		< 7900	< 7900
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1300	< 1600	< 2100	< 1900		< 970		< 1000		< 990	< 990
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 10000	< 13000	< 17000	< 15000		< 7800		< 8300		< 7900	< 7900
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 500	< 660	< 830	< 740		< 390		< 420		< 400	< 400
Tetryl	479-45-8	ug/kg	600		< 500	< 660	< 830	< 740							
Field															
pH	PH	su	--												
GenChem			--												
Acid Volatile Sulfide	1313-84-4	umol/g	--												
Grain Size															
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--												
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--												
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--						91		96.5		97.1	94.7	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--												
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--												
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--						100		100		100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--												
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--												
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--						100		100		100	100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--												
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--												
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--												
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--												
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--												
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--												
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--												
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--												
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--												
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--												
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--												
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--												
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--												
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--												
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--												
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--												
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--												
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--												
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--												
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--												
Sieve, 1 micron, % passing	SIEVE_1U	%	--						< 1		< 1		< 1	< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--						25.8		40.5		62.7	51.4	
Sieve, 150 micron, % passing	SIEVE_150U	%	--						1.6		6.6		18	14.9	
Sieve, 2 micron, % passing	SIEVE_2U	%	--						< 1		< 1		0.5	0.5	
Sieve, 20 micron, % passing	SIEVE_20U	%	--						< 1		1		3.5	3	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--						33.5		44.8		69.6	55.4	
Sieve, 300 micron, % passing	SIEVE_300U	%	--						5.5		15.3		33.6	25.3	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--						39.4		69		76.9	62.9	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--						46.1		75		82.3	71.2	
Sieve, 5 micron, % passing	SIEVE_5U	%	--						< 1		0.5		2	1	
Sieve, 50 micron, % passing	SIEVE_50U	%	--						0.5		2.5		8	6	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--												
Sieve, 600 micron, % passing	SIEVE_600U	%	--						15.6		30.2		51.6	39.7	
Sieve, 64 micron, % passing	SIEVE_64U	%	--						0.5		3.5		10.5	8	
Sieve, 75 micron, % passing	SIEVE_75U	%	--						0.88		4.5		12.3	9.6	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--												
Metals															
Aluminum	7429-90-5	mg/kg	25500		6330	7350	15900	21700							
Antimony	7440-36-0	mg/kg	3	3	< 3.33	< 43.5	< 5.49	< 5.82							
Arsenic	7440-38-2	mg/kg	6	33	4.57	< 43.5	22.6	11.3		5.76		2.09	2.41	< 2.62	
Barium	7440-39-3	mg/kg	7000		52	50.8	380	144							
Beryllium	7440-41-7	mg/kg	NA		0.463	< 10.9	0.483	1.02							
Cadmium	7440-43-9	mg/kg	0.6	10	< 0.833	< 10.9	3.3	1.12		< 0.627		< 0.694	< 0.662	< 0.654	
Cadmium	7440-43-9	umol/g	0.6	1000000											

				Location	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-F13-01	SD-R-F13-01	SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04
				Sample Date	11/5/2013	11/5/2013	11/6/2013	11/6/2013	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-F13-011.0N	SD-R-F13-011N	SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N
				Parent ID	SD-R2-G-12-3_20131105									
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Calcium	7440-70-2	mg/kg	--		2330	2820	6340	5100						
Chromium	7440-47-3	mg/kg	26	110	17.8	22.2	73.3	74.5		15.6		10.7	19.6	11.1
Chromium III	16065-83-1	mg/kg	--											
Chromium, Hexavalent	18540-29-9	mg/kg	--											
Cobalt	7440-48-4	mg/kg	50		5.51	4.59	40.6	10.3						
Copper	7440-50-8	mg/kg	16	110	18.5	18.3	44.1	56.8		5.09		5.44	5.6	3.73
Copper	7440-50-8	umol/g	16	1000000										
Iron	7439-89-6	mg/kg	20000		32800	19400	72400	24300						
Lead	7439-92-1	mg/kg	31	250	21.3	36.2	92.6	123		35.1		44.5	7.61	7.57
Lead	7439-92-1	umol/g	31	1000000										
Magnesium	7439-95-4	mg/kg	460		1920	1380	2540	3090						
Manganese	7439-96-5	mg/kg	630	1100	501	137	7280	371						
Mercury	7439-97-6	mg/kg	0.2	2	0.17	0.334	3.33	3.94		0.106		0.151	0.0169	0.0254
Mercury	7439-97-6	umol/g	0.2	1000000										
Nickel	7440-02-0	mg/kg	16	75	5.69	7.55	18.3	20.2		2.85		3.6	3.25	2.06
Nickel	7440-02-0	umol/g	16	1000000										
Potassium	7440-09-7	mg/kg	--		415	< 1090	766	891						
Selenium	7782-49-2	mg/kg	2		< 3.33	< 43.5	4.17	< 5.82						
Silver	7440-22-4	mg/kg	1		0.363	3.76	2.46	0.864		< 0.627		< 0.694	< 0.662	< 0.654
Sodium	7440-23-5	mg/kg	--		210	< 2180	474	498						
Thallium	7440-28-0	mg/kg	--		< 5	< 65.3	< 8.23	< 8.73						
Vanadium	7440-62-2	mg/kg	57		23.7	22	41.3	50.7						
Zinc	7440-66-6	mg/kg	120	820	102	105	438	350		59.9		64.8	31.4	26.8
Zinc	7440-66-6	umol/g	120	1000000										
Moisture														
Percent Moisture	MOIST	%	--		40	54.5	63.9	66.3		22.6		28	24.5	24.3
SVOCs														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062											
1,2-Dichlorobenzene	95-50-1	ug/kg	294											
1,2-Diphenylhydrazine	122-66-7	ug/kg	--											
1,3-Dichlorobenzene	541-73-1	ug/kg	1315											
1,4-Dichlorobenzene	106-46-7	ug/kg	318											
1-Methylnaphthalene	90-12-0	ug/kg	20.2		< 170	< 220	< 470	< 500						
2,4,6-Trichlorophenol	88-06-2	ug/kg	--											
2,4-Dichlorophenol	120-83-2	ug/kg	--											
2,4-Dimethylphenol	105-67-9	ug/kg	304											
2,4-Dinitrophenol	51-28-5	ug/kg	6.21											
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4											< 220
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8											< 220
2-Chloronaphthalene	91-58-7	ug/kg	--											
2-Chlorophenol	95-57-8	ug/kg	31.9											
2-Methylnaphthalene	91-57-6	ug/kg	70		< 170	< 220	< 470	< 500						
2-Nitrophenol	88-75-5	ug/kg	--											
3,3-Dichlorobenzidine	91-94-1	ug/kg	127											
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104											
4-Bromophenyl-phenylether	101-55-3	ug/kg	--											
4-Chloro-3-methylphenol	59-50-7	ug/kg	--											
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--											
4-Nitrophenol	100-02-7	ug/kg	13.3											
Acenaphthene	83-32-9	ug/kg	16		< 170	< 220	< 470	< 500						< 220
Acenaphthylene	208-96-8	ug/kg	44		35	65	190	260						< 220
Anthracene	120-12-7	ug/kg	220	370000	< 170	60	220	280						< 220
Benzidine	92-87-5	ug/kg	--											
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	76	200	400	670						< 220
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	110	290	540	960						< 220
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	170	430	890	1300						
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	87	230	500	850						< 220
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	89	190	< 470	590						< 220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--											
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--											
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--											
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750										
Butylbenzylphthalate	85-68-7	ug/kg	1970											
Chrysene	218-01-9	ug/kg	340	460000	120	300	710	1200						< 220
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 170	50	160	260						< 220
Diethylphthalate	84-66-2	ug/kg	295											
Dimethylphthalate	131-11-3	ug/kg	1000											
Di-n-butylphthalate	84-74-2	ug/kg	1114	110										
Di-n-octylphthalate	117-84-0	ug/kg	40600											
Fluoranthene	206-44-0	ug/kg	750	1020000	220	560	1000	1600						47
Fluorene	86-73-7	ug/kg	190	160000	< 170	< 220	< 470	110						< 220
Hexachlorobenzene	118-74-1	ug/kg	20	24000										
Hexachlorobutadiene	87-68-3	ug/kg	26.5											
Hexachlorocyclopentadiene	77-47-4	ug/kg	--											
Hexachloroethane	67-72-1	ug/kg	584											
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	78	180	420	640						
Isophorone	78-59-1	ug/kg	432											
Naphthalene	91-20-3	ug/kg	160	2100000	< 170	< 220	< 470	190						< 220
N-Nitrosodimethylamine	62-75-9	ug/kg	--											
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--											
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680											

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-F13-01	SD-R-F13-01	SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04
					Sample Date	11/5/2013	11/5/2013	11/6/2013	11/6/2013	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-F13-011.0N	SD-R-F13-011N	SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N
					Parent ID	SD-R2-G-12-3_20131105									
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000	150	280	550	900							< 220
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000	230	550	990	1900							47

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-F13-01	SD-R-F13-01	SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04
					Sample Date	11/5/2013	11/5/2013	11/6/2013	11/6/2013	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-F13-011.0N	SD-R-F13-011N	SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N
					Parent ID	SD-R2-G-12-3_20131105									
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
Total Organic Carbon	TOC	mg/kg	--		9820	34000	60800	32400		870		1400	12000	1800	
TPH															
Amyl alcohol	71-41-0	ug/kg	--												
Di-N-Propyl Ether	111-43-3	ug/kg	--												
Ethanol	64-17-5	ug/kg	--												
Ethyl ether	60-29-7	ug/kg	--												
Methanol	67-56-1	ug/kg	--												
N-butyl ether	142-96-1	ug/kg	--												
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850												
1,1,2-Trichloroethane	79-00-5	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--												
1,1-Dichloroethene	75-35-4	ug/kg	19.4												
1,2-Dichloroethane	107-06-2	ug/kg	--												
1,2-Dichloropropane	78-87-5	ug/kg	--												
2-Chloroethylvinylether	110-75-8	ug/kg	--												
Acrolein	107-02-8	ug/kg	0.00152												
Acrylonitrile	107-13-1	ug/kg	1.2												
Benzene	71-43-2	ug/kg	340												
Bromodichloromethane	75-27-4	ug/kg	--												
Bromoform	75-25-2	ug/kg	--												
Bromomethane	74-83-9	ug/kg	1.37												
Carbon Tetrachloride	56-23-5	ug/kg	1450												
Chlorobenzene	108-90-7	ug/kg	291												
Chloroethane	75-00-3	ug/kg	--												
Chloroform	67-66-3	ug/kg	121												
Chloromethane	74-87-3	ug/kg	--												
cis-1,2-Dichloroethene	156-59-2	ug/kg	--												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400												
Methylene Chloride	75-09-2	ug/kg	159												
Tetrachloroethene	127-18-4	ug/kg	450												
Toluene	108-88-3	ug/kg	2500												
trans-1,2-Dichloroethene	156-60-5	ug/kg	--												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--												
Trichloroethene	79-01-6	ug/kg	1600												
Trichlorofluoromethane	75-69-4	ug/kg	--												
Vinyl Chloride	75-01-4	ug/kg	202												
Xylenes (total)	1330-20-7	ug/kg	--												

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-F13-05	SD-R-F13-06	SD-R-F14-02	SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G12-01
				Sample Date	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-021.0N	SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G12-011.0N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
CALC														
Percent Moisture	MOIST	%	--											
Explosives														
1,2-Dinitrobenzene	528-29-0	ug/kg	--											
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 580	< 460		< 370		< 580		< 370	< 450	< 410
1,3-Dinitrobenzene	99-65-0	ug/kg	500											
1,4-Dinitrobenzene	100-25-4	ug/kg	--											
1-Nitronaphthalene	86-57-7	ug/kg	--											
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 580	< 460		< 370		< 580		< 370	< 450	< 410
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4											
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8											
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 580	< 460		< 370		< 580		< 370	< 450	< 410
2-Nitrotoluene	88-72-2	ug/kg	620000											
3-Nitrotoluene	99-08-1	ug/kg	190000											
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 580	< 460		< 370		< 580		< 370	< 450	< 410
4-Nitrotoluene	99-99-0	ug/kg	68000											
Nitrobenzene	98-95-3	ug/kg	145		< 580	< 460		< 370		< 580		< 370	< 450	< 410
Nitrocellulose	9004-70-0	ug/kg	--		110000	< 180000		< 150000		< 230000		110000	< 180000	< 170000
Nitroglycerin	55-63-0	ug/kg	127000		< 12000	< 9200		< 7300		< 12000		< 7400	< 9000	< 8300
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1500	< 1200		< 920		< 1500		< 920	< 1100	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 12000	< 9200		< 7300		< 12000		< 7400	< 9000	< 8300
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 580	< 460		< 370		< 580		< 370	< 450	< 410
Tetryl	479-45-8	ug/kg	600											
Field														
pH	PH	su	--											
GenChem			--											
Acid Volatile Sulfide	1313-84-4	umol/g	--											
Grain Size														
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--											
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--											
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		95.2	91.5	100		83.3		94.6		98.1	95.7
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--											
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--											
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100		100		100		100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--											
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--											
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100		100		100		100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--											
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--											
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--											
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--											
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--											
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--											
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--											
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--											
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--											
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--											
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--											
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--											
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--											
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--											
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--											
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--											
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--											
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--											
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--											
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--											
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1	< 1		< 1		< 1		< 1	1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		32.3	45	53.3		40.8		31.8		59.4	57.3
Sieve, 150 micron, % passing	SIEVE_150U	%	--		5.1	13.2	9.5		6.2		3.3		18.8	22.4
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1	0.5	< 1		< 1		< 1		< 1	1
Sieve, 20 micron, % passing	SIEVE_20U	%	--		< 1	1	< 1		1.5		< 1		2	6.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		42	47	56.9		44.1		38.6		66.6	64.7
Sieve, 300 micron, % passing	SIEVE_300U	%	--		11.3	25.4	27.8		19.5		10.5		35.7	33.4
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		49.2	74.9	65.8		50.4		43.5		71.6	72.7
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		57	80.1	76.5		57.1		48.8		76.3	81.4
Sieve, 5 micron, % passing	SIEVE_5U	%	--		< 1	1	< 1		< 1		< 1		1	2
Sieve, 50 micron, % passing	SIEVE_50U	%	--		2	5	2		3		1		6	11
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--											
Sieve, 600 micron, % passing	SIEVE_600U	%	--		21.6	39.6	44.1		35.6		21.6		49.2	46.2
Sieve, 64 micron, % passing	SIEVE_64U	%	--		3	7.5	2.5		3		1		8	14
Sieve, 75 micron, % passing	SIEVE_75U	%	--		3.1	8.8	3		3.2		1.4		10	15.9
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--											
Metals														
Aluminum	7429-90-5	mg/kg	25500											
Antimony	7440-36-0	mg/kg	3	3										
Arsenic	7440-38-2	mg/kg	6	33	4.81	2.29				2.38		1.66	6.05	3.84
Barium	7440-39-3	mg/kg	7000											
Beryllium	7440-41-7	mg/kg	NA											
Cadmium	7440-43-9	mg/kg	0.6	10	< 0.961	< 0.762				< 0.95		< 0.608	< 0.729	< 0.67
Cadmium	7440-43-9	umol/g	0.6	1000000										

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-F13-05	SD-R-F13-06	SD-R-F14-02	SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G12-01
				Sample Date	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-021.0N	SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G12-011.0N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Calcium	7440-70-2	mg/kg	--											
Chromium	7440-47-3	mg/kg	26	110	28.7	10.1				16.6		9.49	20.6	23.7
Chromium III	16065-83-1	mg/kg	--											
Chromium, Hexavalent	18540-29-9	mg/kg	--											
Cobalt	7440-48-4	mg/kg	50											
Copper	7440-50-8	mg/kg	16	110	15.5	8.34				9.72		4.58	14.8	14.1
Copper	7440-50-8	umol/g	16	1000000										
Iron	7439-89-6	mg/kg	20000											
Lead	7439-92-1	mg/kg	31	250	37.7	50.4				62.9		49.8	65.4	23.9
Lead	7439-92-1	umol/g	31	1000000										
Magnesium	7439-95-4	mg/kg	460											
Manganese	7439-96-5	mg/kg	630	1100										
Mercury	7439-97-6	mg/kg	0.2	2	0.462	0.0455				0.429		0.0854	0.829	0.44
Mercury	7439-97-6	umol/g	0.2	1000000										
Nickel	7440-02-0	mg/kg	16	75	7.96	3.15				4.25		2.62	4.73	4.91
Nickel	7440-02-0	umol/g	16	1000000										
Potassium	7440-09-7	mg/kg	--											
Selenium	7782-49-2	mg/kg	2											
Silver	7440-22-4	mg/kg	1		< 0.961	< 0.762				< 0.95		< 0.608	< 0.729	0.257
Sodium	7440-23-5	mg/kg	--											
Thallium	7440-28-0	mg/kg	--											
Vanadium	7440-62-2	mg/kg	57											
Zinc	7440-66-6	mg/kg	120	820	111	68.6				83.5		34.9	48.9	72.2
Zinc	7440-66-6	umol/g	120	1000000										
Moisture														
Percent Moisture	MOIST	%	--		48.5	35		18.3		48.4		18.6	33.4	27.5
SVOCs														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062											
1,2-Dichlorobenzene	95-50-1	ug/kg	294											
1,2-Diphenylhydrazine	122-66-7	ug/kg	--											
1,3-Dichlorobenzene	541-73-1	ug/kg	1315											
1,4-Dichlorobenzene	106-46-7	ug/kg	318											
1-Methylnaphthalene	90-12-0	ug/kg	20.2											
2,4,6-Trichlorophenol	88-06-2	ug/kg	--											
2,4-Dichlorophenol	120-83-2	ug/kg	--											
2,4-Dimethylphenol	105-67-9	ug/kg	304											
2,4-Dinitrophenol	51-28-5	ug/kg	6.21											
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 320	< 260		< 200					< 250	< 230
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 320	< 260		< 200					< 250	< 230
2-Chloronaphthalene	91-58-7	ug/kg	--											
2-Chlorophenol	95-57-8	ug/kg	31.9											
2-Methylnaphthalene	91-57-6	ug/kg	70											
2-Nitrophenol	88-75-5	ug/kg	--											
3,3-Dichlorobenzidine	91-94-1	ug/kg	127											
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104											
4-Bromophenyl-phenylether	101-55-3	ug/kg	--											
4-Chloro-3-methylphenol	59-50-7	ug/kg	--											
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--											
4-Nitrophenol	100-02-7	ug/kg	13.3											
Acenaphthene	83-32-9	ug/kg	16		< 320	< 260		< 200					< 250	< 230
Acenaphthylene	208-96-8	ug/kg	44		< 320	< 260		< 200					< 250	80
Anthracene	120-12-7	ug/kg	220	370000	77	< 260		< 200					< 250	89
Benzidine	92-87-5	ug/kg	--											
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	250	180		< 200					160	340
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	260	160		< 200					180	330
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200										
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	240	110		< 200					130	240
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	200	110		< 200					81	200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--											
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--											
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--											
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750										
Butylbenzylphthalate	85-68-7	ug/kg	1970											
Chrysene	218-01-9	ug/kg	340	460000	320	210		< 200					250	390
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 320	< 260		< 200					< 250	< 230
Diethylphthalate	84-66-2	ug/kg	295											
Dimethylphthalate	131-11-3	ug/kg	1000											
Di-n-butylphthalate	84-74-2	ug/kg	1114	110										
Di-n-octylphthalate	117-84-0	ug/kg	40600											
Fluoranthene	206-44-0	ug/kg	750	1020000	550	350		51					350	700
Fluorene	86-73-7	ug/kg	190	160000	< 320	< 260		< 200					< 250	< 230
Hexachlorobenzene	118-74-1	ug/kg	20	24000										
Hexachlorobutadiene	87-68-3	ug/kg	26.5											
Hexachlorocyclopentadiene	77-47-4	ug/kg	--											
Hexachloroethane	67-72-1	ug/kg	584											
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000										
Isophorone	78-59-1	ug/kg	432											
Naphthalene	91-20-3	ug/kg	160	2100000	< 320	< 260		< 200					< 250	< 230
N-Nitrosodimethylamine	62-75-9	ug/kg	--											
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--											
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680											

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-F13-05	SD-R-F13-06	SD-R-F14-02	SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G12-01
				Sample Date	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-021.0N	SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G12-011.0N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Pentachlorophenol	87-86-5	ug/kg	23000											
Phenanthrene	85-01-8	ug/kg	560	950000	410	170		< 200					270	410
Phenol	108-95-2	ug/kg	49.1	48										
Pyrene	129-00-0	ug/kg	490	850000	620	380		56					410	750

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-F13-05	SD-R-F13-06	SD-R-F14-02	SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G12-01
				Sample Date	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-021.0N	SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G12-011.0N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Total Organic Carbon														
Total Organic Carbon	TOC	mg/kg	--		11000	3800		< 430		11000		< 470	18000	16000
TPH														
Amyl alcohol	71-41-0	ug/kg	--											
Di-N-Propyl Ether	111-43-3	ug/kg	--											
Ethanol	64-17-5	ug/kg	--											
Ethyl ether	60-29-7	ug/kg	--											
Methanol	67-56-1	ug/kg	--											
N-butyl ether	142-96-1	ug/kg	--											
VOCs														
1,1,1-Trichloroethane	71-55-6	ug/kg	--											
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850											
1,1,2-Trichloroethane	79-00-5	ug/kg	--											
1,1-Dichloroethane	75-34-3	ug/kg	--											
1,1-Dichloroethene	75-35-4	ug/kg	19.4											
1,2-Dichloroethane	107-06-2	ug/kg	--											
1,2-Dichloropropane	78-87-5	ug/kg	--											
2-Chloroethylvinylether	110-75-8	ug/kg	--											
Acrolein	107-02-8	ug/kg	0.00152											
Acrylonitrile	107-13-1	ug/kg	1.2											
Benzene	71-43-2	ug/kg	340											
Bromodichloromethane	75-27-4	ug/kg	--											
Bromoform	75-25-2	ug/kg	--											
Bromomethane	74-83-9	ug/kg	1.37											
Carbon Tetrachloride	56-23-5	ug/kg	1450											
Chlorobenzene	108-90-7	ug/kg	291											
Chloroethane	75-00-3	ug/kg	--											
Chloroform	67-66-3	ug/kg	121											
Chloromethane	74-87-3	ug/kg	--											
cis-1,2-Dichloroethene	156-59-2	ug/kg	--											
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--											
Dibromochloromethane	124-48-1	ug/kg	--											
Ethylbenzene	100-41-4	ug/kg	1400											
Methylene Chloride	75-09-2	ug/kg	159											
Tetrachloroethene	127-18-4	ug/kg	450											
Toluene	108-88-3	ug/kg	2500											
trans-1,2-Dichloroethene	156-60-5	ug/kg	--											
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--											
Trichloroethene	79-01-6	ug/kg	1600											
Trichlorofluoromethane	75-69-4	ug/kg	--											
Vinyl Chloride	75-01-4	ug/kg	202											
Xylenes (total)	1330-20-7	ug/kg	--											

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-G12-02	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-H11-01	SD-R-H11-02	SD-R-H11-03	SD-R-H11-06
				Sample Date	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-G12-021.0N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-H11-011.0N	SD-R-H11-021.0N	SD-R-H11-031.0N	SD-R-H11-061N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
CALC														
Percent Moisture	MOIST	%	--											
Explosives														
1,2-Dinitrobenzene	528-29-0	ug/kg	--											
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 540	< 570	< 330	< 980	< 400	< 680	< 390	< 400	< 480	< 380
1,3-Dinitrobenzene	99-65-0	ug/kg	500											
1,4-Dinitrobenzene	100-25-4	ug/kg	--											
1-Nitronaphthalene	86-57-7	ug/kg	--											
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 540	< 570	< 330	< 980	< 400	< 680	< 390	< 400	< 480	< 380
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4											
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8											
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 540	< 570	< 330	< 980	< 400	< 680	< 390	< 400	< 480	< 380
2-Nitrotoluene	88-72-2	ug/kg	620000											
3-Nitrotoluene	99-08-1	ug/kg	190000											
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 540	< 570	< 330	< 980	< 400	< 680	< 390	< 400	< 480	< 380
4-Nitrotoluene	99-99-0	ug/kg	68000											
Nitrobenzene	98-95-3	ug/kg	145		< 540	400	< 330	< 980	< 400	< 680	< 390	< 400	< 480	< 380
Nitrocellulose	9004-70-0	ug/kg	--		< 210000	< 230000	< 130000	< 390000	58000	< 270000	< 160000	< 160000	< 190000	< 150000
Nitroglycerin	55-63-0	ug/kg	127000		< 11000	< 11000	< 6600	< 20000	< 7900	< 14000	< 7800	< 8000	< 9500	< 7600
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1300	< 1400	< 830	< 2400	< 990	< 1700	< 970	< 1000	< 1200	< 960
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 11000	< 11000	< 6600	< 20000	< 7900	< 14000	< 7800	< 8000	< 9500	< 7600
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 540	< 570	< 330	< 980	< 400	< 680	< 390	< 400	< 480	< 380
Tetryl	479-45-8	ug/kg	600											
Field														
pH	PH	su	--											
GenChem			--											
Acid Volatile Sulfide	1313-84-4	umol/g	--											
Grain Size														
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--											
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--											
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		95.8	96.4	78	99.7	80.2	68.3		100	80.2	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--											
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--											
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	88.6	100		100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--											
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--											
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100		100	100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--											
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--											
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--											
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--											
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--											
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--											
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--											
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--											
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--											
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--											
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--											
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--											
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--											
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--											
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--											
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--											
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--											
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--											
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--											
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--											
Sieve, 1 micron, % passing	SIEVE_1U	%	--		1	1.5	0.5	< 1	< 1	< 1		1	< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		76.4	46.1	26.9	70.4	50	25.1		57.3	50.7	
Sieve, 150 micron, % passing	SIEVE_150U	%	--		54.9	17.2	5.8	45.5	23.2	7.1		17.7	13.8	
Sieve, 2 micron, % passing	SIEVE_2U	%	--		4.5	1.5	0.5	3	1	0.5		1	0.5	
Sieve, 20 micron, % passing	SIEVE_20U	%	--		19	4	2	24	6	3		7	5	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		78.9	48.2	35	79.9	54.5	46.9		65.7	55.7	
Sieve, 300 micron, % passing	SIEVE_300U	%	--		67.3	31.4	9.7	54.9	33	8.6		28.1	23.4	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		88.3	82.2	40.4	89.2	62	54.3		74.7	62.7	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		92.6	87	46.2	95.5	63	58.5		84.6	69.7	
Sieve, 5 micron, % passing	SIEVE_5U	%	--		9	1.5	1.5	9	3	1.5		1.5	1	
Sieve, 50 micron, % passing	SIEVE_50U	%	--		35	7.5	2.5	34	11	5		12.5	7.5	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--											
Sieve, 600 micron, % passing	SIEVE_600U	%	--		72.9	42.1	17.2	63.6	41.9	11.7		42.9	39	
Sieve, 64 micron, % passing	SIEVE_64U	%	--		37.5	9.5	3.5	36.5	13	5.5		13	9	
Sieve, 75 micron, % passing	SIEVE_75U	%	--		39.5	10.8	3.9	37.4	14.4	5.9		13.4	9.8	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--											
Metals														
Aluminum	7429-90-5	mg/kg	25500											
Antimony	7440-36-0	mg/kg	3	3										
Arsenic	7440-38-2	mg/kg	6	33	7.96	12.1	5.47	6	3.52	18.2	5.64	13.4	8.7	8.78
Barium	7440-39-3	mg/kg	7000											
Beryllium	7440-41-7	mg/kg	NA											
Cadmium	7440-43-9	mg/kg	0.6	10	< 0.875	0.352	< 0.548	< 1.57	< 0.647	0.911	< 0.649	< 0.632	< 0.757	0.252
Cadmium	7440-43-9	umol/g	0.6	1000000										

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-G12-02	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-H11-01	SD-R-H11-02	SD-R-H11-03	SD-R-H11-06
				Sample Date	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-G12-021.0N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-H11-011.0N	SD-R-H11-021.0N	SD-R-H11-031.0N	SD-R-H11-061N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Calcium	7440-70-2	mg/kg	--											
Chromium	7440-47-3	mg/kg	26	110	91.1	35.2	8.79	25.9	12.6	24.4	73.1	58.9	19.1	13.7
Chromium III	16065-83-1	mg/kg	--											
Chromium, Hexavalent	18540-29-9	mg/kg	--											
Cobalt	7440-48-4	mg/kg	50											
Copper	7440-50-8	mg/kg	16	110	29.9	63.7	31.6	20.6	12.1	46.1	15.2	11.7	20.4	17.3
Copper	7440-50-8	umol/g	16	1000000										
Iron	7439-89-6	mg/kg	20000											
Lead	7439-92-1	mg/kg	31	250	99.6	1990	5.42	118	7.82	337	20.7	25.1	39.1	40.9
Lead	7439-92-1	umol/g	31	1000000										
Magnesium	7439-95-4	mg/kg	460											
Manganese	7439-96-5	mg/kg	630	1100										
Mercury	7439-97-6	mg/kg	0.2	2	2.89	1.36	0.023	0.454	0.099	1.11	0.72	0.88	0.456	0.218
Mercury	7439-97-6	umol/g	0.2	1000000										
Nickel	7440-02-0	mg/kg	16	75	12	24.1	6.38	16.6	6.8	14.6	6.56	5.32	10.7	6.36
Nickel	7440-02-0	umol/g	16	1000000										
Potassium	7440-09-7	mg/kg	--											
Selenium	7782-49-2	mg/kg	2											
Silver	7440-22-4	mg/kg	1		0.537	< 0.952	< 0.548	< 1.57	< 0.647	0.46	0.542	< 0.632	< 0.757	0.246
Sodium	7440-23-5	mg/kg	--											
Thallium	7440-28-0	mg/kg	--											
Vanadium	7440-62-2	mg/kg	57											
Zinc	7440-66-6	mg/kg	120	820	167	130	32	97.6	60.1	209	90.9	105	190	45.9
Zinc	7440-66-6	umol/g	120	1000000										
Moisture														
Percent Moisture	MOIST	%	--		44	47.5	9.7	69.3	24.2	56.1	22.9	24.7	37.1	21.5
SVOCs														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062											
1,2-Dichlorobenzene	95-50-1	ug/kg	294											
1,2-Diphenylhydrazine	122-66-7	ug/kg	--											
1,3-Dichlorobenzene	541-73-1	ug/kg	1315											
1,4-Dichlorobenzene	106-46-7	ug/kg	318											
1-Methylnaphthalene	90-12-0	ug/kg	20.2											
2,4,6-Trichlorophenol	88-06-2	ug/kg	--											
2,4-Dichlorophenol	120-83-2	ug/kg	--											
2,4-Dimethylphenol	105-67-9	ug/kg	304											
2,4-Dinitrophenol	51-28-5	ug/kg	6.21											
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 300		< 180		< 220					
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 300		< 180		< 220					
2-Chloronaphthalene	91-58-7	ug/kg	--											
2-Chlorophenol	95-57-8	ug/kg	31.9											
2-Methylnaphthalene	91-57-6	ug/kg	70											
2-Nitrophenol	88-75-5	ug/kg	--											
3,3-Dichlorobenzidine	91-94-1	ug/kg	127											
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104											
4-Bromophenyl-phenylether	101-55-3	ug/kg	--											
4-Chloro-3-methylphenol	59-50-7	ug/kg	--											
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--											
4-Nitrophenol	100-02-7	ug/kg	13.3											
Acenaphthene	83-32-9	ug/kg	16		92		< 180		< 220					
Acenaphthylene	208-96-8	ug/kg	44		520		< 180		< 220					
Anthracene	120-12-7	ug/kg	220	370000	570		< 180		< 220					
Benzidine	92-87-5	ug/kg	--											
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	1700		< 180		49					
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	1800		< 180		61					
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200										
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	1300		< 180		47					
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	1000		< 180		< 220					
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--											
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--											
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--											
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750										
Butylbenzylphthalate	85-68-7	ug/kg	1970											
Chrysene	218-01-9	ug/kg	340	460000	2300		< 180		70					
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	260		< 180		< 220					
Diethylphthalate	84-66-2	ug/kg	295											
Dimethylphthalate	131-11-3	ug/kg	1000											
Di-n-butylphthalate	84-74-2	ug/kg	1114	110										
Di-n-octylphthalate	117-84-0	ug/kg	40600											
Fluoranthene	206-44-0	ug/kg	750	1020000	4000		< 180		130					
Fluorene	86-73-7	ug/kg	190	160000	270		< 180		< 220					
Hexachlorobenzene	118-74-1	ug/kg	20	24000										
Hexachlorobutadiene	87-68-3	ug/kg	26.5											
Hexachlorocyclopentadiene	77-47-4	ug/kg	--											
Hexachloroethane	67-72-1	ug/kg	584											
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000										
Isophorone	78-59-1	ug/kg	432											
Naphthalene	91-20-3	ug/kg	160	2100000	82		< 180		< 220					
N-Nitrosodimethylamine	62-75-9	ug/kg	--											
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--											
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680											

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-G12-02	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-H11-01	SD-R-H11-02	SD-R-H11-03	SD-R-H11-06
				Sample Date	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-G12-021.0N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-H11-011.0N	SD-R-H11-021.0N	SD-R-H11-031.0N	SD-R-H11-061N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Pentachlorophenol	87-86-5	ug/kg	23000											
Phenanthrene	85-01-8	ug/kg	560	950000	2700		< 180		110					
Phenol	108-95-2	ug/kg	49.1	48										
Pyrene	129-00-0	ug/kg	490	850000	4300		< 180		120					

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-G12-02	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-H11-01	SD-R-H11-02	SD-R-H11-03	SD-R-H11-06
				Sample Date	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-G12-021.0N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-H11-011.0N	SD-R-H11-021.0N	SD-R-H11-031.0N	SD-R-H11-061N
				Parent ID										
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Total Organic Carbon														
Total Organic Carbon	TOC	mg/kg	--		17000	4600	280	130000	3400	11000	20000	1500	3900	4900
TPH														
Amyl alcohol	71-41-0	ug/kg	--											
Di-N-Propyl Ether	111-43-3	ug/kg	--											
Ethanol	64-17-5	ug/kg	--											
Ethyl ether	60-29-7	ug/kg	--											
Methanol	67-56-1	ug/kg	--											
N-butyl ether	142-96-1	ug/kg	--											
VOCs														
1,1,1-Trichloroethane	71-55-6	ug/kg	--											
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850											
1,1,2-Trichloroethane	79-00-5	ug/kg	--											
1,1-Dichloroethane	75-34-3	ug/kg	--											
1,1-Dichloroethene	75-35-4	ug/kg	19.4											
1,2-Dichloroethane	107-06-2	ug/kg	--											
1,2-Dichloropropane	78-87-5	ug/kg	--											
2-Chloroethylvinylether	110-75-8	ug/kg	--											
Acrolein	107-02-8	ug/kg	0.00152											
Acrylonitrile	107-13-1	ug/kg	1.2											
Benzene	71-43-2	ug/kg	340											
Bromodichloromethane	75-27-4	ug/kg	--											
Bromoform	75-25-2	ug/kg	--											
Bromomethane	74-83-9	ug/kg	1.37											
Carbon Tetrachloride	56-23-5	ug/kg	1450											
Chlorobenzene	108-90-7	ug/kg	291											
Chloroethane	75-00-3	ug/kg	--											
Chloroform	67-66-3	ug/kg	121											
Chloromethane	74-87-3	ug/kg	--											
cis-1,2-Dichloroethene	156-59-2	ug/kg	--											
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--											
Dibromochloromethane	124-48-1	ug/kg	--											
Ethylbenzene	100-41-4	ug/kg	1400											
Methylene Chloride	75-09-2	ug/kg	159											
Tetrachloroethene	127-18-4	ug/kg	450											
Toluene	108-88-3	ug/kg	2500											
trans-1,2-Dichloroethene	156-60-5	ug/kg	--											
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--											
Trichloroethene	79-01-6	ug/kg	1600											
Trichlorofluoromethane	75-69-4	ug/kg	--											
Vinyl Chloride	75-01-4	ug/kg	202											
Xylenes (total)	1330-20-7	ug/kg	--											

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06
				Sample Date	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N
				Parent ID						
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
CALC										
Percent Moisture	MOIST	%	--							
Explosives										
1,2-Dinitrobenzene	528-29-0	ug/kg	--							
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 360	< 350	< 380	< 660	< 380	< 400
1,3-Dinitrobenzene	99-65-0	ug/kg	500							
1,4-Dinitrobenzene	100-25-4	ug/kg	--							
1-Nitronaphthalene	86-57-7	ug/kg	--							
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 360	< 350	< 380	< 660	< 380	< 400
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4							
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8							
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 360	< 350	< 380	< 660	< 380	< 400
2-Nitrotoluene	88-72-2	ug/kg	620000							
3-Nitrotoluene	99-08-1	ug/kg	190000							
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 360	< 350	< 380	< 660	< 380	< 400
4-Nitrotoluene	99-99-0	ug/kg	68000							
Nitrobenzene	98-95-3	ug/kg	145		< 360	< 350	< 380	< 660	< 380	< 400
Nitrocellulose	9004-70-0	ug/kg	--		< 140000	< 140000	< 150000	< 260000	< 150000	< 160000
Nitroglycerin	55-63-0	ug/kg	127000		< 7100	< 7100	< 7600	< 13000	< 7500	< 8000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 890	< 890	< 950	< 1700	< 940	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 7100	< 7100	< 7600	< 13000	< 7500	< 8000
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 360	< 350	< 380	< 660	< 380	< 400
Tetryl	479-45-8	ug/kg	600							
Field										
pH	PH	su	--							
GenChem			--							
Acid Volatile Sulfide	1313-84-4	umol/g	--							
Grain Size										
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--							
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--							
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		97.1	92	100	82.2	89.7	87.4
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--							
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--							
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	99.4	100	100	100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--							
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--							
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--							
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--							
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--							
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--							
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--							
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--							
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--							
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--							
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--							
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--							
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--							
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--							
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--							
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--							
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--							
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--							
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--							
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--							
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--							
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--							
Sieve, 1 micron, % passing	SIEVE_1U	%	--		0.5	2	6	< 1	4	2
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		34.1	43.4	74.8	30.2	48.5	39.7
Sieve, 150 micron, % passing	SIEVE_150U	%	--		10.4	22	41.6	16.6	22.5	16.6
Sieve, 2 micron, % passing	SIEVE_2U	%	--		0.5	3	8	1	4	3
Sieve, 20 micron, % passing	SIEVE_20U	%	--		2.5	8.5	19.5	7.5	10.5	7.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		41.1	47.6	79.7	39.2	50.8	50.7
Sieve, 300 micron, % passing	SIEVE_300U	%	--		17.4	27.3	52.4	19.8	29.2	20.7
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		49.3	68.4	87.9	44.9	58.6	57.2
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		59.5	76.1	93.4	49.9	66.5	63.4
Sieve, 5 micron, % passing	SIEVE_5U	%	--		1.5	5	11	3	5	4.5
Sieve, 50 micron, % passing	SIEVE_50U	%	--		5	14	30	10.5	15.5	12.5
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--							
Sieve, 600 micron, % passing	SIEVE_600U	%	--		25.7	35.5	64.2	24	40.2	27.8
Sieve, 64 micron, % passing	SIEVE_64U	%	--		7	17	33	12.5	17	13.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		7.7	18.5	34.9	13.8	17.9	13.9
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--							
Metals										
Aluminum	7429-90-5	mg/kg	25500							
Antimony	7440-36-0	mg/kg	3	3						
Arsenic	7440-38-2	mg/kg	6	33	4.79	5.1	3.57	11.3	2.41	5.39
Barium	7440-39-3	mg/kg	7000							
Beryllium	7440-41-7	mg/kg	NA							
Cadmium	7440-43-9	mg/kg	0.6	10	< 2.87	< 2.89	< 3.16	< 1.1	< 3.02	< 3.17
Cadmium	7440-43-9	umol/g	0.6	1000000						

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06
				Sample Date	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N
				Parent ID						
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
Calcium	7440-70-2	mg/kg	--							
Chromium	7440-47-3	mg/kg	26	110	199	67	46.6	39.6	21.9	23.8
Chromium III	16065-83-1	mg/kg	--							
Chromium, Hexavalent	18540-29-9	mg/kg	--							
Cobalt	7440-48-4	mg/kg	50							
Copper	7440-50-8	mg/kg	16	110	10.6	11.9	14.4	38.1	10.7	20.8
Copper	7440-50-8	umol/g	16	1000000						
Iron	7439-89-6	mg/kg	20000							
Lead	7439-92-1	mg/kg	31	250	16	7.28	17.9	67.8	7.28	24.7
Lead	7439-92-1	umol/g	31	1000000						
Magnesium	7439-95-4	mg/kg	460							
Manganese	7439-96-5	mg/kg	630	1100						
Mercury	7439-97-6	mg/kg	0.2	2	0.567	0.0799	0.102	0.829	0.0762	0.682
Mercury	7439-97-6	umol/g	0.2	1000000						
Nickel	7440-02-0	mg/kg	16	75	7.55	5.81	9.05	13.9	6.61	9.46
Nickel	7440-02-0	umol/g	16	1000000						
Potassium	7440-09-7	mg/kg	--							
Selenium	7782-49-2	mg/kg	2							
Silver	7440-22-4	mg/kg	1		0.225	< 0.579	0.344	1.22	0.27	0.661
Sodium	7440-23-5	mg/kg	--							
Thallium	7440-28-0	mg/kg	--							
Vanadium	7440-62-2	mg/kg	57							
Zinc	7440-66-6	mg/kg	120	820	63.5	45.7	81.9	258	64.2	119
Zinc	7440-66-6	umol/g	120	1000000						
Moisture										
Percent Moisture	MOIST	%	--		15.5	15.3	20.9	54.7	20.5	24.8
SVOCs										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062							
1,2-Dichlorobenzene	95-50-1	ug/kg	294							
1,2-Diphenylhydrazine	122-66-7	ug/kg	--							
1,3-Dichlorobenzene	541-73-1	ug/kg	1315							
1,4-Dichlorobenzene	106-46-7	ug/kg	318							
1-Methylnaphthalene	90-12-0	ug/kg	20.2							
2,4,6-Trichlorophenol	88-06-2	ug/kg	--							
2,4-Dichlorophenol	120-83-2	ug/kg	--							
2,4-Dimethylphenol	105-67-9	ug/kg	304							
2,4-Dinitrophenol	51-28-5	ug/kg	6.21							
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4							
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8							
2-Chloronaphthalene	91-58-7	ug/kg	--							
2-Chlorophenol	95-57-8	ug/kg	31.9							
2-Methylnaphthalene	91-57-6	ug/kg	70							
2-Nitrophenol	88-75-5	ug/kg	--							
3,3-Dichlorobenzidine	91-94-1	ug/kg	127							
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104							
4-Bromophenyl-phenylether	101-55-3	ug/kg	--							
4-Chloro-3-methylphenol	59-50-7	ug/kg	--							
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--							
4-Nitrophenol	100-02-7	ug/kg	13.3							
Acenaphthene	83-32-9	ug/kg	16							
Acenaphthylene	208-96-8	ug/kg	44							
Anthracene	120-12-7	ug/kg	220	370000						
Benzidine	92-87-5	ug/kg	--							
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000						
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000						
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200						
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000						
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000						
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--							
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--							
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--							
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750						
Butylbenzylphthalate	85-68-7	ug/kg	1970							
Chrysene	218-01-9	ug/kg	340	460000						
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000						
Diethylphthalate	84-66-2	ug/kg	295							
Dimethylphthalate	131-11-3	ug/kg	1000							
Di-n-butylphthalate	84-74-2	ug/kg	1114	110						
Di-n-octylphthalate	117-84-0	ug/kg	40600							
Fluoranthene	206-44-0	ug/kg	750	1020000						
Fluorene	86-73-7	ug/kg	190	160000						
Hexachlorobenzene	118-74-1	ug/kg	20	24000						
Hexachlorobutadiene	87-68-3	ug/kg	26.5							
Hexachlorocyclopentadiene	77-47-4	ug/kg	--							
Hexachloroethane	67-72-1	ug/kg	584							
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000						
Isophorone	78-59-1	ug/kg	432							
Naphthalene	91-20-3	ug/kg	160	2100000						
N-Nitrosodimethylamine	62-75-9	ug/kg	--							
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--							
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680							

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06
				Sample Date	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N
				Parent ID						
				Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
Pentachlorophenol	87-86-5	ug/kg	23000							
Phenanthrene	85-01-8	ug/kg	560	950000						
Phenol	108-95-2	ug/kg	49.1	48						
Pyrene	129-00-0	ug/kg	490	850000						

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06
					Sample Date	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N
					Parent ID						
					Subdrainage Area	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East	Maintenance-Dynamite East
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL							
Total Organic Carbon											
Total Organic Carbon	TOC	mg/kg	--		< 1000	1000	1900	43000	2600	5600
TPH											
Amyl alcohol	71-41-0	ug/kg	--							
Di-N-Propyl Ether	111-43-3	ug/kg	--							
Ethanol	64-17-5	ug/kg	--							
Ethyl ether	60-29-7	ug/kg	--							
Methanol	67-56-1	ug/kg	--							
N-butyl ether	142-96-1	ug/kg	--							
VOCs											
1,1,1-Trichloroethane	71-55-6	ug/kg	--							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850							
1,1,2-Trichloroethane	79-00-5	ug/kg	--							
1,1-Dichloroethane	75-34-3	ug/kg	--							
1,1-Dichloroethene	75-35-4	ug/kg	19.4							
1,2-Dichloroethane	107-06-2	ug/kg	--							
1,2-Dichloropropane	78-87-5	ug/kg	--							
2-Chloroethylvinylether	110-75-8	ug/kg	--							
Acrolein	107-02-8	ug/kg	0.00152							
Acrylonitrile	107-13-1	ug/kg	1.2							
Benzene	71-43-2	ug/kg	340							
Bromodichloromethane	75-27-4	ug/kg	--							
Bromoform	75-25-2	ug/kg	--							
Bromomethane	74-83-9	ug/kg	1.37							
Carbon Tetrachloride	56-23-5	ug/kg	1450							
Chlorobenzene	108-90-7	ug/kg	291							
Chloroethane	75-00-3	ug/kg	--							
Chloroform	67-66-3	ug/kg	121							
Chloromethane	74-87-3	ug/kg	--							
cis-1,2-Dichloroethene	156-59-2	ug/kg	--							
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--							
Dibromochloromethane	124-48-1	ug/kg	--							
Ethylbenzene	100-41-4	ug/kg	1400							
Methylene Chloride	75-09-2	ug/kg	159							
Tetrachloroethene	127-18-4	ug/kg	450							
Toluene	108-88-3	ug/kg	2500							
trans-1,2-Dichloroethene	156-60-5	ug/kg	--							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--							
Trichloroethene	79-01-6	ug/kg	1600							
Trichlorofluoromethane	75-69-4	ug/kg	--							
Vinyl Chloride	75-01-4	ug/kg	202							
Xylenes (total)	1330-20-7	ug/kg	--							

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D12-2-01	SD-D12-3-01	SD-D12-4-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-E11-3-01
				Sample Date	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/17/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-D12-2-011N	SD-D12-3-011N	SD-D12-4-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-E11-3-011N
				Parent ID							SD-D13-5-011N		
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL									
CALC													
Percent Moisture	MOIST	%	--										
Explosives													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160										
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100										
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300										
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500										
Nitrobenzene	98-95-3	ug/kg	145										
Nitrocellulose	9004-70-0	ug/kg	--										
Nitroglycerin	55-63-0	ug/kg	127000										
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380										
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000										
RDX (Cyclonite)	121-82-4	ug/kg	1200										
Field													
Dissolved Oxygen	7782-44-7	mg/l	--										
pH	PH	su	--										
Specific Conductance	SC	us/cm	--										
Temperature	TEMP	deg c	--										
Turbidity	TURBIDITY	ntu	--										
GenChem			--										
Acid Volatile Sulfide	1313-84-4	umol/g	--										
Grain Size													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--										
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--										
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--										
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--										
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--										
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--										
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--										
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--										
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--										
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--										
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--										
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--										
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--										
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--										
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--										
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--										
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--										
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--										
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--										
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--										
Sieve, 1 micron, % passing	SIEVE_1U	%	--										
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--										
Sieve, 150 micron, % passing	SIEVE_150U	%	--										
Sieve, 2 micron, % passing	SIEVE_2U	%	--										
Sieve, 20 micron, % passing	SIEVE_20U	%	--										
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--										
Sieve, 300 micron, % passing	SIEVE_300U	%	--										
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--										
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--										
Sieve, 5 micron, % passing	SIEVE_5U	%	--										
Sieve, 50 micron, % passing	SIEVE_50U	%	--										
Sieve, 600 micron, % passing	SIEVE_600U	%	--										
Sieve, 64 micron, % passing	SIEVE_64U	%	--										
Sieve, 75 micron, % passing	SIEVE_75U	%	--										
Metals													
Arsenic	7440-38-2	mg/kg	6	33									
Cadmium	7440-43-9	mg/kg	0.6	10									
Cadmium	7440-43-9	umol/g	0.6	1000000									
Chromium	7440-47-3	mg/kg	26	110									
Copper	7440-50-8	mg/kg	16	110									
Copper	7440-50-8	umol/g	16	1000000									
Lead	7439-92-1	mg/kg	31	250									
Lead	7439-92-1	umol/g	31	1000000									
Mercury	7439-97-6	mg/kg	0.2	2									
Mercury	7439-97-6	umol/g	0.2	1000000									
Nickel	7440-02-0	mg/kg	16	75									
Nickel	7440-02-0	umol/g	16	1000000									
Silver	7440-22-4	mg/kg	1										
Zinc	7440-66-6	mg/kg	120	820									
Zinc	7440-66-6	umol/g	120	1000000									
Moisture													
Percent Moisture	MOIST	%	--										
Total Solids	TSO	%	--										
SVOCs													
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4										
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8										
Acenaphthene	83-32-9	ug/kg	16										
Acenaphthylene	208-96-8	ug/kg	44										

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D12-2-01	SD-D12-3-01	SD-D12-4-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-E11-3-01
				Sample Date	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/17/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-D12-2-011N	SD-D12-3-011N	SD-D12-4-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-E11-3-011N
				Parent ID							SD-D13-5-011N		
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL									
Anthracene	120-12-7	ug/kg	220	370000									
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000									
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000									
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200									
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000									
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000									
Chrysene	218-01-9	ug/kg	340	460000									
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000									
Fluoranthene	206-44-0	ug/kg	750	1020000									
Fluorene	86-73-7	ug/kg	190	160000									
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000									
Naphthalene	91-20-3	ug/kg	160	2100000									
Phenanthrene	85-01-8	ug/kg	560	950000									
Pyrene	129-00-0	ug/kg	490	850000									

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-D12-2-01	SD-D12-3-01	SD-D12-4-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-E11-3-01
				Sample Date	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/17/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-D12-2-011N	SD-D12-3-011N	SD-D12-4-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-E11-3-011N
				Parent ID							SD-D13-5-011N		
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL									
Total Organic Carbon													
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--										
Total Organic Carbon	TOC	mg/kg	--										
TPH													
Amyl alcohol	71-41-0	ug/kg	--		< 19000	< 22000	< 19000	< 29000	< 29000	< 20000		< 25000	< 20000
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 19000	< 22000	< 19000	< 29000	< 29000	< 20000		< 25000	< 20000
Ethanol	64-17-5	ug/kg	--		< 19000	< 22000	< 19000	< 29000	< 29000	< 20000		< 25000	< 20000
Ethyl ether	60-29-7	ug/kg	--		< 19000	< 22000	< 19000	< 29000	< 29000	< 20000		< 25000	< 20000
Methanol	67-56-1	ug/kg	--		< 19000	< 22000	< 19000	< 29000	< 29000	< 20000		< 25000	24000
N-butyl ether	142-96-1	ug/kg	--		< 19000	< 22000	< 19000	< 29000	< 29000	< 20000		< 25000	< 20000
VOCs													
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
1,1-Dichloroethane	75-34-3	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
1,2-Dichloroethane	107-06-2	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
1,2-Dichloropropane	78-87-5	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 530	< 530	< 670	< 810	< 810	< 510	< 730	< 520	< 470
Acrolein	107-02-8	ug/kg	0.00152		< 5300	< 5300	< 6700	< 8100	< 8100	< 5100	< 7300	< 5200	< 4700
Acrylonitrile	107-13-1	ug/kg	1.2		< 1100	< 1100	< 1300	< 1600	< 1600	< 1000	< 1500	< 1000	< 930
Benzene	71-43-2	ug/kg	340		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Bromodichloromethane	75-27-4	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Bromoform	75-25-2	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Bromomethane	74-83-9	ug/kg	1.37		< 530	< 530	< 670	< 810	< 810	< 510	< 730	< 520	< 470
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Chlorobenzene	108-90-7	ug/kg	291		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Chloroethane	75-00-3	ug/kg	--		< 530	< 530	< 670	< 810	< 810	< 510	< 730	< 520	< 470
Chloroform	67-66-3	ug/kg	121		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Chloromethane	74-87-3	ug/kg	--		< 530	< 530	< 670	< 810	< 810	< 510	< 730	< 520	< 470
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Dibromochloromethane	124-48-1	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Ethylbenzene	100-41-4	ug/kg	1400		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Methylene Chloride	75-09-2	ug/kg	159		< 530	< 530	< 670	< 810	< 810	< 510	< 730	< 520	< 470
Tetrachloroethene	127-18-4	ug/kg	450		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Toluene	108-88-3	ug/kg	2500		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Trichloroethene	79-01-6	ug/kg	1600		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Trichlorofluoromethane	75-69-4	ug/kg	--		< 530	< 530	< 670	< 810	< 810	< 510	< 730	< 520	< 470
Vinyl Chloride	75-01-4	ug/kg	202		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230
Xylenes (total)	1330-20-7	ug/kg	--		< 270	< 270	< 330	< 410	< 410	< 250	< 370	< 260	< 230

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-ERA-D12-MDW-02	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-02	SD-R-D11-06	SD-R-D12-01	SD-R-D12-02	SD-R-D12-03
				Sample Date	6/13/2016	6/13/2016	6/13/2016	7/30/2019	7/30/2019	5/16/2006	5/15/2006	5/15/2006	5/15/2006
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-ERA-D12-MDW-02	SD-BD061316	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01(00.0-00.5)	SD-ERA-D13-MDW-02(00.0-00.5)	SD-R-D11-061.0N	SD-R-D12-011.0N	SD-R-D12-021.0N	SD-R-D12-031.0N
				Parent ID		SD-ERA-D13-MDW-01							
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL									
CALC													
Percent Moisture	MOIST	%	--					76.3	78.8				
Explosives													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160							< 460	< 460	< 450	< 810
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100							< 460	< 460	< 450	< 810
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300							< 460	< 460	< 450	< 810
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500							< 460	< 460	< 450	< 810
Nitrobenzene	98-95-3	ug/kg	145							< 460	< 460	< 450	< 810
Nitrocellulose	9004-70-0	ug/kg	--							210000	99000	< 180000	< 320000
Nitroglycerin	55-63-0	ug/kg	127000							< 9200	< 9300	< 9100	< 16000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380							< 1200	< 1200	< 1100	< 2000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000							< 9200	< 9300	< 9100	< 16000
RDX (Cyclonite)	121-82-4	ug/kg	1200							< 460	< 460	< 450	< 810
Field													
Dissolved Oxygen	7782-44-7	mg/l	--		2.50		7.09						
pH	PH	su	--		6.59 7.05	7.22	6.16 7.27	6.84	6.79				
Specific Conductance	SC	us/cm	--		3.05		0.541						
Temperature	TEMP	deg c	--		13.62		12.72						
Turbidity	TURBIDITY	ntu	--		0.6		14.2						
GenChem			--										
Acid Volatile Sulfide	1313-84-4	umol/g	--		7.2	1.2 B	1.0 B						
Grain Size													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--							100	94.9	100	100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--							100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--							100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--		1.0		< 0.50 U	1.0	4.0				
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--		1.0		< 0.50 U	3.0	5.0				
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--		2.0		2.0	6.0	17.0				
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--		6.5		4.0	8.0	13.0				
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--		14.0		10.0	13.0	20.0				
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--		16.5		16.0	18.0	29.0				
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--		19.8		19.3	20.2	33.7				
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--		46.9		33.9	40.5	55.4				
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--		77.2		63.2	66.5	78.3				
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--		92.7		86.7	78.9	92.5				
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--		98.2		98.4	83.5	98.7				
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--		99.9		100	100	100				
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--		99.3		99.3	85.5	100				
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--		99.7		99.3	89.2	100				
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--		100		100	100	100				
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--		99.9		99.3	92.9	100				
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--		100		100	100	100				
Sieve, 1 micron, % passing	SIEVE_1U	%	--							< 1	< 1	< 1	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--							68.1	40.2	78.9	69.6
Sieve, 150 micron, % passing	SIEVE_150U	%	--							10.6	9.8	20	47.2
Sieve, 2 micron, % passing	SIEVE_2U	%	--							< 1	< 1	< 1	2
Sieve, 20 micron, % passing	SIEVE_20U	%	--							2.5	2	1.5	17
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--							77.9	50.3	82.4	71.6
Sieve, 300 micron, % passing	SIEVE_300U	%	--							25	16.7	46	60.9
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--							86.3	58.5	89.6	87.6
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--							93.2	66.5	94.6	95.5
Sieve, 5 micron, % passing	SIEVE_5U	%	--							2	< 1	< 1	7
Sieve, 50 micron, % passing	SIEVE_50U	%	--							4	5.5	5	24
Sieve, 600 micron, % passing	SIEVE_600U	%	--							49.2	27.2	70.7	67
Sieve, 64 micron, % passing	SIEVE_64U	%	--							5.5	6	8	30
Sieve, 75 micron, % passing	SIEVE_75U	%	--							6.5	6.6	9.7	34.2
Metals													
Arsenic	7440-38-2	mg/kg	6	33						1.91	7.14	1.34	15.7
Cadmium	7440-43-9	mg/kg	0.6	10						0.717	1.43	0.523	0.626
Cadmium	7440-43-9	umol/g	0.6	1000000	0.00342 B	0.00194	0.00479 B						
Chromium	7440-47-3	mg/kg	26	110						43.8	13.8	8.39	19.9
Copper	7440-50-8	mg/kg	16	110						4.56	28.5	10.9	17.7
Copper	7440-50-8	umol/g	16	1000000	0.149	0.145	0.217						
Lead	7439-92-1	mg/kg	31	250						32.8	156	106	1060
Lead	7439-92-1	umol/g	31	1000000	0.266	0.399	0.284						
Mercury	7439-97-6	mg/kg	0.2	2	0.599	0.542	0.492			0.0052	0.214	0.307	7.4
Mercury	7439-97-6	umol/g	0.2	1000000	0.0000086 B	< 0.0000073 U	0.0000648 B						
Nickel	7440-02-0	mg/kg	16	75						5.32	10.4	4.41	7.31
Nickel	7440-02-0	umol/g	16	1000000	0.220	0.0342	0.390						
Silver	7440-22-4	mg/kg	1							< 0.763	1.45	< 0.748	0.943
Zinc	7440-66-6	mg/kg	120	820						27.7	145	40.3	71.3
Zinc	7440-66-6	umol/g	120	1000000	1.41	1.33	1.78						
Moisture													
Percent Moisture	MOIST	%	--		73.9	60.6	58.1			35.1	35.2	33.8	62.8
Total Solids	TSO	%	--		20.93	54.82	42.59						
SVOCs													
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4								< 260	< 250	< 450
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8								< 260	< 250	< 450
Acenaphthene	83-32-9	ug/kg	16					< 2.8 U	5.2 J		< 260	< 250	< 450
Acenaphthylene	208-96-8	ug/kg	44					4.3 J	8.0		< 260	< 250	< 450

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-ERA-D12-MDW-02	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-02	SD-R-D11-06	SD-R-D12-01	SD-R-D12-02	SD-R-D12-03
				Sample Date	6/13/2016	6/13/2016	6/13/2016	7/30/2019	7/30/2019	5/16/2006	5/15/2006	5/15/2006	5/15/2006
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-ERA-D12-MDW-02	SD-BD061316	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01(00.0-00.5)	SD-ERA-D13-MDW-02(00.0-00.5)	SD-R-D11-061.0N	SD-R-D12-011.0N	SD-R-D12-021.0N	SD-R-D12-031.0N
				Parent ID		SD-ERA-D13-MDW-01							
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL									
Anthracene	120-12-7	ug/kg	220	370000				5.9 J	14		< 260	< 250	< 450
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000				20	38		< 260	< 250	< 450
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000				18	77		< 260	< 250	< 450
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200				19	38				
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000				15	24		< 260	< 250	< 450
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000				18	31		< 260	< 250	< 450
Chrysene	218-01-9	ug/kg	340	460000				23	45		< 260	< 250	< 450
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000				4.1 J	7.1 J		< 260	< 250	< 450
Fluoranthene	206-44-0	ug/kg	750	1020000				32	64		< 260	< 250	300
Fluorene	86-73-7	ug/kg	190	160000				< 2.8 U	< 3.1 U		< 260	< 250	< 450
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000				16	26				
Naphthalene	91-20-3	ug/kg	160	2100000				4.4 J	14		< 260	< 250	< 450
Phenanthrene	85-01-8	ug/kg	560	950000				11	27		< 260	< 250	210
Pyrene	129-00-0	ug/kg	490	850000				26	65		75	54	610

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-ERA-D12-MDW-02	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-02	SD-R-D11-06	SD-R-D12-01	SD-R-D12-02	SD-R-D12-03
					Sample Date	6/13/2016	6/13/2016	6/13/2016	7/30/2019	7/30/2019	5/16/2006	5/15/2006	5/15/2006	5/15/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-ERA-D12-MDW-02	SD-BD061316	SD-ERA-D13-MDW-01	SD-ERA-D13-MDW-01(00.0-00.5)	SD-ERA-D13-MDW-02(00.0-00.5)	SD-R-D11-061.0N	SD-R-D12-011.0N	SD-R-D12-021.0N	SD-R-D12-031.0N
					Parent ID		SD-ERA-D13-MDW-01							
					Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Total Organic Carbon														
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--		142000	102000	83400							
Total Organic Carbon	TOC	mg/kg	--		142000	102000	83400	113000	85200	9600	23000	4900	66000	
TPH														
Amyl alcohol	71-41-0	ug/kg	--											
Di-N-Propyl Ether	111-43-3	ug/kg	--											
Ethanol	64-17-5	ug/kg	--											
Ethyl ether	60-29-7	ug/kg	--											
Methanol	67-56-1	ug/kg	--											
N-butyl ether	142-96-1	ug/kg	--											
VOCs														
1,1,1-Trichloroethane	71-55-6	ug/kg	--											
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850											
1,1,2-Trichloroethane	79-00-5	ug/kg	--											
1,1-Dichloroethane	75-34-3	ug/kg	--											
1,1-Dichloroethene	75-35-4	ug/kg	19.4											
1,2-Dichloroethane	107-06-2	ug/kg	--											
1,2-Dichloropropane	78-87-5	ug/kg	--											
2-Chloroethylvinylether	110-75-8	ug/kg	--											
Acrolein	107-02-8	ug/kg	0.00152											
Acrylonitrile	107-13-1	ug/kg	1.2											
Benzene	71-43-2	ug/kg	340											
Bromodichloromethane	75-27-4	ug/kg	--											
Bromoform	75-25-2	ug/kg	--											
Bromomethane	74-83-9	ug/kg	1.37											
Carbon Tetrachloride	56-23-5	ug/kg	1450											
Chlorobenzene	108-90-7	ug/kg	291											
Chloroethane	75-00-3	ug/kg	--											
Chloroform	67-66-3	ug/kg	121											
Chloromethane	74-87-3	ug/kg	--											
cis-1,2-Dichloroethene	156-59-2	ug/kg	--											
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--											
Dibromochloromethane	124-48-1	ug/kg	--											
Ethylbenzene	100-41-4	ug/kg	1400											
Methylene Chloride	75-09-2	ug/kg	159											
Tetrachloroethene	127-18-4	ug/kg	450											
Toluene	108-88-3	ug/kg	2500											
trans-1,2-Dichloroethene	156-60-5	ug/kg	--											
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--											
Trichloroethene	79-01-6	ug/kg	1600											
Trichlorofluoromethane	75-69-4	ug/kg	--											
Vinyl Chloride	75-01-4	ug/kg	202											
Xylenes (total)	1330-20-7	ug/kg	--											

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-10	SD-R-D13-04	SD-R-D13-05	SD-R-D13-06	SD-R-D13-07
					Sample Date	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-101.0N	SD-R-D13-041.0N	SD-R-D13-051.0N	SD-R-D13-061.0N	SD-R-D13-071.0FD
					Parent ID									SD-R-D13-071.0N
					Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
CALC														
Percent Moisture	MOIST	%	--											
Explosives														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 470	< 440	< 410	< 440	< 410	< 2300	< 1000	< 1300	< 670
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 470	< 440	< 410	< 440	< 410	< 2300	< 1000	< 1300	< 670
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 470	< 440	< 410	< 440	< 410	< 2300	< 1000	< 1300	< 670
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 470	< 440	< 410	< 440	< 410	< 2300	< 1000	< 1300	< 670
Nitrobenzene	98-95-3	ug/kg	145		< 470	< 440	< 410	< 440	< 410	< 2300	< 1000	< 1300	< 670
Nitrocellulose	9004-70-0	ug/kg	--		420000	< 180000	74000	< 180000	< 160000	350000	270000	< 500000	240000
Nitroglycerin	55-63-0	ug/kg	127000		< 9300	< 8800	< 8100	< 8800	< 8200	< 47000	< 21000	< 25000	< 13000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1200	< 1100	< 1000	< 1100	< 1000	< 5900	< 2600	< 3200	< 1700
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 9300	< 8800	< 8100	< 8800	< 8200	< 47000	< 21000	< 25000	< 13000
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 470	< 440	< 410	< 440	< 410	< 2300	< 1000	< 1300	< 670
Field														
Dissolved Oxygen	7782-44-7	mg/l	--											
pH	PH	su	--											
Specific Conductance	SC	us/cm	--											
Temperature	TEMP	deg c	--											
Turbidity	TURBIDITY	ntu	--											
GenChem			--											
Acid Volatile Sulfide	1313-84-4	umol/g	--											
Grain Size														
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100	100	100	95.1	100	100	100	100	98.8
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--											
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--											
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--											
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--											
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--											
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--											
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--											
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--											
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--											
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--											
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--											
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--											
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--											
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--											
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--											
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--											
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--											
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1	< 1	< 1	< 1	2	1	< 1	0.5
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		82.5	87.8	73.3	64	75.7	60.2	72.4	74.8	80
Sieve, 150 micron, % passing	SIEVE_150U	%	--		35.3	30.6	16.7	18.9	21.8	43.4	23.1	36.6	36.7
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1	< 1	< 1	0.5	1	5.5	1	1.5	0.5
Sieve, 20 micron, % passing	SIEVE_20U	%	--		7	5	2	3	7	32	6	19.5	6
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		86.6	90.1	79.7	67.3	82.7	64.6	86.7	95.7	89.7
Sieve, 300 micron, % passing	SIEVE_300U	%	--		63.9	57.7	36	36	41.6	49	41.7	44.7	54.8
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		92.6	94.4	87.4	74.5	88.4	80.5	94.6	98.3	94.7
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		96.7	97.4	94.3	81	92.1	91.4	97.4	99.3	96.8
Sieve, 5 micron, % passing	SIEVE_5U	%	--		1	0.5	< 1	1	3	11	1.5	4.5	3
Sieve, 50 micron, % passing	SIEVE_50U	%	--		10.5	9	4	7.5	9	62	11	29.5	13
Sieve, 600 micron, % passing	SIEVE_600U	%	--		76.7	78.9	59.2	55.5	62.5	54.4	59.2	59.1	69.9
Sieve, 64 micron, % passing	SIEVE_64U	%	--		15	13.5	7.5	9	12.5	46	13	30	17
Sieve, 75 micron, % passing	SIEVE_75U	%	--		18	16.8	8.9	11.1	13.6	39.3	14.6	30.4	19.4
Metals														
Arsenic	7440-38-2	mg/kg	6	33	6.23	1.12	1.66	3.23	1.59	64.7	13	72.4	12.1
Cadmium	7440-43-9	mg/kg	0.6	10	0.656	0.52	0.636	0.363	0.704	1.31	1.01	0.37	0.943
Cadmium	7440-43-9	umol/g	0.6	1000000									
Chromium	7440-47-3	mg/kg	26	110	11.7	19	9.13	15.4	14.7	31	19	23.7	12.5
Copper	7440-50-8	mg/kg	16	110	35.3	3.3	24.7	8.13	7.27	195	33.4	25.7	25.8
Copper	7440-50-8	umol/g	16	1000000									
Lead	7439-92-1	mg/kg	31	250	410	7.39	119	43.3	43.8	759	329	631	152
Lead	7439-92-1	umol/g	31	1000000									
Mercury	7439-97-6	mg/kg	0.2	2	0.449	< 0.143	0.0837	0.163	0.015	3.33	0.582	14.7	0.347
Mercury	7439-97-6	umol/g	0.2	1000000									
Nickel	7440-02-0	mg/kg	16	75	6.23	3.84	4.29	3.77	5.63	14.3	9.41	5.16	9.33
Nickel	7440-02-0	umol/g	16	1000000									
Silver	7440-22-4	mg/kg	1		< 0.745	< 0.728	< 0.646	< 0.71	< 0.656	< 3.83	< 1.7	0.96	< 1.09
Zinc	7440-66-6	mg/kg	120	820	90.3	27.6	49.8	29.2	44.8	235	257	48.2	197
Zinc	7440-66-6	umol/g	120	1000000									
Moisture														
Percent Moisture	MOIST	%	--		35.5	32	26.3	31.6	26.7	87.2	70.8	76.4	55.1
Total Solids	TSO	%	--											
SVOCs														
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 260	< 250	< 230	< 240		< 1300	< 570		
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 260	< 250	< 230	< 240		< 1300	< 570		
Acenaphthene	83-32-9	ug/kg	16		< 260	< 250	< 230	< 240		< 1300	< 570		
Acenaphthylene	208-96-8	ug/kg	44		< 260	< 250	< 230	180		< 1300	< 570		

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-10	SD-R-D13-04	SD-R-D13-05	SD-R-D13-06	SD-R-D13-07
					Sample Date	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-101.0N	SD-R-D13-041.0N	SD-R-D13-051.0N	SD-R-D13-061.0N	SD-R-D13-071.0FD
					Parent ID									SD-R-D13-071.0N
					Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL										
Anthracene	120-12-7	ug/kg	220	370000		< 260	< 250	< 230	350		< 1300	< 570		
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000		82	< 250	< 230	970		290	320		
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000		< 260	< 250	< 230	790		< 1300	250		
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200										
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000		< 260	< 250	< 230	430		< 1300	150		
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000		< 260	< 250	< 230	450		< 1300	140		
Chrysene	218-01-9	ug/kg	340	460000		110	< 250	< 230	890		350	350		
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000		< 260	< 250	< 230	130		< 1300	< 570		
Fluoranthene	206-44-0	ug/kg	750	1020000		110	< 250	< 230	1400		560	470		
Fluorene	86-73-7	ug/kg	190	160000		< 260	< 250	< 230	66		< 1300	< 570		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000										
Naphthalene	91-20-3	ug/kg	160	2100000		< 260	< 250	< 230	< 240		< 1300	< 570		
Phenanthrene	85-01-8	ug/kg	560	950000		62	< 250	< 230	720		290	180		
Pyrene	129-00-0	ug/kg	490	850000		200	< 250	78	2600		540	420		

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-10	SD-R-D13-04	SD-R-D13-05	SD-R-D13-06	SD-R-D13-07
				Sample Date	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-101.0N	SD-R-D13-041.0N	SD-R-D13-051.0N	SD-R-D13-061.0N	SD-R-D13-071.0FD
				Parent ID									SD-R-D13-071.0N
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL									
Total Organic Carbon													
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--										
Total Organic Carbon	TOC	mg/kg	--		7400	6900	3000	3000	4500	130000	48000	36000	34000
TPH													
Amyl alcohol	71-41-0	ug/kg	--										
Di-N-Propyl Ether	111-43-3	ug/kg	--										
Ethanol	64-17-5	ug/kg	--										
Ethyl ether	60-29-7	ug/kg	--										
Methanol	67-56-1	ug/kg	--										
N-butyl ether	142-96-1	ug/kg	--										
VOCs													
1,1,1-Trichloroethane	71-55-6	ug/kg	--										
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850										
1,1,2-Trichloroethane	79-00-5	ug/kg	--										
1,1-Dichloroethane	75-34-3	ug/kg	--										
1,1-Dichloroethene	75-35-4	ug/kg	19.4										
1,2-Dichloroethane	107-06-2	ug/kg	--										
1,2-Dichloropropane	78-87-5	ug/kg	--										
2-Chloroethylvinylether	110-75-8	ug/kg	--										
Acrolein	107-02-8	ug/kg	0.00152										
Acrylonitrile	107-13-1	ug/kg	1.2										
Benzene	71-43-2	ug/kg	340										
Bromodichloromethane	75-27-4	ug/kg	--										
Bromoform	75-25-2	ug/kg	--										
Bromomethane	74-83-9	ug/kg	1.37										
Carbon Tetrachloride	56-23-5	ug/kg	1450										
Chlorobenzene	108-90-7	ug/kg	291										
Chloroethane	75-00-3	ug/kg	--										
Chloroform	67-66-3	ug/kg	121										
Chloromethane	74-87-3	ug/kg	--										
cis-1,2-Dichloroethene	156-59-2	ug/kg	--										
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--										
Dibromochloromethane	124-48-1	ug/kg	--										
Ethylbenzene	100-41-4	ug/kg	1400										
Methylene Chloride	75-09-2	ug/kg	159										
Tetrachloroethene	127-18-4	ug/kg	450										
Toluene	108-88-3	ug/kg	2500										
trans-1,2-Dichloroethene	156-60-5	ug/kg	--										
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--										
Trichloroethene	79-01-6	ug/kg	1600										
Trichlorofluoromethane	75-69-4	ug/kg	--										
Vinyl Chloride	75-01-4	ug/kg	202										
Xylenes (total)	1330-20-7	ug/kg	--										

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D13-07	SD-R-D13-08	SD-R-D13-09	SD-R-D13-10	SD-R-D13-15	SD-R-E11-02
				Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	7/26/2006	5/16/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D13-071.0N	SD-R-D13-081.0N	SD-R-D13-091.0N	SD-R-D13-101.0N	SD-R-D13-151.0N	SD-R-E11-021.0N
				Parent ID						
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
CALC										
Percent Moisture	MOIST	%	--							
Explosives										
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 620	< 990	< 570	< 850	< 2000	< 420
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 620	< 990	< 570	< 850	< 2000	< 420
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 620	< 990	< 570	< 850	< 2000	< 420
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 620	< 990	< 570	< 850	< 4000	< 420
Nitrobenzene	98-95-3	ug/kg	145		< 620	< 990	< 570	< 850	< 2000	< 420
Nitrocellulose	9004-70-0	ug/kg	--		170000	380000	380000	120000	< 810000	< 170000
Nitroglycerin	55-63-0	ug/kg	127000		< 12000	< 20000	< 11000	< 17000	< 40000	< 8400
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1600	< 2500	< 1400	< 2100	< 5000	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 12000	< 20000	< 11000	< 17000	< 40000	< 8400
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 620	< 990	< 570	< 850	< 2000	< 420
Field										
Dissolved Oxygen	7782-44-7	mg/l	--							
pH	PH	su	--							
Specific Conductance	SC	us/cm	--							
Temperature	TEMP	deg c	--							
Turbidity	TURBIDITY	ntu	--							
GenChem			--							
Acid Volatile Sulfide	1313-84-4	umol/g	--							
Grain Size										
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		99.1	99.2	100	100	100	100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		99.8	100	100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--							
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--							
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--							
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--							
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--							
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--							
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--							
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--							
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--							
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--							
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--							
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--							
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--							
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--							
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--							
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--							
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--							
Sieve, 1 micron, % passing	SIEVE_1U	%	--		1	0.5	< 1	0.5	< 1	4
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		75.4	80.2	81.8	85.1	< 1	79.8
Sieve, 150 micron, % passing	SIEVE_150U	%	--		35.2	30.8	31.3	36.8	< 1	26.3
Sieve, 2 micron, % passing	SIEVE_2U	%	--		1	1	1.5	1.5	< 1	4.5
Sieve, 20 micron, % passing	SIEVE_20U	%	--		6.5	6.5	2.5	8.5	< 1	8.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		85.3	90.5	88.7	93.1	58.4	84.2
Sieve, 300 micron, % passing	SIEVE_300U	%	--		53.4	56.6	58	63.3	< 1	41.7
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		91.3	93.9	92.4	95.1	72.2	91.9
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		94.8	95.8	94.8	97.3	84.4	96.6
Sieve, 5 micron, % passing	SIEVE_5U	%	--		1.5	3	2.5	3.5	< 1	6
Sieve, 50 micron, % passing	SIEVE_50U	%	--		12	12.5	6.5	13.5	< 1	13.5
Sieve, 600 micron, % passing	SIEVE_600U	%	--		66.8	71.4	73.7	78.8	< 1	65.9
Sieve, 64 micron, % passing	SIEVE_64U	%	--		15.5	14	11.5	16.5	< 1	17
Sieve, 75 micron, % passing	SIEVE_75U	%	--		17.9	14.8	14.2	19.1	< 1	19.1
Metals										
Arsenic	7440-38-2	mg/kg	6	33	8.15	16.2	8.69	11.9	7.53	1.52
Cadmium	7440-43-9	mg/kg	0.6	10	0.826	1.15	0.723	0.883	0.671	< 0.69
Cadmium	7440-43-9	umol/g	0.6	1000000						
Chromium	7440-47-3	mg/kg	26	110	10.8	20.2	10.9	15.2	33.4	11.9
Copper	7440-50-8	mg/kg	16	110	21.3	44	32.6	27.4	20.3	8.97
Copper	7440-50-8	umol/g	16	1000000						
Lead	7439-92-1	mg/kg	31	250	121	312	233	233	16.7	6.42
Lead	7439-92-1	umol/g	31	1000000						
Mercury	7439-97-6	mg/kg	0.2	2	0.193	0.744	0.666	0.974	0.255	0.0069
Mercury	7439-97-6	umol/g	0.2	1000000						
Nickel	7440-02-0	mg/kg	16	75	8.24	16	7.81	9.34	8.15	5.32
Nickel	7440-02-0	umol/g	16	1000000						
Silver	7440-22-4	mg/kg	1		< 1.04	< 1.63	< 0.947	< 1.39	< 3.29	< 0.69
Zinc	7440-66-6	mg/kg	120	820	156	280	169	157	68.5	34.2
Zinc	7440-66-6	umol/g	120	1000000						
Moisture										
Percent Moisture	MOIST	%	--		51.8	69.6	47.7	64.7	85.1	28.3
Total Solids	TSO	%	--							
SVOCs										
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4			< 550		< 470	< 1100	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 550		< 470	< 1100	
Acenaphthene	83-32-9	ug/kg	16			< 550		< 470	< 1100	
Acenaphthylene	208-96-8	ug/kg	44			< 550		< 470	< 1100	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D13-07	SD-R-D13-08	SD-R-D13-09	SD-R-D13-10	SD-R-D13-15	SD-R-E11-02
				Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	7/26/2006	5/16/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D13-071.0N	SD-R-D13-081.0N	SD-R-D13-091.0N	SD-R-D13-101.0N	SD-R-D13-151.0N	SD-R-E11-021.0N
				Parent ID						
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
Anthracene	120-12-7	ug/kg	220	370000		< 550		< 470	< 1100	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000		320		130	< 1100	
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000		330		120	< 1100	
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200						
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000		210		< 470	< 1100	
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000		200		< 470	< 1100	
Chrysene	218-01-9	ug/kg	340	460000		470		190	< 1100	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000		< 550		< 470	< 1100	
Fluoranthene	206-44-0	ug/kg	750	1020000		500		210	< 1100	
Fluorene	86-73-7	ug/kg	190	160000		< 550		< 470	< 1100	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000						
Naphthalene	91-20-3	ug/kg	160	2100000		< 550		< 470	< 1100	
Phenanthrene	85-01-8	ug/kg	560	950000		160		< 470	< 1100	
Pyrene	129-00-0	ug/kg	490	850000		560		230	< 1100	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D13-07	SD-R-D13-08	SD-R-D13-09	SD-R-D13-10	SD-R-D13-15	SD-R-E11-02
				Sample Date	5/17/2006	5/17/2006	5/17/2006	5/17/2006	7/26/2006	5/16/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D13-071.0N	SD-R-D13-081.0N	SD-R-D13-091.0N	SD-R-D13-101.0N	SD-R-D13-151.0N	SD-R-E11-021.0N
				Parent ID						
				Subdrainage Area	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West	Maintenance-Dynamite West
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL						
Total Organic Carbon										
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--							
Total Organic Carbon	TOC	mg/kg	--		13000	65000	31000	64000	210000	13000
TPH										
Amyl alcohol	71-41-0	ug/kg	--							
Di-N-Propyl Ether	111-43-3	ug/kg	--							
Ethanol	64-17-5	ug/kg	--							
Ethyl ether	60-29-7	ug/kg	--							
Methanol	67-56-1	ug/kg	--							
N-butyl ether	142-96-1	ug/kg	--							
VOCs										
1,1,1-Trichloroethane	71-55-6	ug/kg	--							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850							
1,1,2-Trichloroethane	79-00-5	ug/kg	--							
1,1-Dichloroethane	75-34-3	ug/kg	--							
1,1-Dichloroethene	75-35-4	ug/kg	19.4							
1,2-Dichloroethane	107-06-2	ug/kg	--							
1,2-Dichloropropane	78-87-5	ug/kg	--							
2-Chloroethylvinylether	110-75-8	ug/kg	--							
Acrolein	107-02-8	ug/kg	0.00152							
Acrylonitrile	107-13-1	ug/kg	1.2							
Benzene	71-43-2	ug/kg	340							
Bromodichloromethane	75-27-4	ug/kg	--							
Bromoform	75-25-2	ug/kg	--							
Bromomethane	74-83-9	ug/kg	1.37							
Carbon Tetrachloride	56-23-5	ug/kg	1450							
Chlorobenzene	108-90-7	ug/kg	291							
Chloroethane	75-00-3	ug/kg	--							
Chloroform	67-66-3	ug/kg	121							
Chloromethane	74-87-3	ug/kg	--							
cis-1,2-Dichloroethene	156-59-2	ug/kg	--							
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--							
Dibromochloromethane	124-48-1	ug/kg	--							
Ethylbenzene	100-41-4	ug/kg	1400							
Methylene Chloride	75-09-2	ug/kg	159							
Tetrachloroethene	127-18-4	ug/kg	450							
Toluene	108-88-3	ug/kg	2500							
trans-1,2-Dichloroethene	156-60-5	ug/kg	--							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--							
Trichloroethene	79-01-6	ug/kg	1600							
Trichlorofluoromethane	75-69-4	ug/kg	--							
Vinyl Chloride	75-01-4	ug/kg	202							
Xylenes (total)	1330-20-7	ug/kg	--							

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-A15-1-01	SD-A15-2-01	SD-A15-3-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-C15-1-01	SD-C15-2-01	SD-D15-1-01
				Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/4/2001	4/4/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-A15-1-011N	SD-A15-2-011N	SD-A15-3-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-C15-1-011N	SD-C15-2-011N	SD-D15-1-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
CALC															
Percent Moisture	MOIST	%	--												
Explosives															
1,2-Dinitrobenzene	528-29-0	ug/kg	--												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160									< 120			
1,3-Dinitrobenzene	99-65-0	ug/kg	500									< 120			
1,4-Dinitrobenzene	100-25-4	ug/kg	--												
1-Nitronaphthalene	86-57-7	ug/kg	--												
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100									< 120			
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300									< 120			
2-Nitrotoluene	88-72-2	ug/kg	620000									< 120			
3-Nitrotoluene	99-08-1	ug/kg	190000									< 120			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500									< 120			
4-Nitrotoluene	99-99-0	ug/kg	68000									< 120			
Nitrobenzene	98-95-3	ug/kg	145									< 120			
Nitrocellulose	9004-70-0	ug/kg	--									< 72000			
Nitroglycerin	55-63-0	ug/kg	127000									< 2400			
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380									< 120			
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000									< 2400			
RDX (Cyclonite)	121-82-4	ug/kg	1200									< 120			
Tetryl	479-45-8	ug/kg	600									< 120			
Field															
pH	PH	su	--												
GenChem			--												
Grain Size															
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--									4.6			
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--									45.1			
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--												
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--									1.1			
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--									24.7			
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--												
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--									63.3			
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--									12.2			
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--												
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--												
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--												
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--												
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--												
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--												
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--												
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--												
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--												
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--												
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--												
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--									91.1			
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--												
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--									100			
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--												
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--												
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--									100			
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--												
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--												
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--												
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--												
Sieve, 1 micron, % passing	SIEVE_1U	%	--												
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--												
Sieve, 150 micron, % passing	SIEVE_150U	%	--												
Sieve, 2 micron, % passing	SIEVE_2U	%	--												
Sieve, 20 micron, % passing	SIEVE_20U	%	--												
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--												
Sieve, 300 micron, % passing	SIEVE_300U	%	--												
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--												
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--												
Sieve, 5 micron, % passing	SIEVE_5U	%	--												
Sieve, 50 micron, % passing	SIEVE_50U	%	--												
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--									58.3			
Sieve, 600 micron, % passing	SIEVE_600U	%	--												
Sieve, 64 micron, % passing	SIEVE_64U	%	--												
Sieve, 75 micron, % passing	SIEVE_75U	%	--												
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--									53.8			
Metals															
Aluminum	7429-90-5	mg/kg	25500												
Antimony	7440-36-0	mg/kg	3	3								< 0.78			
Arsenic	7440-38-2	mg/kg	6	33								0.71			
Barium	7440-39-3	mg/kg	7000												
Beryllium	7440-41-7	mg/kg	NA									0.35			
Cadmium	7440-43-9	mg/kg	0.6	10								< 0.066			
Calcium	7440-70-2	mg/kg	--												
Chromium	7440-47-3	mg/kg	26	110								10.8			
Cobalt	7440-48-4	mg/kg	50												

				Location	SD-A15-1-01	SD-A15-2-01	SD-A15-3-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-C15-1-01	SD-C15-2-01	SD-D15-1-01
				Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/4/2001	4/4/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-A15-1-011N	SD-A15-2-011N	SD-A15-3-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-C15-1-011N	SD-C15-2-011N	SD-D15-1-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Copper	7440-50-8	mg/kg	16	110								11			
Iron	7439-89-6	mg/kg	20000												
Lead	7439-92-1	mg/kg	31	250								84.6			
Magnesium	7439-95-4	mg/kg	460												
Manganese	7439-96-5	mg/kg	630	1100											
Mercury	7439-97-6	mg/kg	0.2	2								0.37			
Nickel	7440-02-0	mg/kg	16	75								6.7			
Potassium	7440-09-7	mg/kg	--												
Selenium	7782-49-2	mg/kg	2									< 0.57			
Silver	7440-22-4	mg/kg	1									< 0.17			
Sodium	7440-23-5	mg/kg	--												
Thallium	7440-28-0	mg/kg	--									< 1			
Vanadium	7440-62-2	mg/kg	57												
Zinc	7440-66-6	mg/kg	120	820								63.9			
Moisture															
Percent Moisture	MOIST	%	--									17.1			
SVOCs															
1,1'-Biphenyl	92-52-4	ug/kg	--												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062									< 40			
1,2-Dichlorobenzene	95-50-1	ug/kg	294									< 40			
1,2-Diphenylhydrazine	122-66-7	ug/kg	--									< 40			
1,3-Dichlorobenzene	541-73-1	ug/kg	1315									< 40			
1,4-Dichlorobenzene	106-46-7	ug/kg	318									< 40			
1-Methylnaphthalene	90-12-0	ug/kg	20.2												
2,4,5-Trichlorophenol	95-95-4	ug/kg	--												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--									< 81			
2,4-Dichlorophenol	120-83-2	ug/kg	--									< 81			
2,4-Dimethylphenol	105-67-9	ug/kg	304									< 81			
2,4-Dinitrophenol	51-28-5	ug/kg	6.21									< 810			
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4									< 81			
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8									< 40			
2-Chloronaphthalene	91-58-7	ug/kg	--									< 40			
2-Chlorophenol	95-57-8	ug/kg	31.9									< 40			
2-Methylnaphthalene	91-57-6	ug/kg	70												
2-Methylphenol	95-48-7	ug/kg	--												
2-Nitroaniline	88-74-4	ug/kg	--												
2-Nitrophenol	88-75-5	ug/kg	--									< 81			
3&4-Methylphenol	106-44-5	ug/kg	20.2												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127									< 81			
3-Nitroaniline	99-09-2	ug/kg	--												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104									< 210			
4-Bromophenyl-phenylether	101-55-3	ug/kg	--									< 81			
4-Chloro-3-methylphenol	59-50-7	ug/kg	--									< 81			
4-Chloroaniline	106-47-8	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--									< 40			
4-Nitroaniline	100-01-6	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3									< 210			
Acenaphthene	83-32-9	ug/kg	16									< 40			
Acenaphthylene	208-96-8	ug/kg	44									48			
Acetophenone	98-86-2	ug/kg	--												
Anthracene	120-12-7	ug/kg	220	370000								170			
Atrazine	1912-24-9	ug/kg	--												
Benzaldehyde	100-52-7	ug/kg	--												
Benzidine	92-87-5	ug/kg	--									< 810			
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000								480			
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000								500			
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200								570			
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000								280			
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000								230			
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--									< 81			
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--									< 40			
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--									< 40			
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750								460			
Butylbenzylphthalate	85-68-7	ug/kg	1970									< 81			
Caprolactam	105-60-2	ug/kg	--												
Carbazole	86-74-8	ug/kg	--												
Chrysene	218-01-9	ug/kg	340	460000								600			
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000								87			
Dibenzofuran	132-64-9	ug/kg	449												
Diethylphthalate	84-66-2	ug/kg	295									< 81			
Dimethylphthalate	131-11-3	ug/kg	1000									< 81			
Di-n-butylphthalate	84-74-2	ug/kg	1114	110								< 81			
Di-n-octylphthalate	117-84-0	ug/kg	40600									< 81			
Fluoranthene	206-44-0	ug/kg	750	1020000								1100			
Fluorene	86-73-7	ug/kg	190	160000								46			
Hexachlorobenzene	118-74-1	ug/kg	20	24000								< 40			
Hexachlorobutadiene	87-68-3	ug/kg	26.5									< 81			
Hexachlorocyclopentadiene	77-47-4	ug/kg	--									< 210			
Hexachloroethane	67-72-1	ug/kg	584									< 40			
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000								310			
Isophorone	78-59-1	ug/kg	432									< 40			

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-A15-1-01	SD-A15-2-01	SD-A15-3-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-C15-1-01	SD-C15-2-01	SD-D15-1-01
				Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/4/2001	4/4/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-A15-1-011N	SD-A15-2-011N	SD-A15-3-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-C15-1-011N	SD-C15-2-011N	SD-D15-1-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Naphthalene	91-20-3	ug/kg	160	2100000								< 40			
N-Nitrosodimethylamine	62-75-9	ug/kg	--									< 81			
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--									< 40			
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680									< 40			
Pentachlorophenol	87-86-5	ug/kg	23000									< 210			
Phenanthrene	85-01-8	ug/kg	560	950000								480			
Phenol	108-95-2	ug/kg	49.1	48								< 81			
Pyrene	129-00-0	ug/kg	490	850000								1100			

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-A15-1-01	SD-A15-2-01	SD-A15-3-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-C15-1-01	SD-C15-2-01	SD-D15-1-01
				Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/4/2001	4/4/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-A15-1-011N	SD-A15-2-011N	SD-A15-3-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-C15-1-011N	SD-C15-2-011N	SD-D15-1-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
Total Organic Carbon	TOC	mg/kg	--									4400			
TPH															
Amyl alcohol	71-41-0	ug/kg	--		< 13000	< 80000	< 88000	< 18000	< 20000	< 56000	< 68000	< 12000	< 31000	< 47000	< 22000
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 13000	< 80000	< 88000	< 18000	< 20000	< 56000	< 68000	< 12000	< 31000	< 47000	< 22000
Ethanol	64-17-5	ug/kg	--		< 13000	< 80000	< 88000	< 18000	< 20000	< 56000	< 68000	< 12000	< 31000	< 47000	< 22000
Ethyl ether	60-29-7	ug/kg	--		< 13000	< 80000	< 88000	< 18000	< 20000	< 56000	< 68000	< 12000	< 31000	< 47000	< 22000
Methanol	67-56-1	ug/kg	--		< 13000	< 80000	< 88000	< 18000	< 20000	< 56000	< 68000	< 12000	< 31000	< 47000	< 22000
N-butyl ether	142-96-1	ug/kg	--		< 13000	< 80000	< 88000	< 18000	< 20000	< 56000	< 68000	< 12000	< 31000	< 47000	< 22000
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--												
1,2-Dibromoethane	106-93-4	ug/kg	--												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Dichloroethane	107-06-2	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,2-Dichloropropane	78-87-5	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2-Butanone	78-93-3	ug/kg	42.4												
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 360	< 2000	< 2200	< 410	< 510	< 1400	< 1800	< 290	< 770	< 1200	< 510
2-Hexanone	591-78-6	ug/kg	--												
4-Methyl-2-Pentanone	108-10-1	ug/kg	--												
Acetone	67-64-1	ug/kg	9.9												
Acrolein	107-02-8	ug/kg	0.00152		< 3600	< 20000	< 22000	< 4100	< 5100	< 14000	< 19000	< 2900	< 7700	< 12000	< 5100
Acrylonitrile	107-13-1	ug/kg	1.2		< 720	< 4000	< 4400	< 830	< 1000	< 2900	< 3700	< 580	< 1500	< 2300	< 1000
Benzene	71-43-2	ug/kg	340		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Bromodichloromethane	75-27-4	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Bromoform	75-25-2	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Bromomethane	74-83-9	ug/kg	1.37		< 360	< 2000	< 2200	< 410	< 510	< 1400	< 1800	< 290	< 770	< 1200	< 510
Carbon disulfide	75-15-0	ug/kg	23.9												
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Chlorobenzene	108-90-7	ug/kg	291		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Chloroethane	75-00-3	ug/kg	--		< 360	< 2000	< 2200	< 410	< 510	< 1400	< 1800	< 290	< 770	< 1200	< 510
Chloroform	67-66-3	ug/kg	121		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Chloromethane	74-87-3	ug/kg	--		< 360	< 2000	< 2200	< 410	< 510	< 1400	< 1800	< 290	< 770	< 1200	< 510
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Cyclohexane	110-82-7	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Dichlorodifluoromethane	75-71-8	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Isopropylbenzene	98-82-8	ug/kg	86												
Methyl Acetate	79-20-9	ug/kg	--												
Methylcyclohexane	108-87-2	ug/kg	--												
Methylene Chloride	75-09-2	ug/kg	159		< 360	< 2000	< 2200	< 410	< 510	< 1400	< 1800	< 290	< 770	< 1200	< 510
MTBE	1634-04-4	ug/kg	--												
Styrene	100-42-5	ug/kg	--												
Tetrachloroethene	127-18-4	ug/kg	450		< 180	< 980	< 1100	< 210	< 260	1300	1700	< 150	< 390	< 580	< 250
Toluene	108-88-3	ug/kg	2500		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Trichloroethene	79-01-6	ug/kg	1600		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Trichlorofluoromethane	75-69-4	ug/kg	--		< 360	< 2000	< 2200	< 410	< 510	< 1400	< 1800	< 290	< 770	< 1200	< 510
Vinyl Chloride	75-01-4	ug/kg	202		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250
Xylenes (total)	1330-20-7	ug/kg	--		< 180	< 980	< 1100	< 210	< 260	< 720	< 920	< 150	< 390	< 580	< 250

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-E16-1-01	SD-E16-3-01	SD-ERA-B16-MOSL-01	SD-ERA-C15-MOSL-01	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-E-16-1	SD-R2-E16-3	SD-R-A15-01	SD-R-A15-01	SD-R-A15-02
					Sample Date	4/10/2001	4/10/2001	7/31/2019	7/31/2019	11/6/2013	11/6/2013	11/5/2013	11/5/2013	6/29/2006	6/29/2006	6/29/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-E16-1-011N	SD-E16-3-011N	D-ERA-B16-MOSL-01(00.0-00.5	D-ERA-C15-MOSL-01(00.0-00.5	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R-A15-011.0N	SD-R-A15-011N	SD-R-A15-021N
					Parent ID											
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
CALC																
Percent Moisture	MOIST	%	--					22.0	63.7							
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--							< 1200	< 2200	< 410	< 380			
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160							< 1200	< 2200	< 410	< 380		< 350	< 1900
1,3-Dinitrobenzene	99-65-0	ug/kg	500							< 1200	< 2200	< 410	< 380			
1,4-Dinitrobenzene	100-25-4	ug/kg	--							< 1200	< 2200	< 410	< 380			
1-Nitronaphthalene	86-57-7	ug/kg	--							< 1200	< 2200	< 410	< 380			
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100							< 1200	< 2200	< 410	< 380		< 350	< 1900
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8							< 1200	< 2200		< 380			
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300							< 1200	< 2200	< 410	< 380		< 350	< 1900
2-Nitrotoluene	88-72-2	ug/kg	620000							< 1200	< 2200	< 410	< 380			
3-Nitrotoluene	99-08-1	ug/kg	190000							< 1200	< 2200	< 410	< 380			
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500							< 1200	< 2200	< 410	< 380		< 350	< 1900
4-Nitrotoluene	99-99-0	ug/kg	68000							< 1200	< 2200	< 410	< 380			
Nitrobenzene	98-95-3	ug/kg	145							< 1200	< 2200	< 410	< 380		< 350	< 1900
Nitrocellulose	9004-70-0	ug/kg	--												< 140000	< 760000
Nitroglycerin	55-63-0	ug/kg	127000							< 25000	< 43000	< 8200	< 7500		< 7000	< 38000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380							< 3100	< 5400	< 1000	< 940		< 870	< 4700
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000							< 25000	< 43000	< 8200	< 7500		< 7000	< 38000
RDX (Cyclonite)	121-82-4	ug/kg	1200							< 1200	< 2200	< 410	< 380		< 350	< 1900
Tetryl	479-45-8	ug/kg	600							< 1200	< 2200	< 410	< 380			
Field																
pH	PH	su	--					7.15	7.26							
GenChem			--													
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--											84.4		
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--											100		
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--											100		
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--					1.0	2.0							
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--					1.0	2.0							
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--					1.0	2.0							
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--					1.0	7.0							
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--					4.5	14.0							
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--					10.0	18.0							
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--					11.9	20.6							
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--					14.5	29.6							
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--					27.2	46.6							
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--					45.6	72.6							
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--					63.6	94.0							
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--					100	100							
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--					85.1	99.8							
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--					91.0	100							
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--					100	100							
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--					95.3	100							
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--					100	100							
Sieve, 1 micron, % passing	SIEVE_1U	%	--											< 1		
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--											32.9		
Sieve, 150 micron, % passing	SIEVE_150U	%	--											7		
Sieve, 2 micron, % passing	SIEVE_2U	%	--											< 1		
Sieve, 20 micron, % passing	SIEVE_20U	%	--											2		
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--											42.7		
Sieve, 300 micron, % passing	SIEVE_300U	%	--											13.6		
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--											48.7		
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--											56.5		
Sieve, 5 micron, % passing	SIEVE_5U	%	--											0.5		
Sieve, 50 micron, % passing	SIEVE_50U	%	--											3.5		
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--											23.7		
Sieve, 64 micron, % passing	SIEVE_64U	%	--											4.5		
Sieve, 75 micron, % passing	SIEVE_75U	%	--											5		
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Aluminum	7429-90-5	mg/kg	25500							9620	8460	6240	4910			
Antimony	7440-36-0	mg/kg	3	3						< 9.25	< 15.9	< 2.69	< 25.1			
Arsenic	7440-38-2	mg/kg	6	33						5.07	< 15.9	1.34	< 25.1		1.37	< 12.1
Barium	7440-39-3	mg/kg	7000							117	82.4	39.5	31.9			
Beryllium	7440-41-7	mg/kg	NA							0.745	0.913	0.281	< 6.28			
Cadmium	7440-43-9	mg/kg	0.6	10						1.03	1.04	< 0.673	< 6.28		0.176	0.965
Calcium	7440-70-2	mg/kg	--							16200	6580	1780	2150			
Chromium	7440-47-3	mg/kg	26	110						20.6	14.4	12.2	15.5		10.6	49.4
Cobalt	7440-48-4	mg/kg	50							3.6	5.85	4.08	2.95			

				Location	SD-E16-1-01	SD-E16-3-01	SD-ERA-B16-MOSL-01	SD-ERA-C15-MOSL-01	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-E-16-1	SD-R2-E16-3	SD-R-A15-01	SD-R-A15-01	SD-R-A15-02
				Sample Date	4/10/2001	4/10/2001	7/31/2019	7/31/2019	11/6/2013	11/6/2013	11/5/2013	11/5/2013	6/29/2006	6/29/2006	6/29/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-E16-1-011N	SD-E16-3-011N	D-ERA-B16-MOSL-01(00.0-00.5	D-ERA-C15-MOSL-01(00.0-00.5	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R-A15-011.0N	SD-R-A15-011N	SD-R-A15-021N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Copper	7440-50-8	mg/kg	16	110					31.6	23.6	16.3	10.5		6.57	39
Iron	7439-89-6	mg/kg	20000						13400	12400	23100	13700			
Lead	7439-92-1	mg/kg	31	250					84.4	105	56.2	40.1		44.5	112
Magnesium	7439-95-4	mg/kg	460						2320	1370	1390	1480			
Manganese	7439-96-5	mg/kg	630	1100					331	384	394	109			
Mercury	7439-97-6	mg/kg	0.2	2					0.207	0.1	0.119	0.0348		0.0133	0.12
Nickel	7440-02-0	mg/kg	16	75					8.53	10.6	6.76	4.74		3.4	13.3
Potassium	7440-09-7	mg/kg	--						416	324	362	551			
Selenium	7782-49-2	mg/kg	2						5.58	< 15.9	< 2.69	< 25.1			
Silver	7440-22-4	mg/kg	1						0.943	1.58	< 0.673	< 6.28		< 0.576	< 3.03
Sodium	7440-23-5	mg/kg	--						692	304	134	< 1260			
Thallium	7440-28-0	mg/kg	--						< 13.9	< 23.8	< 4.04	< 37.7			
Vanadium	7440-62-2	mg/kg	57						33.8	25.7	24	13.6			
Zinc	7440-66-6	mg/kg	120	820					132	117	74.2	62.9		39.9	161
Moisture															
Percent Moisture	MOIST	%	--						78.8	87.4	27.2	20.4		14	84
SVOCs															
1,1'-Biphenyl	92-52-4	ug/kg	--								< 1400				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
1-Methylnaphthalene	90-12-0	ug/kg	20.2						< 2400	< 4000		< 130			
2,4,5-Trichlorophenol	95-95-4	ug/kg	--								< 1400				
2,4,6-Trichlorophenol	88-06-2	ug/kg	--								< 1400				
2,4-Dichlorophenol	120-83-2	ug/kg	--								< 1400				
2,4-Dimethylphenol	105-67-9	ug/kg	304								< 1400				
2,4-Dinitrophenol	51-28-5	ug/kg	6.21								< 41000				
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4								< 6900				
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8								< 1400				
2-Chloronaphthalene	91-58-7	ug/kg	--								< 1400				
2-Chlorophenol	95-57-8	ug/kg	31.9								< 1400				
2-Methylnaphthalene	91-57-6	ug/kg	70						< 2400	< 4000	< 700	< 130			
2-Methylphenol	95-48-7	ug/kg	--								< 1400				
2-Nitroaniline	88-74-4	ug/kg	--								< 1400				
2-Nitrophenol	88-75-5	ug/kg	--								< 1400				
3&4-Methylphenol	106-44-5	ug/kg	20.2								< 1400				
3,3-Dichlorobenzidine	91-94-1	ug/kg	127								< 14000				
3-Nitroaniline	99-09-2	ug/kg	--								< 6900				
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104								< 21000				
4-Bromophenyl-phenylether	101-55-3	ug/kg	--								< 1400				
4-Chloro-3-methylphenol	59-50-7	ug/kg	--								< 1400				
4-Chloroaniline	106-47-8	ug/kg	--								< 1400				
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--								< 1400				
4-Nitroaniline	100-01-6	ug/kg	--								< 6900				
4-Nitrophenol	100-02-7	ug/kg	13.3								< 21000				
Acenaphthene	83-32-9	ug/kg	16				34	< 0.7 U	< 2400	< 4000	< 700	< 130			
Acenaphthylene	208-96-8	ug/kg	44				43	1.4 J	< 2400	< 4000	< 700	39			
Acetophenone	98-86-2	ug/kg	--								< 1400				
Anthracene	120-12-7	ug/kg	220	370000			110	1.7	< 2400	< 4000	< 700	37			
Atrazine	1912-24-9	ug/kg	--								< 6900				
Benzaldehyde	100-52-7	ug/kg	--								< 6900				
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000			520	7.9	< 2400	< 4000	190	88			
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000			490	8.4	< 2400	< 4000	210	110			
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200			420	8.8	570	< 4000	290	140			
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000			350	7.4	< 2400	< 4000	170	95			
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000			420	7.4	< 2400	< 4000	160	64			
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--								< 1400				
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--								< 1400				
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--								< 1400				
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750							< 7000				
Butylbenzylphthalate	85-68-7	ug/kg	1970								< 6900				
Caprolactam	105-60-2	ug/kg	--								< 6900				
Carbazole	86-74-8	ug/kg	--								< 1400				
Chrysene	218-01-9	ug/kg	340	460000			630	11	520	< 4000	230	110			
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000			83	1.6 J	< 2400	< 4000	< 700	< 130			
Dibenzofuran	132-64-9	ug/kg	449								< 1400				
Diethylphthalate	84-66-2	ug/kg	295								< 6900				
Dimethylphthalate	131-11-3	ug/kg	1000								< 6900				
Di-n-butylphthalate	84-74-2	ug/kg	1114	110							< 6900				
Di-n-octylphthalate	117-84-0	ug/kg	40600								< 6900				
Fluoranthene	206-44-0	ug/kg	750	1020000			1000	13	850	< 4000	360	170			
Fluorene	86-73-7	ug/kg	190	160000			36	< 0.7 U	< 2400	< 4000	< 700	< 130			
Hexachlorobenzene	118-74-1	ug/kg	20	24000							< 700				
Hexachlorobutadiene	87-68-3	ug/kg	26.5								< 1400				
Hexachlorocyclopentadiene	77-47-4	ug/kg	--								< 21000				
Hexachloroethane	67-72-1	ug/kg	584								< 6900				
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000			370	7.7	< 2400	< 4000	150	59			
Isophorone	78-59-1	ug/kg	432								< 1400				

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-E16-1-01	SD-E16-3-01	SD-ERA-B16-MOSL-01	SD-ERA-C15-MOSL-01	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-E-16-1	SD-R2-E16-3	SD-R-A15-01	SD-R-A15-01	SD-R-A15-02
				Sample Date	4/10/2001	4/10/2001	7/31/2019	7/31/2019	11/6/2013	11/6/2013	11/5/2013	11/5/2013	6/29/2006	6/29/2006	6/29/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-E16-1-011N	SD-E16-3-011N	D-ERA-B16-MOSL-01(00.0-00.5	D-ERA-C15-MOSL-01(00.0-00.5	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R-A15-011.0N	SD-R-A15-011N	SD-R-A15-021N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Naphthalene	91-20-3	ug/kg	160	2100000			16 J	2.9	< 2400	< 4000	< 700	< 130			
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--								< 1400				
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680								< 1400				
Pentachlorophenol	87-86-5	ug/kg	23000								< 7000				
Phenanthrene	85-01-8	ug/kg	560	950000			430	7.3	500	< 4000	240	93			
Phenol	108-95-2	ug/kg	49.1	48							< 1400				
Pyrene	129-00-0	ug/kg	490	850000			950	12	990	< 4000	390	200			

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-E16-1-01	SD-E16-3-01	SD-ERA-B16-MOSL-01	SD-ERA-C15-MOSL-01	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-E-16-1	SD-R2-E16-3	SD-R-A15-01	SD-R-A15-01	SD-R-A15-02
				Sample Date	4/10/2001	4/10/2001	7/31/2019	7/31/2019	11/6/2013	11/6/2013	11/5/2013	11/5/2013	6/29/2006	6/29/2006	6/29/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-E16-1-011N	SD-E16-3-011N	D-ERA-B16-MOSL-01(00.0-00.5	D-ERA-C15-MOSL-01(00.0-00.5	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R-A15-011.0N	SD-R-A15-011N	SD-R-A15-021N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
Total Organic Carbon	TOC	mg/kg	--				8310	19700	91100	213000	10000	4160		2800	190000
TPH															
Amyl alcohol	71-41-0	ug/kg	--		< 18000	< 17000									
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 18000	< 17000									
Ethanol	64-17-5	ug/kg	--		< 18000	< 17000									
Ethyl ether	60-29-7	ug/kg	--		< 18000	< 17000									
Methanol	67-56-1	ug/kg	--		< 18000	< 17000									
N-butyl ether	142-96-1	ug/kg	--		< 18000	< 17000									
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 180	< 210					< 6				
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 180	< 210					< 6				
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 180	< 210					< 6				
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--								< 12				
1,1-Dichloroethane	75-34-3	ug/kg	--		< 180	< 210					< 6				
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 180	< 210					< 6				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062								< 6				
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--								< 6				
1,2-Dibromoethane	106-93-4	ug/kg	--								< 6				
1,2-Dichlorobenzene	95-50-1	ug/kg	294								< 6				
1,2-Dichloroethane	107-06-2	ug/kg	--		< 180	< 210					< 6				
1,2-Dichloropropane	78-87-5	ug/kg	--		< 180	< 210					< 6				
1,3-Dichlorobenzene	541-73-1	ug/kg	1315								< 6				
1,4-Dichlorobenzene	106-46-7	ug/kg	318								< 6				
2-Butanone	78-93-3	ug/kg	42.4								< 12				
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 370	< 420									
2-Hexanone	591-78-6	ug/kg	--								< 12				
4-Methyl-2-Pentanone	108-10-1	ug/kg	--								< 12				
Acetone	67-64-1	ug/kg	9.9								19				
Acrolein	107-02-8	ug/kg	0.00152		< 3700	< 4200									
Acrylonitrile	107-13-1	ug/kg	1.2		< 740	< 850									
Benzene	71-43-2	ug/kg	340		< 180	< 210					< 6				
Bromodichloromethane	75-27-4	ug/kg	--		< 180	< 210					< 6				
Bromoform	75-25-2	ug/kg	--		< 180	< 210					< 6				
Bromomethane	74-83-9	ug/kg	1.37		< 370	< 420					< 6				
Carbon disulfide	75-15-0	ug/kg	23.9								2				
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 180	< 210					< 6				
Chlorobenzene	108-90-7	ug/kg	291		< 180	< 210					< 6				
Chloroethane	75-00-3	ug/kg	--		< 370	< 420					< 6				
Chloroform	67-66-3	ug/kg	121		< 180	< 210					< 6				
Chloromethane	74-87-3	ug/kg	--		< 370	< 420					< 6				
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 180	< 210					< 6				
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 180	< 210					< 6				
Cyclohexane	110-82-7	ug/kg	--								< 6				
Dibromochloromethane	124-48-1	ug/kg	--		< 180	< 210					< 6				
Dichlorodifluoromethane	75-71-8	ug/kg	--								< 6				
Ethylbenzene	100-41-4	ug/kg	1400		< 180	< 210					< 6				
Isopropylbenzene	98-82-8	ug/kg	86								< 6				
Methyl Acetate	79-20-9	ug/kg	--								< 6				
Methylcyclohexane	108-87-2	ug/kg	--								< 6				
Methylene Chloride	75-09-2	ug/kg	159		< 370	< 420					< 6				
MTBE	1634-04-4	ug/kg	--								< 6				
Styrene	100-42-5	ug/kg	--								< 6				
Tetrachloroethene	127-18-4	ug/kg	450		< 180	< 210					< 6				
Toluene	108-88-3	ug/kg	2500		< 180	< 210					< 6				
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 180	< 210					< 6				
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 180	< 210					< 6				
Trichloroethene	79-01-6	ug/kg	1600		< 180	< 210					< 6				
Trichlorofluoromethane	75-69-4	ug/kg	--		< 370	< 420					< 6				
Vinyl Chloride	75-01-4	ug/kg	202		< 180	< 210					< 6				
Xylenes (total)	1330-20-7	ug/kg	--		< 180	< 210					< 6				

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
					Sample Date	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
					Parent ID											
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
CALC																
Percent Moisture	MOIST	%	--													
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 1600	< 2400	< 1800	< 560	< 450		< 440		< 420	< 1800	
1,3-Dinitrobenzene	99-65-0	ug/kg	500													
1,4-Dinitrobenzene	100-25-4	ug/kg	--													
1-Nitronaphthalene	86-57-7	ug/kg	--													
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 1600	< 2400	< 1800	< 560	< 450		< 440		< 420	< 1800	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8													
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 1600	< 2400	< 1800	440	< 450		< 440		1300	< 1800	
2-Nitrotoluene	88-72-2	ug/kg	620000													
3-Nitrotoluene	99-08-1	ug/kg	190000													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 1600	< 2400	< 1800	< 560	590		< 440		740	< 3500	
4-Nitrotoluene	99-99-0	ug/kg	68000													
Nitrobenzene	98-95-3	ug/kg	145			< 1600	< 2400	< 1800	< 560	< 450		< 440		< 420	< 1800	
Nitrocellulose	9004-70-0	ug/kg	--			< 650000	< 960000	< 740000	130000	< 180000		< 180000		< 170000	< 690000	
Nitroglycerin	55-63-0	ug/kg	127000			< 32000	< 48000	< 37000	< 11000	< 9000		< 8900		< 8400	< 35000	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 4000	< 6000	< 4600	< 1400	< 1100		< 1100		< 1100	< 4400	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 32000	< 48000	< 37000	< 11000	< 9000		< 8900		< 8400	< 35000	
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 1600	< 2400	< 1800	< 560	< 450		< 440		< 420	< 1800	
Tetryl	479-45-8	ug/kg	600													
Field																
pH	PH	su	--													
GenChem			--													
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		99.8					89.8	99.7	89.5		89.3		100
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100					100	100	100		100		100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100					100	100	100		100		100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--													
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--													
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--													
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--													
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--													
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--													
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--													
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--													
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--													
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--													
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--													
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--													
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--													
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--													
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--													
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--													
Sieve, 1 micron, % passing	SIEVE_1U	%	--		9					1	1.5	< 1		< 1		< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		71.8					73	58.8	50		67		70.9
Sieve, 150 micron, % passing	SIEVE_150U	%	--		48.4					22.8	21.5	16.4		10.6		27.3
Sieve, 2 micron, % passing	SIEVE_2U	%	--		11					1	1.5	2		1		< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--		50					5	5	6		2.5		9
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		80.2					77.4	67.1	54.5		78.5		85.9
Sieve, 300 micron, % passing	SIEVE_300U	%	--		55					40.6	31.5	24.9		22.5		36.5
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		89.5					80.3	73.9	60.2		83.4		97.2
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		95.5					82.7	80.6	65.9		86.9		97.9
Sieve, 5 micron, % passing	SIEVE_5U	%	--		15					2	2	3		1.5		1
Sieve, 50 micron, % passing	SIEVE_50U	%	--		90					10	11	10		4.5		19
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--		62.2					60.3	46.4	39.7		43.7		50
Sieve, 64 micron, % passing	SIEVE_64U	%	--		57					13	14	12		5.5		20
Sieve, 75 micron, % passing	SIEVE_75U	%	--		44.2					15.1	16.5	12.8		6.3		20.6
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Aluminum	7429-90-5	mg/kg	25500													
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33		< 10.8	< 15.6	8.87		< 3.64	1.73		1.97		1.62	< 11.7
Barium	7440-39-3	mg/kg	7000													
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10		2.09	0.529	1.1		< 0.909	< 0.746		0.395		0.766	0.906
Calcium	7440-70-2	mg/kg	--													
Chromium	7440-47-3	mg/kg	26	110		28.1	117	35.6		17.7	13		11.7		9.39	20.5
Cobalt	7440-48-4	mg/kg	50													

				Location	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
				Sample Date	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Copper	7440-50-8	mg/kg	16	110		41.6	22.8	34	5.42	8.14		9.48		4.52	23.6
Iron	7439-89-6	mg/kg	20000												
Lead	7439-92-1	mg/kg	31	250		206	65.5	116	4.43	4.51		20.5		7.87	93.3
Magnesium	7439-95-4	mg/kg	460												
Manganese	7439-96-5	mg/kg	630	1100											
Mercury	7439-97-6	mg/kg	0.2	2		0.246	< 0.748	0.0844	< 0.185	0.0297		0.0663		< 0.135	0.218
Nickel	7440-02-0	mg/kg	16	75		13.3	8.52	11.4	3.48	4.97		7.8		8.13	9.21
Potassium	7440-09-7	mg/kg	--												
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1			< 2.69	< 3.89	< 3.02	< 0.909	< 0.746		< 0.718		< 0.695	< 2.92
Sodium	7440-23-5	mg/kg	--												
Thallium	7440-28-0	mg/kg	--												
Vanadium	7440-62-2	mg/kg	57												
Zinc	7440-66-6	mg/kg	120	820		340	46.2	161	18.1	32.8		38.3		23.7	175
Moisture															
Percent Moisture	MOIST	%	--			81.4	87.4	83.6	46.1	33		32.4		28.8	82.9
SVOCs															
1,1'-Biphenyl	92-52-4	ug/kg	--												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
1-Methylnaphthalene	90-12-0	ug/kg	20.2												
2,4,5-Trichlorophenol	95-95-4	ug/kg	--												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4									< 250		< 230	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8									< 250		< 230	
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Methylnaphthalene	91-57-6	ug/kg	70												
2-Methylphenol	95-48-7	ug/kg	--												
2-Nitroaniline	88-74-4	ug/kg	--												
2-Nitrophenol	88-75-5	ug/kg	--												
3&4-Methylphenol	106-44-5	ug/kg	20.2												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
3-Nitroaniline	99-09-2	ug/kg	--												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chloroaniline	106-47-8	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitroaniline	100-01-6	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16									< 250		< 230	
Acenaphthylene	208-96-8	ug/kg	44									< 250		< 230	
Acetophenone	98-86-2	ug/kg	--												
Anthracene	120-12-7	ug/kg	220	370000								< 250		< 230	
Atrazine	1912-24-9	ug/kg	--												
Benzaldehyde	100-52-7	ug/kg	--												
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000								< 250		< 230	
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000								< 250		< 230	
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000								< 250		< 230	
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000								< 250		< 230	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Caprolactam	105-60-2	ug/kg	--												
Carbazole	86-74-8	ug/kg	--												
Chrysene	218-01-9	ug/kg	340	460000								< 250		< 230	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000								< 250		< 230	
Dibenzofuran	132-64-9	ug/kg	449												
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000								< 250		< 230	
Fluorene	86-73-7	ug/kg	190	160000								< 250		< 230	
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
				Sample Date	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Naphthalene	91-20-3	ug/kg	160	2100000								< 250		< 230	
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000								< 250		< 230	
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000								< 250		< 230	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
				Sample Date	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
Total Organic Carbon	TOC	mg/kg	--			100000	310000	430000	15000	13000		28000		16000	98000
TPH															
Amyl alcohol	71-41-0	ug/kg	--												
Di-N-Propyl Ether	111-43-3	ug/kg	--												
Ethanol	64-17-5	ug/kg	--												
Ethyl ether	60-29-7	ug/kg	--												
Methanol	67-56-1	ug/kg	--												
N-butyl ether	142-96-1	ug/kg	--												
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850												
1,1,2-Trichloroethane	79-00-5	ug/kg	--												
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--												
1,1-Dichloroethene	75-35-4	ug/kg	19.4												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--												
1,2-Dibromoethane	106-93-4	ug/kg	--												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Dichloroethane	107-06-2	ug/kg	--												
1,2-Dichloropropane	78-87-5	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2-Butanone	78-93-3	ug/kg	42.4												
2-Chloroethylvinylether	110-75-8	ug/kg	--												
2-Hexanone	591-78-6	ug/kg	--												
4-Methyl-2-Pentanone	108-10-1	ug/kg	--												
Acetone	67-64-1	ug/kg	9.9												
Acrolein	107-02-8	ug/kg	0.00152												
Acrylonitrile	107-13-1	ug/kg	1.2												
Benzene	71-43-2	ug/kg	340												
Bromodichloromethane	75-27-4	ug/kg	--												
Bromoform	75-25-2	ug/kg	--												
Bromomethane	74-83-9	ug/kg	1.37												
Carbon disulfide	75-15-0	ug/kg	23.9												
Carbon Tetrachloride	56-23-5	ug/kg	1450												
Chlorobenzene	108-90-7	ug/kg	291												
Chloroethane	75-00-3	ug/kg	--												
Chloroform	67-66-3	ug/kg	121												
Chloromethane	74-87-3	ug/kg	--												
cis-1,2-Dichloroethene	156-59-2	ug/kg	--												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--												
Cyclohexane	110-82-7	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--												
Dichlorodifluoromethane	75-71-8	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400												
Isopropylbenzene	98-82-8	ug/kg	86												
Methyl Acetate	79-20-9	ug/kg	--												
Methylcyclohexane	108-87-2	ug/kg	--												
Methylene Chloride	75-09-2	ug/kg	159												
MTBE	1634-04-4	ug/kg	--												
Styrene	100-42-5	ug/kg	--												
Tetrachloroethene	127-18-4	ug/kg	450												< 4600
Toluene	108-88-3	ug/kg	2500												
trans-1,2-Dichloroethene	156-60-5	ug/kg	--												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--												
Trichloroethene	79-01-6	ug/kg	1600												
Trichlorofluoromethane	75-69-4	ug/kg	--												
Vinyl Chloride	75-01-4	ug/kg	202												
Xylenes (total)	1330-20-7	ug/kg	--												

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-C15-01
					Sample Date	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-B15-021.0FD	SD-R-B15-021.0N	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-C15-011.0N
					Parent ID	SD-R-B15-021.0N										
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
CALC																
Percent Moisture	MOIST	%	--													
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300		< 490		
1,3-Dinitrobenzene	99-65-0	ug/kg	500													
1,4-Dinitrobenzene	100-25-4	ug/kg	--													
1-Nitronaphthalene	86-57-7	ug/kg	--													
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300		< 490		
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8													
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300		< 490		
2-Nitrotoluene	88-72-2	ug/kg	620000													
3-Nitrotoluene	99-08-1	ug/kg	190000													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 5000	< 5000	< 4300	< 3800	< 5200	< 3900	< 4100	< 4700		< 490		
4-Nitrotoluene	99-99-0	ug/kg	68000													
Nitrobenzene	98-95-3	ug/kg	145		< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300		< 490		
Nitrocellulose	9004-70-0	ug/kg	--		< 1000000	< 1000000	< 860000	< 750000	< 1000000	< 780000	< 820000	< 940000		< 200000		
Nitroglycerin	55-63-0	ug/kg	127000		< 50000	< 50000	< 43000	< 38000	< 52000	< 39000	< 41000	< 47000		< 9900		
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 6200	< 6200	< 5400	< 4700	< 6500	< 4900	< 5100	< 5800		< 1200		
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 50000	< 50000	< 43000	< 38000	< 52000	< 39000	< 41000	< 47000		< 9900		
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300		< 490		
Tetryl	479-45-8	ug/kg	600													
Field																
pH	PH	su	--													
GenChem			--													
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		99.8	99.8	98.5	100	100	100	99.2	100	97.6		96.8	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	100	100	100	100		100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100	100	100	100		100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--													
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--													
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--													
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--													
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--													
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--													
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--													
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--													
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--													
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--													
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--													
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--													
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--													
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--													
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--													
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--													
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1	3.5	3.5	< 1	1.5	< 1	< 1	< 1		< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		< 1	< 1	77.5	76.1	< 1	69.9	68.1	< 1	44.9		59.9	
Sieve, 150 micron, % passing	SIEVE_150U	%	--		< 1	< 1	48.6	64.9	< 1	45	34.3	< 1	10.2		24.1	
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1	< 1	3.5	8	< 1	3	< 1	< 1	0.5		< 1	
Sieve, 20 micron, % passing	SIEVE_20U	%	--		< 1	< 1	23	30	< 1	19.5	21	< 1	3		3	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		78.6	73.8	82.4	77.4	63.5	87.8	74.4	66.7	57.4		63.5	
Sieve, 300 micron, % passing	SIEVE_300U	%	--		< 1	< 1	59.7	71.9	< 1	51.4	44	< 1	19		36.2	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		90.6	88.5	92.3	84.5	81	95.2	88.5	83.1	64.1		68.9	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		95.2	94.7	96.4	92.2	93.5	98	97.4	94.9	71.1		74.5	
Sieve, 5 micron, % passing	SIEVE_5U	%	--		< 1	< 1	3.5	16.5	< 1	6	1	< 1	1		1	
Sieve, 50 micron, % passing	SIEVE_50U	%	--		< 1	< 1	47.5	45	< 1	33	36	< 1	6		7	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--		< 1	< 1	68.6	74.4	< 1	58.8	54.4	< 1	32.5		49.5	
Sieve, 64 micron, % passing	SIEVE_64U	%	--		< 1	< 1	40	51	< 1	33.5	30	< 1	6.5		10	
Sieve, 75 micron, % passing	SIEVE_75U	%	--		< 1	< 1	37.9	54.2	< 1	35	26.3	< 1	7		12	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Aluminum	7429-90-5	mg/kg	25500													
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33	< 16.2	8.63	10.4	< 12.3		< 12.5	12.1	< 15.1		2.49		
Barium	7440-39-3	mg/kg	7000													
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10	< 4.05	< 4.09	< 3.54	< 3.06		1.37	1.53	< 3.76		0.428		
Calcium	7440-70-2	mg/kg	--													
Chromium	7440-47-3	mg/kg	26	110	13.6	13.3	24.7	55.8		70.3	28.3	9.52		14.6		
Cobalt	7440-48-4	mg/kg	50													

					Location	SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-C15-01
					Sample Date	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-B15-021.0FD	SD-R-B15-021.0N	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-C15-011.0N
					Parent ID	SD-R-B15-021.0N										
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Copper	7440-50-8	mg/kg	16	110	13.9	14.2	14.5	16.1		33.1	30.7	16.8		19.9	
Iron	7439-89-6	mg/kg	20000												
Lead	7439-92-1	mg/kg	31	250	28.9	31.8	30.5	5.27		174	126	60.7		49.8	
Magnesium	7439-95-4	mg/kg	460												
Manganese	7439-96-5	mg/kg	630	1100											
Mercury	7439-97-6	mg/kg	0.2	2	0.0885	< 0.809	0.132	< 0.591		0.132	0.129	0.171		0.0542	
Nickel	7440-02-0	mg/kg	16	75	< 8.1	5.25	5.8	4.55		13	11.2	5.6		6.9	
Potassium	7440-09-7	mg/kg	--												
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1		< 4.05	< 4.09	< 3.54	< 3.06		< 3.12	< 3.3	< 3.76		< 0.824	
Sodium	7440-23-5	mg/kg	--												
Thallium	7440-28-0	mg/kg	--												
Vanadium	7440-62-2	mg/kg	57												
Zinc	7440-66-6	mg/kg	120	820	71.1	68.3	68.1	28.8		155	173	68.9		81.5	
Moisture															
Percent Moisture	MOIST	%	--		87.9	87.9	86	84	88.4	84.6	85.3	87.1		39.3	
SVOCs															
1,1'-Biphenyl	92-52-4	ug/kg	--												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
1-Methylnaphthalene	90-12-0	ug/kg	20.2												
2,4,5-Trichlorophenol	95-95-4	ug/kg	--												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4											< 270	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8											< 270	
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Methylnaphthalene	91-57-6	ug/kg	70												
2-Methylphenol	95-48-7	ug/kg	--												
2-Nitroaniline	88-74-4	ug/kg	--												
2-Nitrophenol	88-75-5	ug/kg	--												
3&4-Methylphenol	106-44-5	ug/kg	20.2												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
3-Nitroaniline	99-09-2	ug/kg	--												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chloroaniline	106-47-8	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitroaniline	100-01-6	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16											< 270	
Acenaphthylene	208-96-8	ug/kg	44											81	
Acetophenone	98-86-2	ug/kg	--												
Anthracene	120-12-7	ug/kg	220	370000										170	
Atrazine	1912-24-9	ug/kg	--												
Benzaldehyde	100-52-7	ug/kg	--												
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000										560	
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000										720	
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000										530	
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000										390	
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Caprolactam	105-60-2	ug/kg	--												
Carbazole	86-74-8	ug/kg	--												
Chrysene	218-01-9	ug/kg	340	460000										710	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000										91	
Dibenzofuran	132-64-9	ug/kg	449												
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000										1300	
Fluorene	86-73-7	ug/kg	190	160000										59	
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-C15-01
				Sample Date	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-B15-021.0FD	SD-R-B15-021.0N	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-C15-011.0N
				Parent ID	SD-R-B15-021.0N										
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Naphthalene	91-20-3	ug/kg	160	2100000										< 270	
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000										650	
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000										1400	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-C15-01
				Sample Date	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-B15-021.0FD	SD-R-B15-021.0N	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-C15-011.0N
				Parent ID	SD-R-B15-021.0N										
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
Total Organic Carbon	TOC	mg/kg	--		320000	380000	220000	200000	420000	110000	68000	380000		14000	
TPH															
Amyl alcohol	71-41-0	ug/kg	--												
Di-N-Propyl Ether	111-43-3	ug/kg	--												
Ethanol	64-17-5	ug/kg	--												
Ethyl ether	60-29-7	ug/kg	--												
Methanol	67-56-1	ug/kg	--												
N-butyl ether	142-96-1	ug/kg	--												
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850												
1,1,2-Trichloroethane	79-00-5	ug/kg	--												
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--												
1,1-Dichloroethene	75-35-4	ug/kg	19.4												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--												
1,2-Dibromoethane	106-93-4	ug/kg	--												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Dichloroethane	107-06-2	ug/kg	--												
1,2-Dichloropropane	78-87-5	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2-Butanone	78-93-3	ug/kg	42.4												
2-Chloroethylvinylether	110-75-8	ug/kg	--												
2-Hexanone	591-78-6	ug/kg	--												
4-Methyl-2-Pentanone	108-10-1	ug/kg	--												
Acetone	67-64-1	ug/kg	9.9												
Acrolein	107-02-8	ug/kg	0.00152												
Acrylonitrile	107-13-1	ug/kg	1.2												
Benzene	71-43-2	ug/kg	340												
Bromodichloromethane	75-27-4	ug/kg	--												
Bromoform	75-25-2	ug/kg	--												
Bromomethane	74-83-9	ug/kg	1.37												
Carbon disulfide	75-15-0	ug/kg	23.9												
Carbon Tetrachloride	56-23-5	ug/kg	1450												
Chlorobenzene	108-90-7	ug/kg	291												
Chloroethane	75-00-3	ug/kg	--												
Chloroform	67-66-3	ug/kg	121												
Chloromethane	74-87-3	ug/kg	--												
cis-1,2-Dichloroethene	156-59-2	ug/kg	--												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--												
Cyclohexane	110-82-7	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--												
Dichlorodifluoromethane	75-71-8	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400												
Isopropylbenzene	98-82-8	ug/kg	86												
Methyl Acetate	79-20-9	ug/kg	--												
Methylcyclohexane	108-87-2	ug/kg	--												
Methylene Chloride	75-09-2	ug/kg	159												
MTBE	1634-04-4	ug/kg	--												
Styrene	100-42-5	ug/kg	--												
Tetrachloroethene	127-18-4	ug/kg	450		< 6300	< 5700	< 4800	2500	6700			< 4700			
Toluene	108-88-3	ug/kg	2500												
trans-1,2-Dichloroethene	156-60-5	ug/kg	--												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--												
Trichloroethene	79-01-6	ug/kg	1600												
Trichlorofluoromethane	75-69-4	ug/kg	--												
Vinyl Chloride	75-01-4	ug/kg	202												
Xylenes (total)	1330-20-7	ug/kg	--												

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06	SD-R-C15-06
					Sample Date	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N	SD-R-C15-061N
					Parent ID											
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
CALC																
Percent Moisture	MOIST	%	--													
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 500		< 580		< 500		< 550		< 580		< 440	
1,3-Dinitrobenzene	99-65-0	ug/kg	500													
1,4-Dinitrobenzene	100-25-4	ug/kg	--													
1-Nitronaphthalene	86-57-7	ug/kg	--													
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 500		< 580		< 500		< 550		< 580		< 440	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8													
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 500		< 580		< 500		< 550		< 580		< 440	
2-Nitrotoluene	88-72-2	ug/kg	620000													
3-Nitrotoluene	99-08-1	ug/kg	190000													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 500		< 580		< 500		< 550		< 580		< 440	
4-Nitrotoluene	99-99-0	ug/kg	68000													
Nitrobenzene	98-95-3	ug/kg	145		< 500		< 580		< 500		< 550				< 440	
Nitrocellulose	9004-70-0	ug/kg	--		< 200000		< 230000		< 200000		< 220000		< 230000		< 180000	
Nitroglycerin	55-63-0	ug/kg	127000		< 9900		< 12000		< 10000		< 11000		< 12000		< 8700	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1200		< 1400		< 1300		< 1400		< 1400		< 1100	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 9900		< 12000		< 10000		< 11000		< 12000		< 8700	
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 500		< 580		< 500		< 550		< 580		< 440	
Tetryl	479-45-8	ug/kg	600													
Field																
pH	PH	su	--													
GenChem			--													
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--			100		100		100		100		95.9		
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--			100		100		100		100		100		
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--			100		100		100		100		100		
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--													
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--													
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--													
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--													
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--													
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--													
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--													
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--													
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--													
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--													
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--													
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--													
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--													
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--													
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--													
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--													
Sieve, 1 micron, % passing	SIEVE_1U	%	--			< 1		2		2		< 1		1.5		
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--			90.5		88.4		91.6		84.4		74.3		
Sieve, 150 micron, % passing	SIEVE_150U	%	--			26.5		28.1		41.7		31.1		21.5		
Sieve, 2 micron, % passing	SIEVE_2U	%	--			< 1		2		2		< 1		1.5		
Sieve, 20 micron, % passing	SIEVE_20U	%	--			4.5		4.5		6		4		5		
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--			94.8		93.7		94.9		89.7		79.6		
Sieve, 300 micron, % passing	SIEVE_300U	%	--			48.3		50		60.7		53.4		38.5		
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--			96.7		97.3		97.6		93.1		84.1		
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--			97.8		98.4		98.9		95.7		87.6		
Sieve, 5 micron, % passing	SIEVE_5U	%	--			1		2		3		1		2.5		
Sieve, 50 micron, % passing	SIEVE_50U	%	--			7		9		12.5		8		10		
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--			73.9		74.8		80.3		72.8		59.5		
Sieve, 64 micron, % passing	SIEVE_64U	%	--			10		12.5		17		13		13		
Sieve, 75 micron, % passing	SIEVE_75U	%	--			11.9		15		20.1		16.2		14.6		
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Aluminum	7429-90-5	mg/kg	25500													
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33	2.17		3.99		< 3.26		< 3.54		1.98		1.7	
Barium	7440-39-3	mg/kg	7000													
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10	0.558		1.12		0.277		0.5		0.563		0.313	
Calcium	7440-70-2	mg/kg	--													
Chromium	7440-47-3	mg/kg	26	110	9.58		8.12		7.18		11.3		27.3		32.2	
Cobalt	7440-48-4	mg/kg	50													

				Location	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06	SD-R-C15-06
				Sample Date	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N	SD-R-C15-061N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Copper	7440-50-8	mg/kg	16	110	7.66		20.4		5.69		13.3		14.5		11.2
Iron	7439-89-6	mg/kg	20000												
Lead	7439-92-1	mg/kg	31	250	25.3		35.8		19.6		56.7		74.7		99.7
Magnesium	7439-95-4	mg/kg	460												
Manganese	7439-96-5	mg/kg	630	1100											
Mercury	7439-97-6	mg/kg	0.2	2	0.0337		0.179		< 0.164		0.0513		0.0229		0.0208
Nickel	7440-02-0	mg/kg	16	75	7.81		10.8		3.1		5.77		6.64		5.48
Potassium	7440-09-7	mg/kg	--												
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1		< 0.804		< 0.935		< 0.814		< 0.884		< 0.954		< 0.719
Sodium	7440-23-5	mg/kg	--												
Thallium	7440-28-0	mg/kg	--												
Vanadium	7440-62-2	mg/kg	57												
Zinc	7440-66-6	mg/kg	120	820	74.3		184		44.6		104		93.8		68.5
Moisture															
Percent Moisture	MOIST	%	--		39.6		48.1		40.4		45.1		48.1		31.1
SVOCs															
1,1'-Biphenyl	92-52-4	ug/kg	--												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
1-Methylnaphthalene	90-12-0	ug/kg	20.2												
2,4,5-Trichlorophenol	95-95-4	ug/kg	--												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 280		< 320		< 280		< 300		< 320		< 240
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 280		< 320		< 280		< 300		< 320		< 240
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Methylnaphthalene	91-57-6	ug/kg	70												
2-Methylphenol	95-48-7	ug/kg	--												
2-Nitroaniline	88-74-4	ug/kg	--												
2-Nitrophenol	88-75-5	ug/kg	--												
3&4-Methylphenol	106-44-5	ug/kg	20.2												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
3-Nitroaniline	99-09-2	ug/kg	--												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chloroaniline	106-47-8	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitroaniline	100-01-6	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16		< 280		< 320		< 280		< 300		< 320		99
Acenaphthylene	208-96-8	ug/kg	44		< 280		71		58		62		190		< 240
Acetophenone	98-86-2	ug/kg	--												
Anthracene	120-12-7	ug/kg	220	370000	63		160		210		200		280		150
Atrazine	1912-24-9	ug/kg	--												
Benzaldehyde	100-52-7	ug/kg	--												
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	170		520		560		680		1000		370
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	180		530		480		680		1000		390
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	120		350		300		450		590		260
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	86		240		190		320		530		180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Caprolactam	105-60-2	ug/kg	--												
Carbazole	86-74-8	ug/kg	--												
Chrysene	218-01-9	ug/kg	340	460000	210		570		620		770		1200		450
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 280		99		65		120		150		51
Dibenzofuran	132-64-9	ug/kg	449												
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000	350		950		1200		1300		1800		860
Fluorene	86-73-7	ug/kg	190	160000	< 280		< 320		67		< 300		96		100
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06	SD-R-C15-06
				Sample Date	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N	SD-R-C15-061N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Naphthalene	91-20-3	ug/kg	160	2100000	< 280		< 320		< 280		< 300		< 320		57
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000	220		570		800		700		1000		630
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000	380		1100		1300		1300		1700		830

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06	SD-R-C15-06
				Sample Date	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N	SD-R-C15-061N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
Total Organic Carbon	TOC	mg/kg	--		6600		24000		3800		26000		15000		17000
TPH															
Amyl alcohol	71-41-0	ug/kg	--												
Di-N-Propyl Ether	111-43-3	ug/kg	--												
Ethanol	64-17-5	ug/kg	--												
Ethyl ether	60-29-7	ug/kg	--												
Methanol	67-56-1	ug/kg	--												
N-butyl ether	142-96-1	ug/kg	--												
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850												
1,1,2-Trichloroethane	79-00-5	ug/kg	--												
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--												
1,1-Dichloroethene	75-35-4	ug/kg	19.4												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--												
1,2-Dibromoethane	106-93-4	ug/kg	--												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Dichloroethane	107-06-2	ug/kg	--												
1,2-Dichloropropane	78-87-5	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2-Butanone	78-93-3	ug/kg	42.4												
2-Chloroethylvinylether	110-75-8	ug/kg	--												
2-Hexanone	591-78-6	ug/kg	--												
4-Methyl-2-Pentanone	108-10-1	ug/kg	--												
Acetone	67-64-1	ug/kg	9.9												
Acrolein	107-02-8	ug/kg	0.00152												
Acrylonitrile	107-13-1	ug/kg	1.2												
Benzene	71-43-2	ug/kg	340												
Bromodichloromethane	75-27-4	ug/kg	--												
Bromoform	75-25-2	ug/kg	--												
Bromomethane	74-83-9	ug/kg	1.37												
Carbon disulfide	75-15-0	ug/kg	23.9												
Carbon Tetrachloride	56-23-5	ug/kg	1450												
Chlorobenzene	108-90-7	ug/kg	291												
Chloroethane	75-00-3	ug/kg	--												
Chloroform	67-66-3	ug/kg	121												
Chloromethane	74-87-3	ug/kg	--												
cis-1,2-Dichloroethene	156-59-2	ug/kg	--												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--												
Cyclohexane	110-82-7	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--												
Dichlorodifluoromethane	75-71-8	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400												
Isopropylbenzene	98-82-8	ug/kg	86												
Methyl Acetate	79-20-9	ug/kg	--												
Methylcyclohexane	108-87-2	ug/kg	--												
Methylene Chloride	75-09-2	ug/kg	159												
MTBE	1634-04-4	ug/kg	--												
Styrene	100-42-5	ug/kg	--												
Tetrachloroethene	127-18-4	ug/kg	450												
Toluene	108-88-3	ug/kg	2500												
trans-1,2-Dichloroethene	156-60-5	ug/kg	--												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--												
Trichloroethene	79-01-6	ug/kg	1600												
Trichlorofluoromethane	75-69-4	ug/kg	--												
Vinyl Chloride	75-01-4	ug/kg	202												
Xylenes (total)	1330-20-7	ug/kg	--												

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-D15-01	SD-R-D15-01	SD-R-E16-01
					Sample Date	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/6/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0FD	SD-R-C16-011.0N	SD-R-C16-011FD	SD-R-C16-011N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-E16-011.0N
					Parent ID					SD-R-C16-011N		SD-R-C16-011N				
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
CALC																
Percent Moisture	MOIST	%	--													
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 1200	< 2000	< 2500	< 2100			< 410	< 420		< 820	< 380	
1,3-Dinitrobenzene	99-65-0	ug/kg	500													
1,4-Dinitrobenzene	100-25-4	ug/kg	--													
1-Nitronaphthalene	86-57-7	ug/kg	--													
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 1200	< 2000	< 2500	< 2100			< 410	< 420		< 820	< 380	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8													
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 1200	< 2000	< 2500	< 2100			< 410	< 420		< 820	< 380	
2-Nitrotoluene	88-72-2	ug/kg	620000													
3-Nitrotoluene	99-08-1	ug/kg	190000													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 2400	< 4000	< 4900	< 4300			< 410	< 420		< 820	< 380	
4-Nitrotoluene	99-99-0	ug/kg	68000													
Nitrobenzene	98-95-3	ug/kg	145		< 1200	< 2000	< 2500	< 2100			< 410	< 420		< 820	< 380	
Nitrocellulose	9004-70-0	ug/kg	--		< 480000	< 810000	< 980000	< 840000			< 160000	< 170000		< 330000	< 150000	
Nitroglycerin	55-63-0	ug/kg	127000		< 24000	< 40000	< 49000	< 43000			< 8200	< 8400		< 16000	< 7700	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 3000	< 5000	< 6100	< 5300			< 1000	< 1100		< 2100	< 960	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 24000	< 40000	< 49000	< 43000			< 8200	< 8400		< 16000	< 7700	
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 1200	< 2000	< 2500	< 2100			< 410	< 420		< 820	< 380	
Tetryl	479-45-8	ug/kg	600													
Field																
pH	PH	su	--													
GenChem			--													
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		99.9	97.9	100	98.8	100	100			99.6		98.7	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	100			100		100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100			100		100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--													
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--													
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--													
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--													
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--													
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--													
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--													
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--													
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--													
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--													
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--													
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--													
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--													
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--													
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--													
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--													
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	5	< 1	< 1	< 1	< 1			< 1		< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		88.6	55.4	< 1	< 1	75.1	75.1			88.5		61.5	
Sieve, 150 micron, % passing	SIEVE_150U	%	--		72	22.9	< 1	< 1	22.1	22.4			43.2		13.3	
Sieve, 2 micron, % passing	SIEVE_2U	%	--		3	7	< 1	< 1	< 1	< 1			0.5		< 1	
Sieve, 20 micron, % passing	SIEVE_20U	%	--		25.5	20	< 1	< 1	2.5	3			5		3	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		91.2	68.5	55.1	47.9	80.9	80.8			89.9		65.9	
Sieve, 300 micron, % passing	SIEVE_300U	%	--		78.5	30.5	< 1	< 1	43.2	42.9			64.5		29.5	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		95.5	78.1	67.3	63.8	87.1	86.5			92.8		73.3	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		97.8	85.1	79	81.9	92	90.9			94		81.8	
Sieve, 5 micron, % passing	SIEVE_5U	%	--		7	9	< 1	< 1	1	1			2.5		0.5	
Sieve, 50 micron, % passing	SIEVE_50U	%	--		41	32.5	< 1	< 1	6.5	6.5			13		6	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--		83.7	43.1	< 1	< 1	62.3	61.7			80.8		49.3	
Sieve, 64 micron, % passing	SIEVE_64U	%	--		53	22	< 1	< 1	9	9			24		8	
Sieve, 75 micron, % passing	SIEVE_75U	%	--		58.3	19	< 1	< 1	10.3	10.3			30.1		8.8	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Aluminum	7429-90-5	mg/kg	25500													
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33	4.62	< 13.2	8.2	6.93			< 2.66	< 2.77		8.24	1.81	
Barium	7440-39-3	mg/kg	7000													
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10	0.699	0.502	< 4.02	< 3.51			0.301	0.262		1.4	< 0.619	
Calcium	7440-70-2	mg/kg	--													
Chromium	7440-47-3	mg/kg	26	110	21.1	14.5	41.4	68.3			5.85	4.99		15.5	5.43	
Cobalt	7440-48-4	mg/kg	50													

				Location	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-D15-01	SD-R-D15-01	SD-R-E16-01
				Sample Date	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/6/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0FD	SD-R-C16-011.0N	SD-R-C16-011FD	SD-R-C16-011N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-E16-011.0N
				Parent ID					SD-R-C16-011N		SD-R-C16-011N				
				Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Copper	7440-50-8	mg/kg	16	110	18.1	17	14.3	8.11			6.81	5.75		60.7	8.11
Iron	7439-89-6	mg/kg	20000												
Lead	7439-92-1	mg/kg	31	250	50.2	19.1	6.92	10.6			64.3	29.4		73.6	16.7
Magnesium	7439-95-4	mg/kg	460												
Manganese	7439-96-5	mg/kg	630	1100											
Mercury	7439-97-6	mg/kg	0.2	2	0.133	0.131	0.0976	0.0867			0.0357	0.0255		0.117	0.0451
Nickel	7440-02-0	mg/kg	16	75	7.58	5.78	< 8.04	< 7.02			3.76	3.06		9.62	3.06
Potassium	7440-09-7	mg/kg	--												
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1		< 1.94	< 3.3	< 4.02	< 3.51			< 0.666	< 0.693		< 1.36	< 0.619
Sodium	7440-23-5	mg/kg	--												
Thallium	7440-28-0	mg/kg	--												
Vanadium	7440-62-2	mg/kg	57												
Zinc	7440-66-6	mg/kg	120	820	104	54.4	35.5	26.5			53.6	48.3		146	31.5
Moisture															
Percent Moisture	MOIST	%	--		75	85	87.8	85.9			26.4	28.6		63.5	21.6
SVOCs															
1,1'-Biphenyl	92-52-4	ug/kg	--												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
1-Methylnaphthalene	90-12-0	ug/kg	20.2												
2,4,5-Trichlorophenol	95-95-4	ug/kg	--												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 670	< 1100					< 230	< 230		< 460	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 670	< 1100					< 230	< 230		< 460	< 210
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Methylnaphthalene	91-57-6	ug/kg	70												
2-Methylphenol	95-48-7	ug/kg	--												
2-Nitroaniline	88-74-4	ug/kg	--												
2-Nitrophenol	88-75-5	ug/kg	--												
3&4-Methylphenol	106-44-5	ug/kg	20.2												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
3-Nitroaniline	99-09-2	ug/kg	--												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chloroaniline	106-47-8	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitroaniline	100-01-6	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16		< 670	< 1100					51	71		< 460	< 210
Acenaphthylene	208-96-8	ug/kg	44		< 670	< 1100					130	210		< 460	< 210
Acetophenone	98-86-2	ug/kg	--												
Anthracene	120-12-7	ug/kg	220	370000	< 670	< 1100					300	440		140	< 210
Atrazine	1912-24-9	ug/kg	--												
Benzaldehyde	100-52-7	ug/kg	--												
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	< 670	< 1100					970	1500		380	70
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	< 670	< 1100					1100	1500		410	90
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	< 670	< 1100					690	1000		290	63
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	< 670	< 1100					480	710		200	46
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Caprolactam	105-60-2	ug/kg	--												
Carbazole	86-74-8	ug/kg	--												
Chrysene	218-01-9	ug/kg	340	460000	150	< 1100					1100	1600		450	81
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 670	< 1100					190	260		< 460	< 210
Dibenzofuran	132-64-9	ug/kg	449												
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000	240	< 1100					1800	2600		730	130
Fluorene	86-73-7	ug/kg	190	160000	< 670	< 1100					93	130		< 460	< 210
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-D15-01	SD-R-D15-01	SD-R-E16-01
					Sample Date	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/6/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0FD	SD-R-C16-011.0N	SD-R-C16-011FD	SD-R-C16-011N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-E16-011.0N
					Parent ID					SD-R-C16-011N		SD-R-C16-011N				
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Naphthalene	91-20-3	ug/kg	160	2100000	< 670	< 1100					< 230	< 230		< 460	< 210
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000	< 670	< 1100					1000	1500		480	72
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000	210	< 1100					2300	3300		850	150

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-D15-01	SD-R-D15-01	SD-R-E16-01
					Sample Date	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/6/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0FD	SD-R-C16-011.0N	SD-R-C16-011FD	SD-R-C16-011N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-E16-011.0N
					Parent ID					SD-R-C16-011N		SD-R-C16-011N				
					Subdrainage Area	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Total Organic Carbon																
Total Organic Carbon	TOC	mg/kg	--		180000	290000	330000	250000			2200	5300		120000	11000
TPH																
Amyl alcohol	71-41-0	ug/kg	--													
Di-N-Propyl Ether	111-43-3	ug/kg	--													
Ethanol	64-17-5	ug/kg	--													
Ethyl ether	60-29-7	ug/kg	--													
Methanol	67-56-1	ug/kg	--													
N-butyl ether	142-96-1	ug/kg	--													
VOCs																
1,1,1-Trichloroethane	71-55-6	ug/kg	--													
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850													
1,1,2-Trichloroethane	79-00-5	ug/kg	--													
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--													
1,1-Dichloroethane	75-34-3	ug/kg	--													
1,1-Dichloroethene	75-35-4	ug/kg	19.4													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062													
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--													
1,2-Dibromoethane	106-93-4	ug/kg	--													
1,2-Dichlorobenzene	95-50-1	ug/kg	294													
1,2-Dichloroethane	107-06-2	ug/kg	--													
1,2-Dichloropropane	78-87-5	ug/kg	--													
1,3-Dichlorobenzene	541-73-1	ug/kg	1315													
1,4-Dichlorobenzene	106-46-7	ug/kg	318													
2-Butanone	78-93-3	ug/kg	42.4													
2-Chloroethylvinylether	110-75-8	ug/kg	--													
2-Hexanone	591-78-6	ug/kg	--													
4-Methyl-2-Pentanone	108-10-1	ug/kg	--													
Acetone	67-64-1	ug/kg	9.9													
Acrolein	107-02-8	ug/kg	0.00152													
Acrylonitrile	107-13-1	ug/kg	1.2													
Benzene	71-43-2	ug/kg	340													
Bromodichloromethane	75-27-4	ug/kg	--													
Bromoform	75-25-2	ug/kg	--													
Bromomethane	74-83-9	ug/kg	1.37													
Carbon disulfide	75-15-0	ug/kg	23.9													
Carbon Tetrachloride	56-23-5	ug/kg	1450													
Chlorobenzene	108-90-7	ug/kg	291													
Chloroethane	75-00-3	ug/kg	--													
Chloroform	67-66-3	ug/kg	121													
Chloromethane	74-87-3	ug/kg	--													
cis-1,2-Dichloroethene	156-59-2	ug/kg	--													
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--													
Cyclohexane	110-82-7	ug/kg	--													
Dibromochloromethane	124-48-1	ug/kg	--													
Dichlorodifluoromethane	75-71-8	ug/kg	--													
Ethylbenzene	100-41-4	ug/kg	1400													
Isopropylbenzene	98-82-8	ug/kg	86													
Methyl Acetate	79-20-9	ug/kg	--													
Methylcyclohexane	108-87-2	ug/kg	--													
Methylene Chloride	75-09-2	ug/kg	159													
MTBE	1634-04-4	ug/kg	--													
Styrene	100-42-5	ug/kg	--													
Tetrachloroethene	127-18-4	ug/kg	450		< 2500		3800									
Toluene	108-88-3	ug/kg	2500													
trans-1,2-Dichloroethene	156-60-5	ug/kg	--													
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--													
Trichloroethene	79-01-6	ug/kg	1600													
Trichlorofluoromethane	75-69-4	ug/kg	--													
Vinyl Chloride	75-01-4	ug/kg	202													
Xylenes (total)	1330-20-7	ug/kg	--													

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

				Location	SD-R-E16-02
				Sample Date	6/6/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E16-021.0N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
CALC					
Percent Moisture	MOIST	%	--		
Explosives					
1,2-Dinitrobenzene	528-29-0	ug/kg	--		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 400
1,3-Dinitrobenzene	99-65-0	ug/kg	500		
1,4-Dinitrobenzene	100-25-4	ug/kg	--		
1-Nitronaphthalene	86-57-7	ug/kg	--		
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 400
2-Nitrotoluene	88-72-2	ug/kg	620000		
3-Nitrotoluene	99-08-1	ug/kg	190000		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 400
4-Nitrotoluene	99-99-0	ug/kg	68000		
Nitrobenzene	98-95-3	ug/kg	145		< 400
Nitrocellulose	9004-70-0	ug/kg	--		< 160000
Nitroglycerin	55-63-0	ug/kg	127000		< 7900
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 990
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 7900
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 400
Tetryl	479-45-8	ug/kg	600		
Field					
pH	PH	su	--		
GenChem			--		
Grain Size					
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--		
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--		
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--		
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--		
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--		
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--		
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--		
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--		
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--		
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--		
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--		
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--		
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--		
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--		
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--		
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--		
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--		
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--		
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--		
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--		
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--		
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--		
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--		
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--		
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--		
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--		
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		72.3
Sieve, 150 micron, % passing	SIEVE_150U	%	--		14
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--		1.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		79
Sieve, 300 micron, % passing	SIEVE_300U	%	--		31.1
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		84.2
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		88.7
Sieve, 5 micron, % passing	SIEVE_5U	%	--		< 1
Sieve, 50 micron, % passing	SIEVE_50U	%	--		4.5
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--		
Sieve, 600 micron, % passing	SIEVE_600U	%	--		54.5
Sieve, 64 micron, % passing	SIEVE_64U	%	--		6.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		7.7
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--		
Metals					
Aluminum	7429-90-5	mg/kg	25500		
Antimony	7440-36-0	mg/kg	3	3	
Arsenic	7440-38-2	mg/kg	6	33	< 2.54
Barium	7440-39-3	mg/kg	7000		
Beryllium	7440-41-7	mg/kg	NA		
Cadmium	7440-43-9	mg/kg	0.6	10	< 0.635
Calcium	7440-70-2	mg/kg	--		
Chromium	7440-47-3	mg/kg	26	110	5.35
Cobalt	7440-48-4	mg/kg	50		

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E16-02
				Sample Date	6/6/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E16-021.0N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Copper	7440-50-8	mg/kg	16	110	2.13
Iron	7439-89-6	mg/kg	20000		
Lead	7439-92-1	mg/kg	31	250	21.4
Magnesium	7439-95-4	mg/kg	460		
Manganese	7439-96-5	mg/kg	630	1100	
Mercury	7439-97-6	mg/kg	0.2	2	0.0528
Nickel	7440-02-0	mg/kg	16	75	2.3
Potassium	7440-09-7	mg/kg	--		
Selenium	7782-49-2	mg/kg	2		
Silver	7440-22-4	mg/kg	1		< 0.635
Sodium	7440-23-5	mg/kg	--		
Thallium	7440-28-0	mg/kg	--		
Vanadium	7440-62-2	mg/kg	57		
Zinc	7440-66-6	mg/kg	120	820	50.6
Moisture					
Percent Moisture	MOIST	%	--		24.3
SVOCs					
1,1'-Biphenyl	92-52-4	ug/kg	--		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062		
1,2-Dichlorobenzene	95-50-1	ug/kg	294		
1,2-Diphenylhydrazine	122-66-7	ug/kg	--		
1,3-Dichlorobenzene	541-73-1	ug/kg	1315		
1,4-Dichlorobenzene	106-46-7	ug/kg	318		
1-Methylnaphthalene	90-12-0	ug/kg	20.2		
2,4,5-Trichlorophenol	95-95-4	ug/kg	--		
2,4,6-Trichlorophenol	88-06-2	ug/kg	--		
2,4-Dichlorophenol	120-83-2	ug/kg	--		
2,4-Dimethylphenol	105-67-9	ug/kg	304		
2,4-Dinitrophenol	51-28-5	ug/kg	6.21		
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 220
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 220
2-Chloronaphthalene	91-58-7	ug/kg	--		
2-Chlorophenol	95-57-8	ug/kg	31.9		
2-Methylnaphthalene	91-57-6	ug/kg	70		
2-Methylphenol	95-48-7	ug/kg	--		
2-Nitroaniline	88-74-4	ug/kg	--		
2-Nitrophenol	88-75-5	ug/kg	--		
3&4-Methylphenol	106-44-5	ug/kg	20.2		
3,3-Dichlorobenzidine	91-94-1	ug/kg	127		
3-Nitroaniline	99-09-2	ug/kg	--		
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104		
4-Bromophenyl-phenylether	101-55-3	ug/kg	--		
4-Chloro-3-methylphenol	59-50-7	ug/kg	--		
4-Chloroaniline	106-47-8	ug/kg	--		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--		
4-Nitroaniline	100-01-6	ug/kg	--		
4-Nitrophenol	100-02-7	ug/kg	13.3		
Acenaphthene	83-32-9	ug/kg	16		< 220
Acenaphthylene	208-96-8	ug/kg	44		< 220
Acetophenone	98-86-2	ug/kg	--		
Anthracene	120-12-7	ug/kg	220	370000	< 220
Atrazine	1912-24-9	ug/kg	--		
Benzaldehyde	100-52-7	ug/kg	--		
Benzidine	92-87-5	ug/kg	--		
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	< 220
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	< 220
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	< 220
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	< 220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750	
Butylbenzylphthalate	85-68-7	ug/kg	1970		
Caprolactam	105-60-2	ug/kg	--		
Carbazole	86-74-8	ug/kg	--		
Chrysene	218-01-9	ug/kg	340	460000	< 220
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 220
Dibenzofuran	132-64-9	ug/kg	449		
Diethylphthalate	84-66-2	ug/kg	295		
Dimethylphthalate	131-11-3	ug/kg	1000		
Di-n-butylphthalate	84-74-2	ug/kg	1114	110	
Di-n-octylphthalate	117-84-0	ug/kg	40600		
Fluoranthene	206-44-0	ug/kg	750	1020000	< 220
Fluorene	86-73-7	ug/kg	190	160000	< 220
Hexachlorobenzene	118-74-1	ug/kg	20	24000	
Hexachlorobutadiene	87-68-3	ug/kg	26.5		
Hexachlorocyclopentadiene	77-47-4	ug/kg	--		
Hexachloroethane	67-72-1	ug/kg	584		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	
Isophorone	78-59-1	ug/kg	432		

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E16-02
				Sample Date	6/6/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E16-021.0N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Naphthalene	91-20-3	ug/kg	160	2100000	< 220
N-Nitrosodimethylamine	62-75-9	ug/kg	--		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--		
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680		
Pentachlorophenol	87-86-5	ug/kg	23000		
Phenanthrene	85-01-8	ug/kg	560	950000	< 220
Phenol	108-95-2	ug/kg	49.1	48	
Pyrene	129-00-0	ug/kg	490	850000	< 220

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E16-02
				Sample Date	6/6/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-E16-021.0N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Lower
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Total Organic Carbon					
Total Organic Carbon	TOC	mg/kg	--		2400
TPH					
Amyl alcohol	71-41-0	ug/kg	--		
Di-N-Propyl Ether	111-43-3	ug/kg	--		
Ethanol	64-17-5	ug/kg	--		
Ethyl ether	60-29-7	ug/kg	--		
Methanol	67-56-1	ug/kg	--		
N-butyl ether	142-96-1	ug/kg	--		
VOCs					
1,1,1-Trichloroethane	71-55-6	ug/kg	--		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		
1,1,2-Trichloroethane	79-00-5	ug/kg	--		
1,1,2-Trichloro-trifluoroethane (Fre	76-13-1	ug/kg	--		
1,1-Dichloroethane	75-34-3	ug/kg	--		
1,1-Dichloroethene	75-35-4	ug/kg	19.4		
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062		
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	--		
1,2-Dibromoethane	106-93-4	ug/kg	--		
1,2-Dichlorobenzene	95-50-1	ug/kg	294		
1,2-Dichloroethane	107-06-2	ug/kg	--		
1,2-Dichloropropane	78-87-5	ug/kg	--		
1,3-Dichlorobenzene	541-73-1	ug/kg	1315		
1,4-Dichlorobenzene	106-46-7	ug/kg	318		
2-Butanone	78-93-3	ug/kg	42.4		
2-Chloroethylvinylether	110-75-8	ug/kg	--		
2-Hexanone	591-78-6	ug/kg	--		
4-Methyl-2-Pentanone	108-10-1	ug/kg	--		
Acetone	67-64-1	ug/kg	9.9		
Acrolein	107-02-8	ug/kg	0.00152		
Acrylonitrile	107-13-1	ug/kg	1.2		
Benzene	71-43-2	ug/kg	340		
Bromodichloromethane	75-27-4	ug/kg	--		
Bromoform	75-25-2	ug/kg	--		
Bromomethane	74-83-9	ug/kg	1.37		
Carbon disulfide	75-15-0	ug/kg	23.9		
Carbon Tetrachloride	56-23-5	ug/kg	1450		
Chlorobenzene	108-90-7	ug/kg	291		
Chloroethane	75-00-3	ug/kg	--		
Chloroform	67-66-3	ug/kg	121		
Chloromethane	74-87-3	ug/kg	--		
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		
Cyclohexane	110-82-7	ug/kg	--		
Dibromochloromethane	124-48-1	ug/kg	--		
Dichlorodifluoromethane	75-71-8	ug/kg	--		
Ethylbenzene	100-41-4	ug/kg	1400		
Isopropylbenzene	98-82-8	ug/kg	86		
Methyl Acetate	79-20-9	ug/kg	--		
Methylcyclohexane	108-87-2	ug/kg	--		
Methylene Chloride	75-09-2	ug/kg	159		
MTBE	1634-04-4	ug/kg	--		
Styrene	100-42-5	ug/kg	--		
Tetrachloroethene	127-18-4	ug/kg	450		
Toluene	108-88-3	ug/kg	2500		
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		
Trichloroethene	79-01-6	ug/kg	1600		
Trichlorofluoromethane	75-69-4	ug/kg	--		
Vinyl Chloride	75-01-4	ug/kg	202		
Xylenes (total)	1330-20-7	ug/kg	--		

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

				Location	SD-C14-2-01	SD-D14-4-01	SD-D14-5-01	SD-D14-6-01	SD-D14-7-01	SD-D14-8-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01
				Sample Date	4/12/2001	4/10/2001	4/11/2001	4/12/2001	4/11/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-C14-2-011N	SD-D14-4-011N	SD-D14-5-011N	SD-D14-6-011N	SD-D14-7-011N	SD-D14-8-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Explosives															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160						< 140	< 170					
1,3-Dinitrobenzene	99-65-0	ug/kg	500						< 140	< 170					
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100						< 140	< 170					
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300						< 140	< 170					
2-Nitrotoluene	88-72-2	ug/kg	620000						< 140	< 170					
3-Nitrotoluene	99-08-1	ug/kg	190000						< 140	< 170					
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500						< 140	< 170					
4-Nitrotoluene	99-99-0	ug/kg	68000						< 140	< 170					
Nitrobenzene	98-95-3	ug/kg	145						< 140	< 170					
Nitrocellulose	9004-70-0	ug/kg	--						< 85000	< 100000					
Nitroglycerin	55-63-0	ug/kg	127000						< 2800	< 3300					
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380						< 140	< 170					
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000						< 2800	< 3300					
RDX (Cyclonite)	121-82-4	ug/kg	1200						< 140	< 170					
Tetryl	479-45-8	ug/kg	600						< 140	< 170					
Field															
Dissolved Oxygen	7782-44-7	mg/l	--												
pH	PH	su	--												
Specific Conductance	SC	us/cm	--												
Temperature	TEMP	deg c	--												
Turbidity	TURBIDITY	ntu	--												
GenChem			--												
Acid Volatile Sulfide	1313-84-4	umol/g	--												
Grain Size															
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--						4	4.2					
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--						47.4	53.6					
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--												
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--						1	1.3					
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--						25.6	32.4					
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--												
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--						83.2	80.7					
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--						10.7	12.9					
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--												
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--												
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--												
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--												
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--												
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--												
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--												
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--												
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--												
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--												
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--												
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--						100	98.2					
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--												
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--						100	100					
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--												
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--												
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--						100	100					
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--												
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--												
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--												
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--												
Sieve, 1 micron, % passing	SIEVE_1U	%	--												
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--												
Sieve, 150 micron, % passing	SIEVE_150U	%	--												
Sieve, 2 micron, % passing	SIEVE_2U	%	--												
Sieve, 20 micron, % passing	SIEVE_20U	%	--												
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--												
Sieve, 300 micron, % passing	SIEVE_300U	%	--												
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--												
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--												
Sieve, 5 micron, % passing	SIEVE_5U	%	--												
Sieve, 50 micron, % passing	SIEVE_50U	%	--												
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--						77.4	75.1					
Sieve, 600 micron, % passing	SIEVE_600U	%	--												
Sieve, 64 micron, % passing	SIEVE_64U	%	--												
Sieve, 75 micron, % passing	SIEVE_75U	%	--												
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--						70.9	70.5					
Metals															
Antimony	7440-36-0	mg/kg	3	3					< 0.91	< 1.1					
Arsenic	7440-38-2	mg/kg	6	33					1	1.8					
Beryllium	7440-41-7	mg/kg	NA						0.83	0.6					
Cadmium	7440-43-9	mg/kg	0.6	10					0.11	0.18					
Cadmium	7440-43-9	umol/g	0.6	1000000											
Chromium	7440-47-3	mg/kg	26	110					18.8	15.1					
Copper	7440-50-8	mg/kg	16	110					12.2	7.2					
Copper	7440-50-8	umol/g	16	1000000											
Lead	7439-92-1	mg/kg	31	250					4.7	12.7					

				Location	SD-C14-2-01	SD-D14-4-01	SD-D14-5-01	SD-D14-6-01	SD-D14-7-01	SD-D14-8-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01
				Sample Date	4/12/2001	4/10/2001	4/11/2001	4/12/2001	4/11/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-C14-2-011N	SD-D14-4-011N	SD-D14-5-011N	SD-D14-6-011N	SD-D14-7-011N	SD-D14-8-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Lead	7439-92-1	umol/g	31	1000000											
Mercury	7439-97-6	mg/kg	0.2	2					< 0.0035	0.097					
Mercury	7439-97-6	umol/g	0.2	1000000											
Nickel	7440-02-0	mg/kg	16	75					8.5	5.4					
Nickel	7440-02-0	umol/g	16	1000000											
Selenium	7782-49-2	mg/kg	2						< 0.67	< 0.79					
Silver	7440-22-4	mg/kg	1						0.31	< 0.23					
Thallium	7440-28-0	mg/kg	--						< 1.2	< 1.4					
Zinc	7440-66-6	mg/kg	120	820					52.9	41.2					
Zinc	7440-66-6	umol/g	120	1000000											
Moisture															
Percent Moisture	MOIST	%	--						29.4	40.2					
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062						< 47	< 55					
1,2-Dichlorobenzene	95-50-1	ug/kg	294						< 47	< 55					
1,2-Diphenylhydrazine	122-66-7	ug/kg	--						< 47	< 55					
1,3-Dichlorobenzene	541-73-1	ug/kg	1315						< 47	< 55					
1,4-Dichlorobenzene	106-46-7	ug/kg	318						< 47	< 55					
2,4,6-Trichlorophenol	88-06-2	ug/kg	--						< 95	< 110					
2,4-Dichlorophenol	120-83-2	ug/kg	--						< 95	< 110					
2,4-Dimethylphenol	105-67-9	ug/kg	304						< 95	< 110					
2,4-Dinitrophenol	51-28-5	ug/kg	6.21						< 950	< 1100					
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4						< 95	< 110					
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8						< 47	< 55					
2-Chloronaphthalene	91-58-7	ug/kg	--						< 47	< 55					
2-Chlorophenol	95-57-8	ug/kg	31.9						< 47	< 55					
2-Nitrophenol	88-75-5	ug/kg	--						< 95	< 110					
3,3-Dichlorobenzidine	91-94-1	ug/kg	127						< 95	< 110					
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104						< 240	< 280					
4-Bromophenyl-phenylether	101-55-3	ug/kg	--						< 95	< 110					
4-Chloro-3-methylphenol	59-50-7	ug/kg	--						< 95	< 110					
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--						< 47	< 55					
4-Nitrophenol	100-02-7	ug/kg	13.3						< 240	< 280					
Acenaphthene	83-32-9	ug/kg	16						< 47	< 55					
Acenaphthylene	208-96-8	ug/kg	44						< 47	< 55					
Anthracene	120-12-7	ug/kg	220	370000					< 47	< 55					
Benzidine	92-87-5	ug/kg	--						< 950	< 1100					
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000					< 47	78					
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000					< 47	91					
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200					< 47	120					
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000					< 47	< 55					
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000					< 47	< 55					
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--						< 95	< 110					
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--						< 47	< 55					
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--						< 47	< 55					
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750					< 95	< 110					
Butylbenzylphthalate	85-68-7	ug/kg	1970						< 95	< 110					
Chrysene	218-01-9	ug/kg	340	460000					< 47	94					
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000					< 47	< 55					
Diethylphthalate	84-66-2	ug/kg	295						< 95	< 110					
Dimethylphthalate	131-11-3	ug/kg	1000						< 95	< 110					
Di-n-butylphthalate	84-74-2	ug/kg	1114	110					< 95	< 110					
Di-n-octylphthalate	117-84-0	ug/kg	40600						< 95	< 110					
Fluoranthene	206-44-0	ug/kg	750	1020000					< 47	160					
Fluorene	86-73-7	ug/kg	190	160000					< 47	< 55					
Hexachlorobenzene	118-74-1	ug/kg	20	24000					< 47	< 55					
Hexachlorobutadiene	87-68-3	ug/kg	26.5						< 95	< 110					
Hexachlorocyclopentadiene	77-47-4	ug/kg	--						< 240	< 280					
Hexachloroethane	67-72-1	ug/kg	584						< 47	< 55					
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000					< 47	57					
Isophorone	78-59-1	ug/kg	432						< 47	< 55					
Naphthalene	91-20-3	ug/kg	160	2100000					< 47	< 55					
N-Nitrosodimethylamine	62-75-9	ug/kg	--						< 95	< 110					
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--						< 47	< 55					
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680						< 47	< 55					
Pentachlorophenol	87-86-5	ug/kg	23000						< 240	< 280					
Phenanthrene	85-01-8	ug/kg	560	950000					< 47	90					
Phenol	108-95-2	ug/kg	49.1	48					< 95	< 110					
Pyrene	129-00-0	ug/kg	490	850000					< 47	170					

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-C14-2-01	SD-D14-4-01	SD-D14-5-01	SD-D14-6-01	SD-D14-7-01	SD-D14-8-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01
				Sample Date	4/12/2001	4/10/2001	4/11/2001	4/12/2001	4/11/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-C14-2-011N	SD-D14-4-011N	SD-D14-5-011N	SD-D14-6-011N	SD-D14-7-011N	SD-D14-8-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--												
Total Organic Carbon	TOC	mg/kg	--						8100	15600					
TPH															
Amyl alcohol	71-41-0	ug/kg	--		< 13000	< 25000	< 17000	< 14000	< 14000	< 17000	< 57000	< 43000	< 14000	< 22000	< 21000
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 13000	< 25000	< 17000	< 14000	< 14000	< 17000	< 57000	< 43000	< 14000	< 22000	< 21000
Ethanol	64-17-5	ug/kg	--		< 13000	< 25000	< 17000	< 14000	< 14000	< 17000	< 57000	< 43000	< 14000	< 22000	< 21000
Ethyl ether	60-29-7	ug/kg	--		< 13000	< 25000	< 17000	< 14000	< 14000	< 17000	< 57000	< 43000	< 14000	< 22000	< 21000
Methanol	67-56-1	ug/kg	--		< 13000	< 25000	< 17000	< 14000	< 14000	< 17000	< 57000	52000	< 14000	< 22000	< 21000
N-butyl ether	142-96-1	ug/kg	--		< 13000	< 25000	< 17000	< 14000	< 14000	< 17000	< 57000	< 43000	< 14000	< 22000	< 21000
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
1,1-Dichloroethane	75-34-3	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
1,2-Dichloroethane	107-06-2	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
1,2-Dichloropropane	78-87-5	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 340	< 650	< 380	< 310	< 370	< 380	< 1500	< 1100	< 290	< 610	< 510
Acrolein	107-02-8	ug/kg	0.00152		< 3400	< 6500	< 3800	< 3100	< 3700	< 3800	< 15000	< 11000	< 2900	< 6100	< 5100
Acrylonitrile	107-13-1	ug/kg	1.2		< 670	< 1300	< 760	< 620	< 740	< 770	< 3100	< 2200	< 580	< 1200	< 1000
Benzene	71-43-2	ug/kg	340		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Bromodichloromethane	75-27-4	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Bromoform	75-25-2	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Bromomethane	74-83-9	ug/kg	1.37		< 340	< 650	< 380	< 310	< 370	< 380	< 1500	< 1100	< 290	< 610	< 510
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Chlorobenzene	108-90-7	ug/kg	291		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Chloroethane	75-00-3	ug/kg	--		< 340	< 650	< 380	< 310	< 370	< 380	< 1500	< 1100	< 290	< 610	< 510
Chloroform	67-66-3	ug/kg	121		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Chloromethane	74-87-3	ug/kg	--		< 340	< 650	< 380	< 310	< 370	< 380	< 1500	< 1100	< 290	< 610	< 510
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Dibromochloromethane	124-48-1	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Ethylbenzene	100-41-4	ug/kg	1400		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Methylene Chloride	75-09-2	ug/kg	159		< 340	< 650	< 380	< 310	< 370	< 380	< 1500	< 1100	< 290	< 610	< 510
Tetrachloroethene	127-18-4	ug/kg	450		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Toluene	108-88-3	ug/kg	2500		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Trichloroethene	79-01-6	ug/kg	1600		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Trichlorofluoromethane	75-69-4	ug/kg	--		< 340	< 650	< 380	< 310	< 370	< 380	< 1500	< 1100	< 290	< 610	< 510
Vinyl Chloride	75-01-4	ug/kg	202		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250
Xylenes (total)	1330-20-7	ug/kg	--		< 170	< 320	< 190	< 160	< 190	< 190	< 770	< 540	< 150	< 300	< 250

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-E16-2-01	SD-ERA-E14-MOSU-01	SD-ERA-E14-MOSU-02	SD-ERA-E14-MOSU-04	SD-ERA-E15-MOSU-03	SD-ERA-F14-MOSU-05	SD-R-D14-07	SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09
					Sample Date	4/10/2001	6/13/2016	6/13/2016	6/13/2016	6/13/2016	6/13/2016	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006
					Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-E16-2-011N	SD-ERA-E14-MOSU-01	SD-ERA-E14-MOSU-02	SD-ERA-E14-MOSU-04	SD-ERA-E15-MOSU-03	SD-ERA-F14-MOSU-05	SD-R-D14-071.0N	SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0FD
					Parent ID											SD-R-D14-091.0N
					Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Explosives																
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160									< 390		< 580	< 780
1,3-Dinitrobenzene	99-65-0	ug/kg	500												
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100									< 390		< 580	< 780
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300									< 390		< 580	< 780
2-Nitrotoluene	88-72-2	ug/kg	620000												
3-Nitrotoluene	99-08-1	ug/kg	190000												
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500									< 390		< 580	< 780
4-Nitrotoluene	99-99-0	ug/kg	68000												
Nitrobenzene	98-95-3	ug/kg	145									< 390		< 580	< 780
Nitrocellulose	9004-70-0	ug/kg	--									< 160000		< 230000	< 320000
Nitroglycerin	55-63-0	ug/kg	127000									< 7800		< 12000	< 16000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380									< 980		< 1400	< 2000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000									< 7800		< 12000	< 16000
RDX (Cyclonite)	121-82-4	ug/kg	1200									< 390		< 580	< 780
Tetryl	479-45-8	ug/kg	600												
Field																
Dissolved Oxygen	7782-44-7	mg/l	--			558.00	1.93	7.67	5.53	5.86						
pH	PH	su	--			7.58 7.15	7.31 7.39	7.62 7.32	7.26 7.05	7.62 7.54						
Specific Conductance	SC	us/cm	--			0.661	0.8	1	1	1						
Temperature	TEMP	deg c	--			20.48	15.07	14.58	14.74	18.03						
Turbidity	TURBIDITY	ntu	--			50.0	450.0	713.0	260.0	6.6						
GenChem			--													
Acid Volatile Sulfide	1313-84-4	umol/g	--			< 0.63 U	1.0 B	< 0.63 U	< 0.63 U	0.85 B						
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--								98.1		95.3		99.1	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--								100		100		99.8	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--								100		100		100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--			< 0.50 U	2.0	< 0.50 U	1.5	< 0.50 U						
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--			0.50	1.0	< 0.50 U	1.5	< 0.50 U						
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--			3.5	2.0	< 0.50 U	1.5	< 0.50 U						
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--			8.0	13.5	1.0	3.0	0.50						
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--			16.5	25.0	4.0	9.0	1.5						
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--			22.5	30.0	5.0	12.5	2.0						
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--			25.1	32.5	6.8	14.4	2.0						
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--			32.3	43.9	15.4	22.6	2.8						
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--			42.7	60.0	41.2	43.8	7.1						
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--			57.9	82.9	69.8	68.2	26.3						
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--			70.1	98.0	84.5	82.5	46.6						
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--			85.3	100	100	100	96.1						
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--			71.2	100	90.0	89.1	63.6						
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--			71.5	100	93.9	94.6	69.4						
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--			100	100	100	100	100						
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--			72.1	100	96.4	97.9	74.7						
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--			100	100	100	100	100						
Sieve, 1 micron, % passing	SIEVE_1U	%	--								2.5		1		1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--								68.9		61.9		61.9	
Sieve, 150 micron, % passing	SIEVE_150U	%	--								29.5		22.2		23.6	
Sieve, 2 micron, % passing	SIEVE_2U	%	--								6		2		2	
Sieve, 20 micron, % passing	SIEVE_20U	%	--								13		7.5		8	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--								73.9		70.4		69.1	
Sieve, 300 micron, % passing	SIEVE_300U	%	--								40.4		32.5		34.1	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--								79.7		76.3		75.2	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--								85.7		82		80.1	
Sieve, 5 micron, % passing	SIEVE_5U	%	--								8.5		3.5		3.5	
Sieve, 50 micron, % passing	SIEVE_50U	%	--								20		12		16	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--								56.2		47.8		49.4	
Sieve, 64 micron, % passing	SIEVE_64U	%	--								23		15.5		17	
Sieve, 75 micron, % passing	SIEVE_75U	%	--								24.4		17.5		18	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33								1.75		3.15	< 5.07	
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10								0.155		0.326	0.92	
Cadmium	7440-43-9	umol/g	0.6	1000000		0.00212 B	0.00151 B	0.000677 B	0.000707 B	0.00113						
Chromium	7440-47-3	mg/kg	26	110								11.5		7.55	15.8	
Copper	7440-50-8	mg/kg	16	110								13.6		14.1	20.9	
Copper	7440-50-8	umol/g	16	1000000		1.50	0.0757	0.209	0.0570	0.156						
Lead	7439-92-1	mg/kg	31	250		299	1580	18.9	101	20.5		44.7		35.5	67.5	

				Location	SD-E16-2-01	SD-ERA-E14-MOSU-01	SD-ERA-E14-MOSU-02	SD-ERA-E14-MOSU-04	SD-ERA-E15-MOSU-03	SD-ERA-F14-MOSU-05	SD-R-D14-07	SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09
				Sample Date	4/10/2001	6/13/2016	6/13/2016	6/13/2016	6/13/2016	6/13/2016	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006
				Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-E16-2-011N	SD-ERA-E14-MOSU-01	SD-ERA-E14-MOSU-02	SD-ERA-E14-MOSU-04	SD-ERA-E15-MOSU-03	SD-ERA-F14-MOSU-05	SD-R-D14-071.0N	SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0FD
				Parent ID											SD-R-D14-091.0N
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Lead	7439-92-1	umol/g	31	1000000		1.22	1.06	0.0734	0.211	0.0659					
Mercury	7439-97-6	mg/kg	0.2	2								0.0229		0.106	0.2
Mercury	7439-97-6	umol/g	0.2	1000000		< 0.0000073 U	< 0.0000074 U	0.000151	< 0.0000073 U	0.000035 B					
Nickel	7440-02-0	mg/kg	16	75								6.35		5.82	9.49
Nickel	7440-02-0	umol/g	16	1000000		0.110	0.0691	0.576	0.177	0.543					
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1									< 0.646		< 0.937	< 1.27
Thallium	7440-28-0	mg/kg	--												
Zinc	7440-66-6	mg/kg	120	820								38.1		31.5	179
Zinc	7440-66-6	umol/g	120	1000000		0.951	0.417	0.300	0.183	0.350					
Moisture															
Percent Moisture	MOIST	%	--			75.5	69.9	19.1	22.8	28.9		23.4		48.2	61.7
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4												
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Nitrophenol	88-75-5	ug/kg	--												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16												
Acenaphthylene	208-96-8	ug/kg	44												
Anthracene	120-12-7	ug/kg	220	370000											
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000											
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000											
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000											
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000											
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Chrysene	218-01-9	ug/kg	340	460000											
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000											
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000											
Fluorene	86-73-7	ug/kg	190	160000											
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												
Naphthalene	91-20-3	ug/kg	160	2100000											
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000											
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000											

				Location	SD-E16-2-01	SD-ERA-E14-MOSU-01	SD-ERA-E14-MOSU-02	SD-ERA-E14-MOSU-04	SD-ERA-E15-MOSU-03	SD-ERA-F14-MOSU-05	SD-R-D14-07	SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09
				Sample Date	4/10/2001	6/13/2016	6/13/2016	6/13/2016	6/13/2016	6/13/2016	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006
				Sample Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-E16-2-011N	SD-ERA-E14-MOSU-01	SD-ERA-E14-MOSU-02	SD-ERA-E14-MOSU-04	SD-ERA-E15-MOSU-03	SD-ERA-F14-MOSU-05	SD-R-D14-071.0N	SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0FD
				Parent ID											SD-R-D14-091.0N
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--			89900	51400	767	28500	3100					
Total Organic Carbon	TOC	mg/kg	--									5200		30000	22000
TPH															
Amyl alcohol	71-41-0	ug/kg	--		< 15000										
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 15000										
Ethanol	64-17-5	ug/kg	--		< 15000										
Ethyl ether	60-29-7	ug/kg	--		< 15000										
Methanol	67-56-1	ug/kg	--		< 15000										
N-butyl ether	142-96-1	ug/kg	--		< 15000										
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 190										
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 190										
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 190										
1,1-Dichloroethane	75-34-3	ug/kg	--		< 190										
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 190										
1,2-Dichloroethane	107-06-2	ug/kg	--		< 190										
1,2-Dichloropropane	78-87-5	ug/kg	--		< 190										
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 370										
Acrolein	107-02-8	ug/kg	0.00152		< 3700										
Acrylonitrile	107-13-1	ug/kg	1.2		< 740										
Benzene	71-43-2	ug/kg	340		< 190										
Bromodichloromethane	75-27-4	ug/kg	--		< 190										
Bromoform	75-25-2	ug/kg	--		< 190										
Bromomethane	74-83-9	ug/kg	1.37		< 370										
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 190										
Chlorobenzene	108-90-7	ug/kg	291		< 190										
Chloroethane	75-00-3	ug/kg	--		< 370										
Chloroform	67-66-3	ug/kg	121		< 190										
Chloromethane	74-87-3	ug/kg	--		< 370										
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 190										
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 190										
Dibromochloromethane	124-48-1	ug/kg	--		< 190										
Ethylbenzene	100-41-4	ug/kg	1400		< 190										
Methylene Chloride	75-09-2	ug/kg	159		< 370										
Tetrachloroethene	127-18-4	ug/kg	450		< 190										
Toluene	108-88-3	ug/kg	2500		< 190										
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 190										
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 190										
Trichloroethene	79-01-6	ug/kg	1600		< 190										
Trichlorofluoromethane	75-69-4	ug/kg	--		< 370										
Vinyl Chloride	75-01-4	ug/kg	202		< 190										
Xylenes (total)	1330-20-7	ug/kg	--		< 190										

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-R-D14-09	SD-R-D14-09	SD-R-D15-02	SD-R-E14-05	SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02
					Sample Date	6/29/2006	6/29/2006	7/7/2006	6/6/2006	6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D15-021.0N	SD-R-E14-051.0N	SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N
					Parent ID											
					Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Explosives																
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 530	< 630	< 400	< 360	< 1400	< 820	< 660	< 790	< 920	< 750
1,3-Dinitrobenzene	99-65-0	ug/kg	500													
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 530	< 630	< 400	< 360	< 1400	< 820	1100	< 790	< 920	< 750
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 530	< 630	< 400	< 360	< 1400	< 820	< 660	< 790	< 920	< 750
2-Nitrotoluene	88-72-2	ug/kg	620000													
3-Nitrotoluene	99-08-1	ug/kg	190000													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 530	< 630	< 400	< 360	< 1400	< 820	< 660	< 790	< 920	< 750
4-Nitrotoluene	99-99-0	ug/kg	68000													
Nitrobenzene	98-95-3	ug/kg	145			< 530	< 630	< 400	< 360	< 1400	< 820	1800	< 790	< 920	< 750
Nitrocellulose	9004-70-0	ug/kg	--			< 210000	< 250000	< 160000	< 140000	< 590000	< 330000	< 260000	500000	220000	< 300000
Nitroglycerin	55-63-0	ug/kg	127000			< 11000	< 13000	6700	< 7200	< 29000	< 16000	< 13000	< 16000	< 18000	< 15000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 1300	< 1600	< 990	< 910	< 3600	< 2000	< 1600	< 2000	< 2300	< 1900
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 11000	< 13000	< 7900	< 7200	< 29000	< 16000	< 13000	< 16000	< 18000	< 15000
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 530	< 630	< 400	< 360	< 1400	< 820	< 660	< 790	< 920	< 750
Tetryl	479-45-8	ug/kg	600													
Field																
Dissolved Oxygen	7782-44-7	mg/l	--													
pH	PH	su	--													
Specific Conductance	SC	us/cm	--													
Temperature	TEMP	deg c	--													
Turbidity	TURBIDITY	ntu	--													
GenChem			--													
Acid Volatile Sulfide	1313-84-4	umol/g	--													
Grain Size																
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		93.6		100	100	87.7	100	95	100	100	100	100
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		99.8		100	100	100	100	100	100	100	100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100		100	100	100	100	100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--													
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--													
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--													
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--													
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--													
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--													
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--													
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--													
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--													
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--													
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--													
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--													
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--													
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--													
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--													
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--													
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--													
Sieve, 1 micron, % passing	SIEVE_1U	%	--		2		2	< 1	< 1	3	< 1	2	2.5	< 1	2
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		59.3		76.2	84.8	48.7	70.9	55.7	92.7	86.1	71.9	88.1
Sieve, 150 micron, % passing	SIEVE_150U	%	--		20.2		23	13.5	8.3	28.8	15.5	28.5	41.9	47	33.5
Sieve, 2 micron, % passing	SIEVE_2U	%	--		2		2	< 1	< 1	3	< 1	2	2.5	1	2
Sieve, 20 micron, % passing	SIEVE_20U	%	--		11.5		7	< 1	1.5	10	3	5	7.5	17	7.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		69.5		82.3	90.1	52.7	76.3	66.9	95.4	92	76.4	94.1
Sieve, 300 micron, % passing	SIEVE_300U	%	--		29		39.2	37.5	22.8	40.7	24.1	56.2	61	59.2	61.4
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		74.7		88.2	95	58.5	85.4	73.1	97.3	95.1	86.6	96.5
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		80.1		93.3	97.2	64.7	89.7	77.9	98.5	97.5	92.5	98.3
Sieve, 5 micron, % passing	SIEVE_5U	%	--		2		3	< 1	< 1	3	< 1	2	3	3.5	2
Sieve, 50 micron, % passing	SIEVE_50U	%	--		14.5		12	3	2	20	7.5	9	15	39	13
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													
Sieve, 600 micron, % passing	SIEVE_600U	%	--		44.2		60.8	66.4	38.2	57.9	39.2	80.9	77.7	67.5	78.5
Sieve, 64 micron, % passing	SIEVE_64U	%	--		15.5		15.5	6.5	2.5	23	10.5	13	23	37.5	15.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		16.2		17.7	8.1	2.9	24.2	12	15.3	28.4	37.5	17.7
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													
Metals																
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33		2.23	3.18	< 2.6	1.51	11.7	31.8	5.27	5.17	8.36	5.48
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10		0.527	0.664	< 0.649	< 0.598	< 2.3	< 1.36	0.346	0.69	0.497	0.819
Cadmium	7440-43-9	umol/g	0.6	1000000												
Chromium	7440-47-3	mg/kg	26	110		12.6	33.5	8.52	9.54	37.1	17.7	11	26.9	62.3	34.3
Copper	7440-50-8	mg/kg	16	110		15	6.82	3.13	3.83	38.6	39	17.2	43.3	47.4	31
Copper	7440-50-8	umol/g	16	1000000												
Lead	7439-92-1	mg/kg	31	250		39.6	11.9	31.3	32	394	588	213	441	540	327

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D14-09	SD-R-D14-09	SD-R-D15-02	SD-R-E14-05	SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02
				Sample Date	6/29/2006	6/29/2006	7/7/2006	6/6/2006	6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D15-021.0N	SD-R-E14-051.0N	SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Lead	7439-92-1	umol/g	31	1000000											
Mercury	7439-97-6	mg/kg	0.2	2		0.129	0.0282	0.265	0.0832	1.36	1.74	1.37	0.818	4.14	1.07
Mercury	7439-97-6	umol/g	0.2	1000000											
Nickel	7440-02-0	mg/kg	16	75		6.11	6.11	1.8	2.82	12.1	13.3	6.69	10	18.3	8.85
Nickel	7440-02-0	umol/g	16	1000000											
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1			< 0.878	< 1.05	< 0.649	< 0.598	< 2.3	< 1.36	< 1.06	< 1.3	< 1.47	< 1.22
Thallium	7440-28-0	mg/kg	--												
Zinc	7440-66-6	mg/kg	120	820		97.6	72.6	35.4	30.9	177	155	86.8	126	311	154
Zinc	7440-66-6	umol/g	120	1000000											
Moisture															
Percent Moisture	MOIST	%	--			43.6	52.4	24.5	17.2	79.3	63.3	54.2	62.2	67.3	59.9
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4								< 450				
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8								< 450				
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Nitrophenol	88-75-5	ug/kg	--												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16								< 450				
Acenaphthylene	208-96-8	ug/kg	44								< 450				
Anthracene	120-12-7	ug/kg	220	370000							< 450				
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000							< 450				
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000							< 450				
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000							< 450				
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000							< 450				
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Chrysene	218-01-9	ug/kg	340	460000							130				
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000							< 450				
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000							130				
Fluorene	86-73-7	ug/kg	190	160000							< 450				
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												
Naphthalene	91-20-3	ug/kg	160	2100000							< 450				
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000							< 450				
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000							150				

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-D14-09	SD-R-D14-09	SD-R-D15-02	SD-R-E14-05	SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02
				Sample Date	6/29/2006	6/29/2006	7/7/2006	6/6/2006	6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D15-021.0N	SD-R-E14-051.0N	SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N
				Parent ID											
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--												
Total Organic Carbon	TOC	mg/kg	--			14000	27000	3900	1100	180000	76000	15000	68000	110000	71000
TPH															
Amyl alcohol	71-41-0	ug/kg	--												
Di-N-Propyl Ether	111-43-3	ug/kg	--												
Ethanol	64-17-5	ug/kg	--												
Ethyl ether	60-29-7	ug/kg	--												
Methanol	67-56-1	ug/kg	--												
N-butyl ether	142-96-1	ug/kg	--												
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850												
1,1,2-Trichloroethane	79-00-5	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--												
1,1-Dichloroethene	75-35-4	ug/kg	19.4												
1,2-Dichloroethane	107-06-2	ug/kg	--												
1,2-Dichloropropane	78-87-5	ug/kg	--												
2-Chloroethylvinylether	110-75-8	ug/kg	--												
Acrolein	107-02-8	ug/kg	0.00152												
Acrylonitrile	107-13-1	ug/kg	1.2												
Benzene	71-43-2	ug/kg	340												
Bromodichloromethane	75-27-4	ug/kg	--												
Bromoform	75-25-2	ug/kg	--												
Bromomethane	74-83-9	ug/kg	1.37												
Carbon Tetrachloride	56-23-5	ug/kg	1450												
Chlorobenzene	108-90-7	ug/kg	291												
Chloroethane	75-00-3	ug/kg	--												
Chloroform	67-66-3	ug/kg	121												
Chloromethane	74-87-3	ug/kg	--												
cis-1,2-Dichloroethene	156-59-2	ug/kg	--												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400												
Methylene Chloride	75-09-2	ug/kg	159												
Tetrachloroethene	127-18-4	ug/kg	450												
Toluene	108-88-3	ug/kg	2500												
trans-1,2-Dichloroethene	156-60-5	ug/kg	--												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--												
Trichloroethene	79-01-6	ug/kg	1600												
Trichlorofluoromethane	75-69-4	ug/kg	--												
Vinyl Chloride	75-01-4	ug/kg	202												
Xylenes (total)	1330-20-7	ug/kg	--												

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

				Location	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06	SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-03	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01
				Sample Date	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	6/6/2006	5/11/2006	5/11/2006	5/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N	SD-R-E15-071.0FD	SD-R-E15-071.0N	SD-R-E15-081.0N	SD-R-E16-031.0N	SD-R-F14-011.0FD	SD-R-F14-011.0N	SD-R-F14-011FD
				Parent ID					SD-R-E15-071.0N				SD-R-F14-011.0N		SD-R-F14-011N
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Explosives															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 390	< 410	< 830	< 1200	< 400	< 390	< 640	< 440			< 370
1,3-Dinitrobenzene	99-65-0	ug/kg	500												
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 390	< 410	< 830	< 1200	< 400	< 390	< 640	< 440			< 370
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 390	< 410	< 830	490	< 400	< 390	< 640	< 440			< 370
2-Nitrotoluene	88-72-2	ug/kg	620000												
3-Nitrotoluene	99-08-1	ug/kg	190000												
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 390	< 410	< 830	570	< 400	< 390	< 640	< 440			< 370
4-Nitrotoluene	99-99-0	ug/kg	68000												
Nitrobenzene	98-95-3	ug/kg	145		< 390	< 410	1500	< 1200	< 400	< 390	< 640	< 440			< 370
Nitrocellulose	9004-70-0	ug/kg	--		< 150000	< 160000	140000	< 490000	< 160000	< 160000	500000	< 180000			< 150000
Nitroglycerin	55-63-0	ug/kg	127000		< 7800	< 8200	< 17000	< 24000	< 7900	< 7900	< 13000	< 8800			< 7400
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 970	< 1000	< 2100	< 3000	< 990	< 990	< 1600	< 1100			< 930
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 7800	< 8200	< 17000	< 24000	< 7900	< 7900	< 13000	< 8800			< 7400
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 390	< 410	< 830	< 1200	< 400	< 390	< 640	< 440			< 370
Tetryl	479-45-8	ug/kg	600												
Field															
Dissolved Oxygen	7782-44-7	mg/l	--												
pH	PH	su	--												
Specific Conductance	SC	us/cm	--												
Temperature	TEMP	deg c	--												
Turbidity	TURBIDITY	ntu	--												
GenChem			--												
Acid Volatile Sulfide	1313-84-4	umol/g	--												
Grain Size															
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--												
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--												
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100	100	100	100	96.1	96.8	100	100	100	99.3	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--												
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--												
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	100	100	100	100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--												
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--												
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100	100	100	100	100	
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--												
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--												
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--												
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--												
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--												
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--												
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--												
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--												
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--												
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--												
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--												
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--												
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--												
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--												
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--												
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--												
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--												
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--												
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--												
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--												
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	1.5	< 1	5.5	1.5	< 1	< 1	< 1	< 1	< 1	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		82.6	74.6	84.7	79	55	56.8	86.4	58.3	58.7	62	
Sieve, 150 micron, % passing	SIEVE_150U	%	--		13.3	24.4	23.2	57	7.8	6.2	23.5	10	8.4	12.3	
Sieve, 2 micron, % passing	SIEVE_2U	%	--		< 1	1.5	< 1	8	1.5	< 1	< 1	< 1	< 1	< 1	
Sieve, 20 micron, % passing	SIEVE_20U	%	--		2	3	3	28	1.5	1	4	< 1	< 1	< 1	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		92	78.6	90.9	82.7	62.4	65.5	91	63.2	68.2	68.3	
Sieve, 300 micron, % passing	SIEVE_300U	%	--		38.3	44.9	42.4	63.6	19.8	18.1	41	24.9	23	28.7	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		96.1	84	93.9	92	68.7	71.6	93.1	70.5	77.4	77	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		98	89.5	96.2	97.4	75.5	77.8	94.8	78.6	86.8	85.9	
Sieve, 5 micron, % passing	SIEVE_5U	%	--		< 1	1.5	1	12	1.5	< 1	1	< 1	< 1	< 1	
Sieve, 50 micron, % passing	SIEVE_50U	%	--		4	5.5	9	43	3.5	3	9	2	3	3.5	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--												
Sieve, 600 micron, % passing	SIEVE_600U	%	--		64.8	62.9	67.8	71.5	40.3	39.1	69.7	44.8	42.8	47.9	
Sieve, 64 micron, % passing	SIEVE_64U	%	--		4.5	8.5	13	50	4.5	3	12.5	4.5	5	6	
Sieve, 75 micron, % passing	SIEVE_75U	%	--		5.1	11	14.9	52.5	4.9	3.4	14.6	5.6	5.6	7	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--												
Metals															
Antimony	7440-36-0	mg/kg	3	3											
Arsenic	7440-38-2	mg/kg	6	33	2.87	< 2.63	11	< 8.05	1.5	1.73	5.7	2.26			2.36
Beryllium	7440-41-7	mg/kg	NA												
Cadmium	7440-43-9	mg/kg	0.6	10	0.278	0.151	2.38	1.04	0.391	0.319	0.46	< 0.71			< 0.62
Cadmium	7440-43-9	umol/g	0.6	1000000											
Chromium	7440-47-3	mg/kg	26	110	24.9	9.81	14.2	108	18.8	19.3	13.9	9.06			7.36
Copper	7440-50-8	mg/kg	16	110	9.65	6.35	29.6	25.9	5.64	4.97	38	7.02			9.51
Copper	7440-50-8	umol/g	16	1000000											
Lead	7439-92-1	mg/kg	31	250	131	29	254	32.1	9.14	6.08	271	61.6			22.4

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06	SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-03	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01
				Sample Date	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	6/6/2006	5/11/2006	5/11/2006	5/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N	SD-R-E15-071.0FD	SD-R-E15-071.0N	SD-R-E15-081.0N	SD-R-E16-031.0N	SD-R-F14-011.0FD	SD-R-F14-011.0N	SD-R-F14-011FD
				Parent ID					SD-R-E15-071.0N				SD-R-F14-011.0N		SD-R-F14-011N
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Lead	7439-92-1	umol/g	31	1000000											
Mercury	7439-97-6	mg/kg	0.2	2	0.614	0.23	0.477	0.313	0.048	0.049	1.28	0.0779			0.0432
Mercury	7439-97-6	umol/g	0.2	1000000											
Nickel	7440-02-0	mg/kg	16	75	3.57	2.66	21.7	15.8	4.91	4.33	7.83	4.02			5.1
Nickel	7440-02-0	umol/g	16	1000000											
Selenium	7782-49-2	mg/kg	2												
Silver	7440-22-4	mg/kg	1		< 0.636	< 0.659	< 1.36	< 2.01	< 0.643	< 0.645	< 1.05	< 0.71			< 0.62
Thallium	7440-28-0	mg/kg	--												
Zinc	7440-66-6	mg/kg	120	820	56.9	27	241	117	45.3	37.1	71.8	58.7			59
Zinc	7440-66-6	umol/g	120	1000000											
Moisture															
Percent Moisture	MOIST	%	--		22.9	27	63.7	75.4	24.5	24	52.9	31.6			19.3
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062												
1,2-Dichlorobenzene	95-50-1	ug/kg	294												
1,2-Diphenylhydrazine	122-66-7	ug/kg	--												
1,3-Dichlorobenzene	541-73-1	ug/kg	1315												
1,4-Dichlorobenzene	106-46-7	ug/kg	318												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												
2,4-Dichlorophenol	120-83-2	ug/kg	--												
2,4-Dimethylphenol	105-67-9	ug/kg	304												
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4												< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												< 210
2-Chloronaphthalene	91-58-7	ug/kg	--												
2-Chlorophenol	95-57-8	ug/kg	31.9												
2-Nitrophenol	88-75-5	ug/kg	--												
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												
4-Nitrophenol	100-02-7	ug/kg	13.3												
Acenaphthene	83-32-9	ug/kg	16												< 210
Acenaphthylene	208-96-8	ug/kg	44												< 210
Anthracene	120-12-7	ug/kg	220	370000											< 210
Benzidine	92-87-5	ug/kg	--												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000											< 210
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000											< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000											< 210
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000											< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											
Butylbenzylphthalate	85-68-7	ug/kg	1970												
Chrysene	218-01-9	ug/kg	340	460000											43
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000											< 210
Diethylphthalate	84-66-2	ug/kg	295												
Dimethylphthalate	131-11-3	ug/kg	1000												
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											
Di-n-octylphthalate	117-84-0	ug/kg	40600												
Fluoranthene	206-44-0	ug/kg	750	1020000											57
Fluorene	86-73-7	ug/kg	190	160000											< 210
Hexachlorobenzene	118-74-1	ug/kg	20	24000											
Hexachlorobutadiene	87-68-3	ug/kg	26.5												
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												
Hexachloroethane	67-72-1	ug/kg	584												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											
Isophorone	78-59-1	ug/kg	432												
Naphthalene	91-20-3	ug/kg	160	2100000											< 210
N-Nitrosodimethylamine	62-75-9	ug/kg	--												
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												
Pentachlorophenol	87-86-5	ug/kg	23000												
Phenanthrene	85-01-8	ug/kg	560	950000											< 210
Phenol	108-95-2	ug/kg	49.1	48											
Pyrene	129-00-0	ug/kg	490	850000											57

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06	SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-03	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01
				Sample Date	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	6/6/2006	5/11/2006	5/11/2006	5/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N	SD-R-E15-071.0FD	SD-R-E15-071.0N	SD-R-E15-081.0N	SD-R-E16-031.0N	SD-R-F14-011.0FD	SD-R-F14-011.0N	SD-R-F14-011FD
				Parent ID					SD-R-E15-071.0N				SD-R-F14-011.0N		SD-R-F14-011N
				Subdrainage Area	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL											
Total Organic Carbon															
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--												
Total Organic Carbon	TOC	mg/kg	--		31000	2200	84000	40000	2800	2700	25000	4500			870
TPH															
Amyl alcohol	71-41-0	ug/kg	--												
Di-N-Propyl Ether	111-43-3	ug/kg	--												
Ethanol	64-17-5	ug/kg	--												
Ethyl ether	60-29-7	ug/kg	--												
Methanol	67-56-1	ug/kg	--												
N-butyl ether	142-96-1	ug/kg	--												
VOCs															
1,1,1-Trichloroethane	71-55-6	ug/kg	--												
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850												
1,1,2-Trichloroethane	79-00-5	ug/kg	--												
1,1-Dichloroethane	75-34-3	ug/kg	--												
1,1-Dichloroethene	75-35-4	ug/kg	19.4												
1,2-Dichloroethane	107-06-2	ug/kg	--												
1,2-Dichloropropane	78-87-5	ug/kg	--												
2-Chloroethylvinylether	110-75-8	ug/kg	--												
Acrolein	107-02-8	ug/kg	0.00152												
Acrylonitrile	107-13-1	ug/kg	1.2												
Benzene	71-43-2	ug/kg	340												
Bromodichloromethane	75-27-4	ug/kg	--												
Bromoform	75-25-2	ug/kg	--												
Bromomethane	74-83-9	ug/kg	1.37												
Carbon Tetrachloride	56-23-5	ug/kg	1450												
Chlorobenzene	108-90-7	ug/kg	291												
Chloroethane	75-00-3	ug/kg	--												
Chloroform	67-66-3	ug/kg	121												
Chloromethane	74-87-3	ug/kg	--												
cis-1,2-Dichloroethene	156-59-2	ug/kg	--												
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--												
Dibromochloromethane	124-48-1	ug/kg	--												
Ethylbenzene	100-41-4	ug/kg	1400												
Methylene Chloride	75-09-2	ug/kg	159												
Tetrachloroethene	127-18-4	ug/kg	450												
Toluene	108-88-3	ug/kg	2500												
trans-1,2-Dichloroethene	156-60-5	ug/kg	--												
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--												
Trichloroethene	79-01-6	ug/kg	1600												
Trichlorofluoromethane	75-69-4	ug/kg	--												
Vinyl Chloride	75-01-4	ug/kg	202												
Xylenes (total)	1330-20-7	ug/kg	--												

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-F14-01
				Sample Date	5/11/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-F14-011N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Explosives					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 380
1,3-Dinitrobenzene	99-65-0	ug/kg	500		
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 380
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 380
2-Nitrotoluene	88-72-2	ug/kg	620000		
3-Nitrotoluene	99-08-1	ug/kg	190000		
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 380
4-Nitrotoluene	99-99-0	ug/kg	68000		
Nitrobenzene	98-95-3	ug/kg	145		< 380
Nitrocellulose	9004-70-0	ug/kg	--		< 150000
Nitroglycerin	55-63-0	ug/kg	127000		< 7700
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 960
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 7700
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 380
Tetryl	479-45-8	ug/kg	600		
Field					
Dissolved Oxygen	7782-44-7	mg/l	--		
pH	PH	su	--		
Specific Conductance	SC	us/cm	--		
Temperature	TEMP	deg c	--		
Turbidity	TURBIDITY	ntu	--		
GenChem			--		
Acid Volatile Sulfide	1313-84-4	umol/g	--		
Grain Size					
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--		
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--		
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--		
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--		
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--		
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--		
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--		
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--		
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--		
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--		
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--		
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--		
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--		
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--		
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--		
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--		
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--		
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--		
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--		
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--		
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--		
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--		
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--		
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--		
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--		
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--		
Sieve, 1 micron, % passing	SIEVE_1U	%	--		
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		
Sieve, 150 micron, % passing	SIEVE_150U	%	--		
Sieve, 2 micron, % passing	SIEVE_2U	%	--		
Sieve, 20 micron, % passing	SIEVE_20U	%	--		
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		
Sieve, 300 micron, % passing	SIEVE_300U	%	--		
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		
Sieve, 5 micron, % passing	SIEVE_5U	%	--		
Sieve, 50 micron, % passing	SIEVE_50U	%	--		
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--		
Sieve, 600 micron, % passing	SIEVE_600U	%	--		
Sieve, 64 micron, % passing	SIEVE_64U	%	--		
Sieve, 75 micron, % passing	SIEVE_75U	%	--		
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--		
Metals					
Antimony	7440-36-0	mg/kg	3	3	
Arsenic	7440-38-2	mg/kg	6	33	1.87
Beryllium	7440-41-7	mg/kg	NA		
Cadmium	7440-43-9	mg/kg	0.6	10	< 0.628
Cadmium	7440-43-9	umol/g	0.6	1000000	
Chromium	7440-47-3	mg/kg	26	110	10.7
Copper	7440-50-8	mg/kg	16	110	6.12
Copper	7440-50-8	umol/g	16	1000000	
Lead	7439-92-1	mg/kg	31	250	19.1

				Location	SD-R-F14-01
				Sample Date	5/11/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-F14-011N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Lead	7439-92-1	umol/g	31	1000000	
Mercury	7439-97-6	mg/kg	0.2	2	0.055
Mercury	7439-97-6	umol/g	0.2	1000000	
Nickel	7440-02-0	mg/kg	16	75	5.28
Nickel	7440-02-0	umol/g	16	1000000	
Selenium	7782-49-2	mg/kg	2		
Silver	7440-22-4	mg/kg	1		3.9
Thallium	7440-28-0	mg/kg	--		
Zinc	7440-66-6	mg/kg	120	820	53.4
Zinc	7440-66-6	umol/g	120	1000000	
Moisture					
Percent Moisture	MOIST	%	--		21.9
SVOCs					
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062		
1,2-Dichlorobenzene	95-50-1	ug/kg	294		
1,2-Diphenylhydrazine	122-66-7	ug/kg	--		
1,3-Dichlorobenzene	541-73-1	ug/kg	1315		
1,4-Dichlorobenzene	106-46-7	ug/kg	318		
2,4,6-Trichlorophenol	88-06-2	ug/kg	--		
2,4-Dichlorophenol	120-83-2	ug/kg	--		
2,4-Dimethylphenol	105-67-9	ug/kg	304		
2,4-Dinitrophenol	51-28-5	ug/kg	6.21		
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 210
2-Chloronaphthalene	91-58-7	ug/kg	--		
2-Chlorophenol	95-57-8	ug/kg	31.9		
2-Nitrophenol	88-75-5	ug/kg	--		
3,3-Dichlorobenzidine	91-94-1	ug/kg	127		
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104		
4-Bromophenyl-phenylether	101-55-3	ug/kg	--		
4-Chloro-3-methylphenol	59-50-7	ug/kg	--		
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--		
4-Nitrophenol	100-02-7	ug/kg	13.3		
Acenaphthene	83-32-9	ug/kg	16		< 210
Acenaphthylene	208-96-8	ug/kg	44		< 210
Anthracene	120-12-7	ug/kg	220	370000	< 210
Benzidine	92-87-5	ug/kg	--		
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	50
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	53
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	< 210
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--		
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--		
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--		
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750	
Butylbenzylphthalate	85-68-7	ug/kg	1970		
Chrysene	218-01-9	ug/kg	340	460000	55
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 210
Diethylphthalate	84-66-2	ug/kg	295		
Dimethylphthalate	131-11-3	ug/kg	1000		
Di-n-butylphthalate	84-74-2	ug/kg	1114	110	
Di-n-octylphthalate	117-84-0	ug/kg	40600		
Fluoranthene	206-44-0	ug/kg	750	1020000	77
Fluorene	86-73-7	ug/kg	190	160000	< 210
Hexachlorobenzene	118-74-1	ug/kg	20	24000	
Hexachlorobutadiene	87-68-3	ug/kg	26.5		
Hexachlorocyclopentadiene	77-47-4	ug/kg	--		
Hexachloroethane	67-72-1	ug/kg	584		
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	
Isophorone	78-59-1	ug/kg	432		
Naphthalene	91-20-3	ug/kg	160	2100000	< 210
N-Nitrosodimethylamine	62-75-9	ug/kg	--		
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--		
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680		
Pentachlorophenol	87-86-5	ug/kg	23000		
Phenanthrene	85-01-8	ug/kg	560	950000	< 210
Phenol	108-95-2	ug/kg	49.1	48	
Pyrene	129-00-0	ug/kg	490	850000	92

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-F14-01
				Sample Date	5/11/2006
				Sample Depths	0.5-1.0 ft
				Sample ID	SD-R-F14-011N
				Parent ID	
				Subdrainage Area	Misc Offsite Streams Upper
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL	
Total Organic Carbon					
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--		
Total Organic Carbon	TOC	mg/kg	--		1700
TPH					
Amyl alcohol	71-41-0	ug/kg	--		
Di-N-Propyl Ether	111-43-3	ug/kg	--		
Ethanol	64-17-5	ug/kg	--		
Ethyl ether	60-29-7	ug/kg	--		
Methanol	67-56-1	ug/kg	--		
N-butyl ether	142-96-1	ug/kg	--		
VOCs					
1,1,1-Trichloroethane	71-55-6	ug/kg	--		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		
1,1,2-Trichloroethane	79-00-5	ug/kg	--		
1,1-Dichloroethane	75-34-3	ug/kg	--		
1,1-Dichloroethene	75-35-4	ug/kg	19.4		
1,2-Dichloroethane	107-06-2	ug/kg	--		
1,2-Dichloropropane	78-87-5	ug/kg	--		
2-Chloroethylvinylether	110-75-8	ug/kg	--		
Acrolein	107-02-8	ug/kg	0.00152		
Acrylonitrile	107-13-1	ug/kg	1.2		
Benzene	71-43-2	ug/kg	340		
Bromodichloromethane	75-27-4	ug/kg	--		
Bromoform	75-25-2	ug/kg	--		
Bromomethane	74-83-9	ug/kg	1.37		
Carbon Tetrachloride	56-23-5	ug/kg	1450		
Chlorobenzene	108-90-7	ug/kg	291		
Chloroethane	75-00-3	ug/kg	--		
Chloroform	67-66-3	ug/kg	121		
Chloromethane	74-87-3	ug/kg	--		
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		
Dibromochloromethane	124-48-1	ug/kg	--		
Ethylbenzene	100-41-4	ug/kg	1400		
Methylene Chloride	75-09-2	ug/kg	159		
Tetrachloroethene	127-18-4	ug/kg	450		
Toluene	108-88-3	ug/kg	2500		
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		
Trichloroethene	79-01-6	ug/kg	1600		
Trichlorofluoromethane	75-69-4	ug/kg	--		
Vinyl Chloride	75-01-4	ug/kg	202		
Xylenes (total)	1330-20-7	ug/kg	--		

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-O4-10-01	SD-O4-1-01	SD-O4-2-01	SD-O4-2-01	SD-O4-3-01	SD-O4-4-01	SD-O4-5-01	SD-O4-6-01	SD-O4-7-01	SD-O4-8-01	SD-O4-9-01	SD-O5-1-01	SD-O5-2-01	SD-Q4-1-01
					Sample Date	4/6/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/9/2001	4/9/2001	4/6/2001	4/6/2001	4/9/2001	4/23/2001
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-O4-10-011N	SD-O4-1-011N	SD-O4-2-010.5FD	SD-O4-2-011N	SD-O4-3-011N	SD-O4-4-011N	SD-O4-5-011N	SD-O4-6-011N	SD-O4-7-011N	SD-O4-8-011N	SD-O4-9-011N	SD-O5-1-011N	SD-O5-2-011N	SD-Q4-1-011N
					Parent ID			SD-O4-2-011N											
					Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL															
Explosives																			
1,2-Dinitrobenzene	528-29-0	ug/kg	--																
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160													< 170			< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	500													< 170			< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	--																
1-Nitronaphthalene	86-57-7	ug/kg	--																
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100													< 170			< 250
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8																
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300													< 170			< 250
2-Nitrotoluene	88-72-2	ug/kg	620000													< 170			< 250
3-Nitrotoluene	99-08-1	ug/kg	190000													< 170			< 250
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500													< 170			< 250
4-Nitrotoluene	99-99-0	ug/kg	68000													< 170			< 250
Nitrobenzene	98-95-3	ug/kg	145													< 170			< 250
Nitrocellulose	9004-70-0	ug/kg	--													< 100000			< 150000
Nitroglycerin	55-63-0	ug/kg	127000													< 3300			< 5100
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380													< 170			< 250
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000													< 3300			< 5100
RDX (Cyclonite)	121-82-4	ug/kg	1200													< 170			< 250
Tetryl	479-45-8	ug/kg	600													< 170			< 250
Grain Size																			
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--													3.7			7.9
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--													54.9			59.9
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--																
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--													0.9			2.5
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--													21.1			34.6
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--																
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--													97.4			92.2
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--													10			19.8
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--																
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--													100			99.5
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--													100			99.6
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--													100			100
Sieve, 1 micron, % passing	SIEVE_1U	%	--																
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--																
Sieve, 150 micron, % passing	SIEVE_150U	%	--																
Sieve, 2 micron, % passing	SIEVE_2U	%	--																
Sieve, 20 micron, % passing	SIEVE_20U	%	--																
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--																
Sieve, 300 micron, % passing	SIEVE_300U	%	--																
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--																
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--																
Sieve, 5 micron, % passing	SIEVE_5U	%	--																
Sieve, 50 micron, % passing	SIEVE_50U	%	--																
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--													96.8			91.3
Sieve, 600 micron, % passing	SIEVE_600U	%	--																
Sieve, 64 micron, % passing	SIEVE_64U	%	--																
Sieve, 75 micron, % passing	SIEVE_75U	%	--																
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--													84.8			86.1
Metals																			
Aluminum	7429-90-5	mg/kg	25500																
Antimony	7440-36-0	mg/kg	3	3												< 1.1			< 0.65
Arsenic	7440-38-2	mg/kg	6	33												1.8			1.1
Barium	7440-39-3	mg/kg	7000																
Beryllium	7440-41-7	mg/kg	NA													0.57			0.12
Cadmium	7440-43-9	mg/kg	0.6	10												< 0.09			0.15
Calcium	7440-70-2	mg/kg	--																
Chromium	7440-47-3	mg/kg	26	110												22.2			2
Cobalt	7440-48-4	mg/kg	50																
Copper	7440-50-8	mg/kg	16	110												10.3			4.8
Iron	7439-89-6	mg/kg	20000																
Lead	7439-92-1	mg/kg	31	250												23.2			20.2
Magnesium	7439-95-4	mg/kg	460																
Manganese	7439-96-5	mg/kg	630	1100															
Mercury	7439-97-6	mg/kg	0.2	2												0.065			0.046
Nickel	7440-02-0	mg/kg	16	75												8.8			1.7
Potassium	7440-09-7	mg/kg	--																
Selenium	7782-49-2	mg/kg	2													< 0.79			0.84
Silver	7440-22-4	mg/kg	1													< 0.23			< 0.14
Sodium	7440-23-5	mg/kg	--																
Thallium	7440-28-0	mg/kg	--													< 1.4			< 0.85
Vanadium	7440-62-2	mg/kg	57																
Zinc	7440-66-6	mg/kg	120	820												42.7			10.6
Moisture																			
Percent Moisture	MOIST	%	--													39.8			60.6
SVOCs																			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062													< 55			< 84
1,2-Dichlorobenzene	95-50-1	ug/kg	294													< 55			< 84
1,2-Diphenylhydrazine	122-66-7	ug/kg	--													< 55			< 84
1,3-Dichlorobenzene	541-73-1	ug/kg	1315													< 55			< 84
1,4-Dichlorobenzene	106-46-7	ug/kg	318													< 55			< 84

				Location	SD-O4-10-01	SD-O4-1-01	SD-O4-2-01	SD-O4-2-01	SD-O4-3-01	SD-O4-4-01	SD-O4-5-01	SD-O4-6-01	SD-O4-7-01	SD-O4-8-01	SD-O4-9-01	SD-O5-1-01	SD-O5-2-01	SD-Q4-1-01
				Sample Date	4/6/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/9/2001	4/9/2001	4/6/2001	4/6/2001	4/9/2001	4/23/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-O4-10-011N	SD-O4-1-011N	SD-O4-2-010.5FD	SD-O4-2-011N	SD-O4-3-011N	SD-O4-4-011N	SD-O4-5-011N	SD-O4-6-011N	SD-O4-7-011N	SD-O4-8-011N	SD-O4-9-011N	SD-O5-1-011N	SD-O5-2-011N	SD-Q4-1-011N
				Parent ID			SD-O4-2-011N											
				Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
1-Methylnaphthalene	90-12-0	ug/kg	20.2															
2,4,6-Trichlorophenol	88-06-2	ug/kg	--												< 110			< 170
2,4-Dichlorophenol	120-83-2	ug/kg	--												< 110			< 170
2,4-Dimethylphenol	105-67-9	ug/kg	304												< 110			< 170
2,4-Dinitrophenol	51-28-5	ug/kg	6.21												< 1100			< 1700
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4												< 110			< 170
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												< 55			< 84
2-Chloronaphthalene	91-58-7	ug/kg	--												< 55			< 84
2-Chlorophenol	95-57-8	ug/kg	31.9												< 55			< 84
2-Methylnaphthalene	91-57-6	ug/kg	70															
2-Nitrophenol	88-75-5	ug/kg	--												< 110			< 170
3,3-Dichlorobenzidine	91-94-1	ug/kg	127												< 110			< 170
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104												< 280			< 430
4-Bromophenyl-phenylether	101-55-3	ug/kg	--												< 110			< 170
4-Chloro-3-methylphenol	59-50-7	ug/kg	--												< 110			< 170
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--												< 55			< 84
4-Nitrophenol	100-02-7	ug/kg	13.3												< 280			< 430
Acenaphthene	83-32-9	ug/kg	16												< 55			< 84
Acenaphthylene	208-96-8	ug/kg	44												< 55			< 84
Anthracene	120-12-7	ug/kg	220	370000											< 55			< 84
Benzidine	92-87-5	ug/kg	--												< 1100			< 1700
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000											< 55			< 84
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000											< 55			< 84
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200											< 55			< 84
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000											< 55			< 84
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000											< 55			< 84
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--												< 110			< 170
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--												< 55			< 84
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--												< 55			< 84
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750											< 110			< 170
Butylbenzylphthalate	85-68-7	ug/kg	1970												< 110			< 170
Chrysene	218-01-9	ug/kg	340	460000											< 55			< 84
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000											< 55			< 84
Diethylphthalate	84-66-2	ug/kg	295												< 110			< 170
Dimethylphthalate	131-11-3	ug/kg	1000												< 110			< 170
Di-n-butylphthalate	84-74-2	ug/kg	1114	110											< 110			< 170
Di-n-octylphthalate	117-84-0	ug/kg	40600												< 110			< 170
Fluoranthene	206-44-0	ug/kg	750	1020000											< 55			< 84
Fluorene	86-73-7	ug/kg	190	160000											< 55			< 84
Hexachlorobenzene	118-74-1	ug/kg	20	24000											< 55			< 84
Hexachlorobutadiene	87-68-3	ug/kg	26.5												< 110			< 170
Hexachlorocyclopentadiene	77-47-4	ug/kg	--												< 280			< 430
Hexachloroethane	67-72-1	ug/kg	584												< 55			< 84
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000											< 55			< 84
Isophorone	78-59-1	ug/kg	432												< 55			< 84
Naphthalene	91-20-3	ug/kg	160	2100000											< 55			< 84
N-Nitrosodimethylamine	62-75-9	ug/kg	--												< 110			< 170
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--												< 55			< 84
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680												< 55			< 84
Pentachlorophenol	87-86-5	ug/kg	23000												< 280			< 430
Phenanthrene	85-01-8	ug/kg	560	950000											< 55			< 84
Phenol	108-95-2	ug/kg	49.1	48											< 110			< 170
Pyrene	129-00-0	ug/kg	490	850000											< 55			< 84

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-O4-10-01	SD-O4-1-01	SD-O4-2-01	SD-O4-2-01	SD-O4-3-01	SD-O4-4-01	SD-O4-5-01	SD-O4-6-01	SD-O4-7-01	SD-O4-8-01	SD-O4-9-01	SD-O5-1-01	SD-O5-2-01	SD-Q4-1-01
				Sample Date	4/6/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/9/2001	4/9/2001	4/6/2001	4/6/2001	4/9/2001	4/23/2001
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-O4-10-011N	SD-O4-1-011N	SD-O4-2-010.5FD	SD-O4-2-011N	SD-O4-3-011N	SD-O4-4-011N	SD-O4-5-011N	SD-O4-6-011N	SD-O4-7-011N	SD-O4-8-011N	SD-O4-9-011N	SD-O5-1-011N	SD-O5-2-011N	SD-Q4-1-011N
				Parent ID			SD-O4-2-011N											
				Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
Total Organic Carbon																		
Total Organic Carbon	TOC	mg/kg	--												39000			176000
TPH																		
Amyl alcohol	71-41-0	ug/kg	--		< 15000	< 17000		< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 15000	< 17000		< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Ethanol	64-17-5	ug/kg	--		< 15000	< 17000		< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Ethyl ether	60-29-7	ug/kg	--		< 15000	< 17000		< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Methanol	67-56-1	ug/kg	--		< 15000	< 17000		< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
N-butyl ether	142-96-1	ug/kg	--		< 15000	< 17000		< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
VOCs																		
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1-Dichloroethane	75-34-3	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,2-Dichloroethane	107-06-2	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,2-Dichloropropane	78-87-5	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 350	< 470	< 640	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Acrolein	107-02-8	ug/kg	0.00152		< 3500	< 4700	< 6400	< 6500	< 6700	< 5500	< 4200	< 6400	< 8100	< 15000	< 3700	< 4000	< 4100	< 5800
Acrylonitrile	107-13-1	ug/kg	1.2		< 700	< 940	< 1300	< 1300	< 1300	< 1100	< 830	< 1300	< 1600	< 3100	< 730	< 800	< 810	< 1200
Benzene	71-43-2	ug/kg	340		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Bromodichloromethane	75-27-4	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Bromoform	75-25-2	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Bromomethane	74-83-9	ug/kg	1.37		< 350	< 470	< 640	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Chlorobenzene	108-90-7	ug/kg	291		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Chloroethane	75-00-3	ug/kg	--		< 350	< 470	< 640	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Chloroform	67-66-3	ug/kg	121		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Chloromethane	74-87-3	ug/kg	--		< 350	< 470	< 640	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Dibromochloromethane	124-48-1	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Ethylbenzene	100-41-4	ug/kg	1400		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Methylene Chloride	75-09-2	ug/kg	159		< 350	< 470	< 640	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Tetrachloroethene	127-18-4	ug/kg	450		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Toluene	108-88-3	ug/kg	2500		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Trichloroethene	79-01-6	ug/kg	1600		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Trichlorofluoromethane	75-69-4	ug/kg	--		< 350	< 470	< 640	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Vinyl Chloride	75-01-4	ug/kg	202		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Xylenes (total)	1330-20-7	ug/kg	--		< 170	< 240	< 320	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

					Location	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03	SD-R-O4-04	SD-R-O4-05	SD-R-O4-06	SD-R-O4-07
					Sample Date	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	4/3/2006	4/4/2006	6/5/2006	6/5/2006	6/5/2006	6/5/2006	6/6/2006	6/6/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011FD	SD-R4-1-011N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0FD	SD-R-O4-031.0N	SD-R-O4-041.0N	SD-R-O4-051.0N	SD-R-O4-061.0N	SD-R-O4-071.0N
					Parent ID				SD-R4-1-011N	SD-R4-1-011N				SD-R-O4-031.0N					
					Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL															
Explosives																			
1,2-Dinitrobenzene	528-29-0	ug/kg	--		< 3100	< 810	< 550												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 3100	< 810	< 550		< 180	< 190	< 1000	< 1200	< 1400	< 1500	< 1600	< 630	< 1400	< 1100	
1,3-Dinitrobenzene	99-65-0	ug/kg	500		< 3100	< 810	< 550		< 180	< 190									
1,4-Dinitrobenzene	100-25-4	ug/kg	--		< 3100	< 810	< 550												
1-Nitronaphthalene	86-57-7	ug/kg	--		< 3100	< 810	< 550												
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 3100	< 810	< 550		< 180	< 190	< 1000	< 1200	< 1400	< 1500	< 1600	< 630	< 1400	< 1100	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 3100	< 810	< 550												
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 3100	< 810	< 550		< 180	< 190	< 1000	< 1200	< 1400	< 1500	< 1600	< 630	< 1400	< 1100	
2-Nitrotoluene	88-72-2	ug/kg	620000		< 3100	< 810	< 550		< 180	< 190									
3-Nitrotoluene	99-08-1	ug/kg	190000		< 3100	< 810	< 550		< 180	< 190									
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 3100	< 810	< 550		< 180	< 190	< 1000	< 1200	< 1400	< 1500	< 1600	< 630	< 1400	< 1100	
4-Nitrotoluene	99-99-0	ug/kg	68000		< 3100	< 810	< 550		< 180	< 190									
Nitrobenzene	98-95-3	ug/kg	145		< 3100	< 810	< 550		< 180	< 190	< 1000	< 1200	< 1400	< 1500	< 1600	< 630	< 1400	< 1100	
Nitrocellulose	9004-70-0	ug/kg	--						< 110000	< 110000	< 410000	< 480000	< 580000	< 580000	< 620000	< 250000	< 550000	< 450000	
Nitroglycerin	55-63-0	ug/kg	127000		< 61000	< 16000	< 11000		< 3600	< 3700	< 21000	< 24000	< 29000	< 29000	< 31000	< 13000	< 28000	< 22000	
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 7700	< 2000	< 1400		< 180	< 190	< 2600	< 3000	< 3600	< 3600	< 3900	< 1600	< 3500	< 2800	
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 61000	< 16000	< 11000		< 3600	< 3700	< 21000	< 24000	< 29000	< 29000	< 31000	< 13000	< 28000	< 22000	
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 3100	< 810	< 550		< 180	< 190	< 1000	< 1200	< 1400	< 1500	< 1600	< 630	< 1400	< 1100	
Tetryl	479-45-8	ug/kg	600		< 3100	< 810	< 550		< 180	< 190									
Grain Size																			
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--							24									
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--							72.9									
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--								100	100		100	99.7	99.3	99.3	98.2	
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--							11									
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--							58									
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--								100	100		100	100	100	100	100	
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--							92.7									
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--							40.3									
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--								100	100		100	100	100	100	100	
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--							100									
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--							100									
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--							100									
Sieve, 1 micron, % passing	SIEVE_1U	%	--								3.5	9.5		8.5	6.5	4	5.5	5	
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--								90.5	33		62.8	64.8	69.3	60.3	58.9	
Sieve, 150 micron, % passing	SIEVE_150U	%	--								59.2	16.9		28.6	32.5	40.7	31.4	27.7	
Sieve, 2 micron, % passing	SIEVE_2U	%	--								4.5	9		8.5	6.5	5	8	5	
Sieve, 20 micron, % passing	SIEVE_20U	%	--								29.5	37		30.5	23	15.5	24.5	24.5	
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--								97	77.2		91.6	92.7	75.4	82.2	75.7	
Sieve, 300 micron, % passing	SIEVE_300U	%	--								74.3	20.2		37.1	40.4	51.5	38.7	36.3	
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--								98.2	87.8		95.2	98.2	81.9	91.6	84.9	
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--								98.9	94.6		98.9	99.1	87.1	96.4	88.8	
Sieve, 5 micron, % passing	SIEVE_5U	%	--								8.5	8		8.5	6.5	7.5	13	5.5	
Sieve, 50 micron, % passing	SIEVE_50U	%	--								45	68		52.5	45.5	23	32	34	
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--							90.4									
Sieve, 600 micron, % passing	SIEVE_600U	%	--								84.7	24.8		48.1	50.5	61.2	48	46.5	
Sieve, 64 micron, % passing	SIEVE_64U	%	--								46	40		35	34	28.5	28	26	
Sieve, 75 micron, % passing	SIEVE_75U	%	--								46.9	15.4		22.9	26.9	31.7	26.5	22.5	
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--							85.1									
Metals																			
Aluminum	7429-90-5	mg/kg	25500		12200	15600	38000												
Antimony	7440-36-0	mg/kg	3	3	< 198	< 52.7	< 36.3		< 0.64	< 0.64									
Arsenic	7440-38-2	mg/kg	6	33	< 198	< 52.7	< 36.3		0.9	0.64	5.43	3.89	7.08	< 9.43	9.7	3.74	5.69	3.99	
Barium	7440-39-3	mg/kg	7000		153	119	191												
Beryllium	7440-41-7	mg/kg	NA		< 49.5	< 13.2	< 9.08		0.2	0.19									
Cadmium	7440-43-9	mg/kg	0.6	10	< 49.5	< 13.2	< 9.08		0.11	0.096	< 1.67	0.392	< 2.37	< 2.36	< 2.59	< 1.03	0.341	< 1.85	
Calcium	7440-70-2	mg/kg	--		6970	706	490												
Chromium	7440-47-3	mg/kg	26	110	21.4	16.3	25.8		3	3.1	16.6	9.93	6.61	7.33	5.29	14.5	5.84	5.22	
Cobalt	7440-48-4	mg/kg	50		< 49.5	< 13.2	1.96												
Copper	7440-50-8	mg/kg	16	110	98.7	31	15		3.6	3.6	34.7	42.9	28.6	28.4	30.7	28.2	53.9	41.8	
Iron	7439-89-6	mg/kg	20000		9200	2340	4640												
Lead	7439-92-1	mg/kg	31	250	214	42.4	39.4		15	14.6	43.2	47.8	23.8	30.2	29.2	18.5	33.4	25.6	
Magnesium	7439-95-4	mg/kg	460		1220	443	1240												
Manganese	7439-96-5	mg/kg	630	1100	135	46	25.6												
Mercury	7439-97-6	mg/kg	0.2	2	< 1.01	0.0671	0.166		0.036	0.034	0.108	0.495	0.178	0.227	0.146	0.0459	0.163	0.146	
Nickel	7440-02-0	mg/kg	16	75	17.5	7.46	17.6		1.8	1.8	8.67	8.55	6.49	7.76	8.54	7.99	10.9	8.57	
Potassium	7440-09-7	mg/kg	--		< 4950	412	665												
Selenium	7782-49-2	mg/kg	2		< 198	< 52.7	< 36.3		0.55	< 0.47									
Silver	7440-22-4	mg/kg	1		< 49.5	5.06	3.12		< 0.14	< 0.14	< 1.67	< 1.96	< 2.37	< 2.36	1	< 1.03	1.05	0.813	
Sodium	7440-23-5	mg/kg	--		< 9910	46.3	37.7												
Thallium	7440-28-0	mg/kg	--		< 297	< 79.1	< 54.5		< 0.83	< 0.83									
Vanadium	7440-62-2	mg/kg	57		< 49.5	20.1	26.1												
Zinc	7440-66-6	mg/kg	120	820	279	67.1	63.2		12.1	11.7	79.8	45.6	89.1	83.3	179	65.9	929	145	
Moisture																			
Percent Moisture	MOIST	%	--		90.2	62.8	45.5		44.1	46.1	71	75	79.3	79.4	80.7	52.4	78.3	73.2	
SVOCs																			
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062						< 59	< 61									
1,2-Dichlorobenzene	95-50-1	ug/kg	294						< 59	< 61									
1,2-Diphenylhydrazine	122-66-7	ug/kg	--						< 59	< 61									
1,3-Dichlorobenzene	541-73-1	ug/kg	1315						< 59	< 61									
1,4-Dichlorobenzene	106-46-7	ug/kg	318						< 59	< 61									

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03	SD-R-O4-04	SD-R-O4-05	SD-R-O4-06	SD-R-O4-07
					Sample Date	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	4/3/2006	4/4/2006	6/5/2006	6/5/2006	6/5/2006	6/5/2006	6/6/2006	6/6/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011FD	SD-R4-1-011N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0FD	SD-R-O4-031.0N	SD-R-O4-041.0N	SD-R-O4-051.0N	SD-R-O4-061.0N	SD-R-O4-071.0N
					Parent ID				SD-R4-1-011N	SD-R4-1-011N				SD-R-O4-031.0N					
					Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL															
1-Methylnaphthalene	90-12-0	ug/kg	20.2		< 5200	83	< 190												
2,4,6-Trichlorophenol	88-06-2	ug/kg	--						< 120	< 120									
2,4-Dichlorophenol	120-83-2	ug/kg	--						< 120	< 120									
2,4-Dimethylphenol	105-67-9	ug/kg	304						< 120	< 120									
2,4-Dinitrophenol	51-28-5	ug/kg	6.21						< 1200	< 1200									
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4						< 120	< 120									
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8						< 59	< 61									
2-Chloronaphthalene	91-58-7	ug/kg	--						< 59	< 61									
2-Chlorophenol	95-57-8	ug/kg	31.9						< 59	< 61									
2-Methylnaphthalene	91-57-6	ug/kg	70		< 5200	63	< 190												
2-Nitrophenol	88-75-5	ug/kg	--						< 120	< 120									
3,3-Dichlorobenzidine	91-94-1	ug/kg	127						< 120	< 120									
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104						< 300	< 320									
4-Bromophenyl-phenylether	101-55-3	ug/kg	--						< 120	< 120									
4-Chloro-3-methylphenol	59-50-7	ug/kg	--						< 120	< 120									
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--						< 59	< 61									
4-Nitrophenol	100-02-7	ug/kg	13.3						< 300	< 320									
Acenaphthene	83-32-9	ug/kg	16		< 5200	< 270	< 190		< 59	< 61									
Acenaphthylene	208-96-8	ug/kg	44		< 5200	< 270	< 190		< 59	< 61									
Anthracene	120-12-7	ug/kg	220	370000	< 5200	< 270	< 190		< 59	< 61									
Benzidine	92-87-5	ug/kg	--						< 1200	< 1200									
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	< 5200	57	< 190		< 59	< 61									
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	< 5200	< 270	< 190		< 59	< 61									
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200	< 5200	120	49		< 59	< 61									
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	< 5200	86	< 190		< 59	< 61									
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	< 5200	59	< 190		< 59	< 61									
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--						< 120	< 120									
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--						< 59	< 61									
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--						< 59	< 61									
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750					< 120	< 120									
Butylbenzylphthalate	85-68-7	ug/kg	1970						< 120	< 120									
Chrysene	218-01-9	ug/kg	340	460000	< 5200	110	41		< 59	< 61									
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 5200	< 270	< 190		< 59	< 61									
Diethylphthalate	84-66-2	ug/kg	295						< 120	< 120									
Dimethylphthalate	131-11-3	ug/kg	1000						< 120	< 120									
Di-n-butylphthalate	84-74-2	ug/kg	1114	110					< 120	< 120									
Di-n-octylphthalate	117-84-0	ug/kg	40600						< 120	< 120									
Fluoranthene	206-44-0	ug/kg	750	1020000	1100	180	56		< 59	< 61									
Fluorene	86-73-7	ug/kg	190	160000	< 5200	< 270	< 190		< 59	< 61									
Hexachlorobenzene	118-74-1	ug/kg	20	24000					< 59	< 61									
Hexachlorobutadiene	87-68-3	ug/kg	26.5						< 120	< 120									
Hexachlorocyclopentadiene	77-47-4	ug/kg	--						< 300	< 320									
Hexachloroethane	67-72-1	ug/kg	584						< 59	< 61									
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000	< 5200	64	< 190		< 59	< 61									
Isophorone	78-59-1	ug/kg	432						< 59	< 61									
Naphthalene	91-20-3	ug/kg	160	2100000	< 5200	90	< 190		< 59	< 61									
N-Nitrosodimethylamine	62-75-9	ug/kg	--						< 120	< 120									
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--						< 59	< 61									
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680						< 59	< 61									
Pentachlorophenol	87-86-5	ug/kg	23000						< 300	< 320									
Phenanthrene	85-01-8	ug/kg	560	950000	1100	200	49		< 59	< 61									
Phenol	108-95-2	ug/kg	49.1	48					< 120	< 120									
Pyrene	129-00-0	ug/kg	490	850000	1100	160	57		< 59	< 61									

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03	SD-R-O4-04	SD-R-O4-05	SD-R-O4-06	SD-R-O4-07
				Sample Date	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	4/3/2006	4/4/2006	6/5/2006	6/5/2006	6/5/2006	6/5/2006	6/6/2006	6/6/2006
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011FD	SD-R4-1-011N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0FD	SD-R-O4-031.0N	SD-R-O4-041.0N	SD-R-O4-051.0N	SD-R-O4-061.0N	SD-R-O4-071.0N
				Parent ID				SD-R4-1-011N	SD-R4-1-011N				SD-R-O4-031.0N					
				Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL														
Total Organic Carbon																		
Total Organic Carbon	TOC	mg/kg	--		227000	105000	39500		61200	83700	160000	540000	490000	490000	460000	130000	440000	470000
TPH																		
Amyl alcohol	71-41-0	ug/kg	--						< 18000	< 18000								
Di-N-Propyl Ether	111-43-3	ug/kg	--						< 18000	< 18000								
Ethanol	64-17-5	ug/kg	--						< 18000	< 18000								
Ethyl ether	60-29-7	ug/kg	--						< 18000	< 18000								
Methanol	67-56-1	ug/kg	--						< 18000	< 18000								
N-butyl ether	142-96-1	ug/kg	--						< 18000	< 18000								
VOCs																		
1,1,1-Trichloroethane	71-55-6	ug/kg	--						< 210	< 260								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850						< 210	< 260								
1,1,2-Trichloroethane	79-00-5	ug/kg	--						< 210	< 260								
1,1-Dichloroethane	75-34-3	ug/kg	--						< 210	< 260								
1,1-Dichloroethene	75-35-4	ug/kg	19.4						< 210	< 260								
1,2-Dichloroethane	107-06-2	ug/kg	--						< 210	< 260								
1,2-Dichloropropane	78-87-5	ug/kg	--						< 210	< 260								
2-Chloroethylvinylether	110-75-8	ug/kg	--						< 410	< 520								
Acrolein	107-02-8	ug/kg	0.00152						< 4100	< 5200								
Acrylonitrile	107-13-1	ug/kg	1.2						< 830	< 1000								
Benzene	71-43-2	ug/kg	340						< 210	< 260								
Bromodichloromethane	75-27-4	ug/kg	--						< 210	< 260								
Bromoform	75-25-2	ug/kg	--						< 210	< 260								
Bromomethane	74-83-9	ug/kg	1.37						< 410	< 520								
Carbon Tetrachloride	56-23-5	ug/kg	1450						< 210	< 260								
Chlorobenzene	108-90-7	ug/kg	291						< 210	< 260								
Chloroethane	75-00-3	ug/kg	--						< 410	< 520								
Chloroform	67-66-3	ug/kg	121						< 210	< 260								
Chloromethane	74-87-3	ug/kg	--						< 410	< 520								
cis-1,2-Dichloroethene	156-59-2	ug/kg	--						< 210	< 260								
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--						< 210	< 260								
Dibromochloromethane	124-48-1	ug/kg	--						< 210	< 260								
Ethylbenzene	100-41-4	ug/kg	1400						< 210	< 260								
Methylene Chloride	75-09-2	ug/kg	159						< 410	< 520								
Tetrachloroethene	127-18-4	ug/kg	450						< 210	< 260								
Toluene	108-88-3	ug/kg	2500						< 210	< 260								
trans-1,2-Dichloroethene	156-60-5	ug/kg	--						< 210	< 260								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--						< 210	< 260								
Trichloroethene	79-01-6	ug/kg	1600						< 210	< 260								
Trichlorofluoromethane	75-69-4	ug/kg	--						< 410	< 520								
Vinyl Chloride	75-01-4	ug/kg	202						< 210	< 260								
Xylenes (total)	1330-20-7	ug/kg	--						< 210	< 260								

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-O4-08	SD-R-O4-09	SD-R-O5-01
				Sample Date	6/6/2006	6/6/2006	4/3/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-O4-081.0N	SD-R-O4-091.0N	SD-R-O5-011.0N
				Parent ID			
				Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL			
Explosives							
1,2-Dinitrobenzene	528-29-0	ug/kg	--				
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 810	< 1100	< 430
1,3-Dinitrobenzene	99-65-0	ug/kg	500				
1,4-Dinitrobenzene	100-25-4	ug/kg	--				
1-Nitronaphthalene	86-57-7	ug/kg	--				
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 810	< 1100	< 430
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8				
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 810	< 1100	< 430
2-Nitrotoluene	88-72-2	ug/kg	620000				
3-Nitrotoluene	99-08-1	ug/kg	190000				
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 810	< 1100	< 430
4-Nitrotoluene	99-99-0	ug/kg	68000				
Nitrobenzene	98-95-3	ug/kg	145		< 810	< 1100	< 430
Nitrocellulose	9004-70-0	ug/kg	--		< 320000	< 430000	< 170000
Nitroglycerin	55-63-0	ug/kg	127000		< 16000	< 22000	< 8600
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 2000	< 2700	< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 16000	< 22000	< 8600
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 810	< 1100	< 430
Tetryl	479-45-8	ug/kg	600				
Grain Size							
Sieve Size #100 - Percent Finer	SIEVE_#100	%	--				
Sieve Size #16 - Percent Finer	SIEVE_#016	%	--				
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100	99.7	85.6
Sieve Size #200 - Percent Finer	SIEVE_#200	%	--				
Sieve Size #30 - Percent Finer	SIEVE_#030	%	--				
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100
Sieve Size #4 - Percent Finer	SIEVE_#004	%	--				
Sieve Size #50 - Percent Finer	SIEVE_#050	%	--				
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100
Sieve Size 0.75 inch - Percent Finer	SIEVE_0.75 inch	%	--				
Sieve Size 1.5 inch - Percent Finer	SIEVE_1.5 inch	%	--				
Sieve Size 3 inch - Percent Finer	SIEVE_3 inch	%	--				
Sieve, 1 micron, % passing	SIEVE_1U	%	--		4	5	3
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		81.6	79.4	45
Sieve, 150 micron, % passing	SIEVE_150U	%	--		56.8	43.3	25.5
Sieve, 2 micron, % passing	SIEVE_2U	%	--		8	5	3.5
Sieve, 20 micron, % passing	SIEVE_20U	%	--		36.5	33	13.5
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		86.4	88.8	48.9
Sieve, 300 micron, % passing	SIEVE_300U	%	--		66.5	55.8	32.1
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		91.2	96.7	54.5
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		96.7	99.2	58.6
Sieve, 5 micron, % passing	SIEVE_5U	%	--		13	5.5	6
Sieve, 50 micron, % passing	SIEVE_50U	%	--		46	47	18
SIEVE, 6 PHI, % passing	SIEVE_6PHI	%	--				
Sieve, 600 micron, % passing	SIEVE_600U	%	--		75.6	68	39.1
Sieve, 64 micron, % passing	SIEVE_64U	%	--		49	36.5	20
Sieve, 75 micron, % passing	SIEVE_75U	%	--		50.3	32.5	21.3
SIEVE, 8 PHI, % passing	SIEVE_8PHI	%	--				
Metals							
Aluminum	7429-90-5	mg/kg	25500				
Antimony	7440-36-0	mg/kg	3	3			
Arsenic	7440-38-2	mg/kg	6	33	2.68	< 7.03	1.12
Barium	7440-39-3	mg/kg	7000				
Beryllium	7440-41-7	mg/kg	NA				
Cadmium	7440-43-9	mg/kg	0.6	10	0.272	< 1.76	< 0.705
Calcium	7440-70-2	mg/kg	--				
Chromium	7440-47-3	mg/kg	26	110	19.7	13	14
Cobalt	7440-48-4	mg/kg	50				
Copper	7440-50-8	mg/kg	16	110	51.3	47.1	3.66
Iron	7439-89-6	mg/kg	20000				
Lead	7439-92-1	mg/kg	31	250	40.7	40.2	9.7
Magnesium	7439-95-4	mg/kg	460				
Manganese	7439-96-5	mg/kg	630	1100			
Mercury	7439-97-6	mg/kg	0.2	2	0.158	0.2	0.0421
Nickel	7440-02-0	mg/kg	16	75	10.4	7.48	6.12
Potassium	7440-09-7	mg/kg	--				
Selenium	7782-49-2	mg/kg	2				
Silver	7440-22-4	mg/kg	1		< 1.3	< 1.76	< 0.705
Sodium	7440-23-5	mg/kg	--				
Thallium	7440-28-0	mg/kg	--				
Vanadium	7440-62-2	mg/kg	57				
Zinc	7440-66-6	mg/kg	120	820	104	43.9	30.4
Moisture							
Percent Moisture	MOIST	%	--		62.9	72.1	30.5
SVOCs							
1,2,4-Trichlorobenzene	120-82-1	ug/kg	5062				
1,2-Dichlorobenzene	95-50-1	ug/kg	294				
1,2-Diphenylhydrazine	122-66-7	ug/kg	--				
1,3-Dichlorobenzene	541-73-1	ug/kg	1315				
1,4-Dichlorobenzene	106-46-7	ug/kg	318				

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-O4-08	SD-R-O4-09	SD-R-O5-01
					Sample Date	6/6/2006	6/6/2006	4/3/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-O4-081.0N	SD-R-O4-091.0N	SD-R-O5-011.0N
					Parent ID			
					Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL				
1-Methylnaphthalene	90-12-0	ug/kg	20.2					
2,4,6-Trichlorophenol	88-06-2	ug/kg	--					
2,4-Dichlorophenol	120-83-2	ug/kg	--					
2,4-Dimethylphenol	105-67-9	ug/kg	304					
2,4-Dinitrophenol	51-28-5	ug/kg	6.21					
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4					
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8					
2-Chloronaphthalene	91-58-7	ug/kg	--					
2-Chlorophenol	95-57-8	ug/kg	31.9					
2-Methylnaphthalene	91-57-6	ug/kg	70					
2-Nitrophenol	88-75-5	ug/kg	--					
3,3-Dichlorobenzidine	91-94-1	ug/kg	127					
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	104					
4-Bromophenyl-phenylether	101-55-3	ug/kg	--					
4-Chloro-3-methylphenol	59-50-7	ug/kg	--					
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	--					
4-Nitrophenol	100-02-7	ug/kg	13.3					
Acenaphthene	83-32-9	ug/kg	16					
Acenaphthylene	208-96-8	ug/kg	44					
Anthracene	120-12-7	ug/kg	220	370000				
Benzidine	92-87-5	ug/kg	--					
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000				
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000				
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200				
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000				
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000				
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	--					
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	--					
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	--					
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	182	750				
Butylbenzylphthalate	85-68-7	ug/kg	1970					
Chrysene	218-01-9	ug/kg	340	460000				
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000				
Diethylphthalate	84-66-2	ug/kg	295					
Dimethylphthalate	131-11-3	ug/kg	1000					
Di-n-butylphthalate	84-74-2	ug/kg	1114	110				
Di-n-octylphthalate	117-84-0	ug/kg	40600					
Fluoranthene	206-44-0	ug/kg	750	1020000				
Fluorene	86-73-7	ug/kg	190	160000				
Hexachlorobenzene	118-74-1	ug/kg	20	24000				
Hexachlorobutadiene	87-68-3	ug/kg	26.5					
Hexachlorocyclopentadiene	77-47-4	ug/kg	--					
Hexachloroethane	67-72-1	ug/kg	584					
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000				
Isophorone	78-59-1	ug/kg	432					
Naphthalene	91-20-3	ug/kg	160	2100000				
N-Nitrosodimethylamine	62-75-9	ug/kg	--					
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	--					
N-Nitrosodiphenylamine	86-30-6	ug/kg	2680					
Pentachlorophenol	87-86-5	ug/kg	23000					
Phenanthrene	85-01-8	ug/kg	560	950000				
Phenol	108-95-2	ug/kg	49.1	48				
Pyrene	129-00-0	ug/kg	490	850000				

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-O4-08	SD-R-O4-09	SD-R-O5-01
				Sample Date	6/6/2006	6/6/2006	4/3/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-O4-081.0N	SD-R-O4-091.0N	SD-R-O5-011.0N
				Parent ID			
				Subdrainage Area	Northeastern Pond	Northeastern Pond	Northeastern Pond
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL			
Total Organic Carbon							
Total Organic Carbon	TOC	mg/kg	--		160000	280000	76000
TPH							
Amyl alcohol	71-41-0	ug/kg	--				
Di-N-Propyl Ether	111-43-3	ug/kg	--				
Ethanol	64-17-5	ug/kg	--				
Ethyl ether	60-29-7	ug/kg	--				
Methanol	67-56-1	ug/kg	--				
N-butyl ether	142-96-1	ug/kg	--				
VOCs							
1,1,1-Trichloroethane	71-55-6	ug/kg	--				
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850				
1,1,2-Trichloroethane	79-00-5	ug/kg	--				
1,1-Dichloroethane	75-34-3	ug/kg	--				
1,1-Dichloroethene	75-35-4	ug/kg	19.4				
1,2-Dichloroethane	107-06-2	ug/kg	--				
1,2-Dichloropropane	78-87-5	ug/kg	--				
2-Chloroethylvinylether	110-75-8	ug/kg	--				
Acrolein	107-02-8	ug/kg	0.00152				
Acrylonitrile	107-13-1	ug/kg	1.2				
Benzene	71-43-2	ug/kg	340				
Bromodichloromethane	75-27-4	ug/kg	--				
Bromoform	75-25-2	ug/kg	--				
Bromomethane	74-83-9	ug/kg	1.37				
Carbon Tetrachloride	56-23-5	ug/kg	1450				
Chlorobenzene	108-90-7	ug/kg	291				
Chloroethane	75-00-3	ug/kg	--				
Chloroform	67-66-3	ug/kg	121				
Chloromethane	74-87-3	ug/kg	--				
cis-1,2-Dichloroethene	156-59-2	ug/kg	--				
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--				
Dibromochloromethane	124-48-1	ug/kg	--				
Ethylbenzene	100-41-4	ug/kg	1400				
Methylene Chloride	75-09-2	ug/kg	159				
Tetrachloroethene	127-18-4	ug/kg	450				
Toluene	108-88-3	ug/kg	2500				
trans-1,2-Dichloroethene	156-60-5	ug/kg	--				
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--				
Trichloroethene	79-01-6	ug/kg	1600				
Trichlorofluoromethane	75-69-4	ug/kg	--				
Vinyl Chloride	75-01-4	ug/kg	202				
Xylenes (total)	1330-20-7	ug/kg	--				

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

				Location	SD-C11-3-01	SD-C12-1-01	SD-C12-2-01	SD-D13-1-01	SD-ERA-C13-TPND-04	SD-ERA-D13-TPND-05	SD-R2-C-12-6	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05
				Sample Date	5/2/2001	5/2/2001	4/13/2001	4/13/2001	6/13/2016	6/13/2016	11/6/2013	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-C11-3-011N	SD-C12-1-011N	SD-C12-2-011N	SD-D13-1-011N	SD-ERA-C13-TPND-04	SD-ERA-D13-TPND-05	SD-R2-C-12-6_20131106	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N
				Parent ID												
				Subdrainage Area	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--								< 450					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160								< 450	< 1200	< 850	< 540	< 450	< 560
1,3-Dinitrobenzene	99-65-0	ug/kg	500								< 450					
1,4-Dinitrobenzene	100-25-4	ug/kg	--								< 450					
1-Nitronaphthalene	86-57-7	ug/kg	--								< 450					
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100								< 450	< 1200	< 850	< 540	< 450	< 560
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8								< 450					
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300								< 450	< 1200	< 850	< 540	< 450	< 560
2-Nitrotoluene	88-72-2	ug/kg	620000								< 450					
3-Nitrotoluene	99-08-1	ug/kg	190000								< 450					
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500								< 450	< 1200	< 850	< 540	< 450	< 560
4-Nitrotoluene	99-99-0	ug/kg	68000								< 450					
Nitrobenzene	98-95-3	ug/kg	145								< 450	< 1200	< 850	< 540	340	< 560
Nitrocellulose	9004-70-0	ug/kg	--									< 460000	< 340000	< 210000	< 180000	< 220000
Nitroglycerin	55-63-0	ug/kg	127000								8100	< 23000	< 17000	< 11000	< 9000	< 11000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380								< 1100	< 2900	< 2100	< 1300	< 1100	< 1400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000								< 9100	< 23000	< 17000	< 11000	< 9000	< 11000
RDX (Cyclonite)	121-82-4	ug/kg	1200								< 450	< 1200	< 850	< 540	< 450	< 560
Tetryl	479-45-8	ug/kg	600								< 450					
Field																
Dissolved Oxygen	7782-44-7	mg/l	--							5.05						
pH	PH	su	--						5.90	6.33 5.81						
Specific Conductance	SC	us/cm	--							0.526						
Temperature	TEMP	deg c	--							12.29						
Turbidity	TURBIDITY	ntu	--							191.0						
GenChem			--													
Acid Volatile Sulfide	1313-84-4	umol/g	--						3.1	< 0.63 U						
Grain Size																
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--									76.6	100	100	100	100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--									100	100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--									100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--						< 0.50 U	< 0.50 U						
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--						2.0	< 0.50 U						
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--						8.5	< 0.50 U						
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--						39.0	4.5						
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--						68.0	9.0						
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--						56.0	8.5						
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--						51.8	9.1						
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--						60.5	16.3						
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--						70.0	38.5						
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--						84.2	75.2						
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--						93.1	99.0						
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--						100	99.9						
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--						100	99.5						
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--						100	99.7						
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--						100	100						
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--						100	99.9						
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--						100	100						
Sieve, 1 micron, % passing	SIEVE_1U	%	--									2	3	2	4	5.5
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--									33.3	75	59	64.3	41.9
Sieve, 150 micron, % passing	SIEVE_150U	%	--									19.2	34.6	24.6	23.8	28.9
Sieve, 2 micron, % passing	SIEVE_2U	%	--									2	4.5	3.5	4.5	7
Sieve, 20 micron, % passing	SIEVE_20U	%	--									12	15	11	12.5	18
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--									41.2	79.6	64.7	69.2	44.5
Sieve, 300 micron, % passing	SIEVE_300U	%	--									22.7	49.2	33.9	35.2	32.7
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--									51.2	90.1	75.4	83.8	71.7
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--									59.1	95.1	85	91.8	89.6
Sieve, 5 micron, % passing	SIEVE_5U	%	--									2	6.5	5.5	7	9.5
Sieve, 50 micron, % passing	SIEVE_50U	%	--									22.5	21	18	16	24.5
Sieve, 600 micron, % passing	SIEVE_600U	%	--									27.4	66	47.9	51.6	37.5
Sieve, 64 micron, % passing	SIEVE_64U	%	--									19	26.5	19.5	18.5	26
Sieve, 75 micron, % passing	SIEVE_75U	%	--									17.1	29	20.9	19.2	26.9
Metals																
Aluminum	7429-90-5	mg/kg	25500								6970					
Antimony	7440-36-0	mg/kg	3	3							< 3.44					
Arsenic	7440-38-2	mg/kg	6	33					58.0	34.3	4.6	192	7.23	9.63	11.4	6.18
Barium	7440-39-3	mg/kg	7000								66.4					
Beryllium	7440-41-7	mg/kg	NA								0.287					
Cadmium	7440-43-9	mg/kg	0.6	10							0.536	< 9.56	0.421	0.356	< 0.72	< 0.911
Cadmium	7440-43-9	umol/g	0.6	1000000					0.00548 B	0.00188						
Calcium	7440-70-2	mg/kg	--								1920					
Chromium	7440-47-3	mg/kg	26	110							11.1	14.5	11	10	10.2	23.4
Cobalt	7440-48-4	mg/kg	50								2.42					
Copper	7440-50-8	mg/kg	16	110							21.3	51.6	28.5	20.6	11.5	25.2
Copper	7440-50-8	umol/g	16	1000000					< 0.00864 U	0.140						
Iron	7439-89-6	mg/kg	20000								16700					
Lead	7439-92-1	mg/kg	31	250					464	328	732	467	68.5	674	2690	1500
Lead	7439-92-1	umol/g	31	1000000					0.479	1.01						
Magnesium	7439-95-4	mg/kg	460								917					

				Location	SD-C11-3-01	SD-C12-1-01	SD-C12-2-01	SD-D13-1-01	SD-ERA-C13-TPND-04	SD-ERA-D13-TPND-05	SD-R2-C-12-6	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05
				Sample Date	5/2/2001	5/2/2001	4/13/2001	4/13/2001	6/13/2016	6/13/2016	11/6/2013	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-C11-3-011N	SD-C12-1-011N	SD-C12-2-011N	SD-D13-1-011N	SD-ERA-C13-TPND-04	SD-ERA-D13-TPND-05	SD-R2-C-12-6_20131106	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N
				Parent ID												
				Subdrainage Area	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Manganese	7439-96-5	mg/kg	630	1100							90.9					
Mercury	7439-97-6	mg/kg	0.2	2					0.634 J	0.251	0.274	0.201	0.222	0.738	0.585	0.411
Mercury	7439-97-6	umol/g	0.2	1000000					< 0.0000071 U	< 0.0000072 U						
Nickel	7440-02-0	mg/kg	16	75							7.28	26.8	14.4	8.82	4.56	10.3
Nickel	7440-02-0	umol/g	16	1000000					0.0476	0.263						
Potassium	7440-09-7	mg/kg	--								396					
Selenium	7782-49-2	mg/kg	2								< 3.44					
Silver	7440-22-4	mg/kg	1								0.382	< 9.56	< 1.38	0.293	0.305	< 0.911
Sodium	7440-23-5	mg/kg	--								220					
Thallium	7440-28-0	mg/kg	--								< 5.16					
Vanadium	7440-62-2	mg/kg	57								24.8					
Zinc	7440-66-6	mg/kg	120	820							113	157	84.1	107	72.7	186
Zinc	7440-66-6	umol/g	120	1000000					1.17	0.606						
Moisture																
Percent Moisture	MOIST	%	--			34.3			90.4	35.8	42.4	74.1	64.6	44.1	33.2	46.2
Total Solids	TSO	%	--						9.89	61.78						
SVOCs																
1-Methylnaphthalene	90-12-0	ug/kg	20.2								< 300					
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4												< 250	< 310
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8												< 250	< 310
2-Methylnaphthalene	91-57-6	ug/kg	70								< 300					
Acenaphthene	83-32-9	ug/kg	16								< 300				55	< 310
Acenaphthylene	208-96-8	ug/kg	44								< 300				< 250	< 310
Anthracene	120-12-7	ug/kg	220	370000							< 300				180	64
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000							120				710	260
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000							130				840	210
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200							230					
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000							130				610	170
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000							84				250	180
Chrysene	218-01-9	ug/kg	340	460000							200				650	260
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000							< 300				290	77
Fluoranthene	206-44-0	ug/kg	750	1020000							260				610	230
Fluorene	86-73-7	ug/kg	190	160000							< 300				70	< 310
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000							93					
Naphthalene	91-20-3	ug/kg	160	2100000							< 300				< 250	< 310
Phenanthrene	85-01-8	ug/kg	560	950000							140				880	190
Pyrene	129-00-0	ug/kg	490	850000							270				1300	590

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-C11-3-01	SD-C12-1-01	SD-C12-2-01	SD-D13-1-01	SD-ERA-C13-TPND-04	SD-ERA-D13-TPND-05	SD-R-C-12-6	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05
				Sample Date	5/2/2001	5/2/2001	4/13/2001	4/13/2001	6/13/2016	6/13/2016	11/6/2013	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-C11-3-011N	SD-C12-1-011N	SD-C12-2-011N	SD-D13-1-011N	SD-ERA-C13-TPND-04	SD-ERA-D13-TPND-05	SD-R-C-12-6_20131106	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N
				Parent ID												
				Subdrainage Area	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Total Organic Carbon																
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--						416000	28900						
Total Organic Carbon	TOC	mg/kg	--							28900	16700	230000	160000	48000	23000	36000
TPH																
Amyl alcohol	71-41-0	ug/kg	--		< 13000	< 15000	< 46000	< 16000								
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 13000	< 15000	< 46000	< 16000								
Ethanol	64-17-5	ug/kg	--		< 13000	< 15000	< 46000	< 16000								
Ethyl ether	60-29-7	ug/kg	--		< 13000	< 15000	< 46000	< 16000								
Methanol	67-56-1	ug/kg	--		< 13000	< 15000	< 46000	< 16000								
N-butyl ether	142-96-1	ug/kg	--		< 13000	< 15000	< 46000	< 16000								
VOCs																
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 140	< 170	< 540	< 160								
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 140	< 170	< 540	< 160								
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 140	< 170	< 540	< 160								
1,1-Dichloroethane	75-34-3	ug/kg	--		< 140	< 170	< 540	< 160								
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 140	< 170	< 540	< 160								
1,2-Dichloroethane	107-06-2	ug/kg	--		< 140	< 170	< 540	< 160								
1,2-Dichloropropane	78-87-5	ug/kg	--		< 140	< 170	< 540	< 160								
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 270	< 340	< 1100	< 320								
Acrolein	107-02-8	ug/kg	0.00152		< 2700	< 3400	< 11000	< 3200								
Acrylonitrile	107-13-1	ug/kg	1.2		< 540	< 680	< 2200	< 640								
Benzene	71-43-2	ug/kg	340		< 140	< 170	< 540	< 160								
Bromodichloromethane	75-27-4	ug/kg	--		< 140	< 170	< 540	< 160								
Bromoform	75-25-2	ug/kg	--		< 140	< 170	< 540	< 160								
Bromomethane	74-83-9	ug/kg	1.37		< 270	< 340	< 1100	< 320								
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 140	< 170	< 540	< 160								
Chlorobenzene	108-90-7	ug/kg	291		< 140	< 170	< 540	< 160								
Chloroethane	75-00-3	ug/kg	--		< 270	< 340	< 1100	< 320								
Chloroform	67-66-3	ug/kg	121		< 140	< 170	< 540	< 160								
Chloromethane	74-87-3	ug/kg	--		< 270	< 340	< 1100	< 320								
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 140	< 170	< 540	< 160								
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 140	< 170	< 540	< 160								
Dibromochloromethane	124-48-1	ug/kg	--		< 140	< 170	< 540	< 160								
Ethylbenzene	100-41-4	ug/kg	1400		< 140	< 170	< 540	< 160								
Methylene Chloride	75-09-2	ug/kg	159		< 270	< 340	< 1100	< 320								
Tetrachloroethene	127-18-4	ug/kg	450		< 140	< 170	< 540	< 160								
Toluene	108-88-3	ug/kg	2500		< 140	< 170	< 540	< 160								
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 140	< 170	< 540	< 160								
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 140	< 170	< 540	< 160								
Trichloroethene	79-01-6	ug/kg	1600		< 140	< 170	< 540	< 160								
Trichlorofluoromethane	75-69-4	ug/kg	--		< 270	< 340	< 1100	< 320								
Vinyl Chloride	75-01-4	ug/kg	202		< 140	< 170	< 540	< 160								
Xylenes (total)	1330-20-7	ug/kg	--		< 140	< 170	< 540	< 160								

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-C12-06	SD-R-C12-07	SD-R-C13-03	SD-R-C13-04	SD-R-D13-11	SD-R-D13-12	SD-R-D13-12	SD-R-D13-13
				Sample Date	5/25/2006	5/25/2006	5/23/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-031N	SD-R-C13-041.0N	SD-R-D13-111.0N	SD-R-D13-121.0FD	SD-R-D13-121.0N	SD-R-D13-131.0N
				Parent ID						SD-R-D13-121.0N		
				Subdrainage Area	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL								
Explosives												
1,2-Dinitrobenzene	528-29-0	ug/kg	--									
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 480	< 380	< 2300	< 780	< 540	< 1200	< 1400	< 550
1,3-Dinitrobenzene	99-65-0	ug/kg	500									
1,4-Dinitrobenzene	100-25-4	ug/kg	--									
1-Nitronaphthalene	86-57-7	ug/kg	--									
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 480	< 380	< 2300	< 780	< 540	1400	< 1400	< 550
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8									
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 480	< 380	< 2300	< 780	< 540	< 1200	< 1400	< 550
2-Nitrotoluene	88-72-2	ug/kg	620000									
3-Nitrotoluene	99-08-1	ug/kg	190000									
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 480	< 380	< 2300	< 780	< 540	< 1200	< 1400	< 550
4-Nitrotoluene	99-99-0	ug/kg	68000									
Nitrobenzene	98-95-3	ug/kg	145		610	< 380	< 2300	< 780	< 540	< 1200	< 1400	< 550
Nitrocellulose	9004-70-0	ug/kg	--		< 190000	< 150000	< 920000	< 310000	< 220000	< 470000	< 560000	< 220000
Nitroglycerin	55-63-0	ug/kg	127000		< 9600	< 7700	< 46000	< 16000	< 11000	< 24000	< 28000	< 11000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1200	< 960	< 5700	< 2000	< 1300	< 2900	< 3500	< 1400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 9600	< 7700	< 46000	< 16000	< 11000	< 24000	< 28000	< 11000
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 480	< 380	< 2300	< 780	< 540	< 1200	< 1400	< 550
Tetryl	479-45-8	ug/kg	600									
Field												
Dissolved Oxygen	7782-44-7	mg/l	--									
pH	PH	su	--									
Specific Conductance	SC	us/cm	--									
Temperature	TEMP	deg c	--									
Turbidity	TURBIDITY	ntu	--									
GenChem			--									
Acid Volatile Sulfide	1313-84-4	umol/g	--									
Grain Size												
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100	100		100	100	100	100	100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100		100	100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100		100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--									
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--									
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--									
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--									
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--									
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--									
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--									
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--									
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--									
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--									
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--									
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--									
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--									
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--									
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--									
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--									
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--									
Sieve, 1 micron, % passing	SIEVE_1U	%	--		5.5	4		3.5	2	2	1	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		51.9	56.1		65	65	54.2	31.6	47.4
Sieve, 150 micron, % passing	SIEVE_150U	%	--		32	24.5		38.8	32.5	23.1	14.5	9.5
Sieve, 2 micron, % passing	SIEVE_2U	%	--		6.5	4.5		5.5	4	2	1	< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--		17	11		16.5	17.5	13	5	1
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		54.3	59.6		70.2	74.1	66.2	39.3	68.5
Sieve, 300 micron, % passing	SIEVE_300U	%	--		39.9	34.2		51.5	43.1	30.9	18.9	17.3
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		89.7	83.4		82.4	80.9	81.1	59.7	80.7
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		96.7	91.9		93.8	86.7	93.3	75	88.1
Sieve, 5 micron, % passing	SIEVE_5U	%	--		9	6		8.5	7	2.5	2	< 1
Sieve, 50 micron, % passing	SIEVE_50U	%	--		23.5	16		24.5	25.5	21	8	3.5
Sieve, 600 micron, % passing	SIEVE_600U	%	--		47.4	47		59.9	56.2	41.4	24.8	30.3
Sieve, 64 micron, % passing	SIEVE_64U	%	--		27	19		28	28	19.5	11.5	6
Sieve, 75 micron, % passing	SIEVE_75U	%	--		28.1	19.9		29.4	28.5	19.6	12.6	7.1
Metals												
Aluminum	7429-90-5	mg/kg	25500									
Antimony	7440-36-0	mg/kg	3	3								
Arsenic	7440-38-2	mg/kg	6	33	28.8	1.67	90.2	19	13.7	17.2	10.3	5.54
Barium	7440-39-3	mg/kg	7000									
Beryllium	7440-41-7	mg/kg	NA									
Cadmium	7440-43-9	mg/kg	0.6	10	0.306	< 0.609	3.33	< 1.3	< 0.896	0.577	2.42	0.245
Cadmium	7440-43-9	umol/g	0.6	1000000								
Calcium	7440-70-2	mg/kg	--									
Chromium	7440-47-3	mg/kg	26	110	18.5	13.9	16.4	17.9	16.1	19.3	23.6	8
Cobalt	7440-48-4	mg/kg	50									
Copper	7440-50-8	mg/kg	16	110	13.3	11.2	57.2	9.51	16	19.8	21.5	8.37
Copper	7440-50-8	umol/g	16	1000000								
Iron	7439-89-6	mg/kg	20000									
Lead	7439-92-1	mg/kg	31	250	920	1090	318	967	1160	460	398	335
Lead	7439-92-1	umol/g	31	1000000								
Magnesium	7439-95-4	mg/kg	460									

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-C12-06	SD-R-C12-07	SD-R-C13-03	SD-R-C13-04	SD-R-D13-11	SD-R-D13-12	SD-R-D13-12	SD-R-D13-13
				Sample Date	5/25/2006	5/25/2006	5/23/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-031N	SD-R-C13-041.0N	SD-R-D13-111.0N	SD-R-D13-121.0FD	SD-R-D13-121.0N	SD-R-D13-131.0N
				Parent ID						SD-R-D13-121.0N		
				Subdrainage Area	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL								
Manganese	7439-96-5	mg/kg	630	1100								
Mercury	7439-97-6	mg/kg	0.2	2	0.339	0.0423	0.305	1.95	7.51	0.76	0.629	0.174
Mercury	7439-97-6	umol/g	0.2	1000000								
Nickel	7440-02-0	mg/kg	16	75	9	6.48	29.2	4.29	4.67	9.55	12	2.66
Nickel	7440-02-0	umol/g	16	1000000								
Potassium	7440-09-7	mg/kg	--									
Selenium	7782-49-2	mg/kg	2									
Silver	7440-22-4	mg/kg	1		0.298	0.259	< 3.82	< 1.3	< 0.896	< 1.92	< 2.34	< 0.906
Sodium	7440-23-5	mg/kg	--									
Thallium	7440-28-0	mg/kg	--									
Vanadium	7440-62-2	mg/kg	57									
Zinc	7440-66-6	mg/kg	120	820	133	76.4	549	25.2	37.2	91.5	102	31.8
Zinc	7440-66-6	umol/g	120	1000000								
Moisture												
Percent Moisture	MOIST	%	--		37.5	21.8	86.9	61.6	44.2	74.5	78.6	45.9
Total Solids	TSO	%	--									
SVOCs												
1-Methylnaphthalene	90-12-0	ug/kg	20.2									
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4		410		< 1300		< 300	< 650	< 780	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8		< 270		< 1300		< 300	< 650	< 780	
2-Methylnaphthalene	91-57-6	ug/kg	70									
Acenaphthene	83-32-9	ug/kg	16		< 270		< 1300		< 300	< 650	< 780	
Acenaphthylene	208-96-8	ug/kg	44		53		< 1300		< 300	< 650	< 780	
Anthracene	120-12-7	ug/kg	220	370000	57		< 1300		120	< 650	< 780	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000	200		< 1300		390	360	160	
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	230		< 1300		370	360	< 780	
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200								
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	180		< 1300		310	290	< 780	
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	170		< 1300		200	200	< 780	
Chrysene	218-01-9	ug/kg	340	460000	260		< 1300		470	430	< 780	
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	< 270		< 1300		87	< 650	< 780	
Fluoranthene	206-44-0	ug/kg	750	1020000	300		270		830	770	290	
Fluorene	86-73-7	ug/kg	190	160000	< 270		< 1300		< 300	< 650	< 780	
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000								
Naphthalene	91-20-3	ug/kg	160	2100000	< 270		< 1300		< 300	< 650	< 780	
Phenanthrene	85-01-8	ug/kg	560	950000	160		280		440	400	170	
Pyrene	129-00-0	ug/kg	490	850000	630		360		800	770	280	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-C12-06	SD-R-C12-07	SD-R-C13-03	SD-R-C13-04	SD-R-D13-11	SD-R-D13-12	SD-R-D13-12	SD-R-D13-13
				Sample Date	5/25/2006	5/25/2006	5/23/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006	5/23/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-031N	SD-R-C13-041.0N	SD-R-D13-111.0N	SD-R-D13-121.0FD	SD-R-D13-121.0N	SD-R-D13-131.0N
				Parent ID						SD-R-D13-121.0N		
				Subdrainage Area	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches	TNT-PETN-NG Ditches
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL								
Total Organic Carbon												
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--									
Total Organic Carbon	TOC	mg/kg	--		32000	2400	410000	38000	14000	210000	200000	36000
TPH												
Amyl alcohol	71-41-0	ug/kg	--									
Di-N-Propyl Ether	111-43-3	ug/kg	--									
Ethanol	64-17-5	ug/kg	--									
Ethyl ether	60-29-7	ug/kg	--									
Methanol	67-56-1	ug/kg	--									
N-butyl ether	142-96-1	ug/kg	--									
VOCs												
1,1,1-Trichloroethane	71-55-6	ug/kg	--									
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850									
1,1,2-Trichloroethane	79-00-5	ug/kg	--									
1,1-Dichloroethane	75-34-3	ug/kg	--									
1,1-Dichloroethene	75-35-4	ug/kg	19.4									
1,2-Dichloroethane	107-06-2	ug/kg	--									
1,2-Dichloropropane	78-87-5	ug/kg	--									
2-Chloroethylvinylether	110-75-8	ug/kg	--									
Acrolein	107-02-8	ug/kg	0.00152									
Acrylonitrile	107-13-1	ug/kg	1.2									
Benzene	71-43-2	ug/kg	340									
Bromodichloromethane	75-27-4	ug/kg	--									
Bromoform	75-25-2	ug/kg	--									
Bromomethane	74-83-9	ug/kg	1.37									
Carbon Tetrachloride	56-23-5	ug/kg	1450									
Chlorobenzene	108-90-7	ug/kg	291									
Chloroethane	75-00-3	ug/kg	--									
Chloroform	67-66-3	ug/kg	121									
Chloromethane	74-87-3	ug/kg	--									
cis-1,2-Dichloroethene	156-59-2	ug/kg	--									
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--									
Dibromochloromethane	124-48-1	ug/kg	--									
Ethylbenzene	100-41-4	ug/kg	1400									
Methylene Chloride	75-09-2	ug/kg	159									
Tetrachloroethene	127-18-4	ug/kg	450									
Toluene	108-88-3	ug/kg	2500									
trans-1,2-Dichloroethene	156-60-5	ug/kg	--									
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--									
Trichloroethene	79-01-6	ug/kg	1600									
Trichlorofluoromethane	75-69-4	ug/kg	--									
Vinyl Chloride	75-01-4	ug/kg	202									
Xylenes (total)	1330-20-7	ug/kg	--									

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-ERA-M7-UP-01	SD-ERA-M7-UP-01	SD-ERA-N7-UP-02	SD-ERA-N7-UP-03	SD-ERA-N7-UP-04	SD-ERA-N7-UP-05	SD-M7-2-01	SD-N7-1-01	SD-N7-2-01	SD-N7-3-01	SD-N7-4-01	SD-N7-5-01	SD-N7-6-01	SD-N7-7-01	SD-R-M7-02	SD-R-M7-02
					Sample Date	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/24/2001	3/30/2006	3/30/2006
					Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-BD060916	SD-ERA-M7-UP-01	SD-ERA-N7-UP-02	SD-ERA-N7-UP-03	SD-ERA-N7-UP-04	SD-ERA-N7-UP-05	SD-M7-2-011N	SD-N7-1-011N	SD-N7-2-011N	SD-N7-3-011N	SD-N7-4-011N	SD-N7-5-011N	SD-N7-6-011N	SD-N7-7-011N	SD-R-M7-021.0FD	SD-R-M7-021.0N
					Parent ID	SD-ERA-M7-UP-01															
					Subdrainage Area	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160																	< 620	< 640
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100																	< 620	< 640
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300																	< 620	< 640
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500																	< 620	< 640
Nitrobenzene	98-95-3	ug/kg	145																	< 620	< 640
Nitrocellulose	9004-70-0	ug/kg	--																	< 250000	< 250000
Nitroglycerin	55-63-0	ug/kg	127000																	< 12000	< 13000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380																	< 1500	< 1600
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000																	< 12000	< 13000
RDX (Cyclonite)	121-82-4	ug/kg	1200																	< 620	< 640
Field																					
Dissolved Oxygen	7782-44-7	mg/l	--			3.26	3.73	4.00	2.66	3.64											
pH	PH	su	--			6.15 5.69	6.08 5.88	6.10 5.55	5.80 5.74	5.92 5.34											
Specific Conductance	SC	us/cm	--			0.089	0.056	0.056	0.046	0.052											
Temperature	TEMP	deg c	--			17.12	19.32	17.54	17.04	17.73											
Turbidity	TURBIDITY	ntu	--			71000.0	10.0	2.1	33.1	4.6											
GenChem			--																		
Acid Volatile Sulfide	1313-84-4	umol/g	--			< 0.63 U	< 0.63 U	< 0.63 U	< 0.63 U	< 0.63 U											
Grain Size																					
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--																	99.6	99.8
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--																	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--																	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--			4.5	3.0	0.50		< 0.50 U											
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--			5.5	3.5	2.5		3.0											
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--			8.5	7.0	4.0		9.5											
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--			23.0	22.0	24.5		34.0											
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--			30.5	30.0	41.5		49.0											
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--			26.0	44.0	44.0		60.0											
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--			24.9	52.2	45.7		65.8											
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--			29.7	59.9	54.7		75.1											
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--			36.9	70.6	68.0		83.6											
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--			49.7	83.3	83.7		90.2											
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--			72.0	95.4	95.1		94.9											
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--			99.9	100	100		100											
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--			99.2	100	99.9		96.0											
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--			99.6	100	100		96.0											
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--			100	100	100		100											
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--			99.9	100	100		96.0											
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--			100	100	100		100											
Sieve, 1 micron, % passing	SIEVE_1U	%	--																	< 1	2.5
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--																	74	74.5
Sieve, 150 micron, % passing	SIEVE_150U	%	--																	44.4	44.1
Sieve, 2 micron, % passing	SIEVE_2U	%	--																	< 1	3
Sieve, 20 micron, % passing	SIEVE_20U	%	--																	4.5	10
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--																	77.9	79.1
Sieve, 300 micron, % passing	SIEVE_300U	%	--																	55	55.4
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--																	91.1	90.6
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--																	95.9	95.9
Sieve, 5 micron, % passing	SIEVE_5U	%	--																	< 1	5
Sieve, 50 micron, % passing	SIEVE_50U	%	--																	11	29
Sieve, 600 micron, % passing	SIEVE_600U	%	--																	66.3	66.7
Sieve, 64 micron, % passing	SIEVE_64U	%	--																	28	34
Sieve, 75 micron, % passing	SIEVE_75U	%	--																	37.1	36
Metals																					
Arsenic	7440-38-2	mg/kg	6	33	15.5	12.2	7.23	5.36 J	17.1	8.42										2.4	1.86
Cadmium	7440-43-9	mg/kg	0.6	10																0.405	0.466
Cadmium	7440-43-9	umol/g	0.6	1000000		0.00767	0.00227	0.00274	0.00308	0.00142											
Chromium	7440-47-3	mg/kg	26	110																6.58	6.76
Copper	7440-50-8	mg/kg	16	110																15	14.4
Copper	7440-50-8	umol/g	16	1000000		0.223	0.0652	0.0643	0.0774	0.161											
Lead	7439-92-1	mg/kg	31	250	217	154	84.0	104	272	103										57.4	50.7
Lead	7439-92-1	umol/g	31	1000000		0.240	0.0745	0.0720	0.171	0.219											
Mercury	7439-97-6	mg/kg	0.2	2	1.18	0.942	0.238 J	0.259 J	0.665 J	0.293										0.137	0.122
Mercury	7439-97-6	umol/g	0.2	1000000		< 0.0000075 U	< 0.0000073 U	< 0.0000074 U	< 0.0000073 U	< 0.0000072 U											
Nickel	7440-02-0	mg/kg	16	75																5.28	5
Nickel	7440-02-0	umol/g	16	1000000		0.0434	0.185	0.0235	0.0972	0.0290											
Silver	7440-22-4	mg/kg	1																	< 0.993	< 1.07
Zinc	7440-66-6	mg/kg	120	820	1380	903	154	224	249	88.3										157	151
Zinc	7440-66-6	umol/g	120	1000000		3.42	0.352	0.498	0.412	0.255											
Moisture																					
Percent Moisture	MOIST	%	--		81.3	76.2	80.0	62.7	87.3	64.6										51.6	53.4
Total Solids	TSO	%	--			21.72	34.87	20.85	14.6	34.54											
SVOCs																					
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4																		
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8																		
Acenaphthene	83-32-9	ug/kg	16																		
Acenaphthylene	208-96-8	ug/kg	44																		
Anthracene	120-12-7	ug/kg	220	370000																	
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000																	

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-ERA-M7-UP-01	SD-ERA-M7-UP-01	SD-ERA-N7-UP-02	SD-ERA-N7-UP-03	SD-ERA-N7-UP-04	SD-ERA-N7-UP-05	SD-M7-2-01	SD-N7-1-01	SD-N7-2-01	SD-N7-3-01	SD-N7-4-01	SD-N7-5-01	SD-N7-6-01	SD-N7-7-01	SD-R-M7-02	SD-R-M7-02
				Sample Date	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/24/2001	3/30/2006	3/30/2006
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-BD060916	SD-ERA-M7-UP-01	SD-ERA-N7-UP-02	SD-ERA-N7-UP-03	SD-ERA-N7-UP-04	SD-ERA-N7-UP-05	SD-M7-2-011N	SD-N7-1-011N	SD-N7-2-011N	SD-N7-3-011N	SD-N7-4-011N	SD-N7-5-011N	SD-N7-6-011N	SD-N7-7-011N	SD-R-M7-021.0FD	SD-R-M7-021.0N
				Parent ID	SD-ERA-M7-UP-01														SD-R-M7-021.0N	
				Subdrainage Area	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000																
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000																
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000																
Chrysene	218-01-9	ug/kg	340	460000																
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000																
Fluoranthene	206-44-0	ug/kg	750	1020000																
Fluorene	86-73-7	ug/kg	190	160000																
Naphthalene	91-20-3	ug/kg	160	2100000																
Phenanthrene	85-01-8	ug/kg	560	950000																
Pyrene	129-00-0	ug/kg	490	850000																

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-ERA-M7-UP-01	SD-ERA-M7-UP-01	SD-ERA-N7-UP-02	SD-ERA-N7-UP-03	SD-ERA-N7-UP-04	SD-ERA-N7-UP-05	SD-M7-2-01	SD-N7-1-01	SD-N7-2-01	SD-N7-3-01	SD-N7-4-01	SD-N7-5-01	SD-N7-6-01	SD-N7-7-01	SD-R-M7-02	SD-R-M7-02
				Sample Date	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/24/2001	3/30/2006	3/30/2006
				Sample Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-BD060916	SD-ERA-M7-UP-01	SD-ERA-N7-UP-02	SD-ERA-N7-UP-03	SD-ERA-N7-UP-04	SD-ERA-N7-UP-05	SD-M7-2-011N	SD-N7-1-011N	SD-N7-2-011N	SD-N7-3-011N	SD-N7-4-011N	SD-N7-5-011N	SD-N7-6-011N	SD-N7-7-011N	SD-R-M7-021.0FD SD-R-M7-021.0N	SD-R-M7-021.0N
				Parent ID	SD-ERA-M7-UP-01															
				Subdrainage Area	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--			251000	220000	129000	400000	114000										
Total Organic Carbon	TOC	mg/kg	--			251000	220000	129000	400000	114000									120000	40000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--								< 10000	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000		
Di-N-Propyl Ether	111-43-3	ug/kg	--								< 10000	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000		
Ethanol	64-17-5	ug/kg	--								< 10000	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000		
Ethyl ether	60-29-7	ug/kg	--								< 10000	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000		
Methanol	67-56-1	ug/kg	--								< 10000	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000		
N-butyl ether	142-96-1	ug/kg	--								< 10000	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000		
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
1,1,2-Trichloroethane	79-00-5	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
1,1-Dichloroethane	75-34-3	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
1,1-Dichloroethene	75-35-4	ug/kg	19.4								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
1,2-Dichloroethane	107-06-2	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
1,2-Dichloropropane	78-87-5	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
2-Chloroethylvinylether	110-75-8	ug/kg	--								< 240	< 740	< 250	< 250	< 340	< 240	< 380	< 240		
Acrolein	107-02-8	ug/kg	0.00152								< 2400	< 7400	< 2500	< 2500	< 3400	< 2400	< 3800	< 2400		
Acrylonitrile	107-13-1	ug/kg	1.2								< 480	< 1500	< 490	< 510	< 680	< 490	< 770	< 480		
Benzene	71-43-2	ug/kg	340								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Bromodichloromethane	75-27-4	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Bromoform	75-25-2	ug/kg	--								< 240	< 370	< 250	< 250	< 340	< 240	< 190	< 240		
Bromomethane	74-83-9	ug/kg	1.37								< 240	< 740	< 250	< 250	< 340	< 240	< 380	< 240		
Carbon Tetrachloride	56-23-5	ug/kg	1450								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Chlorobenzene	108-90-7	ug/kg	291								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Chloroethane	75-00-3	ug/kg	--								< 240	< 740	< 250	< 250	< 340	< 240	< 380	< 240		
Chloroform	67-66-3	ug/kg	121								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Chloromethane	74-87-3	ug/kg	--								< 240	< 740	< 250	< 250	< 340	< 240	< 380	< 240		
cis-1,2-Dichloroethene	156-59-2	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Dibromochloromethane	124-48-1	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Ethylbenzene	100-41-4	ug/kg	1400								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Methylene Chloride	75-09-2	ug/kg	159								< 240	< 740	< 250	< 250	< 340	< 240	< 380	< 240		
Tetrachloroethene	127-18-4	ug/kg	450								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Toluene	108-88-3	ug/kg	2500								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
trans-1,2-Dichloroethene	156-60-5	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Trichloroethene	79-01-6	ug/kg	1600								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Trichlorofluoromethane	75-69-4	ug/kg	--								< 240	< 740	< 250	< 250	< 340	< 240	< 380	< 240		
Vinyl Chloride	75-01-4	ug/kg	202								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		
Xylenes (total)	1330-20-7	ug/kg	--								< 120	< 370	< 120	< 130	< 170	< 120	< 190	< 120		

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06	SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O7-01
					Sample Date	3/30/2006	3/30/2006	4/7/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	3/30/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N	SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O7-011.0N
					Parent ID																
					Subdrainage Area	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160			< 860	< 1100	< 1900	< 640	< 400	< 760	< 730	< 1800	< 890	< 710	< 480	< 720	< 800	< 960	< 2100	< 680
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100			< 860	< 1100	< 1900	< 640	< 400	< 760	< 730	< 1800	< 890	< 710	< 480	< 720	< 800	< 960	< 2100	< 680
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300			< 860	< 1100	< 1900	< 640	< 400	< 760	< 730	< 1800	< 890	< 710	< 480	< 720	< 800	< 960	< 2100	< 680
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500			< 860	< 1100	< 1900	< 640	< 400	< 760	< 730	< 1800	< 890	< 710	< 480	< 720	< 800	< 960	< 2100	< 680
Nitrobenzene	98-95-3	ug/kg	145			< 860	< 1100	< 1900	< 640	< 400	< 760	< 730	< 1800	< 890	< 710	< 480	< 720	< 800	< 960	< 2100	< 680
Nitrocellulose	9004-70-0	ug/kg	--			< 350000	< 420000	< 780000	< 250000	< 160000	< 300000	< 290000	< 730000	< 350000	< 280000	< 190000	< 290000	< 320000	< 380000	< 850000	< 270000
Nitroglycerin	55-63-0	ug/kg	127000			< 17000	< 21000	< 39000	< 13000	< 7900	< 15000	< 15000	< 36000	< 18000	< 14000	< 9500	< 14000	< 16000	< 19000	< 42000	< 14000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380			< 2100	< 2700	< 4900	< 1600	< 990	< 1900	< 1800	< 4500	< 2200	< 1800	< 1200	< 1800	< 2000	< 2400	< 5300	< 1700
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000			< 17000	< 21000	< 39000	< 13000	< 7900	< 15000	< 15000	< 36000	< 18000	< 14000	< 9500	< 14000	< 16000	< 19000	< 42000	< 14000
RDX (Cyclonite)	121-82-4	ug/kg	1200			< 1500	< 1100	< 1900	< 640	< 400	< 760	< 730	< 1800	< 890	< 710	< 480	< 720	< 800	< 960	< 2100	< 680
Field																					
Dissolved Oxygen	7782-44-7	mg/l	--																		
pH	PH	su	--																		
Specific Conductance	SC	us/cm	--																		
Temperature	TEMP	deg c	--																		
Turbidity	TURBIDITY	ntu	--																		
GenChem			--																		
Acid Volatile Sulfide	1313-84-4	umol/g	--																		
Grain Size																					
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--			99.2		100	99.3	100	92.1	100		100	96.1	100	100	100	80.3	100	100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--			100		100	100	100	100	100		100	100	100	100	100	100	100	100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--			100		100	100	100	100	100		100	100	100	100	100	100	100	100
Sieve Size 0.001 mm	SIEVE_.001mm	% PASSING	--																		
Sieve Size 0.002 mm	SIEVE_.002mm	% PASSING	--																		
Sieve Size 0.005 mm	SIEVE_.005mm	% PASSING	--																		
Sieve Size 0.02 mm	SIEVE_.02mm	% PASSING	--																		
Sieve Size 0.05 mm	SIEVE_.05mm	% PASSING	--																		
Sieve Size 0.064 mm	SIEVE_.064mm	% PASSING	--																		
Sieve Size 0.075 mm	SIEVE_.075mm	% PASSING	--																		
Sieve Size 0.15 mm	SIEVE_.15mm	% PASSING	--																		
Sieve Size 0.3 mm	SIEVE_.3mm	% PASSING	--																		
Sieve Size 0.6 mm	SIEVE_.6mm	% PASSING	--																		
Sieve Size 1.18 mm	SIEVE_1.18mm	% PASSING	--																		
Sieve Size 19 mm	SIEVE_19mm	% PASSING	--																		
Sieve Size 2.36 mm	SIEVE_2.36mm	% PASSING	--																		
Sieve Size 3.35 mm	SIEVE_3.35mm	% PASSING	--																		
Sieve Size 37.5 mm	SIEVE_37.5mm	% PASSING	--																		
Sieve Size 4.75 mm	SIEVE_4.75mm	% PASSING	--																		
Sieve Size 75 mm	SIEVE_75mm	% PASSING	--																		
Sieve, 1 micron, % passing	SIEVE_1U	%	--			0.95		1	1	1.3	1	3		< 1	1	5	4.5	2	1	1	< 1
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--			53		62.7	75.5	69.5	57.5	63.1		65	72.1	93.8	76.5	78	37.7	48	74.9
Sieve, 150 micron, % passing	SIEVE_150U	%	--			20.9		31.2	44.1	53.5	36.3	31.8		40.4	36.1	57.1	42.4	42.8	13.6	29.2	50.2
Sieve, 2 micron, % passing	SIEVE_2U	%	--			2		4.5	3	1.3	4	4		< 1	2.5	6	4.5	2	1	5	< 1
Sieve, 20 micron, % passing	SIEVE_20U	%	--			8.8		24.5	15.5	5.5	17.8	13		4.5	17	24	20	18	6	23	3
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--			69.5		84.2	85	71.2	65.9	74.8		78.5	78.4	94.5	89.7	94.4	48.4	79	83.1
Sieve, 300 micron, % passing	SIEVE_300U	%	--			27.5		38.1	54.2	61	42.8	39.2		47.1	49	70.3	53.8	54.8	20.6	31.6	57.8
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--			80.8		94.7	93.3	95.9	74.8	83.5		86.4	84.9	95.4	96.4	97.5	58.6	92.3	91.9
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--			88.7		99.1	97	98.4	80	89.2		90.8	88.3	97.6	97.6	97.9	65.9	98.4	95.7
Sieve, 5 micron, % passing	SIEVE_5U	%	--			4		8.5	6	1.3	8.3	6.3		< 1	5	9.5	5.5	3.5	1	9.5	1.3
Sieve, 50 micron, % passing	SIEVE_50U	%	--			14.3		42	29.5	24.5	28	26.3		10	27.5	37	31	29	8	57.5	11.5
Sieve, 600 micron, % passing	SIEVE_600U	%	--			38.2		47.7	65.3	66	50	51		55.6	62.7	85.1	66.5	68	29.4	37.9	66.6
Sieve, 64 micron, % passing	SIEVE_64U	%	--			16.5		33	35	41.5	31	27.5		27	27.5	43.5	33.5	32.5	9.5	42.5	34.8
Sieve, 75 micron, % passing	SIEVE_75U	%	--			17.7		25.3	37.5	46.2	32.3	27.9		36.4	27.8	48	35.1	34.8	9.9	26	45.4
Metals																					
Arsenic	7440-38-2	mg/kg	6	33		29	7.43	111	< 4.22	4.94	6.25	3.02	7.31	4.5	2.16	< 3.18	3.45	3.35	43.3	9.75	2.73
Cadmium	7440-43-9	mg/kg	0.6	10		< 7.16	2.1	7.19	0.255	< 0.655	0.263	0.375	0.602	0.268	0.395	< 0.795	0.26	0.62	0.77	1.32	0.299
Cadmium	7440-43-9	umol/g	0.6	1000000																	
Chromium	7440-47-3	mg/kg	26	110		48.9	23.2	13.9	4.89	21.8	18	13.3	13.6	17.6	7.98	6.01	8.69	8.46	14.3	7.98	15.4
Copper	7440-50-8	mg/kg	16	110		64.9	357	76.2	12.2	17.7	34.3	24.1	56	26.6	9.23	3.77	14	15.6	32.4	33.9	20.2
Copper	7440-50-8	umol/g	16	1000000																	
Lead	7439-92-1	mg/kg	31	250		164	2370	209	29.3	16.7	90.6	55.1	121	63.8	43.8	15.9	86.4	93.7	53.4	125	50.1
Lead	7439-92-1	umol/g	31	1000000																	
Mercury	7439-97-6	mg/kg	0.2	2		0.242	11.4	0.807	0.114	0.0079	0.24	0.172	0.289	0.131	0.113	0.0629	0.244	0.248	0.161	0.376	0.175
Mercury	7439-97-6	umol/g	0.2	1000000																	
Nickel	7440-02-0	mg/kg	16	75		23.9	24.7	36.5	3.86	14	12.7	9.61	14.2	12.5	5.7	3.01	6.1	6.13	14.1	12.3	11.3
Nickel	7440-02-0	umol/g	16	1000000																	
Silver	7440-22-4	mg/kg	1			0.968	< 1.71	< 3.25	< 1.06	0.274	< 1.25	< 1.22	1.46	< 1.46	< 1.16	< 0.795	< 1.16	< 1.31	< 1.57	< 3.49	< 1.12
Zinc	7440-66-6	mg/kg	120	820		239	675	4500	67.4	78.1	111	113	105	71.3	44	35.8	42.2	55	81.1	210	95.3
Zinc	7440-66-6	umol/g	120	1000000																	
Moisture																					
Percent Moisture	MOIST	%	--			65.1	71.9	84.6	53.1	24.4	60.5	58.9	83.4	66.4	57.6	37.1	58.1	62.3	68.8	85.8	55.9
Total Solids	TSO	%	--																		
SVOCs																					
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4			< 480		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			< 440	< 2700	< 5900	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8			< 480		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			< 440	< 2700	< 5900	< 380
Acenaphthene	83-32-9	ug/kg	16			< 480		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			< 440	< 2700	< 5900	< 380
Acenaphthylene	208-96-8	ug/kg	44			170		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			230	< 2700	< 5900	< 380
Anthracene	120-12-7	ug/kg	220	370000		230		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			430	< 2700	< 5900	< 380
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000		830		2100	< 360	81	160		310	< 500	< 390			1100	< 2700	< 5900	< 380

				Location	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06	SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O7-01
				Sample Date	3/30/2006	3/30/2006	4/7/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	3/30/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N	SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O7-011.0N
				Parent ID																
				Subdrainage Area	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000	730		1500	< 360	76	160		330	< 500	< 390			690	< 2700	< 5900	< 380
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000	610		1300	< 360	57	150		250	< 500	< 390			410	< 2700	< 5900	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000	720		1700	< 360	57	110		< 1000	< 500	< 390			530	< 2700	< 5900	< 380
Chrysene	218-01-9	ug/kg	340	460000	1800		2900	< 360	110	260		490	< 500	< 390			1300	< 2700	< 5900	< 380
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000	180		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			180	< 2700	< 5900	< 380
Fluoranthene	206-44-0	ug/kg	750	1020000	1300		2200	< 360	96	300		480	130	< 390			1000	< 2700	< 5900	83
Fluorene	86-73-7	ug/kg	190	160000	< 480		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			< 440	< 2700	< 5900	< 380
Naphthalene	91-20-3	ug/kg	160	2100000	< 480		< 5400	< 360	< 220	< 420		< 1000	< 500	< 390			< 440	< 2700	< 5900	< 380
Phenanthrene	85-01-8	ug/kg	560	950000	230		< 5400	< 360	< 220	140		< 1000	< 500	< 390			110	< 2700	< 5900	< 380
Pyrene	129-00-0	ug/kg	490	850000	1400		2200	< 360	150	310		600	150	< 390			1200	< 2700	< 5900	91

				Location	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06	SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O7-01
				Sample Date	3/30/2006	3/30/2006	4/7/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	3/30/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N	SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O7-011.0N
				Parent ID																
				Subdrainage Area	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds	Unnamed Ponds
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
TOC Solids/Sludges Combustion	TOC-SLUDGE	mg/kg	--																	
Total Organic Carbon	TOC	mg/kg	--		130000	970000	360000	90000	4100	52000	27000	27000	37000	120000	40000	63000	170000	280000	530000	41000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--																	
Di-N-Propyl Ether	111-43-3	ug/kg	--																	
Ethanol	64-17-5	ug/kg	--																	
Ethyl ether	60-29-7	ug/kg	--																	
Methanol	67-56-1	ug/kg	--																	
N-butyl ether	142-96-1	ug/kg	--																	
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--																	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850																	
1,1,2-Trichloroethane	79-00-5	ug/kg	--																	
1,1-Dichloroethane	75-34-3	ug/kg	--																	
1,1-Dichloroethene	75-35-4	ug/kg	19.4																	
1,2-Dichloroethane	107-06-2	ug/kg	--																	
1,2-Dichloropropane	78-87-5	ug/kg	--																	
2-Chloroethylvinylether	110-75-8	ug/kg	--																	
Acrolein	107-02-8	ug/kg	0.00152																	
Acrylonitrile	107-13-1	ug/kg	1.2																	
Benzene	71-43-2	ug/kg	340																	
Bromodichloromethane	75-27-4	ug/kg	--																	
Bromoform	75-25-2	ug/kg	--																	
Bromomethane	74-83-9	ug/kg	1.37																	
Carbon Tetrachloride	56-23-5	ug/kg	1450																	
Chlorobenzene	108-90-7	ug/kg	291																	
Chloroethane	75-00-3	ug/kg	--																	
Chloroform	67-66-3	ug/kg	121																	
Chloromethane	74-87-3	ug/kg	--																	
cis-1,2-Dichloroethene	156-59-2	ug/kg	--																	
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--																	
Dibromochloromethane	124-48-1	ug/kg	--																	
Ethylbenzene	100-41-4	ug/kg	1400																	
Methylene Chloride	75-09-2	ug/kg	159																	
Tetrachloroethene	127-18-4	ug/kg	450																	
Toluene	108-88-3	ug/kg	2500																	
trans-1,2-Dichloroethene	156-60-5	ug/kg	--																	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--																	
Trichloroethene	79-01-6	ug/kg	1600																	
Trichlorofluoromethane	75-69-4	ug/kg	--																	
Vinyl Chloride	75-01-4	ug/kg	202																	
Xylenes (total)	1330-20-7	ug/kg	--																	

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

				Location	SD-J5-1-01	SD-J5-2-01	SD-K4-1-01	SD-K5-1-01	SD-K5-1-01	SD-K5-2-01	SD-K5-3-01	SD-K5-4-01	SD-L5-1-01	SD-R2-K-5-1	SD-R2-K-5-2	SD-R-J5-01	SD-R-K4-01	SD-R-K5-01	SD-R-K5-02	SD-R-K5-03
				Sample Date	4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/20/2001	11/4/2013	11/4/2013	3/28/2006	3/28/2006	3/27/2006	3/27/2006	3/27/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-J5-1-011N	SD-J5-2-011N	SD-K4-1-011N	SD-K5-1-010.5FD	SD-K5-1-011N	SD-K5-2-011N	SD-K5-3-011N	SD-K5-4-011N	SD-L5-1-011N	D-R2-K-5-1_2013110	D-R2-K-5-2_2013110	SD-R-J5-011.0N	SD-R-K4-011.0N	SD-R-K5-011.0N	SD-R-K5-021.0N	SD-R-K5-031.0N
				Parent ID				SD-K5-1-011N												
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Explosives																				
1,2-Dinitrobenzene	528-29-0	ug/kg	--											< 1600	< 1300					
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160											< 1600	< 1300	< 780	< 870	< 1600	< 1900	< 1900
1,3-Dinitrobenzene	99-65-0	ug/kg	500											< 1600	< 1300					
1,4-Dinitrobenzene	100-25-4	ug/kg	--											< 1600	< 1300					
1-Nitronaphthalene	86-57-7	ug/kg	--											< 1600	< 1300					
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100											< 1600	< 1300	< 780	< 870	< 1600	< 1900	< 1900
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8											< 1600	< 1300					
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300											< 1600	< 1300	< 780	< 870	< 1600	< 1900	< 1900
2-Nitrotoluene	88-72-2	ug/kg	620000											< 1600	< 1300					
3-Nitrotoluene	99-08-1	ug/kg	190000											< 1600	< 1300					
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500											< 1600	< 1300	< 780	< 870	< 1600	< 1900	< 1900
4-Nitrotoluene	99-99-0	ug/kg	68000											< 1600	< 1300					
Nitrobenzene	98-95-3	ug/kg	145											< 1600	< 1300	< 780	< 870	< 1600	< 1900	< 1900
Nitrocellulose	9004-70-0	ug/kg	--													< 310000	< 300000	< 660000	< 750000	< 780000
Nitroglycerin	55-63-0	ug/kg	127000											< 31000	< 26000	< 16000	< 17000	< 33000	< 38000	< 39000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380											< 3900	< 3300	< 1900	< 2200	< 4100	< 4700	< 4800
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000											< 31000	< 26000	< 16000	< 17000	< 33000	< 38000	< 39000
RDX (Cyclonite)	121-82-4	ug/kg	1200											< 1600	< 1300	< 780	< 870	< 1600	< 1900	< 1900
Tetryl	479-45-8	ug/kg	600											< 1600	< 1300					
Grain Size																				
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--														100			100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--														100			100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--														100			100
Sieve, 1 micron, % passing	SIEVE_1U	%	--														< 1			0.5
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--														74.2			36.5
Sieve, 150 micron, % passing	SIEVE_150U	%	--														33.5			30.8
Sieve, 2 micron, % passing	SIEVE_2U	%	--														< 1			0.5
Sieve, 20 micron, % passing	SIEVE_20U	%	--														14			7
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--														87.7			49.2
Sieve, 300 micron, % passing	SIEVE_300U	%	--														46.1			32
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--														94.6			67.9
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--														97.7			88.4
Sieve, 5 micron, % passing	SIEVE_5U	%	--														2.5			0.5
Sieve, 50 micron, % passing	SIEVE_50U	%	--														22			14
Sieve, 600 micron, % passing	SIEVE_600U	%	--														59.9			33.8
Sieve, 64 micron, % passing	SIEVE_64U	%	--														25			23
Sieve, 75 micron, % passing	SIEVE_75U	%	--														26.6			29.8
Metals																				
Aluminum	7429-90-5	mg/kg	25500											13800	23100					
Antimony	7440-36-0	mg/kg	3	3										< 10.4	< 8.4					
Arsenic	7440-38-2	mg/kg	6	33										10.4	7.05	< 5.17	5.94	10.4	5.53	7.66
Barium	7440-39-3	mg/kg	7000											175	164					
Beryllium	7440-41-7	mg/kg	NA											1.85	2.04					
Cadmium	7440-43-9	mg/kg	0.6	10										1.74	1.17	0.535	1.02	0.768	0.614	1.23
Calcium	7440-70-2	mg/kg	--											13200	13300					
Chromium	7440-47-3	mg/kg	26	110										18.6	52.1	9.43	18.4	17.7	9.36	8.02
Cobalt	7440-48-4	mg/kg	50											2.97	2.78					
Copper	7440-50-8	mg/kg	16	110										52.2	37.4	18.6	26.4	67.6	30.6	32
Iron	7439-89-6	mg/kg	20000											23400	10500					
Lead	7439-92-1	mg/kg	31	250										214	155	93.3	105	127	58.9	146
Magnesium	7439-95-4	mg/kg	460											1730	2320					
Manganese	7439-96-5	mg/kg	630	1100										514	164					
Mercury	7439-97-6	mg/kg	0.2	2										1.17	0.761	0.177	0.221	0.452	0.324	0.356
Nickel	7440-02-0	mg/kg	16	75										15.2	14.8	6.8	14.5	7.47	6.9	8.39
Potassium	7440-09-7	mg/kg	--											430	460					
Selenium	7782-49-2	mg/kg	2											5.49	< 8.4					
Silver	7440-22-4	mg/kg	1											< 2.6	< 2.1	< 1.29	< 1.42	< 2.67	< 3.13	< 3.19
Sodium	7440-23-5	mg/kg	--											138	121					
Thallium	7440-28-0	mg/kg	--											< 15.6	< 12.6					
Vanadium	7440-62-2	mg/kg	57											36.7	26.6					
Zinc	7440-66-6	mg/kg	120	820										219	245	79.7	107	191	115	163
Moisture																				
Percent Moisture	MOIST	%	--											80.8	77.1	61.3	65.6	81.8	84.2	84.5
SVOCs																				
1-Methylnaphthalene	90-12-0	ug/kg	20.2											120	< 450					
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4																	
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8																	
2-Methylnaphthalene	91-57-6	ug/kg	70											130	< 450					
Acenaphthene	83-32-9	ug/kg	16											< 530	< 450					
Acenaphthylene	208-96-8	ug/kg	44											< 530	< 450					
Anthracene	120-12-7	ug/kg	220	370000										< 530	< 450					
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000										170	< 450					
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000										180	89					
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200										410	210					
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000										160	100					
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000										150	95					
Chrysene	218-01-9	ug/kg	340	460000										360	240					
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000										< 530	< 450					
Fluoranthene	206-44-0	ug/kg	750	1020000										630	460					
Fluorene	86-73-7	ug/kg	190	160000										210	< 450					

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-J5-1-01	SD-J5-2-01	SD-K4-1-01	SD-K5-1-01	SD-K5-1-01	SD-K5-2-01	SD-K5-3-01	SD-K5-4-01	SD-L5-1-01	SD-R2-K-5-1	SD-R2-K-5-2	SD-R-J5-01	SD-R-K4-01	SD-R-K5-01	SD-R-K5-02	SD-R-K5-03
				Sample Date	4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/20/2001	11/4/2013	11/4/2013	3/28/2006	3/28/2006	3/27/2006	3/27/2006	3/27/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-J5-1-011N	SD-J5-2-011N	SD-K4-1-011N	SD-K5-1-010.5FD	SD-K5-1-011N	SD-K5-2-011N	SD-K5-3-011N	SD-K5-4-011N	SD-L5-1-011N	D-R2-K-5-1_2013110	D-R2-K-5-2_2013110	SD-R-J5-011.0N	SD-R-K4-011.0N	SD-R-K5-011.0N	SD-R-K5-021.0N	SD-R-K5-031.0N
				Parent ID				SD-K5-1-011N													
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000										150	< 450					
Naphthalene	91-20-3	ug/kg	160	2100000										170	< 450					
Phenanthrene	85-01-8	ug/kg	560	950000										380	190					
Pyrene	129-00-0	ug/kg	490	850000										400	270					

				Location	SD-J5-1-01	SD-J5-2-01	SD-K4-1-01	SD-K5-1-01	SD-K5-1-01	SD-K5-2-01	SD-K5-3-01	SD-K5-4-01	SD-L5-1-01	SD-R2-K-5-1	SD-R2-K-5-2	SD-R-J5-01	SD-R-K4-01	SD-R-K5-01	SD-R-K5-02	SD-R-K5-03
				Sample Date	4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/20/2001	11/4/2013	11/4/2013	3/28/2006	3/28/2006	3/27/2006	3/27/2006	3/27/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-J5-1-011N	SD-J5-2-011N	SD-K4-1-011N	SD-K5-1-010.5FD	SD-K5-1-011N	SD-K5-2-011N	SD-K5-3-011N	SD-K5-4-011N	SD-L5-1-011N	D-R2-K-5-1_2013110	D-R2-K-5-2_2013110	SD-R-J5-011.0N	SD-R-K4-011.0N	SD-R-K5-011.0N	SD-R-K5-021.0N	SD-R-K5-031.0N
				Parent ID				SD-K5-1-011N												
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--											244000	192000	35000	180000	95000	71000	53000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--		< 63000	< 28000	< 10000		< 10000	< 70000	< 26000	< 84000	< 21000							
Di-N-Propyl Ether	111-43-3	ug/kg	--		< 63000	< 28000	< 10000		< 10000	< 70000	< 26000	< 84000	< 21000							
Ethanol	64-17-5	ug/kg	--		< 63000	< 28000	< 10000		< 10000	< 70000	< 26000	< 84000	< 21000							
Ethyl ether	60-29-7	ug/kg	--		< 63000	< 28000	< 10000		< 10000	< 70000	< 26000	< 84000	< 21000							
Methanol	67-56-1	ug/kg	--		< 63000	< 28000	< 10000		< 10000	< 70000	< 26000	< 84000	< 21000							
N-butyl ether	142-96-1	ug/kg	--		< 63000	< 28000	< 10000		< 10000	< 70000	< 26000	< 84000	< 21000							
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
1,1,2-Trichloroethane	79-00-5	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
1,1-Dichloroethane	75-34-3	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
1,1-Dichloroethene	75-35-4	ug/kg	19.4		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
1,2-Dichloroethane	107-06-2	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
1,2-Dichloropropane	78-87-5	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
2-Chloroethylvinylether	110-75-8	ug/kg	--		< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540							
Acrolein	107-02-8	ug/kg	0.00152		< 17000	< 7200	< 2300	< 2600	< 2300	< 17000	< 7200	< 23000	< 5400							
Acrylonitrile	107-13-1	ug/kg	1.2		< 3500	< 1400	< 450	< 510	< 460	< 3400	< 1400	< 4600	< 1100							
Benzene	71-43-2	ug/kg	340		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Bromodichloromethane	75-27-4	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Bromoform	75-25-2	ug/kg	--		< 860	< 360	< 230	< 260	< 230	< 850	< 360	< 1200	< 270							
Bromomethane	74-83-9	ug/kg	1.37		< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540							
Carbon Tetrachloride	56-23-5	ug/kg	1450		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Chlorobenzene	108-90-7	ug/kg	291		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Chloroethane	75-00-3	ug/kg	--		< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540							
Chloroform	67-66-3	ug/kg	121		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Chloromethane	74-87-3	ug/kg	--		< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540							
cis-1,2-Dichloroethene	156-59-2	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Dibromochloromethane	124-48-1	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Ethylbenzene	100-41-4	ug/kg	1400		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Methylene Chloride	75-09-2	ug/kg	159		< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540							
Tetrachloroethene	127-18-4	ug/kg	450		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Toluene	108-88-3	ug/kg	2500		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
trans-1,2-Dichloroethene	156-60-5	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Trichloroethene	79-01-6	ug/kg	1600		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Trichlorofluoromethane	75-69-4	ug/kg	--		< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540							
Vinyl Chloride	75-01-4	ug/kg	202		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							
Xylenes (total)	1330-20-7	ug/kg	--		< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270							

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

					Location	SD-R-K5-04	SD-R-K5-05	SD-R-K5-06	SD-R-K5-07	SD-R-K5-08	SD-R-K5-09	SD-R-K5-10	SD-R-K5-11	SD-R-K5-12	SD-R-K5-13	SD-R-K5-14	SD-R-K5-15	SD-R-K5-16	SD-R-K5-17	SD-R-K5-18	SD-R-K5-19
					Sample Date	3/27/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/30/2006	3/30/2006	4/7/2006
					Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
					Sample ID	SD-R-K5-041.0N	SD-R-K5-051.0N	SD-R-K5-061.0N	SD-R-K5-071.0N	SD-R-K5-081.0N	SD-R-K5-091.0N	SD-R-K5-101.0N	SD-R-K5-111.0N	SD-R-K5-121.0N	SD-R-K5-131.0N	SD-R-K5-141.0N	SD-R-K5-151.0N	SD-R-K5-161.0N	SD-R-K5-171.0N	SD-R-K5-181.0N	SD-R-K5-191.0N
					Parent ID																
					Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																	
Explosives																					
1,2-Dinitrobenzene	528-29-0	ug/kg	--																		
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 720	< 550	< 1200	< 1700	< 620	< 2200	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800
1,3-Dinitrobenzene	99-65-0	ug/kg	500																	
1,4-Dinitrobenzene	100-25-4	ug/kg	--																	
1-Nitronaphthalene	86-57-7	ug/kg	--																	
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 720	< 550	< 1200	< 1700	< 620	< 2200	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	830	< 2200	< 800
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8																	
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 720	< 550	< 1200	< 1700	< 620	< 2200	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800
2-Nitrotoluene	88-72-2	ug/kg	620000																	
3-Nitrotoluene	99-08-1	ug/kg	190000																	
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 720	< 550	< 1200	< 1700	< 620	< 2200	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800
4-Nitrotoluene	99-99-0	ug/kg	68000																	
Nitrobenzene	98-95-3	ug/kg	145		< 720	< 550	< 1200	< 1700	< 620	< 2200	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800
Nitrocellulose	9004-70-0	ug/kg	--		< 280000	< 220000	< 480000	< 700000	< 250000	< 900000	< 710000	< 950000	< 660000	< 760000	< 200000	< 220000	< 170000	< 310000	< 900000	< 320000
Nitroglycerin	55-63-0	ug/kg	127000		< 14000	< 11000	< 24000	< 35000	< 12000	< 45000	< 36000	< 48000	< 33000	< 38000	< 9800	< 11000	< 8300	< 16000	< 44000	< 16000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 1800	< 1400	< 3000	< 4400	< 1600	< 5600	< 4500	< 6000	< 4100	< 4800	< 1200	< 1400	< 1000	< 2000	< 5600	< 2000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 14000	< 11000	< 24000	< 35000	< 12000	< 45000	< 36000	< 48000	< 33000	< 38000	< 9800	< 11000	< 8300	< 16000	< 44000	< 16000
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 720	< 550	< 1200	< 1700	< 620	< 2200	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800
Tetryl	479-45-8	ug/kg	600																	
Grain Size																				
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		70.4	99.9			100				100		99.9	100	97.4	99.8		99
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100			100				100		100	100	100	100		100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100			100				100		100	100	100	100		100
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1			6.3				2		2	2.3	3.8	2		2
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		55.8	74.2			71.6				74.9		87.4	88.4	64.8	75.5		54.4
Sieve, 150 micron, % passing	SIEVE_150U	%	--		24.7	39.6			42.7				44.4		53.9	56.4	37.5	41.4		22.5
Sieve, 2 micron, % passing	SIEVE_2U	%	--		2.5	2.5			9				2.5		5	4.5	6.3	5		2
Sieve, 20 micron, % passing	SIEVE_20U	%	--		16	18			25				18		29	31	21	26.5		10
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		64.8	82.6			78.4				77.1		91.1	91.3	69.1	86.8		62.4
Sieve, 300 micron, % passing	SIEVE_300U	%	--		35.9	51.7			53				56.3		66.8	69	46.5	52.3		32.4
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		67.5	90.3			89.5				87		95.8	96.2	85.6	94		74.9
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		68.9	94.9			96.8				92.7		98.3	98.4	88.1	97.6		83
Sieve, 5 micron, % passing	SIEVE_5U	%	--		5	6			13.5				5.5		8.5	9.5	11.3	9		2
Sieve, 50 micron, % passing	SIEVE_50U	%	--		23	25.5			32				28		38.5	41	28	29.5		16.5
Sieve, 600 micron, % passing	SIEVE_600U	%	--		47.1	64.4			64				67.6		79.2	81.9	56.4	64.3		44.4
Sieve, 64 micron, % passing	SIEVE_64U	%	--		20	29			34.8				32.5		43	45.8	30	33.5		16.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		19.2	31.6			36.4				35.5		45.3	48.1	31.2	34.3		17.3
Metals																				
Aluminum	7429-90-5	mg/kg	25500																	
Antimony	7440-36-0	mg/kg	3	3																
Arsenic	7440-38-2	mg/kg	6	33	4.6	9.51	7.22	10.9	10.3	< 14.9	14.1	10.5	13.6	6.91	< 3.23	< 3.68	2.52	1.84	9.83	< 5.21
Barium	7440-39-3	mg/kg	7000																	
Beryllium	7440-41-7	mg/kg	NA																	
Cadmium	7440-43-9	mg/kg	0.6	10	0.468	0.718	1.09	1.12	0.971	1.88	2.85	1.12	1.74	1.02	< 0.808	0.433	0.319	1.84	1.29	0.425
Calcium	7440-70-2	mg/kg	--																	
Chromium	7440-47-3	mg/kg	26	110	13	20.5	48.6	13.3	19	11	18.7	22.3	19	17.7	10.3	8.81	13.8	17	9.65	6.3
Cobalt	7440-48-4	mg/kg	50																	
Copper	7440-50-8	mg/kg	16	110	22.5	32.8	24.3	38.2	11	75.8	134	81.2	65.6	35.2	6.85	13.9	22.3	584	35.1	134
Iron	7439-89-6	mg/kg	20000																	
Lead	7439-92-1	mg/kg	31	250	95.6	54.3	84.2	135	21	159	213	196	241	93.3	18.8	54.7	25.3	789	138	183
Magnesium	7439-95-4	mg/kg	460																	
Manganese	7439-96-5	mg/kg	630	1100																
Mercury	7439-97-6	mg/kg	0.2	2	0.345	0.189	0.525	0.697	0.0939	0.501	2.02	1.28	1.67	0.317	0.0444	0.099	0.506	2.79	0.473	2.37
Nickel	7440-02-0	mg/kg	16	75	6.23	8.27	8.47	9.83	11.4	8.3	16.6	14.1	12.5	12.4	5.59	5.09	12	14.1	9.33	3.21
Potassium	7440-09-7	mg/kg	--																	
Selenium	7782-49-2	mg/kg	2																	
Silver	7440-22-4	mg/kg	1		< 1.18	< 0.884	< 1.99	< 2.91	< 1.04	< 3.73	< 2.99	< 3.85	< 2.69	< 3.18	< 0.808	< 0.921	0.292	< 1.32	< 3.67	< 1.3
Sodium	7440-23-5	mg/kg	--																	
Thallium	7440-28-0	mg/kg	--																	
Vanadium	7440-62-2	mg/kg	57																	
Zinc	7440-66-6	mg/kg	120	820	97.1	126	257	199	112	603	1000	311	286	169	71.2	76.6	320	392	157	236
Moisture																				
Percent Moisture	MOIST	%	--		58.1	45.6	74.9	82.8	51.7	86.6	83.3	87.4	81.6	84.3	38.7	45.7	27.9	62	86.5	62.4
SVOCs																				
1-Methylnaphthalene	90-12-0	ug/kg	20.2																	
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4				< 660													
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8				< 660													
2-Methylnaphthalene	91-57-6	ug/kg	70																	
Acenaphthene	83-32-9	ug/kg	16				< 660													
Acenaphthylene	208-96-8	ug/kg	44				< 660													
Anthracene	120-12-7	ug/kg	220	370000			< 660													
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000			< 660													
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000			< 660													
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200																
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000			< 660													
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000			< 660													
Chrysene	218-01-9	ug/kg	340	460000			< 660													
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000			< 660													
Fluoranthene	206-44-0	ug/kg	750	1020000			150													
Fluorene	86-73-7	ug/kg	190	160000			< 660													

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-K5-04	SD-R-K5-05	SD-R-K5-06	SD-R-K5-07	SD-R-K5-08	SD-R-K5-09	SD-R-K5-10	SD-R-K5-11	SD-R-K5-12	SD-R-K5-13	SD-R-K5-14	SD-R-K5-15	SD-R-K5-16	SD-R-K5-17	SD-R-K5-18	SD-R-K5-19
				Sample Date	3/27/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/30/2006	3/30/2006	4/7/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-K5-041.0N	SD-R-K5-051.0N	SD-R-K5-061.0N	SD-R-K5-071.0N	SD-R-K5-081.0N	SD-R-K5-091.0N	SD-R-K5-101.0N	SD-R-K5-111.0N	SD-R-K5-121.0N	SD-R-K5-131.0N	SD-R-K5-141.0N	SD-R-K5-151.0N	SD-R-K5-161.0N	SD-R-K5-171.0N	SD-R-K5-181.0N	SD-R-K5-191.0N
				Parent ID																
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000																
Naphthalene	91-20-3	ug/kg	160	2100000			< 660													
Phenanthrene	85-01-8	ug/kg	560	950000			< 660													
Pyrene	129-00-0	ug/kg	490	850000			< 660													

				Location	SD-R-K5-04	SD-R-K5-05	SD-R-K5-06	SD-R-K5-07	SD-R-K5-08	SD-R-K5-09	SD-R-K5-10	SD-R-K5-11	SD-R-K5-12	SD-R-K5-13	SD-R-K5-14	SD-R-K5-15	SD-R-K5-16	SD-R-K5-17	SD-R-K5-18	SD-R-K5-19
				Sample Date	3/27/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/30/2006	3/30/2006	4/7/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-K5-041.0N	SD-R-K5-051.0N	SD-R-K5-061.0N	SD-R-K5-071.0N	SD-R-K5-081.0N	SD-R-K5-091.0N	SD-R-K5-101.0N	SD-R-K5-111.0N	SD-R-K5-121.0N	SD-R-K5-131.0N	SD-R-K5-141.0N	SD-R-K5-151.0N	SD-R-K5-161.0N	SD-R-K5-171.0N	SD-R-K5-181.0N	SD-R-K5-191.0N
				Parent ID																
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL																
Total Organic Carbon																				
Total Organic Carbon	TOC	mg/kg	--		25000	30000	190000	77000	88000	290000	75000	170000	190000	85000	4000	69000	2900	34000	110000	140000
TPH																				
Amyl alcohol	71-41-0	ug/kg	--																	
Di-N-Propyl Ether	111-43-3	ug/kg	--																	
Ethanol	64-17-5	ug/kg	--																	
Ethyl ether	60-29-7	ug/kg	--																	
Methanol	67-56-1	ug/kg	--																	
N-butyl ether	142-96-1	ug/kg	--																	
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/kg	--																	
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850																	
1,1,2-Trichloroethane	79-00-5	ug/kg	--																	
1,1-Dichloroethane	75-34-3	ug/kg	--																	
1,1-Dichloroethene	75-35-4	ug/kg	19.4																	
1,2-Dichloroethane	107-06-2	ug/kg	--																	
1,2-Dichloropropane	78-87-5	ug/kg	--																	
2-Chloroethylvinylether	110-75-8	ug/kg	--																	
Acrolein	107-02-8	ug/kg	0.00152																	
Acrylonitrile	107-13-1	ug/kg	1.2																	
Benzene	71-43-2	ug/kg	340																	
Bromodichloromethane	75-27-4	ug/kg	--																	
Bromoform	75-25-2	ug/kg	--																	
Bromomethane	74-83-9	ug/kg	1.37																	
Carbon Tetrachloride	56-23-5	ug/kg	1450																	
Chlorobenzene	108-90-7	ug/kg	291																	
Chloroethane	75-00-3	ug/kg	--																	
Chloroform	67-66-3	ug/kg	121																	
Chloromethane	74-87-3	ug/kg	--																	
cis-1,2-Dichloroethene	156-59-2	ug/kg	--																	
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--																	
Dibromochloromethane	124-48-1	ug/kg	--																	
Ethylbenzene	100-41-4	ug/kg	1400																	
Methylene Chloride	75-09-2	ug/kg	159																	
Tetrachloroethene	127-18-4	ug/kg	450																	
Toluene	108-88-3	ug/kg	2500																	
trans-1,2-Dichloroethene	156-60-5	ug/kg	--																	
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--																	
Trichloroethene	79-01-6	ug/kg	1600																	
Trichlorofluoromethane	75-69-4	ug/kg	--																	
Vinyl Chloride	75-01-4	ug/kg	202																	
Xylenes (total)	1330-20-7	ug/kg	--																	

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-K5-20	SD-R-K5-21	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07	SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11
				Sample Date	4/7/2006	4/11/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/27/2006	3/27/2006	3/27/2006	4/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-K5-201.0N	SD-R-K5-211.0N	SD-R-L5-031N	SD-R-L5-041.0FD	SD-R-L5-041.0N	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N	SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N
				Parent ID				SD-R-L5-041.0N								
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Explosives																
1,2-Dinitrobenzene	528-29-0	ug/kg	--													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	160		< 1000	< 910	< 1300	< 1000	< 1000	< 1100	< 450	< 510	< 860	< 1000	< 1500	< 1000
1,3-Dinitrobenzene	99-65-0	ug/kg	500													
1,4-Dinitrobenzene	100-25-4	ug/kg	--													
1-Nitronaphthalene	86-57-7	ug/kg	--													
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1100		< 1000	< 910	< 1300	< 1000	< 1000	< 1100	< 450	< 510	< 860	< 1000	< 1500	< 1000
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8													
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1300		< 1000	< 910	< 1300	< 1000	< 1000	< 1100	< 450	< 510	< 860	< 1000	< 1500	< 1000
2-Nitrotoluene	88-72-2	ug/kg	620000													
3-Nitrotoluene	99-08-1	ug/kg	190000													
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	3500		< 1000	< 910	< 1300	< 1000	< 1000	< 1100	< 450	< 510	< 860	< 1000	< 1500	< 1000
4-Nitrotoluene	99-99-0	ug/kg	68000													
Nitrobenzene	98-95-3	ug/kg	145		< 1000	< 910	< 1300	< 1000	< 1000	< 1100	< 450	< 510	< 860	< 1000	< 1500	< 1000
Nitrocellulose	9004-70-0	ug/kg	--		< 420000	< 370000	< 530000	< 420000	< 410000	< 460000	< 180000	< 200000	< 340000	< 410000	< 620000	< 410000
Nitroglycerin	55-63-0	ug/kg	127000		< 21000	< 18000	< 26000	< 21000	< 20000	< 23000	< 9000	< 10000	< 17000	< 20000	< 31000	< 20000
Octahydro-1,3,5,7-tetranitro-1,3,5,	2691-41-0	ug/kg	380		< 2600	< 2300	< 3300	< 2600	< 2600	< 2900	< 1100	< 1300	< 2100	< 2500	< 3900	< 2500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	32533000		< 21000	< 18000	< 26000	< 21000	< 20000	< 23000	< 9000	< 10000	< 17000	< 20000	< 31000	< 20000
RDX (Cyclonite)	121-82-4	ug/kg	1200		< 1000	< 910	< 1300	< 1000	< 1000	< 1100	< 450	< 510	< 860	< 1000	< 1500	< 1000
Tetryl	479-45-8	ug/kg	600													
Grain Size																
Sieve Size #19 - Percent Finer	SIEVE_#019	%	--		100	99.2	100	100	100	99.7	99.9	92.2	100	100		100
Sieve Size #37 - Percent Finer	SIEVE_#037	%	--		100	100	100	100	100	100	100	100	100	100		100
Sieve Size #75 - Percent Finer	SIEVE_#075	%	--		100	100	100	100	100	100	100	100	100	100		100
Sieve, 1 micron, % passing	SIEVE_1U	%	--		< 1	< 1	3.2	< 1	1	1	17.5	7	< 1	1.5		3
Sieve, 1180 micron, % passing	SIEVE_1.18KU	%	--		58.2	50.1	51.6	51.5	33.7	59	67.3	64.2	62.9	43.9		67.3
Sieve, 150 micron, % passing	SIEVE_150U	%	--		34.7	36.2	26.2	30.1	18.9	36.7	54.9	38.6	38.4	22.8		42.8
Sieve, 2 micron, % passing	SIEVE_2U	%	--		2	6.5	3.2	< 1	2	2.5	17.5	9.5	2.8	3		2.5
Sieve, 20 micron, % passing	SIEVE_20U	%	--		18	26.5	13	8.5	11.8	20	19	14.8	28.3	16.5		15
Sieve, 2360 micron, % passing	SIEVE_2.36KU	%	--		65.7	53.6	77.8	63.4	52.6	86.3	69.4	69.4	79.5	71.5		86.9
Sieve, 300 micron, % passing	SIEVE_300U	%	--		41.7	40.9	31.8	35.2	22.8	43.5	59.2	48.7	46.7	27.6		49.3
Sieve, 3350 micron, % passing	SIEVE_3.35KU	%	--		86	81.7	89.9	80	75.2	94.4	81.3	78.5	89.3	93.3		95.4
Sieve, 4750 micron, % passing	SIEVE_4.75KU	%	--		94.4	90.4	95	93	90.4	98	93.7	86.5	95.7	100		98.7
Sieve, 5 micron, % passing	SIEVE_5U	%	--		6	15.5	3.5	1	3.5	4.5	17.5	13.8	8	4.5		4.5
Sieve, 50 micron, % passing	SIEVE_50U	%	--		31.5	31	18.5	16	13.5	29.5	30.5	31.3	34.5	22.5		28
Sieve, 600 micron, % passing	SIEVE_600U	%	--		49.1	45.8	39.6	42	27.8	50	63.7	58.4	54.9	34.1		57.5
Sieve, 64 micron, % passing	SIEVE_64U	%	--		29.5	32	21	19	16	31	43.5	33	33	27		35.5
Sieve, 75 micron, % passing	SIEVE_75U	%	--		29.3	32.9	22.6	27	16.6	32.3	51	33.6	32	19.2		38.3
Metals																
Aluminum	7429-90-5	mg/kg	25500													
Antimony	7440-36-0	mg/kg	3	3												
Arsenic	7440-38-2	mg/kg	6	33	4.81	3.61	12.3	6.3	6.58	8.63	2.84	3.8	6.21	16.2	7.79	10.7
Barium	7440-39-3	mg/kg	7000													
Beryllium	7440-41-7	mg/kg	NA													
Cadmium	7440-43-9	mg/kg	0.6	10	1.13	0.317	2.33	1.12	1.09	1.59	0.417	0.582	0.868	1.68	0.726	1.67
Calcium	7440-70-2	mg/kg	--													
Chromium	7440-47-3	mg/kg	26	110	15.8	15	18.5	17.2	17.6	19	18.7	13.2	21.1	24	9.86	23.7
Cobalt	7440-48-4	mg/kg	50													
Copper	7440-50-8	mg/kg	16	110	110	28.2	91.9	55.2	51.1	66.5	11.4	26.6	44	53.2	35.2	117
Iron	7439-89-6	mg/kg	20000													
Lead	7439-92-1	mg/kg	31	250	2990	39	238	171	149	190	30.7	41.7	80.1	158	98.6	318
Magnesium	7439-95-4	mg/kg	460													
Manganese	7439-96-5	mg/kg	630	1100												
Mercury	7439-97-6	mg/kg	0.2	2	0.986	0.0873	0.928	0.468	0.493	0.843	0.0847	0.177	0.377	0.732	0.281	1.49
Nickel	7440-02-0	mg/kg	16	75	10	10.8	14.3	9.66	10.3	11.5	12.8	8.83	11.2	11.4	8.19	12.6
Potassium	7440-09-7	mg/kg	--													
Selenium	7782-49-2	mg/kg	2													
Silver	7440-22-4	mg/kg	1		< 1.67	< 1.49	< 2.2	< 1.71	< 1.67	< 1.85	< 0.735	< 0.815	< 1.42	< 1.64	< 2.5	< 1.63
Sodium	7440-23-5	mg/kg	--													
Thallium	7440-28-0	mg/kg	--													
Vanadium	7440-62-2	mg/kg	57													
Zinc	7440-66-6	mg/kg	120	820	709	127	456	166	161	357	95	131	174	252	114	411
Moisture																
Percent Moisture	MOIST	%	--		71.2	67.2	77.3	71.4	70.7	73.8	33.3	41	65.1	70.2	80.6	70.5
SVOCs																
1-Methylnaphthalene	90-12-0	ug/kg	20.2													
2,4-Dinitrotoluene	121-14-2	ug/kg	14.4													
2,6-Dinitrotoluene	606-20-2	ug/kg	39.8													
2-Methylnaphthalene	91-57-6	ug/kg	70													
Acenaphthene	83-32-9	ug/kg	16													
Acenaphthylene	208-96-8	ug/kg	44													
Anthracene	120-12-7	ug/kg	220	370000												
Benzo[a]anthracene	56-55-3	ug/kg	320	1480000												
Benzo[a]pyrene	50-32-8	ug/kg	370	1440000												
Benzo[b]fluoranthene	205-99-2	ug/kg	10400	26200												
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	320000												
Benzo[k]fluoranthene	207-08-9	ug/kg	240	1340000												
Chrysene	218-01-9	ug/kg	340	460000												
Dibenzo[a,h]anthracene	53-70-3	ug/kg	60	130000												
Fluoranthene	206-44-0	ug/kg	750	1020000												
Fluorene	86-73-7	ug/kg	190	160000												

Appendix E. ERA Sediment Dataset - Central Drainage Basin
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

				Location	SD-R-K5-20	SD-R-K5-21	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07	SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11
				Sample Date	4/7/2006	4/11/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/27/2006	3/27/2006	3/27/2006	4/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-K5-201.0N	SD-R-K5-211.0N	SD-R-L5-031N	SD-R-L5-041.0FD	SD-R-L5-041.0N	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N	SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N
				Parent ID				SD-R-L5-041.0N								
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	320000												
Naphthalene	91-20-3	ug/kg	160	2100000												
Phenanthrene	85-01-8	ug/kg	560	950000												
Pyrene	129-00-0	ug/kg	490	850000												

				Location	SD-R-K5-20	SD-R-K5-21	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07	SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11
				Sample Date	4/7/2006	4/11/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/27/2006	3/27/2006	3/27/2006	4/11/2006
				Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Sample ID	SD-R-K5-201.0N	SD-R-K5-211.0N	SD-R-L5-031N	SD-R-L5-041.0FD	SD-R-L5-041.0N	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N	SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N
				Parent ID				SD-R-L5-041.0N								
				Subdrainage Area	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary	Western Tributary
Chemical	CAS Number	Units	SED ESB (LEL-based)	Sediment SEL												
Total Organic Carbon																
Total Organic Carbon	TOC	mg/kg	--		150000	32000	210000	40000	150000	59000	52000	41000	9800	180000	290000	200000
TPH																
Amyl alcohol	71-41-0	ug/kg	--													
Di-N-Propyl Ether	111-43-3	ug/kg	--													
Ethanol	64-17-5	ug/kg	--													
Ethyl ether	60-29-7	ug/kg	--													
Methanol	67-56-1	ug/kg	--													
N-butyl ether	142-96-1	ug/kg	--													
VOCs																
1,1,1-Trichloroethane	71-55-6	ug/kg	--													
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	850													
1,1,2-Trichloroethane	79-00-5	ug/kg	--													
1,1-Dichloroethane	75-34-3	ug/kg	--													
1,1-Dichloroethene	75-35-4	ug/kg	19.4													
1,2-Dichloroethane	107-06-2	ug/kg	--													
1,2-Dichloropropane	78-87-5	ug/kg	--													
2-Chloroethylvinylether	110-75-8	ug/kg	--													
Acrolein	107-02-8	ug/kg	0.00152													
Acrylonitrile	107-13-1	ug/kg	1.2													
Benzene	71-43-2	ug/kg	340													
Bromodichloromethane	75-27-4	ug/kg	--													
Bromoform	75-25-2	ug/kg	--													
Bromomethane	74-83-9	ug/kg	1.37													
Carbon Tetrachloride	56-23-5	ug/kg	1450													
Chlorobenzene	108-90-7	ug/kg	291													
Chloroethane	75-00-3	ug/kg	--													
Chloroform	67-66-3	ug/kg	121													
Chloromethane	74-87-3	ug/kg	--													
cis-1,2-Dichloroethene	156-59-2	ug/kg	--													
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	--													
Dibromochloromethane	124-48-1	ug/kg	--													
Ethylbenzene	100-41-4	ug/kg	1400													
Methylene Chloride	75-09-2	ug/kg	159													
Tetrachloroethene	127-18-4	ug/kg	450													
Toluene	108-88-3	ug/kg	2500													
trans-1,2-Dichloroethene	156-60-5	ug/kg	--													
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	--													
Trichloroethene	79-01-6	ug/kg	1600													
Trichlorofluoromethane	75-69-4	ug/kg	--													
Vinyl Chloride	75-01-4	ug/kg	202													
Xylenes (total)	1330-20-7	ug/kg	--													

Notes:
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
< = non-detect result
J = estimated concentration
Shaded cells exceed sediment ecological screening benchmarks (ESB)

Appendix E.3

ERA Dataset – Surface Water Data by Subdrainage Area

				Location	SW-L5-2-01	SW-L5-2-01	SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-L6-1-01	SW-L6-1-01	SW-M5-2-01	SW-M5-2-01	SW-M5-3-01	SW-M5-3-01	SW-M6-1-01	SW-M6-1-01	SW-M6-2-01	SW-M6-2-01	SW-M6-3-01	SW-M6-3-01	SW-M7-1-01
				Sample Date	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/5/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/5/2001
				Sample Type	N	N	FD	FD	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-L5-2-011N	SW-L5-2-013N	SW-L5-2-010.5FD	SW-L5-2-013FD	SW-L5-3-011N	SW-L5-3-013N	SW-L6-1-011N	SW-L6-1-014N	SW-L6-1-010.5FD	SW-L6-1-014FD	SW-M5-2-011N	SW-M5-2-014N	SW-M5-3-011N	SW-M5-3-012N	SW-M6-1-011N	SW-M6-1-016N	SW-M6-2-011N	SW-M6-2-014N	SW-M6-3-011N	SW-M6-3-014N	SW-M7-1-011N
				Parent Sample ID			SW-L5-2-010.5FD	SW-L5-2-013N					SW-L6-1-010.5FD	SW-L6-1-014N											
				Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Explosives																									
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
2-Nitrotoluene	88-72-2	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
3-Nitrotoluene	99-08-1	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
4-Nitrotoluene	99-99-0	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
Nitrobenzene	98-95-3	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
Nitrocellulose	9004-70-0	T	µg/L		--	< 500	--	< 500	--	< 500	--	< 500	--	< 500	--	< 500	--	< 500	--	< 500	--	< 500	--	< 500	--
Nitroglycerin	55-63-0	T	µg/L		--	< 120	--	< 120	--	< 120	--	< 120	--	< 120	--	< 120	--	< 120	--	< 120	--	< 120	--	< 120	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--
RDX (Cyclonite)	121-82-4	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
Tetryl	479-45-8	T	µg/L		--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		--	14.15	--	--	--	13.25	--	7.75	--	--	--	11.29	--	9.03	--	9.56	--	9.87	--	10.19	--
pH	pH	N	su		--	6.32	--	--	--	6.49	--	7.16	--	--	--	7.71	--	7.53	--	7.33	--	7.38	--	7.17	--
Total Hardness	HARDNESS	N	mg/l		--	46	--	--	--	52	--	76	--	--	--	44	--	32	--	50	--	69	--	64	--
Metals																									
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--
Antimony	7440-36-0	T	µg/L	80	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--
Arsenic	7440-38-2	D	µg/L		--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--
Arsenic	7440-38-2	T	µg/L	150	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L		--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--
Beryllium	7440-41-7	T	µg/L		--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--
Cadmium	7440-43-9	D	µg/L	0.12	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--
Cadmium	7440-43-9	T	µg/L	0.18	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--
Chromium	7440-47-3	T	µg/L	54	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--	7.6	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--
Copper	7440-50-8	T	µg/L	5.7	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--	2.5	--	< 2.4	--	< 2.4	--	2.6	--
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--
Lead	7439-92-1	T	µg/L	5.4	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--
Mercury	7439-97-6	T	µg/L	0.77	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--
Nickel	7440-02-0	D	µg/L	27	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	7.7	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--
Nickel	7440-02-0	T	µg/L	32	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--
Selenium	7782-49-2	T	µg/L	5	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--
Silver	7440-22-4	D	µg/L	1.4	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--
Silver	7440-22-4	T	µg/L	1.4	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--
Thallium	7440-28-0	T	µg/L	10	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70	--	21.5	--	23	--	22	--	16.3	--	32.7	--	12.5	--	14.6	--	18.4	--	12.7	--	< 3.2	--
Zinc	7440-66-6	T	µg/L	74	--	24.6	--	23.5	--	24.4	--	22.7	--	23.3	--	< 3.2	--	< 3.2	--	< 3.2	--	< 3.2	--	< 3.2	--
Physical Properties																									
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	< 20	--	< 20	--	< 20	--	< 19	--	< 19	--	< 19	--	< 20	--	< 20	--	< 20	--	< 19	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
2-Chloronaphthalene	91-58-7	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
2-Chlorophenol	95-57-8	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--

				Location	SW-L5-2-01	SW-L5-2-01	SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-L6-1-01	SW-L6-1-01	SW-M5-2-01	SW-M5-2-01	SW-M5-3-01	SW-M5-3-01	SW-M6-1-01	SW-M6-1-01	SW-M6-2-01	SW-M6-2-01	SW-M6-3-01	SW-M6-3-01	SW-M7-1-01
				Sample Date	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/5/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/5/2001
				Sample Type	N	N	FD	FD	N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-L5-2-011N	SW-L5-2-013N	SW-L5-2-010.5FD	SW-L5-2-013FD	SW-L5-3-011N	SW-L5-3-013N	SW-L6-1-011N	SW-L6-1-014N	SW-L6-1-010.5FD	SW-L6-1-014FD	SW-M5-2-011N	SW-M5-2-014N	SW-M5-3-011N	SW-M5-3-012N	SW-M6-1-011N	SW-M6-1-016N	SW-M6-2-011N	SW-M6-2-014N	SW-M6-3-011N	SW-M6-3-014N	SW-M7-1-011N
				Parent Sample ID			SW-L5-2-010.5FD	SW-L5-2-013N					SW-L6-1-010.5FD	SW-L6-1-014N											
				Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	< 10	--	< 10	--	< 10	--	< 10	--	< 10	--	< 10	--	< 10	--	< 10	--	< 10	--	< 10	--
Acenaphthene	83-32-9	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Acenaphthylene	208-96-8	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	< 20	--	< 20	--	< 20	--	< 19	--	< 19	--	< 19	--	< 20	--	< 20	--	< 20	--	< 19	--
Benzo[a]anthracene	56-55-3	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Benzo[a]pyrene	50-32-8	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	2	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Dimethylphthalate	131-11-3	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Fluoranthene	206-44-0	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Hexachlorobenzene	118-74-1	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--
Hexachloroethane	67-72-1	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Isophorone	78-59-1	T	µg/L	920	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Naphthalene	91-20-3	T	µg/L	13	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Pentachlorophenol	87-86-5	T	µg/L		--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--	< 3	--
Phenanthrene	85-01-8	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Phenol	108-95-2	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
Purge Volume	PURGE_VOL	T	µg/L		--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L		--	< 1	--	< 1	--	< 1	--	< 1	--	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--
TPH																									
Amyl alcohol	71-41-0	T	µg/L		< 1000	--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000
Di-N-Propyl Ether	111-43-3	T	µg/L		< 1000	--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000
Ethanol	64-17-5	T	µg/L	8000000	< 1000	--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000
Ethyl ether	60-29-7	T	µg/L		< 1000	--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000
Methanol	67-56-1	T	µg/L		< 1000	--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000
N-butyl ether	142-96-1	T	µg/L		< 1000	--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	< 1000
VOCs																									
1,1,1-Trichloroethane	71-55-6	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
1,1,2-Trichloroethane	79-00-5	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
1,1-Dichloroethane	75-34-3	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
1,1-Dichloroethene	75-35-4	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
1,2-Dichloroethane	107-06-2	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
1,2-Dichloropropane	78-87-5	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
2-Chloroethylvinylether	110-75-8	T	µg/L		< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2
Acrolein	107-02-8	T	µg/L		< 40	--	< 40	--	< 40	--	< 40	--	< 40	--	< 40	--	< 40	--	< 40	--	< 40	--	< 40	--	< 40
Acrylonitrile	107-13-1	T	µg/L		< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4	--	< 4
Benzene	71-43-2	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Bromodichloromethane	75-27-4	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Bromoform	75-25-2	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Bromomethane	74-83-9	T	µg/L		< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2
Carbon Tetrachloride	56-23-5	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Chlorobenzene	108-90-7	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Chloroethane	75-00-3	T	µg/L		< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2
Chloroform	67-66-3	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Chloromethane	74-87-3	T	µg/L		< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2
cis-1,2-Dichloroethene	156-59-2	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Dibromochloromethane	124-48-1	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Ethylbenzene	100-41-4	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Methylene Chloride	75-09-2	T	µg/L		< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2
Tetrachloroethene	127-18-4	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Toluene	108-88-3	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
trans-1,2-Dichloroethene	156-60-5	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Trichloroethene	79-01-6	T	µg/L		< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1

					Location	SW-L5-2-01	SW-L5-2-01	SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-L6-1-01	SW-L6-1-01	SW-M5-2-01	SW-M5-2-01	SW-M5-3-01	SW-M5-3-01	SW-M6-1-01	SW-M6-1-01	SW-M6-2-01	SW-M6-2-01	SW-M6-3-01	SW-M6-3-01	SW-M7-1-01
					Sample Date	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/5/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/5/2001
					Sample Type	N	N	FD	FD	N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-L5-2-011N	SW-L5-2-013N	SW-L5-2-010.5FD	SW-L5-2-013FD	SW-L5-3-011N	SW-L5-3-013N	SW-L6-1-011N	SW-L6-1-014N	SW-L6-1-010.5FD	SW-L6-1-014FD	SW-M5-2-011N	SW-M5-2-014N	SW-M5-3-011N	SW-M5-3-012N	SW-M6-1-011N	SW-M6-1-016N	SW-M6-2-011N	SW-M6-2-014N	SW-M6-3-011N	SW-M6-3-014N	SW-M7-1-011N
					Parent Sample ID			SW-L5-2-010.5FD	SW-L5-2-013N					SW-L6-1-010.5FD	SW-L6-1-014N											
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2	--	< 2
Vinyl Chloride	75-01-4	T	µg/L			< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Xylenes (total)	1330-20-7	T	µg/L			< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols
" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening Benchmarks

Kennedy Jenks

Location					SW-M7-1-01	SW-R2-M-6-1	SW-R-L7-01	SW-R-L7-02	SW-R-L7-03	SW-R-L7-04	SW-R-L7-05	SW-R-M6-01	SW-R-M6-02	SW-R-M6-03	SW-R-M6-04	SW-R-M6-05	SW-R-M6-06	SW-R-M6-07	SW-R-M6-08	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13
Sample Date					4/5/2001	11/5/2013	4/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006
Sample Type					N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Sample ID					SW-M7-1-012N	SW-R2-M-6-1_20131105	SW-R-L7-011.75N	SW-R-L7-020.5N	SW-R-L7-030.5N	SW-R-L7-040.75N	SW-R-L7-053.0N	SW-R-M6-010.75N	SW-R-M6-021.0N	SW-R-M6-031.25N	SW-R-M6-041.25N	SW-R-M6-051.5N	SW-R-M6-060.75N	SW-R-M6-073.0N	SW-R-M6-083.5N	SW-R-M6-083.5FD	SW-R-M6-093.5N	SW-R-M6-103.5N	SW-R-M6-113.0N	SW-R-M6-124.0N	SW-R-M6-133.0N
Parent Sample ID																				SW-R-M6-083.5N					
Notes																									
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Explosives																									
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L		< 500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		< 0.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L		< 0.2	< 0.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		6.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		7.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		52	38.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																									
Aluminum	7429-90-5	T	µg/L	87	--	*< 200*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	< 5.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L		3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	0.89	< 20	< 20	< 20	< 20	< 20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	7440-39-3	T	µg/L	220	--	20.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L		< 0.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L		< 0.64	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.12	*< 0.64*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18	*< 0.64*	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	9030	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15	< 1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	54	< 1.7	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2	2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	5.7	2.4	*< 10*	*< 10*	4.7	*< 10*	3.4	*< 10*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	7439-89-6	T	µg/L	300	--	184	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	0.99	*< 20*	11.3	*< 15*	12.5	*< 15*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	µg/L	82000	--	3700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	9.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	D	µg/L	27	< 1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	32	< 1.6	< 10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	608	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	< 4.3	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	D	µg/L	1.4	< 1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	1.4	< 1.3	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	7440-23-5	T	µg/L		--	5230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 0.5	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	7440-62-2	T	µg/L	12	--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70	20.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	74	21.2	< 20	11	25.7	10.8	18.8	< 20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Physical Properties																									
pH	pH	N	su		--	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		< 1	< 5	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2,6-Dinitrotoluene	606-20-2	T	µg/L		< 2	< 1	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-M7-1-01	SW-R2-M-6-1	SW-R-L7-01	SW-R-L7-02	SW-R-L7-03	SW-R-L7-04	SW-R-L7-05	SW-R-M6-01	SW-R-M6-02	SW-R-M6-03	SW-R-M6-04	SW-R-M6-05	SW-R-M6-06	SW-R-M6-07	SW-R-M6-08	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13
					Sample Date	4/5/2001	11/5/2013	4/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
					Sample ID	SW-M7-1-012N	SW-R2-M-6-1_20131105	SW-R-L7-011.75N	SW-R-L7-020.5N	SW-R-L7-030.5N	SW-R-L7-040.75N	SW-R-L7-053.0N	SW-R-M6-010.75N	SW-R-M6-021.0N	SW-R-M6-031.25N	SW-R-M6-041.25N	SW-R-M6-051.5N	SW-R-M6-060.75N	SW-R-M6-073.0N	SW-R-M6-083.5N	SW-R-M6-083.5FD	SW-R-M6-093.5N	SW-R-M6-103.5N	SW-R-M6-113.0N	SW-R-M6-124.0N	SW-R-M6-133.0N
					Parent Sample ID																SW-R-M6-083.5N					
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzo[a]pyrene	50-32-8	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzo[b]fluoranthene	205-99-2	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzo[g,h,i]perylene	191-24-2	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzo[k]fluoranthene	207-08-9	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	< 5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		< 2	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		< 5	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		< 1	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L	920	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		< 3	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Purge Volume	PURGE_VOL	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH																									
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L	8000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																									
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-M7-1-01	SW-R2-M-6-1	SW-R-L7-01	SW-R-L7-02	SW-R-L7-03	SW-R-L7-04	SW-R-L7-05	SW-R-M6-01	SW-R-M6-02	SW-R-M6-03	SW-R-M6-04	SW-R-M6-05	SW-R-M6-06	SW-R-M6-07	SW-R-M6-08	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13
					Sample Date	4/5/2001	11/5/2013	4/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006	6/30/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
					Sample ID	SW-M7-1-012N	SW-R2-M-6-1_20131105	SW-R-L7-011.75N	SW-R-L7-020.5N	SW-R-L7-030.5N	SW-R-L7-040.75N	SW-R-L7-053.0N	SW-R-M6-010.75N	SW-R-M6-021.0N	SW-R-M6-031.25N	SW-R-M6-041.25N	SW-R-M6-051.5N	SW-R-M6-060.75N	SW-R-M6-073.0N	SW-R-M6-083.5N	SW-R-M6-083.5FD	SW-R-M6-093.5N	SW-R-M6-103.5N	SW-R-M6-113.0N	SW-R-M6-124.0N	SW-R-M6-133.0N
					Parent Sample ID																SW-R-M6-083.5N					
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, i
" < " denotes not detected at
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening

				Location	SW-R-M6-14	SW-R-M6-15	SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08
				Sample Date	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	4/6/2006	4/6/2006	7/6/2006
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-R-M6-144.0N	SW-R-M6-154.0N	SW-R-M6-163.0N	SW-R-M6-173.0N	SW-R-M6-184.0N	SW-R-M6-193.0N	SW-R-M6-201.0N	SW-R-M7-061.0N	SW-R-M7-070.75N	SW-R-M7-082.0N
				Parent Sample ID										
				Notes										
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**										
Explosives														
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
GenChem														
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	--	--	--	--
Metals														
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L		--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	--	< 20	< 20	--	< 20	< 20	< 20	< 20	< 20	< 20
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L		--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.12	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	54	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	5.7	--	*< 10*	*< 10*	--	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	--	*< 15*	*< 15*	--	*< 15*	*< 15*	*< 15*	*< 20*	*< 20*	*< 15*
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	27	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	32	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	--	*< 20*	*< 20*	--	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	1.4	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	1.4	--	*< 5*	*< 5*	--	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	--	*< 20*	*< 20*	--	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	74	--	< 20	< 20	--	< 20	< 20	< 20	11.9	12.9	< 20
Physical Properties														
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--
SVOCs														
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--	--	--	--

				Location	SW-R-M6-14	SW-R-M6-15	SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08
				Sample Date	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	4/6/2006	4/6/2006	7/6/2006
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-R-M6-144.0N	SW-R-M6-154.0N	SW-R-M6-163.0N	SW-R-M6-173.0N	SW-R-M6-184.0N	SW-R-M6-193.0N	SW-R-M6-201.0N	SW-R-M7-061.0N	SW-R-M7-070.75N	SW-R-M7-082.0N
				Parent Sample ID										
				Notes										
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**										
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 5	< 5	--	< 5	< 5	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L	920	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Purge Volume	PURGE_VOL	T	µg/L		--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
TPH														
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L	8000000	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
VOCs														
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L		--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--

					Location	SW-R-M6-14	SW-R-M6-15	SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08
					Sample Date	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	7/6/2006	4/6/2006	4/6/2006	7/6/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-R-M6-144.0N	SW-R-M6-154.0N	SW-R-M6-163.0N	SW-R-M6-173.0N	SW-R-M6-184.0N	SW-R-M6-193.0N	SW-R-M6-201.0N	SW-R-M7-061.0N	SW-R-M7-070.75N	SW-R-M7-082.0N
					Parent Sample ID										
					Notes										
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**											
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, i
" < " denotes not detected at
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening

Chemical	CAS	Total or Dissolved	Unit	ESB	Location	SW-M5-1-01	SW-M5-1-01	SW-N5-1-01	SW-N5-2-01	SW-N5-2-01	SW-N5-3-01	SW-N5-3-01	SW-N5-4-01	SW-N5-5-01	SW-N5-5-01	SW-N5-5-01	SW-R2-F-14-1	SW-R2-F-14-2	SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-5-2	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
					Sample Date	4/24/2001	4/24/2001	4/25/2001	4/24/2001	4/24/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	11/5/2013	11/5/2013	11/4/2013	11/4/2013	11/4/2013	4/5/2006	4/5/2006	4/7/2006	4/12/2006	4/12/2006
					Sample Type	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	FD	N	N	N	N	N	N
					Sample ID	SW-M5-1-011N	SW-M5-1-012N	SW-N5-1-011N	SW-N5-2-0114N	SW-N5-2-011N	SW-N5-3-011N	SW-N5-3-012N	SW-N5-4-011N	SW-N5-5-011N	SW-N5-5-010.5FD	SW-N5-5-011FD	SW-R2-F-14-1_20131105	SW-R2-F-14-2_20131105	SW-R2-M-5-1_20131104	DUP-01_20131104	SW-R2-M-5-2_20131104	SW-R-N5-010.5N	SW-R-N5-020.5N	SW-R-N5-030.5N	SW-R-N5-040.5N	SW-R-N5-050.75N
					Parent Sample ID										SW-N5-5-011N	SW-N5-5-011N				SW-R2-M-5-2_20131104						
					Notes																					
Explosives																										
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L		--	< 500	< 500	< 500	--	--	< 500	< 500	< 500	--	--	< 500	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	< 120	< 120	< 120	--	--	< 120	< 120	< 120	--	--	< 120	< 15	< 15	< 15	< 15	< 15	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		--	< 0.4	< 1	< 0.4	--	--	< 0.9	< 0.2	< 0.7	--	--	< 0.7	< 2	< 2	< 2	< 2	< 2	< 40	< 40	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	< 8	< 4	< 8	--	--	< 4	< 4	< 4	--	--	< 4	< 18	< 18	< 18	< 18	< 18	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L		--	< 0.4	< 1	< 0.4	--	--	< 0.9	< 0.2	< 0.7	--	--	< 0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 12	< 12	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	< 0.4	< 0.2	< 0.4	--	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--	--	--	--
GenChem																										
Dissolved Oxygen	7782-44-7	T	mg/l		--	9.31	8.58	9.16	--	--	8.88	9.99	9.42	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		--	5.34	5.28	5.61	--	--	5.19	4.47	5.13	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	48	94	60	--	--	86	68	72	--	--	--	237	236	36.9	38.8	38.9	--	--	--	--	--
Metals																										
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	--	107	*< 200*	*< 200*	88.1	*< 200*	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	< 5.9	< 5.9	< 5.9	--	--	< 5.9	< 5.9	< 5.9	--	< 5.9	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	< 5.9	< 5.9	< 5.9	--	--	< 5.9	< 5.9	< 5.9	--	< 5.9	< 1	< 1	0.41	< 1	< 1	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	< 3.7	< 3.7	< 3.7	--	--	< 3.7	< 3.7	< 3.7	--	< 3.7	--	--	--	--	--	--	--	< 20	< 20	--	--
Arsenic	7440-38-2	T	µg/L	150	--	< 3.7	< 3.7	10.3	--	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 2	< 2	1.3	1.5	1.3	< 20	< 20	< 20	< 20	< 20	< 20
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	38.3	37.5	25.2	25.5	24.6	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L		--	< 0.64	< 0.64	< 0.64	--	--	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L		--	< 0.64	< 0.64	< 0.64	--	--	< 0.64	< 0.64	< 0.64	--	< 0.64	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.12	--	*< 0.64*	*< 0.64*	*< 0.64*	--	--	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18	--	*< 0.64*	*< 0.64*	*< 0.64*	--	--	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	57600	56500	8400	9140	9010	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15	--	< 1.7	< 1.7	< 1.7	--	--	< 1.7	< 1.7	< 1.7	--	< 1.7	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	54	--	< 1.7	< 1.7	< 1.7	--	--	< 1.7	< 1.7	< 1.7	--	22.4	< 15	< 15	< 15	< 15	< 15	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2	--	< 2.4	< 2.4	< 2.4	--	--	< 2.4	2.9	< 2.4	--	< 2.4	--	--	--	--	--	--	--	--	< *10*	< *10*	
Copper	7440-50-8	T	µg/L	5.7	--	< 2.4	< 2.4	< 2.4	--	--	< 2.4	< 2.4	< 2.4	--	< 2.4	< *10*	< *10*	< *10*	2.7	< *10*	4.9	11	9.6	2.9	2.8	
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	275	118	178	204	202	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	< 8.8	< 8.8	< 8.8	--	--	< 8.8	9.2	< 8.8	--	< 8.8	--	--	--	--	--	--	--	--	8.5	10.7	
Lead	7439-92-1	T	µg/L	5.4	--	< *8.8*	< *8.8*	< *8.8*	--	--	< *8.8*	16.9	< *8.8*	--	< *8.8*	1.9	0.54	1.1	2.5	2.1	10.2	22	35.6	< *20*	< *20*	
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	22300	21900	3560	3700	3640	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	100	75.6	12.7	16.5	15.3	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	< 0.026	< 0.026	< 0.026	--	--	< 0.026	< 0.026	< 0.026	--	0.057	--	--	--	--	--	--	--	--	< 0.2	< 0.2	
Mercury	7439-97-6	T	µg/L	0.77	--	< 0.026	< 0.026	< 0.026	--	--	< 0.026	0.16	< 0.026	--	< 0.026	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Nickel	7440-02-0	D	µg/L	27	--	< 1.6	< 1.6	< 1.6	--	--	< 1.6	< 1.6	< 1.6	--	< 1.6	--	--	--	--	--	--	--	--	--	--	
Nickel	7440-02-0	T	µg/L	32	--	< 1.6	< 1.6	< 1.6	--	--	1.9	3.6	2.3	--	178	< 10	< 10	< 10	< 10	< 10	--	--	--	--	--	
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	1750	1810	674	634	570	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	< 4.3	< 4.3	< 4.3	--	--	< 4.3	< 4.3	< 4.3	--	< 4.3	--	--	--	--	--	--	--	--	< 20	< 20	
Selenium	7782-49-2	T	µg/L	5	--	< 4.3	< 4.3	< 4.3	--	--	< 4.3	< 4.3	< 4.3	--	< 4.3	< *20*	< *20*	< *20*	< *20*	< *20*	< *20*	< *20*	< *20*	< *20*	< *20*	
Silver	7440-22-4	D	µg/L	1.4	--	< 1.3	< 1.3	< 1.3	--	--	< 1.3	< 1.3	< 1.3	--	< 1.3	--	--	--	--	--	--	--	--	< 5	< 5	
Silver	7440-22-4	T	µg/L	1.4	--	< 1.3	< 1.3	< 1.3	--	--	< 1.3	< 1.3	< 1.3	--	< 1.3	< *5*	< *5*	< *5*	< *5*	< *5*	< *5*	< *5*	< *5*	< *5*	< *5*	
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	82700	89600	5340	5330	5250	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	< 8.8	< 8.8	< 8.8	--	--	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	--	--	--	--	--	--	< 20	< 20	
Thallium	7440-28-0	T	µg/L	10	--	< 8.8	< 8.8	< 8.8	--	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< *20*	< *20*	< *20*	< *20*	< *20*	
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70	--	33.4	32.7	43.6	--	--	32	38.6	33.9	--	35.8	--	--	--	--	--	--	--	--	24.8	25.9	
Zinc	7440-66-6	T	µg/L	74	--	31.2	33.2	41	--	--	35.3	419	40.5	--	34.8	< 20	< 20	2.1	2.6	2.5	43.8	67.6	61.3	28.6	29.2	
Physical Properties																										
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--	--	8	8	7.2	7.2	7.2	--	--	--	--	--	
SVOCs																										
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2,4-Dichlorophenol	120-83-2	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2,4-Dimethylphenol	105-67-9	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2,4-Dinitrophenol	51-28-5	T	µg/L		--	< 19	< 19	< 20	--	--	< 19	< 20	< 19	--	< 19	< 31	< 31	< 30	< 31	< 31	--	--	--	--	--	
2,4-Dinitrotoluene	121-14-2	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--	
2,6-Dinitrotoluene	606-20-2	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2-Chloronaphthalene	91-58-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2-Chlorophenol	95-57-8	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--	
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
2-Nitrophenol	88-75-5	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	< 3	< 3	< 3	--	--	< 3	< 3	< 3	--	< 3	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--	
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--	
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	< 5	< 5	< 5	--	--	< 5	< 5	< 5	--	< 5	< 15	< 16	< 15	< 15	< 15	--	--	--	--	--	

				Location	SW-M5-1-01	SW-M5-1-01	SW-N5-1-01	SW-N5-2-01	SW-N5-2-01	SW-N5-3-01	SW-N5-3-01	SW-N5-4-01	SW-N5-5-01	SW-N5-5-01	SW-N5-5-01	SW-R2-F-14-1	SW-R2-F-14-2	SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-5-2	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
				Sample Date	4/24/2001	4/24/2001	4/25/2001	4/24/2001	4/24/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	11/5/2013	11/5/2013	11/4/2013	11/4/2013	11/4/2013	4/5/2006	4/5/2006	4/7/2006	4/12/2006	4/12/2006
				Sample Type	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	FD	N	N	N	N	N	N
				Sample ID	SW-M5-1-011N	SW-M5-1-012N	SW-N5-1-011N	SW-N5-2-0114N	SW-N5-2-011N	SW-N5-3-011N	SW-N5-3-012N	SW-N5-4-011N	SW-N5-5-011N	SW-N5-5-010.5FD	SW-N5-5-011FD	SW-R2-F-14-1_20131105	SW-R2-F-14-2_20131105	SW-R2-M-5-1_20131104	DUP-01_20131104	SW-R2-M-5-2_20131104	SW-R-N5-010.5N	SW-R-N5-020.5N	SW-R-N5-030.5N	SW-R-N5-040.5N	SW-R-N5-050.75N
				Parent Sample ID										SW-N5-5-011N	SW-N5-5-011N				SW-R2-M-5-2_20131104					
				Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	< 9	< 10	< 10	--	--	< 9	< 10	< 10	--	< 10	< 31	< 31	< 30	< 31	< 31	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	< 19	< 19	< 20	--	--	< 19	< 20	< 19	--	< 19	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5	12	< 5	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 15	< 16	< 15	< 15	< 15	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Chrysene	218-01-9	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	< 5	< 5	< 5	--	--	< 5	< 5	< 5	--	< 5	< 15	< 16	< 15	< 15	< 15	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Isophorone	78-59-1	T	µg/L	920	--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	0.1	< 0.5	< 0.5	< 0.5	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	< 2	< 2	< 2	--	--	< 2	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	< 3	< 3	< 3	--	--	< 3	< 3	< 3	--	< 3	< 5	< 5	< 5	< 5	< 5	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	< 1	--	--	--	--	--
Pyrene	129-00-0	T	µg/L		--	< 0.9	< 1	< 1	--	--	< 0.9	< 1	< 1	--	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	--
TPH																									
Amyl alcohol	71-41-0	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L	8000000	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--
VOCs																									
1,1,1-Trichloroethane	71-55-6	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		< 40	--	< 40	--	< 40	< 40	--	< 40	< 40	< 40	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		< 4	--	< 4	--	< 4	< 4	--	< 4	< 4	< 4	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L		< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-M5-1-01	SW-M5-1-01	SW-N5-1-01	SW-N5-2-01	SW-N5-2-01	SW-N5-3-01	SW-N5-3-01	SW-N5-4-01	SW-N5-5-01	SW-N5-5-01	SW-N5-5-01	SW-R2-F-14-1	SW-R2-F-14-2	SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-5-2	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
					Sample Date	4/24/2001	4/24/2001	4/25/2001	4/24/2001	4/24/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	11/5/2013	11/5/2013	11/4/2013	11/4/2013	11/4/2013	4/5/2006	4/5/2006	4/7/2006	4/12/2006	4/12/2006
					Sample Type	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	FD	N	N	N	N	N	N
					Sample ID	SW-M5-1-011N	SW-M5-1-012N	SW-N5-1-011N	SW-N5-2-0114N	SW-N5-2-011N	SW-N5-3-011N	SW-N5-3-012N	SW-N5-4-011N	SW-N5-5-011N	SW-N5-5-010.5FD	SW-N5-5-011FD	SW-R2-F-14-1_20131105	SW-R2-F-14-2_20131105	SW-R2-M-5-1_20131104	DUP-01_20131104	SW-R2-M-5-2_20131104	SW-R-N5-010.5N	SW-R-N5-020.5N	SW-R-N5-030.5N	SW-R-N5-040.5N	SW-R-N5-050.75N
					Parent Sample ID										SW-N5-5-011N	SW-N5-5-011N				SW-R2-M-5-2_20131104						
					Notes																					
Chemical	CAS	Total or Dissolved	Unit	ESB																						
Vinyl Chloride	75-01-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels

ESB = Ecological Screening Benchmarks

				Location	SW-R-N5-05	SW-R-N5-06
				Sample Date	4/12/2006	5/18/2006
				Sample Type	FD	N
				Sample ID	SW-R-N5-050.75FD	SW-R-N5-060.5N
				Parent Sample ID	SW-R-N5-050.75N	
				Notes		
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**		
Explosives						
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		< 0.6	< 60
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		< 0.6	< 60
2-Nitrotoluene	88-72-2	T	µg/L		--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		< 0.6	< 60
4-Nitrotoluene	99-99-0	T	µg/L		--	--
Nitrobenzene	98-95-3	T	µg/L		--	--
Nitrocellulose	9004-70-0	T	µg/L		--	--
Nitroglycerin	55-63-0	T	µg/L		--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		< 2	< 200
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--
RDX (Cyclonite)	121-82-4	T	µg/L		< 0.6	< 60
Tetryl	479-45-8	T	µg/L		--	--
GenChem						
Dissolved Oxygen	7782-44-7	T	mg/l		--	--
pH	pH	N	su		--	--
Total Hardness	HARDNESS	N	mg/l		--	--
Metals						
Aluminum	7429-90-5	T	µg/L	87	--	--
Antimony	7440-36-0	D	µg/L	80	--	--
Antimony	7440-36-0	T	µg/L	80	--	--
Arsenic	7440-38-2	D	µg/L	150	< 20	--
Arsenic	7440-38-2	T	µg/L	150	< 20	< 20
Barium	7440-39-3	T	µg/L	220	--	--
Beryllium	7440-41-7	D	µg/L		--	--
Beryllium	7440-41-7	T	µg/L		--	--
Cadmium	7440-43-9	D	µg/L	0.12	--	--
Cadmium	7440-43-9	T	µg/L	0.18	--	--
Calcium	7440-70-2	T	µg/L		--	--
Chromium	7440-47-3	D	µg/L	15	--	--
Chromium	7440-47-3	T	µg/L	54	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--
Copper	7440-50-8	D	µg/L	5.2	< *10*	--
Copper	7440-50-8	T	µg/L	5.7	3	17.5
Iron	7439-89-6	T	µg/L	300	--	--
Lead	7439-92-1	D	µg/L	5.4	9	--
Lead	7439-92-1	T	µg/L	5.4	11	25.6
Magnesium	7439-95-4	T	µg/L	82000	--	--
Manganese	7439-96-5	T	µg/L	120	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.2	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	27	--	--
Nickel	7440-02-0	T	µg/L	32	--	--
Potassium	7440-09-7	T	µg/L		--	--
Selenium	7782-49-2	D	µg/L	5	< 20	--
Selenium	7782-49-2	T	µg/L	5	< *20*	< *20*
Silver	7440-22-4	D	µg/L	1.4	< 5	--
Silver	7440-22-4	T	µg/L	1.4	< *5*	< *5*
Sodium	7440-23-5	T	µg/L		--	--
Thallium	7440-28-0	D	µg/L	10	< 20	--
Thallium	7440-28-0	T	µg/L	10	< *20*	< *20*
Vanadium	7440-62-2	T	µg/L	12	--	--
Zinc	7440-66-6	D	µg/L	70	25.9	--
Zinc	7440-66-6	T	µg/L	74	31.1	119
Physical Properties						
pH	pH	N	su		--	--
SVOCs						
1,1'-Biphenyl	92-52-4	T	µg/L		--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		--	--
2-Chloronaphthalene	91-58-7	T	µg/L		--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--
2-Methylphenol	95-48-7	T	µg/L		--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--

				Location	SW-R-N5-05	SW-R-N5-06
				Sample Date	4/12/2006	5/18/2006
				Sample Type	FD	N
				Sample ID	SW-R-N5-050.75FD	SW-R-N5-060.5N
				Parent Sample ID	SW-R-N5-050.75N	
				Notes		
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**		
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--
Acenaphthene	83-32-9	T	µg/L		--	--
Acenaphthylene	208-96-8	T	µg/L		--	--
Acetophenone	98-86-2	T	µg/L		--	--
Anthracene	120-12-7	T	µg/L		--	--
Atrazine	1912-24-9	T	µg/L		--	--
Benzaldehyde	100-52-7	T	µg/L		--	--
Benzidine	92-87-5	T	µg/L		--	--
Benzo[a]anthracene	56-55-3	T	µg/L		--	--
Benzo[a]pyrene	50-32-8	T	µg/L		--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	--
Caprolactam	105-60-2	T	µg/L		--	--
Carbazole	86-74-8	T	µg/L		--	--
Chrysene	218-01-9	T	µg/L		--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--
Dibenzofuran	132-64-9	T	µg/L		--	--
Diethylphthalate	84-66-2	T	µg/L		--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--
Fluoranthene	206-44-0	T	µg/L		--	--
Fluorene	86-73-7	T	µg/L		--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--
Hexachloroethane	67-72-1	T	µg/L		--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		--	--
Isophorone	78-59-1	T	µg/L	920	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--
Phenanthrene	85-01-8	T	µg/L		--	--
Phenol	108-95-2	T	µg/L		--	--
Pyrene	129-00-0	T	µg/L		--	--
TPH						
Amyl alcohol	71-41-0	T	µg/L		--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--
Ethanol	64-17-5	T	µg/L	8000000	--	--
Ethyl ether	60-29-7	T	µg/L		--	--
Methanol	67-56-1	T	µg/L		--	--
N-butyl ether	142-96-1	T	µg/L		--	--
VOCs						
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--
Acrolein	107-02-8	T	µg/L		--	--
Acrylonitrile	107-13-1	T	µg/L		--	--
Benzene	71-43-2	T	µg/L		--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--
Bromoform	75-25-2	T	µg/L		--	--
Bromomethane	74-83-9	T	µg/L		--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--
Chlorobenzene	108-90-7	T	µg/L		--	--
Chloroethane	75-00-3	T	µg/L		--	--
Chloroform	67-66-3	T	µg/L		--	--
Chloromethane	74-87-3	T	µg/L		--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L		--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--
Dibromochloromethane	124-48-1	T	µg/L		--	--
Ethylbenzene	100-41-4	T	µg/L		--	--
Methylene Chloride	75-09-2	T	µg/L		--	--
Tetrachloroethene	127-18-4	T	µg/L		--	--
Toluene	108-88-3	T	µg/L		--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--
Trichloroethene	79-01-6	T	µg/L		--	--
Trichlorofluoromethane	75-69-4	T	µg/L		--	--

				Location	SW-R-N5-05	SW-R-N5-06
				Sample Date	4/12/2006	5/18/2006
				Sample Type	FD	N
				Sample ID	SW-R-N5-050.75FD	SW-R-N5-060.5N
				Parent Sample ID	SW-R-N5-050.75N	
				Notes		
Chemical	CAS	Total or Dissolved	Unit	ESB		
Vinyl Chloride	75-01-4	T	µg/L		--	--
Xylenes (total)	1330-20-7	T	µg/L		--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, r
" < " denotes not detected at
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening

Location					SW-O4-10-01	SW-O4-10-01	SW-O4-1-01	SW-O4-2-01	SW-O4-2-01	SW-O4-2-01	SW-O4-3-01	SW-O4-4-01	SW-O4-4-01	SW-O4-5-01	SW-O4-6-01	SW-O4-9-01	SW-O4-9-01	SW-O5-1-01	SW-O5-2-01	SW-O5-2-01	SW-P4-1-01	SW-P4-1-01	SW-P4-1-01	SW-P4-2-01	SW-Q4-1-01
Sample Date					4/6/2001	4/6/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/6/2001	4/6/2001	4/6/2001	4/9/2001	4/9/2001	4/23/2001	4/23/2001	4/23/2001	4/23/2001	4/23/2001
Sample Type					N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N
Sample ID					SW-O4-10-010.75N	SW-O4-10-011N	SW-O4-1-011N	SW-O4-2-011N	SW-O4-2-010.5FD	SW-O4-2-011FD	SW-O4-3-011N	SW-O4-4-011.5N	SW-O4-4-011N	SW-O4-5-011N	SW-O4-6-011N	SW-O4-9-010.75N	SW-O4-9-011N	SW-O5-1-011N	SW-O5-2-011.5N	SW-O5-2-011N	SW-P4-1-011N	SW-P4-1-010.5FD	SW-P4-1-011FD	SW-P4-2-011N	SW-Q4-1-011N
Parent Sample ID									SW-O4-2-011N	SW-O4-2-011N												SW-P4-1-011N	SW-P4-1-011N		
Notes																									
Chemical	CAS	Total or Dissolved	Unit	ESB																					
Explosives																									
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
Nitrobenzene	98-95-3	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
Nitrocellulose	9004-70-0	T	µg/L		< 500	--	< 500	< 500	--	< 500	< 500	< 500	--	< 500	< 500	< 500	--	< 500	< 500	--	< 500	--	< 500	< 500	< 500
Nitroglycerin	55-63-0	T	µg/L		< 120	--	< 120	< 120	--	< 120	< 120	< 120	--	< 120	< 120	< 120	--	< 120	< 120	--	< 120	--	< 120	< 120	< 120
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	--	< 4	< 4	--	< 4	< 4	< 4	--	< 4	< 4	< 4	--	< 4	< 4	--	< 4	--	< 4	< 4	< 4
RDX (Cyclonite)	121-82-4	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
Tetryl	479-45-8	T	µg/L		< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	< 0.2	< 0.2	< 0.2
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		7.75	--	9.02	7.05	--	--	5.2	7.09	--	6.6	7.01	6.8	--	11.15	12.5	--	10.71	--	--	10.5	9.38
pH	pH	N	su		5.8	--	6.31	5.87	--	--	5.96	5.9	--	5.86	5.78	7.22	--	4.78	4.28	--	5.7	--	--	4.93	4.66
Total Hardness	HARDNESS	N	mg/l		52	--	76	88	--	--	120	80	--	42	56	46	--	40	46	--	42	--	--	24	44
Metals																									
Antimony	7440-36-0	D	µg/L	80	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	--	< 5.9	< 5.9	< 5.9
Antimony	7440-36-0	T	µg/L	80	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	--	< 5.9	< 5.9	< 5.9
Arsenic	7440-38-2	D	µg/L	150	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	--	< 3.7	--	< 3.7	< 3.7	< 3.7
Arsenic	7440-38-2	T	µg/L	150	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	--	< 3.7	--	< 3.7	< 3.7	< 3.7
Beryllium	7440-41-7	D	µg/L		< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	< 0.64	< 0.64	< 0.64
Beryllium	7440-41-7	T	µg/L		< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	< 0.64	< 0.64	< 0.64
Cadmium	7440-43-9	D	µg/L	0.12	*< 0.64*	--	*< 0.64*	*< 0.64*	--	0.74	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*
Cadmium	7440-43-9	T	µg/L	0.18	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*
Chromium	7440-47-3	D	µg/L	15	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	--	< 1.7	--	< 1.7	< 1.7	< 1.7
Chromium	7440-47-3	T	µg/L	54	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	--	< 1.7	--	< 1.7	< 1.7	< 1.7
Copper	7440-50-8	D	µg/L	5.2	3.8	--	< 2.4	< 2.4	--	< 2.4	< 2.4	< 2.4	--	< 2.4	< 2.4	4.9	--	6.7	< 2.4	--	2.9	--	2.6	< 2.4	< 2.4
Copper	7440-50-8	T	µg/L	5.7	< 2.4	--	9.8	8	--	< 2.4	9.8	7.8	--	7.3	5.9	< 2.4	--	< 2.4	< 2.4	--	3.2	--	2.8	< 2.4	< 2.4
Lead	7439-92-1	D	µg/L	5.4	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	< 8.8	< 8.8	< 8.8
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	--	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*	--	*< 8.8*	--	*< 8.8*	*< 8.8*	*< 8.8*
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	--	< 0.026	< 0.026	--	< 0.026	0.026	0.026	--	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.026	--	< 0.026	< 0.026	< 0.026
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	--	< 0.026	0.043	--	< 0.026	< 0.026	0.033	--	< 0.026	< 0.026	0.067	--	< 0.026	< 0.026	--	< 0.026	--	< 0.026	< 0.026	< 0.026
Nickel	7440-02-0	D	µg/L	27	1.7	--	< 1.6	< 1.6	--	2.2	1.7	1.6	--	< 1.6	< 1.6	2.6	--	7.6	< 1.6	--	3.1	--	3.1	3.2	< 1.6
Nickel	7440-02-0	T	µg/L	32	1.7	--	9.1	2.9	--	1.9	4.1	2.8	--	5.2	3.1	< 1.6	--	< 1.6	< 1.6	--	2.4	--	2.7	2.2	< 1.6
Selenium	7782-49-2	D	µg/L	5	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	--	< 4.3	< 4.3	< 4.3
Selenium	7782-49-2	T	µg/L	5	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	--	< 4.3	< 4.3	< 4.3
Silver	7440-22-4	D	µg/L	1.4	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	--	< 1.3	< 1.3	< 1.3
Silver	7440-22-4	T	µg/L	1.4	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	--	2.8	--	< 1.3	< 1.3	< 1.3
Thallium	7440-28-0	D	µg/L	10	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	< 8.8	< 8.8	< 8.8
Thallium	7440-28-0	T	µg/L	10	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	< 8.8	< 8.8	< 8.8
Zinc	7440-66-6	D	µg/L	70	18.1	--	49.2	31.4	--	33.2	26.8	22.5	--	10	9.5	23.7	--	30.3	12.7	--	26.2	--	25.4	28.1	25.8
Zinc	7440-66-6	T	µg/L	74	23.1	--	100	40.2	--	32.1	40.3	29.2	--	20.9	16.3	18.8	--	12.8	11.3	--	27.7	--	26.9	31.8	29.2
SVOCs																									
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
2,4-Dichlorophenol	120-83-2	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
2,4-Dimethylphenol	105-67-9	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
2,4-Dinitrophenol	51-28-5	T	µg/L		< 19	--	< 20	< 23	--	< 19	< 19	< 20	--	< 19	< 19	< 19	--	< 19	< 19	--	< 19	--	< 21	< 19	< 20
2,4-Dinitrotoluene	121-14-2	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
2,6-Dinitrotoluene	606-20-2	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
2-Chloronaphthalene	91-58-7	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
2-Chlorophenol	95-57-8	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
2-Nitrophenol	88-75-5	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	--	< 3	< 4	--	< 3	< 3	< 3	--	< 3	< 3	< 3	--	< 3	< 3	--	< 3	--	< 3	< 3	< 3
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	--	< 5	< 6	--	< 5	< 5	< 5	--	< 5	< 5	< 5	--	< 5	< 5	--	< 5	--	< 5	< 5	< 5
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
4-Nitrophenol	100-02-7	T	µg/L		< 9	--	< 10	< 12	--	< 10	< 10	< 10	--	< 10	< 10	< 9	--	< 9	< 9	--	< 10	--	< 10	< 10	< 10
Acenaphthene	83-32-9	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Acenaphthylene	208-96-8	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Anthracene	120-12-7	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Benzidine	92-87-5	T	µg/L		< 19	--	< 20	< 23	--	< 19	< 19	< 20	--	< 19	< 19	< 19	--	< 19	< 19	--	< 19	--	< 21	< 19	< 20
Benzo[a]anthracene	56-55-3	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Benzo[a]pyrene	50-32-8	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Benzo[b]fluoranthene	205-99-2	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Benzo[g,h,i]perylene	191-24-2	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Benzo[k]fluoranthene	207-08-9	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	--	*< 2*	< 2	--	< 2	< 2	< 2	--	< 2	*< 2*	*< 2*	--	< 2	< 2	--	< 2	--	< 2	*< 2*	*< 2*
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
Chrysene	218-01-9	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Diethylphthalate	84-66-2	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
Dimethylphthalate	131-11-3	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2

					Location	SW-O4-10-01	SW-O4-10-01	SW-O4-1-01	SW-O4-2-01	SW-O4-2-01	SW-O4-2-01	SW-O4-3-01	SW-O4-4-01	SW-O4-4-01	SW-O4-5-01	SW-O4-6-01	SW-O4-9-01	SW-O4-9-01	SW-O5-1-01	SW-O5-2-01	SW-O5-2-01	SW-P4-1-01	SW-P4-1-01	SW-P4-1-01	SW-P4-2-01	SW-Q4-1-01
					Sample Date	4/6/2001	4/6/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/6/2001	4/6/2001	4/6/2001	4/9/2001	4/9/2001	4/23/2001	4/23/2001	4/23/2001	4/23/2001	4/23/2001
					Sample Type	N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N
					Sample ID	SW-O4-10-010.75N	SW-O4-10-011N	SW-O4-1-011N	SW-O4-2-011N	SW-O4-2-010.5FD	SW-O4-2-011FD	SW-O4-3-011N	SW-O4-4-011.5N	SW-O4-4-011N	SW-O4-5-011N	SW-O4-6-011N	SW-O4-9-010.75N	SW-O4-9-011N	SW-O5-1-011N	SW-O5-2-011.5N	SW-O5-2-011N	SW-P4-1-011N	SW-P4-1-010.5FD	SW-P4-1-011FD	SW-P4-2-011N	SW-Q4-1-011N
					Parent Sample ID					SW-O4-2-011N	SW-O4-2-011N											SW-P4-1-011N	SW-P4-1-011N		
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
Fluoranthene	206-44-0	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Fluorene	86-73-7	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	--	--	< 1	--	< 1	< 1	< 1
Hexachlorobenzene	118-74-1	T	µg/L			< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	--	< 5	< 6	--	< 5	< 5	< 5	--	< 5	< 5	< 5	--	< 5	< 5	--	< 5	--	< 5	< 5	< 5
Hexachloroethane	67-72-1	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Isophorone	78-59-1	T	µg/L	920		< 0.9	--	< 1	< 1	--	< 1	6	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Naphthalene	91-20-3	T	µg/L	13		< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	1	--	< 1	< 1	< 1
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	< 2	< 2	< 2
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Pentachlorophenol	87-86-5	T	µg/L			< 3	--	< 3	< 4	--	< 3	< 3	< 3	--	< 3	< 3	< 3	--	< 3	< 3	--	< 3	--	< 3	< 3	< 3
Phenanthrene	85-01-8	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Phenol	108-95-2	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
Purge Volume	PURGE_VOL	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.9	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L			< 0.9	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1	< 0.9	--	< 0.9	< 0.9	--	< 1	--	< 1	< 1	< 1
TPH																									
Amyl alcohol	71-41-0	T	µg/L			--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000
Di-N-Propyl Ether	111-43-3	T	µg/L			--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000
Ethanol	64-17-5	T	µg/L	8000000		--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000
Ethyl ether	60-29-7	T	µg/L			--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000
Methanol	67-56-1	T	µg/L			--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000
N-butyl ether	142-96-1	T	µg/L			--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	--	< 1000	< 1000	< 1000
VOCs																									
1,1,1-Trichloroethane	71-55-6	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
1,1,2-Trichloroethane	79-00-5	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
1,1-Dichloroethane	75-34-3	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
1,1-Dichloroethene	75-35-4	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
1,2-Dichloroethane	107-06-2	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
1,2-Dichloropropane	78-87-5	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
2-Chloroethylvinylether	110-75-8	T	µg/L			--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2
Acrolein	107-02-8	T	µg/L			--	< 40	< 40	< 40	< 40	--	< 40	--	< 40	< 40	< 40	--	< 40	< 40	--	< 40	< 40	< 40	--	< 40	< 40
Acrylonitrile	107-13-1	T	µg/L			--	< 4	< 4	< 4	< 4	--	< 4	--	< 4	< 4	< 4	--	< 4	< 4	--	< 4	< 4	< 4	--	< 4	< 4
Benzene	71-43-2	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Bromodichloromethane	75-27-4	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Bromoform	75-25-2	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Bromomethane	74-83-9	T	µg/L			--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2
Carbon Tetrachloride	56-23-5	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Chlorobenzene	108-90-7	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Chloroethane	75-00-3	T	µg/L			--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2
Chloroform	67-66-3	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Chloromethane	74-87-3	T	µg/L			--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2
cis-1,2-Dichloroethene	156-59-2	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Dibromochloromethane	124-48-1	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Ethylbenzene	100-41-4	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Methylene Chloride	75-09-2	T	µg/L			--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2
Tetrachloroethene	127-18-4	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Toluene	108-88-3	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
trans-1,2-Dichloroethene	156-60-5	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Trichloroethene	79-01-6	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Trichlorofluoromethane	75-69-4	T	µg/L			--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	< 2	< 2
Vinyl Chloride	75-01-4	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1
Xylenes (total)	1330-20-7	T	µg/L			--	< 1	< 1	< 1	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	< 1	< 1	< 1	--	< 1	< 1

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols
" **-**" denotes not measured, not available, or not applicable.
" **<** " denotes not detected at or above the indicated method reporting limit.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening Benchmarks

					Location	SW-R4-1-01	SW-R4-1-01	SW-R4-1-01	SW-R-O4-01	SW-R-O5-01	SW-R-O5-02
					Sample Date	4/23/2001	4/23/2001	4/23/2001	4/6/2006	5/18/2006	5/18/2006
					Sample Type	N	FD	FD	N	N	N
					Sample ID	SW-R4-1-011N	SW-R4-1-010.5FD	SW-R4-1-011FD	SW-R-O4-011.0N	SW-R-O5-010.5N	SW-R-O5-021.5N
					Parent Sample ID		SW-R4-1-011N	SW-R4-1-011N			
					Notes						
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**							
Explosives											
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	--	< 0.2	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	--	< 0.2	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		< 0.2	--	< 0.2	< 0.6	< 60	< 60
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		< 0.2	--	< 0.2	< 0.6	< 60	< 60
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	--	< 0.2	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	--	< 0.2	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		< 0.2	--	< 0.2	< 0.6	< 60	< 60
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	--	< 0.2	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	--	< 0.2	--	--	--
Nitrocellulose	9004-70-0	T	µg/L		< 500	--	< 500	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	--	< 120	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		< 0.2	--	< 0.2	< 2	< 200	< 200
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	--	< 4	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L		< 0.2	--	< 0.2	< 0.6	< 60	< 60
Tetryl	479-45-8	T	µg/L		< 0.2	--	< 0.2	--	--	--
GenChem										
Dissolved Oxygen	7782-44-7	T	mg/l		8.51	--	--	--	--	--
pH	pH	N	su		4.87	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		18	--	--	--	--	--
Metals										
Antimony	7440-36-0	D	µg/L	80	< 5.9	--	< 5.9	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	--	< 5.9	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	--	< 3.7	--	< 20	< 20
Arsenic	7440-38-2	T	µg/L	150	< 3.7	--	< 3.7	< 20	--	--
Beryllium	7440-41-7	D	µg/L		< 0.64	--	< 0.64	--	--	--
Beryllium	7440-41-7	T	µg/L		< 0.64	--	< 0.64	--	--	--
Cadmium	7440-43-9	D	µg/L	0.12	*< 0.64*	--	*< 0.64*	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18	*< 0.64*	--	*< 0.64*	--	--	--
Chromium	7440-47-3	D	µg/L	15	< 1.7	--	< 1.7	--	--	--
Chromium	7440-47-3	T	µg/L	54	< 1.7	--	< 1.7	--	--	--
Copper	7440-50-8	D	µg/L	5.2	< 2.4	--	< 2.4	--	*< 10*	*< 10*
Copper	7440-50-8	T	µg/L	5.7	< 2.4	--	7.9	*< 10*	--	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	--	< 8.8	--	< 20	< 20
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	--	55.2	*< 20*	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	--	< 0.026	--	< 0.2	< 0.2
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	--	< 0.026	< 0.2	--	--
Nickel	7440-02-0	D	µg/L	27	2.3	--	1.9	--	--	--
Nickel	7440-02-0	T	µg/L	32	1.8	--	2.7	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	--	< 4.3	--	< 20	< 20
Selenium	7782-49-2	T	µg/L	5	< 4.3	--	< 4.3	*< 20*	--	--
Silver	7440-22-4	D	µg/L	1.4	< 1.3	--	< 1.3	--	< 5	< 5
Silver	7440-22-4	T	µg/L	1.4	< 1.3	--	< 1.3	*< 5*	--	--
Thallium	7440-28-0	D	µg/L	10	< 8.8	--	< 8.8	--	< 20	< 20
Thallium	7440-28-0	T	µg/L	10	< 8.8	--	< 8.8	*< 20*	--	--
Zinc	7440-66-6	D	µg/L	70	28.2	--	28.4	--	9.1	11.1
Zinc	7440-66-6	T	µg/L	74	32.9	--	55.4	9.7	--	--
SVOCs										
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	--	< 1	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	--	< 1	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	--	< 1	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	--	< 1	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	--	< 1	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	--	< 2	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	--	< 1	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	--	< 1	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 22	--	< 19	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		< 1	--	< 1	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		< 2	--	< 2	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	--	< 1	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	--	< 1	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	--	< 1	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	--	< 3	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	--	< 5	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	--	< 2	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	--	< 1	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	--	< 1	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 11	--	< 10	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	--	< 1	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	--	< 1	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	--	< 1	--	--	--
Benzidine	92-87-5	T	µg/L		< 22	--	< 19	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		< 1	--	< 1	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L		< 1	--	< 1	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		< 1	--	< 1	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		< 1	--	< 1	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		< 1	--	< 1	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	--	< 1	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	--	< 1	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	--	< 1	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	--	*< 2*	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	--	< 2	--	--	--
Chrysene	218-01-9	T	µg/L		< 1	--	< 1	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	--	< 1	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	--	< 2	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	--	< 2	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	--	< 2	--	--	--

					Location	SW-R4-1-01	SW-R4-1-01	SW-R4-1-01	SW-R-O4-01	SW-R-O5-01	SW-R-O5-02
					Sample Date	4/23/2001	4/23/2001	4/23/2001	4/6/2006	5/18/2006	5/18/2006
					Sample Type	N	FD	FD	N	N	N
					Sample ID	SW-R4-1-011N	SW-R4-1-010.5FD	SW-R4-1-011FD	SW-R-O4-011.0N	SW-R-O5-010.5N	SW-R-O5-021.5N
					Parent Sample ID		SW-R4-1-011N	SW-R4-1-011N			
					Notes						
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**							
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	--	< 2	--	--	--
Fluoranthene	206-44-0	T	µg/L			< 1	--	< 1	--	--	--
Fluorene	86-73-7	T	µg/L			< 1	--	< 1	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L			< 2	--	< 2	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	--	< 2	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	--	< 5	--	--	--
Hexachloroethane	67-72-1	T	µg/L			< 1	--	< 1	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L			< 1	--	< 1	--	--	--
Isophorone	78-59-1	T	µg/L	920		< 1	--	< 1	--	--	--
Naphthalene	91-20-3	T	µg/L	13		< 1	--	< 1	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	--	< 2	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 1	--	< 1	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 1	--	< 1	--	--	--
Pentachlorophenol	87-86-5	T	µg/L			< 3	--	< 3	--	--	--
Phenanthrene	85-01-8	T	µg/L			< 1	--	< 1	--	--	--
Phenol	108-95-2	T	µg/L			< 1	--	< 1	--	--	--
Purge Volume	PURGE_VOL	T	µg/L			--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L			< 1	--	< 1	--	--	--
TPH											
Amyl alcohol	71-41-0	T	µg/L			< 1000	--	< 1000	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L			< 1000	--	< 1000	--	--	--
Ethanol	64-17-5	T	µg/L	8000000		< 1000	--	1300	--	--	--
Ethyl ether	60-29-7	T	µg/L			< 1000	--	< 1000	--	--	--
Methanol	67-56-1	T	µg/L			< 1000	--	< 1000	--	--	--
N-butyl ether	142-96-1	T	µg/L			< 1000	--	< 1000	--	--	--
VOCs											
1,1,1-Trichloroethane	71-55-6	T	µg/L			< 1	< 1	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			< 1	< 1	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L			< 1	< 1	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L			< 1	< 1	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L			< 1	< 1	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L			< 1	< 1	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			< 1	< 1	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			< 2	< 2	--	--	--	--
Acrolein	107-02-8	T	µg/L			< 40	< 40	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L			< 4	< 4	--	--	--	--
Benzene	71-43-2	T	µg/L			< 1	< 1	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			< 1	< 1	--	--	--	--
Bromoform	75-25-2	T	µg/L			< 1	< 1	--	--	--	--
Bromomethane	74-83-9	T	µg/L			< 2	< 2	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			< 1	< 1	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L			< 1	< 1	--	--	--	--
Chloroethane	75-00-3	T	µg/L			< 2	< 2	--	--	--	--
Chloroform	67-66-3	T	µg/L			< 1	< 1	--	--	--	--
Chloromethane	74-87-3	T	µg/L			< 2	< 2	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L			< 1	< 1	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			< 1	< 1	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L			< 1	< 1	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L			< 1	< 1	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L			< 2	< 2	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L			< 1	< 1	--	--	--	--
Toluene	108-88-3	T	µg/L			< 1	< 1	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			< 1	< 1	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			< 1	< 1	--	--	--	--
Trichloroethene	79-01-6	T	µg/L			< 1	< 1	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	< 2	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			< 1	< 1	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			< 1	< 1	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, r
" < " denotes not detected at
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter
Action Levels
ESB = Ecological Screening

					Location	SW-ERA-M7-UP-01	SW-ERA-M7-UP-02	SW-ERA-M7-UP-02	SW-ERA-M7-UP-04	SW-ERA-N7-UP-02	SW-ERA-N7-UP-03	SW-ERA-N7-UP-04	SW-ERA-N7-UP-05	SW-ERA-N7-UP-05	SW-7-2-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N5-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01	SW-R2-N-5-1	SW-R2-N-5-2	SW-R-M7-01
					Sample Date	6/9/2016	5/30/2018	5/30/2018	5/30/2018	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/23/2001	4/23/2001	11/5/2013	11/5/2013	4/5/2006
					Sample Type	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-ERA-M7-UP-01	BD053018	SW-ERA-M7-UP-02	SW-ERA-M7-UP-04	SW-ERA-N7-UP-02	SW-ERA-N7-UP-03	SW-ERA-N7-UP-04	SW-ERA-N7-UP-05	SW-BD060916	SW-7-2-011N	SW-N7-1-011N	SW-N7-2-011N	SW-N7-3-011N	SW-N7-4-011N	SW-N7-5-011N	SW-N7-6-010.5N	SW-N7-6-011N	SW-N7-7-011N	SW-R2-N-5-1_20131105	SW-R2-N-5-2_20131105	SW-R-M7-010.5N
					Parent Sample ID		SW-ERA-M7-UP-02							SW-ERA-N7-UP-05												
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
(None)																									
Temperature	TEMP	N	deg c			--	24	23.9	23.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Explosives																									
1,2-Dinitrobenzene	528-29-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	--
1,3-Dinitrobenzene	99-65-0	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	--
1,4-Dinitrobenzene	100-25-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	--
1-Nitronaphthalene	86-57-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.75	< 0.75	--
3-Nitrotoluene	99-08-1	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 1.2	< 1.2	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 1.2	< 1.2	--
Nitrobenzene	98-95-3	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	--
Nitrocellulose	9004-70-0	T	µg/L			--	--	--	--	--	--	--	--	--	< 500	< 500	< 500	< 500	< 500	< 500	< 500	--	< 500	--	--	--
Nitroglycerin	55-63-0	T	µg/L			--	--	--	--	--	--	--	--	--	< 120	< 120	< 120	< 120	< 120	< 120	< 120	--	< 120	< 15	< 15	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L			--	--	--	--	--	--	--	--	--	< 4	< 4	< 4	< 4	< 4	< 4	< 4	--	< 4	< 18	< 18	--
RDX (Cyclonite)	121-82-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.5	< 0.5	< 0.6
Tetryl	479-45-8	T	µg/L			--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	--
Field																									
Dissolved Oxygen	7782-44-7	N	mg/l			3.26	--	--	--	3.73	4	2.66	3.64	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su			6.15	--	--	--	6.08	6.1	5.8	5.92	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm			0.089	--	--	--	0.056	0.056	0.046	0.052	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c			17.12	--	--	--	19.32	17.54	17.04	17.73	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu			71000	--	--	--	10	2.1	33.1	4.6	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l			--	--	--	--	--	--	--	--	--	9.9	10.38	8.63	9.33	9.48	8.71	9.41	--	8.35	--	--	--
Lime (As Calcium Carbonate)	471-34-1	T	mg/l			--	71.7	68.3	72.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su			--	--	--	--	--	--	--	--	--	6.91	6.61	6.6	6.5	6.19	6.53	5.65	--	6.05	--	--	--
Total Hardness	HARDNESS	N	mg/l			120	--	--	--	21.3	18.8	31.3	16.7	17.3	68	64	16	14	8	12	22	--	0.014	< 25	< 25	--
Total Suspended Solids	TSS	N	mg/L			1880	78	25	17.9	40.8	39.1	62.5	33	44.4	--	--	--	--	--	--	--	--	--	--	--	--
Metals																									
Aluminum	7429-90-5	D	µg/L	87		< 200 U	--	--	--	143 J	122 J	181 J	133 J	151 J	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum	7429-90-5	T	µg/L	87		12300	--	--	--	1030	168 J	194 J	712	911	--	--	--	--	--	--	--	--	--	605	433	--
Antimony	7440-36-0	D	µg/L	80		< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	--	--	--
Antimony	7440-36-0	T	µg/L	80		5.9	--	--	--	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	< 1	< 1	--
Arsenic	7440-38-2	D	µg/L	150		1.3 J	--	--	--	2.1	1.1 J	1.9 J	0.83 J	0.93 J	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	--	--	--
Arsenic	7440-38-2	T	µg/L	150		29.8	--	--	--	2.9	1.7 J	3	2.2	2.4	< 3.7	9.2	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	1.3	1.1	< 20
Barium	7440-39-3	D	µg/L	220		35.9	--	--	--	29.9	25.9	33	23.7	24.7	--	--	--	--	--	--	--	--	--	--	--	--
Barium	7440-39-3	T	µg/L	220		1000	--	--	--	50.2	32.1	46	43.3	46.7	--	--	--	--	--	--	--	--	--	33.2	25.6	--
Beryllium	7440-41-7	D	µg/L			< 5.0 U	--	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	--
Beryllium	7440-41-7	T	µg/L			< 5.0 U	--	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 5	< 5	--
Cadmium	7440-43-9	D	µg/L	0.12		*< 5.0 U*	--	--	--	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18		19.2	--	--	--	*< 5.0 U*	0.66 J	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 5*	*< 5*	--
Calcium	7440-70-2	D	µg/L			6510	--	--	--	6450	5660	7140	3910	4030	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	mg/l			--	22.5	21.4	23.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L			41200	--	--	--	6840	5940	10700	4730	4800	--	--	--	--	--	--	--	--	--	3030	2480	--
Chromium	7440-47-3	D	µg/L	15		2.2 J	--	--	--	2.3 J	2.6 J	3.3 J	2.3 J	2.6 J	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	--	--	--
Chromium	7440-47-3	T	µg/L	54		32.6	--	--	--	< 15.0 U	< 15.0 U	< 15.0 U	< 15.0 U	2.0 J	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	< 15	< 15	--
Cobalt	7440-48-4	D	µg/L	24		< 5.0 U	--	--	--	< 5.0 U	< 5.0 U	< 5.0 U	0.91 J	1.1 J	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24		10.7	--	--	--	1.2 J	< 5.0 U	1.2 J	2.6 J	2.5 J	--	--	--	--	--	--	--	--	--	< 5	< 5	--
Copper	7440-50-8	D	µg/L	5.2		4.4 J	--	--	--	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	--	< 2.4	--	--	--
Copper	7440-50-8	T	µg/L	5.7		366	--	--	--	6.7 J	*< 10.0 U*	3.9 J	4.9 J	6.4 J	5.5	3.2	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	--	< 2.4	5.2	*< 10*	10.3
Iron	7439-89-6	D	µg/L	300		3110	--	--	--	4010	3160	2300	1470	1460	--	--	--	--	--	--	--	--	--	--	--	--
Iron	7439-89-6	T	µg/L	300		131000	--	--	--	5800	5150	5880	8450	8380	--	--	--	--	--	--	--	--	--	1080	874	--
Lead	7439-92-1	D	µg/L	5.4		3.2	--	--	--	3.9	3.2	0.67 J	0.61 J	0.52 J	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	--
Lead	7439-92-1	T	µg/L	5.4		623	--	--	--	16.9	5.5	2.2	7	8.5	*< 8.8*	*< 8.8*	*< 8.8*	*< 8.8*	*< 8.8*	*< 8.8*	*< 8.8*	--	*< 8.8*	5	2.9	*< 20*
Magnesium	7439-95-4	D	µg/L	82		1200	--	--	--	967	961	1140	1060	1070	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	mg/l	82		--	3.77	3.63	3.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	µg/L	82000		4170	--	--	--	1020	973	1130	1200	1280	--	--	--	--	--	--	--	--	--	901	730	--
Manganese	7439-96-5	D	µg/L	120		43.9	--	--	--	37.1	27.4	104	139	199	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120		1320	--	--	--	275	184	307	359	376	--	--	--	--	--	--	--	--	--	140	87.7	--
Mercury	7439-97-6	D	µg/L	0.77		< 0.20 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	--	--	--
Mercury	7439-97-6	T	µg/L	0.77		1.3	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.2	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	27		< 10.0 U	--	--	--	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	3.7	< 1.6	2.2	2.8	2.4	1.8	2.5	--	< 1.6	--	--	--
Nickel	7440-02-0	T	µg/L	32		65.6	--	--	--	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	4.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	--	< 1.6	< 10	< 10	--
Potassium	7440-09-7	D	µg/L			846	--	--	--	2470	3320	2500	2420	2410	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L			2440	--	--	--	2320	3110	2380	2250	2290	--	--	--	--	--	--	--	--	--	1100	1390	--
Selenium	7782-49-2	D	µg/L	5		< 20.0 U	--	--	--	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	--	--	--
Selenium	7782-49-2	T	µg/L	5		25.6	--	--	--	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	1.4		< 5.0 U	--	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	--	--	--
Silver	7440-22-4	T	µg/L	1.4		2.0 J	--	--	--	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	*< 5*	*< 5*	*< 5*
Sodium	7440-23-5	D	µg/L			1950	--	--	--	1240	1440	1270	1630	1640	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	7440-23-5	T	µg/L			2370	--	--	--	1140	1360	1250	1560	1580	--	--	--	--	--	--	--	--	--	1270	1650	--
Thallium	7440-28-0	D	µg/L	10		< 0.50 U	--	--	--	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	--
Thallium	7440-28-0	T	µg/L	10		0.83	--	--	--	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 0.5	< 0.5	*< 20*
Vanadium	7440-62-2	D	µg/L	12		< 5.0 U	--	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	7440-62-2	T	µg/L	12		62.1	--	--	--	2.9 J	< 5.0 U	< 5.0 U	3.1 J	4.0 J	--	--	--	--	--	--	--	--	--	4.3	< 5	--
Zinc	7440-66-6	D	µg/L	70		247	35.5	35.7	24.1	6.2 J	8.7 J	6.8 J	5.0 J	5.7 J	17.2	16.6	4.8	22.2	22.8	5.8	18.6	--	9.8	--	--	--
Zinc	7440-66-6	T	µg/L	74		6920	111	138	101	25.6	9.4 J	9.6 J	11.2 J	16.5 J	65.6	19.2	6	18.4	26.2	14.2	12.7	--	9.8	20.4	11.6	39.6
Physical Properties																									
pH	PH	N	su			6.6	7.5	7.5	7.4	6.8	6.8	6.5	6.5	6.6	--	--	--	--	--	--	--	--	--	4.6	4.6	--
Temperature	TEMP	N	deg c			23.1	--	--	--	22.9	22.9	23	22.8	22.8	--	--	--	--	--	--	--	--	--	--	--	--

Location					SW-ERA-M7-UP-01	SW-ERA-M7-UP-02	SW-ERA-M7-UP-02	SW-ERA-M7-UP-04	SW-ERA-N7-UP-02	SW-ERA-N7-UP-03	SW-ERA-N7-UP-04	SW-ERA-N7-UP-05	SW-ERA-N7-UP-05	SW-M7-2-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N7-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01	SW-R2-N-5-1	SW-R2-N-5-2	SW-R-M7-01
Sample Date					6/9/2016	5/30/2018	5/30/2018	5/30/2018	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/23/2001	4/23/2001	11/5/2013	11/5/2013	4/5/2006
Sample Type					N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Sample ID					SW-ERA-M7-UP-01	BD053018	SW-ERA-M7-UP-02	SW-ERA-M7-UP-04	SW-ERA-N7-UP-02	SW-ERA-N7-UP-03	SW-ERA-N7-UP-04	SW-ERA-N7-UP-05	SW-BD060916	SW-M7-2-011N	SW-N7-1-011N	SW-N7-2-011N	SW-N7-3-011N	SW-N7-4-011N	SW-N7-5-011N	SW-N7-6-010.5N	SW-N7-6-011N	SW-N7-7-011N	SW-R2-N-5-1_20131105	SW-R2-N-5-2_20131105	SW-R-M7-010.5N
Parent Sample ID						SW-ERA-M7-UP-02							SW-ERA-N7-UP-05												
Notes																									
Chemical	CAS	Total or Dissolved	Unit	ESB																					
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 20	< 20	< 19	< 19	< 20	< 19	< 20	--	< 20	< 32	< 31	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 5	< 5	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	--
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.5	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	< 1	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 3	< 3	< 3	< 3	< 3	< 3	< 3	--	< 3	< 5	< 5	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--	< 5	< 16	< 16	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 10	< 10	< 10	< 10	< 10	< 10	< 10	--	< 10	< 32	< 31	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 20	< 20	< 19	< 19	< 20	< 19	< 20	--	< 20	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Benzo[a]pyrene	50-32-8	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 16	< 16	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
Chrysene	218-01-9	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	--
Fluoranthene	206-44-0	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 0.5	< 0.5	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--	< 5	< 16	< 16	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 5	< 5	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Isophorone	78-59-1	T	µg/L	920	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 3	< 3	< 3	< 3	< 3	< 3	< 3	--	< 3	< 5	< 5	--
Phenanthrene	85-01-8	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	< 1	--
Pyrene	129-00-0	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 0.5	< 0.5	--
TPH																									
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Ethanol	64-17-5	T	µg/L	8000000	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
VOCs																									
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--

					Location	SW-ERA-M7-UP-01	SW-ERA-M7-UP-02	SW-ERA-M7-UP-02	SW-ERA-M7-UP-04	SW-ERA-N7-UP-02	SW-ERA-N7-UP-03	SW-ERA-N7-UP-04	SW-ERA-N7-UP-05	SW-ERA-N7-UP-05	SW-M7-2-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N7-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01	SW-R2-N-5-1	SW-R2-N-5-2	SW-R-M7-01
					Sample Date	6/9/2016	5/30/2018	5/30/2018	5/30/2018	6/9/2016	6/9/2016	6/9/2016	6/9/2016	6/9/2016	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/23/2001	4/23/2001	11/5/2013	11/5/2013	4/5/2006
					Sample Type	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-ERA-M7-UP-01	BD053018	SW-ERA-M7-UP-02	SW-ERA-M7-UP-04	SW-ERA-N7-UP-02	SW-ERA-N7-UP-03	SW-ERA-N7-UP-04	SW-ERA-N7-UP-05	SW-BD060916	SW-M7-2-01N	SW-N7-1-01N	SW-N7-2-01N	SW-N7-3-01N	SW-N7-4-01N	SW-N7-5-01N	SW-N7-6-010.5N	SW-N7-6-01N	SW-N7-7-01N	SW-R2-N-5-1_20131105	SW-R2-N-5-2_20131105	SW-R-M7-010.5N
					Parent Sample ID		SW-ERA-M7-UP-02							SW-ERA-N7-UP-05												
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
1,2-Dichloroethane	107-06-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Acrolein	107-02-8	T	µg/L			--	--	--	--	--	--	--	--	--	< 40	< 40	< 40	< 40	< 40	< 40	--	< 40	< 40	--	--	--
Acrylonitrile	107-13-1	T	µg/L			--	--	--	--	--	--	--	--	--	< 4	< 4	< 4	< 4	< 4	< 4	--	< 4	< 4	--	--	--
Benzene	71-43-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Bromoform	75-25-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Bromomethane	74-83-9	T	µg/L			--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Chlorobenzene	108-90-7	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Chloroethane	75-00-3	T	µg/L			--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Chloroform	67-66-3	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Chloromethane	74-87-3	T	µg/L			--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Dibromochloromethane	124-48-1	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Ethylbenzene	100-41-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Methylene Chloride	75-09-2	T	µg/L			--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Tetrachloroethene	127-18-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Toluene	108-88-3	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Trichloroethene	79-01-6	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity units
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per centimeter

Action Levels

ESB = Ecological Screening Benchmarks

				Location	SW-R-M7-02	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04	SW-R-M7-05	SW-R-N7-01	SW-R-N7-02
				Sample Date	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/5/2006	4/5/2006
				Sample Type	N	FD	N	N	N	N	N
				Sample ID	SW-R-M7-020.75N	SW-R-M7-020.75FD	SW-R-M7-031.0N	SW-R-M7-041.0N	SW-R-M7-050.75N	SW-R-N7-010.5N	SW-R-N7-020.5N
				Parent Sample ID		SW-R-M7-020.75N					
				Notes							
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**							
(None)											
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--
Explosives											
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L		--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--
Field											
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	--	--	--
GenChem											
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--
Lime (As Calcium Carbonate)	471-34-1	T	mg/l		--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/L		--	--	--	--	--	--	--
Metals											
Aluminum	7429-90-5	D	µg/L	87	--	--	--	--	--	--	--
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 20	< 20	< 20	< 20	< 20	45.8	< 20
Barium	7440-39-3	D	µg/L	220	--	--	--	--	--	--	--
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L		--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L		--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.12	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18	--	--	--	--	--	--	--
Calcium	7440-70-2	D	µg/L		--	--	--	--	--	--	--
Calcium	7440-70-2	T	mg/l		--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	54	--	--	--	--	--	--	--
Cobalt	7440-48-4	D	µg/L	24	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	5.7	*< 10*	*< 10*	*< 10*	3.1	*< 10*	36.4	4.9
Iron	7439-89-6	D	µg/L	300	--	--	--	--	--	--	--
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	27.1	*< 20*
Magnesium	7439-95-4	D	µg/L	82	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	mg/l	82	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--
Manganese	7439-96-5	D	µg/L	120	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	27	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	32	--	--	--	--	--	--	--
Potassium	7440-09-7	D	µg/L		--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	1.4	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	1.4	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*
Sodium	7440-23-5	D	µg/L		--	--	--	--	--	--	--
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Vanadium	7440-62-2	D	µg/L	12	--	--	--	--	--	--	--
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	74	52.6	29.4	36.8	95.5	71.2	1160	78.3
Physical Properties											
pH	PH	N	su		--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--

				Location	SW-R-M7-02	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04	SW-R-M7-05	SW-R-N7-01	SW-R-N7-02
				Sample Date	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/5/2006	4/5/2006
				Sample Type	N	FD	N	N	N	N	N
				Sample ID	SW-R-M7-020.75N	SW-R-M7-020.75FD	SW-R-M7-031.0N	SW-R-M7-041.0N	SW-R-M7-050.75N	SW-R-N7-010.5N	SW-R-N7-020.5N
				Parent Sample ID		SW-R-M7-020.75N					
				Notes							
Chemical	CAS	Total or Dissolved	Unit	ESB							
SVOCs											
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L		--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L		--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L		--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L	920	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L		--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L		--	--	--	--	--	--	--
TPH											
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L	8000000	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--
VOCs											
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--

					Location	SW-R-M7-02	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04	SW-R-M7-05	SW-R-N7-01	SW-R-N7-02
					Sample Date	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/6/2006	4/5/2006	4/5/2006
					Sample Type	N	FD	N	N	N	N	N
					Sample ID	SW-R-M7-020.75N	SW-R-M7-020.75FD	SW-R-M7-031.0N	SW-R-M7-041.0N	SW-R-M7-050.75N	SW-R-N7-010.5N	SW-R-N7-020.5N
					Parent Sample ID		SW-R-M7-020.75N					
					Notes							
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**								
1,2-Dichloroethane	107-06-2	T	µg/L			--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L			--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L			--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L			--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L			--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L			--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L			--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L			--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L			--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L			--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L			--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L			--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L			--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L			--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L			--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L			--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L			--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, r
" < " denotes not detected at
"J" indicates an estimated co
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per ce

Action Levels
ESB = Ecological Screening

					Location	SW-ERA-J5-WT-06	SW-ERA-J5-WT-08	SW-ERA-K4-WT-07	SW-ERA-K5-WT-03	SW-ERA-K5-WT-04	SW-ERA-K5-WT-05	SW-ERA-K5-WT-09	SW-ERA-K5-WT-10	SW-ERA-L5-WT-01	SW-ERA-L5-WT-02	SW-ERA-M7-UP-03	SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01
					Sample Date	6/8/2016	6/8/2016	6/8/2016	6/9/2016	6/8/2016	6/8/2016	6/9/2016	6/8/2016	6/9/2016	6/9/2016	5/30/2018	4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/26/2001
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N
					Sample ID	SW-ERA-J5-WT-06	SW-ERA-J5-WT-08	SW-ERA-K4-WT-07	SW-ERA-K5-WT-03	SW-ERA-K5-WT-04	SW-ERA-K5-WT-05	SW-ERA-K5-WT-09	SW-ERA-K5-WT-10	SW-ERA-L5-WT-01	SW-ERA-L5-WT-02	SW-ERA-M7-UP-03	SW-J5-2-010.5N	SW-J5-2-011N	SW-K4-1-011N	SW-K5-1-011N	SW-K5-1-010.5FD	SW-K5-1-011FD	SW-K5-2-011N	SW-K5-3-011N	SW-K5-3-012N	SW-K5-4-011N
					Parent Sample ID																SW-K5-1-011N	SW-K5-1-011N				
					Notes																					
Chemical	CAS	Total or Dissolved	Unit	ESB																						
(None)																										
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	23.8	--	--	--	--	--	--	--	--	--	--	--
Explosives																										
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Nitrocellulose	9004-70-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 500	--	< 500	< 500	--	< 500	< 500	--	< 500	< 500
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 120	--	< 120	< 120	--	< 120	< 120	--	< 120	< 120
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.4	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 4	--	< 4	< 4	--	< 4	< 4	--	< 4	< 4
RDX (Cyclonite)	121-82-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Field																										
Dissolved Oxygen	7782-44-7	N	mg/l		3.44	4.22	2.79	2.73	3.42	2.06	3.56	2.85	2.67	2.67	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		6.66	5.69	6.16	6.66	6.06	6.97	6	6.53	6.71	6.74	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		0.423	0.075	0.09	0.255	0.285	0.462	0.053	0.087	0.373	0.36	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		16.59	16.99	16.67	13.82	15.94	16.12	13.21	15.47	14.77	14.98	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		497	12.4	4	10.5	16.4	632	22	18.5	23.7	9.9	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																										
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--	--	--	--	11.62	--	10.69	10.87	--	--	10.35	--	10.4	11.33
Lime (As Calcium Carbonate)	471-34-1	T	mg/l		--	--	--	--	--	--	--	--	--	--	75.5	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	7.17	--	6.86	6.57	--	--	6.9	--	6.04	6.31
Total Hardness	HARDNESS	N	mg/l		202	36.3	31.8	106	99.2	159	17.9	39.8	127	128	--	272	--	72	56	--	--	140	--	52	28
Total Suspended Solids	TSS	N	mg/L		294	50.5	38.8	12.9	33	145	190	203	11	14.3	10.6	--	--	--	--	--	--	--	--	--	--
Metals																										
Aluminum	7429-90-5	D	µg/L	87	< 200 U	132 J	117 J	< 200 U	< 200 U	< 200 U	175 J	111 J	< 200 U	< 200 U	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum	7429-90-5	T	µg/L	87	3120	357	258	*< 200 U*	137 J	449	2900	2520	*< 200 U*	*< 200 U*	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9
Antimony	7440-36-0	T	µg/L	80	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.98 J	1.7	< 1.0 U	< 1.0 U	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9
Arsenic	7440-38-2	D	µg/L	150	< 2.0 U	0.62 J	0.70 J	2.4	1.4 J	0.94 J	1.0 J	1.5 J	1.6 J	2.5	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7
Arsenic	7440-38-2	T	µg/L	150	8	0.89 J	0.86 J	3.2	1.8 J	3	3.6	5	2	2.9	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7
Barium	7440-39-3	D	µg/L	220	37.9	22.5	14.5	28.3	21.9	22.9	16.2	48.2	44.6	36.2	--	--	--	--	--	--	--	--	--	--	--	--
Barium	7440-39-3	T	µg/L	220	134	50.4	18.7	37.5	27.5	41	78.7	153	48.6	44.4	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64
Beryllium	7440-41-7	T	µg/L		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 0.64	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64
Cadmium	7440-43-9	D	µg/L	0.12	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	--	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*
Cadmium	7440-43-9	T	µg/L	0.18	0.92 J	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	3.6 J	3.8 J	*< 5.0 U*	*< 5.0 U*	--	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*
Calcium	7440-70-2	D	µg/L		46200	8820	7440	25500	23600	37700	2020	5500	30000	31400	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	mg/l		--	--	--	--	--	--	--	--	--	--	24.1	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		53600	9470	7380	25500	22900	40300	4580	7640	29500	30900	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15	3.0 J	2.4 J	2.7 J	2.6 J	2.6 J	2.6 J	2.2 J	3.7 J	3.6 J	3.2 J	--	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7
Chromium	7440-47-3	T	µg/L	54	5.1 J	< 15.0 U	< 15.0 U	< 15.0 U	< 15.0 U	< 15.0 U	4.8 J	5.0 J	< 15.0 U	< 15.0 U	--	< 1.7	--	< 1.7	2.6	--	< 1.7	< 1.7	--	< 1.7	< 1.7
Cobalt	7440-48-4	D	µg/L	24	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	1.3 J	< 5.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	1.3 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	2.2 J	2.9 J	1.8 J	< 5.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	57.9	5.5 J	*< 10.0 U*	*< 10.0 U*	--	< 2.4	--	< 2.4	< 2.4	--	< 2.4	< 2.4	--	< 2.4	< 2.4
Copper	7440-50-8	T	µg/L	5.7	31.5	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	3.3 J	326	98.2	4.0 J	*< 10.0 U*	--	2.7	--	< 2.4	< 2.4	--	< 2.4	< 2.4	--	< 2.4	< 2.4
Iron	7439-89-6	D	µg/L	300	74.8 J	434	716	3050	750	148 J	2320	3660	5300	3380	--	--	--	--	--	--	--	--	--	--	--	--
Iron	7439-89-6	T	µg/L	300	13100	1970	1060	5610	1680	2550	12200	15000	8050	6090	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 1.0 U	0.18 J	1.1	0.50 J	0.39 J	< 1.0 U	20.7	4.7	1.7	0.92 J	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8
Lead	7439-92-1	T	µg/L	5.4	52.9	4.5	2.1	0.99 J	1.8	15	302	92	2.6	1.5	--	10.1	--	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*
Magnesium	7439-95-4	D	µg/L	82	15900	3050	3250	10500	10700	13700	839	4290	13400	12700	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	mg/l	82	--	--	--	--	--	--	--	--	--	--	3.76	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	µg/L	82000	16500	3070	3240	10300	10200	14000	1570	5040	13100	12400	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	D	µg/L	120	6.8	11.8	102	365	23.9	2.3 J	84.5	89.9	1970	607	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	1880	1110	222	1020	456	541	462	676	2070	1170	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.026	0.069
Mercury	7439-97-6	T	µg/L	0.77	0.3	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	0.078 J	2.5	1.6	< 0.20 U	< 0.20 U	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026	--	0.027	< 0.026
Nickel	7440-02-0	D	µg/L	27	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	2.8 J	< 10.0 U	< 10.0 U	--	< 1.6	--	2.3	3.1	--	< 1.6	< 1.6	--	< 1.6	1.9
Nickel	7440-02-0	T	µg/L	32	3.3 J	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	4.7 J	9.6 J	< 10.0 U	< 10.0 U	--	< 1.6	--	< 1.6	< 1.6	--	< 1.6	< 1.6	--	< 1.6	< 1.6
Potassium	7440-09-7	D	µg/L		2300	3870	2350	4450	3270	1960	2270	3400	4130	4790	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		2480	3870	2160	4170	2920	1900	2610	3630	3910	4480	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3
Selenium	7782-49-2	T	µg/L	5	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	*< 20.0 U*	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3
Silver	7440-22-4	D	µg/L	1.4	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3
Silver	7440-22-4	T	µg/L	1.4	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	*< 5.0 U*	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3
Sodium	7440-23-5	D	µg/L		15300	3720	4730	9470	7580	10400	1360	1820	17500	16800	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	7440-23-5	T	µg/L		14500	3560	4400	9050	6900	10200	1390	1840	16800	16000	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8
Thallium	7440-28-0	T	µg/L	10	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8
Vanadium	7440-62-2	D	µg/L	12	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	7440-62-2	T	µg/L	12	15.2	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.5	6	< 5.0 U	< 5.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	4.3 J	< 20.0 U	107	294	< 20.0 U	< 20.0 U	10.4 J	10.5	--	5.4	5.7	--	5.3	18.9	--	49.9	291
Zinc	7440-66-6	T	µg/L	74	131	12.0 J	5.8 J	< 20.0 U	6.7 J	27.1	384	1670	< 20.0 U	< 20.0 U	42.1	16.3	--	8.9	7.6	--	8	< 3.2	--	44.9	44
Perchlorate																										
Perchlorate	14797-73-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5
Physical Properties																										
pH	PH	N	su		7.5	6.9	6.9	7.6	7.6	7.9	6.4	6.7	7.5	7.7	7.5	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-ERA-J5-WT-06	SW-ERA-J5-WT-08	SW-ERA-K4-WT-07	SW-ERA-K5-WT-03	SW-ERA-K5-WT-04	SW-ERA-K5-WT-05	SW-ERA-K5-WT-09	SW-ERA-K5-WT-10	SW-ERA-L5-WT-01	SW-ERA-L5-WT-02	SW-ERA-M7-UP-03	SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01
					Sample Date	6/8/2016	6/8/2016	6/8/2016	6/9/2016	6/8/2016	6/8/2016	6/9/2016	6/8/2016	6/9/2016	6/9/2016	5/30/2018	4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/26/2001
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N
					Sample ID	SW-ERA-J5-WT-06	SW-ERA-J5-WT-08	SW-ERA-K4-WT-07	SW-ERA-K5-WT-03	SW-ERA-K5-WT-04	SW-ERA-K5-WT-05	SW-ERA-K5-WT-09	SW-ERA-K5-WT-10	SW-ERA-L5-WT-01	SW-ERA-L5-WT-02	SW-ERA-M7-UP-03	SW-J5-2-010.5N	SW-J5-2-011N	SW-K4-1-011N	SW-K5-1-011N	SW-K5-1-010.5FD	SW-K5-1-011FD	SW-K5-2-011N	SW-K5-3-011N	SW-K5-3-012N	SW-K5-4-011N
					Parent Sample ID																SW-K5-1-011N	SW-K5-1-011N				
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Temperature	TEMP	N	deg c			22.9	22.9	22.8	23.1	23	23.1	22.8	22.9	23.1	23.2	--	--	--	--	--	--	--	--	--	--	--
SVOCs																										
1,1'-Biphenyl	92-52-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
1,2,4-Trichlorobenzene	120-82-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
1,2-Dichlorobenzene	95-50-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
1,2-Diphenylhydrazine	122-66-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
1,3-Dichlorobenzene	541-73-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
1,4-Dichlorobenzene	106-46-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
2,4,5-Trichlorophenol	95-95-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
2,4-Dichlorophenol	120-83-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
2,4-Dimethylphenol	105-67-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
2,4-Dinitrophenol	51-28-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 19	--	< 20	< 20	--	< 19	< 19	--	< 20	< 20
2,4-Dinitrotoluene	121-14-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
2,6-Dinitrotoluene	606-20-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
2-Chloronaphthalene	91-58-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
2-Chlorophenol	95-57-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
2-Methylnaphthalene	91-57-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
3&4-Methylphenol	106-44-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 3	--	< 3	< 3	--	< 3	< 3	--	< 3	< 3
3-Nitroaniline	99-09-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 5	--	< 5	< 5	--	< 5	< 5	--	< 5	< 5
4-Bromophenyl-phenylether	101-55-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
4-Chloro-3-methylphenol	59-50-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
4-Chloroaniline	106-47-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
4-Nitroaniline	100-01-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 10	--	< 10	< 10	--	< 10	< 10	--	< 10	< 10
Acenaphthene	83-32-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Acenaphthylene	208-96-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Acetophenone	98-86-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Atrazine	1912-24-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 19	--	< 20	< 20	--	< 19	< 19	--	< 20	< 20
Benzo[a]anthracene	56-55-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Benzo[a]pyrene	50-32-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Benzo[b]fluoranthene	205-99-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Benzo[g,h,i]perylene	191-24-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Benzo[k]fluoranthene	207-08-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3		--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Butylbenzylphthalate	85-68-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Caprolactam	105-60-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Dibenzo[a,h]anthracene	53-70-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Dibenzofuran	132-64-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Dimethylphthalate	131-11-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Di-n-butylphthalate	84-74-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Di-n-octylphthalate	117-84-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Fluoranthene	206-44-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Fluorene	86-73-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Hexachlorobenzene	118-74-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Hexachlorobutadiene	87-68-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
Hexachlorocyclopentadiene	77-47-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 5	--	< 5	< 5	--	< 5	< 5	--	< 5	< 5
Hexachloroethane	67-72-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Isophorone	78-59-1	T	µg/L	920		--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Naphthalene	91-20-3	T	µg/L	13		--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
N-Nitrosodimethylamine	62-75-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
N-Nitrosodiphenylamine	86-30-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Pentachlorophenol	87-86-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 3	--	< 3	< 3	--	< 3	< 3	--	< 3	< 3
Phenanthrene	85-01-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Phenol	108-95-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
Pyrene	129-00-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	< 1	< 1	--	< 1	< 1	--	< 1	< 1
TPH																										
Amyl alcohol	71-41-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000
Di-N-Propyl Ether	111-43-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000
Ethanol	64-17-5	T	µg/L	8000000		--	--	--	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000
Ethyl ether	60-29-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000
Methanol	67-56-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000
N-butyl ether	142-96-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
1,1,2-Trichloroethane	79-00-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
1,1-Dichloroethane	75-34-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
1,1-Dichloroethene	75-35-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1

					Location	SW-ERA-J5-WT-06	SW-ERA-J5-WT-08	SW-ERA-K4-WT-07	SW-ERA-K5-WT-03	SW-ERA-K5-WT-04	SW-ERA-K5-WT-05	SW-ERA-K5-WT-09	SW-ERA-K5-WT-10	SW-ERA-L5-WT-01	SW-ERA-L5-WT-02	SW-ERA-M7-UP-03	SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01
					Sample Date	6/8/2016	6/8/2016	6/8/2016	6/9/2016	6/8/2016	6/8/2016	6/9/2016	6/8/2016	6/9/2016	6/9/2016	5/30/2018	4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/26/2001
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N
					Sample ID	SW-ERA-J5-WT-06	SW-ERA-J5-WT-08	SW-ERA-K4-WT-07	SW-ERA-K5-WT-03	SW-ERA-K5-WT-04	SW-ERA-K5-WT-05	SW-ERA-K5-WT-09	SW-ERA-K5-WT-10	SW-ERA-L5-WT-01	SW-ERA-L5-WT-02	SW-ERA-M7-UP-03	SW-J5-2-010.5N	SW-J5-2-011N	SW-K4-1-011N	SW-K5-1-011N	SW-K5-1-010.5FD	SW-K5-1-011FD	SW-K5-2-011N	SW-K5-3-011N	SW-K5-3-012N	SW-K5-4-011N
					Parent Sample ID																SW-K5-1-011N	SW-K5-1-011N				
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 40	< 40	< 40	< 40	--	< 40	< 40	--	< 40
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 4	< 4	< 4	< 4	--	< 4	< 4	--	< 4
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2
Chloroform	67-66-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2
cis-1,2-Dichloroethene	156-59-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Dibromochloromethane	124-48-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2
Tetrachloroethene	127-18-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Trichlorofluoromethane	75-69-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2
Vinyl Chloride	75-01-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1
Xylenes (total)	1330-20-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity units
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per centimeter

Action Levels

ESB = Ecological Screening Benchmarks

					Location	SW-L5-1-01	SW-R2-L-5-2	SW-R-J5-01	SW-R-J5-02	SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05	SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11
					Sample Date	4/20/2001	11/4/2013	4/5/2006	4/5/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-L5-1-011N	SW-R2-L-5-2_20131104	SW-R-J5-010.5N	SW-R-J5-020.5N	SW-R-K5-010.5NA	SW-R-K5-010.5N	SW-R-K5-020.75N	SW-R-K5-020.75NA	SW-R-K5-030.5NA	SW-R-K5-030.5N	SW-R-K5-040.5N	SW-R-K5-040.5NA	SW-R-K5-050.5NA	SW-R-K5-050.5N	SW-R-K5-060.5N	SW-R-K5-070.5N	SW-R-K5-080.5N	SW-R-K5-090.5N	SW-R-K5-100.5N	SW-R-K5-110.5N
					Parent Sample ID																			
					Notes																			
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																				
(None)																								
Temperature	TEMP	N	deg c			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Explosives																								
1,2-Dinitrobenzene	528-29-0	T	µg/L			--	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L			< 0.2	< 0.6	--	--	--	--	< 0.6	--	--	--	< 2.2	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L			< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L			--	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L			--	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L			< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L			< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L			< 0.2	< 0.75	--	--	--	--	< 0.6	--	--	--	< 0.6	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L			< 0.2	< 1.2	--	--	--	--	< 1.2	--	--	--	< 1.2	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L			< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L			< 0.2	< 1.2	--	--	--	--	< 1.2	--	--	--	< 1.2	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L			< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L			< 500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L			< 120	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L			< 0.2	< 2	< 2	< 2	< 2	--	< 40	--	< 2	--	< 40	--	< 2	--	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L			< 4	< 18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L			< 0.2	< 0.5	< 0.6	< 0.6	< 0.6	--	< 12	--	< 0.6	--	< 12	--	< 0.6	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L			< 0.2	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field																								
Dissolved Oxygen	7782-44-7	N	mg/l			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																								
Dissolved Oxygen	7782-44-7	T	mg/l			11.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lime (As Calcium Carbonate)	471-34-1	T	mg/l			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su			7.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l			144	38.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																								
Aluminum	7429-90-5	D	µg/L	87		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aluminum	7429-90-5	T	µg/L	87		--	474	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80		< 5.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80		< 5.9	0.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150		< 3.7	--	--	--	--	< 20	--	< 20	--	< 20	--	< 20	--	< 20	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150		< 3.7	1.9	< 100	72.6	--	--	--	--	--	--	--	--	--	--	< 20	< 100	< 20	54.1	< 100	176
Barium	7440-39-3	D	µg/L	220		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	7440-39-3	T	µg/L	220		--	33.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L			< 0.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L			< 0.64	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.12		*< 0.64*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.18		*< 0.64*	*< 5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	D	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	mg/l			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L			--	9140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	15		< 1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	54		< 1.7	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	D	µg/L	24		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24		--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	5.2		< 2.4	--	--	--	--	5.5	--	14	--	8.5	--	1.9	--	72.4	--	--	--	--	--
Copper	7440-50-8	T	µg/L	5.7		< 2.4	5.9	114	435	--	--	--	--	--	--	--	--	--	--	*< 10*	217	2.5	420	423	871
Iron	7439-89-6	D	µg/L	300		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	7439-89-6	T	µg/L	300		--	838	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4		< 8.8	--	--	--	--	10.1	--	19.9	--	11.1	--	< 20	--	40	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4		*< 8.8*	14	260	1240	--	--	--	--	--	--	--	--	--	--	*< 20*	584	*< 20*	1420	1260	3000
Magnesium	7439-95-4	D	µg/L	82		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	mg/l	82		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	7439-95-4	T	µg/L	82000		--	3770	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	D	µg/L	120		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120		--	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77		< 0.026	--	--	--	--	0.24	--	0.15	--	0.32	--	0.089	--	0.14	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77		< 0.026	< 0.2	< 0.2	< 0.2	--	--	--	--	--	--	--	--	--	--	< 0.2	0.23	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	27		1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	32		< 1.6	< 10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	D	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L			--	820	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5		< 4.3	--	--	--	--	10.3	--	< 20	--	< 20	--	< 20	--	< 20	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5		< 4.3	*< 20*	*< 100*	*< 100*	--	--	--	--	--	--	--	--	--	--	*< 20*	*< 100*	*< 20*	*< 100*	*< 100*	*< 100*
Silver	7440-22-4	D	µg/L	1.4		< 1.3	--	--	--	--	< 5	--	< 5	--	< 5	--	< 5	--	< 5	--	--	--	--	--
Silver	7440-22-4	T	µg/L	1.4		< 1.3	*< 5*	*< 25*	12.2	--	--	--	--	--	--	--	--	--	--	*< 5*	*< 25*	*< 5*	*< 25*	*< 25*	11.8
Sodium	7440-23-5	D	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	7440-23-5	T	µg/L			--	5490	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10		< 8.8	--	--	--	--	< 20	--	< 20	--	< 20	--	< 20	--	< 20	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10		< 8.8	< 0.5	149	*< 100*	--	--	--	--	--	--	--	--	--	--	*< 20*	*< 100*	*< 20*	104	*< 100*	*< 100*
Vanadium	7440-62-2	D	µg/L	12		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	7440-62-2	T	µg/L	12		--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	70		6.3	--	--	--	--	504	--	153	--	349	--	49.8	--	150	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	74		25.3	21.8	930	4560	--	--	--	--	--	--	--	--	--	--	28.6	7620	16.6	2680	2430	4380
Perchlorate																								
Perchlorate	14797-73-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Physical Properties																								
pH	PH	N	su			--	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

				Location	SW-L5-1-01	SW-R2-L-5-2	SW-R-J5-01	SW-R-J5-02	SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05	SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11
				Sample Date	4/20/2001	11/4/2013	4/5/2006	4/5/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-L5-1-011N	SW-R2-L-5-2_20131104	SW-R-J5-010.5N	SW-R-J5-020.5N	SW-R-K5-010.5NA	SW-R-K5-010.5N	SW-R-K5-020.75N	SW-R-K5-020.75NA	SW-R-K5-030.5NA	SW-R-K5-030.5N	SW-R-K5-040.5N	SW-R-K5-040.5NA	SW-R-K5-050.5NA	SW-R-K5-050.5N	SW-R-K5-060.5N	SW-R-K5-070.5N	SW-R-K5-080.5N	SW-R-K5-090.5N	SW-R-K5-100.5N	SW-R-K5-110.5N
				Parent Sample ID																				
				Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																				
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																								
1,1'-Biphenyl	92-52-4	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L		< 1	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		< 2	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		< 2	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		< 2	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		< 5	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		< 1	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L	920	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		< 3	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L		< 1	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH																								
Amyl alcohol	71-41-0	T	µg/L		< 1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		< 1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L	8000000	< 1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		< 1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		< 1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		< 1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																								
1,1,1-Trichloroethane	71-55-6	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-L5-1-01	SW-R2-L-5-2	SW-R-J5-01	SW-R-J5-02	SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05	SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11
					Sample Date	4/20/2001	11/4/2013	4/5/2006	4/5/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-L5-1-011N	SW-R2-L-5-2_20131104	SW-R-J5-010.5N	SW-R-J5-020.5N	SW-R-K5-010.5NA	SW-R-K5-010.5N	SW-R-K5-020.75N	SW-R-K5-020.75NA	SW-R-K5-030.5NA	SW-R-K5-030.5N	SW-R-K5-040.5N	SW-R-K5-040.5NA	SW-R-K5-050.5NA	SW-R-K5-050.5N	SW-R-K5-060.5N	SW-R-K5-070.5N	SW-R-K5-080.5N	SW-R-K5-090.5N	SW-R-K5-100.5N	SW-R-K5-110.5N
					Parent Sample ID																				
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
1,2-Dichloroethane	107-06-2	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		< 40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		< 4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L		< 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L		< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols

" - -" denotes not measured, r
" < " denotes not detected at
"J" indicates an estimated co
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per ce

Action Levels

ESB = Ecological Screening

				Location	SW-D14-1-01	SW-D14-1-01	SW-D14-1-01	SW-D14-2-01	SW-E14-1-01	SW-E14-1-01	SW-E14-1-01	SW-E14-2-01	SW-R-D13-01	SW-R-D14-01	SW-R-D14-02	SW-R-D14-03	SW-R-E14-01	SW-R-E14-02	SW-R-E14-03
				Sample Date	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/11/2001	4/11/2001	5/9/2001	4/10/2001	5/18/2006	5/18/2006	5/18/2006	5/18/2006	7/13/2006	7/13/2006	7/13/2006
				Sample Type	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-D14-1-011N	SW-D14-1-010.5FD	SW-D14-1-011FD	SW-D14-2-011N	SW-E14-1-011.5N	SW-E14-1-011N	SW-E14-1-011.5NA	SW-E14-2-011N	SW-R-D13-010.5N	SW-R-D14-010.5N	SW-R-D14-020.75N	SW-R-D14-030.5N	SW-R-E14-011.75N	SW-R-E14-021.75N	SW-R-E14-031.75N
				Parent Sample ID		SW-D14-1-011N	SW-D14-1-011N												
				Notes															
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**															
Explosives																			
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	0.63	--	0.5	< 0.2	0.25	--	--	< 0.2	< 0.6	11	0.87	< 0.6	< 0.6	< 0.6	0.33
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	4.14	--	3.82	< 0.2	0.69	--	--	0.73	< 0.6	16	2.4	< 0.6	< 0.6	< 0.6	0.41
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	3.84	--	3.31	< 0.2	0.8	--	--	1.07	< 0.6	21	2.4	< 0.6	< 0.6	< 0.6	0.72
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	--	< 500	< 500	--	--	< 500	< 500	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	--	< 200	< 120	< 120	--	--	< 120	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	2.67	--	1.81	< 0.2	< 0.2	--	--	< 0.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	--	< 4	< 4	< 4	--	--	< 4	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	0.79	--	0.73	< 0.2	< 0.2	--	--	< 0.2	< 0.6	0.52	< 0.6	0.3	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	< 0.2	--	--	--	--	--	--	--
GenChem																			
Dissolved Oxygen	7782-44-7	T	mg/l		10.34	--	--	12.04	10.62	--	--	10.52	--	--	--	--	--	--	--
pH	pH	N	su		6.77	--	--	6.61	7.59	--	--	7.42	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		0	--	--	92	84	--	--	124	--	--	--	--	--	--	--
Metals																			
Antimony	7440-36-0	D	µg/L	80	< 5.9	--	< 5.9	< 5.9	< 5.9	--	--	< 5.9	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	--	< 5.9	< 5.9	< 5.9	--	--	< 5.9	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	--	< 3.7	< 3.7	< 3.7	--	--	< 3.7	< 20	--	--	< 20	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	--	< 3.7	< 3.7	< 3.7	--	--	< 3.7	--	< 20	< 20	--	< 20	13.4	< 20
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	--	< 0.64	< 0.64	< 0.64	--	--	< 0.64	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	--	< 0.64	< 0.64	< 0.64	--	--	< 0.64	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	--	< 0.64	< 0.64	< 0.64	--	--	< 0.64	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*	--	--	*< 0.64*	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	--	< 1.7	< 1.7	< 1.7	--	--	< 1.7	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	--	< 1.7	< 1.7	< 1.7	--	--	< 1.7	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	< 2.4	--	< 2.4	< 2.4	< 2.4	--	--	< 2.4	*< 10*	--	--	*< 10*	--	--	--
Copper	7440-50-8	T	µg/L	11	< 2.4	--	< 2.4	< 2.4	< 2.4	--	--	< 2.4	--	5	2.1	--	4.5	12.6	< 10
Lead	7439-92-1	D	µg/L	5.4	< 8.8	--	< 8.8	< 8.8	< 8.8	--	--	< 8.8	< 20	--	--	< 20	--	--	--
Lead	7439-92-1	T	µg/L	5.4	23	--	*< 8.8*	*< 8.8*	*< 8.8*	--	--	21.5	--	21.1	*< 20*	--	45.2	223	*< 15*
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	--	< 0.026	< 0.026	< 0.026	--	--	< 0.026	< 0.2	--	--	< 0.2	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	--	< 0.026	< 0.026	< 0.026	--	--	< 0.026	--	< 0.2	< 0.2	--	< 0.2	0.11	< 0.2
Nickel	7440-02-0	D	µg/L	52	< 1.6	--	< 1.6	< 1.6	< 1.6	--	--	< 1.6	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	< 1.6	--	< 1.6	< 1.6	< 1.6	--	--	< 1.6	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	--	4.5	< 4.3	< 4.3	--	--	< 4.3	< 20	--	--	< 20	--	--	--
Selenium	7782-49-2	T	µg/L	5	< 4.3	--	< 4.3	< 4.3	< 4.3	--	--	< 4.3	--	*< 20*	*< 20*	--	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	4.4	< 1.3	--	< 1.3	< 1.3	< 1.3	--	--	< 1.3	*< 5*	--	--	*< 5*	--	--	--
Silver	7440-22-4	T	µg/L	5.2	< 1.3	--	< 1.3	< 1.3	< 1.3	--	--	< 1.3	--	< 5	< 5	--	< 5	< 5	< 5
Thallium	7440-28-0	D	µg/L	10	< 8.8	--	< 8.8	< 8.8	< 8.8	--	--	< 8.8	< 20	--	--	< 20	--	--	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	--	< 8.8	< 8.8	< 8.8	--	--	< 8.8	--	10.4	*< 20*	--	*< 20*	*< 20*	*< 20*
Zinc	7440-66-6	D	µg/L	133	< 3.2	--	< 3.2	8.9	6.4	--	--	4.5	9.8	--	--	< 20	--	--	--
Zinc	7440-66-6	T	µg/L	140	22.6	--	6.1	< 3.2	3.5	--	--	18.4	--	19.8	6.6	--	23	79.2	8.6
SVOCs																			
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 19	--	< 20	< 19	< 19	--	--	< 19	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	--	< 3	< 3	< 3	--	--	< 3	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	--	< 5	< 5	< 5	--	--	< 5	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	--	< 10	< 9	< 9	--	--	< 10	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 19	--	< 20	< 19	< 19	--	--	< 19	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	*< 1*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	*< 1*	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	*< 1*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	*< 1*	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	--	< 2	*< 2*	< 2	--	--	*< 2*	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	*< 1*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	*< 1*	--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--

				Location	SW-D14-1-01	SW-D14-1-01	SW-D14-1-01	SW-D14-2-01	SW-E14-1-01	SW-E14-1-01	SW-E14-1-01	SW-E14-2-01	SW-R-D13-01	SW-R-D14-01	SW-R-D14-02	SW-R-D14-03	SW-R-E14-01	SW-R-E14-02	SW-R-E14-03
				Sample Date	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/11/2001	4/11/2001	5/9/2001	4/10/2001	5/18/2006	5/18/2006	5/18/2006	5/18/2006	7/13/2006	7/13/2006	7/13/2006
				Sample Type	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-D14-1-011N	SW-D14-1-010.5FD	SW-D14-1-011FD	SW-D14-2-011N	SW-E14-1-011.5N	SW-E14-1-011N	SW-E14-1-011.5NA	SW-E14-2-011N	SW-R-D13-010.5N	SW-R-D14-010.5N	SW-R-D14-020.75N	SW-R-D14-030.5N	SW-R-E14-011.75N	SW-R-E14-021.75N	SW-R-E14-031.75N
				Parent Sample ID		SW-D14-1-011N	SW-D14-1-011N												
				Notes															
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**															
Fluoranthene	206-44-0	T	µg/L	1.9	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		< 5	--	< 5	< 5	< 5	--	--	< 5	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		< 2	--	< 2	< 2	< 2	--	--	< 2	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		< 3	--	< 3	< 3	< 3	--	--	< 3	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		< 1	--	< 1	< 0.9	< 0.9	--	--	< 1	--	--	--	--	--	--	--
Purge Volume	PURGE_VOL	T	µg/L		--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	*< 1*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	*< 1*	--	--	--	--	--	--	--
TPH																			
Amyl alcohol	71-41-0	T	µg/L		< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--
VOCs																			
1,1,1-Trichloroethane	71-55-6	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		< 2	< 2	--	< 2	--	< 2	--	< 2	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		< 40	< 40	--	< 40	--	< 40	--	< 40	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		< 4	< 4	--	< 4	--	< 4	--	< 4	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		< 2	< 2	--	< 2	--	< 2	--	< 2	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		< 2	< 2	--	< 2	--	< 2	--	< 2	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		< 2	< 2	--	< 2	--	< 2	--	< 2	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000	< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		< 2	< 2	--	< 2	--	< 2	--	< 2	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45	< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L		< 2	< 2	--	< 2	--	< 2	--	< 2	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L		< 1	< 1	--	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols
" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter
Action Levels
ESB = Ecological Screening Benchmarks

				Location	SW-H7-1-01	SW-H7-2-01	SW-H7-2-01	SW-H7-2-01	SW-H8-2-01	SW-H8-3-01	SW-I5-1-01	SW-I5-2-01	SW-I5-2-01	SW-I5-2-01	SW-I6-1-01
				Sample Date	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
				Sample Type	N	N	FD	FD	N	N	N	N	FD	FD	N
				Sample ID	SW-H7-1-011N	SW-H7-2-011N	SW-H7-2-010.5FD	SW-H7-2-011FD	SW-H8-2-011N	SW-H8-3-011N	SW-I5-1-011N	SW-I5-2-011N	SW-I5-2-010.5FD	SW-I5-2-011FD	SW-I6-1-011N
				Parent Sample ID			SW-H7-2-011N	SW-H7-2-011N					SW-I5-2-011N	SW-I5-2-011N	
				Notes											
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**											
Explosives															
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	< 500	--	< 500	< 500	< 500	< 500	< 500	--	< 500	< 500
Nitroglycerin	55-63-0	T	µg/L		< 120	< 120	--	< 120	< 120	< 120	< 120	< 120	--	< 120	< 120
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 4	--	< 4	< 4	< 4	< 4	< 4	--	< 4	< 4
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2
GenChem															
Dissolved Oxygen	7782-44-7	T	mg/l		11.69	10.6	--	--	9.26	9.93	11.88	11.44	--	--	11.69
pH	pH	N	su		7.75	7.68	--	--	7.72	7.62	7.56	7.63	--	--	7.75
Total Hardness	HARDNESS	N	mg/l		100	92	--	--	92	92	100	96	--	--	92
Metals															
Antimony	7440-36-0	D	µg/L	80	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9
Antimony	7440-36-0	T	µg/L	80	< 5.9	6.3	--	< 5.9	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	7.5
Arsenic	7440-38-2	D	µg/L	150	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7
Arsenic	7440-38-2	T	µg/L	150	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*
Chromium	7440-47-3	D	µg/L	28	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7
Chromium	7440-47-3	T	µg/L	100	< 1.7	< 1.7	--	< 1.7	2.8	< 1.7	< 1.7	< 1.7	--	< 1.7	1.9
Copper	7440-50-8	D	µg/L	9.9	< 2.4	3.2	--	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	--	< 2.4	< 2.4
Copper	7440-50-8	T	µg/L	11	< 2.4	< 2.4	--	< 2.4	4.4	< 2.4	< 2.4	< 2.4	--	< 2.4	< 2.4
Lead	7439-92-1	D	µg/L	5.4	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*	*< 8.8*	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026
Nickel	7440-02-0	D	µg/L	52	< 1.6	< 1.6	--	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	--	< 1.6	< 1.6
Nickel	7440-02-0	T	µg/L	61	< 1.6	< 1.6	--	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	--	< 1.6	< 1.6
Selenium	7782-49-2	D	µg/L	5	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3
Selenium	7782-49-2	T	µg/L	5	4.6	< 4.3	--	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3
Silver	7440-22-4	D	µg/L	4.4	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3
Silver	7440-22-4	T	µg/L	5.2	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3
Thallium	7440-28-0	D	µg/L	10	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8
Zinc	7440-66-6	D	µg/L	133	3.8	9.5	--	4.9	< 3.2	3.6	5.6	7.2	--	8.2	3.6
Zinc	7440-66-6	T	µg/L	140	< 3.2	< 3.2	--	< 3.2	< 3.2	< 3.2	5.6	< 3.2	--	< 3.2	< 3.2
SVOCs															
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 20	--	< 20	< 21	< 19	< 19	< 20	--	< 19	< 19
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 3	--	< 3	< 3	< 3	< 3	< 3	--	< 3	< 3
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 5	--	< 5	< 5	< 5	< 5	< 5	--	< 5	< 5
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 10	--	< 10	< 10	< 10	< 10	< 10	--	< 10	< 10
Acenaphthene	83-32-9	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Acenaphthylene	208-96-8	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Anthracene	120-12-7	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Benzidine	92-87-5	T	µg/L		< 20	< 20	--	< 20	< 21	< 19	< 19	< 20	--	< 19	< 19
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	*< 1*	*< 1*	--	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	*< 1*	*< 1*	--	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	*< 2*	--	< 2	< 2	< 2	*< 2*	< 2	--	< 2	*< 2*
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
Chrysene	218-01-9	T	µg/L	0.28	*< 1*	*< 1*	--	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Diethylphthalate	84-66-2	T	µg/L		< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
Dimethylphthalate	131-11-3	T	µg/L		< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2

					Location	SW-H7-1-01	SW-H7-2-01	SW-H7-2-01	SW-H7-2-01	SW-H8-2-01	SW-H8-3-01	SW-I5-1-01	SW-I5-2-01	SW-I5-2-01	SW-I5-2-01	SW-I6-1-01
					Sample Date	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
					Sample Type	N	N	FD	FD	N	N	N	N	FD	FD	N
					Sample ID	SW-H7-1-011N	SW-H7-2-011N	SW-H7-2-010.5FD	SW-H7-2-011FD	SW-H8-2-011N	SW-H8-3-011N	SW-I5-1-011N	SW-I5-2-011N	SW-I5-2-010.5FD	SW-I5-2-011FD	SW-I6-1-011N
					Parent Sample ID			SW-H7-2-011N	SW-H7-2-011N					SW-I5-2-011N	SW-I5-2-011N	
					Notes											
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**												
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
Fluoranthene	206-44-0	T	µg/L	1.9		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Fluorene	86-73-7	T	µg/L			< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Hexachlorobenzene	118-74-1	T	µg/L			< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	< 5	--	< 5	< 5	< 5	< 5	< 5	--	< 5	< 5
Hexachloroethane	67-72-1	T	µg/L			< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Isophorone	78-59-1	T	µg/L			< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Naphthalene	91-20-3	T	µg/L	13		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2	< 2
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Pentachlorophenol	87-86-5	T	µg/L			< 3	< 3	--	< 3	< 3	< 3	< 3	< 3	--	< 3	< 3
Phenanthrene	85-01-8	T	µg/L	3.6		< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Phenol	108-95-2	T	µg/L			< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1	< 1
Pyrene	129-00-0	T	µg/L	0.3		*< 1*	*< 1*	--	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*
TPH																
Amyl alcohol	71-41-0	T	µg/L			< 1000	< 1000	--	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000
Di-N-Propyl Ether	111-43-3	T	µg/L			< 1000	< 1000	--	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000
Ethanol	64-17-5	T	µg/L			< 1000	< 1000	--	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000
Ethyl ether	60-29-7	T	µg/L			< 1000	< 1000	--	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000
Methanol	67-56-1	T	µg/L			< 1000	< 1000	--	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000
N-butyl ether	142-96-1	T	µg/L			< 1000	< 1000	--	< 1000	< 1000	< 1000	< 1000	< 1000	--	< 1000	< 1000
VOCs																
1,1,1-Trichloroethane	71-55-6	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
1,1,2-Trichloroethane	79-00-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
1,1-Dichloroethane	75-34-3	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
1,1-Dichloroethene	75-35-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
1,2-Dichloroethane	107-06-2	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
1,2-Dichloropropane	78-87-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
2-Chloroethylvinylether	110-75-8	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2
Acrolein	107-02-8	T	µg/L			< 40	< 40	< 40	--	< 40	< 40	< 40	< 40	< 40	--	< 40
Acrylonitrile	107-13-1	T	µg/L			< 4	< 4	< 4	--	< 4	< 4	< 4	< 4	< 4	--	< 4
Benzene	71-43-2	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Bromodichloromethane	75-27-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Bromoform	75-25-2	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Bromomethane	74-83-9	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2
Carbon Tetrachloride	56-23-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Chlorobenzene	108-90-7	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Chloroethane	75-00-3	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2
Chloroform	67-66-3	T	µg/L	140		< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Chloromethane	74-87-3	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Dibromochloromethane	124-48-1	T	µg/L	35000		< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Ethylbenzene	100-41-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Methylene Chloride	75-09-2	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2
Tetrachloroethene	127-18-4	T	µg/L	45		< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Toluene	108-88-3	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
trans-1,2-Dichloroethene	156-60-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Trichloroethene	79-01-6	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	< 2	< 2	--	< 2
Vinyl Chloride	75-01-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1
Xylenes (total)	1330-20-7	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	< 1	< 1	--	< 1

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols
" **- -**" denotes not measured, not available, or not applicable.
" **<** " denotes not detected at or above the indicated method reporting limit.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening Benchmarks

					Location	SW-ERA-F13-MDE-01	SW-ERA-F13-MDE-02	SW-ERA-F14-MDE-01	SW-ERA-G12-MDE-01	SW-ERA-G12-MDE-01	SW-ERA-G12-MDE-02	SW-F13-1-01	SW-F13-1-01	SW-F13-1-01	SW-F13-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-2-01	SW-F14-2-01	SW-F14-2-01	SW-G12-1-01	SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H11-1-01
					Sample Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016	4/16/2001	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/13/2001	5/9/2001	4/11/2001	4/11/2001	5/9/2001	4/16/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001
					Sample Type	N	N	N	N	FD	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-ERA-F13-MDE-01	SW-ERA-F13-MDE-02	SW-ERA-F14-MDE-01	SW-ERA-G12-MDE-01	SW-BD061016	SW-ERA-G12-MDE-02	SW-F13-1-011.5N	SW-F13-1-011N	SW-F13-1-010.5FD	SW-F13-1-011.5FD	SW-F14-1-011.5N	SW-F14-1-011N	SW-F14-1-012N	SW-F14-2-011N	SW-F14-2-012N	SW-F14-2-012NA	SW-G12-1-011N	SW-G12-2-011.5N	SW-G12-2-011N	SW-G12-3-011N	SW-H11-1-011N
					Parent Sample ID					SW-ERA-G12-MDE-01				SW-F13-1-010.5FD	SW-F13-1-011.5N										
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Explosives																									
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	0.38
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	1.29
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	0.53	3.19
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	--	--	--	--	< 500	--	--	< 500	< 500	--	--	--	--	< 500	< 500	< 500	--	< 500	< 500
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	< 120	--	--	< 120	--	--	< 120	--	< 120	--	< 120	< 120	--	< 120	< 120
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.3
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	< 4	--	--	< 4	< 4	--	--	--	< 4	--	< 4	< 4	--	< 4	< 4
RDX (Cyclonite)	121-82-4	T	µg/L	360	--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	0.82	1.59
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	< 0.2	--	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2
Field																									
Dissolved Oxygen	7782-44-7	N	mg/l		7.96	8.65	3.26	6.38	--	7.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		7.51	7.57	6.96	7.42	--	7.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		0.896	0.939	0.872	0.59	--	0.597	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		13.3	12.72	12.1	13.65	--	14.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		0	2.1	71000	1	--	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	11.76	--	--	--	10.7	--	--	--	10.87	--	11.92	9.67	--	11.21	10.36
pH	pH	N	su		--	--	--	--	--	--	7.39	--	--	--	7.49	--	--	--	7.59	--	6.98	7.19	--	7	6.81
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	104	--	--	--	138	--	--	--	146	--	180	124	--	144	180
Total Hardness	HARDNESS	N	µg/L		233000	256000	604000	107000	127000	96600	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/L		11.5	5.96	7720	71.2	35.2	2 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																									
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	< 5.9	--	--	< 5.9	< 5.9	--	--	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	< 5.9	--	--	< 5.9	< 5.9	--	--	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9
Arsenic	7440-38-2	D	µg/L	150	--	--	--	--	--	--	< 3.7	--	--	< 3.7	< 3.7	--	--	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7
Arsenic	7440-38-2	T	µg/L	150	--	--	--	--	--	--	< 3.7	--	--	< 3.7	< 3.7	--	--	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	6
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	--	--	--	--	--	--	< 0.64	--	--	< 0.64	< 0.64	--	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64
Beryllium	7440-41-7	T	µg/L	3.6	--	--	--	--	--	--	< 0.64	--	--	< 0.64	< 0.64	--	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64
Cadmium	7440-43-9	D	µg/L	0.2	--	--	--	--	--	--	< 0.64	--	--	< 0.64	< 0.64	--	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64
Cadmium	7440-43-9	T	µg/L	0.31	--	--	--	--	--	--	*< 0.64*	--	--	*< 0.64*	*< 0.64*	--	--	--	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	--	--	--	--	--	--	< 1.7	--	--	< 1.7	< 1.7	--	--	--	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7
Chromium	7440-47-3	T	µg/L	100	--	--	--	--	--	--	< 1.7	--	--	< 1.7	< 1.7	--	--	--	< 1.7	--	3.4	< 1.7	--	< 1.7	2.5
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	*< 10.0 U*	< 2.4	--	--	< 2.4	< 2.4	--	--	--	< 2.4	--	< 2.4	3.4	--	3.8	< 2.4
Copper	7440-50-8	T	µg/L	11	< 10.0 U	< 10.0 U	297	< 10.0 U	5.6 J	< 10.0 U	< 2.4	--	--	< 2.4	< 2.4	--	--	--	< 2.4	--	< 2.4	< 2.4	--	< 2.4	7.4
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 8.8	--	--	< 8.8	< 8.8	--	--	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8
Lead	7439-92-1	T	µg/L	5.4	2.1	0.70 J	1980	5	8.1	0.15 J	*< 8.8*	--	--	*< 8.8*	*< 8.8*	--	--	--	*< 8.8*	--	51.9	*< 8.8*	--	24.7	137
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	< 0.026	--	--	< 0.026	< 0.026	--	--	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026
Mercury	7439-97-6	T	µg/L	0.77	--	--	--	--	--	--	< 0.026	--	--	0.03	< 0.026	--	--	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026
Nickel	7440-02-0	D	µg/L	52	--	--	--	--	--	--	< 1.6	--	--	< 1.6	9.2	--	--	--	< 1.6	--	< 1.6	< 1.6	--	< 1.6	< 1.6
Nickel	7440-02-0	T	µg/L	61	--	--	--	--	--	--	< 1.6	--	--	< 1.6	< 1.6	--	--	--	< 1.6	--	< 1.6	< 1.6	--	< 1.6	< 1.6
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	< 4.3	--	--	< 4.3	5.2	--	--	--	< 4.3	--	4.5	< 4.3	--	< 4.3	< 4.3
Selenium	7782-49-2	T	µg/L	5	--	--	--	--	--	--	< 4.3	--	--	< 4.3	< 4.3	--	--	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3
Silver	7440-22-4	D	µg/L	4.4	--	--	--	--	--	--	< 1.3	--	--	< 1.3	< 1.3	--	--	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3
Silver	7440-22-4	T	µg/L	5.2	--	--	--	--	--	--	< 1.3	--	--	< 1.3	< 1.3	--	--	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	< 8.8	--	--	< 8.8	< 8.8	--	--	--	< 8.8	--	11.6	< 8.8	--	< 8.8	< 8.8
Thallium	7440-28-0	T	µg/L	10	--	--	--	--	--	--	< 8.8	--	--	< 8.8	< 8.8	--	--	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	--	--	--	--	--	--	5	--	--	8.6	4	--	--	--	3.4	--	12	< 3.2	--	15.1	5
Zinc	7440-66-6	T	µg/L	140	--	--	--	--	--	--	5.4	--	--	6.2	5.2	--	--	--	6.8	--	31.9	< 3.2	--	< 3.2	< 3.2
Physical Properties																									
pH	PH	N	su		7.9	8	7.8	7.5	7.6	7.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		22.8	22.8	23	22.9	23	23.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	< 19	--	--	< 19	< 19	--	--	--	< 19	--	< 20	< 20	--	< 20	< 19
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2

					Location	SW-ERA-F13-MDE-01	SW-ERA-F13-MDE-02	SW-ERA-F14-MDE-01	SW-ERA-G12-MDE-01	SW-ERA-G12-MDE-01	SW-ERA-G12-MDE-02	SW-F13-1-01	SW-F13-1-01	SW-F13-1-01	SW-F13-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-2-01	SW-F14-2-01	SW-F14-2-01	SW-G12-1-01	SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H11-1-01
					Sample Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016	4/16/2001	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/13/2001	5/9/2001	4/11/2001	4/11/2001	5/9/2001	4/16/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001
					Sample Type	N	N	N	N	FD	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-ERA-F13-MDE-01	SW-ERA-F13-MDE-02	SW-ERA-F14-MDE-01	SW-ERA-G12-MDE-01	SW-BD061016	SW-ERA-G12-MDE-02	SW-F13-1-011.5N	SW-F13-1-011N	SW-F13-1-010.5FD	SW-F13-1-011.5FD	SW-F14-1-011.5N	SW-F14-1-011N	SW-F14-1-012N	SW-F14-2-011N	SW-F14-2-012N	SW-F14-2-012NA	SW-G12-1-011N	SW-G12-2-011.5N	SW-G12-2-011N	SW-G12-3-011N	SW-H11-1-011N
					Parent Sample ID					SW-ERA-G12-MDE-01				SW-F13-1-010.5FD	SW-F13-1-011.5N										
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	< 3	--	--	< 3	< 3	--	--	--	< 3	--	< 3	< 3	--	< 3	< 3
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	< 5	--	--	< 5	< 5	--	--	--	< 5	--	< 5	< 5	--	< 5	< 5
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	< 10	--	--	< 10	< 10	--	--	--	< 9	--	< 10	< 10	--	< 10	< 10
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	< 19	--	--	< 19	< 19	--	--	--	< 19	--	< 20	< 20	--	< 20	< 19
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	--	--	--	--	--	--	*< 1*	--	--	*< 1*	*< 1*	--	--	--	*< 0.9*	--	*< 1*	*< 1*	--	*< 1*	*< 1*
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	--	--	--	--	--	--	*< 1*	--	--	*< 1*	*< 1*	--	--	--	*< 0.9*	--	*< 1*	*< 1*	--	*< 1*	*< 1*
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	--	--	--	--	--	--	*< 1*	--	--	*< 1*	*< 1*	--	--	--	*< 0.9*	--	*< 1*	*< 1*	--	*< 1*	*< 1*
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Fluoranthene	206-44-0	T	µg/L	1.9	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	< 5	--	--	< 5	< 5	--	--	--	< 5	--	< 5	< 5	--	< 5	< 5
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Isophorone	78-59-1	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	< 2	--	--	< 2	< 2	--	--	--	< 2	--	< 2	< 2	--	< 2	< 2
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	< 3	--	--	< 3	< 3	--	--	--	< 3	--	< 3	< 3	--	< 3	< 3
Phenanthrene	85-01-8	T	µg/L	3.6	--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	< 1	--	--	< 1	< 1	--	--	--	< 0.9	--	< 1	< 1	--	< 1	< 1
Pyrene	129-00-0	T	µg/L	0.3	--	--	--	--	--	--	*< 1*	--	--	*< 1*	*< 1*	--	--	--	*< 0.9*	--	*< 1*	*< 1*	--	*< 1*	*< 1*
TPH																									
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	--	< 1000	< 1000	< 1000
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	--	< 1000	< 1000	< 1000
Ethanol	64-17-5	T	µg/L		--	--	--	--	--	--	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	--	< 1000	< 1000	< 1000
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	--	< 1000	< 1000	< 1000
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	--	< 1000	< 1000	< 1000
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	< 1000	--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	--	< 1000	< 1000	< 1000
VOCs																									
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	< 2	< 2	--	--	< 2	--	< 2	--	--	--	< 2	--	< 2	< 2	< 2
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	< 40	< 40	--	--	< 40	--	< 40	--	--	--	< 40	--	< 40	< 40	< 40
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	< 4	< 4	--	--	< 4	--	< 4	--	--	--	< 4	--	< 4	< 4	< 4
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	--	< 1	--	< 1	< 1	< 1

					Location	SW-ERA-F13-MDE-01	SW-ERA-F13-MDE-02	SW-ERA-F14-MDE-01	SW-ERA-G12-MDE-01	SW-ERA-G12-MDE-01	SW-ERA-G12-MDE-02	SW-F13-1-01	SW-F13-1-01	SW-F13-1-01	SW-F13-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-2-01	SW-F14-2-01	SW-F14-2-01	SW-G12-1-01	SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H11-1-01
					Sample Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016	4/16/2001	4/16/2001	4/16/2001	4/16/2001	4/13/2001	4/13/2001	5/9/2001	4/11/2001	4/11/2001	5/9/2001	4/16/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001
					Sample Type	N	N	N	N	FD	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-ERA-F13-MDE-01	SW-ERA-F13-MDE-02	SW-ERA-F14-MDE-01	SW-ERA-G12-MDE-01	SW-BD061016	SW-ERA-G12-MDE-02	SW-F13-1-011.5N	SW-F13-1-011N	SW-F13-1-010.5FD	SW-F13-1-011.5FD	SW-F14-1-011.5N	SW-F14-1-011N	SW-F14-1-012N	SW-F14-2-011N	SW-F14-2-012N	SW-F14-2-012NA	SW-G12-1-011N	SW-G12-2-011.5N	SW-G12-2-011N	SW-G12-3-011N	SW-H11-1-011N
					Parent Sample ID					SW-ERA-G12-MDE-01				SW-F13-1-010.5FD	SW-F13-1-011.5N										
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	< 2	< 2	--	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	< 2
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	< 2	< 2	--	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	< 2
Chloroform	67-66-3	T	µg/L	140	--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	< 2	< 2	--	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	< 2
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Dibromochloromethane	124-48-1	T	µg/L	35000	--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	< 2	< 2	--	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	< 2
Tetrachloroethene	127-18-4	T	µg/L	45	--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Trichlorofluoromethane	75-69-4	T	µg/L		--	--	--	--	--	--	--	< 2	< 2	--	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	< 2
Vinyl Chloride	75-01-4	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1
Xylenes (total)	1330-20-7	T	µg/L		--	--	--	--	--	--	--	< 1	< 1	--	--	< 1	--	< 1	--	--	< 1	--	< 1	< 1	< 1

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity units
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per centimeter

Action Levels

ESB = Ecological Screening Benchmarks

					Location	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I11-1-01	SW-I11-1-01	SW-I11-2-01	SW-I11-2-01	SW-I11-2-01	SW-I11-2-01	SW-R2-G-12-2	SW-R-F14-01	SW-R-F14-02	SW-R-F14-02	SW-R-F14-03	SW-R-F14-04	SW-R-F14-05	SW-R-F14-06	SW-R-F14-07	SW-R-G11-01
					Sample Date	4/18/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	5/9/2001	11/5/2013	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/9/2006
					Sample Type	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N	FD	N	N	N	N	N	N	N
					Sample ID	SW-H12-1-011N	SW-H12-2-011.5N	SW-H12-2-011N	SW-H12-3-011.5N	SW-H12-3-011N	SW-I11-1-011N	SW-I11-1-012N	SW-I11-2-011N	SW-I11-2-010.5FD	SW-I11-2-011FD	SW-I11-2-010.5N	SW-R2-G-12-2_20131105	SW-R-F14-010.5N	SW-R-F14-020.5N	SW-R-F14-020.5FD	SW-R-F14-030.5N	SW-R-F14-040.75N	SW-R-F14-050.75N	SW-R-F14-060.75N	SW-R-F14-070.5N	SW-R-G11-010.5N
					Parent Sample ID									SW-I11-2-010.5N	SW-I11-2-011N					SW-R-F14-020.5N						
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Explosives																										
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.6	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.6	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.75	--	--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 1.2	--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 1.2	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	< 500	--	< 500	--	< 500	--	--	< 500	< 500	--	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	< 120	--	< 120	--	--	< 120	< 120	--	< 120	--	< 15	--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 4	--	< 4	--	--	< 4	< 4	--	< 4	--	< 18	--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	--	< 0.2	--	< 0.6	--	--	--	--	--	--	--	--	--	--
Field																										
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																										
Dissolved Oxygen	7782-44-7	T	mg/l		11.95	9.71	--	9.47	--	--	10.88	11.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		6.64	7.87	--	7.61	--	--	7.5	7.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		84	108	--	100	--	--	96	102	--	--	--	222	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																										
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	*< 200*	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	< 5.9	< 5.9	--	< 5.9	--	--	< 5.9	< 5.9	--	< 5.9	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	< 5.9	--	< 5.9	--	--	< 5.9	< 5.9	--	< 5.9	--	< 1	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	< 3.7	--	< 3.7	--	--	< 3.7	< 3.7	--	< 3.7	--	--	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	< 3.7	--	< 3.7	--	--	< 3.7	< 3.7	--	< 3.7	--	< 2	--	--	--	--	--	--	--	--	--	162
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	37.8	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	--	--	< 0.64	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	--	--	< 0.64	< 0.64	--	< 0.64	--	*< 5*	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	< 0.64	--	< 0.64	--	--	< 0.64	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	*< 0.64*	--	*< 0.64*	--	--	*< 0.64*	*< 0.64*	--	*< 0.64*	--	*< 5*	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	51100	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	< 1.7	--	< 1.7	--	--	< 1.7	< 1.7	--	< 1.7	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	< 1.7	--	< 1.7	--	--	< 1.7	< 1.7	--	< 1.7	--	< 15	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	< 5	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	3	3.5	--	3.2	--	--	< 2.4	3.7	--	3.6	--	--	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	*< 10*	--
Copper	7440-50-8	T	µg/L	11	< 2.4	< 2.4	--	< 2.4	--	--	2.8	< 2.4	--	< 2.4	--	< 10	--	--	--	--	--	--	--	--	--	155
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	142	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	< 8.8	--	< 8.8	--	--	< 8.8	< 8.8	--	< 8.8	--	--	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Lead	7439-92-1	T	µg/L	5.4	10.9	*< 8.8*	--	*< 8.8*	--	--	8.9	*< 8.8*	--	*< 8.8*	--	< 1	--	--	--	--	--	--	--	--	--	3210
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	20800	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	210	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	--	--	< 0.026	< 0.026	--	< 0.026	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	--	--	< 0.026	< 0.026	--	< 0.026	--	< 0.2	--	--	--	--	--	--	--	--	--	3.6
Nickel	7440-02-0	D	µg/L	52	< 1.6	< 1.6	--	< 1.6	--	--	< 1.6	< 1.6	--	< 1.6	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	1.9	< 1.6	--	< 1.6	--	--	< 1.6	< 1.6	--	< 1.6	--	< 10	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	3100	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	< 4.3	--	< 4.3	--	--	< 4.3	< 4.3	--	< 4.3	--	--	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Selenium	7782-49-2	T	µg/L	5	< 4.3	< 4.3	--	< 4.3	--	--	< 4.3	< 4.3	--	< 4.3	--	*< 20*	--	--	--	--	--	--	--	--	--	*< 20*
Silver	7440-22-4	D	µg/L	4.4	< 1.3	< 1.3	--	< 1.3	--	--	< 1.3	< 1.3	--	< 1.3	--	--	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	*< 5*	--
Silver	7440-22-4	T	µg/L	5.2	< 1.3	< 1.3	--	< 1.3	--	--	< 1.3	< 1.3	--	< 1.3	--	< 5	--	--	--	--	--	--	--	--	--	< 5
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	86600	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	< 8.8	< 8.8	--	< 8.8	--	--	< 8.8	< 8.8	--	< 8.8	--	--	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 8.8	--	< 8.8	--	--	< 8.8	< 8.8	--	< 8.8	--	< 0.5	--	--	--	--	--	--	--	--	--	*< 20*
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	< 5	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	31.4	< 3.2	--	< 3.2	--	--	4.1	3.8	--	3.4	--	--	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--	--
Zinc	7440-66-6	T	µg/L	140	63.7	< 3.2	--	< 3.2	--	--	< 3.2	< 3.2	--	< 3.2	--	< 20	--	--	--	--	--	--	--	--	--	1440
Physical Properties																										
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	7.7	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																										
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 1	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 19	--	< 20	--	--	< 19	< 20	--	< 19	--	< 31	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 5	--	--	--	--	--	--	--	--	--	*< 50*
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 1	--	--	--	--	--	--	--	--	--	< 50

					Location	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I11-1-01	SW-I11-1-01	SW-I11-2-01	SW-I11-2-01	SW-I11-2-01	SW-I11-2-01	SW-R2-G-12-2	SW-R-F14-01	SW-R-F14-02	SW-R-F14-02	SW-R-F14-03	SW-R-F14-04	SW-R-F14-05	SW-R-F14-06	SW-R-F14-07	SW-R-G11-01
					Sample Date	4/18/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	5/9/2001	11/5/2013	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/9/2006
					Sample Type	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N	FD	N	N	N	N	N	N
					Sample ID	SW-H12-1-011N	SW-H12-2-011.5N	SW-H12-2-011N	SW-H12-3-011.5N	SW-H12-3-011N	SW-I11-1-011N	SW-I11-1-012N	SW-I11-2-011N	SW-I11-2-010.5FD	SW-I11-2-011FD	SW-I11-2-010.5N	SW-R2-G-12-2_20131105	SW-R-F14-010.5N	SW-R-F14-020.5N	SW-R-F14-020.5FD	SW-R-F14-030.5N	SW-R-F14-040.75N	SW-R-F14-050.75N	SW-R-F14-060.75N	SW-R-F14-070.5N	SW-R-G11-010.5N
					Parent Sample ID									SW-I11-2-010.5N	SW-I11-2-011N					SW-R-F14-020.5N						
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
2-Chloronaphthalene	91-58-7	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 0.5	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L			< 3	< 3	--	< 3	--	--	< 3	< 3	--	< 3	--	< 5	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L			< 5	< 5	--	< 5	--	--	< 5	< 5	--	< 5	--	< 16	--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 1	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L			< 10	< 10	--	< 10	--	--	< 10	< 10	--	< 10	--	< 31	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 5	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 5	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L			< 20	< 19	--	< 20	--	--	< 19	< 20	--	< 19	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025		*< 1*	*< 1*	--	*< 1*	--	--	*< 1*	*< 1*	--	*< 1*	--	*< 0.5*	--	--	--	--	--	--	--	--	*< 50*
Benzo[a]pyrene	50-32-8	T	µg/L	0.014		*< 1*	*< 1*	--	*< 1*	--	--	*< 1*	*< 1*	--	*< 1*	--	*< 0.5*	--	--	--	--	--	--	--	--	*< 50*
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	*< 50*
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	*< 50*
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	*< 50*
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3		< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 5	--	--	--	--	--	--	--	--	*< 50*
Butylbenzylphthalate	85-68-7	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 5	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 16	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28		*< 1*	*< 1*	--	*< 1*	--	--	*< 1*	*< 1*	--	*< 1*	--	*< 0.5*	--	--	--	--	--	--	--	--	*< 50*
Dibenzo[a,h]anthracene	53-70-3	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	< 1	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 5	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 5	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 5	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 5	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 0.5	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	< 1	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	< 5	--	< 5	--	--	< 5	< 5	--	< 5	--	< 16	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 5	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	< 2	--	< 2	--	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L			< 3	< 3	--	< 3	--	--	< 3	< 3	--	< 3	--	< 5	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6		< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 0.5	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L			< 1	< 1	--	< 1	--	--	< 1	< 1	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3		*< 1*	*< 1*	--	*< 1*	--	--	*< 1*	*< 1*	--	*< 1*	--	*< 0.5*	--	--	--	--	--	--	--	--	--
TPH																										
Amyl alcohol	71-41-0	T	µg/L			< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L			< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L			< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L			< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L			< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L			< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L			< 40	--	< 40	--	< 40	< 40	--	< 40	< 40	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L			< 4	--	< 4	--	< 4	< 4	--	< 4	< 4	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I11-1-01	SW-I11-1-01	SW-I11-2-01	SW-I11-2-01	SW-I11-2-01	SW-I11-2-01	SW-R2-G-12-2	SW-R-F14-01	SW-R-F14-02	SW-R-F14-02	SW-R-F14-03	SW-R-F14-04	SW-R-F14-05	SW-R-F14-06	SW-R-F14-07	SW-R-G11-01
					Sample Date	4/18/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	5/9/2001	11/5/2013	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/19/2006	5/9/2006
					Sample Type	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N	FD	N	N	N	N	N	N	N
					Sample ID	SW-H12-1-011N	SW-H12-2-011.5N	SW-H12-2-011N	SW-H12-3-011.5N	SW-H12-3-011N	SW-I11-1-011N	SW-I11-1-012N	SW-I11-2-011N	SW-I11-2-010.5FD	SW-I11-2-011FD	SW-I11-2-010.5N	SW-R2-G-12-2_20131105	SW-R-F14-010.5N	SW-R-F14-020.5N	SW-R-F14-020.5FD	SW-R-F14-030.5N	SW-R-F14-040.75N	SW-R-F14-050.75N	SW-R-F14-060.75N	SW-R-F14-070.5N	SW-R-G11-010.5N
					Parent Sample ID									SW-I11-2-010.5N	SW-I11-2-011N					SW-R-F14-020.5N						
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Bromoform	75-25-2	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L			< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L			< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L			< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L			< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45		< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	--	< 2	--	< 2	< 2	--	< 2	< 2	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			< 1	--	< 1	--	< 1	< 1	--	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concenti

Abbreviations and Symbols

" - -" denotes not measured,
" < " denotes not detected at
"J" indicates an estimated co
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per c

Action Levels

ESB = Ecological Screening

				Location	SW-R-G12-01	SW-R-G12-02	SW-R-G12-03	SW-R-G12-04	SW-R-H11-01	SW-R-I11-01	SW-R-I11-01	SW-R-I11-02
				Sample Date	5/9/2006	5/9/2006	6/12/2006	6/12/2006	5/9/2006	5/9/2006	5/9/2006	5/9/2006
				Sample Type	N	N	N	N	N	N	FD	N
				Sample ID	SW-R-G12-010.5N	SW-R-G12-020.5N	SW-R-G12-030.5N	SW-R-G12-040.5N	SW-R-H11-010.5N	SW-R-I11-010.5N	SW-R-I11-010.5FD	SW-R-I11-020.75N
				Parent Sample ID							SW-R-I11-010.5N	
				Notes								
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**								
Explosives												
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--	--
Field												
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	--	--	--	--
GenChem												
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	µg/L		--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/L		--	--	--	--	--	--	--	--
Metals												
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	185	27.7	< 20	106	< 20	< 20	< 20	< 20
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	11	213	29.8	< 10	138	12.5	2.8	2.9	2.1
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	2970	253	*< 20*	1010	33.4	*< 20*	*< 20*	*< 20*
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	4	< 0.2	< 0.2	0.079	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	52	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	10	*< 20*	*< 20*	21	*< 20*	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	4.4	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	5.2	< 5	< 5	< 5	5	< 5	< 5	< 5	< 5
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	140	1390	162	19.4	4450	66.5	< 20	< 20	< 20
Physical Properties												
pH	PH	N	su		--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--
SVOCs												
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 5	< 5	--	--	< 5	< 5	< 5	< 5
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 5	< 5	--	--	< 5	< 5	< 5	< 5

				Location	SW-R-G12-01	SW-R-G12-02	SW-R-G12-03	SW-R-G12-04	SW-R-H11-01	SW-R-I11-01	SW-R-I11-01	SW-R-I11-02
				Sample Date	5/9/2006	5/9/2006	6/12/2006	6/12/2006	5/9/2006	5/9/2006	5/9/2006	5/9/2006
				Sample Type	N	N	N	N	N	N	FD	N
				Sample ID	SW-R-G12-010.5N	SW-R-G12-020.5N	SW-R-G12-030.5N	SW-R-G12-040.5N	SW-R-H11-010.5N	SW-R-I11-010.5N	SW-R-I11-010.5FD	SW-R-I11-020.75N
				Parent Sample ID							SW-R-I11-010.5N	
				Notes								
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**								
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	< 5	< 5	--	--	< 5	< 5	< 5	< 5
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	--	--	--	--	--	--	--	--
TPH												
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--
VOCs												
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	--	--

					Location	SW-R-G12-01	SW-R-G12-02	SW-R-G12-03	SW-R-G12-04	SW-R-H11-01	SW-R-I11-01	SW-R-I11-01	SW-R-I11-02
					Sample Date	5/9/2006	5/9/2006	6/12/2006	6/12/2006	5/9/2006	5/9/2006	5/9/2006	5/9/2006
					Sample Type	N	N	N	N	N	N	FD	N
					Sample ID	SW-R-G12-010.5N	SW-R-G12-020.5N	SW-R-G12-030.5N	SW-R-G12-040.5N	SW-R-H11-010.5N	SW-R-I11-010.5N	SW-R-I11-010.5FD	SW-R-I11-020.75N
					Parent Sample ID							SW-R-I11-010.5N	
					Notes								
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**									
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L		--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L		--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L		--	--	--	--	--	--	--	--

11 Detected concenti

Abbreviations and Symbols
" - -" denotes not measured,
" < " denotes not detected at
"J" indicates an estimated co
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per c

Action Levels
ESB = Ecological Screening

					Location	SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01	SW-D13-3-01	SW-D13-3-01	SW-D13-4-01	SW-D13-4-01	SW-D13-5-01	SW-D13-5-01	SW-D13-5-01	SW-D13-6-01	SW-D13-6-01	SW-E11-3-01	SW-E11-3-01	SW-E11-4-01
					Sample Date	4/16/2001	4/16/2001	4/16/2001	5/9/2001	4/16/2001	4/16/2001	4/13/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/17/2001	4/17/2001	4/17/2001
					Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N	N
					Sample ID	SW-D12-1-011N	SW-D12-2-010.5N	SW-D12-2-011N	SW-D12-2-010.5FD	SW-D12-3-011N	SW-D12-4-011N	SW-D13-1-011N	SW-D13-2-010.5N	SW-D13-2-011N	SW-D13-3-011.5N	SW-D13-3-011N	SW-D13-4-011.5N	SW-D13-4-011N	SW-D13-5-011N	SW-D13-5-010.5FD	SW-D13-5-011FD	SW-D13-6-011.5N	SW-D13-6-011N	SW-E11-3-010.5N	SW-E11-3-011N	SW-E11-4-011N
					Parent Sample ID				SW-D12-2-010.5FD											SW-D13-5-011N	SW-D13-5-011N			
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																				
Explosives																								
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	< 0.2	--	--	< 0.2	< 0.2	4.38	< 0.2	--	< 0.2	--	0.52	--	< 0.2	--	< 0.2	0.54	--	< 0.2	--	--
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	< 0.2	--	--	< 0.2	< 0.2	7.3	< 0.2	--	< 0.2	--	0.74	--	< 0.2	--	< 0.2	0.73	--	< 0.2	--	--
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	< 500	--	< 500	< 500	< 500	< 500	< 500	--	< 500	--	< 500	--	< 500	--	< 500	< 500	--	< 500	--	--
Nitroglycerin	55-63-0	T	µg/L		< 200	< 120	--	--	< 120	< 120	< 120	< 120	--	< 120	--	< 200	--	< 120	--	< 120	< 120	--	< 400	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 4	--	--	< 4	< 4	< 4	< 4	--	< 4	--	< 4	--	< 4	--	< 4	< 4	--	< 4	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--
Field																									
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		9.81	12.52	--	--	11.05	9.81	10.97	11.33	--	10.34	--	10.69	--	12.06	--	--	10.88	--	11.34	--	--
pH	pH	N	su		6.74	7.55	--	--	6.85	6.74	6.95	7.03	--	7.17	--	7.19	--	6.46	--	--	7.06	--	6.92	--	--
Total Hardness	HARDNESS	N	mg/l		80	44	--	--	70	80	60	64	--	64	--	80	--	78	--	--	64	--	104	--	--
Total Hardness	HARDNESS	N	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																									
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	< 5.9	< 5.9	--	--	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	< 5.9	--	--	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	< 3.7	--	--	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	--	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	52.4	--	--	< 3.7	< 3.7	< 3.7	33.7	--	< 3.7	--	< 3.7	--	< 3.7	--	< 3.7	< 3.7	--	5.8	--	--
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	< 0.64	--	--	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	< 0.64	--	--	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	< 0.64	--	--	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	2	--	--	*< 0.64*	*< 0.64*	*< 0.64*	0.84	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	< 1.7	--	--	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	< 1.7	--	< 1.7	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	10.8	--	--	< 1.7	< 1.7	< 1.7	7.2	--	< 1.7	--	< 1.7	--	< 1.7	--	< 1.7	< 1.7	--	5.2	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	2.5	< 2.4	--	--	< 2.4	< 2.4	< 2.4	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	< 2.4	--	< 2.4	--	--
Copper	7440-50-8	T	µg/L	11	< 2.4	32.4	--	--	< 2.4	< 2.4	< 2.4	49	--	< 2.4	--	< 2.4	--	< 2.4	--	< 2.4	< 2.4	--	21.8	--	--
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	< 8.8	--	--	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	< 8.8	--	17.5	--	< 8.8	< 8.8	--	< 8.8	--	--
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	304	--	--	*< 8.8*	11.2	*< 8.8*	221	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	--	*< 8.8*	*< 8.8*	--	113	--	--
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	< 0.026	--	--	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.026	--	--	< 0.026	< 0.026	0.064	0.2	--	< 0.026	--	< 0.026	--	0.093	--	< 0.026	< 0.026	--	< 0.026	--	--
Nickel	7440-02-0	D	µg/L	52	< 1.6	< 1.6	--	--	< 1.6	< 1.6	1.7	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	< 1.6	--	< 1.6	--	--
Nickel	7440-02-0	T	µg/L	61	< 1.6	7.1	--	--	< 1.6	< 1.6	< 1.6	17.4	--	< 1.6	--	< 1.6	--	< 1.6	--	< 1.6	< 1.6	--	5.1	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	< 4.3	--	--	< 4.3	< 4.3	4.4	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	--	--
Selenium	7782-49-2	T	µg/L	5	< 4.3	< 4.3	--	--	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	--	--
Silver	7440-22-4	D	µg/L	4.4	< 1.3	< 1.3	--	--	< 1.3	< 1.3	< 1.3	2.1	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	--	--
Silver	7440-22-4	T	µg/L	5.2	< 1.3	< 1.3	--	--	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	--	--
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	< 8.8	< 8.8	--	--	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 8.8	--	--	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	--
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	< 3.2	12.3	--	--	11.1	11.8	12.8	< 3.2	--	9.3	--	9.8	--	< 3.2	--	5.6	8.8	--	8.9	--	--
Zinc	7440-66-6	T	µg/L	140	< 3.2	135	--	--	< 3.2	< 3.2	11.5	234	--	10.1	--	10.9	--	7.1	--	6.6	10.2	--	156	--	--
Physical Properties																									
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 21	--	--	< 19	< 19	< 19	< 19	--	< 19	--	< 19	--	< 21	--	< 20	< 19	--	< 20	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--

					Location	SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01	SW-D13-3-01	SW-D13-3-01	SW-D13-4-01	SW-D13-4-01	SW-D13-5-01	SW-D13-5-01	SW-D13-5-01	SW-D13-6-01	SW-D13-6-01	SW-E11-3-01	SW-E11-3-01	SW-E11-4-01
					Sample Date	4/16/2001	4/16/2001	4/16/2001	5/9/2001	4/16/2001	4/16/2001	4/13/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/17/2001	4/17/2001	4/17/2001
					Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N	N
					Sample ID	SW-D12-1-011N	SW-D12-2-010.5N	SW-D12-2-011N	SW-D12-2-010.5FD	SW-D12-3-011N	SW-D12-4-011N	SW-D13-1-011N	SW-D13-2-010.5N	SW-D13-2-011N	SW-D13-3-011.5N	SW-D13-3-011N	SW-D13-4-011.5N	SW-D13-4-011N	SW-D13-5-011N	SW-D13-5-010.5FD	SW-D13-5-011FD	SW-D13-6-011.5N	SW-D13-6-011N	SW-E11-3-010.5N	SW-E11-3-011N	SW-E11-4-011N
					Parent Sample ID				SW-D12-2-010.5FD											SW-D13-5-011N	SW-D13-5-011N					
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 3	--	--	< 3	< 3	< 3	< 3	--	< 3	--	< 3	--	< 3	--	< 3	< 3	--	< 3	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 5	--	--	< 5	< 5	< 5	< 5	--	< 5	--	< 5	--	< 5	--	< 5	< 5	--	< 5	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 11	--	--	< 10	< 10	< 10	< 10	--	< 10	--	< 9	--	< 10	--	< 10	< 9	--	< 10	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 20	< 21	--	--	< 19	< 19	< 19	< 19	--	< 19	--	< 19	--	< 21	--	< 20	< 19	--	< 20	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	*< 1*	*< 1*	--	--	*< 1*	*< 1*	*< 1*	2	--	*< 1*	--	*< 0.9*	--	*< 1*	--	*< 1*	*< 0.9*	--	*< 1*	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	*< 1*	*< 1*	--	--	*< 1*	*< 1*	*< 1*	2	--	*< 1*	--	*< 0.9*	--	*< 1*	--	*< 1*	*< 0.9*	--	*< 1*	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 1	< 1	--	--	< 1	< 1	< 1	3	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 1	< 1	--	--	< 1	< 1	< 1	2	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 1	< 1	--	--	< 1	< 1	< 1	1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	2	--	< 2	--	< 2	< 2	--	< 2	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	*< 1*	*< 1*	--	--	*< 1*	*< 1*	*< 1*	2	--	*< 1*	--	*< 0.9*	--	*< 1*	--	*< 1*	*< 0.9*	--	*< 1*	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	< 1	< 1	--	--	< 1	< 1	< 1	3	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Fluorene	86-73-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Hexachlorobenzene	118-74-1	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		< 5	< 5	--	--	< 5	< 5	< 5	< 5	--	< 5	--	< 5	--	< 5	--	< 5	< 5	--	< 5	--	--
Hexachloroethane	67-72-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	< 1	< 1	--	--	< 1	< 1	< 1	2	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Isophorone	78-59-1	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Naphthalene	91-20-3	T	µg/L	13	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	--	< 2	< 2	--	< 2	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Pentachlorophenol	87-86-5	T	µg/L		< 15	< 15	--	--	< 15	< 15	< 15	< 3	--	< 3	--	< 3	--	< 3	--	< 3	< 3	--	< 15	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	< 1	< 1	--	--	< 1	< 1	< 1	2	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Phenol	108-95-2	T	µg/L		< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 1	--	< 0.9	--	< 1	--	< 1	< 0.9	--	< 1	--	--
Pyrene	129-00-0	T	µg/L	0.3	*< 1*	*< 1*	--	--	*< 1*	*< 1*	*< 1*	3	--	*< 1*	--	*< 0.9*	--	*< 1*	--	*< 1*	*< 0.9*	--	*< 1*	--	--
TPH																										
Amyl alcohol	71-41-0	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000
Di-N-Propyl Ether	111-43-3	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000
Ethanol	64-17-5	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000
Ethyl ether	60-29-7	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000
Methanol	67-56-1	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000
N-butyl ether	142-96-1	T	µg/L		< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
1,1,2-Trichloroethane	79-00-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
1,1-Dichloroethane	75-34-3	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
1,1-Dichloroethene	75-35-4	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
1,2-Dichloroethane	107-06-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
1,2-Dichloropropane	78-87-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
2-Chloroethylvinylether	110-75-8	T	µg/L		< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	--	< 2	--	< 2	< 2
Acrolein	107-02-8	T	µg/L		< 40	--	< 40	--	< 40	< 40	< 40	--	< 40	--	< 40	--	< 40	< 40	< 40	--	--	< 40	--	< 40	< 40
Acrylonitrile	107-13-1	T	µg/L		< 4	--	< 4	--	< 4	< 4	< 4	--	< 4	--	< 4	--	< 4	< 4	< 4	--	--	< 4	--	< 4	< 4
Benzene	71-43-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Bromodichloromethane	75-27-4	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Bromoform	75-25-2	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Bromomethane	74-83-9	T	µg/L		< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	--	< 2	--	< 2	< 2
Carbon Tetrachloride	56-23-5	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Chlorobenzene	108-90-7	T	µg/L		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Chloroethane	75-00-3	T	µg/L		< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	--	< 2	--	< 2	< 2
Chloroform	67-66-3	T	µg/L	140	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Chloromethane	74-87-3	T	µg/L		< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	--	< 2	--	< 2	< 2

					Location	SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01	SW-D13-3-01	SW-D13-3-01	SW-D13-4-01	SW-D13-4-01	SW-D13-5-01	SW-D13-5-01	SW-D13-5-01	SW-D13-6-01	SW-D13-6-01	SW-E11-3-01	SW-E11-3-01	SW-E11-4-01
					Sample Date	4/16/2001	4/16/2001	4/16/2001	5/9/2001	4/16/2001	4/16/2001	4/13/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/17/2001	4/17/2001	4/17/2001
					Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	FD	N	N	N	N	N
					Sample ID	SW-D12-1-011N	SW-D12-2-010.5N	SW-D12-2-011N	SW-D12-2-010.5FD	SW-D12-3-011N	SW-D12-4-011N	SW-D13-1-011N	SW-D13-2-010.5N	SW-D13-2-011N	SW-D13-3-011.5N	SW-D13-3-011N	SW-D13-4-011.5N	SW-D13-4-011N	SW-D13-5-011N	SW-D13-5-010.5FD	SW-D13-5-011FD	SW-D13-6-011.5N	SW-D13-6-011N	SW-E11-3-010.5N	SW-E11-3-011N	SW-E11-4-011N
					Parent Sample ID				SW-D12-2-010.5FD											SW-D13-5-011N	SW-D13-5-011N			
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Dibromochloromethane	124-48-1	T	µg/L	35000		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Ethylbenzene	100-41-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Methylene Chloride	75-09-2	T	µg/L			< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	--	< 2	--	< 2	< 2
Tetrachloroethene	127-18-4	T	µg/L	45		< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Toluene	108-88-3	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
trans-1,2-Dichloroethene	156-60-5	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Trichloroethene	79-01-6	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	--	< 2	--	< 2	< 2
Vinyl Chloride	75-01-4	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1
Xylenes (total)	1330-20-7	T	µg/L			< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	--	< 1	--	< 1	< 1

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity units
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per centimeter

Action Levels

ESB = Ecological Screening Benchmarks

Location					SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-F11-1-01	SW-F11-1-01	SW-F11-2-01	SW-R2-D-12-1	SW-R2-D-12-3	SW-R-D12-01	SW-R-D12-02	SW-R-D12-03	SW-R-D12-04	SW-R-D12-05	SW-R-D12-06	SW-R-D12-07	SW-R-D12-08
Sample Date					4/17/2001	4/16/2001	4/16/2001	4/16/2001	4/17/2001	4/17/2001	6/13/2016	6/13/2016	4/18/2001	5/9/2001	4/18/2001	11/6/2013	11/6/2013	5/18/2006	6/7/2006	6/7/2006	6/8/2006	6/12/2006	6/12/2006	6/12/2006	6/12/2006
Sample Type					N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample ID					SW-E11-4-012N	SW-E12-1-010.5N	SW-E12-1-011N	SW-E12-2-011N	SW-E12-3-010.5N	SW-E12-3-011N	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-F11-1-011N	SW-F11-1-010.5N	SW-F11-2-011N	SW-R2-D-12-1_20131106	SW-R2-D-12-3_20131106	SW-R-D12-011.0N	SW-R-D12-020.5N	SW-R-D12-030.5N	SW-R-D12-040.5N	SW-R-D12-050.5N	SW-R-D12-060.5N	SW-R-D12-070.5N	SW-R-D12-080.75N
Parent Sample ID																									
Notes																									
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Explosives																									
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.75	< 0.75	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 1.2	< 1.2	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 1.2	< 1.2	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	< 500	--	< 500	--	--	--	--	--	< 500	< 500	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 200	< 300	--	< 120	< 200	--	--	--	< 120	--	< 120	< 15	< 15	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 4	--	< 4	< 4	--	--	--	< 4	--	< 4	< 18	< 18	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.5	< 0.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.2	--	< 0.2	< 0.2	--	--	--	< 0.2	--	< 0.2	< 0.6	< 0.6	--	--	--	--	--	--	--	--
Field																									
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	--	--	7.09	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	6.16	6.59	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	--	--	0.541	3.05	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	12.72	13.62	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	--	--	14.2	0.576	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		10.36	10.64	--	9.99	9.99	--	--	--	9.57	--	9.53	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		6.32	7.17	--	7.03	5.24	--	--	--	6.95	--	6.39	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		0.076	60	--	66	60	--	--	--	68	--	80	87	88.4	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	µg/L		--	--	--	--	--	--	165000	113000	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/l		--	--	--	--	--	--	375	39.8	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																									
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	219	512	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	< 5.9	< 5.9	--	< 5.9	< 5.9	--	--	--	< 5.9	--	< 5.9	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	< 5.9	--	< 5.9	< 5.9	--	--	--	12	--	< 5.9	< 1	< 1	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	< 3.7	--	< 3.7	< 3.7	--	--	--	< 3.7	--	< 3.7	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	< 3.7	--	< 3.7	14.6	--	--	--	4.1	--	< 3.7	2.1	5	< 20	39	47.9	< 20	173	33.4	304	< 20
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	99.4	133	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	< 0.64	--	--	--	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	< 0.64	--	--	--	< 0.64	--	< 0.64	*< 5*	*< 5*	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	< 0.64	--	< 0.64	< 0.64	--	--	--	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	--	--	*< 0.64*	--	*< 0.64*	*< 5*	*< 5*	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	19100	19700	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	< 1.7	--	< 1.7	< 1.7	--	--	--	< 1.7	--	< 1.7	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	< 1.7	--	< 1.7	2	--	--	--	< 1.7	--	1.8	< 15	2	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	< 5	2.1	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	< 2.4	2.5	--	2.8	2.7	--	< 3.2 U	< 3.2 U	< 2.4	--	< 2.4	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	11	< 2.4	< 2.4	--	< 2.4	18.2	--	24	< 3.2 U	5.1	--	2.8	< 10	6.9	< 10	58.9	103	5.1	231	135	216	< 10
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	12400	28000	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 0.13 U	< 0.13 U	< 8.8	--	< 8.8	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	*< 8.8*	--	*< 8.8*	42.4	--	193	24.2	*< 8.8*	--	*< 8.8*	17.1	39.6	*< 20*	267	379	27.4	1320	385	1160	9.2
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	7890	7980	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	1490	2060	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.050 U	< 0.050 U	< 0.026	--	< 0.026	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	< 0.026	--	0.51	< 0.050 U	< 0.026	--	< 0.026	< 0.2	< 0.2	< 0.2	< 0.2	0.41	< 0.2	0.084	0.075	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	52	< 1.6	< 1.6	--	< 1.6	2.1	--	--	--	2.3	--	3.3	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	< 1.6	< 1.6	--	1.8	4.8	--	--	--	< 1.6	--	< 1.6	< 10	1.6	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	2040	1930	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	< 4.3	--	< 4.3	< 4.3	--	--	--	< 4.3	--	< 4.3	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	< 4.3	< 4.3	--	< 4.3	< 4.3	--	--	--	< 4.3	--	< 4.3	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	21.8	*< 20*	71.9	*< 20*
Silver	7440-22-4	D	µg/L	4.4	< 1.3	< 1.3	--	< 1.3	< 1.3	--	--	--	< 1.3	--	< 1.3	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	5.2	< 1.3	< 1.3	--	< 1.3	< 1.3	--	--	--	< 1.3	--	< 1.3	< 5	< 5	< 5	15.9	11.6	< 5	12.2	15.1	16.2	< 5
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	54700	54900	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	< 8.8	< 8.8	--	< 8.8	< 8.8	--	--	--	< 8.8	--	< 8.8	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 8.8	--	< 8.8	< 8.8	--	--	--	< 8.8	--	< 8.8	< 0.5	< 0.5	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	32.1	*< 20*
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	< 5	2.2	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	24.7	5.6	--	10.2	25.9	--	--	--	31.4	--	37.7	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	140	30.4	< 3.2	--	39.5	55.7	--	--	--	35	--	50.4	20.9	42.1	14	551	1260	71.3	2480	1790	2630	28.9
Physical Properties																									
pH	PH	N	su		--	--	--	--	--	--	7.4	7.4	--	--	--	6.9	6.9	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	23.4	23.5	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 1	< 1	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 19	--	< 19	< 19	--	--	--	< 19	--	< 19	< 32	< 31	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 5	< 5	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 1	< 1	--	--	--	--	--	--	--	--

					Location	SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-F11-1-01	SW-F11-1-01	SW-F11-2-01	SW-R2-D-12-1	SW-R2-D-12-3	SW-R-D12-01	SW-R-D12-02	SW-R-D12-03	SW-R-D12-04	SW-R-D12-05	SW-R-D12-06	SW-R-D12-07	SW-R-D12-08
					Sample Date	4/17/2001	4/16/2001	4/16/2001	4/16/2001	4/17/2001	4/17/2001	6/13/2016	6/13/2016	4/18/2001	5/9/2001	4/18/2001	11/6/2013	11/6/2013	5/18/2006	6/7/2006	6/7/2006	6/8/2006	6/12/2006	6/12/2006	6/12/2006	6/12/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-E11-4-012N	SW-E12-1-010.5N	SW-E12-1-011N	SW-E12-2-011N	SW-E12-3-010.5N	SW-E12-3-011N	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-F11-1-011N	SW-F11-1-010.5N	SW-F11-2-011N	SW-R2-D-12-1_20131106	SW-R2-D-12-3_20131106	SW-R-D12-011.0N	SW-R-D12-020.5N	SW-R-D12-030.5N	SW-R-D12-040.5N	SW-R-D12-050.5N	SW-R-D12-060.5N	SW-R-D12-070.5N	SW-R-D12-080.75N
					Parent Sample ID																					
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 3	--	< 3	< 3	--	--	--	< 3	--	< 3	< 5	< 5	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	< 5	--	< 5	< 16	< 15	--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 1	< 1	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 9	--	< 10	< 10	--	--	--	< 10	--	< 10	< 32	< 31	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 20	< 19	--	< 19	< 19	--	--	--	< 19	--	< 19	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	< *1*	< *0.9*	--	< *1*	< *1*	--	--	--	< *1*	--	< *1*	< *0.5*	< *0.5*	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	< *1*	< *0.9*	--	< *1*	< *1*	--	--	--	< *1*	--	< *1*	< *0.5*	< *0.5*	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 5	< 5	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 5	< 5	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 16	< 15	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	< *1*	< *0.9*	--	< *1*	< *1*	--	--	--	< *1*	--	< *1*	< *0.5*	< *0.5*	--	--	--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 5	< 5	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 5	< 5	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 5	< 5	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 5	< 5	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	< 1	< 1	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		< 5	< 5	--	< 5	< 5	--	--	--	< 5	--	< 5	< 16	< 15	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 5	< 5	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		< 2	< 2	--	< 2	< 2	--	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		< 15	< 15	--	< 15	< 15	--	--	--	< 3	--	< 3	< 5	< 5	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 0.5	< 0.5	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		< 1	< 0.9	--	< 1	< 1	--	--	--	< 1	--	< 1	< 1	< 1	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	< *1*	< *0.9*	--	< *1*	< *1*	--	--	--	< *1*	--	< *1*	< *0.5*	< *0.5*	--	--	--	--	--	--	--	--	--
TPH																										
Amyl alcohol	71-41-0	T	µg/L		--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	< 1000	< 1000	--	< 1000	--	--	< 1000	--	< 1000	--	--	--	--	--	--	--	--	--	--	--
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	< 2	< 2	--	< 2	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	< 40	< 40	--	< 40	--	--	< 40	--	< 40	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	< 4	< 4	--	< 4	--	--	< 4	--	< 4	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	< 2	< 2	--	< 2	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	< 2	< 2	--	< 2	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	< 2	< 2	--	< 2	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-F11-1-01	SW-F11-1-01	SW-F11-2-01	SW-R2-D-12-1	SW-R2-D-12-3	SW-R-D12-01	SW-R-D12-02	SW-R-D12-03	SW-R-D12-04	SW-R-D12-05	SW-R-D12-06	SW-R-D12-07	SW-R-D12-08
					Sample Date	4/17/2001	4/16/2001	4/16/2001	4/16/2001	4/17/2001	4/17/2001	6/13/2016	6/13/2016	4/18/2001	5/9/2001	4/18/2001	11/6/2013	11/6/2013	5/18/2006	6/7/2006	6/7/2006	6/8/2006	6/12/2006	6/12/2006	6/12/2006	6/12/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-E11-4-012N	SW-E12-1-010.5N	SW-E12-1-011N	SW-E12-2-011N	SW-E12-3-010.5N	SW-E12-3-011N	SW-ERA-D13-MDW-01	SW-ERA-D13-MDW-02	SW-F11-1-011N	SW-F11-1-010.5N	SW-F11-2-011N	SW-R2-D-12-1_20131106	SW-R2-D-12-3_20131106	SW-R-D12-011.0N	SW-R-D12-020.5N	SW-R-D12-030.5N	SW-R-D12-040.5N	SW-R-D12-050.5N	SW-R-D12-060.5N	SW-R-D12-070.5N	SW-R-D12-080.75N
					Parent Sample ID																					
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000	--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		--	--	< 2	< 2	--	< 2	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45	--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L		--	--	< 2	< 2	--	< 2	--	--	< 2	--	< 2	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L		--	--	< 1	< 1	--	< 1	--	--	< 1	--	< 1	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols

" - -" denotes not measured, r
" < " denotes not detected at
"J" indicates an estimated co
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per c

Action Levels

ESB = Ecological Screening

				Location	SW-R-D13-02	SW-R-D13-03	SW-R-D13-04	SW-R-D13-05	SW-R-D13-05	SW-R-D13-06	SW-R-D13-07	SW-R-D13-08	SW-R-D14-04	SW-R-D14-05	SW-R-D14-06	SW-R-D14-07	SW-R-F11-01	SW-R-F11-02	SW-R-F11-03
				Sample Date	5/18/2006	5/18/2006	5/18/2006	5/24/2006	5/24/2006	6/12/2006	6/12/2006	6/12/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006	5/9/2006	5/9/2006	5/9/2006
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-R-D13-020.5N	SW-R-D13-030.75N	SW-R-D13-040.5N	SW-R-D13-051.0N	SW-R-D13-051.0FD	SW-R-D13-060.5N	SW-R-D13-070.75N	SW-R-D13-080.75N	SW-R-D14-040.5N	SW-R-D14-050.5N	SW-R-D14-060.5N	SW-R-D14-070.5N	SW-R-F11-010.5N	SW-R-F11-020.5N	SW-R-F11-030.5N
				Parent Sample ID					SW-R-D13-051.0N										
				Notes															
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**															
Explosives																			
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	0.47	0.97	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field																			
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																			
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	TSS	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																			
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	< 20	--	< 20	< 20	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	31.9	< 20	< 20	< 20	13.6	--	--	--	< 20	< 20	< 20	< 100	43.5	469	< 20
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	--	*< 10*	--	*< 10*	*< 10*	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	11	30.4	< 10	2.2	10	11.4	--	--	--	5.9	23.5	8.4	61.5	121	2400	2.6
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	< 20	--	< 20	< 20	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	281	*< 20*	*< 20*	131	137	--	--	--	19.3	153	22.3	102	125	1320	*< 20*
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	< 0.2	--	0.072	< 0.2	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	3.7	13	< 0.2
Nickel	7440-02-0	D	µg/L	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	< 20	--	< 20	< 20	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	--	--	--	*< 20*	*< 20*	*< 20*	*< 100*	*< 20*	*< 400*	*< 20*
Silver	7440-22-4	D	µg/L	4.4	--	< 5	--	< 5	< 5	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	5.2	8.4	< 5	< 5	< 5	< 5	--	--	--	< 5	< 5	< 5	*< 25*	< 5	*< 100*	< 5
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	< 20	--	< 20	< 20	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	--	--	--	*< 20*	*< 20*	*< 20*	*< 100*	*< 20*	*< 400*	*< 20*
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	--	8.2	--	13.3	6.6	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	140	478	8.6	8.5	131	129	--	--	--	50.3	812	55.2	926	614	2460	28.1
Physical Properties																			
pH	PH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																			
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	--	1	--	< 5	< 5	*< 50*	< 5	< 5	--	--	--	--	< 5	< 5	< 5
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	--	3	--	1	1	< 50	< 5	< 5	--	--	--	--	< 5	< 5	< 5

				Location	SW-R-D13-02	SW-R-D13-03	SW-R-D13-04	SW-R-D13-05	SW-R-D13-05	SW-R-D13-06	SW-R-D13-07	SW-R-D13-08	SW-R-D14-04	SW-R-D14-05	SW-R-D14-06	SW-R-D14-07	SW-R-F11-01	SW-R-F11-02	SW-R-F11-03
				Sample Date	5/18/2006	5/18/2006	5/18/2006	5/24/2006	5/24/2006	6/12/2006	6/12/2006	6/12/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006	5/9/2006	5/9/2006	5/9/2006
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-R-D13-020.5N	SW-R-D13-030.75N	SW-R-D13-040.5N	SW-R-D13-051.0N	SW-R-D13-051.0FD	SW-R-D13-060.5N	SW-R-D13-070.75N	SW-R-D13-080.75N	SW-R-D14-040.5N	SW-R-D14-050.5N	SW-R-D14-060.5N	SW-R-D14-070.5N	SW-R-F11-010.5N	SW-R-F11-020.5N	SW-R-F11-030.5N
				Parent Sample ID					SW-R-D13-051.0N										
				Notes															
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**															
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	< 5	< 5	< 5
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	< 5	1	< 5
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	1	2	< 5
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	< 5	1	< 5
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	< 5	< 5	< 5
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	< 5	< 5	< 5
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	--	< 5	--	< 5	< 5	< 50	< 5	< 5	--	--	--	--	< 5	1	< 5
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH																			
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																			
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-R-D13-02	SW-R-D13-03	SW-R-D13-04	SW-R-D13-05	SW-R-D13-05	SW-R-D13-06	SW-R-D13-07	SW-R-D13-08	SW-R-D14-04	SW-R-D14-05	SW-R-D14-06	SW-R-D14-07	SW-R-F11-01	SW-R-F11-02	SW-R-F11-03
					Sample Date	5/18/2006	5/18/2006	5/18/2006	5/24/2006	5/24/2006	6/12/2006	6/12/2006	6/12/2006	7/13/2006	7/13/2006	7/13/2006	7/13/2006	5/9/2006	5/9/2006	5/9/2006
					Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-R-D13-020.5N	SW-R-D13-030.75N	SW-R-D13-040.5N	SW-R-D13-051.0N	SW-R-D13-051.0FD	SW-R-D13-060.5N	SW-R-D13-070.75N	SW-R-D13-080.75N	SW-R-D14-040.5N	SW-R-D14-050.5N	SW-R-D14-060.5N	SW-R-D14-070.5N	SW-R-F11-010.5N	SW-R-F11-020.5N	SW-R-F11-030.5N
					Parent Sample ID					SW-R-D13-051.0N										
					Notes															
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols

" - -" denotes not measured, r
" < " denotes not detected at
"J" indicates an estimated co
deg c = degrees Celsius
mg/l = milligrams per liter
ntu = nephelometric turbidity
SU = standard units
µg/L = micrograms per liter
µS/cm = microsiemens per ce

Action Levels

ESB = Ecological Screening

Location					SW-D11-1-01	SW-E10-1-01	SW-E11-1-01	SW-E11-2-01	SW-E11-2-01	SW-E11-2-01	SW-F10-1-01	SW-F10-1-01	SW-F10-1-01	SW-R-D11-01	SW-R-D11-02	SW-R-D11-03	SW-R-D11-04	SW-R-E10-01	SW-R-E11-01	SW-R-E11-02	SW-R-F10-02
Sample Date					4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	5/1/2001	5/1/2001	5/1/2001	5/24/2006	5/24/2006	5/24/2006	6/7/2006	5/24/2006	6/7/2006	6/7/2006	5/24/2006
Sample Type					N	N	N	N	FD	FD	N	N	FD	N	N	N	N	N	N	N	N
Sample ID					SW-D11-1-011N	SW-E10-1-011N	SW-E11-1-011N	SW-E11-2-011N	SW-E11-2-010.5FD	SW-E11-2-011FD	SW-F10-1-010.5N	SW-F10-1-011N	SW-F10-1-010.5FD	SW-R-D11-010.75N	SW-R-D11-020.75N	SW-R-D11-030.75N	SW-R-D11-040.5N	SW-R-E10-010.75N	SW-R-E11-010.5N	SW-R-E11-020.5N	SW-R-F10-020.5N
Parent Sample ID									SW-E11-2-011N	SW-E11-2-011N			SW-F10-1-010.5N								
Notes																					
Chemical	CAS	Total or Dissolved	Unit	ESB																	
Explosives																					
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	< 0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	< 0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	< 500	690	< 500	--	< 500	< 500	--	< 500	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	< 4	< 120	< 350	--	< 120	< 120	--	< 120	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	< 0.3	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 4	< 4	< 4	--	< 4	< 4	--	< 4	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	--	--	--	--	--	--	--	--
GenChem																					
Dissolved Oxygen	7782-44-7	T	mg/l		9.81	10.13	10.11	10.82	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		6.74	6.45	6.82	6.62	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		80	124	126	48	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																					
Antimony	7440-36-0	D	µg/L	80	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	< 3.7	< 3.7	4.4	--	5.3	< 3.7	--	< 3.7	--	--	--	--	< 20	--	--	< 20
Arsenic	7440-38-2	T	µg/L	150	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	--	< 3.7	38.9	< 20	50.8	16.4	--	153	23.1	--
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	--	< 1.7	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	--	< 1.7	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	2.5	< 2.4	3.2	2.5	--	2.4	3.2	--	< 2.4	--	--	--	--	*< 10*	--	--	*< 10*
Copper	7440-50-8	T	µg/L	11	< 2.4	< 2.4	< 2.4	< 2.4	--	< 2.4	2.9	--	3.2	400	13.5	1030	18.8	--	69.2	17.8	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	--	--	--	< 20	--	--	< 20
Lead	7439-92-1	T	µg/L	5.4	57.8	*< 8.8*	*< 8.8*	*< 8.8*	--	*< 8.8*	*< 8.8*	--	*< 8.8*	571	42.2	2320	70.9	--	270	32.9	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.026	--	--	--	--	< 0.2	--	--	< 0.2
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.026	1.9	< 0.2	0.44	< 0.2	--	< 0.2	< 0.2	--
Nickel	7440-02-0	D	µg/L	52	< 1.6	2.5	< 1.6	< 1.6	--	< 1.6	1.7	--	< 1.6	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	< 1.6	< 1.6	< 1.6	< 1.6	--	< 1.6	< 1.6	--	1.7	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	--	--	--	--	< 20	--	--	< 20
Selenium	7782-49-2	T	µg/L	5	< 4.3	5.7	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	*< 20*	*< 20*	*< 100*	*< 20*	--	*< 20*	*< 20*	--
Silver	7440-22-4	D	µg/L	4.4	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	--	--	--	--	*< 5*	--	--	*< 5*
Silver	7440-22-4	T	µg/L	5.2	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 5	< 5	*< 25*	1.8	--	2.4	< 5	--
Thallium	7440-28-0	D	µg/L	10	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	--	--	--	--	< 20	--	--	< 20
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	*< 20*	*< 20*	*< 100*	*< 20*	--	*< 20*	*< 20*	--
Zinc	7440-66-6	D	µg/L	133	25.7	27.9	44.3	21.1	--	19.9	89.6	--	84.6	--	--	--	--	14.4	--	--	28.4
Zinc	7440-66-6	T	µg/L	140	26.2	28	48	< 3.2	--	< 3.2	89.1	--	91.5	3750	183	3650	186	--	733	86.9	--
SVOCs																					
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 20	< 19	< 19	--	< 20	< 20	--	< 20	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 3	< 3	< 3	--	< 3	< 3	--	< 3	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 5	< 5	< 5	--	< 5	< 5	--	< 5	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 10	< 10	< 10	--	< 10	< 10	--	< 10	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 20	< 20	< 19	< 19	--	< 20	< 20	--	< 20	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*	--	*< 1*	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*	--	*< 1*	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	*< 2*	*< 2*	*< 2*	*< 2*	--	*< 2*	*< 2*	--	*< 2*	--	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*	--	*< 1*	--	--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--

					Location	SW-D11-1-01	SW-E10-1-01	SW-E11-1-01	SW-E11-2-01	SW-E11-2-01	SW-E11-2-01	SW-F10-1-01	SW-F10-1-01	SW-F10-1-01	SW-R-D11-01	SW-R-D11-02	SW-R-D11-03	SW-R-D11-04	SW-R-E10-01	SW-R-E11-01	SW-R-E11-02	SW-R-F10-02
					Sample Date	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	5/1/2001	5/1/2001	5/1/2001	5/24/2006	5/24/2006	5/24/2006	6/7/2006	5/24/2006	6/7/2006	6/7/2006	5/24/2006
					Sample Type	N	N	N	N	FD	FD	N	N	FD	N	N	N	N	N	N	N	N
					Sample ID	SW-D11-1-011N	SW-E10-1-011N	SW-E11-1-011N	SW-E11-2-011N	SW-E11-2-010.5FD	SW-E11-2-011FD	SW-F10-1-010.5N	SW-F10-1-011N	SW-F10-1-010.5FD	SW-R-D11-010.75N	SW-R-D11-020.75N	SW-R-D11-030.75N	SW-R-D11-040.5N	SW-R-E10-010.75N	SW-R-E11-010.5N	SW-R-E11-020.5N	SW-R-F10-020.5N
					Parent Sample ID					SW-E11-2-011N	SW-E11-2-011N			SW-F10-1-010.5N								
					Notes																	
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																		
Diethylphthalate	84-66-2	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L			< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	< 5	< 5	< 5	--	< 5	< 5	--	< 5	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L			< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L			< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	--	< 2	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L			< 3	< 3	< 3	< 15	--	< 15	< 3	--	< 3	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6		< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L			< 1	< 1	< 1	< 1	--	< 1	< 1	--	< 1	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3		*< 1*	*< 1*	*< 1*	*< 1*	--	*< 1*	*< 1*	--	*< 1*	--	--	--	--	--	--	--	--
TPH																						
Amyl alcohol	71-41-0	T	µg/L			< 1000	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	< 1000	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L			< 1000	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	< 1000	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L			< 1000	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	< 1000	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L			< 1000	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	< 1000	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L			< 1000	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	< 1000	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L			< 1000	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	< 1000	--	--	--	--	--	--	--	--
VOCs																						
1,1,1-Trichloroethane	71-55-6	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			< 2	< 2	< 2	< 2	< 2	--	--	< 2	< 2	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L			< 40	< 40	< 40	< 40	< 40	--	--	< 40	< 40	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L			< 4	< 4	< 4	< 4	< 4	--	--	< 4	< 4	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L			< 2	< 2	< 2	< 2	< 2	--	--	< 2	< 2	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L			< 2	< 2	< 2	< 2	< 2	--	--	< 2	< 2	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140		< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L			< 2	< 2	< 2	< 2	< 2	--	--	< 2	< 2	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000		< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L			< 2	< 2	< 2	< 2	< 2	--	--	< 2	< 2	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45		< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	< 2	< 2	< 2	< 2	--	--	< 2	< 2	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			< 1	< 1	< 1	< 1	< 1	--	--	< 1	< 1	--	--	--	--	--	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols
" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening Benchmarks

Chemical	CAS	Total or Dissolved	Unit	ESB	Location	SW-A15-1-01	SW-A15-2-01	SW-A15-3-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-2-01	SW-C9-1-01	SW-D15-1-01	SW-E16-1-01	SW-E16-1-01	SW-E16-3-01	SW-R2-B-15-1	SW-R2-B-15-2	SW-R2-B-15-2
					Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/11/2001	4/5/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/11/2001	5/9/2001	4/4/2001	4/25/2001	4/4/2001	4/10/2001	4/10/2001	4/10/2001	11/6/2013	11/6/2013	11/6/2013
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD	N
					Sample ID	SW-A15-1-011N	SW-A15-2-011N	SW-A15-3-011N	SW-B14-2-010.5N	SW-B14-2-011N	SW-B15-1-011N	SW-B15-2-011N	SW-B16-1-010.75N	SW-B16-1-011N	SW-C15-1-011.5N	SW-C15-1-011N	SW-C15-1-011.5FD	SW-C15-2-011N	SW-C9-1-011N	SW-D15-1-011N	SW-E16-1-010.5N	SW-E16-1-011N	SW-E16-3-011N	SW-R2-B-15-1_20131106	DUP-03_20131106	SW-R2-B-15-2_20131106
					Parent Sample ID												SW-C15-1-011.5FD								SW-R2-B-15-2_20131106	
					Notes																					
Explosives																										
1,2-Dinitrobenzene	528-29-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	< 0.6
1,3,5-Trinitrobenzene	99-35-4	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
1,3-Dinitrobenzene	99-65-0	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
1,4-Dinitrobenzene	100-25-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	< 0.6
1-Nitronaphthalene	86-57-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.6	< 0.6
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90		< 0.2	< 0.2	< 0.2	0.72	--	< 0.2	< 0.2	< 0.2	--	5.9	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	0.91	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20		< 0.2	< 0.2	< 0.2	3.51	--	< 0.2	< 0.2	< 0.2	--	3.71	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	0.73	< 0.6	0.36	< 0.7
2-Nitrotoluene	88-72-2	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.75	< 0.75	< 0.75
3-Nitrotoluene	99-08-1	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 1.2	< 1.2	< 1.2
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20		< 0.2	< 0.2	< 0.2	8.39	--	< 0.2	< 0.2	< 0.2	--	5.56	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	1.31	< 0.6	0.92	< 0.7
4-Nitrotoluene	99-99-0	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 1.2	< 1.2	< 1.2
Nitrobenzene	98-95-3	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
Nitrocellulose	9004-70-0	T	µg/L	9825		< 500	< 500	< 500	< 500	--	< 500	< 500	< 500	--	< 500	--	< 500	< 500	< 500	< 500	< 500	--	< 500	--	--	--
Nitroglycerin	55-63-0	T	µg/L			< 120	< 120	< 120	< 120	--	< 120	< 120	< 120	--	< 120	--	--	< 120	< 120	< 120	< 120	--	< 120	< 15	< 15	< 15
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L			< 4	< 4	< 4	< 4	--	< 4	< 4	< 4	--	< 4	--	--	< 4	< 4	< 4	< 4	--	< 4	< 18	< 18	< 18
RDX (Cyclonite)	121-82-4	T	µg/L	360		< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.5	< 0.5	< 0.5
Tetryl	479-45-8	T	µg/L			< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	< 0.2	--	--	< 0.2	< 0.2	< 0.2	< 0.2	--	< 0.2	< 0.6	< 0.6	< 0.6
GenChem																										
Dissolved Oxygen	7782-44-7	T	mg/l			4.92	5.03	4.75	11.67	--	6.82	7.2	4.96	--	11.17	--	--	8.15	11.22	5.6	0	--	13	--	--	--
pH	pH	N	su			7.09	7.1	7.12	6.05	--	7.32	7.48	7.11	--	6.32	--	--	7.42	6.6	7.35	0	--	6.93	--	--	--
Total Hardness	HARDNESS	N	mg/l			64	272	246	84	--	316	328	270	--	200	--	--	260	40	224	0	--	124	265	108	111
Metals																										
Aluminum	7429-90-5	T	µg/L	87		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	646	1430	1430
Antimony	7440-36-0	D	µg/L	80		< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	< 5.9	--	--	< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	--	--	--
Antimony	7440-36-0	T	µg/L	80		< 5.9	< 5.9	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	< 5.9	--	--	< 5.9	< 5.9	< 5.9	6.1	--	< 5.9	< 1	0.57	0.46
Arsenic	7440-38-2	D	µg/L	150		< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	< 3.7	--	--	< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	--	--	--
Arsenic	7440-38-2	T	µg/L	150		< 3.7	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	< 3.7	--	--	< 3.7	< 3.7	< 3.7	14.7	--	< 3.7	0.55	4.2	3.8
Barium	7440-39-3	T	µg/L	220		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63.7	72.9	70.6
Beryllium	7440-41-7	D	µg/L	3.6		< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6		< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	< 0.64	< 0.64	< 0.64	21.7	--	< 0.64	*< 5*	*< 5*	*< 5*
Cadmium	7440-43-9	D	µg/L	0.2		< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	< 0.64	< 0.64	< 0.64	< 0.64	--	< 0.64	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31		*< 0.64*	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	*< 0.64*	--	*< 0.64*	--	--	*< 0.64*	*< 0.64*	*< 0.64*	8.6	--	*< 0.64*	*< 5*	1.2	1
Calcium	7440-70-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61700	25300	25000
Chromium	7440-47-3	D	µg/L	28		< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	--	< 1.7	--	--	< 1.7	< 1.7	< 1.7	< 1.7	--	< 1.7	--	--	--
Chromium	7440-47-3	T	µg/L	100		< 1.7	< 1.7	< 1.7	4.6	--	< 1.7	< 1.7	< 1.7	--	< 1.7	--	--	< 1.7	< 1.7	< 1.7	31.8	--	< 1.7	2.5	6	6.5
Cobalt	7440-48-4	T	µg/L	24		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 5	11.9	12.4
Copper	7440-50-8	D	µg/L	9.9		11.7	< 2.4	< 2.4	< 2.4	--	< 2.4	< 2.4	< 2.4	--	< 2.4	--	--	< 2.4	< 2.4	< 2.4	< 2.4	--	< 2.4	--	--	--
Copper	7440-50-8	T	µg/L	11		17.7	19	5.4	< 2.4	--	11	< 2.4	< 2.4	--	< 2.4	--	--	< 2.4	< 2.4	15.9	94.2	--	< 2.4	< 10	11.1	10.5
Iron	7439-89-6	T	µg/L	300		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2290	21000	21000
Lead	7439-92-1	D	µg/L	5.4		< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	--
Lead	7439-92-1	T	µg/L	5.4		13.1	48.2	*< 8.8*	14.7	--	12.9	*< 8.8*	*< 8.8*	--	*< 8.8*	--	--	*< 8.8*	*< 8.8*	31.5	308	--	*< 8.8*	5	21.6	22.5
Magnesium	7439-95-4	T	µg/L	82000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26300	9860	9730
Manganese	7439-96-5	T	µg/L	120		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	416	1670	1620
Mercury	7439-97-6	D	µg/L	0.77		< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026	< 0.026	--	< 0.026	--	--	< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	--	--	--
Mercury	7439-97-6	T	µg/L	0.77		< 0.026	< 0.026	< 0.026	< 0.026	--	< 0.026	< 0.026	< 0.026	--	< 0.026	--	--	< 0.026	< 0.026	0.026	7.7	--	< 0.026	< 0.2	0.062	0.08
Nickel	7440-02-0	D	µg/L	52		3.4	< 1.6	< 1.6	< 1.6	--	< 1.6	< 1.6	< 1.6	--	< 1.6	--	--	< 1.6	< 1.6	2	< 1.6	--	< 1.6	--	--	--
Nickel	7440-02-0	T	µg/L	61		5.2	10.5	< 1.6	5.6	--	5.4	< 1.6	< 1.6	--	2.2	--	--	< 1.6	< 1.6	6.7	91.3	--	< 1.6	< 10	6.9	7.4
Potassium	7440-09-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3860	4130	3180
Selenium	7782-49-2	D	µg/L	5		< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	< 4.3	--	--	< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	--	--	--
Selenium	7782-49-2	T	µg/L	5		< 4.3	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	< 4.3	--	--	< 4.3	< 4.3	< 4.3	7.5	--	< 4.3	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	4.4		< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	< 1.3	--	--	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	--	--	--
Silver	7440-22-4	T	µg/L	5.2		< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	< 1.3	--	--	< 1.3	< 1.3	< 1.3	< 1.3	--	< 1.3	< 5	< 5	< 5
Sodium	7440-23-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	82000	53600	53100
Thallium	7440-28-0	D	µg/L	10		< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	--
Thallium	7440-28-0	T	µg/L	10		< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	< 8.8	--	--	< 8.8	< 8.8	< 8.8	< 8.8	--	< 8.8	< 0.5	< 0.5	< 0.5
Vanadium	7440-62-2	T	µg/L	12		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	5.6	5.6
Zinc	7440-66-6	D	µg/L	133		40	3.6	4	4.8	--	< 3.2	3.5	< 3.2	--	6.1	--	--	< 3.2	6.3	6.6	4.4	--	5.1	--	--	--
Zinc	7440-66-6	T	µg/L	140		75.4	73.8	15.3	42	--	64.2	4	< 3.2	--	18.7	--	--	3.4	< 3.2	84.7	3330	--	6.4	15	61.5	61.7
Physical Properties																										
pH	pH	N	su			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.7	7	6.9
SVOCs																										
1,1'-Biphenyl	92-52-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
1,2,4-Trichlorobenzene	120-82-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
2,4,6-Trichlorophenol	88-06-2	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1
2,4-Dichlorophenol	120-83-2	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
2,4-Dimethylphenol	105-67-9	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
2,4-Dinitrophenol	51-28-5	T	µg/L			< 22	< 19	< 19	< 19	--	< 19	< 20	< 19	--	< 20	--	--	< 20	< 19	< 20	< 22	--	< 19	< 32	< 32	< 30
2,4-Dinitrotoluene	121-14-2	T	µg/L	44		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 5	< 5	< 5
2,6-Dinitrotoluene	606-20-2	T	µg/L	81		< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1
2-Chloronaphthalene	91-58-7	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
2-Chlorophenol	95-57-8	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
2-Methylnaphthalene	91-57-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.5	< 0.5
2-Methylphenol	95-48-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
2-Nitroaniline	88-74-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
2-Nitrophenol	88-75-5	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
3&4-Methylphenol	106-44-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
3,3-Dichlorobenzidine	91-94-1	T	µg/L			< 3	< 3	< 3	< 3	--	< 3	< 3	< 3	--	< 3	--	--	< 3	< 3	< 3	< 3	--	< 3	< 5	< 5	< 5
3-Nitroaniline	99-09-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L			< 5	< 5	< 5	< 5	--	< 5	< 5	< 5	--	< 5	--	--	< 5	< 5	< 5	< 5	--	< 5	< 16	< 16	< 15

					Location	SW-A15-1-01	SW-A15-2-01	SW-A15-3-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-2-01	SW-C9-1-01	SW-D15-1-01	SW-E16-1-01	SW-E16-1-01	SW-E16-3-01	SW-R2-B-15-1	SW-R2-B-15-2	SW-R2-B-15-2
					Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/11/2001	4/5/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/11/2001	5/9/2001	4/4/2001	4/25/2001	4/4/2001	4/10/2001	4/10/2001	4/10/2001	11/6/2013	11/6/2013	11/6/2013
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD	N
					Sample ID	SW-A15-1-011N	SW-A15-2-011N	SW-A15-3-011N	SW-B14-2-010.5N	SW-B14-2-011N	SW-B15-1-011N	SW-B15-2-011N	SW-B16-1-010.75N	SW-B16-1-011N	SW-C15-1-011.5N	SW-C15-1-011N	SW-C15-1-011.5FD	SW-C15-2-011N	SW-C9-1-011N	SW-D15-1-011N	SW-E16-1-010.5N	SW-E16-1-011N	SW-E16-3-011N	SW-R2-B-15-1_20131106	DUP-03_20131106	SW-R2-B-15-2_20131106
					Parent Sample ID												SW-C15-1-011.5FD								SW-R2-B-15-2_20131106	
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
4-Bromophenyl-phenylether	101-55-3	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1
4-Chloro-3-methylphenol	59-50-7	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
4-Chloroaniline	106-47-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
4-Nitroaniline	100-01-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
4-Nitrophenol	100-02-7	T	µg/L			< 11	< 9	< 9	< 10	--	< 9	< 10	< 9	--	< 10	--	--	< 10	< 9	< 10	< 11	--	< 9	< 32	< 32	< 30
Acenaphthene	83-32-9	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 0.5	< 0.5	< 0.5
Acenaphthylene	208-96-8	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 0.5	< 0.5	< 0.5
Acetophenone	98-86-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
Anthracene	120-12-7	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 0.5	< 0.5	< 0.5
Atrazine	1912-24-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5
Benzaldehyde	100-52-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5
Benzidine	92-87-5	T	µg/L			< 22	< 19	< 19	< 19	--	< 19	< 20	< 19	--	< 20	--	--	< 20	< 19	< 20	< 22	--	< 19	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025		*< 1*	*< 0.9*	*< 0.9*	*< 1*	--	*< 0.9*	*< 1*	*< 0.9*	--	*< 1*	--	--	*< 1*	*< 0.9*	*< 1*	*< 1*	--	*< 0.9*	0.1	*< 0.5*	0.1
Benzo[a]pyrene	50-32-8	T	µg/L	0.014		*< 1*	*< 0.9*	*< 0.9*	*< 1*	--	*< 0.9*	*< 1*	*< 0.9*	--	*< 1*	--	--	*< 1*	*< 0.9*	*< 1*	*< 1*	--	*< 0.9*	0.2	*< 0.5*	0.2
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	1	--	< 0.9	0.2	< 0.5	0.2
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	0.2	< 0.5	0.1
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	0.1	< 0.5	0.1
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3		< 2	*< 2*	*< 2*	*< 2*	--	< 2	*< 2*	*< 2*	--	< 2	--	--	*< 2*	< 2	< 2	*< 2*	--	*< 2*	*< 5*	*< 5*	*< 5*
Butylbenzylphthalate	85-68-7	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5
Caprolactam	105-60-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 16	< 16	< 15
Carbazole	86-74-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
Chrysene	218-01-9	T	µg/L	0.28		*< 1*	*< 0.9*	*< 0.9*	*< 1*	--	*< 0.9*	*< 1*	*< 0.9*	--	*< 1*	--	--	*< 1*	*< 0.9*	*< 1*	1	--	*< 0.9*	0.2	*< 0.5*	0.2
Dibenzo[a,h]anthracene	53-70-3	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 0.5	< 0.5	< 0.5
Dibenzofuran	132-64-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1	< 1	< 1
Diethylphthalate	84-66-2	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5
Dimethylphthalate	131-11-3	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5
Di-n-butylphthalate	84-74-2	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 5	< 5	< 5
Fluoranthene	206-44-0	T	µg/L	1.9		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	2	--	< 0.9	0.3	< 0.5	0.4
Fluorene	86-73-7	T	µg/L			< 1	< 0.9	< 0.9	--	--	< 0.9	< 1	< 0.9	--	--	--	--	< 1	< 0.9	< 1	--	--	--	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	118-74-1	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	< 1	< 1	< 1
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	< 5	< 5	< 5	--	< 5	< 5	< 5	--	< 5	--	--	< 5	< 5	< 5	< 5	--	< 5	< 16	< 16	< 15
Hexachloroethane	67-72-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 5	< 5	< 5
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	0.1	< 0.5	< 0.5
Isophorone	78-59-1	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
Naphthalene	91-20-3	T	µg/L	13		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 0.5	< 0.5	< 0.5
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	< 2	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
Pentachlorophenol	87-86-5	T	µg/L			< 3	< 3	< 3	< 3	--	< 3	< 3	< 3	--	< 3	--	--	< 3	< 3	< 3	< 3	--	< 3	< 5	< 5	< 5
Phenanthrene	85-01-8	T	µg/L	3.6		< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	1	--	< 0.9	0.1	< 0.5	0.2
Phenol	108-95-2	T	µg/L			< 1	< 0.9	< 0.9	< 1	--	< 0.9	< 1	< 0.9	--	< 1	--	--	< 1	< 0.9	< 1	< 1	--	< 0.9	< 1	< 1	< 1
Purge Volume	PURGE_VOL	T	µg/L			--	--	--	< 1	--	--	--	--	--	< 1	--	--	--	--	--	< 1	--	< 0.9	--	--	--
Pyrene	129-00-0	T	µg/L	0.3		*< 1*	*< 0.9*	*< 0.9*	*< 1*	--	*< 0.9*	*< 1*	*< 0.9*	--	*< 1*	--	--	*< 1*	*< 0.9*	*< 1*	2	--	*< 0.9*	0.4	*< 0.5*	0.3
TPH																										
Amyl alcohol	71-41-0	T	µg/L			< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L			< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Ethanol	64-17-5	T	µg/L			< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Ethyl ether	60-29-7	T	µg/L			< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
Methanol	67-56-1	T	µg/L			< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
N-butyl ether	142-96-1	T	µg/L			< 1000	< 1000	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	--	< 1000	--	< 1000	< 1000	< 1000	--	< 1000	< 1000	--	--	--
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Acrolein	107-02-8	T	µg/L			< 40	< 40	< 40	--	< 40	< 40	< 40	--	< 40	--	< 40	--	< 40	< 40	< 40	--	< 40	< 40	--	--	--
Acrylonitrile	107-13-1	T	µg/L			< 4	< 4	< 4	--	< 4	< 4	< 4	--	< 4	--	< 4	--	< 4	< 4	< 4	--	< 4	< 4	--	--	--
Benzene	71-43-2	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Bromoform	75-25-2	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Bromomethane	74-83-9	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Chlorobenzene	108-90-7	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Chloroethane	75-00-3	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Chloroform	67-66-3	T	µg/L	140		< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Chloromethane	74-87-3	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		< 1	1	3	--	< 1	4	4	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000		< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Ethylbenzene	100-41-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Methylene Chloride	75-09-2	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45		< 1	6	6	--	< 1	6	5	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Toluene	108-88-3	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Trichloroethene	79-01-6	T	µg/L			< 1	< 1	< 1	--	< 1	1	1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--

					Location	SW-A15-1-01	SW-A15-2-01	SW-A15-3-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-2-01	SW-C9-1-01	SW-D15-1-01	SW-E16-1-01	SW-E16-1-01	SW-E16-3-01	SW-R2-B-15-1	SW-R2-B-15-2	SW-R2-B-15-2
					Sample Date	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/11/2001	4/5/2001	4/5/2001	4/5/2001	4/5/2001	4/11/2001	4/11/2001	5/9/2001	4/4/2001	4/25/2001	4/4/2001	4/10/2001	4/10/2001	4/10/2001	11/6/2013	11/6/2013	11/6/2013
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD	N
					Sample ID	SW-A15-1-011N	SW-A15-2-011N	SW-A15-3-011N	SW-B14-2-010.5N	SW-B14-2-011N	SW-B15-1-011N	SW-B15-2-011N	SW-B16-1-010.75N	SW-B16-1-011N	SW-C15-1-011.5N	SW-C15-1-011N	SW-C15-1-011.5FD	SW-C15-2-011N	SW-C9-1-011N	SW-D15-1-011N	SW-E16-1-010.5N	SW-E16-1-011N	SW-E16-3-011N	SW-R2-B-15-1_20131106	DUP-03_20131106	SW-R2-B-15-2_20131106
					Parent Sample ID												SW-C15-1-011.5FD								SW-R2-B-15-2_20131106	
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	< 2	< 2	--	< 2	< 2	< 2	--	< 2	--	< 2	--	< 2	< 2	< 2	--	< 2	< 2	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			< 1	< 1	< 1	--	< 1	< 1	< 1	--	< 1	--	< 1	--	< 1	< 1	< 1	--	< 1	< 1	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels

ESB = Ecological Screening Benchmarks

				Location	SW-R2-E-16-1	SW-R2-E-16-3	SW-R-A15-01	SW-R-A15-01	SW-R-A15-02	SW-R-A15-03	SW-R-A15-04	SW-R-A15-05	SW-R-A15-06	SW-R-A15-07	SW-R-A15-08	SW-R-B14-01	SW-R-B14-02	SW-R-B15-01	SW-R-B15-02	SW-R-B15-03	SW-R-B15-04	SW-R-B15-05	SW-R-B15-06	SW-R-B15-06	SW-R-B15-06
				Sample Date	11/5/2013	11/5/2013	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	8/16/2006	8/16/2006
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample ID	SW-R2-E-16-1_20131105	SW-R2-E-16-3_20131105	SW-R-A15-010.5N	SW-R-A15-010.5FD	SW-R-A15-020.5N	SW-R-A15-030.5N	SW-R-A15-040.75N	SW-R-A15-050.5N	SW-R-A15-060.5N	SW-R-A15-070.5N	SW-R-A15-080.5N	SW-R-B14-010.5N	SW-R-B14-020.5N	SW-R-B15-010.5N	SW-R-B15-020.5N	SW-R-B15-030.5N	SW-R-B15-040.5N	SW-R-B15-050.5N	SW-R-B15-060.5N	ASW-R-B15-060.5NA	SW-R-B15-060.5NA
				Parent Sample ID				SW-R-A15-010.5N																	
				Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Explosives																									
1,2-Dinitrobenzene	528-29-0	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	1.7	2.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	0.31	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	2.4	4.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--
2-Nitrotoluene	88-72-2	T	µg/L		< 0.75	< 0.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 1.2	< 1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	0.9	0.77	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	0.6	< 0.6	5.5	8.9	0.32	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--
4-Nitrotoluene	99-99-0	T	µg/L		< 1.2	< 1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 15	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--	--
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 18	< 18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.5	< 0.5	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	--	--
Tetryl	479-45-8	T	µg/L		< 0.6	< 0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																									
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		154	155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																									
Aluminum	7429-90-5	T	µg/L	87	*< 200*	148	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 2	< 2	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 40	< 20	< 20	< 20	< 40	49.8	--	--	< 20
Barium	7440-39-3	T	µg/L	220	37.8	39.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	*< 5*	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 5*	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		36300	36100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 15	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	11	< 10	< 10	11.5	11.7	10.4	25.1	< 10	3.2	19.9	66.8	2.2	72.8	60.6	42.7	12.6	2.5	88.3	215	--	--	35.7
Iron	7439-89-6	T	µg/L	300	926	1450	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	0.35	0.73	*< 15*	*< 15*	*< 15*	67.6	*< 15*	*< 15*	38.2	120	*< 15*	152	115	66.1	17.4	*< 15*	343	1020	--	--	119
Magnesium	7439-95-4	T	µg/L	82000	14600	14400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	631	739	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.063	< 0.2	< 0.2	< 0.2	< 0.2	0.74	0.24	< 0.2	< 0.2	< 0.2	0.62	2.6	--	--	*< 2*
Nickel	7440-02-0	D	µg/L	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	< 10	< 10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		1990	1960	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 40*	*< 40*	*< 20*	*< 20*	*< 20*	*< 40*	28.4	--	--	*< 20*
Silver	7440-22-4	D	µg/L	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	5.2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	*< 10*	*< 10*	< 5	< 5	< 5	*< 10*	*< 10*	--	--	< 5
Sodium	7440-23-5	T	µg/L		72200	71600	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	< 0.5	< 0.5	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 40*	*< 40*	*< 20*	*< 20*	*< 20*	*< 40*	*< 40*	--	*< 20*	--
Vanadium	7440-62-2	T	µg/L	12	< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	140	< 20	2.1	55.1	55.8	44.6	72.7	12.3	26.5	86.5	639	25.6	470	476	229	108	27.2	453	1640	--	--	1600
Physical Properties																									
pH	pH	N	su		7.4	7.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																									
1,1'-Biphenyl	92-52-4	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 31	< 31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 15	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-R2-E-16-1	SW-R2-E-16-3	SW-R-A15-01	SW-R-A15-01	SW-R-A15-02	SW-R-A15-03	SW-R-A15-04	SW-R-A15-05	SW-R-A15-06	SW-R-A15-07	SW-R-A15-08	SW-R-B14-01	SW-R-B14-02	SW-R-B15-01	SW-R-B15-02	SW-R-B15-03	SW-R-B15-04	SW-R-B15-05	SW-R-B15-06	SW-R-B15-06	SW-R-B15-06
					Sample Date	11/5/2013	11/5/2013	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	8/16/2006	8/16/2006
					Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-R2-E-16-1_20131105	SW-R2-E-16-3_20131105	SW-R-A15-010.5N	SW-R-A15-010.5FD	SW-R-A15-020.5N	SW-R-A15-030.5N	SW-R-A15-040.75N	SW-R-A15-050.5N	SW-R-A15-060.5N	SW-R-A15-070.5N	SW-R-A15-080.5N	SW-R-B14-010.5N	SW-R-B14-020.5N	SW-R-B15-010.5N	SW-R-B15-020.5N	SW-R-B15-030.5N	SW-R-B15-040.5N	SW-R-B15-050.5N	SW-R-B15-060.5N	ASW-R-B15-060.5NA	SW-R-B15-060.5NA
					Parent Sample ID				SW-R-A15-010.5N																	
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
4-Bromophenyl-phenylether	101-55-3	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L			< 31	< 31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L			< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L			< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L			< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025		*< 0.5*	*< 0.5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014		*< 0.5*	*< 0.5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3		*< 5*	*< 5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L			< 15	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28		*< 0.5*	*< 0.5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L			< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L			< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L			< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 15	< 15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13		0.9	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L			< 5	< 5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6		< 0.5	< 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L			< 1	< 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Purge Volume	PURGE_VOL	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3		*< 0.5*	*< 0.5*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH																										
Amyl alcohol	71-41-0	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	--	--	< 5	< 5	< 5	< 5	< 5	< 5	--	--
Bromoform	75-25-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45		--	--	--	--	--	--	< 5	< 5	< 5	< 5	< 5	--	--	< 5	< 5	< 5	4	< 5	6	--	--
Toluene	108-88-3	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-R2-E-16-1	SW-R2-E-16-3	SW-R-A15-01	SW-R-A15-01	SW-R-A15-02	SW-R-A15-03	SW-R-A15-04	SW-R-A15-05	SW-R-A15-06	SW-R-A15-07	SW-R-A15-08	SW-R-B14-01	SW-R-B14-02	SW-R-B15-01	SW-R-B15-02	SW-R-B15-03	SW-R-B15-04	SW-R-B15-05	SW-R-B15-06	SW-R-B15-06	SW-R-B15-06
					Sample Date	11/5/2013	11/5/2013	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	8/16/2006	8/16/2006
					Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-R2-E-16-1_20131105	SW-R2-E-16-3_20131105	SW-R-A15-010.5N	SW-R-A15-010.5FD	SW-R-A15-020.5N	SW-R-A15-030.5N	SW-R-A15-040.75N	SW-R-A15-050.5N	SW-R-A15-060.5N	SW-R-A15-070.5N	SW-R-A15-080.5N	SW-R-B14-010.5N	SW-R-B14-020.5N	SW-R-B15-010.5N	SW-R-B15-020.5N	SW-R-B15-030.5N	SW-R-B15-040.5N	SW-R-B15-050.5N	SW-R-B15-060.5N	ASW-R-B15-060.5NA	SW-R-B15-060.5NA
					Parent Sample ID				SW-R-A15-010.5N																	
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, i
" < " denotes not detected at
"J" indicates an estimated co
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening

				Location	SW-R-B15-07	SW-R-B15-08	SW-R-C15-01	SW-R-C15-02	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04	SW-R-D15-01	SW-R-D15-02	SW-R-D15-03	SW-R-D16-01	SW-R-D16-02	SW-R-D16-03
				Sample Date	7/11/2006	7/12/2006	6/8/2006	6/8/2006	6/8/2006	7/12/2006	7/12/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N
				Sample ID	SW-R-B15-070.5N	SW-R-B15-080.75N	SW-R-C15-010.5N	SW-R-C15-020.5N	SW-R-C15-020.5FD	SW-R-C15-030.5N	SW-R-C15-040.5N	SW-R-D15-010.5N	SW-R-D15-020.5N	SW-R-D15-030.5N	SW-R-D16-010.5N	SW-R-D16-020.5N	SW-R-D16-030.5N
				Parent Sample ID					SW-R-C15-020.5N								
				Notes													
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**													
Explosives																	
1,2-Dinitrobenzene	528-29-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	100-25-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1-Nitronaphthalene	86-57-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
GenChem																	
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																	
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	--	--	< 20	< 20	< 20	--	--	< 20	< 20	10.3	< 20	< 20	< 20
Barium	7440-39-3	T	µg/L	220	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	T	µg/L	11	--	--	< 10	5	11.3	--	--	< 10	21.5	30	55.9	23.5	26.1
Iron	7439-89-6	T	µg/L	300	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	--	--	*< 20*	8.1	21	--	--	*< 20*	48.1	268	279	69.3	115
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	--	--	< 0.2	< 0.2	< 0.2	--	--	0.081	< 0.2	< 0.2	0.62	0.072	1.5
Nickel	7440-02-0	D	µg/L	52	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	--	--	*< 20*	*< 20*	*< 20*	--	--	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	T	µg/L	5.2	--	--	< 5	< 5	< 5	--	--	< 5	< 5	2.7	2.9	< 5	< 5
Sodium	7440-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	--	--	*< 20*	*< 20*	*< 20*	--	--	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*	*< 20*
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	T	µg/L	140	--	--	8.7	50	107	--	--	15.2	224	798	2060	724	1500
Physical Properties																	
pH	pH	N	su		--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																	
1,1'-Biphenyl	92-52-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	95-95-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	< 57	< 63	< 61
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	88-74-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	106-44-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	99-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--

				Location	SW-R-B15-07	SW-R-B15-08	SW-R-C15-01	SW-R-C15-02	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04	SW-R-D15-01	SW-R-D15-02	SW-R-D15-03	SW-R-D16-01	SW-R-D16-02	SW-R-D16-03
				Sample Date	7/11/2006	7/12/2006	6/8/2006	6/8/2006	6/8/2006	7/12/2006	7/12/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N
				Sample ID	SW-R-B15-070.5N	SW-R-B15-080.75N	SW-R-C15-010.5N	SW-R-C15-020.5N	SW-R-C15-020.5FD	SW-R-C15-030.5N	SW-R-C15-040.5N	SW-R-D15-010.5N	SW-R-D15-020.5N	SW-R-D15-030.5N	SW-R-D16-010.5N	SW-R-D16-020.5N	SW-R-D16-030.5N
				Parent Sample ID					SW-R-C15-020.5N								
				Notes													
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**													
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	106-47-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	100-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	1912-24-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	100-52-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	--	--	--	--	--	--	--	--	--	--	*< 5*	*< 5*	*< 5*
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	--	--	--	--	--	--	--	--	--	--	*< 5*	*< 5*	*< 5*
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	--	--	--	--	--	--	--	--	--	--	1	< 5	< 5
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	--	--	--	--	--	--	--	--	--	--	< 5	< 5	< 5
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	--	--	--	--	--	--	--	--	--	*< 5*	*< 5*	*< 5*
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	105-60-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	86-74-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	--	--	--	--	--	--	--	--	--	--	1	*< 5*	*< 5*
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Purge Volume	PURGE_VOL	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH																	
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																	
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		< 5	< 5	--	--	--	< 5	< 5	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	--	--	--	--	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45	0.9	2	--	--	--	< 5	1	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	--	--	--	--	--	--

					Location	SW-R-B15-07	SW-R-B15-08	SW-R-C15-01	SW-R-C15-02	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04	SW-R-D15-01	SW-R-D15-02	SW-R-D15-03	SW-R-D16-01	SW-R-D16-02	SW-R-D16-03
					Sample Date	7/11/2006	7/12/2006	6/8/2006	6/8/2006	6/8/2006	7/12/2006	7/12/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006	6/8/2006
					Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N
					Sample ID	SW-R-B15-070.5N	SW-R-B15-080.75N	SW-R-C15-010.5N	SW-R-C15-020.5N	SW-R-C15-020.5FD	SW-R-C15-030.5N	SW-R-C15-040.5N	SW-R-D15-010.5N	SW-R-D15-020.5N	SW-R-D15-030.5N	SW-R-D16-010.5N	SW-R-D16-020.5N	SW-R-D16-030.5N
					Parent Sample ID					SW-R-C15-020.5N								
					Notes													
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**														
Trichlorofluoromethane	75-69-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	--	--	--	--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - -" denotes not measured, i
" < " denotes not detected at
"J" indicates an estimated co
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening

					Location	SW-D14-3-01	SW-D14-3-01	SW-D14-4-01	SW-D14-4-01	SW-D14-5-01	SW-D14-5-01	SW-D14-5-01	SW-D14-6-01	SW-D14-6-01	SW-D14-7-01	SW-D14-8-01	SW-E14-3-01	SW-E14-3-01	SW-E15-1-01	SW-E15-1-01	SW-E15-2-01	SW-E15-3-01	SW-E16-2-01	SW-R-E15-01	SW-R-E15-02	SW-R-E15-03
					Sample Date	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/11/2001	4/11/2001	5/9/2001	4/12/2001	4/12/2001	4/11/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	6/7/2006	6/7/2006	6/7/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-D14-3-010.5N	SW-D14-3-011N	SW-D14-4-010.5N	SW-D14-4-011N	SW-D14-5-010.5N	SW-D14-5-011N	SW-D14-5-010.5NA	SW-D14-6-010.5N	SW-D14-6-011N	SW-D14-7-011N	SW-D14-8-011N	SW-E14-3-011N	SW-E14-3-012N	SW-E15-1-011.5N	SW-E15-1-011N	SW-E15-2-011N	SW-E15-3-011N	SW-E16-2-011N	SW-R-E15-010.5N	SW-R-E15-020.5N	SW-R-E15-030.5N
					Parent Sample ID																					
					Notes																					
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																						
Explosives																										
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	3.11	1.85	--	< 0.2	0.4	--	< 0.2	< 0.2	0.86	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	0.41	1.72	--	0.66	0.62	--	< 0.2	< 0.2	0.69	< 0.6	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	--	0.33	--	< 0.2	--	--	< 0.2	--	0.67	2.77	--	1	1.05	--	< 0.2	< 0.2	1.21	< 0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	--	< 500	--	--	--	< 500	< 500	--	< 500	< 500	--	< 500	< 500	--	< 500	< 500	< 500	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	--	< 120	--	< 120	--	--	< 120	--	< 120	< 120	--	< 120	< 120	--	< 120	< 120	< 120	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.4	< 0.2	--	< 0.2	< 0.2	< 0.2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	--	< 4	--	< 4	--	--	< 4	--	< 4	< 4	--	<4	< 4	--	< 4	< 4	< 4	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	--	< 0.2	--	0.26	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	--	< 0.2	--	< 0.2	--	--	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	--	< 0.2	< 0.2	< 0.2	--	--	--
GenChem																										
Dissolved Oxygen	7782-44-7	T	mg/l		11.73	--	10.7	--	10.5	--	--	11.46	--	10.2	10.46	--	10.9	11.87	--	13.89	11.92	12.57	--	--	--
pH	pH	N	su		6.5	--	6.36	--	7.4	--	--	7.36	--	7.19	7.19	--	7.28	7.38	--	7.52	7.31	6.99	--	--	--
Total Hardness	HARDNESS	N	mg/l		76	--	68	--	112	--	--	76	--	184	188	--	112	128	--	264	232	132	--	--	--
Metals																										
Antimony	7440-36-0	D	µg/L	80	< 5.9	--	< 5.9	--	< 5.9	--	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	--	< 5.9	--	< 5.9	--	--	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	--	< 5.9	< 5.9	< 5.9	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	--	< 3.7	--	< 3.7	--	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	--	< 3.7	--	< 3.7	--	--	< 3.7	--	< 3.7	< 3.7	--	< 3.7	< 3.7	--	5	3.9	< 3.7	< 20	< 20	17.7
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	--	< 0.64	--	< 0.64	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	--	1.6	--	< 0.64	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	--	< 0.64	--	< 0.64	--	--	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	--	< 0.64	< 0.64	< 0.64	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	1.4	--	0.95	--	*< 0.64*	--	--	*< 0.64*	--	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64*	--	1	0.66	*< 0.64*	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	--	< 1.7	--	< 1.7	--	--	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7	< 1.7	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	--	2.8	--	< 1.7	--	--	< 1.7	--	< 1.7	< 1.7	--	< 1.7	< 1.7	--	13.7	8.5	< 1.7	--	--	--
Copper	7440-50-8	D	µg/L	9.9	< 2.4	--	< 2.4	--	< 2.4	--	--	< 2.4	--	< 2.4	< 2.4	--	< 2.4	< 2.4	--	< 2.4	< 2.4	< 2.4	--	--	--
Copper	7440-50-8	T	µg/L	11	< 2.4	--	< 2.4	--	< 2.4	--	--	< 2.4	--	< 2.4	< 2.4	--	< 2.4	< 2.4	--	26.8	< 2.4	< 2.4	< 10	6	99
Lead	7439-92-1	D	µg/L	5.4	< 8.8	--	< 8.8	--	< 8.8	--	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	--	--
Lead	7439-92-1	T	µg/L	5.4	29.9	--	25.8	--	*< 8.8*	--	--	*< 8.8*	--	*< 8.8*	*< 8.8*	--	64	*< 8.8*	--	130	83.3	*< 8.8*	*< 20*	21	375
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	--	< 0.026	--	< 0.026	--	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026	< 0.026	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	--	0.028	--	< 0.026	--	--	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026	--	< 0.026	< 0.026	< 0.026	< 0.2	0.058	*< 1*
Nickel	7440-02-0	D	µg/L	52	< 1.6	--	< 1.6	--	< 1.6	--	--	< 1.6	--	< 1.6	< 1.6	--	< 1.6	< 1.6	--	< 1.6	< 1.6	< 1.6	--	--	--
Nickel	7440-02-0	T	µg/L	61	7.1	--	9.9	--	< 1.6	--	--	< 1.6	--	< 1.6	2	--	2.3	< 1.6	--	5.5	12.5	< 1.6	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	--	< 4.3	--	< 4.3	--	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	--	--	--
Selenium	7782-49-2	T	µg/L	5	< 4.3	--	< 4.3	--	< 4.3	--	--	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	*< 20*	*< 20*	15.5
Silver	7440-22-4	D	µg/L	4.4	< 1.3	--	< 1.3	--	< 1.3	--	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	--	--	--
Silver	7440-22-4	T	µg/L	5.2	< 1.3	--	< 1.3	--	< 1.3	--	--	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	--	< 1.3	< 1.3	< 1.3	< 5	< 5	4.2
Thallium	7440-28-0	D	µg/L	10	< 8.8	--	< 8.8	--	< 8.8	--	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	--	--	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	--	< 8.8	--	10.9	--	--	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	--	< 8.8	< 8.8	< 8.8	*< 20*	*< 20*	*< 20*
Zinc	7440-66-6	D	µg/L	133	5.9	--	4.7	--	5.4	--	--	4.9	--	6.9	4.8	--	< 3.2	3.8	--	< 3.2	< 3.2	3.7	--	--	--
Zinc	7440-66-6	T	µg/L	140	112	--	51.8	--	25.5	--	--	11.2	--	5.6	17.3	--	31.5	3.2	--	126	80.2	5.5	*< 20*	79.2	910
SVOCs																										
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 19	--	< 19	--	< 19	--	--	< 19	--	< 19	< 20	--	< 19	< 19	--	< 20	< 19	< 19	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	--	< 3	--	< 3	--	--	< 3	--	< 3	< 3	--	< 3	< 3	--	< 3	< 3	< 3	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	--	< 5	--	< 5	--	--	< 5	--	< 5	< 5	--	< 5	< 5	--	< 5	< 5	< 5	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 9	--	< 10	--	< 9	--	--	< 9	--	< 9	< 10	--	< 9	< 9	--	< 10	< 9	< 9	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Anthracene	120-12-7	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Benzidine	92-87-5	T	µg/L		< 19	--	< 19	--	< 19	--	--	< 19	--	< 19	< 20	--	< 19	< 19	--	< 20	< 19	< 19	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	*< 0.9*	--	*< 1*	--	*< 0.9*	--	--	*< 0.9*	--	*< 0.9*	*< 1*	--	*< 0.9*	*< 0.9*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	*< 0.9*	--	*< 1*	--	*< 0.9*	--	--	*< 0.9*	--	*< 0.9*	*< 1*	--	*< 0.9*	*< 0.9*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	*< 0.9*	--	*< 1*	--	*< 0.9*	--	--	*< 0.9*	--	*< 0.9*	*< 1*	--	*< 0.9*	*< 0.9*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--

					Location	SW-D14-3-01	SW-D14-3-01	SW-D14-4-01	SW-D14-4-01	SW-D14-5-01	SW-D14-5-01	SW-D14-5-01	SW-D14-6-01	SW-D14-6-01	SW-D14-7-01	SW-D14-8-01	SW-E14-3-01	SW-E14-3-01	SW-E15-1-01	SW-E15-1-01	SW-E15-2-01	SW-E15-3-01	SW-E16-2-01	SW-R-E15-01	SW-R-E15-02	SW-R-E15-03
					Sample Date	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/11/2001	4/11/2001	5/9/2001	4/12/2001	4/12/2001	4/11/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	6/7/2006	6/7/2006	6/7/2006
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
					Sample ID	SW-D14-3-010.5N	SW-D14-3-011N	SW-D14-4-010.5N	SW-D14-4-011N	SW-D14-5-010.5N	SW-D14-5-011N	SW-D14-5-010.5NA	SW-D14-6-010.5N	SW-D14-6-011N	SW-D14-7-011N	SW-D14-8-011N	SW-E14-3-011N	SW-E14-3-012N	SW-E15-1-011.5N	SW-E15-1-011N	SW-E15-2-011N	SW-E15-3-011N	SW-E16-2-011N	SW-R-E15-010.5N	SW-R-E15-020.5N	SW-R-E15-030.5N
					Parent Sample ID																				
					Notes																				
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**																					
Di-n-butylphthalate	84-74-2	T	µg/L			< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L			< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Fluorene	86-73-7	T	µg/L			--	--	--	--	< 0.9	--	--	< 0.9	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L			< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L			< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L			< 5	--	< 5	--	< 5	--	--	< 5	--	< 5	< 5	--	< 5	< 5	--	< 5	< 5	< 5	--	--	--
Hexachloroethane	67-72-1	T	µg/L			< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Isophorone	78-59-1	T	µg/L			< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Naphthalene	91-20-3	T	µg/L	13		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L			< 2	--	< 2	--	< 2	--	--	< 2	--	< 2	< 2	--	< 2	< 2	--	< 2	< 2	< 2	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L			< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L			< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Pentachlorophenol	87-86-5	T	µg/L			< 3	--	< 3	--	< 3	--	--	< 3	--	< 3	< 3	--	< 3	< 3	--	< 3	< 3	< 3	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6		< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Phenol	108-95-2	T	µg/L			< 0.9	--	< 1	--	< 0.9	--	--	< 0.9	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Purge Volume	PURGE_VOL	T	µg/L			< 0.9	--	< 1	--	--	--	--	--	--	< 0.9	< 1	--	< 0.9	< 0.9	--	< 1	< 0.9	< 0.9	--	--	--
Pyrene	129-00-0	T	µg/L	0.3		*< 0.9*	--	*< 1*	--	*< 0.9*	--	--	*< 0.9*	--	*< 0.9*	*< 1*	--	*< 0.9*	*< 0.9*	--	*< 1*	*< 0.9*	*< 0.9*	--	--	--
TPH																										
Amyl alcohol	71-41-0	T	µg/L			--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L			--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	--
Ethanol	64-17-5	T	µg/L			--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	--
Ethyl ether	60-29-7	T	µg/L			--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	--
Methanol	67-56-1	T	µg/L			--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	--
N-butyl ether	142-96-1	T	µg/L			--	< 1000	--	< 1000	--	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	< 1000	< 1000	< 1000	< 1000	--	--	--
VOCs																										
1,1,1-Trichloroethane	71-55-6	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
1,2-Dichloroethene	107-06-2	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L			--	< 2	--	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	--	--
Acrolein	107-02-8	T	µg/L			--	< 40	--	< 40	--	< 40	--	--	< 40	< 40	< 40	< 40	--	--	< 40	< 40	< 40	< 40	--	--	--
Acrylonitrile	107-13-1	T	µg/L			--	< 4	--	< 4	--	< 4	--	--	< 4	< 4	< 4	< 4	--	--	< 4	< 4	< 4	< 4	--	--	--
Benzene	71-43-2	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Bromodichloromethane	75-27-4	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	3	< 1	< 1	--	< 5	< 5
Bromoform	75-25-2	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Bromomethane	74-83-9	T	µg/L			--	< 2	--	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Chlorobenzene	108-90-7	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Chloroethane	75-00-3	T	µg/L			--	< 2	--	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	--	--
Chloroform	67-66-3	T	µg/L	140		--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	3	< 1	< 1	--	--	--
Chloromethane	74-87-3	T	µg/L			--	< 2	--	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590		--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000		--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	2	< 1	< 1	--	--	--
Ethylbenzene	100-41-4	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Methylene Chloride	75-09-2	T	µg/L			--	< 2	--	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45		--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	< 5	< 5
Toluene	108-88-3	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Trichloroethene	79-01-6	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	1	< 1	< 1	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L			--	< 2	--	< 2	--	< 2	--	--	< 2	< 2	< 2	< 2	--	--	< 2	< 2	< 2	< 2	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			--	< 1	--	< 1	--	< 1	--	--	< 1	< 1	< 1	< 1	--	--	< 1	< 1	< 1	< 1	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols
" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening Benchmarks

Kennedy Jenks

					Location	SW-R-E15-04	SW-R-E15-05	SW-R-E15-06	SW-R-E15-06	SW-R-E15-07	SW-R-E15-08	SW-R-E15-09	SW-R-E16-01	SW-R-F10-01
					Sample Date	7/12/2006	7/12/2006	7/12/2006	7/12/2006	7/13/2006	7/13/2006	7/13/2006	6/7/2006	5/24/2006
					Sample Type	N	N	N	FD	N	N	N	N	N
					Sample ID	SW-R-E15-040.5N	SW-R-E15-050.5N	SW-R-E15-061.25N	SW-R-E15-061.25FD	SW-R-E15-071.75N	SW-R-E15-081.75N	SW-R-E15-091.75N	SW-R-E15-010.75N	SW-R-F10-010.5N
					Parent Sample ID				SW-R-E15-061.25N					
					Notes									
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**										
Explosives														
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.6	< 0.6	1.1	1.2	0.7	0.78	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.6	< 0.6	0.81	0.88	0.9	0.88	0.37	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		--	--	--	--	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		--	--	--	--	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.6	< 0.6	1.4	1.4	1.5	1.5	0.6	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		--	--	--	--	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		--	--	--	--	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	--	--	--	--	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		--	--	--	--	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	2.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		--	--	--	--	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	9.3	< 0.6	0.29	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		--	--	--	--	--	--	--	--	--
GenChem														
Dissolved Oxygen	7782-44-7	T	mg/l		--	--	--	--	--	--	--	--	--
pH	pH	N	su		--	--	--	--	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		--	--	--	--	--	--	--	--	--
Metals														
Antimony	7440-36-0	D	µg/L	80	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	--	--	--	--	--	--	--	--	< 20
Arsenic	7440-38-2	T	µg/L	150	11.9	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Beryllium	7440-41-7	D	µg/L	3.6	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	--	--	--	--	--	--	--	--	< 10
Copper	7440-50-8	T	µg/L	11	34.7	14.5	12.8	13.2	6	3.5	< 10	< 10	--
Lead	7439-92-1	D	µg/L	5.4	--	--	--	--	--	--	--	--	< 20
Lead	7439-92-1	T	µg/L	5.4	174	114	82.6	83.2	12.9	< 15	< 15	< 20	--
Mercury	7439-97-6	D	µg/L	0.77	--	--	--	--	--	--	--	--	< 0.2
Mercury	7439-97-6	T	µg/L	0.77	0.27	0.073	< 0.2	0.076	< 0.2	< 0.2	< 0.2	< 0.2	--
Nickel	7440-02-0	D	µg/L	52	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	--	--	--	--	--	--	--	--	< 20
Selenium	7782-49-2	T	µg/L	5	13.8	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Silver	7440-22-4	D	µg/L	4.4	--	--	--	--	--	--	--	--	< 5
Silver	7440-22-4	T	µg/L	5.2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Thallium	7440-28-0	D	µg/L	10	--	--	--	--	--	--	--	--	< 20
Thallium	7440-28-0	T	µg/L	10	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
Zinc	7440-66-6	D	µg/L	133	--	--	--	--	--	--	--	--	29.4
Zinc	7440-66-6	T	µg/L	140	571	71.4	76.8	74.7	100	276	< 20	< 20	--
SVOCs														
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	T	µg/L		--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		--	--	--	--	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		--	--	--	--	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		--	--	--	--	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		--	--	--	--	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	--	--	--	--	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		--	--	--	--	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		--	--	--	--	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		--	--	--	--	--	--	--	--	--

				Location	SW-R-E15-04	SW-R-E15-05	SW-R-E15-06	SW-R-E15-06	SW-R-E15-07	SW-R-E15-08	SW-R-E15-09	SW-R-E16-01	SW-R-F10-01
				Sample Date	7/12/2006	7/12/2006	7/12/2006	7/12/2006	7/13/2006	7/13/2006	7/13/2006	6/7/2006	5/24/2006
				Sample Type	N	N	N	FD	N	N	N	N	N
				Sample ID	SW-R-E15-040.5N	SW-R-E15-050.5N	SW-R-E15-061.25N	SW-R-E15-061.25FD	SW-R-E15-071.75N	SW-R-E15-081.75N	SW-R-E15-091.75N	SW-R-E16-010.75N	SW-R-F10-010.5N
				Parent Sample ID				SW-R-E15-061.25N					
				Notes									
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**									
Di-n-butylphthalate	84-74-2	T	µg/L		--	--	--	--	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		--	--	--	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		--	--	--	--	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	--	--	--	--	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		--	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		--	--	--	--	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	T	µg/L		--	--	--	--	--	--	--	--	--
Purge Volume	PURGE_VOL	T	µg/L		--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	--	--	--	--	--	--	--	--	--
TPH													
Amyl alcohol	71-41-0	T	µg/L		--	--	--	--	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		--	--	--	--	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		--	--	--	--	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		--	--	--	--	--	--	--	--	--
Methanol	67-56-1	T	µg/L		--	--	--	--	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		--	--	--	--	--	--	--	--	--
VOCs													
1,1,1-Trichloroethane	71-55-6	T	µg/L		--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		--	--	--	--	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		--	--	--	--	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		--	--	--	--	--	--	--	--	--
Benzene	71-43-2	T	µg/L		--	--	--	--	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		--	--	--	--	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	--	--	--	--	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	--	--	--	--	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		--	--	--	--	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	T	µg/L		--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		--	--	--	--	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		--	--	--	--	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	75-69-4	T	µg/L		--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L		--	--	--	--	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L		--	--	--	--	--	--	--	--	--

11 Detected concentr

Abbreviations and Symbols
" - " denotes not measured, r
" < " denotes not detected at
"J" indicates an estimated co
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels
ESB = Ecological Screening

				Location	SW-B8-1-01	SW-C12-1-01	SW-C12-1-01	SW-C12-2-01	SW-ERA-D13-TPND-05	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C04
				Sample Date	4/25/2001	5/2/2001	5/2/2001	4/13/2001	6/13/2016	5/24/2006	5/24/2006	5/24/2006	5/24/2006
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample ID	SW-B8-1-011N	SW-C12-1-010.5N	SW-C12-1-011N	SW-C12-2-011N	SW-ERA-D13-TPND-05	SW-R-C12-010.75N	SW-R-C12-020.5N	SW-R-C12-030.5N	SW-R-C12-040.5N
				Parent Sample ID									
				Notes									
Chemical	CAS	Total or Dissolved	Unit	ESB									
Explosives													
1,3,5-Trinitrobenzene	99-35-4	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
1,3-Dinitrobenzene	99-65-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
2,4,6-Trinitrotoluene	118-96-7	T	µg/L	90	< 0.2	< 0.2	--	< 0.2	--	< 0.6	< 0.6	< 0.6	< 0.6
2-Amino-4,6-dinitrotoluene	35572-78-2	T	µg/L	20	< 0.2	0.57	--	5.34	--	< 0.6	1.2	< 0.6	< 0.6
2-Nitrotoluene	88-72-2	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
3-Nitrotoluene	99-08-1	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	T	µg/L	20	< 0.2	1.19	--	8.97	--	< 0.6	3.2	< 0.6	< 0.6
4-Nitrotoluene	99-99-0	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
Nitrobenzene	98-95-3	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
Nitrocellulose	9004-70-0	T	µg/L	9825	< 500	< 500	--	< 500	--	--	--	--	--
Nitroglycerin	55-63-0	T	µg/L		< 120	< 120	--	< 120	--	--	--	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-	2691-41-0	T	µg/L	150	< 0.2	< 0.2	--	< 0.2	--	< 2	< 2	< 2	< 2
Pentaerythritol Tetranitrate	78-11-5	T	µg/L		< 4	< 4	--	< 4	--	--	--	--	--
RDX (Cyclonite)	121-82-4	T	µg/L	360	< 0.2	< 0.2	--	< 0.2	--	< 0.6	< 0.6	< 0.6	< 0.6
Tetryl	479-45-8	T	µg/L		< 0.2	< 0.2	--	< 0.2	--	--	--	--	--
Field													
Dissolved Oxygen	7782-44-7	N	mg/l		--	--	--	--	5.05	--	--	--	--
pH	PH	N	su		--	--	--	--	6.33	--	--	--	--
Specific Conductance	SC	N	µS/cm		--	--	--	--	0.526	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	12.29	--	--	--	--
Turbidity	TURBIDITY	N	ntu		--	--	--	--	191	--	--	--	--
GenChem													
Dissolved Oxygen	7782-44-7	T	mg/l		11.53	--	--	11.53	--	--	--	--	--
pH	pH	N	su		6.67	--	--	6.95	--	--	--	--	--
Total Hardness	HARDNESS	N	mg/l		68	--	--	56	--	--	--	--	--
Total Hardness	HARDNESS	N	µg/L		--	--	--	--	94400	--	--	--	--
Total Suspended Solids	TSS	N	mg/l		--	--	--	--	19.3	--	--	--	--
Metals													
Aluminum	7429-90-5	D	µg/L	87	--	--	--	--	< 86.8 U	--	--	--	--
Aluminum	7429-90-5	T	µg/L	87	--	--	--	--	*< 92.9 U*	--	--	--	--
Antimony	7440-36-0	D	µg/L	80	< 5.9	< 5.9	--	< 5.9	< 0.48 U	--	--	--	--
Antimony	7440-36-0	T	µg/L	80	< 5.9	< 5.9	--	< 5.9	< 0.33 U	--	--	--	--
Arsenic	7440-38-2	D	µg/L	150	< 3.7	3.9	--	< 3.7	< 0.68 U	--	--	--	--
Arsenic	7440-38-2	T	µg/L	150	< 3.7	4.4	--	< 3.7	5.4	< 20	15.2	< 20	26
Barium	7440-39-3	D	µg/L	220	--	--	--	--	33.3	--	--	--	--
Barium	7440-39-3	T	µg/L	220	--	--	--	--	36.8	--	--	--	--
Beryllium	7440-41-7	D	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	< 0.67 U	--	--	--	--
Beryllium	7440-41-7	T	µg/L	3.6	< 0.64	< 0.64	--	< 0.64	< 1.1 U	--	--	--	--
Cadmium	7440-43-9	D	µg/L	0.2	< 0.64	< 0.64	--	< 0.64	< 0.49 U	--	--	--	--
Cadmium	7440-43-9	T	µg/L	0.31	*< 0.64*	*< 0.64*	--	*< 0.64*	*< 0.64 U*	--	--	--	--
Calcium	7440-70-2	D	µg/L		--	--	--	--	21100	--	--	--	--
Calcium	7440-70-2	T	µg/L		--	--	--	--	21100	--	--	--	--
Chromium	7440-47-3	D	µg/L	28	< 1.7	< 1.7	--	< 1.7	< 1.8 U	--	--	--	--
Chromium	7440-47-3	T	µg/L	100	< 1.7	< 1.7	--	< 1.7	< 2.0 U	--	--	--	--
Cobalt	7440-48-4	D	µg/L		--	--	--	--	< 1.9 U	--	--	--	--
Cobalt	7440-48-4	T	µg/L	24	--	--	--	--	< 0.90 U	--	--	--	--
Copper	7440-50-8	D	µg/L	9.9	< 2.4	< 2.4	--	< 2.4	< 4.1 U	--	--	--	--
Copper	7440-50-8	T	µg/L	11	< 2.4	2.5	--	< 2.4	< 3.2 U	6.8	28.4	7.7	140
Iron	7439-89-6	D	µg/L		--	--	--	--	200 J	--	--	--	--
Iron	7439-89-6	T	µg/L	300	--	--	--	--	4940	--	--	--	--
Lead	7439-92-1	D	µg/L	5.4	< 8.8	< 8.8	--	< 8.8	0.36 J	--	--	--	--
Lead	7439-92-1	T	µg/L	5.4	*< 8.8*	11.7	--	16	13.3	570	652	27	69.3
Magnesium	7439-95-4	D	µg/L	82000	--	--	--	--	8410	--	--	--	--
Magnesium	7439-95-4	T	µg/L	82000	--	--	--	--	8080	--	--	--	--
Manganese	7439-96-5	D	µg/L	120	--	--	--	--	342	--	--	--	--
Manganese	7439-96-5	T	µg/L	120	--	--	--	--	505	--	--	--	--
Mercury	7439-97-6	D	µg/L	0.77	< 0.026	< 0.026	--	< 0.026	< 0.050 U	--	--	--	--
Mercury	7439-97-6	T	µg/L	0.77	< 0.026	< 0.026	--	0.028	< 0.050 U	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	7440-02-0	D	µg/L	52	< 1.6	< 1.6	--	< 1.6	< 2.8 U	--	--	--	--
Nickel	7440-02-0	T	µg/L	61	< 1.6	< 1.6	--	< 1.6	< 2.5 U	--	--	--	--
Potassium	7440-09-7	D	µg/L		--	--	--	--	1300	--	--	--	--
Potassium	7440-09-7	T	µg/L		--	--	--	--	1320	--	--	--	--
Selenium	7782-49-2	D	µg/L	5	< 4.3	< 4.3	--	< 4.3	< 9.7 U	--	--	--	--
Selenium	7782-49-2	T	µg/L	5	5.5	< 4.3	--	< 4.3	*< 9.7 U*	*< 20*	*< 20*	*< 20*	*< 20*
Silver	7440-22-4	D	µg/L	4.4	< 1.3	< 1.3	--	< 1.3	< 1.9 U	--	--	--	--
Silver	7440-22-4	T	µg/L	5.2	< 1.3	< 1.3	--	< 1.3	< 1.8 U	< 5	< 5	< 5	< 5
Sodium	7440-23-5	D	µg/L		--	--	--	--	60900	--	--	--	--
Sodium	7440-23-5	T	µg/L		--	--	--	--	61800	--	--	--	--
Thallium	7440-28-0	D	µg/L	10	< 8.8	10	--	< 8.8	< 0.16 U	--	--	--	--
Thallium	7440-28-0	T	µg/L	10	< 8.8	< 8.8	--	< 8.8	< 0.15 U	*< 20*	*< 20*	*< 20*	*< 20*
Vanadium	7440-62-2	D	µg/L		--	--	--	--	< 1.6 U	--	--	--	--
Vanadium	7440-62-2	T	µg/L	12	--	--	--	--	< 2.3 U	--	--	--	--
Zinc	7440-66-6	D	µg/L	133	13.1	20.1	--	9.6	< 5.4 U	--	--	--	--
Zinc	7440-66-6	T	µg/L	140	25.5	16.9	--	14.5	8.1 J	19.8	407	117	187
Physical Properties													
pH	PH	N	su		--	--	--	--	7.4	--	--	--	--
Temperature	TEMP	N	deg c		--	--	--	--	23.4	--	--	--	--
SVOCs													
1,2,4-Trichlorobenzene	120-82-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
1,2-Diphenylhydrazine	122-66-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
1,3-Dichlorobenzene	541-73-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
2,4-Dichlorophenol	120-83-2	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--

				Location	SW-B8-1-01	SW-C12-1-01	SW-C12-1-01	SW-C12-2-01	SW-ERA-D13-TPND-05	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C04
				Sample Date	4/25/2001	5/2/2001	5/2/2001	4/13/2001	6/13/2016	5/24/2006	5/24/2006	5/24/2006	5/24/2006
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample ID	SW-B8-1-011N	SW-C12-1-010.5N	SW-C12-1-011N	SW-C12-2-011N	SW-ERA-D13-TPND-05	SW-R-C12-010.75N	SW-R-C12-020.5N	SW-R-C12-030.5N	SW-R-C12-040.5N
				Parent Sample ID									
				Notes									
Chemical	**CAS**	**Total or Dissolved**	**Unit**	**ESB**									
2,4-Dimethylphenol	105-67-9	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
2,4-Dinitrophenol	51-28-5	T	µg/L		< 20	< 20	--	< 19	--	--	--	--	--
2,4-Dinitrotoluene	121-14-2	T	µg/L	44	< 1	< 1	--	< 1	--	--	--	--	--
2,6-Dinitrotoluene	606-20-2	T	µg/L	81	< 2	< 2	--	< 2	--	--	--	--	--
2-Chloronaphthalene	91-58-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
2-Chlorophenol	95-57-8	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
2-Nitrophenol	88-75-5	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
3,3-Dichlorobenzidine	91-94-1	T	µg/L		< 3	< 3	--	< 3	--	--	--	--	--
4,6-Dinitro-2-methylphenol	534-52-1	T	µg/L		< 5	< 5	--	< 5	--	--	--	--	--
4-Bromophenyl-phenylether	101-55-3	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
4-Nitrophenol	100-02-7	T	µg/L		< 10	< 10	--	< 10	--	--	--	--	--
Acenaphthene	83-32-9	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Acenaphthylene	208-96-8	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Anthracene	120-12-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Benzidine	92-87-5	T	µg/L		< 20	< 20	--	< 19	--	--	--	--	--
Benzo[a]anthracene	56-55-3	T	µg/L	0.025	< *1*	< *1*	--	< *1*	--	--	--	--	--
Benzo[a]pyrene	50-32-8	T	µg/L	0.014	< *1*	< *1*	--	< *1*	--	--	--	--	--
Benzo[b]fluoranthene	205-99-2	T	µg/L	9.07	< 1	< 1	--	< 1	--	--	--	--	--
Benzo[g,h,i]perylene	191-24-2	T	µg/L	7.64	< 1	< 1	--	< 1	--	--	--	--	--
Benzo[k]fluoranthene	207-08-9	T	µg/L	9.07	< 1	< 1	--	< 1	--	--	--	--	--
Bis(2-Chloroethoxy)methane	111-91-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Bis(2-Chloroethyl)ether	111-44-4	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Bis(2-Chloroisopropyl)ether	108-60-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Bis(2-Ethylhexyl)phthalate	117-81-7	T	µg/L	0.3	< 2	< 2	--	< 2	--	--	--	--	--
Butylbenzylphthalate	85-68-7	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Chrysene	218-01-9	T	µg/L	0.28	< *1*	< *1*	--	< *1*	--	--	--	--	--
Dibenzo[a,h]anthracene	53-70-3	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Diethylphthalate	84-66-2	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Dimethylphthalate	131-11-3	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Di-n-butylphthalate	84-74-2	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Di-n-octylphthalate	117-84-0	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Fluoranthene	206-44-0	T	µg/L	1.9	< 1	< 1	--	< 1	--	--	--	--	--
Fluorene	86-73-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Hexachlorobenzene	118-74-1	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Hexachlorobutadiene	87-68-3	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	T	µg/L		< 5	< 5	--	< 5	--	--	--	--	--
Hexachloroethane	67-72-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	193-39-5	T	µg/L	4.31	< 1	< 1	--	< 1	--	--	--	--	--
Isophorone	78-59-1	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Naphthalene	91-20-3	T	µg/L	13	< 1	< 1	--	< 1	--	--	--	--	--
N-Nitrosodimethylamine	62-75-9	T	µg/L		< 2	< 2	--	< 2	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	621-64-7	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Pentachlorophenol	87-86-5	T	µg/L		< 3	< 3	--	< 3	--	--	--	--	--
Phenanthrene	85-01-8	T	µg/L	3.6	< 1	< 1	--	< 1	--	--	--	--	--
Phenol	108-95-2	T	µg/L		< 1	< 1	--	< 1	--	--	--	--	--
Pyrene	129-00-0	T	µg/L	0.3	< *1*	< *1*	--	< *1*	--	--	--	--	--
TPH													
Amyl alcohol	71-41-0	T	µg/L		< 1000	--	< 1000	< 1000	--	--	--	--	--
Di-N-Propyl Ether	111-43-3	T	µg/L		< 1000	--	< 1000	< 1000	--	--	--	--	--
Ethanol	64-17-5	T	µg/L		< 1000	--	< 1000	< 1000	--	--	--	--	--
Ethyl ether	60-29-7	T	µg/L		< 1000	--	< 1000	< 1000	--	--	--	--	--
Methanol	67-56-1	T	µg/L		< 1000	--	< 1000	< 1000	--	--	--	--	--
N-butyl ether	142-96-1	T	µg/L		< 1000	--	< 1000	< 1000	--	--	--	--	--
VOCs													
1,1,1-Trichloroethane	71-55-6	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
1,1,2-Trichloroethane	79-00-5	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
1,1-Dichloroethane	75-34-3	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
1,1-Dichloroethene	75-35-4	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
1,2-Dichloroethane	107-06-2	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
1,2-Dichloropropane	78-87-5	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
2-Chloroethylvinylether	110-75-8	T	µg/L		< 2	--	< 2	< 2	--	--	--	--	--
Acrolein	107-02-8	T	µg/L		< 40	--	< 40	< 40	--	--	--	--	--
Acrylonitrile	107-13-1	T	µg/L		< 4	--	< 4	< 4	--	--	--	--	--
Benzene	71-43-2	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Bromodichloromethane	75-27-4	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Bromoform	75-25-2	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Bromomethane	74-83-9	T	µg/L		< 2	--	< 2	< 2	--	--	--	--	--
Carbon Tetrachloride	56-23-5	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Chlorobenzene	108-90-7	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Chloroethane	75-00-3	T	µg/L		< 2	--	< 2	< 2	--	--	--	--	--
Chloroform	67-66-3	T	µg/L	140	< 1	--	< 1	< 1	--	--	--	--	--
Chloromethane	74-87-3	T	µg/L		< 2	--	< 2	< 2	--	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	T	µg/L	590	< 1	--	< 1	< 1	--	--	--	--	--
Cis-1,3-Dichloropropene	10061-01-5	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Dibromochloromethane	124-48-1	T	µg/L	35000	< 1	--	< 1	< 1	--	--	--	--	--
Ethylbenzene	100-41-4	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Methylene Chloride	75-09-2	T	µg/L		< 2	--	< 2	< 2	--	--	--	--	--
Tetrachloroethene	127-18-4	T	µg/L	45	< 1	--	< 1	< 1	--	--	--	--	--
Toluene	108-88-3	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
trans-1,2-Dichloroethene	156-60-5	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Trans-1,3-Dichloropropene	10061-02-6	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--
Trichloroethene	79-01-6	T	µg/L		< 1	--	< 1	< 1	--	--	--	--	--

					Location	SW-B8-1-01	SW-C12-1-01	SW-C12-1-01	SW-C12-2-01	SW-ERA-D13-TPND-05	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C12-04
					Sample Date	4/25/2001	5/2/2001	5/2/2001	4/13/2001	6/13/2016	5/24/2006	5/24/2006	5/24/2006	5/24/2006
					Sample Type	N	N	N	N	N	N	N	N	N
					Sample ID	SW-B8-1-011N	SW-C12-1-010.5N	SW-C12-1-011N	SW-C12-2-011N	SW-ERA-D13-TPND-05	SW-R-C12-010.75N	SW-R-C12-020.5N	SW-R-C12-030.5N	SW-R-C12-040.5N
					Parent Sample ID									
					Notes									
Chemical	CAS	Total or Dissolved	Unit	ESB										
Trichlorofluoromethane	75-69-4	T	µg/L			< 2	--	< 2	< 2	--	--	--	--	--
Vinyl Chloride	75-01-4	T	µg/L			< 1	--	< 1	< 1	--	--	--	--	--
Xylenes (total)	1330-20-7	T	µg/L			< 1	--	< 1	< 1	--	--	--	--	--

11 Detected concentrations above the screening level are shaded

Abbreviations and Symbols

" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
mg/l = milligrams per liter
SU = standard units
µg/L = micrograms per liter

Action Levels

ESB = Ecological Screening Benchmarks

Appendix E.4

ERA Dataset – Aerial Insect Tissue Data

Appendix E. ERA Aerial Insect Tissue Dataset
Ecological Risk Assessment
Hercules LLC, Former Kenvil Works Facility
Kenvil, New Jersey

			Location ID	TI-ERA-C12-TPND-01	TI-ERA-D13-CDB-01	TI-ERA-E10-MNG-01	TI-ERA-E14-CDB-02	TI-ERA-E14-MOSU-02	TI-ERA-F14-MDE-01	TI-ERA-F14-MOSU-03	TI-ERA-G12-MDE-03	TI-ERA-K5-WT-02	TI-ERA-K5-WT-04
			Date	06/21/2016	06/14/2016	06/21/2016	06/14/2016	06/16/2016	06/13/2016	06/14/2016	06/13/2016	06/06/2016	06/07/2016
			Sample ID	TI-ERA-C12-TPND-01	TI-ERA-D13-CDB-01	TI-ERA-E10-MNG-01	TI-ERA-E14/D14-CDB-02	TI-ERA-E14-MOSU-02	TI-ERA-F14/G13-MDE-01	TI-ERA-F14-MOSU-03	TI-ERA-G12-MDE-03	TI-ERA-K5-WT-02	TI-ERA-K5/L5-WT-01
Method Group	**Chemical**	**CasRN**	**Unit**										
Metals	Copper	7440-50-8	mg/kg	31.8	25.7	27.1	22		34.4		28	37.5	36.7
	Lead	7439-92-1	mg/kg	< 1.68 U	< 1.35 U	< 1.35 U	< 1.55 U	< 1.46 U	< 1.62 U	< 2.11 U	< 1.06 U	1.85 J	< 0.981 U
SVOCs - SIM	Fluoranthene	206-44-0	mg/kg		< 0.085 U		< 0.06 U						

Notes:
< = non-detect result
J = estimated concentration
SVOC = semivolatile organic compound
mg/kg = milligrams per kilogram

			Location ID	TI-ERA-L5-DP-01	TI-ERA-M5-DP-02	TI-ERA-N7-UP-01	TI-ERA-O4-NP-01	TI-ERA-O4-NP-01
			Date	06/06/2016	06/06/2016	06/08/2016	06/21/2016	06/06/2016
			Sample ID	TI-ERA-L5-DP-01	TI-ERA-M5-DP-02	TI-ERA-N7-UP-01/02	TI-ERA-D12/D13-MDW-01	TI-ERA-O4-NP-01
Method Group	**Chemical**	**CasRN**	**Unit**					
Metals	Copper	7440-50-8	mg/kg	37.4	38.1	36.2	26.5	38.6
	Lead	7439-92-1	mg/kg	2.13 J	1.63 J	< 1.39 U	< 1.60 U	
SVOCs - SIM	Fluoranthene	206-44-0	mg/kg					

Notes:
< = non-detect result
J = estimated concentration
SVOC = semivolatile organic compound
mg/kg = milligrams per kilogram

Appendix F

ProUCL Output Files

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/23/2025 3:21:54 PM
From File	Soil_ERA.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

2,4,6-Trinitrotoluene

General Statistics

Total Number of Observations	767	Number of Distinct Observations	154
		Number of Missing Observations	895
Number of Detects	103	Number of Non-Detects	664
Number of Distinct Detects	85	Number of Distinct Non-Detects	79
Minimum Detect	84	Minimum Non-Detect	6.5
Maximum Detect	350000	Maximum Non-Detect	1150
Variance Detects	1.188E+9	Percent Non-Detects	86.57%
Mean Detects	5392	SD Detects	34473
Median Detects	680	CV Detects	6.394
Skewness Detects	9.988	Kurtosis Detects	100.7
Mean of Logged Detects	6.733	SD of Logged Detects	1.432

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.146	**Normal GOF Test on Detected Observations Only**
1% Shapiro Wilk P Value	0	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.439	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.101	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	731.7	KM Standard Error of Mean	461
90KM SD	12704	95% KM (BCA) UCL	1669
95% KM (t) UCL	1491	95% KM (Percentile Bootstrap) UCL	1643
95% KM (z) UCL	1490	95% KM Bootstrap t UCL	6578
90% KM Chebyshev UCL	2115	95% KM Chebyshev UCL	2741
97.5% KM Chebyshev UCL	3611	99% KM Chebyshev UCL	5318

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	12.11	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.853	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.251	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0955	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.36	k star (bias corrected MLE)	0.356
Theta hat (MLE)	14975	Theta star (bias corrected MLE)	15144
nu hat (MLE)	74.17	nu star (bias corrected)	73.34
Mean (detects)	5392		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	724
Maximum	350000	Median	0.01
SD	12713	CV	17.56
k hat (MLE)	0.0856	k star (bias corrected MLE)	0.0861
Theta hat (MLE)	8457	Theta star (bias corrected MLE)	8405
nu hat (MLE)	131.3	nu star (bias corrected)	132.1
Adjusted Level of Significance (β)	0.0497		
Approximate Chi Square Value (132.15, α)	106.6	Adjusted Chi Square Value (132.15, β)	106.5
95% Gamma Approximate UCL	897.6	95% Gamma Adjusted UCL	898

68												
69	**Estimates of Gamma Parameters using KM Estimates**											
70					Mean (KM)	731.7				SD (KM)	12704	
71					Variance (KM)	1.614E+8				SE of Mean (KM)	461	
72					k hat (KM)	0.00332				k star (KM)	0.00417	
73					nu hat (KM)	5.089				nu star (KM)	6.402	
74					theta hat (KM)	220572				theta star (KM)	175323	
75					80% gamma percentile (KM)	5.964E-19				90% gamma percentile (KM)	1.0750E-6	
76					95% gamma percentile (KM)	0.454				99% gamma percentile (KM)	9368	
77												
78	**Gamma Kaplan-Meier (KM) Statistics**											
79					Approximate Chi Square Value (6.40, α)	1.849				Adjusted Chi Square Value (6.40, β)	1.844	
80					95% KM Approximate Gamma UCL	2534				95% KM Adjusted Gamma UCL	2540	
81												
82	**Lognormal GOF Test on Detected Observations Only**											
83					Shapiro Wilk Approximate Test Statistic	0.942				**Shapiro Wilk GOF Test**		
84					10% Shapiro Wilk P Value	2.8489E-4				Detected Data Not Lognormal at 10% Significance Level		
85					Lilliefors Test Statistic	0.091				**Lilliefors GOF Test**		
86					10% Lilliefors Critical Value	0.0801				Detected Data Not Lognormal at 10% Significance Level		
87	**Detected Data Not Lognormal at 10% Significance Level**											
88												
89	**Lognormal ROS Statistics Using Imputed Non-Detects**											
90					Mean in Original Scale	734.6				Mean in Log Scale	1.438	
91					SD in Original Scale	12713				SD in Log Scale	3.085	
92					95% t UCL (assumes normality of ROS data)	1491				95% Percentile Bootstrap UCL	1639	
93					95% BCA Bootstrap UCL	2139				95% Bootstrap t UCL	6422	
94					95% H-UCL (Log ROS)	788.7						
95												
96	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
97					KM Mean (logged)	2.573				KM Geo Mean	13.11	
98					KM SD (logged)	1.761				95% Critical H Value (KM-Log)	2.782	
99					KM Standard Error of Mean (logged)	0.0666				95% H-UCL (KM -Log)	73.73	
100					KM SD (logged)	1.761				95% Critical H Value (KM-Log)	2.782	
101					KM Standard Error of Mean (logged)	0.0666						
102	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
103												
104	**DL/2 Statistics**											
105	**DL/2 Normal**									**DL/2 Log-Transformed**		
106					Mean in Original Scale	773.4				Mean in Log Scale	3.961	
107					SD in Original Scale	12710				SD in Log Scale	1.643	
108					95% t UCL (Assumes normality)	1529				95% H-Stat UCL	237.4	
109	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
110												
111	**Nonparametric Distribution Free UCL Statistics**											
112	**Data do not follow a Discernible Distribution**											
113												
114	**Suggested UCL to Use**											
115					95% KM (t) UCL	1491						
116												
117	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
118	**Please verify the data were collected from random locations.**											
119	**If the data were collected using judgmental or other non-random methods,**											
120	**then contact a statistician to correctly calculate UCLs.**											
121												
122	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
123	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
124	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
125												
126	**2-Amino-4,6-dinitrotoluene**											
127												
128	**General Statistics**											
129					Total Number of Observations	767				Number of Distinct Observations	89	
130										Number of Missing Observations	895	
131					Number of Detects	11				Number of Non-Detects	756	
132					Number of Distinct Detects	11				Number of Distinct Non-Detects	81	
133					Minimum Detect	69				Minimum Non-Detect	6.5	
134					Maximum Detect	290000				Maximum Non-Detect	3750	

135					Variance Detects	7.628E+9					Percent Non-Detects	98.57%
136					Mean Detects	26662					SD Detects	87340
137					Median Detects	260					CV Detects	3.276
138					Skewness Detects	3.317					Kurtosis Detects	11
139					Mean of Logged Detects	6.197					SD of Logged Detects	2.229
140												
141					**Normal GOF Test on Detects Only**							
142					Shapiro Wilk Test Statistic	0.347					**Shapiro Wilk GOF Test**	
143					1% Shapiro Wilk Critical Value	0.792					Detected Data Not Normal at 1% Significance Level	
144					Lilliefors Test Statistic	0.525					**Lilliefors GOF Test**	
145					1% Lilliefors Critical Value	0.291					Detected Data Not Normal at 1% Significance Level	
146					**Detected Data Not Normal at 1% Significance Level**							
147												
148					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
149					KM Mean	389.1					KM Standard Error of Mean	396.3
150					90KM SD	10464					95% KM (BCA) UCL	1147
151					95% KM (t) UCL	1042					95% KM (Percentile Bootstrap) UCL	1145
152					95% KM (z) UCL	1041					95% KM Bootstrap t UCL	127712
153					90% KM Chebyshev UCL	1578					95% KM Chebyshev UCL	2116
154					97.5% KM Chebyshev UCL	2864					99% KM Chebyshev UCL	4332
155												
156					**Gamma GOF Tests on Detected Observations Only**							
157					A-D Test Statistic	2.892					**Anderson-Darling GOF Test**	
158					5% A-D Critical Value	0.874					Detected Data Not Gamma Distributed at 5% Significance Level	
159					K-S Test Statistic	0.493					**Kolmogorov-Smirnov GOF**	
160					5% K-S Critical Value	0.283					Detected Data Not Gamma Distributed at 5% Significance Level	
161					**Detected Data Not Gamma Distributed at 5% Significance Level**							
162												
163					**Gamma Statistics on Detected Data Only**							
164					k hat (MLE)	0.186					k star (bias corrected MLE)	0.196
165					Theta hat (MLE)	143110					Theta star (bias corrected MLE)	135961
166					nu hat (MLE)	4.099					nu star (bias corrected)	4.314
167					Mean (detects)	26662						
168												
169					**Gamma ROS Statistics using Imputed Non-Detects**							
170					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
171					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
172					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
173					This is especially true when the sample size is small.							
174					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
175					Minimum	0.01					Mean	382.4
176					Maximum	290000					Median	0.01
177					SD	10471					CV	27.38
178					k hat (MLE)	0.0802					k star (bias corrected MLE)	0.0808
179					Theta hat (MLE)	4767					Theta star (bias corrected MLE)	4735
180					nu hat (MLE)	123					nu star (bias corrected)	123.9
181					Adjusted Level of Significance (β)	0.0497						
182					Approximate Chi Square Value (123.89, α)	99.19					Adjusted Chi Square Value (123.89, β)	99.15
183					95% Gamma Approximate UCL	477.6					95% Gamma Adjusted UCL	477.8
184												
185					**Estimates of Gamma Parameters using KM Estimates**							
186					Mean (KM)	389.1					SD (KM)	10464
187					Variance (KM)	1.095E+8					SE of Mean (KM)	396.3
188					k hat (KM)	0.00138					k star (KM)	0.00225
189					nu hat (KM)	2.121					nu star (KM)	3.446
190					theta hat (KM)	281422					theta star (KM)	173209
191					80% gamma percentile (KM)	7.047E-39					90% gamma percentile (KM)	4.161E-16
192					95% gamma percentile (KM)	1.1805E-5					99% gamma percentile (KM)	1118
193												
194					**Gamma Kaplan-Meier (KM) Statistics**							
195					Approximate Chi Square Value (3.45, α)	0.516					Adjusted Chi Square Value (3.45, β)	0.514
196					95% KM Approximate Gamma UCL	2599					95% KM Adjusted Gamma UCL	2608
197												
198					**Lognormal GOF Test on Detected Observations Only**							
199					Shapiro Wilk Test Statistic	0.655					**Shapiro Wilk GOF Test**	
200					10% Shapiro Wilk Critical Value	0.876					Detected Data Not Lognormal at 10% Significance Level	
201					Lilliefors Test Statistic	0.313					**Lilliefors GOF Test**	

202				10% Lilliefors Critical Value		0.231	Detected Data Not Lognormal at 10% Significance Level					
203	**Detected Data Not Lognormal at 10% Significance Level**											
204												
205	**Lognormal ROS Statistics Using Imputed Non-Detects**											
206				Mean in Original Scale		382.5				Mean in Log Scale		-9.659
207				SD in Original Scale		10471				SD in Log Scale		5.609
208			95% t UCL (assumes normality of ROS data)			1005				95% Percentile Bootstrap UCL		1138
209				95% BCA Bootstrap UCL		1519				95% Bootstrap t UCL		132315
210				95% H-UCL (Log ROS)		1902						
211												
212	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
213				KM Mean (logged)		1.942				KM Geo Mean		6.975
214				KM SD (logged)		0.593				95% Critical H Value (KM-Log)		1.825
215			KM Standard Error of Mean (logged)			0.0238				95% H-UCL (KM -Log)		8.645
216				KM SD (logged)		0.593				95% Critical H Value (KM-Log)		1.825
217			KM Standard Error of Mean (logged)			0.0238						
218	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
219												
220	**DL/2 Statistics**											
221	**DL/2 Normal**									**DL/2 Log-Transformed**		
222				Mean in Original Scale		436.8				Mean in Log Scale		3.45
223				SD in Original Scale		10470				SD in Log Scale		1.296
224				95% t UCL (Assumes normality)		1059				95% H-Stat UCL		81.43
225	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
226												
227	**Nonparametric Distribution Free UCL Statistics**											
228	**Data do not follow a Discernible Distribution**											
229												
230	**Suggested UCL to Use**											
231				95% KM (t) UCL		1042						
232												
233	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
234	**Please verify the data were collected from random locations.**											
235	**If the data were collected using judgmental or other non-random methods,**											
236	**then contact a statistician to correctly calculate UCLs.**											
237												
238	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
239	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
240	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
241												
242	**4-Amino-2,6-dinitrotoluene**											
243												
244	**General Statistics**											
245				Total Number of Observations		767				Number of Distinct Observations		97
246										Number of Missing Observations		895
247				Number of Detects		14				Number of Non-Detects		753
248				Number of Distinct Detects		13				Number of Distinct Non-Detects		88
249				Minimum Detect		98				Minimum Non-Detect		6.5
250				Maximum Detect		200000				Maximum Non-Detect		1400
251				Variance Detects		2.847E+9				Percent Non-Detects		98.17%
252				Mean Detects		14614				SD Detects		53358
253				Median Detects		328				CV Detects		3.651
254				Skewness Detects		3.742				Kurtosis Detects		14
255				Mean of Logged Detects		6.126				SD of Logged Detects		1.873
256												
257	**Normal GOF Test on Detects Only**											
258				Shapiro Wilk Test Statistic		0.3				**Shapiro Wilk GOF Test**		
259				1% Shapiro Wilk Critical Value		0.825				Detected Data Not Normal at 1% Significance Level		
260				Lilliefors Test Statistic		0.531				**Lilliefors GOF Test**		
261				1% Lilliefors Critical Value		0.263				Detected Data Not Normal at 1% Significance Level		
262	**Detected Data Not Normal at 1% Significance Level**											
263												
264	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
265				KM Mean		273.8				KM Standard Error of Mean		270.4
266				90KM SD		7217				95% KM (BCA) UCL		796.8
267				95% KM (t) UCL		719.1				95% KM (Percentile Bootstrap) UCL		794.8
268				95% KM (z) UCL		718.5				95% KM Bootstrap t UCL		44566

269				90% KM Chebyshev UCL	1085					95% KM Chebyshev UCL	1452	
270				97.5% KM Chebyshev UCL	1962					99% KM Chebyshev UCL	2964	
271												
272				**Gamma GOF Tests on Detected Observations Only**								
273				A-D Test Statistic	3.788				**Anderson-Darling GOF Test**			
274				5% A-D Critical Value	0.874				Detected Data Not Gamma Distributed at 5% Significance Level			
275				K-S Test Statistic	0.509				**Kolmogorov-Smirnov GOF**			
276				5% K-S Critical Value	0.252				Detected Data Not Gamma Distributed at 5% Significance Level			
277				**Detected Data Not Gamma Distributed at 5% Significance Level**								
278												
279				**Gamma Statistics on Detected Data Only**								
280				k hat (MLE)	0.211				k star (bias corrected MLE)		0.213	
281				Theta hat (MLE)	69355				Theta star (bias corrected MLE)		68553	
282				nu hat (MLE)	5.9				nu star (bias corrected)		5.969	
283				Mean (detects)	14614							
284												
285				**Gamma ROS Statistics using Imputed Non-Detects**								
286				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
287				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
288				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
289				This is especially true when the sample size is small.								
290				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
291				Minimum	0.01				Mean		266.8	
292				Maximum	200000				Median		0.01	
293				SD	7222				CV		27.07	
294				k hat (MLE)	0.0831				k star (bias corrected MLE)		0.0836	
295				Theta hat (MLE)	3211				Theta star (bias corrected MLE)		3190	
296				nu hat (MLE)	127.5				nu star (bias corrected)		128.3	
297				Adjusted Level of Significance (β)	0.0497							
298				Approximate Chi Square Value (128.29, α)	103.1				Adjusted Chi Square Value (128.29, β)		103.1	
299				95% Gamma Approximate UCL	331.8				95% Gamma Adjusted UCL		332	
300												
301				**Estimates of Gamma Parameters using KM Estimates**								
302				Mean (KM)	273.8				SD (KM)		7217	
303				Variance (KM)	52079366				SE of Mean (KM)		270.4	
304				k hat (KM)	0.00144				k star (KM)		0.0023	
305				nu hat (KM)	2.207				nu star (KM)		3.532	
306				theta hat (KM)	190242				theta star (KM)		118892	
307				80% gamma percentile (KM)	5.455E-38				90% gamma percentile (KM)		8.966E-16	
308				95% gamma percentile (KM)	1.4143E-5				99% gamma percentile (KM)		856.6	
309												
310				**Gamma Kaplan-Meier (KM) Statistics**								
311				Approximate Chi Square Value (3.53, α)	0.546				Adjusted Chi Square Value (3.53, β)		0.544	
312				95% KM Approximate Gamma UCL	1771				95% KM Adjusted Gamma UCL		1777	
313												
314				**Lognormal GOF Test on Detected Observations Only**								
315				Shapiro Wilk Test Statistic	0.641				**Shapiro Wilk GOF Test**			
316				10% Shapiro Wilk Critical Value	0.895				Detected Data Not Lognormal at 10% Significance Level			
317				Lilliefors Test Statistic	0.326				**Lilliefors GOF Test**			
318				10% Lilliefors Critical Value	0.208				Detected Data Not Lognormal at 10% Significance Level			
319				**Detected Data Not Lognormal at 10% Significance Level**								
320												
321				**Lognormal ROS Statistics Using Imputed Non-Detects**								
322				Mean in Original Scale	267.2				Mean in Log Scale		-6.197	
323				SD in Original Scale	7222				SD in Log Scale		4.501	
324				95% t UCL (assumes normality of ROS data)	696.6				95% Percentile Bootstrap UCL		788.1	
325				95% BCA Bootstrap UCL	1052				95% Bootstrap t UCL		46204	
326				95% H-UCL (Log ROS)	134.1							
327												
328				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
329				KM Mean (logged)	1.964				KM Geo Mean		7.129	
330				KM SD (logged)	0.652				95% Critical H Value (KM-Log)		1.857	
331				KM Standard Error of Mean (logged)	0.0267				95% H-UCL (KM -Log)		9.212	
332				KM SD (logged)	0.652				95% Critical H Value (KM-Log)		1.857	
333				KM Standard Error of Mean (logged)	0.0267							
334				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
335												

336	**DL/2 Statistics**											
337	**DL/2 Normal**						**DL/2 Log-Transformed**					
338				Mean in Original Scale		320.5				Mean in Log Scale		3.465
339				SD in Original Scale		7220				SD in Log Scale		1.305
340				95% t UCL (Assumes normality)		749.8				95% H-Stat UCL		83.67
341	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
342												
343	**Nonparametric Distribution Free UCL Statistics**											
344	**Data do not follow a Discernible Distribution**											
345												
346	**Suggested UCL to Use**											
347				95% KM (t) UCL		719.1						
348												
349	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
350	**Please verify the data were collected from random locations.**											
351	**If the data were collected using judgmental or other non-random methods,**											
352	**then contact a statistician to correctly calculate UCLs.**											
353												
354	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
355	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
356	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
357												
358	**Nitrocellulose**											
359												
360	**General Statistics**											
361				Total Number of Observations		742				Number of Distinct Observations		405
362										Number of Missing Observations		920
363				Number of Detects		378				Number of Non-Detects		364
364				Number of Distinct Detects		330				Number of Distinct Non-Detects		86
365				Minimum Detect		22000				Minimum Non-Detect		11
366				Maximum Detect		33700000				Maximum Non-Detect		445000
367				Variance Detects		1.292E+13				Percent Non-Detects		49.06%
368				Mean Detects		1261248				SD Detects		3594755
369				Median Detects		169500				CV Detects		2.85
370				Skewness Detects		5.914				Kurtosis Detects		42.17
371				Mean of Logged Detects		12.53				SD of Logged Detects		1.558
372												
373	**Normal GOF Test on Detects Only**											
374				Shapiro Wilk Test Statistic		0.37	**Normal GOF Test on Detected Observations Only**					
375				1% Shapiro Wilk P Value		0	Detected Data Not Normal at 1% Significance Level					
376				Lilliefors Test Statistic		0.365	**Lilliefors GOF Test**					
377				1% Lilliefors Critical Value		0.0531	Detected Data Not Normal at 1% Significance Level					
378	**Detected Data Not Normal at 1% Significance Level**											
379												
380	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
381				KM Mean		648244				KM Standard Error of Mean		96955
382				90KM SD		2637451				95% KM (BCA) UCL		815638
383				95% KM (t) UCL		807920				95% KM (Percentile Bootstrap) UCL		818037
384				95% KM (z) UCL		807721				95% KM Bootstrap t UCL		857298
385				90% KM Chebyshev UCL		939109				95% KM Chebyshev UCL		1070861
386				97.5% KM Chebyshev UCL		1253728				99% KM Chebyshev UCL		1612935
387												
388	**Gamma GOF Tests on Detected Observations Only**											
389				A-D Test Statistic		30.83	**Anderson-Darling GOF Test**					
390				5% A-D Critical Value		0.84	Detected Data Not Gamma Distributed at 5% Significance Level					
391				K-S Test Statistic		0.197	**Kolmogorov-Smirnov GOF**					
392				5% K-S Critical Value		0.0499	Detected Data Not Gamma Distributed at 5% Significance Level					
393	**Detected Data Not Gamma Distributed at 5% Significance Level**											
394												
395	**Gamma Statistics on Detected Data Only**											
396				k hat (MLE)		0.428				k star (bias corrected MLE)		0.427
397				Theta hat (MLE)		2943668				Theta star (bias corrected MLE)		2954957
398				nu hat (MLE)		323.9				nu star (bias corrected)		322.7
399				Mean (detects)		1261248						
400												
401	**Gamma ROS Statistics using Imputed Non-Detects**											
402	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											

403	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
404	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
405	This is especially true when the sample size is small.											
406	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
407					Minimum	0.01				Mean	642522	
408					Maximum	33700000				Median	40750	
409					SD	2640561				CV	4.11	
410					k hat (MLE)	0.0891				k star (bias corrected MLE)	0.0896	
411					Theta hat (MLE)	7214695				Theta star (bias corrected MLE)	7171340	
412					nu hat (MLE)	132.2				nu star (bias corrected)	133	
413					Adjusted Level of Significance (β)	0.0497						
414					Approximate Chi Square Value (132.96, α)	107.3				Adjusted Chi Square Value (132.96, β)	107.3	
415					95% Gamma Approximate UCL	796017				95% Gamma Adjusted UCL	796347	
416												
417	**Estimates of Gamma Parameters using KM Estimates**											
418					Mean (KM)	648244				SD (KM)	2637451	
419					Variance (KM)	6.956E+12				SE of Mean (KM)	96955	
420					k hat (KM)	0.0604				k star (KM)	0.0611	
421					nu hat (KM)	89.65				nu star (KM)	90.62	
422					theta hat (KM)	10730762				theta star (KM)	10615795	
423					80% gamma percentile (KM)	164343				90% gamma percentile (KM)	1240837	
424					95% gamma percentile (KM)	3646816				99% gamma percentile (KM)	12979059	
425												
426	**Gamma Kaplan-Meier (KM) Statistics**											
427					Approximate Chi Square Value (90.62, α)	69.67				Adjusted Chi Square Value (90.62, β)	69.63	
428					95% KM Approximate Gamma UCL	843174				95% KM Adjusted Gamma UCL	843604	
429												
430	**Lognormal GOF Test on Detected Observations Only**											
431					Shapiro Wilk Approximate Test Statistic	0.897				**Shapiro Wilk GOF Test**		
432					10% Shapiro Wilk P Value	0				Detected Data Not Lognormal at 10% Significance Level		
433					Lilliefors Test Statistic	0.129				**Lilliefors GOF Test**		
434					10% Lilliefors Critical Value	0.0421				Detected Data Not Lognormal at 10% Significance Level		
435	**Detected Data Not Lognormal at 10% Significance Level**											
436												
437	**Lognormal ROS Statistics Using Imputed Non-Detects**											
438					Mean in Original Scale	649404				Mean in Log Scale	10.76	
439					SD in Original Scale	2638917				SD in Log Scale	2.291	
440					95% t UCL (assumes normality of ROS data)	808953				95% Percentile Bootstrap UCL	813945	
441					95% BCA Bootstrap UCL	829740				95% Bootstrap t UCL	855003	
442					95% H-UCL (Log ROS)	856446						
443												
444	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
445					KM Mean (logged)	8.411				KM Geo Mean	4498	
446					KM SD (logged)	4.962				95% Critical H Value (KM-Log)	6.488	
447					KM Standard Error of Mean (logged)	0.213				95% H-UCL (KM -Log)	3.261E+9	
448					KM SD (logged)	4.962				95% Critical H Value (KM-Log)	6.488	
449					KM Standard Error of Mean (logged)	0.213						
450												
451	**DL/2 Statistics**											
452					**DL/2 Normal**					**DL/2 Log-Transformed**		
453					Mean in Original Scale	655237				Mean in Log Scale	10.63	
454					SD in Original Scale	2637548				SD in Log Scale	3.087	
455					95% t UCL (Assumes normality)	814703				95% H-Stat UCL	7822990	
456	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
457												
458	**Nonparametric Distribution Free UCL Statistics**											
459	**Data do not follow a Discernible Distribution**											
460												
461	**Suggested UCL to Use**											
462					95% KM (t) UCL	807920						
463												
464	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
465	**Please verify the data were collected from random locations.**											
466	**If the data were collected using judgmental or other non-random methods,**											
467	**then contact a statistician to correctly calculate UCLs.**											
468												
469	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

	A	B	C	D	E	F	G	H	I	J	K	L
470	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
471	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
472												
473	**Nitroglycerin**											
474												
475	**General Statistics**											
476	Total Number of Observations					779	Number of Distinct Observations					326
477							Number of Missing Observations					883
478	Number of Detects					224	Number of Non-Detects					555
479	Number of Distinct Detects					155	Number of Distinct Non-Detects					184
480	Minimum Detect					570	Minimum Non-Detect					174.5
481	Maximum Detect					3900000	Maximum Non-Detect					22500
482	Variance Detects					1.114E+11	Percent Non-Detects					71.25%
483	Mean Detects					106167	SD Detects					333804
484	Median Detects					15350	CV Detects					3.144
485	Skewness Detects					7.773	Kurtosis Detects					78.03
486	Mean of Logged Detects					10.04	SD of Logged Detects					1.569
487												
488	**Normal GOF Test on Detects Only**											
489	Shapiro Wilk Test Statistic					0.342	**Normal GOF Test on Detected Observations Only**					
490	1% Shapiro Wilk P Value					0	Detected Data Not Normal at 1% Significance Level					
491	Lilliefors Test Statistic					0.376	**Lilliefors GOF Test**					
492	1% Lilliefors Critical Value					0.0689	Detected Data Not Normal at 1% Significance Level					
493	**Detected Data Not Normal at 1% Significance Level**											
494												
495	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
496	KM Mean					30707	KM Standard Error of Mean					6640
497	90KM SD					184920	95% KM (BCA) UCL					44262
498	95% KM (t) UCL					41642	95% KM (Percentile Bootstrap) UCL					42930
499	95% KM (z) UCL					41629	95% KM Bootstrap t UCL					49220
500	90% KM Chebyshev UCL					50627	95% KM Chebyshev UCL					59651
501	97.5% KM Chebyshev UCL					72175	99% KM Chebyshev UCL					96777
502												
503	**Gamma GOF Tests on Detected Observations Only**											
504	A-D Test Statistic					17.09	**Anderson-Darling GOF Test**					
505	5% A-D Critical Value					0.839	Detected Data Not Gamma Distributed at 5% Significance Level					
506	K-S Test Statistic					0.205	**Kolmogorov-Smirnov GOF**					
507	5% K-S Critical Value					0.065	Detected Data Not Gamma Distributed at 5% Significance Level					
508	**Detected Data Not Gamma Distributed at 5% Significance Level**											
509												
510	**Gamma Statistics on Detected Data Only**											
511	k hat (MLE)					0.425	k star (bias corrected MLE)					0.422
512	Theta hat (MLE)					249793	Theta star (bias corrected MLE)					251399
513	nu hat (MLE)					190.4	nu star (bias corrected)					189.2
514	Mean (detects)					106167						
515												
516	**Gamma ROS Statistics using Imputed Non-Detects**											
517	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
518	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
519	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
520	This is especially true when the sample size is small.											
521	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
522	Minimum					0.01	Mean					30528
523	Maximum					3900000	Median					0.01
524	SD					185068	CV					6.062
525	k hat (MLE)					0.078	k star (bias corrected MLE)					0.0786
526	Theta hat (MLE)					391234	Theta star (bias corrected MLE)					388469
527	nu hat (MLE)					121.6	nu star (bias corrected)					122.4
528	Adjusted Level of Significance (β)					0.0497						
529	Approximate Chi Square Value (122.44, α)					97.88	Adjusted Chi Square Value (122.44, β)					97.84
530	95% Gamma Approximate UCL					38186	95% Gamma Adjusted UCL					38202
531												
532	**Estimates of Gamma Parameters using KM Estimates**											
533	Mean (KM)					30707	SD (KM)					184920
534	Variance (KM)					3.420E+10	SE of Mean (KM)					6640
535	k hat (KM)					0.0276	k star (KM)					0.0283
536	nu hat (KM)					42.96	nu star (KM)					44.13

537					theta hat (KM)	1113621					theta star (KM)	1084148
538					80% gamma percentile (KM)	236					90% gamma percentile (KM)	15303
539					95% gamma percentile (KM)	112353					99% gamma percentile (KM)	804616
540												
541					**Gamma Kaplan-Meier (KM) Statistics**							
542					Approximate Chi Square Value (44.13, α)	29.89					Adjusted Chi Square Value (44.13, β)	29.87
543					95% KM Approximate Gamma UCL	45329					95% KM Adjusted Gamma UCL	45362
544												
545					**Lognormal GOF Test on Detected Observations Only**							
546					Shapiro Wilk Approximate Test Statistic	0.942	**Shapiro Wilk GOF Test**					
547					10% Shapiro Wilk P Value	2.803E-10	Detected Data Not Lognormal at 10% Significance Level					
548					Lilliefors Test Statistic	0.108	**Lilliefors GOF Test**					
549					10% Lilliefors Critical Value	0.0546	Detected Data Not Lognormal at 10% Significance Level					
550					**Detected Data Not Lognormal at 10% Significance Level**							
551												
552					**Lognormal ROS Statistics Using Imputed Non-Detects**							
553					Mean in Original Scale	30808					Mean in Log Scale	6.5
554					SD in Original Scale	185022					SD in Log Scale	2.735
555					95% t UCL (assumes normality of ROS data)	41725					95% Percentile Bootstrap UCL	42660
556					95% BCA Bootstrap UCL	45995					95% Bootstrap t UCL	48949
557					95% H-UCL (Log ROS)	40762						
558												
559					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
560					KM Mean (logged)	6.619					KM Geo Mean	749
561					KM SD (logged)	2.361					95% Critical H Value (KM-Log)	3.419
562					KM Standard Error of Mean (logged)	0.0868					95% H-UCL (KM -Log)	16225
563					KM SD (logged)	2.361					95% Critical H Value (KM-Log)	3.419
564					KM Standard Error of Mean (logged)	0.0868						
565					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
566												
567					**DL/2 Statistics**							
568					**DL/2 Normal**		**DL/2 Log-Transformed**					
569					Mean in Original Scale	31369					Mean in Log Scale	7.551
570					SD in Original Scale	184932					SD in Log Scale	2.054
571					95% t UCL (Assumes normality)	42280					95% H-Stat UCL	19673
572					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
573												
574					**Nonparametric Distribution Free UCL Statistics**							
575					**Data do not follow a Discernible Distribution**							
576												
577					**Suggested UCL to Use**							
578					95% KM (t) UCL	41642						
579												
580					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
581					**Please verify the data were collected from random locations.**							
582					**If the data were collected using judgmental or other non-random methods,**							
583					**then contact a statistician to correctly calculate UCLs.**							
584												
585					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
586					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
587					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
588												
589	**Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)**											
590												
591					**General Statistics**							
592					Total Number of Observations	767					Number of Distinct Observations	109
593											Number of Missing Observations	895
594					Number of Detects	18					Number of Non-Detects	749
595					Number of Distinct Detects	18					Number of Distinct Non-Detects	92
596					Minimum Detect	300					Minimum Non-Detect	11
597					Maximum Detect	8500000					Maximum Non-Detect	2850
598					Variance Detects	4.002E+12					Percent Non-Detects	97.65%
599					Mean Detects	484919					SD Detects	2000506
600					Median Detects	1870					CV Detects	4.125
601					Skewness Detects	4.241					Kurtosis Detects	17.99
602					Mean of Logged Detects	8.399					SD of Logged Detects	2.493
603												

	A	B	C	D	E	F	G	H	I	J	K	L
604	**Normal GOF Test on Detects Only**											
605					Shapiro Wilk Test Statistic	0.261	**Shapiro Wilk GOF Test**					
606					1% Shapiro Wilk Critical Value	0.858	Detected Data Not Normal at 1% Significance Level					
607					Lilliefors Test Statistic	0.519	**Lilliefors GOF Test**					
608					1% Lilliefors Critical Value	0.235	Detected Data Not Normal at 1% Significance Level					
609	**Detected Data Not Normal at 1% Significance Level**											
610												
611	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
612					KM Mean	11391			KM Standard Error of Mean			11397
613					90KM SD	306742			95% KM (BCA) UCL			33603
614					95% KM (t) UCL	30160			95% KM (Percentile Bootstrap) UCL			33521
615					95% KM (z) UCL	30137			95% KM Bootstrap t UCL			3385474
616					90% KM Chebyshev UCL	45582			95% KM Chebyshev UCL			61069
617					97.5% KM Chebyshev UCL	82565			99% KM Chebyshev UCL			124789
618												
619	**Gamma GOF Tests on Detected Observations Only**											
620					A-D Test Statistic	3.75	**Anderson-Darling GOF Test**					
621					5% A-D Critical Value	0.925	Detected Data Not Gamma Distributed at 5% Significance Level					
622					K-S Test Statistic	0.373	**Kolmogorov-Smirnov GOF**					
623					5% K-S Critical Value	0.229	Detected Data Not Gamma Distributed at 5% Significance Level					
624	**Detected Data Not Gamma Distributed at 5% Significance Level**											
625												
626	**Gamma Statistics on Detected Data Only**											
627					k hat (MLE)	0.162			k star (bias corrected MLE)			0.172
628					Theta hat (MLE)	2994262			Theta star (bias corrected MLE)			2819380
629					nu hat (MLE)	5.83			nu star (bias corrected)			6.192
630					Mean (detects)	484919						
631												
632	**Gamma ROS Statistics using Imputed Non-Detects**											
633	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
634	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
635	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
636	This is especially true when the sample size is small.											
637	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
638					Minimum	0.01			Mean			11380
639					Maximum	8500000			Median			0.01
640					SD	306943			CV			26.97
641					k hat (MLE)	0.0628			k star (bias corrected MLE)			0.0634
642					Theta hat (MLE)	181278			Theta star (bias corrected MLE)			179494
643					nu hat (MLE)	96.3			nu star (bias corrected)			97.26
644					Adjusted Level of Significance (β)	0.0497						
645					Approximate Chi Square Value (97.26, α)	75.51			Adjusted Chi Square Value (97.26, β)			75.47
646					95% Gamma Approximate UCL	14658			95% Gamma Adjusted UCL			14665
647												
648	**Estimates of Gamma Parameters using KM Estimates**											
649					Mean (KM)	11391			SD (KM)			306742
650					Variance (KM)	9.409E+10			SE of Mean (KM)			11397
651					k hat (KM)	0.00138			k star (KM)			0.00224
652					nu hat (KM)	2.116			nu star (KM)			3.441
653					theta hat (KM)	8259924			theta star (KM)			5078818
654					80% gamma percentile (KM)	1.771E-37			90% gamma percentile (KM)			1.134E-14
655					95% gamma percentile (KM)	3.3409E-4			99% gamma percentile (KM)			32553
656												
657	**Gamma Kaplan-Meier (KM) Statistics**											
658					Approximate Chi Square Value (3.44, α)	0.514			Adjusted Chi Square Value (3.44, β)			0.512
659					95% KM Approximate Gamma UCL	76236			95% KM Adjusted Gamma UCL			76522
660												
661	**Lognormal GOF Test on Detected Observations Only**											
662					Shapiro Wilk Test Statistic	0.829	**Shapiro Wilk GOF Test**					
663					10% Shapiro Wilk Critical Value	0.914	Detected Data Not Lognormal at 10% Significance Level					
664					Lilliefors Test Statistic	0.202	**Lilliefors GOF Test**					
665					10% Lilliefors Critical Value	0.185	Detected Data Not Lognormal at 10% Significance Level					
666	**Detected Data Not Lognormal at 10% Significance Level**											
667												
668	**Lognormal ROS Statistics Using Imputed Non-Detects**											
669					Mean in Original Scale	11381			Mean in Log Scale			-10.38
670					SD in Original Scale	306943			SD in Log Scale			7.042

671				95% t UCL (assumes normality of ROS data)		29633				95% Percentile Bootstrap UCL		33490
672				95% BCA Bootstrap UCL		44844				95% Bootstrap t UCL		1432056
673				95% H-UCL (Log ROS)		18347228						
674												
675				Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution								
676				KM Mean (logged)		2.542				KM Geo Mean		12.71
677				KM SD (logged)		0.987				95% Critical H Value (KM-Log)		2.082
678				KM Standard Error of Mean (logged)		0.037				95% H-UCL (KM -Log)		22.27
679				KM SD (logged)		0.987				95% Critical H Value (KM-Log)		2.082
680				KM Standard Error of Mean (logged)		0.037						
681				Note: KM UCLs may be biased low with this dataset. Other substitution method recommended								
682												
683				DL/2 Statistics								
684				DL/2 Normal						DL/2 Log-Transformed		
685				Mean in Original Scale		11501				Mean in Log Scale		4.259
686				SD in Original Scale		306938				SD in Log Scale		1.492
687				95% t UCL (Assumes normality)		29753				95% H-Stat UCL		246.4
688				DL/2 is not a recommended method, provided for comparisons and historical reasons								
689												
690				Nonparametric Distribution Free UCL Statistics								
691				Data do not follow a Discernible Distribution								
692												
693				Suggested UCL to Use								
694				95% KM (t) UCL		30160						
695												
696				The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.								
697				Please verify the data were collected from random locations.								
698				If the data were collected using judgmental or other non-random methods,								
699				then contact a statistician to correctly calculate UCLs.								
700												
701				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
702				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
703				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
704												
705	Antimony											
706												
707				General Statistics								
708				Total Number of Observations		1000				Number of Distinct Observations		408
709										Number of Missing Observations		662
710				Number of Detects		254				Number of Non-Detects		746
711				Number of Distinct Detects		175				Number of Distinct Non-Detects		272
712				Minimum Detect		0.11				Minimum Non-Detect		0.0595
713				Maximum Detect		1040				Maximum Non-Detect		7.35
714				Variance Detects		4438				Percent Non-Detects		74.6%
715				Mean Detects		7.396				SD Detects		66.62
716				Median Detects		0.97				CV Detects		9.007
717				Skewness Detects		14.93				Kurtosis Detects		230.8
718				Mean of Logged Detects		0.101				SD of Logged Detects		1.185
719												
720				Normal GOF Test on Detects Only								
721				Shapiro Wilk Test Statistic		0.105				Normal GOF Test on Detected Observations Only		
722				1% Shapiro Wilk P Value		0				Detected Data Not Normal at 1% Significance Level		
723				Lilliefors Test Statistic		0.456				Lilliefors GOF Test		
724				1% Lilliefors Critical Value		0.0648				Detected Data Not Normal at 1% Significance Level		
725				Detected Data Not Normal at 1% Significance Level								
726												
727				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs								
728				KM Mean		1.996				KM Standard Error of Mean		1.066
729				90KM SD		33.66				95% KM (BCA) UCL		4.3
730				95% KM (t) UCL		3.752				95% KM (Percentile Bootstrap) UCL		4.163
731				95% KM (z) UCL		3.75				95% KM Bootstrap t UCL		15.21
732				90% KM Chebyshev UCL		5.195				95% KM Chebyshev UCL		6.645
733				97.5% KM Chebyshev UCL		8.656				99% KM Chebyshev UCL		12.61
734												
735				Gamma GOF Tests on Detected Observations Only								
736				A-D Test Statistic		3.937E+28				Anderson-Darling GOF Test		
737				5% A-D Critical Value		0.857				Detected Data Not Gamma Distributed at 5% Significance Level		

738					K-S Test Statistic	0.357	**Kolmogorov-Smirnov GOF**					
739					5% K-S Critical Value	0.0619	Detected Data Not Gamma Distributed at 5% Significance Level					
740	**Detected Data Not Gamma Distributed at 5% Significance Level**											
741												
742	**Gamma Statistics on Detected Data Only**											
743					k hat (MLE)	0.353	k star (bias corrected MLE)					0.352
744					Theta hat (MLE)	20.93	Theta star (bias corrected MLE)					21.02
745					nu hat (MLE)	179.5	nu star (bias corrected)					178.7
746					Mean (detects)	7.396						
747												
748	**Gamma ROS Statistics using Imputed Non-Detects**											
749	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
750	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
751	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
752	This is especially true when the sample size is small.											
753	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
754					Minimum	0.01	Mean					1.886
755					Maximum	1040	Median					0.01
756					SD	33.68	CV					17.86
757					k hat (MLE)	0.184	k star (bias corrected MLE)					0.184
758					Theta hat (MLE)	10.23	Theta star (bias corrected MLE)					10.23
759					nu hat (MLE)	368.6	nu star (bias corrected)					368.8
760					Adjusted Level of Significance (β)	0.0498						
761					Approximate Chi Square Value (368.79, α)	325.3	Adjusted Chi Square Value (368.79, β)					325.2
762					95% Gamma Approximate UCL	2.138	95% Gamma Adjusted UCL					2.139
763												
764	**Estimates of Gamma Parameters using KM Estimates**											
765					Mean (KM)	1.996	SD (KM)					33.66
766					Variance (KM)	1133	SE of Mean (KM)					1.066
767					k hat (KM)	0.00352	k star (KM)					0.00417
768					nu hat (KM)	7.034	nu star (KM)					8.346
769					theta hat (KM)	567.5	theta star (KM)					478.3
770					80% gamma percentile (KM)	1.616E-21	90% gamma percentile (KM)					2.9232E-9
771					95% gamma percentile (KM)	0.00124	99% gamma percentile (KM)					25.55
772												
773	**Gamma Kaplan-Meier (KM) Statistics**											
774					Approximate Chi Square Value (8.35, α)	2.937	Adjusted Chi Square Value (8.35, β)					2.933
775					95% KM Approximate Gamma UCL	5.672	95% KM Adjusted Gamma UCL					5.681
776												
777	**Lognormal GOF Test on Detected Observations Only**											
778					Shapiro Wilk Approximate Test Statistic	0.884	**Shapiro Wilk GOF Test**					
779					10% Shapiro Wilk P Value	0	Detected Data Not Lognormal at 10% Significance Level					
780					Lilliefors Test Statistic	0.154	**Lilliefors GOF Test**					
781					10% Lilliefors Critical Value	0.0513	Detected Data Not Lognormal at 10% Significance Level					
782	**Detected Data Not Lognormal at 10% Significance Level**											
783												
784	**Lognormal ROS Statistics Using Imputed Non-Detects**											
785					Mean in Original Scale	1.938	Mean in Log Scale					-2.225
786					SD in Original Scale	33.68	SD in Log Scale					1.756
787					95% t UCL (assumes normality of ROS data)	3.692	95% Percentile Bootstrap UCL					3.963
788					95% BCA Bootstrap UCL	5.484	95% Bootstrap t UCL					13.73
789					95% H-UCL (Log ROS)	0.59						
790												
791	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
792					KM Mean (logged)	-1.543	KM Geo Mean					0.214
793					KM SD (logged)	1.265	95% Critical H Value (KM-Log)					2.323
794					KM Standard Error of Mean (logged)	0.0956	95% H-UCL (KM -Log)					0.522
795					KM SD (logged)	1.265	95% Critical H Value (KM-Log)					2.323
796					KM Standard Error of Mean (logged)	0.0956						
797	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
798												
799	**DL/2 Statistics**											
800	**DL/2 Normal**						**DL/2 Log-Transformed**					
801					Mean in Original Scale	2.095	Mean in Log Scale					-1.102
802					SD in Original Scale	33.67	SD in Log Scale					1.083
803					95% t UCL (Assumes normality)	3.848	95% H-Stat UCL					0.643
804	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

	A	B	C	D	E	F	G	H	I	J	K	L
805												
806	**Nonparametric Distribution Free UCL Statistics**											
807	**Data do not follow a Discernible Distribution**											
808												
809	**Suggested UCL to Use**											
810	95% KM (t) UCL					3.752						
811												
812	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
813	**Please verify the data were collected from random locations.**											
814	**If the data were collected using judgmental or other non-random methods,**											
815	**then contact a statistician to correctly calculate UCLs.**											
816												
817	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
818	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
819	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
820												
821	**Arsenic**											
822												
823	**General Statistics**											
824	Total Number of Observations					1039			Number of Distinct Observations			573
825									Number of Missing Observations			623
826	Number of Detects					1032			Number of Non-Detects			7
827	Number of Distinct Detects					568			Number of Distinct Non-Detects			7
828	Minimum Detect					1.21			Minimum Non-Detect			1.32
829	Maximum Detect					1150			Maximum Non-Detect			12.65
830	Variance Detects					4770			Percent Non-Detects			0.674%
831	Mean Detects					22.71			SD Detects			69.07
832	Median Detects					6.3			CV Detects			3.041
833	Skewness Detects					8.482			Kurtosis Detects			99.99
834	Mean of Logged Detects					2.128			SD of Logged Detects			1.083
835												
836	**Normal GOF Test on Detects Only**											
837	Shapiro Wilk Test Statistic					0.303			**Normal GOF Test on Detected Observations Only**			
838	1% Shapiro Wilk P Value					0			Detected Data Not Normal at 1% Significance Level			
839	Lilliefors Test Statistic					0.378			**Lilliefors GOF Test**			
840	1% Lilliefors Critical Value					0.0322			Detected Data Not Normal at 1% Significance Level			
841	**Detected Data Not Normal at 1% Significance Level**											
842												
843	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
844	KM Mean					22.58			KM Standard Error of Mean			2.136
845	90KM SD					68.82			95% KM (BCA) UCL			26.42
846	95% KM (t) UCL					26.1			95% KM (Percentile Bootstrap) UCL			26.26
847	95% KM (z) UCL					26.1			95% KM Bootstrap t UCL			26.98
848	90% KM Chebyshev UCL					28.99			95% KM Chebyshev UCL			31.9
849	97.5% KM Chebyshev UCL					35.92			99% KM Chebyshev UCL			43.84
850												
851	**Gamma GOF Tests on Detected Observations Only**											
852	A-D Test Statistic					122.6			**Anderson-Darling GOF Test**			
853	5% A-D Critical Value					0.811			Detected Data Not Gamma Distributed at 5% Significance Level			
854	K-S Test Statistic					0.251			**Kolmogorov-Smirnov GOF**			
855	5% K-S Critical Value					0.0298			Detected Data Not Gamma Distributed at 5% Significance Level			
856	**Detected Data Not Gamma Distributed at 5% Significance Level**											
857												
858	**Gamma Statistics on Detected Data Only**											
859	k hat (MLE)					0.618			k star (bias corrected MLE)			0.617
860	Theta hat (MLE)					36.74			Theta star (bias corrected MLE)			36.81
861	nu hat (MLE)					1276			nu star (bias corrected)			1274
862	Mean (detects)					22.71						
863												
864	**Gamma ROS Statistics using Imputed Non-Detects**											
865	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
866	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
867	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
868	This is especially true when the sample size is small.											
869	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
870	Minimum					0.01			Mean			22.56
871	Maximum					1150			Median			6.25

872					SD	68.86				CV		3.052
873					k hat (MLE)	0.598				k star (bias corrected MLE)		0.597
874					Theta hat (MLE)	37.72				Theta star (bias corrected MLE)		37.79
875					nu hat (MLE)	1243				nu star (bias corrected)		1240
876					Adjusted Level of Significance (β)	0.0498						
877					Approximate Chi Square Value (N/A, α)	1160				Adjusted Chi Square Value (N/A, β)		1160
878					95% Gamma Approximate UCL	24.13				95% Gamma Adjusted UCL		24.13
879												
880					**Estimates of Gamma Parameters using KM Estimates**							
881					Mean (KM)	22.58				SD (KM)		68.82
882					Variance (KM)	4736				SE of Mean (KM)		2.136
883					k hat (KM)	0.108				k star (KM)		0.108
884					nu hat (KM)	223.8				nu star (KM)		224.5
885					theta hat (KM)	209.7				theta star (KM)		209.1
886					80% gamma percentile (KM)	17.43				90% gamma percentile (KM)		61.92
887					95% gamma percentile (KM)	130.3				99% gamma percentile (KM)		345
888												
889					**Gamma Kaplan-Meier (KM) Statistics**							
890					Approximate Chi Square Value (224.49, α)	190.8				Adjusted Chi Square Value (224.49, β)		190.8
891					95% KM Approximate Gamma UCL	26.57				95% KM Adjusted Gamma UCL		26.58
892												
893					**Lognormal GOF Test on Detected Observations Only**							
894					Shapiro Wilk Approximate Test Statistic	0.857				**Shapiro Wilk GOF Test**		
895					10% Shapiro Wilk P Value	0				Detected Data Not Lognormal at 10% Significance Level		
896					Lilliefors Test Statistic	0.141				**Lilliefors GOF Test**		
897					10% Lilliefors Critical Value	0.0255				Detected Data Not Lognormal at 10% Significance Level		
898					**Detected Data Not Lognormal at 10% Significance Level**							
899												
900					**Lognormal ROS Statistics Using Imputed Non-Detects**							
901					Mean in Original Scale	22.58				Mean in Log Scale		2.119
902					SD in Original Scale	68.85				SD in Log Scale		1.088
903					95% t UCL (assumes normality of ROS data)	26.1				95% Percentile Bootstrap UCL		26.32
904					95% BCA Bootstrap UCL	26.82				95% Bootstrap t UCL		26.99
905					95% H-UCL (Log ROS)	N/A						
906												
907					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
908					KM Mean (logged)	2.121				KM Geo Mean		8.34
909					KM SD (logged)	1.083				95% Critical H Value (KM-Log)		N/A
910					KM Standard Error of Mean (logged)	0.0336				95% H-UCL (KM -Log)		N/A
911					KM SD (logged)	1.083				95% Critical H Value (KM-Log)		N/A
912					KM Standard Error of Mean (logged)	0.0336						
913												
914					**DL/2 Statistics**							
915					**DL/2 Normal**					**DL/2 Log-Transformed**		
916					Mean in Original Scale	22.58				Mean in Log Scale		2.119
917					SD in Original Scale	68.85				SD in Log Scale		1.086
918					95% t UCL (Assumes normality)	26.1				95% H-Stat UCL		N/A
919					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
920												
921					**Nonparametric Distribution Free UCL Statistics**							
922					**Data do not follow a Discernible Distribution**							
923												
924					**Suggested UCL to Use**							
925					95% KM (t) UCL	26.1						
926												
927					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
928					**Please verify the data were collected from random locations.**							
929					**If the data were collected using judgmental or other non-random methods,**							
930					**then contact a statistician to correctly calculate UCLs.**							
931												
932					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
933					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
934					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
935												
936	**Cadmium**											
937												
938					**General Statistics**							

939				Total Number of Observations	1033				Number of Distinct Observations		506	
940									Number of Missing Observations		629	
941				Number of Detects	660				Number of Non-Detects		373	
942				Number of Distinct Detects	365				Number of Distinct Non-Detects		181	
943				Minimum Detect	0.04				Minimum Non-Detect		0.0305	
944				Maximum Detect	140				Maximum Non-Detect		3.165	
945				Variance Detects	33.42				Percent Non-Detects		36.11%	
946				Mean Detects	1.033				SD Detects		5.781	
947				Median Detects	0.456				CV Detects		5.597	
948				Skewness Detects	21.52				Kurtosis Detects		509.7	
949				Mean of Logged Detects	-0.799				SD of Logged Detects		0.997	
950												
951				**Normal GOF Test on Detects Only**								
952				Shapiro Wilk Test Statistic	0.124			**Normal GOF Test on Detected Observations Only**				
953				1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level				
954				Lilliefors Test Statistic	0.432			**Lilliefors GOF Test**				
955				1% Lilliefors Critical Value	0.0403			Detected Data Not Normal at 1% Significance Level				
956				**Detected Data Not Normal at 1% Significance Level**								
957												
958				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
959				KM Mean	0.71			KM Standard Error of Mean			0.144	
960				90KM SD	4.639			95% KM (BCA) UCL			0.996	
961				95% KM (t) UCL	0.948			95% KM (Percentile Bootstrap) UCL			0.978	
962				95% KM (z) UCL	0.947			95% KM Bootstrap t UCL			1.394	
963				90% KM Chebyshev UCL	1.143			95% KM Chebyshev UCL			1.339	
964				97.5% KM Chebyshev UCL	1.612			99% KM Chebyshev UCL			2.147	
965												
966				**Gamma GOF Tests on Detected Observations Only**								
967				A-D Test Statistic	1.515E+28			**Anderson-Darling GOF Test**				
968				5% A-D Critical Value	0.8			Detected Data Not Gamma Distributed at 5% Significance Level				
969				K-S Test Statistic	0.221			**Kolmogorov-Smirnov GOF**				
970				5% K-S Critical Value	0.0382			Detected Data Not Gamma Distributed at 5% Significance Level				
971				**Detected Data Not Gamma Distributed at 5% Significance Level**								
972												
973				**Gamma Statistics on Detected Data Only**								
974				k hat (MLE)	0.723			k star (bias corrected MLE)			0.721	
975				Theta hat (MLE)	1.428			Theta star (bias corrected MLE)			1.432	
976				nu hat (MLE)	955			nu star (bias corrected)			952	
977				Mean (detects)	1.033							
978												
979				**Gamma ROS Statistics using Imputed Non-Detects**								
980				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
981				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
982				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
983				This is especially true when the sample size is small.								
984				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
985				Minimum	0.01			Mean			0.666	
986				Maximum	140			Median			0.24	
987				SD	4.646			CV			6.971	
988				k hat (MLE)	0.381			k star (bias corrected MLE)			0.38	
989				Theta hat (MLE)	1.751			Theta star (bias corrected MLE)			1.753	
990				nu hat (MLE)	786.2			nu star (bias corrected)			785.3	
991				Adjusted Level of Significance (β)	0.0498							
992				Approximate Chi Square Value (785.30, α)	721.3			Adjusted Chi Square Value (785.30, β)			721.2	
993				95% Gamma Approximate UCL	0.726			95% Gamma Adjusted UCL			0.726	
994												
995				**Estimates of Gamma Parameters using KM Estimates**								
996				Mean (KM)	0.71			SD (KM)			4.639	
997				Variance (KM)	21.52			SE of Mean (KM)			0.144	
998				k hat (KM)	0.0234			k star (KM)			0.024	
999				nu hat (KM)	48.37			nu star (KM)			49.56	
1000				theta hat (KM)	30.32			theta star (KM)			29.59	
1001				80% gamma percentile (KM)	0.00154			90% gamma percentile (KM)			0.211	
1002				95% gamma percentile (KM)	2.14			99% gamma percentile (KM)			19.29	
1003												
1004				**Gamma Kaplan-Meier (KM) Statistics**								
1005				Approximate Chi Square Value (49.56, α)	34.4			Adjusted Chi Square Value (49.56, β)			34.38	

1006				95% KM Approximate Gamma UCL		1.023				95% KM Adjusted Gamma UCL		1.023
1007												
1008						**Lognormal GOF Test on Detected Observations Only**							
1009				Shapiro Wilk Approximate Test Statistic		0.96				**Shapiro Wilk GOF Test**		
1010				10% Shapiro Wilk P Value		0				Detected Data Not Lognormal at 10% Significance Level		
1011				Lilliefors Test Statistic		0.0765				**Lilliefors GOF Test**		
1012				10% Lilliefors Critical Value		0.0319				Detected Data Not Lognormal at 10% Significance Level		
1013						**Detected Data Not Lognormal at 10% Significance Level**						
1014												
1015						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1016				Mean in Original Scale		0.705				Mean in Log Scale		-1.326
1017				SD in Original Scale		4.641				SD in Log Scale		1.123
1018				95% t UCL (assumes normality of ROS data)		0.943				95% Percentile Bootstrap UCL		0.961
1019				95% BCA Bootstrap UCL		1.114				95% Bootstrap t UCL		1.392
1020				95% H-UCL (Log ROS)		N/A						
1021												
1022						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
1023				KM Mean (logged)		-1.342				KM Geo Mean		0.261
1024				KM SD (logged)		1.156				95% Critical H Value (KM-Log)		N/A
1025				KM Standard Error of Mean (logged)		0.0397				95% H-UCL (KM -Log)		N/A
1026				KM SD (logged)		1.156				95% Critical H Value (KM-Log)		N/A
1027				KM Standard Error of Mean (logged)		0.0397						
1028												
1029						**DL/2 Statistics**						
1030				**DL/2 Normal**						**DL/2 Log-Transformed**		
1031				Mean in Original Scale		0.733				Mean in Log Scale		-1.256
1032				SD in Original Scale		4.639				SD in Log Scale		1.124
1033				95% t UCL (Assumes normality)		0.97				95% H-Stat UCL		N/A
1034						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
1035												
1036						**Nonparametric Distribution Free UCL Statistics**						
1037						**Data do not follow a Discernible Distribution**						
1038												
1039						**Suggested UCL to Use**						
1040				95% KM (t) UCL		0.948						
1041												
1042						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
1043						**Please verify the data were collected from random locations.**						
1044						**If the data were collected using judgmental or other non-random methods,**						
1045						**then contact a statistician to correctly calculate UCLs.**						
1046												
1047						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1048						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1049						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1050												
1051												
1052	**Chromium**											
1053												
1054						**General Statistics**						
1055				Total Number of Observations		834				Number of Distinct Observations		297
1056										Number of Missing Observations		828
1057				Minimum		4				Mean		21.28
1058				Maximum		1010				Median		15.85
1059				SD		39.75				Std. Error of Mean		1.376
1060				Coefficient of Variation		1.868				Skewness		19.54
1061												
1062						**Normal GOF Test**						
1063				Shapiro Wilk Test Statistic		0.22				**Shapiro Wilk GOF Test**		
1064				1% Shapiro Wilk P Value		0				Data Not Normal at 1% Significance Level		
1065				Lilliefors Test Statistic		0.346				**Lilliefors GOF Test**		
1066				1% Lilliefors Critical Value		0.0358				Data Not Normal at 1% Significance Level		
1067						**Data Not Normal at 1% Significance Level**						
1068												
1069						**Assuming Normal Distribution**						
1070				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
1071				95% Student's-t UCL		23.55				95% Adjusted-CLT UCL (Chen-1995)		24.54
1072										95% Modified-t UCL (Johnson-1978)		23.7

1073												
1074						**Gamma GOF Test**						
1075					A-D Test Statistic	1.199E+28		**Anderson-Darling Gamma GOF Test**				
1076					5% A-D Critical Value	0.765		Data Not Gamma Distributed at 5% Significance Level				
1077					K-S Test Statistic	0.196		**Kolmogorov-Smirnov Gamma GOF Test**				
1078					5% K-S Critical Value	0.0329		Data Not Gamma Distributed at 5% Significance Level				
1079					**Data Not Gamma Distributed at 5% Significance Level**							
1080												
1081						**Gamma Statistics**						
1082					k hat (MLE)	2.406		k star (bias corrected MLE)	2.398			
1083					Theta hat (MLE)	8.844		Theta star (bias corrected MLE)	8.873			
1084					nu hat (MLE)	4014		nu star (bias corrected)	4001			
1085					MLE Mean (bias corrected)	21.28		MLE Sd (bias corrected)	13.74			
1086								Approximate Chi Square Value (0.05)	3855			
1087					Adjusted Level of Significance	0.0497		Adjusted Chi Square Value	3854			
1088												
1089						**Assuming Gamma Distribution**						
1090					95% Approximate Gamma UCL	22.09		95% Adjusted Gamma UCL	22.09			
1091												
1092						**Lognormal GOF Test**						
1093					Shapiro Wilk Test Statistic	0.895		**Shapiro Wilk Lognormal GOF Test**				
1094					10% Shapiro Wilk P Value	0		Data Not Lognormal at 10% Significance Level				
1095					Lilliefors Test Statistic	0.117		**Lilliefors Lognormal GOF Test**				
1096					10% Lilliefors Critical Value	0.0283		Data Not Lognormal at 10% Significance Level				
1097					**Data Not Lognormal at 10% Significance Level**							
1098												
1099						**Lognormal Statistics**						
1100					Minimum of Logged Data	1.386		Mean of logged Data	2.836			
1101					Maximum of Logged Data	6.918		SD of logged Data	0.517			
1102												
1103						**Assuming Lognormal Distribution**						
1104					95% H-UCL	20.12		90% Chebyshev (MVUE) UCL	20.6			
1105					95% Chebyshev (MVUE) UCL	21.1		97.5% Chebyshev (MVUE) UCL	21.8			
1106					99% Chebyshev (MVUE) UCL	23.18						
1107												
1108						**Nonparametric Distribution Free UCL Statistics**						
1109						**Data do not follow a Discernible Distribution**						
1110												
1111						**Nonparametric Distribution Free UCLs**						
1112					95% CLT UCL	23.55		95% BCA Bootstrap UCL	24.77			
1113					95% Standard Bootstrap UCL	23.52		95% Bootstrap-t UCL	25.98			
1114					95% Hall's Bootstrap UCL	32.9		95% Percentile Bootstrap UCL	23.68			
1115					90% Chebyshev(Mean, Sd) UCL	25.41		95% Chebyshev(Mean, Sd) UCL	27.28			
1116					97.5% Chebyshev(Mean, Sd) UCL	29.88		99% Chebyshev(Mean, Sd) UCL	34.98			
1117												
1118						**Suggested UCL to Use**						
1119					95% Student's-t UCL	23.55						
1120												
1121						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
1122						**Please verify the data were collected from random locations.**						
1123						**If the data were collected using judgmental or other non-random methods,**						
1124						**then contact a statistician to correctly calculate UCLs.**						
1125												
1126						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1127						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1128						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1129												
1130												
1131	**Cobalt**											
1132												
1133						**General Statistics**						
1134					Total Number of Observations	57		Number of Distinct Observations	51			
1135								Number of Missing Observations	1605			
1136					Minimum	1.1		Mean	5.873			
1137					Maximum	10		Median	6.3			
1138					SD	2.086		Std. Error of Mean	0.276			
1139					Coefficient of Variation	0.355		Skewness	-0.382			

1140												
1141	**Normal GOF Test**											
1142					Shapiro Wilk Test Statistic	0.959	**Shapiro Wilk GOF Test**					
1143					1% Shapiro Wilk P Value	0.101	Data appear Normal at 1% Significance Level					
1144					Lilliefors Test Statistic	0.106	**Lilliefors GOF Test**					
1145					1% Lilliefors Critical Value	0.135	Data appear Normal at 1% Significance Level					
1146	**Data appear Normal at 1% Significance Level**											
1147												
1148	**Assuming Normal Distribution**											
1149	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
1150					95% Student's-t UCL	6.335	95% Adjusted-CLT UCL (Chen-1995)					6.313
1151							95% Modified-t UCL (Johnson-1978)					6.333
1152												
1153	**Gamma GOF Test**											
1154					A-D Test Statistic	1.895	**Anderson-Darling Gamma GOF Test**					
1155					5% A-D Critical Value	0.753	Data Not Gamma Distributed at 5% Significance Level					
1156					K-S Test Statistic	0.154	**Kolmogorov-Smirnov Gamma GOF Test**					
1157					5% K-S Critical Value	0.118	Data Not Gamma Distributed at 5% Significance Level					
1158	**Data Not Gamma Distributed at 5% Significance Level**											
1159												
1160	**Gamma Statistics**											
1161					k hat (MLE)	5.807	k star (bias corrected MLE)					5.513
1162					Theta hat (MLE)	1.011	Theta star (bias corrected MLE)					1.065
1163					nu hat (MLE)	662	nu star (bias corrected)					628.5
1164					MLE Mean (bias corrected)	5.873	MLE Sd (bias corrected)					2.501
1165							Approximate Chi Square Value (0.05)					571.3
1166					Adjusted Level of Significance	0.0458	Adjusted Chi Square Value					569.9
1167												
1168	**Assuming Gamma Distribution**											
1169					95% Approximate Gamma UCL	6.461	95% Adjusted Gamma UCL					6.477
1170												
1171	**Lognormal GOF Test**											
1172					Shapiro Wilk Test Statistic	0.84	**Shapiro Wilk Lognormal GOF Test**					
1173					10% Shapiro Wilk P Value	4.2159E-8	Data Not Lognormal at 10% Significance Level					
1174					Lilliefors Test Statistic	0.174	**Lilliefors Lognormal GOF Test**					
1175					10% Lilliefors Critical Value	0.107	Data Not Lognormal at 10% Significance Level					
1176	**Data Not Lognormal at 10% Significance Level**											
1177												
1178	**Lognormal Statistics**											
1179					Minimum of Logged Data	0.0953	Mean of logged Data					1.682
1180					Maximum of Logged Data	2.303	SD of logged Data					0.477
1181												
1182	**Assuming Lognormal Distribution**											
1183					95% H-UCL	6.787	90% Chebyshev (MVUE) UCL					7.202
1184					95% Chebyshev (MVUE) UCL	7.742	97.5% Chebyshev (MVUE) UCL					8.492
1185					99% Chebyshev (MVUE) UCL	9.965						
1186												
1187	**Nonparametric Distribution Free UCL Statistics**											
1188	**Data appear to follow a Discernible Distribution**											
1189												
1190	**Nonparametric Distribution Free UCLs**											
1191					95% CLT UCL	6.328	95% BCA Bootstrap UCL					6.321
1192					95% Standard Bootstrap UCL	6.328	95% Bootstrap-t UCL					6.317
1193					95% Hall's Bootstrap UCL	6.314	95% Percentile Bootstrap UCL					6.326
1194					90% Chebyshev(Mean, Sd) UCL	6.702	95% Chebyshev(Mean, Sd) UCL					7.078
1195					97.5% Chebyshev(Mean, Sd) UCL	7.599	99% Chebyshev(Mean, Sd) UCL					8.622
1196												
1197	**Suggested UCL to Use**											
1198					95% Student's-t UCL	6.335						
1199												
1200	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1201	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1202	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1203												
1204	**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**											
1205	**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**											
1206												

	A	B	C	D	E	F	G	H	I	J	K	L
1207	**Copper**											
1208												
1209	**General Statistics**											
1210	Total Number of Observations					1030	Number of Distinct Observations					536
1211							Number of Missing Observations					632
1212	Number of Detects					1029	Number of Non-Detects					1
1213	Number of Distinct Detects					535	Number of Distinct Non-Detects					1
1214	Minimum Detect					2.85	Minimum Non-Detect					0.25
1215	Maximum Detect					9520	Maximum Non-Detect					0.25
1216	Variance Detects					331839	Percent Non-Detects					0.0971%
1217	Mean Detects					106	SD Detects					576.1
1218	Median Detects					22.3	CV Detects					5.437
1219	Skewness Detects					12.98	Kurtosis Detects					190.8
1220	Mean of Logged Detects					3.399	SD of Logged Detects					1.08
1221												
1222	**Normal GOF Test on Detects Only**											
1223	Shapiro Wilk Test Statistic					0.15	**Normal GOF Test on Detected Observations Only**					
1224	1% Shapiro Wilk P Value					0	Detected Data Not Normal at 1% Significance Level					
1225	Lilliefors Test Statistic					0.429	**Lilliefors GOF Test**					
1226	1% Lilliefors Critical Value					0.0322	Detected Data Not Normal at 1% Significance Level					
1227	**Detected Data Not Normal at 1% Significance Level**											
1228												
1229	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1230	KM Mean					105.9	KM Standard Error of Mean					17.94
1231	90KM SD					575.5	95% KM (BCA) UCL					139.1
1232	95% KM (t) UCL					135.4	95% KM (Percentile Bootstrap) UCL					137.1
1233	95% KM (z) UCL					135.4	95% KM Bootstrap t UCL					153.6
1234	90% KM Chebyshev UCL					159.7	95% KM Chebyshev UCL					184.1
1235	97.5% KM Chebyshev UCL					217.9	99% KM Chebyshev UCL					284.4
1236												
1237	**Gamma GOF Tests on Detected Observations Only**											
1238	A-D Test Statistic					9.718E+27	**Anderson-Darling GOF Test**					
1239	5% A-D Critical Value					0.824	Detected Data Not Gamma Distributed at 5% Significance Level					
1240	K-S Test Statistic					0.274	**Kolmogorov-Smirnov GOF**					
1241	5% K-S Critical Value					0.0301	Detected Data Not Gamma Distributed at 5% Significance Level					
1242	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1243												
1244	**Gamma Statistics on Detected Data Only**											
1245	k hat (MLE)					0.502	k star (bias corrected MLE)					0.501
1246	Theta hat (MLE)					211.1	Theta star (bias corrected MLE)					211.4
1247	nu hat (MLE)					1033	nu star (bias corrected)					1031
1248	Mean (detects)					106						
1249												
1250	**Gamma ROS Statistics using Imputed Non-Detects**											
1251	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1252	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1253	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1254	This is especially true when the sample size is small.											
1255	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1256	Minimum					0.01	Mean					105.9
1257	Maximum					9520	Median					22.3
1258	SD					575.8	CV					5.439
1259	k hat (MLE)					0.5	k star (bias corrected MLE)					0.499
1260	Theta hat (MLE)					211.8	Theta star (bias corrected MLE)					212.2
1261	nu hat (MLE)					1029	nu star (bias corrected)					1028
1262	Adjusted Level of Significance (β)					0.0498						
1263	Approximate Chi Square Value (N/A, α)					954.3	Adjusted Chi Square Value (N/A, β)					954.2
1264	95% Gamma Approximate UCL					114	95% Gamma Adjusted UCL					114
1265												
1266	**Estimates of Gamma Parameters using KM Estimates**											
1267	Mean (KM)					105.9	SD (KM)					575.5
1268	Variance (KM)					331206	SE of Mean (KM)					17.94
1269	k hat (KM)					0.0338	k star (KM)					0.0344
1270	nu hat (KM)					69.69	nu star (KM)					70.82
1271	theta hat (KM)					3129	theta star (KM)					3079
1272	80% gamma percentile (KM)					2.7	90% gamma percentile (KM)					85.2
1273	95% gamma percentile (KM)					459.6	99% gamma percentile (KM)					2628

1274												
1275	**Gamma Kaplan-Meier (KM) Statistics**											
1276				Approximate Chi Square Value (70.82, α)		52.45		Adjusted Chi Square Value (70.82, β)				52.43
1277				95% KM Approximate Gamma UCL		142.9		95% KM Adjusted Gamma UCL				143
1278												
1279	**Lognormal GOF Test on Detected Observations Only**											
1280				Shapiro Wilk Approximate Test Statistic		0.856		**Shapiro Wilk GOF Test**				
1281				10% Shapiro Wilk P Value		0		Detected Data Not Lognormal at 10% Significance Level				
1282				Lilliefors Test Statistic		0.131		**Lilliefors GOF Test**				
1283				10% Lilliefors Critical Value		0.0255		Detected Data Not Lognormal at 10% Significance Level				
1284	**Detected Data Not Lognormal at 10% Significance Level**											
1285												
1286	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1287				Mean in Original Scale		105.9		Mean in Log Scale				3.395
1288				SD in Original Scale		575.8		SD in Log Scale				1.084
1289				95% t UCL (assumes normality of ROS data)		135.4		95% Percentile Bootstrap UCL				136.6
1290				95% BCA Bootstrap UCL		143.9		95% Bootstrap t UCL				150.9
1291				95% H-UCL (Log ROS)		N/A						
1292												
1293	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1294				KM Mean (logged)		3.394		KM Geo Mean				29.78
1295				KM SD (logged)		1.089		95% Critical H Value (KM-Log)				N/A
1296				KM Standard Error of Mean (logged)		0.034		95% H-UCL (KM -Log)				N/A
1297				KM SD (logged)		1.089		95% Critical H Value (KM-Log)				N/A
1298				KM Standard Error of Mean (logged)		0.034						
1299												
1300	**DL/2 Statistics**											
1301	**DL/2 Normal**							**DL/2 Log-Transformed**				
1302				Mean in Original Scale		105.9		Mean in Log Scale				3.393
1303				SD in Original Scale		575.8		SD in Log Scale				1.093
1304				95% t UCL (Assumes normality)		135.4		95% H-Stat UCL				N/A
1305	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1306												
1307	**Nonparametric Distribution Free UCL Statistics**											
1308	**Data do not follow a Discernible Distribution**											
1309												
1310	**Suggested UCL to Use**											
1311				95% KM (t) UCL		135.4						
1312												
1313	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1314	**Please verify the data were collected from random locations.**											
1315	**If the data were collected using judgmental or other non-random methods,**											
1316	**then contact a statistician to correctly calculate UCLs.**											
1317												
1318	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1319	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1320	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1321												
1322												
1323	**Lead**											
1324												
1325	**General Statistics**											
1326				Total Number of Observations		1039		Number of Distinct Observations				733
1327								Number of Missing Observations				623
1328				Minimum		1.77		Mean				395.6
1329				Maximum		73600		Median				47
1330				SD		3353		Std. Error of Mean				104
1331				Coefficient of Variation		8.475		Skewness				17.04
1332												
1333	**Normal GOF Test**											
1334				Shapiro Wilk Test Statistic		0.0995		**Shapiro Wilk GOF Test**				
1335				1% Shapiro Wilk P Value		0		Data Not Normal at 1% Significance Level				
1336				Lilliefors Test Statistic		0.453		**Lilliefors GOF Test**				
1337				1% Lilliefors Critical Value		0.0321		Data Not Normal at 1% Significance Level				
1338	**Data Not Normal at 1% Significance Level**											
1339												
1340	**Assuming Normal Distribution**											

	A	B	C	D	E	F	G	H	I	J	K	L
1341	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
1342					95% Student's-t UCL	566.9					95% Adjusted-CLT UCL (Chen-1995)	625.5
1343											95% Modified-t UCL (Johnson-1978)	576.1
1344												
1345	**Gamma GOF Test**											
1346					A-D Test Statistic	9.625E+27	**Anderson-Darling Gamma GOF Test**					
1347					5% A-D Critical Value	0.861	Data Not Gamma Distributed at 5% Significance Level					
1348					K-S Test Statistic	0.246	**Kolmogorov-Smirnov Gamma GOF Test**					
1349					5% K-S Critical Value	0.0307	Data Not Gamma Distributed at 5% Significance Level					
1350	**Data Not Gamma Distributed at 5% Significance Level**											
1351												
1352	**Gamma Statistics**											
1353					k hat (MLE)	0.342	k star (bias corrected MLE)					0.342
1354					Theta hat (MLE)	1155	Theta star (bias corrected MLE)					1156
1355					nu hat (MLE)	711.7	nu star (bias corrected)					711
1356					MLE Mean (bias corrected)	395.6	MLE Sd (bias corrected)					676.4
1357							Approximate Chi Square Value (0.05)					650.1
1358					Adjusted Level of Significance	0.0498	Adjusted Chi Square Value					650
1359												
1360	**Assuming Gamma Distribution**											
1361					95% Approximate Gamma UCL	432.7	95% Adjusted Gamma UCL					432.7
1362												
1363	**Lognormal GOF Test**											
1364					Shapiro Wilk Test Statistic	0.954	**Shapiro Wilk Lognormal GOF Test**					
1365					10% Shapiro Wilk P Value	0	Data Not Lognormal at 10% Significance Level					
1366					Lilliefors Test Statistic	0.058	**Lilliefors Lognormal GOF Test**					
1367					10% Lilliefors Critical Value	0.0254	Data Not Lognormal at 10% Significance Level					
1368	**Data Not Lognormal at 10% Significance Level**											
1369												
1370	**Lognormal Statistics**											
1371					Minimum of Logged Data	0.571	Mean of logged Data					4.01
1372					Maximum of Logged Data	11.21	SD of logged Data					1.502
1373												
1374	**Assuming Lognormal Distribution**											
1375					95% H-UCL	N/A	90% Chebyshev (MVUE) UCL					204.4
1376					95% Chebyshev (MVUE) UCL	220	97.5% Chebyshev (MVUE) UCL					241.7
1377					99% Chebyshev (MVUE) UCL	284.2						
1378												
1379	**Nonparametric Distribution Free UCL Statistics**											
1380	**Data do not follow a Discernible Distribution**											
1381												
1382	**Nonparametric Distribution Free UCLs**											
1383					95% CLT UCL	566.7	95% BCA Bootstrap UCL					661.3
1384					95% Standard Bootstrap UCL	565.4	95% Bootstrap-t UCL					733.1
1385					95% Hall's Bootstrap UCL	587	95% Percentile Bootstrap UCL					576.7
1386					90% Chebyshev(Mean, Sd) UCL	707.7	95% Chebyshev(Mean, Sd) UCL					849.1
1387					97.5% Chebyshev(Mean, Sd) UCL	1045	99% Chebyshev(Mean, Sd) UCL					1431
1388												
1389	**Suggested UCL to Use**											
1390					95% Student's-t UCL	566.9						
1391												
1392	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1393	**Please verify the data were collected from random locations.**											
1394	**If the data were collected using judgmental or other non-random methods,**											
1395	**then contact a statistician to correctly calculate UCLs.**											
1396												
1397	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1398	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1399	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1400												
1401												
1402	**Manganese**											
1403												
1404	**General Statistics**											
1405					Total Number of Observations	57	Number of Distinct Observations					54
1406							Number of Missing Observations					1605
1407					Minimum	28	Mean					595.7

1408					Maximum	3700					Median	340
1409					SD	727					Std. Error of Mean	96.3
1410					Coefficient of Variation	1.22					Skewness	2.732
1411												
1412					**Normal GOF Test**							
1413					Shapiro Wilk Test Statistic	0.616			**Shapiro Wilk GOF Test**			
1414					1% Shapiro Wilk P Value	0			Data Not Normal at 1% Significance Level			
1415					Lilliefors Test Statistic	0.292			**Lilliefors GOF Test**			
1416					1% Lilliefors Critical Value	0.135			Data Not Normal at 1% Significance Level			
1417					**Data Not Normal at 1% Significance Level**							
1418												
1419					**Assuming Normal Distribution**							
1420					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**			
1421					95% Student's-t UCL	756.8			95% Adjusted-CLT UCL (Chen-1995)			791.4
1422									95% Modified-t UCL (Johnson-1978)			762.6
1423												
1424					**Gamma GOF Test**							
1425					A-D Test Statistic	2.979			**Anderson-Darling Gamma GOF Test**			
1426					5% A-D Critical Value	0.775			Data Not Gamma Distributed at 5% Significance Level			
1427					K-S Test Statistic	0.179			**Kolmogorov-Smirnov Gamma GOF Test**			
1428					5% K-S Critical Value	0.121			Data Not Gamma Distributed at 5% Significance Level			
1429					**Data Not Gamma Distributed at 5% Significance Level**							
1430												
1431					**Gamma Statistics**							
1432					k hat (MLE)	1.214			k star (bias corrected MLE)			1.161
1433					Theta hat (MLE)	490.9			Theta star (bias corrected MLE)			512.9
1434					nu hat (MLE)	138.4			nu star (bias corrected)			132.4
1435					MLE Mean (bias corrected)	595.7			MLE Sd (bias corrected)			552.8
1436									Approximate Chi Square Value (0.05)			106.8
1437					Adjusted Level of Significance	0.0458			Adjusted Chi Square Value			106.2
1438												
1439					**Assuming Gamma Distribution**							
1440					95% Approximate Gamma UCL	738.4			95% Adjusted Gamma UCL			742.6
1441												
1442					**Lognormal GOF Test**							
1443					Shapiro Wilk Test Statistic	0.914			**Shapiro Wilk Lognormal GOF Test**			
1444					10% Shapiro Wilk P Value	4.3054E-4			Data Not Lognormal at 10% Significance Level			
1445					Lilliefors Test Statistic	0.164			**Lilliefors Lognormal GOF Test**			
1446					10% Lilliefors Critical Value	0.107			Data Not Lognormal at 10% Significance Level			
1447					**Data Not Lognormal at 10% Significance Level**							
1448												
1449					**Lognormal Statistics**							
1450					Minimum of Logged Data	3.332			Mean of logged Data			5.924
1451					Maximum of Logged Data	8.216			SD of logged Data			0.975
1452												
1453					**Assuming Lognormal Distribution**							
1454					95% H-UCL	812.6			90% Chebyshev (MVUE) UCL			864.7
1455					95% Chebyshev (MVUE) UCL	987.2			97.5% Chebyshev (MVUE) UCL			1157
1456					99% Chebyshev (MVUE) UCL	1491						
1457												
1458					**Nonparametric Distribution Free UCL Statistics**							
1459					**Data do not follow a Discernible Distribution**							
1460												
1461					**Nonparametric Distribution Free UCLs**							
1462					95% CLT UCL	754.1			95% BCA Bootstrap UCL			787
1463					95% Standard Bootstrap UCL	749			95% Bootstrap-t UCL			817.1
1464					95% Hall's Bootstrap UCL	791			95% Percentile Bootstrap UCL			759.4
1465					90% Chebyshev(Mean, Sd) UCL	884.6			95% Chebyshev(Mean, Sd) UCL			1016
1466					97.5% Chebyshev(Mean, Sd) UCL	1197			99% Chebyshev(Mean, Sd) UCL			1554
1467												
1468					**Suggested UCL to Use**							
1469					95% Student's-t UCL	756.8						
1470												
1471					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1472					**Please verify the data were collected from random locations.**							
1473					**If the data were collected using judgmental or other non-random methods,**							
1474					**then contact a statistician to correctly calculate UCLs.**							

	A	B	C	D	E	F	G	H	I	J	K	L
1475												
1476	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1477	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1478	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1479												
1480	**Mercury**											
1481												
1482	**General Statistics**											
1483					Total Number of Observations	1028			Number of Distinct Observations	482		
1484									Number of Missing Observations	634		
1485					Number of Detects	997			Number of Non-Detects	31		
1486					Number of Distinct Detects	472			Number of Distinct Non-Detects	16		
1487					Minimum Detect	0.0039			Minimum Non-Detect	0		
1488					Maximum Detect	2940			Maximum Non-Detect	0.337		
1489					Variance Detects	8911			Percent Non-Detects	3.016%		
1490					Mean Detects	4.86			SD Detects	94.4		
1491					Median Detects	0.115			CV Detects	19.42		
1492					Skewness Detects	30.32			Kurtosis Detects	941.4		
1493												
1494	**Normal GOF Test on Detects Only**											
1495					Shapiro Wilk Test Statistic	0.0488			**Normal GOF Test on Detected Observations Only**			
1496					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
1497					Lilliefors Test Statistic	0.479			**Lilliefors GOF Test**			
1498					1% Lilliefors Critical Value	0.0328			Detected Data Not Normal at 1% Significance Level			
1499	**Detected Data Not Normal at 1% Significance Level**											
1500												
1501	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1502					KM Mean	4.714			KM Standard Error of Mean	2.9		
1503					90KM SD	92.92			95% KM (BCA) UCL	10.55		
1504					95% KM (t) UCL	9.488			95% KM (Percentile Bootstrap) UCL	10.44		
1505					95% KM (z) UCL	9.483			95% KM Bootstrap t UCL	33.11		
1506					90% KM Chebyshev UCL	13.41			95% KM Chebyshev UCL	17.35		
1507					97.5% KM Chebyshev UCL	22.82			99% KM Chebyshev UCL	33.56		
1508												
1509	**Gamma GOF Tests on Detected Observations Only**											
1510					A-D Test Statistic	1.003E+28			**Anderson-Darling GOF Test**			
1511					5% A-D Critical Value	0.917			Detected Data Not Gamma Distributed at 5% Significance Level			
1512					K-S Test Statistic	0.341			**Kolmogorov-Smirnov GOF**			
1513					5% K-S Critical Value	0.0317			Detected Data Not Gamma Distributed at 5% Significance Level			
1514	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1515												
1516	**Gamma Statistics on Detected Data Only**											
1517					k hat (MLE)	0.213			k star (bias corrected MLE)	0.213		
1518					Theta hat (MLE)	22.83			Theta star (bias corrected MLE)	22.83		
1519					nu hat (MLE)	424.4			nu star (bias corrected)	424.5		
1520					Mean (detects)	4.86						
1521												
1522	**Estimates of Gamma Parameters using KM Estimates**											
1523					Mean (KM)	4.714			SD (KM)	92.92		
1524					Variance (KM)	8634			SE of Mean (KM)	2.9		
1525					k hat (KM)	0.00257			k star (KM)	0.00321		
1526					nu hat (KM)	5.292			nu star (KM)	6.609		
1527					theta hat (KM)	1832			theta star (KM)	1466		
1528					80% gamma percentile (KM)	5.901E-28			90% gamma percentile (KM)	4.819E-12		
1529					95% gamma percentile (KM)	9.7095E-5			99% gamma percentile (KM)	37.14		
1530												
1531	**Gamma Kaplan-Meier (KM) Statistics**											
1532									Adjusted Level of Significance (β)	0.0498		
1533					Approximate Chi Square Value (6.61, α)	1.959			Adjusted Chi Square Value (6.61, β)	1.955		
1534					95% KM Approximate Gamma UCL	15.91			95% KM Adjusted Gamma UCL	15.93		
1535												
1536	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1537					KM Mean (logged)	N/A			KM Geo Mean	N/A		
1538					KM SD (logged)	N/A			95% Critical H Value (KM-Log)	N/A		
1539					KM Standard Error of Mean (logged)	N/A			95% H-UCL (KM -Log)	N/A		
1540					KM SD (logged)	N/A			95% Critical H Value (KM-Log)	N/A		
1541					KM Standard Error of Mean (logged)	N/A						

1542												
1543						**DL/2 Statistics**						
1544					Mean in Original Scale	4.714			SD in Original Scale	92.96		
1545					95% t UCL (Assumes normality)	9.488						
1546						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
1547												
1548						**Nonparametric Distribution Free UCL Statistics**						
1549						**Data do not follow a Discernible Distribution**						
1550												
1551						**Suggested UCL to Use**						
1552					95% KM (t) UCL	9.488						
1553												
1554						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
1555						**Please verify the data were collected from random locations.**						
1556						**If the data were collected using judgmental or other non-random methods,**						
1557						**then contact a statistician to correctly calculate UCLs.**						
1558												
1559						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1560						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1561						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1562												
1563	**Nickel**											
1564												
1565						**General Statistics**						
1566					Total Number of Observations	1032			Number of Distinct Observations	399		
1567									Number of Missing Observations	630		
1568					Number of Detects	1031			Number of Non-Detects	1		
1569					Number of Distinct Detects	398			Number of Distinct Non-Detects	1		
1570					Minimum Detect	1.9			Minimum Non-Detect	3.685		
1571					Maximum Detect	1380			Maximum Non-Detect	3.685		
1572					Variance Detects	2952			Percent Non-Detects	0.0969%		
1573					Mean Detects	13.71			SD Detects	54.33		
1574					Median Detects	9.75			CV Detects	3.962		
1575					Skewness Detects	21.8			Kurtosis Detects	503.2		
1576					Mean of Logged Detects	2.302			SD of Logged Detects	0.497		
1577												
1578						**Normal GOF Test on Detects Only**						
1579					Shapiro Wilk Test Statistic	0.0929			**Normal GOF Test on Detected Observations Only**			
1580					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
1581					Lilliefors Test Statistic	0.418			**Lilliefors GOF Test**			
1582					1% Lilliefors Critical Value	0.0322			Detected Data Not Normal at 1% Significance Level			
1583						**Detected Data Not Normal at 1% Significance Level**						
1584												
1585						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**						
1586					KM Mean	13.7			KM Standard Error of Mean	1.69		
1587					90KM SD	54.28			95% KM (BCA) UCL	16.83		
1588					95% KM (t) UCL	16.48			95% KM (Percentile Bootstrap) UCL	16.76		
1589					95% KM (z) UCL	16.48			95% KM Bootstrap t UCL	26.63		
1590					90% KM Chebyshev UCL	18.77			95% KM Chebyshev UCL	21.07		
1591					97.5% KM Chebyshev UCL	24.26			99% KM Chebyshev UCL	30.52		
1592												
1593						**Gamma GOF Tests on Detected Observations Only**						
1594					A-D Test Statistic	9.699E+27			**Anderson-Darling GOF Test**			
1595					5% A-D Critical Value	0.77			Detected Data Not Gamma Distributed at 5% Significance Level			
1596					K-S Test Statistic	0.25			**Kolmogorov-Smirnov GOF**			
1597					5% K-S Critical Value	0.0289			Detected Data Not Gamma Distributed at 5% Significance Level			
1598						**Detected Data Not Gamma Distributed at 5% Significance Level**						
1599												
1600						**Gamma Statistics on Detected Data Only**						
1601					k hat (MLE)	1.729			k star (bias corrected MLE)	1.725		
1602					Theta hat (MLE)	7.929			Theta star (bias corrected MLE)	7.95		
1603					nu hat (MLE)	3566			nu star (bias corrected)	3557		
1604					Mean (detects)	13.71						
1605												
1606						**Gamma ROS Statistics using Imputed Non-Detects**						
1607						GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs						
1608						GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)						

1609	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1610	This is especially true when the sample size is small.											
1611	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1612					Minimum	0.01				Mean	13.7	
1613					Maximum	1380				Median	9.745	
1614					SD	54.3				CV	3.964	
1615					k hat (MLE)	1.701				k star (bias corrected MLE)	1.697	
1616					Theta hat (MLE)	8.054				Theta star (bias corrected MLE)	8.075	
1617					nu hat (MLE)	3511				nu star (bias corrected)	3502	
1618					Adjusted Level of Significance (β)	0.0498						
1619					Approximate Chi Square Value (N/A, α)	3365				Adjusted Chi Square Value (N/A, β)	3365	
1620					95% Gamma Approximate UCL	14.25				95% Gamma Adjusted UCL	14.26	
1621												
1622	**Estimates of Gamma Parameters using KM Estimates**											
1623					Mean (KM)	13.7				SD (KM)	54.28	
1624					Variance (KM)	2946				SE of Mean (KM)	1.69	
1625					k hat (KM)	0.0637				k star (KM)	0.0642	
1626					nu hat (KM)	131.5				nu star (KM)	132.5	
1627					theta hat (KM)	215				theta star (KM)	213.5	
1628					80% gamma percentile (KM)	3.969				90% gamma percentile (KM)	27.48	
1629					95% gamma percentile (KM)	77.82				99% gamma percentile (KM)	268.4	
1630												
1631	**Gamma Kaplan-Meier (KM) Statistics**											
1632					Approximate Chi Square Value (132.48, α)	106.9				Adjusted Chi Square Value (132.48, β)	106.9	
1633					95% KM Approximate Gamma UCL	16.98				95% KM Adjusted Gamma UCL	16.99	
1634												
1635	**Lognormal GOF Test on Detected Observations Only**											
1636					Shapiro Wilk Approximate Test Statistic	0.852				**Shapiro Wilk GOF Test**		
1637					10% Shapiro Wilk P Value	0				Detected Data Not Lognormal at 10% Significance Level		
1638					Lilliefors Test Statistic	0.112				**Lilliefors GOF Test**		
1639					10% Lilliefors Critical Value	0.0255				Detected Data Not Lognormal at 10% Significance Level		
1640	**Detected Data Not Lognormal at 10% Significance Level**											
1641												
1642	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1643					Mean in Original Scale	13.7				Mean in Log Scale	2.301	
1644					SD in Original Scale	54.3				SD in Log Scale	0.498	
1645					95% t UCL (assumes normality of ROS data)	16.49				95% Percentile Bootstrap UCL	16.57	
1646					95% BCA Bootstrap UCL	18.2				95% Bootstrap t UCL	26.25	
1647					95% H-UCL (Log ROS)	N/A						
1648												
1649	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1650					KM Mean (logged)	2.301				KM Geo Mean	9.983	
1651					KM SD (logged)	0.498				95% Critical H Value (KM-Log)	N/A	
1652					KM Standard Error of Mean (logged)	0.0155				95% H-UCL (KM -Log)	N/A	
1653					KM SD (logged)	0.498				95% Critical H Value (KM-Log)	N/A	
1654					KM Standard Error of Mean (logged)	0.0155						
1655												
1656	**DL/2 Statistics**											
1657	**DL/2 Normal**									**DL/2 Log-Transformed**		
1658					Mean in Original Scale	13.7				Mean in Log Scale	2.3	
1659					SD in Original Scale	54.3				SD in Log Scale	0.499	
1660					95% t UCL (Assumes normality)	16.48				95% H-Stat UCL	N/A	
1661	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1662												
1663	**Nonparametric Distribution Free UCL Statistics**											
1664	**Data do not follow a Discernible Distribution**											
1665												
1666	**Suggested UCL to Use**											
1667					95% KM (t) UCL	16.48						
1668												
1669	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1670	**Please verify the data were collected from random locations.**											
1671	**If the data were collected using judgmental or other non-random methods,**											
1672	**then contact a statistician to correctly calculate UCLs.**											
1673												
1674	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1675	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											

1676	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1677												
1678	**Selenium**											
1679												
1680	**General Statistics**											
1681					Total Number of Observations	1001			Number of Distinct Observations	371		
1682									Number of Missing Observations	661		
1683					Number of Detects	707			Number of Non-Detects	294		
1684					Number of Distinct Detects	290			Number of Distinct Non-Detects	115		
1685					Minimum Detect	0.22			Minimum Non-Detect	0.00558		
1686					Maximum Detect	803			Maximum Non-Detect	6.7		
1687					Variance Detects	925.9			Percent Non-Detects	29.37%		
1688					Mean Detects	2.693			SD Detects	30.43		
1689					Median Detects	0.993			CV Detects	11.3		
1690					Skewness Detects	25.88			Kurtosis Detects	680.6		
1691					Mean of Logged Detects	0.0645			SD of Logged Detects	0.717		
1692												
1693	**Normal GOF Test on Detects Only**											
1694					Shapiro Wilk Test Statistic	0.0591			**Normal GOF Test on Detected Observations Only**			
1695					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
1696					Lilliefors Test Statistic	0.468			**Lilliefors GOF Test**			
1697					1% Lilliefors Critical Value	0.0389			Detected Data Not Normal at 1% Significance Level			
1698	**Detected Data Not Normal at 1% Significance Level**											
1699												
1700	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1701					KM Mean	2.009			KM Standard Error of Mean	0.809		
1702					90KM SD	25.58			95% KM (BCA) UCL	3.661		
1703					95% KM (t) UCL	3.341			95% KM (Percentile Bootstrap) UCL	3.616		
1704					95% KM (z) UCL	3.34			95% KM Bootstrap t UCL	12.81		
1705					90% KM Chebyshev UCL	4.437			95% KM Chebyshev UCL	5.536		
1706					97.5% KM Chebyshev UCL	7.062			99% KM Chebyshev UCL	10.06		
1707												
1708	**Gamma GOF Tests on Detected Observations Only**											
1709					A-D Test Statistic	1.414E+28			**Anderson-Darling GOF Test**			
1710					5% A-D Critical Value	0.807			Detected Data Not Gamma Distributed at 5% Significance Level			
1711					K-S Test Statistic	0.296			**Kolmogorov-Smirnov GOF**			
1712					5% K-S Critical Value	0.0372			Detected Data Not Gamma Distributed at 5% Significance Level			
1713	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1714												
1715	**Gamma Statistics on Detected Data Only**											
1716					k hat (MLE)	0.658			k star (bias corrected MLE)	0.656		
1717					Theta hat (MLE)	4.09			Theta star (bias corrected MLE)	4.102		
1718					nu hat (MLE)	930.8			nu star (bias corrected)	928.2		
1719					Mean (detects)	2.693						
1720												
1721	**Gamma ROS Statistics using Imputed Non-Detects**											
1722	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1723	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1724	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1725	This is especially true when the sample size is small.											
1726	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1727					Minimum	0.01			Mean	1.905		
1728					Maximum	803			Median	0.744		
1729					SD	25.6			CV	13.44		
1730					k hat (MLE)	0.345			k star (bias corrected MLE)	0.345		
1731					Theta hat (MLE)	5.515			Theta star (bias corrected MLE)	5.521		
1732					nu hat (MLE)	691.4			nu star (bias corrected)	690.7		
1733					Adjusted Level of Significance (β)	0.0498						
1734					Approximate Chi Square Value (690.65, α)	630.7			Adjusted Chi Square Value (690.65, β)	630.6		
1735					95% Gamma Approximate UCL	2.086			95% Gamma Adjusted UCL	2.086		
1736												
1737	**Estimates of Gamma Parameters using KM Estimates**											
1738					Mean (KM)	2.009			SD (KM)	25.58		
1739					Variance (KM)	654.2			SE of Mean (KM)	0.809		
1740					k hat (KM)	0.00617			k star (KM)	0.00682		
1741					nu hat (KM)	12.36			nu star (KM)	13.65		
1742					theta hat (KM)	325.6			theta star (KM)	294.7		

1743				80% gamma percentile (KM)		1.023E-12			90% gamma percentile (KM)			3.2438E-5
1744				95% gamma percentile (KM)		0.0901			99% gamma percentile (KM)			43.96
1745												
1746						**Gamma Kaplan-Meier (KM) Statistics**							
1747				Approximate Chi Square Value (13.65, α)		6.334			Adjusted Chi Square Value (13.65, β)			6.327
1748				95% KM Approximate Gamma UCL		4.331			95% KM Adjusted Gamma UCL			4.336
1749												
1750						**Lognormal GOF Test on Detected Observations Only**							
1751				Shapiro Wilk Approximate Test Statistic		0.891			**Shapiro Wilk GOF Test**			
1752				10% Shapiro Wilk P Value		0			Detected Data Not Lognormal at 10% Significance Level			
1753				Lilliefors Test Statistic		0.1			**Lilliefors GOF Test**			
1754				10% Lilliefors Critical Value		0.0308			Detected Data Not Lognormal at 10% Significance Level			
1755						**Detected Data Not Lognormal at 10% Significance Level**						
1756												
1757						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1758				Mean in Original Scale		2.034			Mean in Log Scale			-0.229
1759				SD in Original Scale		25.59			SD in Log Scale			0.81
1760				95% t UCL (assumes normality of ROS data)		3.366			95% Percentile Bootstrap UCL			3.62
1761				95% BCA Bootstrap UCL		4.566			95% Bootstrap t UCL			13.25
1762				95% H-UCL (Log ROS)		1.16						
1763												
1764						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1765				KM Mean (logged)		-0.758			KM Geo Mean			0.469
1766				KM SD (logged)		1.915			95% Critical H Value (KM-Log)			2.887
1767				KM Standard Error of Mean (logged)		0.0729			95% H-UCL (KM -Log)			3.493
1768				KM SD (logged)		1.915			95% Critical H Value (KM-Log)			2.887
1769				KM Standard Error of Mean (logged)		0.0729						
1770												
1771						**DL/2 Statistics**						
1772				**DL/2 Normal**					**DL/2 Log-Transformed**			
1773				Mean in Original Scale		2.033			Mean in Log Scale			-0.287
1774				SD in Original Scale		25.59			SD in Log Scale			0.934
1775				95% t UCL (Assumes normality)		3.364			95% H-Stat UCL			1.232
1776						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
1777												
1778						**Nonparametric Distribution Free UCL Statistics**						
1779						**Data do not follow a Discernible Distribution**						
1780												
1781						**Suggested UCL to Use**						
1782				95% KM (t) UCL		3.341						
1783												
1784						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
1785						**Please verify the data were collected from random locations.**						
1786						**If the data were collected using judgmental or other non-random methods,**						
1787						**then contact a statistician to correctly calculate UCLs.**						
1788												
1789						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1790						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1791						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1792												
1793	**Silver**											
1794												
1795						**General Statistics**						
1796				Total Number of Observations		1037			Number of Distinct Observations			436
1797									Number of Missing Observations			625
1798				Number of Detects		244			Number of Non-Detects			793
1799				Number of Distinct Detects		160			Number of Distinct Non-Detects			320
1800				Minimum Detect		0.043			Minimum Non-Detect			0.00335
1801				Maximum Detect		332			Maximum Non-Detect			3.165
1802				Variance Detects		459			Percent Non-Detects			76.47%
1803				Mean Detects		2.237			SD Detects			21.42
1804				Median Detects		0.288			CV Detects			9.575
1805				Skewness Detects		15.15			Kurtosis Detects			233.8
1806				Mean of Logged Detects		-1.071			SD of Logged Detects			1.13
1807												
1808						**Normal GOF Test on Detects Only**							
1809				Shapiro Wilk Test Statistic		0.0966			**Normal GOF Test on Detected Observations Only**			

	A	B	C	D	E	F	G	H	I	J	K	L
1810				1% Shapiro Wilk P Value		0	Detected Data Not Normal at 1% Significance Level					
1811				Lilliefors Test Statistic		0.459	**Lilliefors GOF Test**					
1812				1% Lilliefors Critical Value		0.0661	Detected Data Not Normal at 1% Significance Level					
1813				**Detected Data Not Normal at 1% Significance Level**								
1814												
1815				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
1816				KM Mean		0.582	KM Standard Error of Mean					0.324
1817				90KM SD		10.41	95% KM (BCA) UCL					1.255
1818				95% KM (t) UCL		1.115	95% KM (Percentile Bootstrap) UCL					1.212
1819				95% KM (z) UCL		1.115	95% KM Bootstrap t UCL					4.375
1820				90% KM Chebyshev UCL		1.554	95% KM Chebyshev UCL					1.994
1821				97.5% KM Chebyshev UCL		2.605	99% KM Chebyshev UCL					3.806
1822												
1823				**Gamma GOF Tests on Detected Observations Only**								
1824				A-D Test Statistic		4.098E+28	**Anderson-Darling GOF Test**					
1825				5% A-D Critical Value		0.856	Detected Data Not Gamma Distributed at 5% Significance Level					
1826				K-S Test Statistic		0.344	**Kolmogorov-Smirnov GOF**					
1827				5% K-S Critical Value		0.0631	Detected Data Not Gamma Distributed at 5% Significance Level					
1828				**Detected Data Not Gamma Distributed at 5% Significance Level**								
1829												
1830				**Gamma Statistics on Detected Data Only**								
1831				k hat (MLE)		0.357	k star (bias corrected MLE)					0.356
1832				Theta hat (MLE)		6.264	Theta star (bias corrected MLE)					6.293
1833				nu hat (MLE)		174.3	nu star (bias corrected)					173.5
1834				Mean (detects)		2.237						
1835												
1836				**Gamma ROS Statistics using Imputed Non-Detects**								
1837				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
1838				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
1839				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
1840				This is especially true when the sample size is small.								
1841				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
1842				Minimum		0.01	Mean					0.534
1843				Maximum		332	Median					0.01
1844				SD		10.42	CV					19.51
1845				k hat (MLE)		0.229	k star (bias corrected MLE)					0.229
1846				Theta hat (MLE)		2.333	Theta star (bias corrected MLE)					2.333
1847				nu hat (MLE)		474.8	nu star (bias corrected)					474.8
1848				Adjusted Level of Significance (β)		0.0498						
1849				Approximate Chi Square Value (474.81, α)		425.3	Adjusted Chi Square Value (474.81, β)					425.2
1850				95% Gamma Approximate UCL		0.596	95% Gamma Adjusted UCL					0.596
1851												
1852				**Estimates of Gamma Parameters using KM Estimates**								
1853				Mean (KM)		0.582	SD (KM)					10.41
1854				Variance (KM)		108.4	SE of Mean (KM)					0.324
1855				k hat (KM)		0.00313	k star (KM)					0.00376
1856				nu hat (KM)		6.483	nu star (KM)					7.797
1857				theta hat (KM)		186.2	theta star (KM)					154.8
1858				80% gamma percentile (KM)		1.457E-24	90% gamma percentile (KM)					5.881E-11
1859				95% gamma percentile (KM)		1.0356E-4	99% gamma percentile (KM)					6.264
1860												
1861				**Gamma Kaplan-Meier (KM) Statistics**								
1862				Approximate Chi Square Value (7.80, α)		2.618	Adjusted Chi Square Value (7.80, β)					2.614
1863				95% KM Approximate Gamma UCL		1.733	95% KM Adjusted Gamma UCL					1.736
1864												
1865				**Lognormal GOF Test on Detected Observations Only**								
1866				Shapiro Wilk Approximate Test Statistic		0.873	**Shapiro Wilk GOF Test**					
1867				10% Shapiro Wilk P Value		0	Detected Data Not Lognormal at 10% Significance Level					
1868				Lilliefors Test Statistic		0.127	**Lilliefors GOF Test**					
1869				10% Lilliefors Critical Value		0.0523	Detected Data Not Lognormal at 10% Significance Level					
1870				**Detected Data Not Lognormal at 10% Significance Level**								
1871												
1872				**Lognormal ROS Statistics Using Imputed Non-Detects**								
1873				Mean in Original Scale		0.563	Mean in Log Scale					-2.821
1874				SD in Original Scale		10.42	SD in Log Scale					1.343
1875				95% t UCL (assumes normality of ROS data)		1.095	95% Percentile Bootstrap UCL					1.19
1876				95% BCA Bootstrap UCL		1.597	95% Bootstrap t UCL					4.39

1877				95% H-UCL (Log ROS)		N/A						
1878												
1879	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1880				KM Mean (logged)		-2.777				KM Geo Mean		0.0623
1881				KM SD (logged)		1.712				95% Critical H Value (KM-Log)		N/A
1882				KM Standard Error of Mean (logged)		0.176				95% H-UCL (KM -Log)		N/A
1883				KM SD (logged)		1.712				95% Critical H Value (KM-Log)		N/A
1884				KM Standard Error of Mean (logged)		0.176						
1885												
1886	**DL/2 Statistics**											
1887	**DL/2 Normal**						**DL/2 Log-Transformed**					
1888				Mean in Original Scale		0.615				Mean in Log Scale		-2.044
1889				SD in Original Scale		10.42				SD in Log Scale		0.897
1890				95% t UCL (Assumes normality)		1.147				95% H-Stat UCL		N/A
1891	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1892												
1893	**Nonparametric Distribution Free UCL Statistics**											
1894	**Data do not follow a Discernible Distribution**											
1895												
1896	**Suggested UCL to Use**											
1897				95% KM (t) UCL		1.115						
1898												
1899	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1900	**Please verify the data were collected from random locations.**											
1901	**If the data were collected using judgmental or other non-random methods,**											
1902	**then contact a statistician to correctly calculate UCLs.**											
1903												
1904	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1905	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1906	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1907												
1908	**Thallium**											
1909												
1910	**General Statistics**											
1911				Total Number of Observations		1000				Number of Distinct Observations		375
1912										Number of Missing Observations		662
1913				Number of Detects		287				Number of Non-Detects		713
1914				Number of Distinct Detects		172				Number of Distinct Non-Detects		242
1915				Minimum Detect		0.036				Minimum Non-Detect		0.35
1916				Maximum Detect		8.88				Maximum Non-Detect		7.35
1917				Variance Detects		0.801				Percent Non-Detects		71.3%
1918				Mean Detects		1.318				SD Detects		0.895
1919				Median Detects		1.2				CV Detects		0.679
1920				Skewness Detects		2.669				Kurtosis Detects		17.75
1921				Mean of Logged Detects		0.0113				SD of Logged Detects		0.853
1922												
1923	**Normal GOF Test on Detects Only**											
1924				Shapiro Wilk Test Statistic		0.864	**Normal GOF Test on Detected Observations Only**					
1925				1% Shapiro Wilk P Value		0	Detected Data Not Normal at 1% Significance Level					
1926				Lilliefors Test Statistic		0.101	**Lilliefors GOF Test**					
1927				1% Lilliefors Critical Value		0.061	Detected Data Not Normal at 1% Significance Level					
1928	**Detected Data Not Normal at 1% Significance Level**											
1929												
1930	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1931				KM Mean		0.53				KM Standard Error of Mean		0.0255
1932				90KM SD		0.715				95% KM (BCA) UCL		0.572
1933				95% KM (t) UCL		0.572				95% KM (Percentile Bootstrap) UCL		0.573
1934				95% KM (z) UCL		0.572				95% KM Bootstrap t UCL		0.574
1935				90% KM Chebyshev UCL		0.607				95% KM Chebyshev UCL		0.641
1936				97.5% KM Chebyshev UCL		0.69				99% KM Chebyshev UCL		0.784
1937	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1938												
1939	**Gamma GOF Tests on Detected Observations Only**											
1940				A-D Test Statistic		3.771	**Anderson-Darling GOF Test**					
1941				5% A-D Critical Value		0.766	Detected Data Not Gamma Distributed at 5% Significance Level					
1942				K-S Test Statistic		0.0876	**Kolmogorov-Smirnov GOF**					
1943				5% K-S Critical Value		0.0543	Detected Data Not Gamma Distributed at 5% Significance Level					

1944	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1945												
1946	**Gamma Statistics on Detected Data Only**											
1947						k hat (MLE)	2.039			k star (bias corrected MLE)	2.02	
1948						Theta hat (MLE)	0.646			Theta star (bias corrected MLE)	0.652	
1949						nu hat (MLE)	1171			nu star (bias corrected)	1160	
1950						Mean (detects)	1.318					
1951												
1952	**Gamma ROS Statistics using Imputed Non-Detects**											
1953	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1954	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1955	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1956	This is especially true when the sample size is small.											
1957	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1958						Minimum	0.01			Mean	0.469	
1959						Maximum	8.88			Median	0.13	
1960						SD	0.737			CV	1.573	
1961						k hat (MLE)	0.416			k star (bias corrected MLE)	0.415	
1962						Theta hat (MLE)	1.128			Theta star (bias corrected MLE)	1.129	
1963						nu hat (MLE)	831			nu star (bias corrected)	829.9	
1964						Adjusted Level of Significance (β)	0.0498					
1965						Approximate Chi Square Value (829.89, α)	764			Adjusted Chi Square Value (829.89, β)	763.9	
1966						95% Gamma Approximate UCL	0.509			95% Gamma Adjusted UCL	0.509	
1967												
1968	**Estimates of Gamma Parameters using KM Estimates**											
1969						Mean (KM)	0.53			SD (KM)	0.715	
1970						Variance (KM)	0.512			SE of Mean (KM)	0.0255	
1971						k hat (KM)	0.549			k star (KM)	0.548	
1972						nu hat (KM)	1098			nu star (KM)	1096	
1973						theta hat (KM)	0.965			theta star (KM)	0.967	
1974						80% gamma percentile (KM)	0.873			90% gamma percentile (KM)	1.406	
1975						95% gamma percentile (KM)	1.97			99% gamma percentile (KM)	3.346	
1976												
1977	**Gamma Kaplan-Meier (KM) Statistics**											
1978						Approximate Chi Square Value (N/A, α)	1020			Adjusted Chi Square Value (N/A, β)	1020	
1979						95% KM Approximate Gamma UCL	0.57			95% KM Adjusted Gamma UCL	0.57	
1980	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1981												
1982	**Lognormal GOF Test on Detected Observations Only**											
1983						Shapiro Wilk Approximate Test Statistic	0.879			**Shapiro Wilk GOF Test**		
1984						10% Shapiro Wilk P Value	0			Detected Data Not Lognormal at 10% Significance Level		
1985						Lilliefors Test Statistic	0.132			**Lilliefors GOF Test**		
1986						10% Lilliefors Critical Value	0.0482			Detected Data Not Lognormal at 10% Significance Level		
1987	**Detected Data Not Lognormal at 10% Significance Level**											
1988												
1989	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1990						Mean in Original Scale	0.559			Mean in Log Scale	-1.083	
1991						SD in Original Scale	0.688			SD in Log Scale	0.973	
1992						95% t UCL (assumes normality of ROS data)	0.595			95% Percentile Bootstrap UCL	0.597	
1993						95% BCA Bootstrap UCL	0.596			95% Bootstrap t UCL	0.598	
1994						95% H-UCL (Log ROS)	0.579					
1995												
1996	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1997						KM Mean (logged)	-1.296			KM Geo Mean	0.274	
1998						KM SD (logged)	1.117			95% Critical H Value (KM-Log)	2.196	
1999						KM Standard Error of Mean (logged)	0.0778			95% H-UCL (KM -Log)	0.552	
2000						KM SD (logged)	1.117			95% Critical H Value (KM-Log)	2.196	
2001						KM Standard Error of Mean (logged)	0.0778					
2002	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2003												
2004	**DL/2 Statistics**											
2005	**DL/2 Normal**									**DL/2 Log-Transformed**		
2006						Mean in Original Scale	0.67			Mean in Log Scale	-0.768	
2007						SD in Original Scale	0.715			SD in Log Scale	0.803	
2008						95% t UCL (Assumes normality)	0.708			95% H-Stat UCL	0.673	
2009	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2010												

	A	B	C	D	E	F	G	H	I	J	K	L
2011	**Nonparametric Distribution Free UCL Statistics**											
2012	**Data do not follow a Discernible Distribution**											
2013												
2014	**Suggested UCL to Use**											
2015					95% KM (t) UCL	0.572						
2016												
2017	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2018	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2019	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2020												
2021												
2022	**Vanadium**											
2023												
2024	**General Statistics**											
2025					Total Number of Observations	57			Number of Distinct Observations		43	
2026									Number of Missing Observations		1605	
2027					Minimum	13			Mean		31.55	
2028					Maximum	54.1			Median		32.3	
2029					SD	7.256			Std. Error of Mean		0.961	
2030					Coefficient of Variation	0.23			Skewness		0.0258	
2031												
2032	**Normal GOF Test**											
2033					Shapiro Wilk Test Statistic	0.974			**Shapiro Wilk GOF Test**			
2034					1% Shapiro Wilk P Value	0.448			Data appear Normal at 1% Significance Level			
2035					Lilliefors Test Statistic	0.104			**Lilliefors GOF Test**			
2036					1% Lilliefors Critical Value	0.135			Data appear Normal at 1% Significance Level			
2037	**Data appear Normal at 1% Significance Level**											
2038												
2039	**Assuming Normal Distribution**											
2040	**95% Normal UCL**								**95% UCLs (Adjusted for Skewness)**			
2041					95% Student's-t UCL	33.16			95% Adjusted-CLT UCL (Chen-1995)		33.14	
2042									95% Modified-t UCL (Johnson-1978)		33.16	
2043												
2044	**Gamma GOF Test**											
2045					A-D Test Statistic	1.131			**Anderson-Darling Gamma GOF Test**			
2046					5% A-D Critical Value	0.749			Data Not Gamma Distributed at 5% Significance Level			
2047					K-S Test Statistic	0.136			**Kolmogorov-Smirnov Gamma GOF Test**			
2048					5% K-S Critical Value	0.118			Data Not Gamma Distributed at 5% Significance Level			
2049	**Data Not Gamma Distributed at 5% Significance Level**											
2050												
2051	**Gamma Statistics**											
2052					k hat (MLE)	17.45			k star (bias corrected MLE)		16.55	
2053					Theta hat (MLE)	1.808			Theta star (bias corrected MLE)		1.907	
2054					nu hat (MLE)	1990			nu star (bias corrected)		1886	
2055					MLE Mean (bias corrected)	31.55			MLE Sd (bias corrected)		7.757	
2056									Approximate Chi Square Value (0.05)		1786	
2057					Adjusted Level of Significance	0.0458			Adjusted Chi Square Value		1784	
2058												
2059	**Assuming Gamma Distribution**											
2060					95% Approximate Gamma UCL	33.32			95% Adjusted Gamma UCL		33.37	
2061												
2062	**Lognormal GOF Test**											
2063					Shapiro Wilk Test Statistic	0.934			**Shapiro Wilk Lognormal GOF Test**			
2064					10% Shapiro Wilk P Value	0.00549			Data Not Lognormal at 10% Significance Level			
2065					Lilliefors Test Statistic	0.149			**Lilliefors Lognormal GOF Test**			
2066					10% Lilliefors Critical Value	0.107			Data Not Lognormal at 10% Significance Level			
2067	**Data Not Lognormal at 10% Significance Level**											
2068												
2069	**Lognormal Statistics**											
2070					Minimum of Logged Data	2.565			Mean of logged Data		3.423	
2071					Maximum of Logged Data	3.991			SD of logged Data		0.252	
2072												
2073	**Assuming Lognormal Distribution**											
2074					95% H-UCL	33.53			90% Chebyshev (MVUE) UCL		34.84	
2075					95% Chebyshev (MVUE) UCL	36.29			97.5% Chebyshev (MVUE) UCL		38.31	
2076					99% Chebyshev (MVUE) UCL	42.28						
2077												

	A	B	C	D	E	F	G	H	I	J	K	L
2078	**Nonparametric Distribution Free UCL Statistics**											
2079	**Data appear to follow a Discernible Distribution**											
2080												
2081	**Nonparametric Distribution Free UCLs**											
2082					95% CLT UCL	33.14			95% BCA Bootstrap UCL			33.1
2083					95% Standard Bootstrap UCL	33.15			95% Bootstrap-t UCL			33.18
2084					95% Hall's Bootstrap UCL	33.22			95% Percentile Bootstrap UCL			33.12
2085					90% Chebyshev(Mean, Sd) UCL	34.44			95% Chebyshev(Mean, Sd) UCL			35.74
2086					97.5% Chebyshev(Mean, Sd) UCL	37.56			99% Chebyshev(Mean, Sd) UCL			41.12
2087												
2088	**Suggested UCL to Use**											
2089					95% Student's-t UCL	33.16						
2090												
2091	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2092	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2093	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2094												
2095	**Zinc**											
2096												
2097	**General Statistics**											
2098					Total Number of Observations	1029			Number of Distinct Observations			679
2099									Number of Missing Observations			633
2100					Number of Detects	1028			Number of Non-Detects			1
2101					Number of Distinct Detects	678			Number of Distinct Non-Detects			1
2102					Minimum Detect	9.26			Minimum Non-Detect			0.8
2103					Maximum Detect	5320			Maximum Non-Detect			0.8
2104					Variance Detects	144747			Percent Non-Detects			0.0972%
2105					Mean Detects	182.3			SD Detects			380.5
2106					Median Detects	87.85			CV Detects			2.087
2107					Skewness Detects	8.431			Kurtosis Detects			93.12
2108					Mean of Logged Detects	4.634			SD of Logged Detects			0.907
2109												
2110	**Normal GOF Test on Detects Only**											
2111					Shapiro Wilk Test Statistic	0.357			**Normal GOF Test on Detected Observations Only**			
2112					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
2113					Lilliefors Test Statistic	0.325			**Lilliefors GOF Test**			
2114					1% Lilliefors Critical Value	0.0323			Detected Data Not Normal at 1% Significance Level			
2115	**Detected Data Not Normal at 1% Significance Level**											
2116												
2117	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2118					KM Mean	182.1			KM Standard Error of Mean			11.86
2119					90KM SD	380.1			95% KM (BCA) UCL			203.6
2120					95% KM (t) UCL	201.6			95% KM (Percentile Bootstrap) UCL			202.3
2121					95% KM (z) UCL	201.6			95% KM Bootstrap t UCL			206.5
2122					90% KM Chebyshev UCL	217.7			95% KM Chebyshev UCL			233.8
2123					97.5% KM Chebyshev UCL	256.2			99% KM Chebyshev UCL			300.1
2124												
2125	**Gamma GOF Tests on Detected Observations Only**											
2126					A-D Test Statistic	62.8			**Anderson-Darling GOF Test**			
2127					5% A-D Critical Value	0.784			Detected Data Not Gamma Distributed at 5% Significance Level			
2128					K-S Test Statistic	0.193			**Kolmogorov-Smirnov GOF**			
2129					5% K-S Critical Value	0.0293			Detected Data Not Gamma Distributed at 5% Significance Level			
2130	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2131												
2132	**Gamma Statistics on Detected Data Only**											
2133					k hat (MLE)	1.009			k star (bias corrected MLE)			1.007
2134					Theta hat (MLE)	180.7			Theta star (bias corrected MLE)			181.1
2135					nu hat (MLE)	2075			nu star (bias corrected)			2070
2136					Mean (detects)	182.3						
2137												
2138	**Gamma ROS Statistics using Imputed Non-Detects**											
2139	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2140	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2141	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2142	This is especially true when the sample size is small.											
2143	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2144					Minimum	0.01			Mean			182.1

2145					Maximum	5320				Median		87.8
2146					SD	380.3				CV		2.088
2147					k hat (MLE)	0.997				k star (bias corrected MLE)		0.994
2148					Theta hat (MLE)	182.8				Theta star (bias corrected MLE)		183.2
2149					nu hat (MLE)	2051				nu star (bias corrected)		2046
2150					Adjusted Level of Significance (β)	0.0498						
2151					Approximate Chi Square Value (N/A, α)	1942				Adjusted Chi Square Value (N/A, β)		1942
2152					95% Gamma Approximate UCL	191.9				95% Gamma Adjusted UCL		191.9
2153												
2154					**Estimates of Gamma Parameters using KM Estimates**							
2155					Mean (KM)	182.1				SD (KM)		380.1
2156					Variance (KM)	144498				SE of Mean (KM)		11.86
2157					k hat (KM)	0.23				k star (KM)		0.23
2158					nu hat (KM)	472.4				nu star (KM)		472.3
2159					theta hat (KM)	793.4				theta star (KM)		793.5
2160					80% gamma percentile (KM)	256				90% gamma percentile (KM)		549.3
2161					95% gamma percentile (KM)	903.8				99% gamma percentile (KM)		1859
2162												
2163					**Gamma Kaplan-Meier (KM) Statistics**							
2164					Approximate Chi Square Value (472.34, α)	422.9				Adjusted Chi Square Value (472.34, β)		422.9
2165					95% KM Approximate Gamma UCL	203.4				95% KM Adjusted Gamma UCL		203.4
2166												
2167					**Lognormal GOF Test on Detected Observations Only**							
2168					Shapiro Wilk Approximate Test Statistic	0.939				**Shapiro Wilk GOF Test**		
2169					10% Shapiro Wilk P Value	0				Detected Data Not Lognormal at 10% Significance Level		
2170					Lilliefors Test Statistic	0.104				**Lilliefors GOF Test**		
2171					10% Lilliefors Critical Value	0.0255				Detected Data Not Lognormal at 10% Significance Level		
2172					**Detected Data Not Lognormal at 10% Significance Level**							
2173												
2174					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2175					Mean in Original Scale	182.1				Mean in Log Scale		4.631
2176					SD in Original Scale	380.3				SD in Log Scale		0.911
2177					95% t UCL (assumes normality of ROS data)	201.6				95% Percentile Bootstrap UCL		203
2178					95% BCA Bootstrap UCL	204.9				95% Bootstrap t UCL		206.6
2179					95% H-UCL (Log ROS)	N/A						
2180												
2181					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2182					KM Mean (logged)	4.629				KM Geo Mean		102.5
2183					KM SD (logged)	0.918				95% Critical H Value (KM-Log)		N/A
2184					KM Standard Error of Mean (logged)	0.0286				95% H-UCL (KM -Log)		N/A
2185					KM SD (logged)	0.918				95% Critical H Value (KM-Log)		N/A
2186					KM Standard Error of Mean (logged)	0.0286						
2187												
2188					**DL/2 Statistics**							
2189					**DL/2 Normal**					**DL/2 Log-Transformed**		
2190					Mean in Original Scale	182.1				Mean in Log Scale		4.629
2191					SD in Original Scale	380.3				SD in Log Scale		0.923
2192					95% t UCL (Assumes normality)	201.6				95% H-Stat UCL		N/A
2193					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2194												
2195					**Nonparametric Distribution Free UCL Statistics**							
2196					**Data do not follow a Discernible Distribution**							
2197												
2198					**Suggested UCL to Use**							
2199					95% KM (t) UCL	201.6						
2200												
2201					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2202					**Please verify the data were collected from random locations.**							
2203					**If the data were collected using judgmental or other non-random methods,**							
2204					**then contact a statistician to correctly calculate UCLs.**							
2205												
2206					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2207					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2208					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2209												
2210	**Aroclor-1254**											
2211												

2212	**General Statistics**											
2213					Total Number of Observations	313			Number of Distinct Observations			104
2214									Number of Missing Observations			1311
2215					Number of Detects	76			Number of Non-Detects			237
2216					Number of Distinct Detects	70			Number of Distinct Non-Detects			36
2217					Minimum Detect	4.2			Minimum Non-Detect			0.5
2218					Maximum Detect	9800			Maximum Non-Detect			248
2219					Variance Detects	1704048			Percent Non-Detects			75.72%
2220					Mean Detects	449			SD Detects			1305
2221					Median Detects	156.5			CV Detects			2.908
2222					Skewness Detects	5.831			Kurtosis Detects			37.78
2223					Mean of Logged Detects	4.788			SD of Logged Detects			1.552
2224												
2225	**Normal GOF Test on Detects Only**											
2226					Shapiro Wilk Test Statistic	0.343			**Normal GOF Test on Detected Observations Only**			
2227					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
2228					Lilliefors Test Statistic	0.367			**Lilliefors GOF Test**			
2229					1% Lilliefors Critical Value	0.118			Detected Data Not Normal at 1% Significance Level			
2230	**Detected Data Not Normal at 1% Significance Level**											
2231												
2232	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2233					KM Mean	110.4			KM Standard Error of Mean			37.96
2234					90KM SD	667.2			95% KM (BCA) UCL			193.1
2235					95% KM (t) UCL	173			95% KM (Percentile Bootstrap) UCL			183
2236					95% KM (z) UCL	172.8			95% KM Bootstrap t UCL			275.8
2237					90% KM Chebyshev UCL	224.3			95% KM Chebyshev UCL			275.9
2238					97.5% KM Chebyshev UCL	347.5			99% KM Chebyshev UCL			488.1
2239												
2240	**Gamma GOF Tests on Detected Observations Only**											
2241					A-D Test Statistic	3.831			**Anderson-Darling GOF Test**			
2242					5% A-D Critical Value	0.822			Detected Data Not Gamma Distributed at 5% Significance Level			
2243					K-S Test Statistic	0.207			**Kolmogorov-Smirnov GOF**			
2244					5% K-S Critical Value	0.109			Detected Data Not Gamma Distributed at 5% Significance Level			
2245	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2246												
2247	**Gamma Statistics on Detected Data Only**											
2248					k hat (MLE)	0.484			k star (bias corrected MLE)			0.474
2249					Theta hat (MLE)	927.8			Theta star (bias corrected MLE)			948
2250					nu hat (MLE)	73.55			nu star (bias corrected)			71.98
2251					Mean (detects)	449						
2252												
2253	**Gamma ROS Statistics using Imputed Non-Detects**											
2254	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2255	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2256	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2257	This is especially true when the sample size is small.											
2258	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2259					Minimum	0.01			Mean			109
2260					Maximum	9800			Median			0.01
2261					SD	668.4			CV			6.131
2262					k hat (MLE)	0.114			k star (bias corrected MLE)			0.115
2263					Theta hat (MLE)	957.8			Theta star (bias corrected MLE)			949.1
2264					nu hat (MLE)	71.26			nu star (bias corrected)			71.91
2265					Adjusted Level of Significance (β)	0.0492						
2266					Approximate Chi Square Value (71.91, α)	53.38			Adjusted Chi Square Value (71.91, β)			53.31
2267					95% Gamma Approximate UCL	146.9			95% Gamma Adjusted UCL			147.1
2268												
2269	**Estimates of Gamma Parameters using KM Estimates**											
2270					Mean (KM)	110.4			SD (KM)			667.2
2271					Variance (KM)	445112			SE of Mean (KM)			37.96
2272					k hat (KM)	0.0274			k star (KM)			0.0292
2273					nu hat (KM)	17.14			nu star (KM)			18.3
2274					theta hat (KM)	4032			theta star (KM)			3775
2275					80% gamma percentile (KM)	1.053			90% gamma percentile (KM)			60.03
2276					95% gamma percentile (KM)	417			99% gamma percentile (KM)			2869
2277												
2278	**Gamma Kaplan-Meier (KM) Statistics**											

	A	B	C	D	E	F	G	H	I	J	K	L
2279				Approximate Chi Square Value (18.30, α)		9.611			Adjusted Chi Square Value (18.30, β)			9.582
2280				95% KM Approximate Gamma UCL		210.2			95% KM Adjusted Gamma UCL			210.9
2281												
2282						**Lognormal GOF Test on Detected Observations Only**							
2283				Shapiro Wilk Approximate Test Statistic		0.976			**Shapiro Wilk GOF Test**			
2284				10% Shapiro Wilk P Value		0.43			Detected Data appear Lognormal at 10% Significance Level			
2285				Lilliefors Test Statistic		0.079			**Lilliefors GOF Test**			
2286				10% Lilliefors Critical Value		0.093			Detected Data appear Lognormal at 10% Significance Level			
2287						**Detected Data appear Lognormal at 10% Significance Level**						
2288												
2289						**Lognormal ROS Statistics Using Imputed Non-Detects**						
2290				Mean in Original Scale		111			Mean in Log Scale			0.966
2291				SD in Original Scale		668.1			SD in Log Scale			2.846
2292				95% t UCL (assumes normality of ROS data)		173.3			95% Percentile Bootstrap UCL			181.1
2293				95% BCA Bootstrap UCL		212.4			95% Bootstrap t UCL			269.6
2294				95% H-UCL (Log ROS)		289.3						
2295												
2296						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
2297				KM Mean (logged)		0.936			KM Geo Mean			2.549
2298				KM SD (logged)		2.458			95% Critical H Value (KM-Log)			3.598
2299				KM Standard Error of Mean (logged)		0.188			95% H-UCL (KM -Log)			86.33
2300				KM SD (logged)		2.458			95% Critical H Value (KM-Log)			3.598
2301				KM Standard Error of Mean (logged)		0.188						
2302						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**						
2303												
2304						**DL/2 Statistics**						
2305				**DL/2 Normal**					**DL/2 Log-Transformed**			
2306				Mean in Original Scale		115.9			Mean in Log Scale			2.409
2307				SD in Original Scale		667.4			SD in Log Scale			1.792
2308				95% t UCL (Assumes normality)		178.2			95% H-Stat UCL			74.11
2309						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2310												
2311						**Nonparametric Distribution Free UCL Statistics**						
2312						**Detected Data appear Lognormal Distributed at 10% Significance Level**						
2313												
2314						**Suggested UCL to Use**						
2315				KM H-UCL		86.33						
2316												
2317						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
2318						**Please verify the data were collected from random locations.**						
2319						**If the data were collected using judgmental or other non-random methods,**						
2320						**then contact a statistician to correctly calculate UCLs.**						
2321												
2322						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2323						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2324						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2325												
2326	**Aroclor-1260**											
2327												
2328						**General Statistics**						
2329				Total Number of Observations		312			Number of Distinct Observations			112
2330									Number of Missing Observations			1312
2331				Number of Detects		82			Number of Non-Detects			230
2332				Number of Distinct Detects		70			Number of Distinct Non-Detects			48
2333				Minimum Detect		4.3			Minimum Non-Detect			1.5
2334				Maximum Detect		3000			Maximum Non-Detect			277
2335				Variance Detects		147180			Percent Non-Detects			73.72%
2336				Mean Detects		188.4			SD Detects			383.6
2337				Median Detects		69.5			CV Detects			2.037
2338				Skewness Detects		5.552			Kurtosis Detects			37.25
2339				Mean of Logged Detects		4.147			SD of Logged Detects			1.559
2340												
2341						**Normal GOF Test on Detects Only**						
2342				Shapiro Wilk Test Statistic		0.469			**Normal GOF Test on Detected Observations Only**			
2343				1% Shapiro Wilk P Value		0			Detected Data Not Normal at 1% Significance Level			
2344				Lilliefors Test Statistic		0.316			**Lilliefors GOF Test**			
2345				1% Lilliefors Critical Value		0.113			Detected Data Not Normal at 1% Significance Level			

2346	**Detected Data Not Normal at 1% Significance Level**											
2347												
2348	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2349					KM Mean	52.19			KM Standard Error of Mean	12.07		
2350					90KM SD	211.8			95% KM (BCA) UCL	75.27		
2351					95% KM (t) UCL	72.11			95% KM (Percentile Bootstrap) UCL	74.05		
2352					95% KM (z) UCL	72.05			95% KM Bootstrap t UCL	90.79		
2353					90% KM Chebyshev UCL	88.41			95% KM Chebyshev UCL	104.8		
2354					97.5% KM Chebyshev UCL	127.6			99% KM Chebyshev UCL	172.3		
2355												
2356	**Gamma GOF Tests on Detected Observations Only**											
2357					A-D Test Statistic	1.864			**Anderson-Darling GOF Test**			
2358					5% A-D Critical Value	0.812			Detected Data Not Gamma Distributed at 5% Significance Level			
2359					K-S Test Statistic	0.137			**Kolmogorov-Smirnov GOF**			
2360					5% K-S Critical Value	0.104			Detected Data Not Gamma Distributed at 5% Significance Level			
2361	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2362												
2363	**Gamma Statistics on Detected Data Only**											
2364					k hat (MLE)	0.571			k star (bias corrected MLE)	0.558		
2365					Theta hat (MLE)	330.2			Theta star (bias corrected MLE)	337.7		
2366					nu hat (MLE)	93.57			nu star (bias corrected)	91.48		
2367					Mean (detects)	188.4						
2368												
2369	**Gamma ROS Statistics using Imputed Non-Detects**											
2370	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2371	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2372	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2373	This is especially true when the sample size is small.											
2374	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2375					Minimum	0.01			Mean	49.52		
2376					Maximum	3000			Median	0.01		
2377					SD	212.7			CV	4.295		
2378					k hat (MLE)	0.127			k star (bias corrected MLE)	0.128		
2379					Theta hat (MLE)	390.5			Theta star (bias corrected MLE)	387.7		
2380					nu hat (MLE)	79.13			nu star (bias corrected)	79.7		
2381					Adjusted Level of Significance (β)	0.0492						
2382					Approximate Chi Square Value (79.70, α)	60.13			Adjusted Chi Square Value (79.70, β)	60.05		
2383					95% Gamma Approximate UCL	65.63			95% Gamma Adjusted UCL	65.72		
2384												
2385	**Estimates of Gamma Parameters using KM Estimates**											
2386					Mean (KM)	52.19			SD (KM)	211.8		
2387					Variance (KM)	44861			SE of Mean (KM)	12.07		
2388					k hat (KM)	0.0607			k star (KM)	0.0623		
2389					nu hat (KM)	37.89			nu star (KM)	38.86		
2390					theta hat (KM)	859.5			theta star (KM)	838.1		
2391					80% gamma percentile (KM)	13.96			90% gamma percentile (KM)	101.8		
2392					95% gamma percentile (KM)	294.8			99% gamma percentile (KM)	1036		
2393												
2394	**Gamma Kaplan-Meier (KM) Statistics**											
2395					Approximate Chi Square Value (38.86, α)	25.58			Adjusted Chi Square Value (38.86, β)	25.53		
2396					95% KM Approximate Gamma UCL	79.28			95% KM Adjusted Gamma UCL	79.44		
2397												
2398	**Lognormal GOF Test on Detected Observations Only**											
2399					Shapiro Wilk Approximate Test Statistic	0.943			**Shapiro Wilk GOF Test**			
2400					10% Shapiro Wilk P Value	0.00245			Detected Data Not Lognormal at 10% Significance Level			
2401					Lilliefors Test Statistic	0.105			**Lilliefors GOF Test**			
2402					10% Lilliefors Critical Value	0.0896			Detected Data Not Lognormal at 10% Significance Level			
2403	**Detected Data Not Lognormal at 10% Significance Level**											
2404												
2405	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2406					Mean in Original Scale	51.31			Mean in Log Scale	1.042		
2407					SD in Original Scale	212.3			SD in Log Scale	2.461		
2408					95% t UCL (assumes normality of ROS data)	71.14			95% Percentile Bootstrap UCL	73.04		
2409					95% BCA Bootstrap UCL	79.93			95% Bootstrap t UCL	87.13		
2410					95% H-UCL (Log ROS)	96.82						
2411												
2412	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											

2413				KM Mean (logged)		1.73				KM Geo Mean		5.643
2414				KM SD (logged)		1.774				95% Critical H Value (KM-Log)		2.848
2415				KM Standard Error of Mean (logged)		0.127				95% H-UCL (KM -Log)		36.25
2416				KM SD (logged)		1.774				95% Critical H Value (KM-Log)		2.848
2417				KM Standard Error of Mean (logged)		0.127						
2418						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
2419												
2420						**DL/2 Statistics**						
2421				**DL/2 Normal**						**DL/2 Log-Transformed**		
2422				Mean in Original Scale		57.18				Mean in Log Scale		2.366
2423				SD in Original Scale		211.5				SD in Log Scale		1.579
2424				95% t UCL (Assumes normality)		76.93				95% H-Stat UCL		46.99
2425						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2426												
2427						**Nonparametric Distribution Free UCL Statistics**						
2428						**Data do not follow a Discernible Distribution**						
2429												
2430						**Suggested UCL to Use**						
2431						95% KM (t) UCL	72.11					
2432												
2433						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
2434						**Please verify the data were collected from random locations.**						
2435						**If the data were collected using judgmental or other non-random methods,**						
2436						**then contact a statistician to correctly calculate UCLs.**						
2437												
2438						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2439						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2440						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2441												
2442	**Polychlorinated biphenyls**											
2443												
2444						**General Statistics**						
2445				Total Number of Observations		302				Number of Distinct Observations		133
2446										Number of Missing Observations		1322
2447				Number of Detects		110				Number of Non-Detects		192
2448				Number of Distinct Detects		100				Number of Distinct Non-Detects		40
2449				Minimum Detect		4.2				Minimum Non-Detect		9
2450				Maximum Detect		9800				Maximum Non-Detect		248
2451				Variance Detects		1504479				Percent Non-Detects		63.58%
2452				Mean Detects		461.7				SD Detects		1227
2453				Median Detects		171				CV Detects		2.657
2454				Skewness Detects		5.734				Kurtosis Detects		36.63
2455				Mean of Logged Detects		4.823				SD of Logged Detects		1.649
2456												
2457						**Normal GOF Test on Detects Only**						
2458				Shapiro Wilk Test Statistic		0.367				**Normal GOF Test on Detected Observations Only**		
2459				1% Shapiro Wilk P Value		0				Detected Data Not Normal at 1% Significance Level		
2460				Lilliefors Test Statistic		0.355				**Lilliefors GOF Test**		
2461				1% Lilliefors Critical Value		0.098				Detected Data Not Normal at 1% Significance Level		
2462						**Detected Data Not Normal at 1% Significance Level**						
2463												
2464						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**						
2465				KM Mean		172.5				KM Standard Error of Mean		44.44
2466				90KM SD		768.7				95% KM (BCA) UCL		257.4
2467				95% KM (t) UCL		245.8				95% KM (Percentile Bootstrap) UCL		249.1
2468				95% KM (z) UCL		245.6				95% KM Bootstrap t UCL		298.2
2469				90% KM Chebyshev UCL		305.8				95% KM Chebyshev UCL		366.2
2470				97.5% KM Chebyshev UCL		450				99% KM Chebyshev UCL		614.7
2471												
2472						**Gamma GOF Tests on Detected Observations Only**						
2473				A-D Test Statistic		3.406				**Anderson-Darling GOF Test**		
2474				5% A-D Critical Value		0.822				Detected Data Not Gamma Distributed at 5% Significance Level		
2475				K-S Test Statistic		0.114				**Kolmogorov-Smirnov GOF**		
2476				5% K-S Critical Value		0.092				Detected Data Not Gamma Distributed at 5% Significance Level		
2477						**Detected Data Not Gamma Distributed at 5% Significance Level**						
2478												
2479						**Gamma Statistics on Detected Data Only**						

2480					k hat (MLE)	0.486				k star (bias corrected MLE)		0.479
2481					Theta hat (MLE)	949.5				Theta star (bias corrected MLE)		963.7
2482					nu hat (MLE)	107				nu star (bias corrected)		105.4
2483					Mean (detects)	461.7						
2484												
2485					**Gamma ROS Statistics using Imputed Non-Detects**							
2486					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2487					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2488					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2489					This is especially true when the sample size is small.							
2490					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2491					Minimum	0.01				Mean		168.2
2492					Maximum	9800				Median		0.01
2493					SD	770.9				CV		4.585
2494					k hat (MLE)	0.125				k star (bias corrected MLE)		0.126
2495					Theta hat (MLE)	1343				Theta star (bias corrected MLE)		1333
2496					nu hat (MLE)	75.64				nu star (bias corrected)		76.22
2497					Adjusted Level of Significance (β)	0.0492						
2498					Approximate Chi Square Value (76.22, α)	57.11				Adjusted Chi Square Value (76.22, β)		57.03
2499					95% Gamma Approximate UCL	224.4				95% Gamma Adjusted UCL		224.7
2500												
2501					**Estimates of Gamma Parameters using KM Estimates**							
2502					Mean (KM)	172.5				SD (KM)		768.7
2503					Variance (KM)	590937				SE of Mean (KM)		44.44
2504					k hat (KM)	0.0504				k star (KM)		0.0521
2505					nu hat (KM)	30.41				nu star (KM)		31.44
2506					theta hat (KM)	3426				theta star (KM)		3313
2507					80% gamma percentile (KM)	26.89				90% gamma percentile (KM)		277.1
2508					95% gamma percentile (KM)	930.2				99% gamma percentile (KM)		3692
2509												
2510					**Gamma Kaplan-Meier (KM) Statistics**							
2511					Approximate Chi Square Value (31.44, α)	19.63				Adjusted Chi Square Value (31.44, β)		19.59
2512					95% KM Approximate Gamma UCL	276.3				95% KM Adjusted Gamma UCL		276.9
2513												
2514					**Lognormal GOF Test on Detected Observations Only**							
2515					Shapiro Wilk Approximate Test Statistic	0.964				**Shapiro Wilk GOF Test**		
2516					10% Shapiro Wilk P Value	0.0385				Detected Data Not Lognormal at 10% Significance Level		
2517					Lilliefors Test Statistic	0.0935				**Lilliefors GOF Test**		
2518					10% Lilliefors Critical Value	0.0776				Detected Data Not Lognormal at 10% Significance Level		
2519					**Detected Data Not Lognormal at 10% Significance Level**							
2520												
2521					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2522					Mean in Original Scale	172				Mean in Log Scale		2.491
2523					SD in Original Scale	770.1				SD in Log Scale		2.292
2524					95% t UCL (assumes normality of ROS data)	245.1				95% Percentile Bootstrap UCL		248.2
2525					95% BCA Bootstrap UCL	266.6				95% Bootstrap t UCL		300.3
2526					95% H-UCL (Log ROS)	261.8						
2527												
2528					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2529					KM Mean (logged)	2.905				KM Geo Mean		18.26
2530					KM SD (logged)	1.787				95% Critical H Value (KM-Log)		2.859
2531					KM Standard Error of Mean (logged)	0.127				95% H-UCL (KM -Log)		121
2532					KM SD (logged)	1.787				95% Critical H Value (KM-Log)		2.859
2533					KM Standard Error of Mean (logged)	0.127						
2534					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
2535												
2536					**DL/2 Statistics**							
2537					**DL/2 Normal**					**DL/2 Log-Transformed**		
2538					Mean in Original Scale	174.5				Mean in Log Scale		3.008
2539					SD in Original Scale	769.6				SD in Log Scale		1.774
2540					95% t UCL (Assumes normality)	247.6				95% H-Stat UCL		130.8
2541					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2542												
2543					**Nonparametric Distribution Free UCL Statistics**							
2544					**Data do not follow a Discernible Distribution**							
2545												
2546					**Suggested UCL to Use**							

2547					95% KM (t) UCL	245.8						
2548												
2549	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2550	**Please verify the data were collected from random locations.**											
2551	**If the data were collected using judgmental or other non-random methods,**											
2552	**then contact a statistician to correctly calculate UCLs.**											
2553												
2554	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2555	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2556	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2557												
2558	**2,4-Dinitrotoluene**											
2559												
2560	**General Statistics**											
2561					Total Number of Observations	1043				Number of Distinct Observations	266	
2562										Number of Missing Observations	619	
2563					Number of Detects	198				Number of Non-Detects	845	
2564					Number of Distinct Detects	138				Number of Distinct Non-Detects	160	
2565					Minimum Detect	28				Minimum Non-Detect	18.5	
2566					Maximum Detect	150000				Maximum Non-Detect	7500	
2567					Variance Detects	1.848E+8				Percent Non-Detects	81.02%	
2568					Mean Detects	3098				SD Detects	13595	
2569					Median Detects	240				CV Detects	4.388	
2570					Skewness Detects	8.008				Kurtosis Detects	75.4	
2571					Mean of Logged Detects	5.838				SD of Logged Detects	1.734	
2572												
2573	**Normal GOF Test on Detects Only**											
2574					Shapiro Wilk Test Statistic	0.252				**Normal GOF Test on Detected Observations Only**		
2575					1% Shapiro Wilk P Value	0				Detected Data Not Normal at 1% Significance Level		
2576					Lilliefors Test Statistic	0.411				**Lilliefors GOF Test**		
2577					1% Lilliefors Critical Value	0.0733				Detected Data Not Normal at 1% Significance Level		
2578	**Detected Data Not Normal at 1% Significance Level**											
2579												
2580	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2581					KM Mean	644.1				KM Standard Error of Mean	187.1	
2582					90KM SD	6027				95% KM (BCA) UCL	969.2	
2583					95% KM (t) UCL	952.1				95% KM (Percentile Bootstrap) UCL	969.2	
2584					95% KM (z) UCL	951.8				95% KM Bootstrap t UCL	1263	
2585					90% KM Chebyshev UCL	1205				95% KM Chebyshev UCL	1460	
2586					97.5% KM Chebyshev UCL	1813				99% KM Chebyshev UCL	2506	
2587												
2588	**Gamma GOF Tests on Detected Observations Only**											
2589					A-D Test Statistic	23.16				**Anderson-Darling GOF Test**		
2590					5% A-D Critical Value	0.866				Detected Data Not Gamma Distributed at 5% Significance Level		
2591					K-S Test Statistic	0.265				**Kolmogorov-Smirnov GOF**		
2592					5% K-S Critical Value	0.0696				Detected Data Not Gamma Distributed at 5% Significance Level		
2593	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2594												
2595	**Gamma Statistics on Detected Data Only**											
2596					k hat (MLE)	0.311				k star (bias corrected MLE)	0.31	
2597					Theta hat (MLE)	9948				Theta star (bias corrected MLE)	9992	
2598					nu hat (MLE)	123.3				nu star (bias corrected)	122.8	
2599					Mean (detects)	3098						
2600												
2601	**Gamma ROS Statistics using Imputed Non-Detects**											
2602	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2603	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2604	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2605	This is especially true when the sample size is small.											
2606	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2607					Minimum	0.01				Mean	591.1	
2608					Maximum	150000				Median	0.01	
2609					SD	6035				CV	10.21	
2610					k hat (MLE)	0.0919				k star (bias corrected MLE)	0.0922	
2611					Theta hat (MLE)	6435				Theta star (bias corrected MLE)	6409	
2612					nu hat (MLE)	191.6				nu star (bias corrected)	192.4	
2613					Adjusted Level of Significance (β)	0.0498						

2614	Approximate Chi Square Value (192.40, α)					161.3	Adjusted Chi Square Value (192.40, β)					161.3
2615	95% Gamma Approximate UCL					705.1	95% Gamma Adjusted UCL					705.2
2616												
2617	**Estimates of Gamma Parameters using KM Estimates**											
2618	Mean (KM)					644.1	SD (KM)					6027
2619	Variance (KM)					36321061	SE of Mean (KM)					187.1
2620	k hat (KM)					0.0114	k star (KM)					0.012
2621	nu hat (KM)					23.82	nu star (KM)					25.09
2622	theta hat (KM)					56393	theta star (KM)					53550
2623	80% gamma percentile (KM)					2.6604E-4	90% gamma percentile (KM)					4.764
2624	95% gamma percentile (KM)					430.2	99% gamma percentile (KM)					17847
2625												
2626	**Gamma Kaplan-Meier (KM) Statistics**											
2627	Approximate Chi Square Value (25.09, α)					14.68	Adjusted Chi Square Value (25.09, β)					14.67
2628	95% KM Approximate Gamma UCL					1101	95% KM Adjusted Gamma UCL					1102
2629												
2630	**Lognormal GOF Test on Detected Observations Only**											
2631	Shapiro Wilk Approximate Test Statistic					0.906	**Shapiro Wilk GOF Test**					
2632	10% Shapiro Wilk P Value					0	Detected Data Not Lognormal at 10% Significance Level					
2633	Lilliefors Test Statistic					0.113	**Lilliefors GOF Test**					
2634	10% Lilliefors Critical Value					0.058	Detected Data Not Lognormal at 10% Significance Level					
2635	**Detected Data Not Lognormal at 10% Significance Level**											
2636												
2637	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2638	Mean in Original Scale					644.9	Mean in Log Scale					4.146
2639	SD in Original Scale					6030	SD in Log Scale					1.483
2640	95% t UCL (assumes normality of ROS data)					952.3	95% Percentile Bootstrap UCL					976.7
2641	95% BCA Bootstrap UCL					1105	95% Bootstrap t UCL					1236
2642	95% H-UCL (Log ROS)					N/A						
2643												
2644	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2645	KM Mean (logged)					4.432	KM Geo Mean					84.11
2646	KM SD (logged)					1.102	95% Critical H Value (KM-Log)					N/A
2647	KM Standard Error of Mean (logged)					0.0536	95% H-UCL (KM -Log)					N/A
2648	KM SD (logged)					1.102	95% Critical H Value (KM-Log)					N/A
2649	KM Standard Error of Mean (logged)					0.0536						
2650												
2651	**DL/2 Statistics**											
2652	**DL/2 Normal**						**DL/2 Log-Transformed**					
2653	Mean in Original Scale					706.8	Mean in Log Scale					4.81
2654	SD in Original Scale					6028	SD in Log Scale					1.104
2655	95% t UCL (Assumes normality)					1014	95% H-Stat UCL					N/A
2656	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2657												
2658	**Nonparametric Distribution Free UCL Statistics**											
2659	**Data do not follow a Discernible Distribution**											
2660												
2661	**Suggested UCL to Use**											
2662	95% KM (t) UCL					952.1						
2663												
2664	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2665	**Please verify the data were collected from random locations.**											
2666	**If the data were collected using judgmental or other non-random methods,**											
2667	**then contact a statistician to correctly calculate UCLs.**											
2668												
2669	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2670	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2671	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2672												
2673	**2,6-Dinitrotoluene**											
2674												
2675	**General Statistics**											
2676	Total Number of Observations					1033	Number of Distinct Observations					236
2677							Number of Missing Observations					629
2678	Number of Detects					92	Number of Non-Detects					941
2679	Number of Distinct Detects					75	Number of Distinct Non-Detects					182
2680	Minimum Detect					16	Minimum Non-Detect					10.5

2681					Maximum Detect	180000				Maximum Non-Detect		7500
2682					Variance Detects	3.560E+8				Percent Non-Detects		91.09%
2683					Mean Detects	2584				SD Detects		18868
2684					Median Detects	95.45				CV Detects		7.303
2685					Skewness Detects	9.351				Kurtosis Detects		88.67
2686					Mean of Logged Detects	5.03				SD of Logged Detects		1.599
2687												
2688					**Normal GOF Test on Detects Only**							
2689					Shapiro Wilk Test Statistic	0.139				**Normal GOF Test on Detected Observations Only**		
2690					1% Shapiro Wilk P Value	0				Detected Data Not Normal at 1% Significance Level		
2691					Lilliefors Test Statistic	0.458				**Lilliefors GOF Test**		
2692					1% Lilliefors Critical Value	0.107				Detected Data Not Normal at 1% Significance Level		
2693					**Detected Data Not Normal at 1% Significance Level**							
2694												
2695					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
2696					KM Mean	262.3				KM Standard Error of Mean		176.7
2697					90KM SD	5647				95% KM (BCA) UCL		600.5
2698					95% KM (t) UCL	553.1				95% KM (Percentile Bootstrap) UCL		602.9
2699					95% KM (z) UCL	552.9				95% KM Bootstrap t UCL		4621
2700					90% KM Chebyshev UCL	792.3				95% KM Chebyshev UCL		1032
2701					97.5% KM Chebyshev UCL	1366				99% KM Chebyshev UCL		2020
2702												
2703					**Gamma GOF Tests on Detected Observations Only**							
2704					A-D Test Statistic	16.83				**Anderson-Darling GOF Test**		
2705					5% A-D Critical Value	0.892				Detected Data Not Gamma Distributed at 5% Significance Level		
2706					K-S Test Statistic	0.32				**Kolmogorov-Smirnov GOF**		
2707					5% K-S Critical Value	0.102				Detected Data Not Gamma Distributed at 5% Significance Level		
2708					**Detected Data Not Gamma Distributed at 5% Significance Level**							
2709												
2710					**Gamma Statistics on Detected Data Only**							
2711					k hat (MLE)	0.251				k star (bias corrected MLE)		0.25
2712					Theta hat (MLE)	10289				Theta star (bias corrected MLE)		10328
2713					nu hat (MLE)	46.2				nu star (bias corrected)		46.03
2714					Mean (detects)	2584						
2715												
2716					**Gamma ROS Statistics using Imputed Non-Detects**							
2717					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2718					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2719					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2720					This is especially true when the sample size is small.							
2721					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2722					Minimum	0.01				Mean		258
2723					Maximum	180000				Median		0.01
2724					SD	5655				CV		21.92
2725					k hat (MLE)	0.0906				k star (bias corrected MLE)		0.091
2726					Theta hat (MLE)	2847				Theta star (bias corrected MLE)		2835
2727					nu hat (MLE)	187.2				nu star (bias corrected)		188
2728					Adjusted Level of Significance (β)	0.0498						
2729					Approximate Chi Square Value (188.02, α)	157.3				Adjusted Chi Square Value (188.02, β)		157.3
2730					95% Gamma Approximate UCL	308.4				95% Gamma Adjusted UCL		308.4
2731												
2732					**Estimates of Gamma Parameters using KM Estimates**							
2733					Mean (KM)	262.3				SD (KM)		5647
2734					Variance (KM)	31890269				SE of Mean (KM)		176.7
2735					k hat (KM)	0.00216				k star (KM)		0.0028
2736					nu hat (KM)	4.456				nu star (KM)		5.776
2737					theta hat (KM)	121597				theta star (KM)		93802
2738					80% gamma percentile (KM)	1.152E-30				90% gamma percentile (KM)		2.274E-12
2739					95% gamma percentile (KM)	5.6897E-4				99% gamma percentile (KM)		1473
2740												
2741					**Gamma Kaplan-Meier (KM) Statistics**							
2742					Approximate Chi Square Value (5.78, α)	1.527				Adjusted Chi Square Value (5.78, β)		1.524
2743					95% KM Approximate Gamma UCL	992.3				95% KM Adjusted Gamma UCL		994.3
2744												
2745					**Lognormal GOF Test on Detected Observations Only**							
2746					Shapiro Wilk Approximate Test Statistic	0.886				**Shapiro Wilk GOF Test**		
2747					10% Shapiro Wilk P Value	1.5240E-9				Detected Data Not Lognormal at 10% Significance Level		

	A	B	C	D	E	F	G	H	I	J	K	L
2748					Lilliefors Test Statistic	0.137	**Lilliefors GOF Test**					
2749					10% Lilliefors Critical Value	0.0847	Detected Data Not Lognormal at 10% Significance Level					
2750	**Detected Data Not Lognormal at 10% Significance Level**											
2751												
2752	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2753					Mean in Original Scale	256.5				Mean in Log Scale		2.871
2754					SD in Original Scale	5650				SD in Log Scale		1.45
2755				95% t UCL (assumes normality of ROS data)		546				95% Percentile Bootstrap UCL		594.9
2756					95% BCA Bootstrap UCL	796				95% Bootstrap t UCL		4778
2757					95% H-UCL (Log ROS)	N/A						
2758												
2759	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2760					KM Mean (logged)	3.426				KM Geo Mean		30.75
2761					KM SD (logged)	0.982				95% Critical H Value (KM-Log)		N/A
2762				KM Standard Error of Mean (logged)		0.0914				95% H-UCL (KM -Log)		N/A
2763					KM SD (logged)	0.982				95% Critical H Value (KM-Log)		N/A
2764				KM Standard Error of Mean (logged)		0.0914						
2765												
2766	**DL/2 Statistics**											
2767	**DL/2 Normal**						**DL/2 Log-Transformed**					
2768					Mean in Original Scale	361.2				Mean in Log Scale		4.546
2769					SD in Original Scale	5651				SD in Log Scale		0.932
2770					95% t UCL (Assumes normality)	650.6				95% H-Stat UCL		N/A
2771	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2772												
2773	**Nonparametric Distribution Free UCL Statistics**											
2774	**Data do not follow a Discernible Distribution**											
2775												
2776	**Suggested UCL to Use**											
2777					95% KM (t) UCL	553.1						
2778												
2779	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2780	**Please verify the data were collected from random locations.**											
2781	**If the data were collected using judgmental or other non-random methods,**											
2782	**then contact a statistician to correctly calculate UCLs.**											
2783												
2784	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2785	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2786	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2787												
2788	**Benzo(g,h,i)fluoranthene**											
2789												
2790	**General Statistics**											
2791					Total Number of Observations	66				Number of Distinct Observations		26
2792										Number of Missing Observations		147
2793					Number of Detects	19				Number of Non-Detects		47
2794					Number of Distinct Detects	15				Number of Distinct Non-Detects		13
2795					Minimum Detect	100				Minimum Non-Detect		180
2796					Maximum Detect	5500				Maximum Non-Detect		2200
2797					Variance Detects	1471969				Percent Non-Detects		71.21%
2798					Mean Detects	616.3				SD Detects		1213
2799					Median Detects	330				CV Detects		1.969
2800					Skewness Detects	4.013				Kurtosis Detects		16.82
2801					Mean of Logged Detects	5.709				SD of Logged Detects		1.041
2802												
2803	**Normal GOF Test on Detects Only**											
2804					Shapiro Wilk Test Statistic	0.424	**Shapiro Wilk GOF Test**					
2805					1% Shapiro Wilk Critical Value	0.863	Detected Data Not Normal at 1% Significance Level					
2806					Lilliefors Test Statistic	0.349	**Lilliefors GOF Test**					
2807					1% Lilliefors Critical Value	0.229	Detected Data Not Normal at 1% Significance Level					
2808	**Detected Data Not Normal at 1% Significance Level**											
2809												
2810	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2811					KM Mean	265.6				KM Standard Error of Mean		85.32
2812					90KM SD	672.4				95% KM (BCA) UCL		446.4
2813					95% KM (t) UCL	408				95% KM (Percentile Bootstrap) UCL		429.8
2814					95% KM (z) UCL	405.9				95% KM Bootstrap t UCL		740.5

2815				90% KM Chebyshev UCL	521.6					95% KM Chebyshev UCL	637.5	
2816				97.5% KM Chebyshev UCL	798.4					99% KM Chebyshev UCL	1115	
2817												
2818					**Gamma GOF Tests on Detected Observations Only**							
2819				A-D Test Statistic	1.533	**Anderson-Darling GOF Test**						
2820				5% A-D Critical Value	0.776	Detected Data Not Gamma Distributed at 5% Significance Level						
2821				K-S Test Statistic	0.226	**Kolmogorov-Smirnov GOF**						
2822				5% K-S Critical Value	0.206	Detected Data Not Gamma Distributed at 5% Significance Level						
2823					**Detected Data Not Gamma Distributed at 5% Significance Level**							
2824												
2825					**Gamma Statistics on Detected Data Only**							
2826				k hat (MLE)	0.827	k star (bias corrected MLE)	0.732					
2827				Theta hat (MLE)	745.2	Theta star (bias corrected MLE)	842.4					
2828				nu hat (MLE)	31.43	nu star (bias corrected)	27.8					
2829				Mean (detects)	616.3							
2830												
2831					**Gamma ROS Statistics using Imputed Non-Detects**							
2832					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2833					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2834					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2835					This is especially true when the sample size is small.							
2836					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2837				Minimum	0.01	Mean	194.5					
2838				Maximum	5500	Median	0.01					
2839				SD	695.4	CV	3.575					
2840				k hat (MLE)	0.135	k star (bias corrected MLE)	0.139					
2841				Theta hat (MLE)	1438	Theta star (bias corrected MLE)	1397					
2842				nu hat (MLE)	17.86	nu star (bias corrected)	18.38					
2843				Adjusted Level of Significance (β)	0.0464							
2844				Approximate Chi Square Value (18.38, α)	9.664	Adjusted Chi Square Value (18.38, β)	9.523					
2845				95% Gamma Approximate UCL	369.9	95% Gamma Adjusted UCL	375.4					
2846												
2847					**Estimates of Gamma Parameters using KM Estimates**							
2848				Mean (KM)	265.6	SD (KM)	672.4					
2849				Variance (KM)	452137	SE of Mean (KM)	85.32					
2850				k hat (KM)	0.156	k star (KM)	0.159					
2851				nu hat (KM)	20.6	nu star (KM)	20.99					
2852				theta hat (KM)	1702	theta star (KM)	1670					
2853				80% gamma percentile (KM)	302.7	90% gamma percentile (KM)	793.3					
2854				95% gamma percentile (KM)	1445	99% gamma percentile (KM)	3313					
2855												
2856					**Gamma Kaplan-Meier (KM) Statistics**							
2857				Approximate Chi Square Value (20.99, α)	11.59	Adjusted Chi Square Value (20.99, β)	11.43					
2858				95% KM Approximate Gamma UCL	481.2	95% KM Adjusted Gamma UCL	487.8					
2859												
2860					**Lognormal GOF Test on Detected Observations Only**							
2861				Shapiro Wilk Test Statistic	0.881	**Shapiro Wilk GOF Test**						
2862				10% Shapiro Wilk Critical Value	0.917	Detected Data Not Lognormal at 10% Significance Level						
2863				Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**						
2864				10% Lilliefors Critical Value	0.18	Detected Data appear Lognormal at 10% Significance Level						
2865					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
2866												
2867					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2868				Mean in Original Scale	274.3	Mean in Log Scale	5.06					
2869				SD in Original Scale	677.1	SD in Log Scale	0.806					
2870				95% t UCL (assumes normality of ROS data)	413.4	95% Percentile Bootstrap UCL	433.2					
2871				95% BCA Bootstrap UCL	528.4	95% Bootstrap t UCL	773					
2872				95% H-UCL (Log ROS)	269.3							
2873												
2874					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2875				KM Mean (logged)	5.058	KM Geo Mean	157.2					
2876				KM SD (logged)	0.705	95% Critical H Value (KM-Log)	2.017					
2877				KM Standard Error of Mean (logged)	0.102	95% H-UCL (KM -Log)	240.4					
2878				KM SD (logged)	0.705	95% Critical H Value (KM-Log)	2.017					
2879				KM Standard Error of Mean (logged)	0.102							
2880					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
2881												

2882	**DL/2 Statistics**											
2883	**DL/2 Normal**						**DL/2 Log-Transformed**					
2884				Mean in Original Scale	264.2				Mean in Log Scale	4.961		
2885				SD in Original Scale	688.2				SD in Log Scale	0.788		
2886				95% t UCL (Assumes normality)	405.6				95% H-Stat UCL	238.7		
2887	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2888												
2889	**Nonparametric Distribution Free UCL Statistics**											
2890	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
2891												
2892	**Suggested UCL to Use**											
2893				KM H-UCL	240.4							
2894												
2895	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2896	**Please verify the data were collected from random locations.**											
2897	**If the data were collected using judgmental or other non-random methods,**											
2898	**then contact a statistician to correctly calculate UCLs.**											
2899												
2900	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2901	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2902	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2903												
2904	**Benzo[a]anthracene**											
2905												
2906	**General Statistics**											
2907				Total Number of Observations	1045				Number of Distinct Observations	387		
2908									Number of Missing Observations	617		
2909				Number of Detects	615				Number of Non-Detects	430		
2910				Number of Distinct Detects	290				Number of Distinct Non-Detects	132		
2911				Minimum Detect	4.4				Minimum Non-Detect	9		
2912				Maximum Detect	46000				Maximum Non-Detect	2165		
2913				Variance Detects	10456923				Percent Non-Detects	41.15%		
2914				Mean Detects	806.5				SD Detects	3234		
2915				Median Detects	140				CV Detects	4.01		
2916				Skewness Detects	9.671				Kurtosis Detects	112.2		
2917				Mean of Logged Detects	5.224				SD of Logged Detects	1.412		
2918												
2919	**Normal GOF Test on Detects Only**											
2920				Shapiro Wilk Test Statistic	0.241		**Normal GOF Test on Detected Observations Only**					
2921				1% Shapiro Wilk P Value	0		Detected Data Not Normal at 1% Significance Level					
2922				Lilliefors Test Statistic	0.402		**Lilliefors GOF Test**					
2923				1% Lilliefors Critical Value	0.0417		Detected Data Not Normal at 1% Significance Level					
2924	**Detected Data Not Normal at 1% Significance Level**											
2925												
2926	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2927				KM Mean	490.9				KM Standard Error of Mean	77.65		
2928				90KM SD	2508				95% KM (BCA) UCL	634		
2929				95% KM (t) UCL	618.8				95% KM (Percentile Bootstrap) UCL	630.9		
2930				95% KM (z) UCL	618.7				95% KM Bootstrap t UCL	677		
2931				90% KM Chebyshev UCL	723.9				95% KM Chebyshev UCL	829.4		
2932				97.5% KM Chebyshev UCL	975.9				99% KM Chebyshev UCL	1264		
2933												
2934	**Gamma GOF Tests on Detected Observations Only**											
2935				A-D Test Statistic	57.36		**Anderson-Darling GOF Test**					
2936				5% A-D Critical Value	0.837		Detected Data Not Gamma Distributed at 5% Significance Level					
2937				K-S Test Statistic	0.225		**Kolmogorov-Smirnov GOF**					
2938				5% K-S Critical Value	0.0402		Detected Data Not Gamma Distributed at 5% Significance Level					
2939	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2940												
2941	**Gamma Statistics on Detected Data Only**											
2942				k hat (MLE)	0.441				k star (bias corrected MLE)	0.44		
2943				Theta hat (MLE)	1829				Theta star (bias corrected MLE)	1833		
2944				nu hat (MLE)	542.5				nu star (bias corrected)	541.2		
2945				Mean (detects)	806.5							
2946												
2947	**Gamma ROS Statistics using Imputed Non-Detects**											
2948	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											

2949	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2950	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2951	This is especially true when the sample size is small.											
2952	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2953						Minimum	0.01				Mean	474.6
2954						Maximum	46000				Median	48
2955						SD	2511				CV	5.291
2956						k hat (MLE)	0.154				k star (bias corrected MLE)	0.154
2957						Theta hat (MLE)	3088				Theta star (bias corrected MLE)	3084
2958						nu hat (MLE)	321.2				nu star (bias corrected)	321.6
2959						Adjusted Level of Significance (β)	0.0498					
2960						Approximate Chi Square Value (321.62, α)	281.1				Adjusted Chi Square Value (321.62, β)	281
2961						95% Gamma Approximate UCL	543.1				95% Gamma Adjusted UCL	543.2
2962												
2963	**Estimates of Gamma Parameters using KM Estimates**											
2964						Mean (KM)	490.9				SD (KM)	2508
2965						Variance (KM)	6288513				SE of Mean (KM)	77.65
2966						k hat (KM)	0.0383				k star (KM)	0.0389
2967						nu hat (KM)	80.11				nu star (KM)	81.21
2968						theta hat (KM)	12809				theta star (KM)	12635
2969						80% gamma percentile (KM)	23.51				90% gamma percentile (KM)	505.2
2970						95% gamma percentile (KM)	2315				99% gamma percentile (KM)	11718
2971												
2972	**Gamma Kaplan-Meier (KM) Statistics**											
2973						Approximate Chi Square Value (81.21, α)	61.44				Adjusted Chi Square Value (81.21, β)	61.42
2974						95% KM Approximate Gamma UCL	648.9				95% KM Adjusted Gamma UCL	649.1
2975												
2976	**Lognormal GOF Test on Detected Observations Only**											
2977						Shapiro Wilk Approximate Test Statistic	0.936				**Shapiro Wilk GOF Test**	
2978						10% Shapiro Wilk P Value	0				Detected Data Not Lognormal at 10% Significance Level	
2979						Lilliefors Test Statistic	0.0923				**Lilliefors GOF Test**	
2980						10% Lilliefors Critical Value	0.033				Detected Data Not Lognormal at 10% Significance Level	
2981	**Detected Data Not Lognormal at 10% Significance Level**											
2982												
2983	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2984						Mean in Original Scale	487.8				Mean in Log Scale	4.306
2985						SD in Original Scale	2509				SD in Log Scale	1.687
2986						95% t UCL (assumes normality of ROS data)	615.6				95% Percentile Bootstrap UCL	622.7
2987						95% BCA Bootstrap UCL	644				95% Bootstrap t UCL	684.9
2988						95% H-UCL (Log ROS)	N/A					
2989												
2990	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2991						KM Mean (logged)	4.272				KM Geo Mean	71.68
2992						KM SD (logged)	1.757				95% Critical H Value (KM-Log)	N/A
2993						KM Standard Error of Mean (logged)	0.0632				95% H-UCL (KM -Log)	N/A
2994						KM SD (logged)	1.757				95% Critical H Value (KM-Log)	N/A
2995						KM Standard Error of Mean (logged)	0.0632					
2996												
2997	**DL/2 Statistics**											
2998	**DL/2 Normal**										**DL/2 Log-Transformed**	
2999						Mean in Original Scale	508.9				Mean in Log Scale	4.597
3000						SD in Original Scale	2507				SD in Log Scale	1.513
3001						95% t UCL (Assumes normality)	636.6				95% H-Stat UCL	N/A
3002	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3003												
3004	**Nonparametric Distribution Free UCL Statistics**											
3005	**Data do not follow a Discernible Distribution**											
3006												
3007	**Suggested UCL to Use**											
3008						95% KM (t) UCL	618.8					
3009												
3010	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3011	**Please verify the data were collected from random locations.**											
3012	**If the data were collected using judgmental or other non-random methods,**											
3013	**then contact a statistician to correctly calculate UCLs.**											
3014												
3015	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

3016	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3017	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3018												
3019	**Benzo[a]pyrene**											
3020												
3021	**General Statistics**											
3022					Total Number of Observations	1045			Number of Distinct Observations	386		
3023									Number of Missing Observations	617		
3024					Number of Detects	617			Number of Non-Detects	428		
3025					Number of Distinct Detects	291			Number of Distinct Non-Detects	132		
3026					Minimum Detect	5			Minimum Non-Detect	9		
3027					Maximum Detect	39000			Maximum Non-Detect	2165		
3028					Variance Detects	7485703			Percent Non-Detects	40.96%		
3029					Mean Detects	699			SD Detects	2736		
3030					Median Detects	137			CV Detects	3.914		
3031					Skewness Detects	9.44			Kurtosis Detects	105.4		
3032					Mean of Logged Detects	5.135			SD of Logged Detects	1.412		
3033												
3034	**Normal GOF Test on Detects Only**											
3035					Shapiro Wilk Test Statistic	0.243			**Normal GOF Test on Detected Observations Only**			
3036					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
3037					Lilliefors Test Statistic	0.4			**Lilliefors GOF Test**			
3038					1% Lilliefors Critical Value	0.0416			Detected Data Not Normal at 1% Significance Level			
3039	**Detected Data Not Normal at 1% Significance Level**											
3040												
3041	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3042					KM Mean	429.5			KM Standard Error of Mean	65.83		
3043					90KM SD	2126			95% KM (BCA) UCL	546.9		
3044					95% KM (t) UCL	537.9			95% KM (Percentile Bootstrap) UCL	546.9		
3045					95% KM (z) UCL	537.8			95% KM Bootstrap t UCL	584.9		
3046					90% KM Chebyshev UCL	627			95% KM Chebyshev UCL	716.5		
3047					97.5% KM Chebyshev UCL	840.6			99% KM Chebyshev UCL	1085		
3048												
3049	**Gamma GOF Tests on Detected Observations Only**											
3050					A-D Test Statistic	50.38			**Anderson-Darling GOF Test**			
3051					5% A-D Critical Value	0.834			Detected Data Not Gamma Distributed at 5% Significance Level			
3052					K-S Test Statistic	0.213			**Kolmogorov-Smirnov GOF**			
3053					5% K-S Critical Value	0.0401			Detected Data Not Gamma Distributed at 5% Significance Level			
3054	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3055												
3056	**Gamma Statistics on Detected Data Only**											
3057					k hat (MLE)	0.456			k star (bias corrected MLE)	0.455		
3058					Theta hat (MLE)	1534			Theta star (bias corrected MLE)	1538		
3059					nu hat (MLE)	562.3			nu star (bias corrected)	560.9		
3060					Mean (detects)	699						
3061												
3062	**Gamma ROS Statistics using Imputed Non-Detects**											
3063	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3064	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3065	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3066	This is especially true when the sample size is small.											
3067	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3068					Minimum	0.01			Mean	412.8		
3069					Maximum	39000			Median	43		
3070					SD	2130			CV	5.158		
3071					k hat (MLE)	0.157			k star (bias corrected MLE)	0.157		
3072					Theta hat (MLE)	2630			Theta star (bias corrected MLE)	2627		
3073					nu hat (MLE)	328.1			nu star (bias corrected)	328.5		
3074					Adjusted Level of Significance (β)	0.0498						
3075					Approximate Chi Square Value (328.49, α)	287.5			Adjusted Chi Square Value (328.49, β)	287.4		
3076					95% Gamma Approximate UCL	471.7			95% Gamma Adjusted UCL	471.8		
3077												
3078	**Estimates of Gamma Parameters using KM Estimates**											
3079					Mean (KM)	429.5			SD (KM)	2126		
3080					Variance (KM)	4519274			SE of Mean (KM)	65.83		
3081					k hat (KM)	0.0408			k star (KM)	0.0413		
3082					nu hat (KM)	85.32			nu star (KM)	86.41		

3083					theta hat (KM)	10522					theta star (KM)	10389
3084					80% gamma percentile (KM)	27.38					90% gamma percentile (KM)	493.4
3085					95% gamma percentile (KM)	2099					99% gamma percentile (KM)	10034
3086												
3087					**Gamma Kaplan-Meier (KM) Statistics**							
3088					Approximate Chi Square Value (86.41, α)	65.98					Adjusted Chi Square Value (86.41, β)	65.96
3089					95% KM Approximate Gamma UCL	562.5					95% KM Adjusted Gamma UCL	562.7
3090												
3091					**Lognormal GOF Test on Detected Observations Only**							
3092					Shapiro Wilk Approximate Test Statistic	0.949					**Shapiro Wilk GOF Test**	
3093					10% Shapiro Wilk P Value	0					Detected Data Not Lognormal at 10% Significance Level	
3094					Lilliefors Test Statistic	0.0753					**Lilliefors GOF Test**	
3095					10% Lilliefors Critical Value	0.0329					Detected Data Not Lognormal at 10% Significance Level	
3096					**Detected Data Not Lognormal at 10% Significance Level**							
3097												
3098					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3099					Mean in Original Scale	426.3					Mean in Log Scale	4.27
3100					SD in Original Scale	2127					SD in Log Scale	1.653
3101					95% t UCL (assumes normality of ROS data)	534.6					95% Percentile Bootstrap UCL	539.8
3102					95% BCA Bootstrap UCL	555.6					95% Bootstrap t UCL	587.2
3103					95% H-UCL (Log ROS)	N/A						
3104												
3105					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3106					KM Mean (logged)	4.268					KM Geo Mean	71.38
3107					KM SD (logged)	1.683					95% Critical H Value (KM-Log)	N/A
3108					KM Standard Error of Mean (logged)	0.0596					95% H-UCL (KM -Log)	N/A
3109					KM SD (logged)	1.683					95% Critical H Value (KM-Log)	N/A
3110					KM Standard Error of Mean (logged)	0.0596						
3111												
3112					**DL/2 Statistics**							
3113					**DL/2 Normal**						**DL/2 Log-Transformed**	
3114					Mean in Original Scale	446.9					Mean in Log Scale	4.571
3115					SD in Original Scale	2126					SD in Log Scale	1.47
3116					95% t UCL (Assumes normality)	555.2					95% H-Stat UCL	N/A
3117					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3118												
3119					**Nonparametric Distribution Free UCL Statistics**							
3120					**Data do not follow a Discernible Distribution**							
3121												
3122					**Suggested UCL to Use**							
3123					95% KM (t) UCL	537.9						
3124												
3125					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
3126					**Please verify the data were collected from random locations.**							
3127					**If the data were collected using judgmental or other non-random methods,**							
3128					**then contact a statistician to correctly calculate UCLs.**							
3129												
3130					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3131					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3132					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3133												
3134	**Bis(2-Ethylhexyl)phthalate**											
3135												
3136					**General Statistics**							
3137					Total Number of Observations	1031					Number of Distinct Observations	341
3138											Number of Missing Observations	631
3139					Number of Detects	482					Number of Non-Detects	549
3140					Number of Distinct Detects	210					Number of Distinct Non-Detects	158
3141					Minimum Detect	19					Minimum Non-Detect	17.5
3142					Maximum Detect	8100					Maximum Non-Detect	2345
3143					Variance Detects	503325					Percent Non-Detects	53.25%
3144					Mean Detects	206.9					SD Detects	709.5
3145					Median Detects	47					CV Detects	3.429
3146					Skewness Detects	7.484					Kurtosis Detects	64.07
3147					Mean of Logged Detects	4.183					SD of Logged Detects	1.129
3148												
3149					**Normal GOF Test on Detects Only**							

3150				Shapiro Wilk Test Statistic		0.272	**Normal GOF Test on Detected Observations Only**					
3151				1% Shapiro Wilk P Value		0	Detected Data Not Normal at 1% Significance Level					
3152				Lilliefors Test Statistic		0.396	**Lilliefors GOF Test**					
3153				1% Lilliefors Critical Value		0.0471	Detected Data Not Normal at 1% Significance Level					
3154	**Detected Data Not Normal at 1% Significance Level**											
3155												
3156	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3157				KM Mean		119.7	KM Standard Error of Mean					15.4
3158				90KM SD		492.6	95% KM (BCA) UCL					147.5
3159				95% KM (t) UCL		145.1	95% KM (Percentile Bootstrap) UCL					147.3
3160				95% KM (z) UCL		145.1	95% KM Bootstrap t UCL					153.4
3161				90% KM Chebyshev UCL		166	95% KM Chebyshev UCL					186.9
3162				97.5% KM Chebyshev UCL		215.9	99% KM Chebyshev UCL					273
3163	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3164												
3165	**Gamma GOF Tests on Detected Observations Only**											
3166				A-D Test Statistic		64.34	**Anderson-Darling GOF Test**					
3167				5% A-D Critical Value		0.818	Detected Data Not Gamma Distributed at 5% Significance Level					
3168				K-S Test Statistic		0.276	**Kolmogorov-Smirnov GOF**					
3169				5% K-S Critical Value		0.0436	Detected Data Not Gamma Distributed at 5% Significance Level					
3170	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3171												
3172	**Gamma Statistics on Detected Data Only**											
3173				k hat (MLE)		0.545	k star (bias corrected MLE)					0.543
3174				Theta hat (MLE)		379.4	Theta star (bias corrected MLE)					380.8
3175				nu hat (MLE)		525.6	nu star (bias corrected)					523.7
3176				Mean (detects)		206.9						
3177												
3178	**Gamma ROS Statistics using Imputed Non-Detects**											
3179	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3180	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3181	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3182	This is especially true when the sample size is small.											
3183	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3184				Minimum		0.01	Mean					119
3185				Maximum		8100	Median					25
3186				SD		498.6	CV					4.188
3187				k hat (MLE)		0.179	k star (bias corrected MLE)					0.179
3188				Theta hat (MLE)		665.5	Theta star (bias corrected MLE)					665
3189				nu hat (MLE)		368.8	nu star (bias corrected)					369.1
3190				Adjusted Level of Significance (β)		0.0498						
3191				Approximate Chi Square Value (369.09, α)		325.6	Adjusted Chi Square Value (369.09, β)					325.5
3192				95% Gamma Approximate UCL		135	95% Gamma Adjusted UCL					135
3193												
3194	**Estimates of Gamma Parameters using KM Estimates**											
3195				Mean (KM)		119.7	SD (KM)					492.6
3196				Variance (KM)		242609	SE of Mean (KM)					15.4
3197				k hat (KM)		0.0591	k star (KM)					0.0596
3198				nu hat (KM)		121.9	nu star (KM)					122.9
3199				theta hat (KM)		2026	theta star (KM)					2010
3200				80% gamma percentile (KM)		28.34	90% gamma percentile (KM)					223.7
3201				95% gamma percentile (KM)		670.1	99% gamma percentile (KM)					2423
3202												
3203	**Gamma Kaplan-Meier (KM) Statistics**											
3204				Approximate Chi Square Value (122.85, α)		98.25	Adjusted Chi Square Value (122.85, β)					98.22
3205				95% KM Approximate Gamma UCL		149.7	95% KM Adjusted Gamma UCL					149.8
3206	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3207												
3208	**Lognormal GOF Test on Detected Observations Only**											
3209				Shapiro Wilk Approximate Test Statistic		0.817	**Shapiro Wilk GOF Test**					
3210				10% Shapiro Wilk P Value		0	Detected Data Not Lognormal at 10% Significance Level					
3211				Lilliefors Test Statistic		0.169	**Lilliefors GOF Test**					
3212				10% Lilliefors Critical Value		0.0373	Detected Data Not Lognormal at 10% Significance Level					
3213	**Detected Data Not Lognormal at 10% Significance Level**											
3214												
3215	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3216				Mean in Original Scale		118.2	Mean in Log Scale					3.711

3217				SD in Original Scale	492.6					SD in Log Scale	1.129	
3218			95% t UCL (assumes normality of ROS data)		143.5					95% Percentile Bootstrap UCL	144.5	
3219				95% BCA Bootstrap UCL	147.5					95% Bootstrap t UCL	154.3	
3220				95% H-UCL (Log ROS)	N/A							
3221												
3222				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
3223				KM Mean (logged)	3.831					KM Geo Mean	46.11	
3224				KM SD (logged)	0.957					95% Critical H Value (KM-Log)	N/A	
3225			KM Standard Error of Mean (logged)		0.0346					95% H-UCL (KM -Log)	N/A	
3226				KM SD (logged)	0.957					95% Critical H Value (KM-Log)	N/A	
3227			KM Standard Error of Mean (logged)		0.0346							
3228												
3229				**DL/2 Statistics**								
3230				**DL/2 Normal**						**DL/2 Log-Transformed**		
3231				Mean in Original Scale	159.4					Mean in Log Scale	4.25	
3232				SD in Original Scale	501.3					SD in Log Scale	1.056	
3233			95% t UCL (Assumes normality)		185.1					95% H-Stat UCL	N/A	
3234				**DL/2 is not a recommended method, provided for comparisons and historical reasons**								
3235												
3236				**Nonparametric Distribution Free UCL Statistics**								
3237				**Data do not follow a Discernible Distribution**								
3238												
3239				**Suggested UCL to Use**								
3240				95% KM (t) UCL	145.1							
3241												
3242				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
3243				**Please verify the data were collected from random locations.**								
3244				**If the data were collected using judgmental or other non-random methods,**								
3245				**then contact a statistician to correctly calculate UCLs.**								
3246												
3247				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
3248				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
3249				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
3250												
3251	**Butylbenzylphthalate**											
3252												
3253				**General Statistics**								
3254				Total Number of Observations	1051					Number of Distinct Observations	274	
3255										Number of Missing Observations	611	
3256				Number of Detects	23					Number of Non-Detects	1028	
3257				Number of Distinct Detects	23					Number of Distinct Non-Detects	254	
3258				Minimum Detect	60					Minimum Non-Detect	17	
3259				Maximum Detect	23000					Maximum Non-Detect	2345	
3260				Variance Detects	36025587					Percent Non-Detects	97.81%	
3261				Mean Detects	2956					SD Detects	6002	
3262				Median Detects	356					CV Detects	2.03	
3263				Skewness Detects	2.469					Kurtosis Detects	5.661	
3264				Mean of Logged Detects	6.293					SD of Logged Detects	1.806	
3265												
3266				**Normal GOF Test on Detects Only**								
3267				Shapiro Wilk Test Statistic	0.55					**Shapiro Wilk GOF Test**		
3268				1% Shapiro Wilk Critical Value	0.881					Detected Data Not Normal at 1% Significance Level		
3269				Lilliefors Test Statistic	0.419					**Lilliefors GOF Test**		
3270				1% Lilliefors Critical Value	0.209					Detected Data Not Normal at 1% Significance Level		
3271				**Detected Data Not Normal at 1% Significance Level**								
3272												
3273				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
3274				KM Mean	82.33					KM Standard Error of Mean	30.57	
3275				90KM SD	969					95% KM (BCA) UCL	141.2	
3276				95% KM (t) UCL	132.7					95% KM (Percentile Bootstrap) UCL	136.9	
3277				95% KM (z) UCL	132.6					95% KM Bootstrap t UCL	189.2	
3278				90% KM Chebyshev UCL	174					95% KM Chebyshev UCL	215.6	
3279				97.5% KM Chebyshev UCL	273.2					99% KM Chebyshev UCL	386.5	
3280				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
3281												
3282				**Gamma GOF Tests on Detected Observations Only**								
3283				A-D Test Statistic	2.177					**Anderson-Darling GOF Test**		

	A	B	C	D	E	F	G	H	I	J	K	L
3284				5% A-D Critical Value		0.829	Detected Data Not Gamma Distributed at 5% Significance Level					
3285				K-S Test Statistic		0.313	**Kolmogorov-Smirnov GOF**					
3286				5% K-S Critical Value		0.195	Detected Data Not Gamma Distributed at 5% Significance Level					
3287	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3288												
3289	**Gamma Statistics on Detected Data Only**											
3290				k hat (MLE)		0.389	k star (bias corrected MLE)					0.367
3291				Theta hat (MLE)		7598	Theta star (bias corrected MLE)					8048
3292				nu hat (MLE)		17.9	nu star (bias corrected)					16.9
3293				Mean (detects)		2956						
3294												
3295	**Gamma ROS Statistics using Imputed Non-Detects**											
3296	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3297	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3298	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3299	This is especially true when the sample size is small.											
3300	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3301				Minimum		0.01	Mean					64.7
3302				Maximum		23000	Median					0.01
3303				SD		970.6	CV					15
3304				k hat (MLE)		0.0957	k star (bias corrected MLE)					0.096
3305				Theta hat (MLE)		676.3	Theta star (bias corrected MLE)					673.8
3306				nu hat (MLE)		201.1	nu star (bias corrected)					201.8
3307				Adjusted Level of Significance (β)		0.0498						
3308				Approximate Chi Square Value (201.84, α)		170	Adjusted Chi Square Value (201.84, β)					169.9
3309				95% Gamma Approximate UCL		76.83	95% Gamma Adjusted UCL					76.85
3310												
3311	**Estimates of Gamma Parameters using KM Estimates**											
3312				Mean (KM)		82.33	SD (KM)					969
3313				Variance (KM)		939041	SE of Mean (KM)					30.57
3314				k hat (KM)		0.00722	k star (KM)					0.00783
3315				nu hat (KM)		15.17	nu star (KM)					16.46
3316				theta hat (KM)		11405	theta star (KM)					10512
3317				80% gamma percentile (KM)		2.5183E-9	90% gamma percentile (KM)					0.00855
3318				95% gamma percentile (KM)		8.513	99% gamma percentile (KM)					1966
3319												
3320	**Gamma Kaplan-Meier (KM) Statistics**											
3321				Approximate Chi Square Value (16.46, α)		8.291	Adjusted Chi Square Value (16.46, β)					8.283
3322				95% KM Approximate Gamma UCL		163.5	95% KM Adjusted Gamma UCL					163.7
3323	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3324												
3325	**Lognormal GOF Test on Detected Observations Only**											
3326				Shapiro Wilk Test Statistic		0.89	**Shapiro Wilk GOF Test**					
3327				10% Shapiro Wilk Critical Value		0.928	Detected Data Not Lognormal at 10% Significance Level					
3328				Lilliefors Test Statistic		0.179	**Lilliefors GOF Test**					
3329				10% Lilliefors Critical Value		0.165	Detected Data Not Lognormal at 10% Significance Level					
3330	**Detected Data Not Lognormal at 10% Significance Level**											
3331												
3332	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3333				Mean in Original Scale		65.09	Mean in Log Scale					-5.727
3334				SD in Original Scale		970.6	SD in Log Scale					4.169
3335				95% t UCL (assumes normality of ROS data)		114.4	95% Percentile Bootstrap UCL					116.6
3336				95% BCA Bootstrap UCL		138.4	95% Bootstrap t UCL					179.1
3337				95% H-UCL (Log ROS)		N/A						
3338												
3339	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3340				KM Mean (logged)		2.928	KM Geo Mean					18.69
3341				KM SD (logged)		0.597	95% Critical H Value (KM-Log)					N/A
3342				KM Standard Error of Mean (logged)		0.0208	95% H-UCL (KM -Log)					N/A
3343				KM SD (logged)		0.597	95% Critical H Value (KM-Log)					N/A
3344				KM Standard Error of Mean (logged)		0.0208						
3345												
3346	**DL/2 Statistics**											
3347	**DL/2 Normal**						**DL/2 Log-Transformed**					
3348				Mean in Original Scale		146.3	Mean in Log Scale					3.836
3349				SD in Original Scale		975.3	SD in Log Scale					1.204
3350				95% t UCL (Assumes normality)		195.9	95% H-Stat UCL					N/A

3351	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3352												
3353	**Nonparametric Distribution Free UCL Statistics**											
3354	**Data do not follow a Discernible Distribution**											
3355												
3356	**Suggested UCL to Use**											
3357					95% KM (t) UCL	132.7						
3358												
3359	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3360	**Please verify the data were collected from random locations.**											
3361	**If the data were collected using judgmental or other non-random methods,**											
3362	**then contact a statistician to correctly calculate UCLs.**											
3363												
3364	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3365	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3366	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3367												
3368	**Chrysene**											
3369												
3370	**General Statistics**											
3371					Total Number of Observations	1045			Number of Distinct Observations	372		
3372									Number of Missing Observations	617		
3373					Number of Detects	632			Number of Non-Detects	413		
3374					Number of Distinct Detects	274			Number of Distinct Non-Detects	131		
3375					Minimum Detect	4			Minimum Non-Detect	9		
3376					Maximum Detect	40000			Maximum Non-Detect	2165		
3377					Variance Detects	8585954			Percent Non-Detects	39.52%		
3378					Mean Detects	827.3			SD Detects	2930		
3379					Median Detects	180			CV Detects	3.542		
3380					Skewness Detects	8.762			Kurtosis Detects	93.06		
3381					Mean of Logged Detects	5.416			SD of Logged Detects	1.366		
3382												
3383	**Normal GOF Test on Detects Only**											
3384					Shapiro Wilk Test Statistic	0.269			**Normal GOF Test on Detected Observations Only**			
3385					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
3386					Lilliefors Test Statistic	0.389			**Lilliefors GOF Test**			
3387					1% Lilliefors Critical Value	0.0411			Detected Data Not Normal at 1% Significance Level			
3388	**Detected Data Not Normal at 1% Significance Level**											
3389												
3390	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3391					KM Mean	518			KM Standard Error of Mean	71.51		
3392					90KM SD	2309			95% KM (BCA) UCL	652.2		
3393					95% KM (t) UCL	635.7			95% KM (Percentile Bootstrap) UCL	645.7		
3394					95% KM (z) UCL	635.6			95% KM Bootstrap t UCL	681.2		
3395					90% KM Chebyshev UCL	732.5			95% KM Chebyshev UCL	829.7		
3396					97.5% KM Chebyshev UCL	964.5			99% KM Chebyshev UCL	1229		
3397												
3398	**Gamma GOF Tests on Detected Observations Only**											
3399					A-D Test Statistic	51.4			**Anderson-Darling GOF Test**			
3400					5% A-D Critical Value	0.825			Detected Data Not Gamma Distributed at 5% Significance Level			
3401					K-S Test Statistic	0.21			**Kolmogorov-Smirnov GOF**			
3402					5% K-S Critical Value	0.0396			Detected Data Not Gamma Distributed at 5% Significance Level			
3403	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3404												
3405	**Gamma Statistics on Detected Data Only**											
3406					k hat (MLE)	0.489			k star (bias corrected MLE)	0.488		
3407					Theta hat (MLE)	1690			Theta star (bias corrected MLE)	1695		
3408					nu hat (MLE)	618.6			nu star (bias corrected)	617		
3409					Mean (detects)	827.3						
3410												
3411	**Gamma ROS Statistics using Imputed Non-Detects**											
3412	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3413	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3414	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3415	This is especially true when the sample size is small.											
3416	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3417					Minimum	0.01			Mean	500.3		

3418					Maximum	40000				Median		72
3419					SD	2314				CV		4.624
3420					k hat (MLE)	0.16				k star (bias corrected MLE)		0.16
3421					Theta hat (MLE)	3128				Theta star (bias corrected MLE)		3124
3422					nu hat (MLE)	334.3				nu star (bias corrected)		334.7
3423					Adjusted Level of Significance (β)	0.0498						
3424					Approximate Chi Square Value (334.68, α)	293.3				Adjusted Chi Square Value (334.68, β)		293.2
3425					95% Gamma Approximate UCL	570.9				95% Gamma Adjusted UCL		571
3426												
3427					**Estimates of Gamma Parameters using KM Estimates**							
3428					Mean (KM)	518				SD (KM)		2309
3429					Variance (KM)	5333027				SE of Mean (KM)		71.51
3430					k hat (KM)	0.0503				k star (KM)		0.0508
3431					nu hat (KM)	105.1				nu star (KM)		106.2
3432					theta hat (KM)	10296				theta star (KM)		10196
3433					80% gamma percentile (KM)	74.27				90% gamma percentile (KM)		807
3434					95% gamma percentile (KM)	2770				99% gamma percentile (KM)		11196
3435												
3436					**Gamma Kaplan-Meier (KM) Statistics**							
3437					Approximate Chi Square Value (106.17, α)	83.39				Adjusted Chi Square Value (106.17, β)		83.37
3438					95% KM Approximate Gamma UCL	659.5				95% KM Adjusted Gamma UCL		659.7
3439												
3440					**Lognormal GOF Test on Detected Observations Only**							
3441					Shapiro Wilk Approximate Test Statistic	0.952				**Shapiro Wilk GOF Test**		
3442					10% Shapiro Wilk P Value	0				Detected Data Not Lognormal at 10% Significance Level		
3443					Lilliefors Test Statistic	0.081				**Lilliefors GOF Test**		
3444					10% Lilliefors Critical Value	0.0325				Detected Data Not Lognormal at 10% Significance Level		
3445					**Detected Data Not Lognormal at 10% Significance Level**							
3446												
3447					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3448					Mean in Original Scale	514.6				Mean in Log Scale		4.532
3449					SD in Original Scale	2311				SD in Log Scale		1.646
3450					95% t UCL (assumes normality of ROS data)	632.3				95% Percentile Bootstrap UCL		637.6
3451					95% BCA Bootstrap UCL	653.6				95% Bootstrap t UCL		681.9
3452					95% H-UCL (Log ROS)	N/A						
3453												
3454					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3455					KM Mean (logged)	4.46				KM Geo Mean		86.46
3456					KM SD (logged)	1.782				95% Critical H Value (KM-Log)		N/A
3457					KM Standard Error of Mean (logged)	0.0658				95% H-UCL (KM -Log)		N/A
3458					KM SD (logged)	1.782				95% Critical H Value (KM-Log)		N/A
3459					KM Standard Error of Mean (logged)	0.0658						
3460												
3461					**DL/2 Statistics**							
3462					**DL/2 Normal**					**DL/2 Log-Transformed**		
3463					Mean in Original Scale	533.7				Mean in Log Scale		4.758
3464					SD in Original Scale	2309				SD in Log Scale		1.518
3465					95% t UCL (Assumes normality)	651.3				95% H-Stat UCL		N/A
3466					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3467												
3468					**Nonparametric Distribution Free UCL Statistics**							
3469					**Data do not follow a Discernible Distribution**							
3470												
3471					**Suggested UCL to Use**							
3472					95% KM (t) UCL	635.7						
3473												
3474					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
3475					**Please verify the data were collected from random locations.**							
3476					**If the data were collected using judgmental or other non-random methods,**							
3477					**then contact a statistician to correctly calculate UCLs.**							
3478												
3479					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3480					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3481					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3482												
3483	**Dibenzo[a,h]anthracene**											
3484												

3485	**General Statistics**											
3486					Total Number of Observations	1045			Number of Distinct Observations	292		
3487									Number of Missing Observations	617		
3488					Number of Detects	141			Number of Non-Detects	904		
3489					Number of Distinct Detects	87			Number of Distinct Non-Detects	228		
3490					Minimum Detect	7			Minimum Non-Detect	9		
3491					Maximum Detect	6500			Maximum Non-Detect	2345		
3492					Variance Detects	923014			Percent Non-Detects	86.51%		
3493					Mean Detects	484.3			SD Detects	960.7		
3494					Median Detects	180			CV Detects	1.984		
3495					Skewness Detects	4.141			Kurtosis Detects	18.97		
3496					Mean of Logged Detects	5.327			SD of Logged Detects	1.202		
3497												
3498	**Normal GOF Test on Detects Only**											
3499					Shapiro Wilk Test Statistic	0.473			**Normal GOF Test on Detected Observations Only**			
3500					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
3501					Lilliefors Test Statistic	0.321			**Lilliefors GOF Test**			
3502					1% Lilliefors Critical Value	0.0867			Detected Data Not Normal at 1% Significance Level			
3503	**Detected Data Not Normal at 1% Significance Level**											
3504												
3505	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3506					KM Mean	78.18			KM Standard Error of Mean	12.1		
3507					90KM SD	387.8			95% KM (BCA) UCL	100.8		
3508					95% KM (t) UCL	98.1			95% KM (Percentile Bootstrap) UCL	99.39		
3509					95% KM (z) UCL	98.08			95% KM Bootstrap t UCL	103.7		
3510					90% KM Chebyshev UCL	114.5			95% KM Chebyshev UCL	130.9		
3511					97.5% KM Chebyshev UCL	153.7			99% KM Chebyshev UCL	198.6		
3512	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3513												
3514	**Gamma GOF Tests on Detected Observations Only**											
3515					A-D Test Statistic	7.991			**Anderson-Darling GOF Test**			
3516					5% A-D Critical Value	0.8			Detected Data Not Gamma Distributed at 5% Significance Level			
3517					K-S Test Statistic	0.191			**Kolmogorov-Smirnov GOF**			
3518					5% K-S Critical Value	0.0822			Detected Data Not Gamma Distributed at 5% Significance Level			
3519	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3520												
3521	**Gamma Statistics on Detected Data Only**											
3522					k hat (MLE)	0.706			k star (bias corrected MLE)	0.695		
3523					Theta hat (MLE)	686.3			Theta star (bias corrected MLE)	696.4		
3524					nu hat (MLE)	199			nu star (bias corrected)	196.1		
3525					Mean (detects)	484.3						
3526												
3527	**Gamma ROS Statistics using Imputed Non-Detects**											
3528	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3529	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3530	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3531	This is especially true when the sample size is small.											
3532	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3533					Minimum	0.01			Mean	65.49		
3534					Maximum	6500			Median	0.01		
3535					SD	388.8			CV	5.937		
3536					k hat (MLE)	0.108			k star (bias corrected MLE)	0.109		
3537					Theta hat (MLE)	604.9			Theta star (bias corrected MLE)	603.1		
3538					nu hat (MLE)	226.3			nu star (bias corrected)	227		
3539					Adjusted Level of Significance (β)	0.0498						
3540					Approximate Chi Square Value (226.95, α)	193.1			Adjusted Chi Square Value (226.95, β)	193		
3541					95% Gamma Approximate UCL	76.98			95% Gamma Adjusted UCL	76.99		
3542												
3543	**Estimates of Gamma Parameters using KM Estimates**											
3544					Mean (KM)	78.18			SD (KM)	387.8		
3545					Variance (KM)	150423			SE of Mean (KM)	12.1		
3546					k hat (KM)	0.0406			k star (KM)	0.0412		
3547					nu hat (KM)	84.93			nu star (KM)	86.02		
3548					theta hat (KM)	1924			theta star (KM)	1900		
3549					80% gamma percentile (KM)	4.884			90% gamma percentile (KM)	89.11		
3550					95% gamma percentile (KM)	381.1			99% gamma percentile (KM)	1829		
3551												

	A	B	C	D	E	F	G	H	I	J	K	L
3552	**Gamma Kaplan-Meier (KM) Statistics**											
3553	Approximate Chi Square Value (86.02, α)					65.64	Adjusted Chi Square Value (86.02, β)					65.61
3554	95% KM Approximate Gamma UCL					102.5	95% KM Adjusted Gamma UCL					102.5
3555	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3556												
3557	**Lognormal GOF Test on Detected Observations Only**											
3558	Shapiro Wilk Approximate Test Statistic					0.962	**Shapiro Wilk GOF Test**					
3559	10% Shapiro Wilk P Value					0.00786	Detected Data Not Lognormal at 10% Significance Level					
3560	Lilliefors Test Statistic					0.0892	**Lilliefors GOF Test**					
3561	10% Lilliefors Critical Value					0.0686	Detected Data Not Lognormal at 10% Significance Level					
3562	**Detected Data Not Lognormal at 10% Significance Level**											
3563												
3564	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3565	Mean in Original Scale					74.3	Mean in Log Scale					2.04
3566	SD in Original Scale					387.6	SD in Log Scale					1.897
3567	95% t UCL (assumes normality of ROS data)					94.04	95% Percentile Bootstrap UCL					95.36
3568	95% BCA Bootstrap UCL					98.63	95% Bootstrap t UCL					100.6
3569	95% H-UCL (Log ROS)					N/A						
3570												
3571	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3572	KM Mean (logged)					2.632	KM Geo Mean					13.9
3573	KM SD (logged)					1.314	95% Critical H Value (KM-Log)					N/A
3574	KM Standard Error of Mean (logged)					0.0591	95% H-UCL (KM -Log)					N/A
3575	KM SD (logged)					1.314	95% Critical H Value (KM-Log)					N/A
3576	KM Standard Error of Mean (logged)					0.0591						
3577												
3578	**DL/2 Statistics**											
3579	**DL/2 Normal**						**DL/2 Log-Transformed**					
3580	Mean in Original Scale					130	Mean in Log Scale					3.871
3581	SD in Original Scale					398.8	SD in Log Scale					1.303
3582	95% t UCL (Assumes normality)					150.3	95% H-Stat UCL					N/A
3583	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3584												
3585	**Nonparametric Distribution Free UCL Statistics**											
3586	**Data do not follow a Discernible Distribution**											
3587												
3588	**Suggested UCL to Use**											
3589	95% KM (t) UCL					98.1						
3590												
3591	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3592	**Please verify the data were collected from random locations.**											
3593	**If the data were collected using judgmental or other non-random methods,**											
3594	**then contact a statistician to correctly calculate UCLs.**											
3595												
3596	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3597	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3598	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3599												
3600	**Naphthalene**											
3601												
3602	**General Statistics**											
3603	Total Number of Observations					828	Number of Distinct Observations					273
3604							Number of Missing Observations					834
3605	Number of Detects					95	Number of Non-Detects					733
3606	Number of Distinct Detects					67	Number of Distinct Non-Detects					225
3607	Minimum Detect					7	Minimum Non-Detect					9
3608	Maximum Detect					14900	Maximum Non-Detect					2345
3609	Variance Detects					2664405	Percent Non-Detects					88.53%
3610	Mean Detects					320	SD Detects					1632
3611	Median Detects					46	CV Detects					5.101
3612	Skewness Detects					8.079	Kurtosis Detects					70.07
3613	Mean of Logged Detects					4.061	SD of Logged Detects					1.183
3614												
3615	**Normal GOF Test on Detects Only**											
3616	Shapiro Wilk Test Statistic					0.197	**Normal GOF Test on Detected Observations Only**					
3617	1% Shapiro Wilk P Value					0	Detected Data Not Normal at 1% Significance Level					
3618	Lilliefors Test Statistic					0.45	**Lilliefors GOF Test**					

3619				1% Lilliefors Critical Value		0.105	Detected Data Not Normal at 1% Significance Level					
3620	**Detected Data Not Normal at 1% Significance Level**											
3621												
3622	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3623				KM Mean		48.18	KM Standard Error of Mean					19.55
3624				90KM SD		558.9	95% KM (BCA) UCL					86.92
3625				95% KM (t) UCL		80.37	95% KM (Percentile Bootstrap) UCL					84.3
3626				95% KM (z) UCL		80.33	95% KM Bootstrap t UCL					244.7
3627				90% KM Chebyshev UCL		106.8	95% KM Chebyshev UCL					133.4
3628				97.5% KM Chebyshev UCL		170.2	99% KM Chebyshev UCL					242.7
3629	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3630												
3631	**Gamma GOF Tests on Detected Observations Only**											
3632				A-D Test Statistic		18.75	**Anderson-Darling GOF Test**					
3633				5% A-D Critical Value		0.846	Detected Data Not Gamma Distributed at 5% Significance Level					
3634				K-S Test Statistic		0.367	**Kolmogorov-Smirnov GOF**					
3635				5% K-S Critical Value		0.0986	Detected Data Not Gamma Distributed at 5% Significance Level					
3636	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3637												
3638	**Gamma Statistics on Detected Data Only**											
3639				k hat (MLE)		0.387	k star (bias corrected MLE)					0.382
3640				Theta hat (MLE)		825.9	Theta star (bias corrected MLE)					837.2
3641				nu hat (MLE)		73.61	nu star (bias corrected)					72.62
3642				Mean (detects)		320						
3643												
3644	**Gamma ROS Statistics using Imputed Non-Detects**											
3645	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3646	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3647	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3648	This is especially true when the sample size is small.											
3649	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3650				Minimum		0.01	Mean					39.53
3651				Maximum		14900	Median					0.01
3652				SD		560.6	CV					14.18
3653				k hat (MLE)		0.111	k star (bias corrected MLE)					0.112
3654				Theta hat (MLE)		354.7	Theta star (bias corrected MLE)					353.4
3655				nu hat (MLE)		184.6	nu star (bias corrected)					185.2
3656				Adjusted Level of Significance (β)		0.0497						
3657				Approximate Chi Square Value (185.25, α)		154.8	Adjusted Chi Square Value (185.25, β)					154.7
3658				95% Gamma Approximate UCL		47.32	95% Gamma Adjusted UCL					47.34
3659												
3660	**Estimates of Gamma Parameters using KM Estimates**											
3661				Mean (KM)		48.18	SD (KM)					558.9
3662				Variance (KM)		312392	SE of Mean (KM)					19.55
3663				k hat (KM)		0.00743	k star (KM)					0.00821
3664				nu hat (KM)		12.31	nu star (KM)					13.6
3665				theta hat (KM)		6483	theta star (KM)					5869
3666				80% gamma percentile (KM)		5.2135E-9	90% gamma percentile (KM)					0.00886
3667				95% gamma percentile (KM)		6.427	99% gamma percentile (KM)					1179
3668												
3669	**Gamma Kaplan-Meier (KM) Statistics**											
3670				Approximate Chi Square Value (13.60, α)		6.296	Adjusted Chi Square Value (13.60, β)					6.287
3671				95% KM Approximate Gamma UCL		104.1	95% KM Adjusted Gamma UCL					104.2
3672	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3673												
3674	**Lognormal GOF Test on Detected Observations Only**											
3675				Shapiro Wilk Approximate Test Statistic		0.813	**Shapiro Wilk GOF Test**					
3676				10% Shapiro Wilk P Value		0	Detected Data Not Lognormal at 10% Significance Level					
3677				Lilliefors Test Statistic		0.165	**Lilliefors GOF Test**					
3678				10% Lilliefors Critical Value		0.0834	Detected Data Not Lognormal at 10% Significance Level					
3679	**Detected Data Not Lognormal at 10% Significance Level**											
3680												
3681	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3682				Mean in Original Scale		41.74	Mean in Log Scale					1.402
3683				SD in Original Scale		559.4	SD in Log Scale					1.548
3684				95% t UCL (assumes normality of ROS data)		73.76	95% Percentile Bootstrap UCL					76.34
3685				95% BCA Bootstrap UCL		101.1	95% Bootstrap t UCL					200.7

3686				95% H-UCL (Log ROS)		15.48						
3687												
3688	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3689				KM Mean (logged)		2.44				KM Geo Mean		11.47
3690				KM SD (logged)		0.921				95% Critical H Value (KM-Log)		2.035
3691				KM Standard Error of Mean (logged)		0.0496				95% H-UCL (KM -Log)		18.7
3692				KM SD (logged)		0.921				95% Critical H Value (KM-Log)		2.035
3693				KM Standard Error of Mean (logged)		0.0496						
3694	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3695												
3696	**DL/2 Statistics**											
3697	**DL/2 Normal**						**DL/2 Log-Transformed**					
3698				Mean in Original Scale		108.5				Mean in Log Scale		3.639
3699				SD in Original Scale		574.4				SD in Log Scale		1.27
3700				95% t UCL (Assumes normality)		141.4				95% H-Stat UCL		94.5
3701	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3702												
3703	**Nonparametric Distribution Free UCL Statistics**											
3704	**Data do not follow a Discernible Distribution**											
3705												
3706	**Suggested UCL to Use**											
3707				95% KM (t) UCL		80.37						
3708												
3709	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3710	**Please verify the data were collected from random locations.**											
3711	**If the data were collected using judgmental or other non-random methods,**											
3712	**then contact a statistician to correctly calculate UCLs.**											
3713												
3714	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3715	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3716	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3717												
3718	**N-Nitroso-Di-N-Propylamine**											
3719												
3720	**General Statistics**											
3721				Total Number of Observations		1030				Number of Distinct Observations		249
3722										Number of Missing Observations		632
3723				Number of Detects		8				Number of Non-Detects		1022
3724				Number of Distinct Detects		8				Number of Distinct Non-Detects		241
3725				Minimum Detect		21.6				Minimum Non-Detect		17
3726				Maximum Detect		2840				Maximum Non-Detect		2345
3727				Variance Detects		954474				Percent Non-Detects		99.22%
3728				Mean Detects		753.6				SD Detects		977
3729				Median Detects		335.5				CV Detects		1.296
3730				Skewness Detects		1.708				Kurtosis Detects		2.63
3731				Mean of Logged Detects		5.707				SD of Logged Detects		1.625
3732												
3733	**Normal GOF Test on Detects Only**											
3734				Shapiro Wilk Test Statistic		0.783	**Shapiro Wilk GOF Test**					
3735				1% Shapiro Wilk Critical Value		0.749	Detected Data appear Normal at 1% Significance Level					
3736				Lilliefors Test Statistic		0.242	**Lilliefors GOF Test**					
3737				1% Lilliefors Critical Value		0.333	Detected Data appear Normal at 1% Significance Level					
3738	**Detected Data appear Normal at 1% Significance Level**											
3739	**Note GOF tests may be unreliable for small sample sizes**											
3740												
3741	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3742				KM Mean		22.98				KM Standard Error of Mean		3.467
3743				90KM SD		103.6				95% KM (BCA) UCL		29.55
3744				95% KM (t) UCL		28.69				95% KM (Percentile Bootstrap) UCL		29.18
3745				95% KM (z) UCL		28.69				95% KM Bootstrap t UCL		37.83
3746				90% KM Chebyshev UCL		33.38				95% KM Chebyshev UCL		38.1
3747				97.5% KM Chebyshev UCL		44.64				99% KM Chebyshev UCL		57.48
3748	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3749												
3750	**Gamma GOF Tests on Detected Observations Only**											
3751				A-D Test Statistic		0.188	**Anderson-Darling GOF Test**					
3752				5% A-D Critical Value		0.751	Detected data appear Gamma Distributed at 5% Significance Level					

	A	B	C	D	E	F	G	H	I	J	K	L
3753					K-S Test Statistic	0.165	**Kolmogorov-Smirnov GOF**					
3754					5% K-S Critical Value	0.306	Detected data appear Gamma Distributed at 5% Significance Level					
3755	**Detected data appear Gamma Distributed at 5% Significance Level**											
3756	**Note GOF tests may be unreliable for small sample sizes**											
3757												
3758	**Gamma Statistics on Detected Data Only**											
3759					k hat (MLE)	0.664	k star (bias corrected MLE)					0.498
3760					Theta hat (MLE)	1135	Theta star (bias corrected MLE)					1513
3761					nu hat (MLE)	10.62	nu star (bias corrected)					7.97
3762					Mean (detects)	753.6						
3763												
3764	**Gamma ROS Statistics using Imputed Non-Detects**											
3765	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3766	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3767	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3768	This is especially true when the sample size is small.											
3769	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3770					Minimum	0.01	Mean					5.863
3771					Maximum	2840	Median					0.01
3772					SD	104.3	CV					17.79
3773					k hat (MLE)	0.125	k star (bias corrected MLE)					0.126
3774					Theta hat (MLE)	46.8	Theta star (bias corrected MLE)					46.7
3775					nu hat (MLE)	258.1	nu star (bias corrected)					258.6
3776					Adjusted Level of Significance (β)	0.0498						
3777					Approximate Chi Square Value (258.63, α)	222.4	Adjusted Chi Square Value (258.63, β)					222.3
3778					95% Gamma Approximate UCL	6.818	95% Gamma Adjusted UCL					6.819
3779												
3780	**Estimates of Gamma Parameters using KM Estimates**											
3781					Mean (KM)	22.98	SD (KM)					103.6
3782					Variance (KM)	10741	SE of Mean (KM)					3.467
3783					k hat (KM)	0.0492	k star (KM)					0.0497
3784					nu hat (KM)	101.3	nu star (KM)					102.3
3785					theta hat (KM)	467.3	theta star (KM)					462.6
3786					80% gamma percentile (KM)	3.048	90% gamma percentile (KM)					34.79
3787					95% gamma percentile (KM)	122	99% gamma percentile (KM)					501.2
3788												
3789	**Gamma Kaplan-Meier (KM) Statistics**											
3790					Approximate Chi Square Value (102.34, α)	80	Adjusted Chi Square Value (102.34, β)					79.97
3791					95% KM Approximate Gamma UCL	29.4	95% KM Adjusted Gamma UCL					29.41
3792	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
3793												
3794	**Lognormal GOF Test on Detected Observations Only**											
3795					Shapiro Wilk Test Statistic	0.984	**Shapiro Wilk GOF Test**					
3796					10% Shapiro Wilk Critical Value	0.851	Detected Data appear Lognormal at 10% Significance Level					
3797					Lilliefors Test Statistic	0.104	**Lilliefors GOF Test**					
3798					10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level					
3799	**Detected Data appear Lognormal at 10% Significance Level**											
3800	**Note GOF tests may be unreliable for small sample sizes**											
3801												
3802	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3803					Mean in Original Scale	5.957	Mean in Log Scale					-7.285
3804					SD in Original Scale	104.3	SD in Log Scale					3.837
3805					95% t UCL (assumes normality of ROS data)	11.31	95% Percentile Bootstrap UCL					11.74
3806					95% BCA Bootstrap UCL	13.62	95% Bootstrap t UCL					24.59
3807					95% H-UCL (Log ROS)	N/A						
3808												
3809	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3810					KM Mean (logged)	2.86	KM Geo Mean					17.47
3811					KM SD (logged)	0.299	95% Critical H Value (KM-Log)					N/A
3812					KM Standard Error of Mean (logged)	0.0109	95% H-UCL (KM -Log)					N/A
3813					KM SD (logged)	0.299	95% Critical H Value (KM-Log)					N/A
3814					KM Standard Error of Mean (logged)	0.0109						
3815												
3816	**DL/2 Statistics**											
3817	**DL/2 Normal**						**DL/2 Log-Transformed**					
3818					Mean in Original Scale	80.34	Mean in Log Scale					3.689
3819					SD in Original Scale	168	SD in Log Scale					1.137

	A	B	C	D	E	F	G	H	I	J	K	L
3820				95% t UCL (Assumes normality)		88.96					95% H-Stat UCL	N/A
3821	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3822												
3823	**Nonparametric Distribution Free UCL Statistics**											
3824	**Detected Data appear Normal Distributed at 1% Significance Level**											
3825												
3826	**Suggested UCL to Use**											
3827				95% KM (t) UCL		28.69						
3828												
3829	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3830	**Please verify the data were collected from random locations.**											
3831	**If the data were collected using judgmental or other non-random methods,**											
3832	**then contact a statistician to correctly calculate UCLs.**											
3833												
3834	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3835	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3836	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3837												
3838	**N-Nitrosodiphenylamine**											
3839												
3840	**General Statistics**											
3841				Total Number of Observations		1003				Number of Distinct Observations		320
3842										Number of Missing Observations		659
3843				Number of Detects		306				Number of Non-Detects		697
3844				Number of Distinct Detects		184				Number of Distinct Non-Detects		173
3845				Minimum Detect		20				Minimum Non-Detect		17.5
3846				Maximum Detect		24000				Maximum Non-Detect		2345
3847				Variance Detects		5457068				Percent Non-Detects		69.49%
3848				Mean Detects		991.5				SD Detects		2336
3849				Median Detects		280				CV Detects		2.356
3850				Skewness Detects		6.196				Kurtosis Detects		48.41
3851				Mean of Logged Detects		5.851				SD of Logged Detects		1.336
3852												
3853	**Normal GOF Test on Detects Only**											
3854				Shapiro Wilk Test Statistic		0.416			**Normal GOF Test on Detected Observations Only**			
3855				1% Shapiro Wilk P Value		0			Detected Data Not Normal at 1% Significance Level			
3856				Lilliefors Test Statistic		0.339			**Lilliefors GOF Test**			
3857				1% Lilliefors Critical Value		0.059			Detected Data Not Normal at 1% Significance Level			
3858	**Detected Data Not Normal at 1% Significance Level**											
3859												
3860	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3861				KM Mean		324				KM Standard Error of Mean		43.12
3862				90KM SD		1363				95% KM (BCA) UCL		396.1
3863				95% KM (t) UCL		395				95% KM (Percentile Bootstrap) UCL		395
3864				95% KM (z) UCL		394.9				95% KM Bootstrap t UCL		419.7
3865				90% KM Chebyshev UCL		453.3				95% KM Chebyshev UCL		511.9
3866				97.5% KM Chebyshev UCL		593.3				99% KM Chebyshev UCL		753
3867												
3868	**Gamma GOF Tests on Detected Observations Only**											
3869				A-D Test Statistic		15.56			**Anderson-Darling GOF Test**			
3870				5% A-D Critical Value		0.813			Detected Data Not Gamma Distributed at 5% Significance Level			
3871				K-S Test Statistic		0.166			**Kolmogorov-Smirnov GOF**			
3872				5% K-S Critical Value		0.0543			Detected Data Not Gamma Distributed at 5% Significance Level			
3873	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3874												
3875	**Gamma Statistics on Detected Data Only**											
3876				k hat (MLE)		0.591				k star (bias corrected MLE)		0.587
3877				Theta hat (MLE)		1679				Theta star (bias corrected MLE)		1689
3878				nu hat (MLE)		361.5				nu star (bias corrected)		359.3
3879				Mean (detects)		991.5						
3880												
3881	**Gamma ROS Statistics using Imputed Non-Detects**											
3882	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3883	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3884	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3885	This is especially true when the sample size is small.											
3886	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											

3887					Minimum	0.01				Mean		302.5
3888					Maximum	24000				Median		0.01
3889					SD	1367				CV		4.52
3890					k hat (MLE)	0.112				k star (bias corrected MLE)		0.113
3891					Theta hat (MLE)	2695				Theta star (bias corrected MLE)		2687
3892					nu hat (MLE)	225.2				nu star (bias corrected)		225.9
3893					Adjusted Level of Significance (β)	0.0498						
3894					Approximate Chi Square Value (225.85, α)	192.1				Adjusted Chi Square Value (225.85, β)		192
3895					95% Gamma Approximate UCL	355.7				95% Gamma Adjusted UCL		355.8
3896												
3897					**Estimates of Gamma Parameters using KM Estimates**							
3898					Mean (KM)	324				SD (KM)		1363
3899					Variance (KM)	1856805				SE of Mean (KM)		43.12
3900					k hat (KM)	0.0565				k star (KM)		0.057
3901					nu hat (KM)	113.4				nu star (KM)		114.4
3902					theta hat (KM)	5731				theta star (KM)		5681
3903					80% gamma percentile (KM)	67.46				90% gamma percentile (KM)		578.2
3904					95% gamma percentile (KM)	1794				99% gamma percentile (KM)		6679
3905												
3906					**Gamma Kaplan-Meier (KM) Statistics**							
3907					Approximate Chi Square Value (114.39, α)	90.7				Adjusted Chi Square Value (114.39, β)		90.67
3908					95% KM Approximate Gamma UCL	408.6				95% KM Adjusted Gamma UCL		408.7
3909												
3910					**Lognormal GOF Test on Detected Observations Only**							
3911					Shapiro Wilk Approximate Test Statistic	0.96				**Shapiro Wilk GOF Test**		
3912					10% Shapiro Wilk P Value	7.9638E-7				Detected Data Not Lognormal at 10% Significance Level		
3913					Lilliefors Test Statistic	0.0764				**Lilliefors GOF Test**		
3914					10% Lilliefors Critical Value	0.0467				Detected Data Not Lognormal at 10% Significance Level		
3915					**Detected Data Not Lognormal at 10% Significance Level**							
3916												
3917					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3918					Mean in Original Scale	315.3				Mean in Log Scale		3.337
3919					SD in Original Scale	1365				SD in Log Scale		2.133
3920					95% t UCL (assumes normality of ROS data)	386.3				95% Percentile Bootstrap UCL		390.6
3921					95% BCA Bootstrap UCL	402				95% Bootstrap t UCL		407
3922					95% H-UCL (Log ROS)	N/A						
3923												
3924					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3925					KM Mean (logged)	3.948				KM Geo Mean		51.81
3926					KM SD (logged)	1.549				95% Critical H Value (KM-Log)		N/A
3927					KM Standard Error of Mean (logged)	0.0533				95% H-UCL (KM -Log)		N/A
3928					KM SD (logged)	1.549				95% Critical H Value (KM-Log)		N/A
3929					KM Standard Error of Mean (logged)	0.0533						
3930												
3931					**DL/2 Statistics**							
3932					**DL/2 Normal**					**DL/2 Log-Transformed**		
3933					Mean in Original Scale	353.4				Mean in Log Scale		4.365
3934					SD in Original Scale	1361				SD in Log Scale		1.52
3935					95% t UCL (Assumes normality)	424.2				95% H-Stat UCL		N/A
3936					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3937												
3938					**Nonparametric Distribution Free UCL Statistics**							
3939					**Data do not follow a Discernible Distribution**							
3940												
3941					**Suggested UCL to Use**							
3942					95% KM (t) UCL	395						
3943												
3944					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
3945					**Please verify the data were collected from random locations.**							
3946					**If the data were collected using judgmental or other non-random methods,**							
3947					**then contact a statistician to correctly calculate UCLs.**							
3948												
3949					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3950					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3951					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3952												
3953	**Phenanthrene**											

3954												
3955	**General Statistics**											
3956					Total Number of Observations	842			Number of Distinct Observations	382		
3957									Number of Missing Observations	820		
3958					Number of Detects	549			Number of Non-Detects	293		
3959					Number of Distinct Detects	278			Number of Distinct Non-Detects	127		
3960					Minimum Detect	4			Minimum Non-Detect	9		
3961					Maximum Detect	79000			Maximum Non-Detect	2165		
3962					Variance Detects	26025212			Percent Non-Detects	34.8%		
3963					Mean Detects	874.2			SD Detects	5101		
3964					Median Detects	130			CV Detects	5.836		
3965					Skewness Detects	12.56			Kurtosis Detects	174		
3966					Mean of Logged Detects	5.078			SD of Logged Detects	1.433		
3967												
3968	**Normal GOF Test on Detects Only**											
3969					Shapiro Wilk Test Statistic	0.156			**Normal GOF Test on Detected Observations Only**			
3970					1% Shapiro Wilk P Value	0			Detected Data Not Normal at 1% Significance Level			
3971					Lilliefors Test Statistic	0.432			**Lilliefors GOF Test**			
3972					1% Lilliefors Critical Value	0.0441			Detected Data Not Normal at 1% Significance Level			
3973	**Detected Data Not Normal at 1% Significance Level**											
3974												
3975	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3976					KM Mean	585.4			KM Standard Error of Mean	142.6		
3977					90KM SD	4135			95% KM (BCA) UCL	844.4		
3978					95% KM (t) UCL	820.2			95% KM (Percentile Bootstrap) UCL	838.2		
3979					95% KM (z) UCL	820			95% KM Bootstrap t UCL	1086		
3980					90% KM Chebyshev UCL	1013			95% KM Chebyshev UCL	1207		
3981					97.5% KM Chebyshev UCL	1476			99% KM Chebyshev UCL	2005		
3982												
3983	**Gamma GOF Tests on Detected Observations Only**											
3984					A-D Test Statistic	1.821E+28			**Anderson-Darling GOF Test**			
3985					5% A-D Critical Value	0.849			Detected Data Not Gamma Distributed at 5% Significance Level			
3986					K-S Test Statistic	0.248			**Kolmogorov-Smirnov GOF**			
3987					5% K-S Critical Value	0.0422			Detected Data Not Gamma Distributed at 5% Significance Level			
3988	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3989												
3990	**Gamma Statistics on Detected Data Only**											
3991					k hat (MLE)	0.39			k star (bias corrected MLE)	0.389		
3992					Theta hat (MLE)	2242			Theta star (bias corrected MLE)	2247		
3993					nu hat (MLE)	428.1			nu star (bias corrected)	427.1		
3994					Mean (detects)	874.2						
3995												
3996	**Gamma ROS Statistics using Imputed Non-Detects**											
3997	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3998	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3999	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4000	This is especially true when the sample size is small.											
4001	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
4002					Minimum	0.01			Mean	570		
4003					Maximum	79000			Median	57		
4004					SD	4139			CV	7.262		
4005					k hat (MLE)	0.164			k star (bias corrected MLE)	0.164		
4006					Theta hat (MLE)	3483			Theta star (bias corrected MLE)	3479		
4007					nu hat (MLE)	275.6			nu star (bias corrected)	275.9		
4008					Adjusted Level of Significance (β)	0.0497						
4009					Approximate Chi Square Value (275.93, α)	238.5			Adjusted Chi Square Value (275.93, β)	238.4		
4010					95% Gamma Approximate UCL	659.6			95% Gamma Adjusted UCL	659.7		
4011												
4012	**Estimates of Gamma Parameters using KM Estimates**											
4013					Mean (KM)	585.4			SD (KM)	4135		
4014					Variance (KM)	17096475			SE of Mean (KM)	142.6		
4015					k hat (KM)	0.02			k star (KM)	0.0208		
4016					nu hat (KM)	33.75			nu star (KM)	34.97		
4017					theta hat (KM)	29206			theta star (KM)	28193		
4018					80% gamma percentile (KM)	0.346			90% gamma percentile (KM)	101.1		
4019					95% gamma percentile (KM)	1430			99% gamma percentile (KM)	16282		
4020												

4021	**Gamma Kaplan-Meier (KM) Statistics**											
4022				Approximate Chi Square Value (34.97, α)		22.44			Adjusted Chi Square Value (34.97, β)			22.42
4023				95% KM Approximate Gamma UCL		912.2			95% KM Adjusted Gamma UCL			912.9
4024												
4025	**Lognormal GOF Test on Detected Observations Only**											
4026				Shapiro Wilk Approximate Test Statistic		0.95			**Shapiro Wilk GOF Test**			
4027				10% Shapiro Wilk P Value		0			Detected Data Not Lognormal at 10% Significance Level			
4028				Lilliefors Test Statistic		0.0802			**Lilliefors GOF Test**			
4029				10% Lilliefors Critical Value		0.0349			Detected Data Not Lognormal at 10% Significance Level			
4030	**Detected Data Not Lognormal at 10% Significance Level**											
4031												
4032	**Lognormal ROS Statistics Using Imputed Non-Detects**											
4033				Mean in Original Scale		581.6			Mean in Log Scale			4.368
4034				SD in Original Scale		4138			SD in Log Scale			1.637
4035				95% t UCL (assumes normality of ROS data)		816.4			95% Percentile Bootstrap UCL			828.7
4036				95% BCA Bootstrap UCL		919.5			95% Bootstrap t UCL			1085
4037				95% H-UCL (Log ROS)		350						
4038												
4039	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
4040				KM Mean (logged)		4.327			KM Geo Mean			75.75
4041				KM SD (logged)		1.728			95% Critical H Value (KM-Log)			2.756
4042				KM Standard Error of Mean (logged)		0.0661			95% H-UCL (KM -Log)			397.6
4043				KM SD (logged)		1.728			95% Critical H Value (KM-Log)			2.756
4044				KM Standard Error of Mean (logged)		0.0661						
4045	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4046												
4047	**DL/2 Statistics**											
4048	**DL/2 Normal**								**DL/2 Log-Transformed**			
4049				Mean in Original Scale		604.7			Mean in Log Scale			4.609
4050				SD in Original Scale		4136			SD in Log Scale			1.538
4051				95% t UCL (Assumes normality)		839.4			95% H-Stat UCL			375.1
4052	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
4053												
4054	**Nonparametric Distribution Free UCL Statistics**											
4055	**Data do not follow a Discernible Distribution**											
4056												
4057	**Suggested UCL to Use**											
4058				95% KM (t) UCL		820.2						
4059												
4060	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
4061	**Please verify the data were collected from random locations.**											
4062	**If the data were collected using judgmental or other non-random methods,**											
4063	**then contact a statistician to correctly calculate UCLs.**											
4064												
4065	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
4066	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
4067	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
4068												
4069	**Benzene**											
4070												
4071	**General Statistics**											
4072				Total Number of Observations		381			Number of Distinct Observations			129
4073									Number of Missing Observations			1281
4074				Number of Detects		11			Number of Non-Detects			370
4075				Number of Distinct Detects		10			Number of Distinct Non-Detects			123
4076				Minimum Detect		1			Minimum Non-Detect			2.5
4077				Maximum Detect		8000			Maximum Non-Detect			2400
4078				Variance Detects		5833976			Percent Non-Detects			97.11%
4079				Mean Detects		1219			SD Detects			2415
4080				Median Detects		280			CV Detects			1.981
4081				Skewness Detects		2.689			Kurtosis Detects			7.343
4082				Mean of Logged Detects		5.558			SD of Logged Detects			2.261
4083												
4084	**Normal GOF Test on Detects Only**											
4085				Shapiro Wilk Test Statistic		0.541			**Shapiro Wilk GOF Test**			
4086				1% Shapiro Wilk Critical Value		0.792			Detected Data Not Normal at 1% Significance Level			
4087				Lilliefors Test Statistic		0.413			**Lilliefors GOF Test**			

4088				1% Lilliefors Critical Value		0.291	Detected Data Not Normal at 1% Significance Level					
4089	**Detected Data Not Normal at 1% Significance Level**											
4090												
4091	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
4092				KM Mean		44.26	KM Standard Error of Mean					24.12
4093				90KM SD		442.7	95% KM (BCA) UCL					85.87
4094				95% KM (t) UCL		84.03	95% KM (Percentile Bootstrap) UCL					85.75
4095				95% KM (z) UCL		83.93	95% KM Bootstrap t UCL					194.2
4096				90% KM Chebyshev UCL		116.6	95% KM Chebyshev UCL					149.4
4097				97.5% KM Chebyshev UCL		194.9	99% KM Chebyshev UCL					284.2
4098	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4099												
4100	**Gamma GOF Tests on Detected Observations Only**											
4101				A-D Test Statistic		0.867	**Anderson-Darling GOF Test**					
4102				5% A-D Critical Value		0.796	Detected Data Not Gamma Distributed at 5% Significance Level					
4103				K-S Test Statistic		0.285	**Kolmogorov-Smirnov GOF**					
4104				5% K-S Critical Value		0.272	Detected Data Not Gamma Distributed at 5% Significance Level					
4105	**Detected Data Not Gamma Distributed at 5% Significance Level**											
4106												
4107	**Gamma Statistics on Detected Data Only**											
4108				k hat (MLE)		0.422	k star (bias corrected MLE)					0.367
4109				Theta hat (MLE)		2892	Theta star (bias corrected MLE)					3320
4110				nu hat (MLE)		9.274	nu star (bias corrected)					8.078
4111				Mean (detects)		1219						
4112												
4113	**Gamma ROS Statistics using Imputed Non-Detects**											
4114	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
4115	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
4116	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4117	This is especially true when the sample size is small.											
4118	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
4119				Minimum		0.01	Mean					35.21
4120				Maximum		8000	Median					0.01
4121				SD		441.9	CV					12.55
4122				k hat (MLE)		0.103	k star (bias corrected MLE)					0.104
4123				Theta hat (MLE)		342.6	Theta star (bias corrected MLE)					339.4
4124				nu hat (MLE)		78.33	nu star (bias corrected)					79.04
4125				Adjusted Level of Significance (β)		0.0494						
4126				Approximate Chi Square Value (79.04, α)		59.56	Adjusted Chi Square Value (79.04, β)					59.5
4127				95% Gamma Approximate UCL		46.73	95% Gamma Adjusted UCL					46.78
4128												
4129	**Estimates of Gamma Parameters using KM Estimates**											
4130				Mean (KM)		44.26	SD (KM)					442.7
4131				Variance (KM)		196011	SE of Mean (KM)					24.12
4132				k hat (KM)		0.00999	k star (KM)					0.0117
4133				nu hat (KM)		7.615	nu star (KM)					8.888
4134				theta hat (KM)		4429	theta star (KM)					3794
4135				80% gamma percentile (KM)		1.0578E-5	90% gamma percentile (KM)					0.257
4136				95% gamma percentile (KM)		26.66	99% gamma percentile (KM)					1220
4137												
4138	**Gamma Kaplan-Meier (KM) Statistics**											
4139				Approximate Chi Square Value (8.89, α)		3.26	Adjusted Chi Square Value (8.89, β)					3.247
4140				95% KM Approximate Gamma UCL		120.7	95% KM Adjusted Gamma UCL					121.2
4141	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4142												
4143	**Lognormal GOF Test on Detected Observations Only**											
4144				Shapiro Wilk Test Statistic		0.849	**Shapiro Wilk GOF Test**					
4145				10% Shapiro Wilk Critical Value		0.876	Detected Data Not Lognormal at 10% Significance Level					
4146				Lilliefors Test Statistic		0.241	**Lilliefors GOF Test**					
4147				10% Lilliefors Critical Value		0.231	Detected Data Not Lognormal at 10% Significance Level					
4148	**Detected Data Not Lognormal at 10% Significance Level**											
4149												
4150	**Lognormal ROS Statistics Using Imputed Non-Detects**											
4151				Mean in Original Scale		39.43	Mean in Log Scale					0.235
4152				SD in Original Scale		441.7	SD in Log Scale					1.977
4153				95% t UCL (assumes normality of ROS data)		76.74	95% Percentile Bootstrap UCL					80.69
4154				95% BCA Bootstrap UCL		115.1	95% Bootstrap t UCL					347.2

	A	B	C	D	E	F	G	H	I	J	K	L
4155				95% H-UCL (Log ROS)		12.23						
4156												
4157	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
4158				KM Mean (logged)		0.366				KM Geo Mean		1.442
4159				KM SD (logged)		1.407				95% Critical H Value (KM-Log)		2.493
4160				KM Standard Error of Mean (logged)		0.125				95% H-UCL (KM -Log)		4.644
4161				KM SD (logged)		1.407				95% Critical H Value (KM-Log)		2.493
4162				KM Standard Error of Mean (logged)		0.125						
4163	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4164												
4165	**DL/2 Statistics**											
4166	**DL/2 Normal**						**DL/2 Log-Transformed**					
4167				Mean in Original Scale		175.5				Mean in Log Scale		4.471
4168				SD in Original Scale		445.4				SD in Log Scale		1.489
4169				95% t UCL (Assumes normality)		213.1				95% H-Stat UCL		322.4
4170	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
4171												
4172	**Nonparametric Distribution Free UCL Statistics**											
4173	**Data do not follow a Discernible Distribution**											
4174												
4175	**Suggested UCL to Use**											
4176				95% KM (t) UCL		84.03						
4177												
4178	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
4179	**Please verify the data were collected from random locations.**											
4180	**If the data were collected using judgmental or other non-random methods,**											
4181	**then contact a statistician to correctly calculate UCLs.**											
4182												
4183	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
4184	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
4185	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
4186												
4187	**Bromomethane**											
4188												
4189	**General Statistics**											
4190				Total Number of Observations		170				Number of Distinct Observations		86
4191										Number of Missing Observations		1492
4192				Number of Detects		10				Number of Non-Detects		160
4193				Number of Distinct Detects		10				Number of Distinct Non-Detects		77
4194				Minimum Detect		123				Minimum Non-Detect		2.5
4195				Maximum Detect		907				Maximum Non-Detect		1850
4196				Variance Detects		81714				Percent Non-Detects		94.12%
4197				Mean Detects		436.1				SD Detects		285.9
4198				Median Detects		346				CV Detects		0.655
4199				Skewness Detects		0.716				Kurtosis Detects		-1.088
4200				Mean of Logged Detects		5.872				SD of Logged Detects		0.691
4201												
4202	**Normal GOF Test on Detects Only**											
4203				Shapiro Wilk Test Statistic		0.883	**Shapiro Wilk GOF Test**					
4204				1% Shapiro Wilk Critical Value		0.781	Detected Data appear Normal at 1% Significance Level					
4205				Lilliefors Test Statistic		0.189	**Lilliefors GOF Test**					
4206				1% Lilliefors Critical Value		0.304	Detected Data appear Normal at 1% Significance Level					
4207	**Detected Data appear Normal at 1% Significance Level**											
4208												
4209	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
4210				KM Mean		37.16				KM Standard Error of Mean		11.91
4211				90KM SD		130.9				95% KM (BCA) UCL		57.62
4212				95% KM (t) UCL		56.86				95% KM (Percentile Bootstrap) UCL		57.17
4213				95% KM (z) UCL		56.75				95% KM Bootstrap t UCL		60.7
4214				90% KM Chebyshev UCL		72.9				95% KM Chebyshev UCL		89.09
4215				97.5% KM Chebyshev UCL		111.6				99% KM Chebyshev UCL		155.7
4216	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4217												
4218	**Gamma GOF Tests on Detected Observations Only**											
4219				A-D Test Statistic		0.299	**Anderson-Darling GOF Test**					
4220				5% A-D Critical Value		0.734	Detected data appear Gamma Distributed at 5% Significance Level					
4221				K-S Test Statistic		0.166	**Kolmogorov-Smirnov GOF**					

4222				5% K-S Critical Value	0.269	Detected data appear Gamma Distributed at 5% Significance Level						
4223	**Detected data appear Gamma Distributed at 5% Significance Level**											
4224												
4225	**Gamma Statistics on Detected Data Only**											
4226				k hat (MLE)	2.587	k star (bias corrected MLE)	1.877					
4227				Theta hat (MLE)	168.6	Theta star (bias corrected MLE)	232.3					
4228				nu hat (MLE)	51.74	nu star (bias corrected)	37.55					
4229				Mean (detects)	436.1							
4230												
4231	**Gamma ROS Statistics using Imputed Non-Detects**											
4232	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
4233	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
4234	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4235	This is especially true when the sample size is small.											
4236	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
4237				Minimum	0.01	Mean	26.46					
4238				Maximum	907	Median	0.01					
4239				SD	122.4	CV	4.626					
4240				k hat (MLE)	0.112	k star (bias corrected MLE)	0.114					
4241				Theta hat (MLE)	236.8	Theta star (bias corrected MLE)	232.7					
4242				nu hat (MLE)	38	nu star (bias corrected)	38.66					
4243				Adjusted Level of Significance (β)	0.0486							
4244				Approximate Chi Square Value (38.66, α)	25.42	Adjusted Chi Square Value (38.66, β)	25.33					
4245				95% Gamma Approximate UCL	40.24	95% Gamma Adjusted UCL	40.39					
4246												
4247	**Estimates of Gamma Parameters using KM Estimates**											
4248				Mean (KM)	37.16	SD (KM)	130.9					
4249				Variance (KM)	17141	SE of Mean (KM)	11.91					
4250				k hat (KM)	0.0806	k star (KM)	0.0831					
4251				nu hat (KM)	27.39	nu star (KM)	28.24					
4252				theta hat (KM)	461.3	theta star (KM)	447.4					
4253				80% gamma percentile (KM)	18.99	90% gamma percentile (KM)	90.14					
4254				95% gamma percentile (KM)	216.4	99% gamma percentile (KM)	646.5					
4255												
4256	**Gamma Kaplan-Meier (KM) Statistics**											
4257				Approximate Chi Square Value (28.24, α)	17.11	Adjusted Chi Square Value (28.24, β)	17.04					
4258				95% KM Approximate Gamma UCL	61.31	95% KM Adjusted Gamma UCL	61.58					
4259	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4260												
4261	**Lognormal GOF Test on Detected Observations Only**											
4262				Shapiro Wilk Test Statistic	0.952	**Shapiro Wilk GOF Test**						
4263				10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level						
4264				Lilliefors Test Statistic	0.151	**Lilliefors GOF Test**						
4265				10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level						
4266	**Detected Data appear Lognormal at 10% Significance Level**											
4267												
4268	**Lognormal ROS Statistics Using Imputed Non-Detects**											
4269				Mean in Original Scale	49.54	Mean in Log Scale	3.119					
4270				SD in Original Scale	119.2	SD in Log Scale	1.03					
4271				95% t UCL (assumes normality of ROS data)	64.66	95% Percentile Bootstrap UCL	64.55					
4272				95% BCA Bootstrap UCL	68.31	95% Bootstrap t UCL	72.59					
4273				95% H-UCL (Log ROS)	45.73							
4274												
4275	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
4276				KM Mean (logged)	1.37	KM Geo Mean	3.936					
4277				KM SD (logged)	1.416	95% Critical H Value (KM-Log)	2.557					
4278				KM Standard Error of Mean (logged)	0.146	95% H-UCL (KM -Log)	14.17					
4279				KM SD (logged)	1.416	95% Critical H Value (KM-Log)	2.557					
4280				KM Standard Error of Mean (logged)	0.146							
4281	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
4282												
4283	**DL/2 Statistics**											
4284	**DL/2 Normal**					**DL/2 Log-Transformed**						
4285				Mean in Original Scale	173.8	Mean in Log Scale	4.116					
4286				SD in Original Scale	184	SD in Log Scale	1.95					
4287				95% t UCL (Assumes normality)	197.1	95% H-Stat UCL	657.4					
4288	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

	A	B	C	D	E	F	G	H	I	J	K	L
4289												
4290	**Nonparametric Distribution Free UCL Statistics**											
4291	**Detected Data appear Normal Distributed at 1% Significance Level**											
4292												
4293	**Suggested UCL to Use**											
4294					95% KM (t) UCL	56.86						
4295												
4296	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
4297	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
4298	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
4299												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:17:21 AM
From File	sediment_duck pond
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

RDX (Cyclonite)

General Statistics

Total Number of Observations	45	Number of Distinct Observations	34
		Number of Missing Observations	19
Number of Detects	1	Number of Non-Detects	44
Number of Distinct Detects	1	Number of Distinct Non-Detects	33

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable RDX (Cyclonite) was not processed!

Arsenic

General Statistics

Total Number of Observations	45	Number of Distinct Observations	44
		Number of Missing Observations	19
Number of Detects	35	Number of Non-Detects	10
Number of Distinct Detects	34	Number of Distinct Non-Detects	10
Minimum Detect	1.27	Minimum Non-Detect	4.67
Maximum Detect	41.1	Maximum Non-Detect	12.2
Variance Detects	79.5	Percent Non-Detects	22.22%
Mean Detects	8.592	SD Detects	8.916
Median Detects	5.4	CV Detects	1.038
Skewness Detects	1.987	Kurtosis Detects	4.296
Mean of Logged Detects	1.723	SD of Logged Detects	0.923

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.762	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.91	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.244	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.172	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	7.486	KM Standard Error of Mean	1.233
90KM SD	8.083	95% KM (BCA) UCL	9.606
95% KM (t) UCL	9.557	95% KM (Percentile Bootstrap) UCL	9.634
95% KM (z) UCL	9.513	95% KM Bootstrap t UCL	10.17
90% KM Chebyshev UCL	11.18	95% KM Chebyshev UCL	12.86
97.5% KM Chebyshev UCL	15.18	99% KM Chebyshev UCL	19.75

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.901	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.77	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.152	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.152	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.31	k star (bias corrected MLE)	1.217
Theta hat (MLE)	6.56	Theta star (bias corrected MLE)	7.062
nu hat (MLE)	91.69	nu star (bias corrected)	85.16
Mean (detects)	8.592		

Gamma ROS Statistics using Imputed Non-Detects

68	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
69	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
70	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
71	This is especially true when the sample size is small.											
72	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
73					Minimum	1.27				Mean	7.317	
74					Maximum	41.1				Median	3.855	
75					SD	8.211				CV	1.122	
76					k hat (MLE)	1.307				k star (bias corrected MLE)	1.234	
77					Theta hat (MLE)	5.599				Theta star (bias corrected MLE)	5.927	
78					nu hat (MLE)	117.6				nu star (bias corrected)	111.1	
79					Adjusted Level of Significance (β)	0.0447						
80					Approximate Chi Square Value (111.10, α)	87.77				Adjusted Chi Square Value (111.10, β)	87.08	
81					95% Gamma Approximate UCL	9.262				95% Gamma Adjusted UCL	9.335	
82												
83	**Estimates of Gamma Parameters using KM Estimates**											
84					Mean (KM)	7.486				SD (KM)	8.083	
85					Variance (KM)	65.34				SE of Mean (KM)	1.233	
86					k hat (KM)	0.858				k star (KM)	0.815	
87					nu hat (KM)	77.19				nu star (KM)	73.38	
88					theta hat (KM)	8.728				theta star (KM)	9.181	
89					80% gamma percentile (KM)	12.22				90% gamma percentile (KM)	18.12	
90					95% gamma percentile (KM)	24.12				99% gamma percentile (KM)	38.27	
91												
92	**Gamma Kaplan-Meier (KM) Statistics**											
93					Approximate Chi Square Value (73.38, α)	54.65				Adjusted Chi Square Value (73.38, β)	54.12	
94					95% KM Approximate Gamma UCL	10.05				95% KM Adjusted Gamma UCL	10.15	
95												
96	**Lognormal GOF Test on Detected Observations Only**											
97					Shapiro Wilk Test Statistic	0.959				**Shapiro Wilk GOF Test**		
98					10% Shapiro Wilk Critical Value	0.944				Detected Data appear Lognormal at 10% Significance Level		
99					Lilliefors Test Statistic	0.0926				**Lilliefors GOF Test**		
100					10% Lilliefors Critical Value	0.136				Detected Data appear Lognormal at 10% Significance Level		
101	**Detected Data appear Lognormal at 10% Significance Level**											
102												
103	**Lognormal ROS Statistics Using Imputed Non-Detects**											
104					Mean in Original Scale	7.463				Mean in Log Scale	1.617	
105					SD in Original Scale	8.127				SD in Log Scale	0.839	
106					95% t UCL (assumes normality of ROS data)	9.498				95% Percentile Bootstrap UCL	9.542	
107					95% BCA Bootstrap UCL	9.806				95% Bootstrap t UCL	10.23	
108					95% H-UCL (Log ROS)	9.454						
109												
110	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
111					KM Mean (logged)	1.593				KM Geo Mean	4.92	
112					KM SD (logged)	0.874				95% Critical H Value (KM-Log)	2.236	
113					KM Standard Error of Mean (logged)	0.139				95% H-UCL (KM -Log)	9.682	
114					KM SD (logged)	0.874				95% Critical H Value (KM-Log)	2.236	
115					KM Standard Error of Mean (logged)	0.139						
116												
117	**DL/2 Statistics**											
118	**DL/2 Normal**									**DL/2 Log-Transformed**		
119					Mean in Original Scale	7.615				Mean in Log Scale	1.646	
120					SD in Original Scale	8.079				SD in Log Scale	0.839	
121					95% t UCL (Assumes normality)	9.638				95% H-Stat UCL	9.748	
122	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
123												
124	**Nonparametric Distribution Free UCL Statistics**											
125	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
126												
127	**Suggested UCL to Use**											
128					KM H-UCL	9.682						
129												
130	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
131	**Please verify the data were collected from random locations.**											
132	**If the data were collected using judgmental or other non-random methods,**											
133	**then contact a statistician to correctly calculate UCLs.**											
134												

135	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
136	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
137	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
138												
139	**Cadmium**											
140												
141	**General Statistics**											
142	Total Number of Observations				45		Number of Distinct Observations				44	
143							Number of Missing Observations				19	
144	Number of Detects				42		Number of Non-Detects				3	
145	Number of Distinct Detects				41		Number of Distinct Non-Detects				3	
146	Minimum Detect				0.191		Minimum Non-Detect				0.408	
147	Maximum Detect				4.5		Maximum Non-Detect				2.29	
148	Variance Detects				0.631		Percent Non-Detects				6.667%	
149	Mean Detects				0.914		SD Detects				0.794	
150	Median Detects				0.685		CV Detects				0.869	
151	Skewness Detects				2.836		Kurtosis Detects				9.961	
152	Mean of Logged Detects				-0.33		SD of Logged Detects				0.664	
153												
154	**Normal GOF Test on Detects Only**											
155	Shapiro Wilk Test Statistic				0.683		**Shapiro Wilk GOF Test**					
156	1% Shapiro Wilk Critical Value				0.922		Detected Data Not Normal at 1% Significance Level					
157	Lilliefors Test Statistic				0.265		**Lilliefors GOF Test**					
158	1% Lilliefors Critical Value				0.157		Detected Data Not Normal at 1% Significance Level					
159	**Detected Data Not Normal at 1% Significance Level**											
160												
161	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
162	KM Mean				0.889		KM Standard Error of Mean				0.117	
163	90KM SD				0.769		95% KM (BCA) UCL				1.082	
164	95% KM (t) UCL				1.085		95% KM (Percentile Bootstrap) UCL				1.082	
165	95% KM (z) UCL				1.081		95% KM Bootstrap t UCL				1.187	
166	90% KM Chebyshev UCL				1.239		95% KM Chebyshev UCL				1.398	
167	97.5% KM Chebyshev UCL				1.618		99% KM Chebyshev UCL				2.05	
168												
169	**Gamma GOF Tests on Detected Observations Only**											
170	A-D Test Statistic				1.409		**Anderson-Darling GOF Test**					
171	5% A-D Critical Value				0.759		Detected Data Not Gamma Distributed at 5% Significance Level					
172	K-S Test Statistic				0.185		**Kolmogorov-Smirnov GOF**					
173	5% K-S Critical Value				0.138		Detected Data Not Gamma Distributed at 5% Significance Level					
174	**Detected Data Not Gamma Distributed at 5% Significance Level**											
175												
176	**Gamma Statistics on Detected Data Only**											
177	k hat (MLE)				2.239		k star (bias corrected MLE)				2.095	
178	Theta hat (MLE)				0.408		Theta star (bias corrected MLE)				0.436	
179	nu hat (MLE)				188.1		nu star (bias corrected)				176	
180	Mean (detects)				0.914							
181												
182	**Gamma ROS Statistics using Imputed Non-Detects**											
183	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
184	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
185	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
186	This is especially true when the sample size is small.											
187	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
188	Minimum				0.054		Mean				0.882	
189	Maximum				4.5		Median				0.675	
190	SD				0.779		CV				0.883	
191	k hat (MLE)				2.018		k star (bias corrected MLE)				1.898	
192	Theta hat (MLE)				0.437		Theta star (bias corrected MLE)				0.465	
193	nu hat (MLE)				181.6		nu star (bias corrected)				170.8	
194	Adjusted Level of Significance (β)				0.0447							
195	Approximate Chi Square Value (170.83, α)				141.6		Adjusted Chi Square Value (170.83, β)				140.7	
196	95% Gamma Approximate UCL				1.065		95% Gamma Adjusted UCL				1.071	
197												
198	**Estimates of Gamma Parameters using KM Estimates**											
199	Mean (KM)				0.889		SD (KM)				0.769	
200	Variance (KM)				0.592		SE of Mean (KM)				0.117	
201	k hat (KM)				1.337		k star (KM)				1.262	

202					nu hat (KM)	120.3				nu star (KM)		113.6
203					theta hat (KM)	0.665				theta star (KM)		0.705
204					80% gamma percentile (KM)	1.401				90% gamma percentile (KM)		1.933
205					95% gamma percentile (KM)	2.456				99% gamma percentile (KM)		3.651
206												
207					**Gamma Kaplan-Meier (KM) Statistics**							
208					Approximate Chi Square Value (113.62, α)	90.01				Adjusted Chi Square Value (113.62, β)		89.31
209					95% KM Approximate Gamma UCL	1.123				95% KM Adjusted Gamma UCL		1.131
210												
211					**Lognormal GOF Test on Detected Observations Only**							
212					Shapiro Wilk Test Statistic	0.931				**Shapiro Wilk GOF Test**		
213					10% Shapiro Wilk Critical Value	0.951				Detected Data Not Lognormal at 10% Significance Level		
214					Lilliefors Test Statistic	0.133				**Lilliefors GOF Test**		
215					10% Lilliefors Critical Value	0.124				Detected Data Not Lognormal at 10% Significance Level		
216					**Detected Data Not Lognormal at 10% Significance Level**							
217												
218					**Lognormal ROS Statistics Using Imputed Non-Detects**							
219					Mean in Original Scale	0.887				Mean in Log Scale		-0.357
220					SD in Original Scale	0.775				SD in Log Scale		0.658
221					95% t UCL (assumes normality of ROS data)	1.081				95% Percentile Bootstrap UCL		1.085
222					95% BCA Bootstrap UCL	1.121				95% Bootstrap t UCL		1.19
223					95% H-UCL (Log ROS)	1.063						
224												
225					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
226					KM Mean (logged)	-0.36				KM Geo Mean		0.698
227					KM SD (logged)	0.662				95% Critical H Value (KM-Log)		2.037
228					KM Standard Error of Mean (logged)	0.101				95% H-UCL (KM -Log)		1.064
229					KM SD (logged)	0.662				95% Critical H Value (KM-Log)		2.037
230					KM Standard Error of Mean (logged)	0.101						
231												
232					**DL/2 Statistics**							
233					**DL/2 Normal**					**DL/2 Log-Transformed**		
234					Mean in Original Scale	0.896				Mean in Log Scale		-0.352
235					SD in Original Scale	0.776				SD in Log Scale		0.673
236					95% t UCL (Assumes normality)	1.09				95% H-Stat UCL		1.085
237					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
238												
239					**Nonparametric Distribution Free UCL Statistics**							
240					**Data do not follow a Discernible Distribution**							
241												
242					**Suggested UCL to Use**							
243					95% KM (t) UCL	1.085						
244												
245	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
246	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
247	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
248												
249												
250	**Chromium**											
251												
252					**General Statistics**							
253					Total Number of Observations	45				Number of Distinct Observations		40
254										Number of Missing Observations		19
255					Minimum	9.03				Mean		18.03
256					Maximum	106				Median		13.9
257					SD	14.73				Std. Error of Mean		2.195
258					Coefficient of Variation	0.817				Skewness		5.101
259												
260					**Normal GOF Test**							
261					Shapiro Wilk Test Statistic	0.485				**Shapiro Wilk GOF Test**		
262					1% Shapiro Wilk Critical Value	0.926				Data Not Normal at 1% Significance Level		
263					Lilliefors Test Statistic	0.271				**Lilliefors GOF Test**		
264					1% Lilliefors Critical Value	0.153				Data Not Normal at 1% Significance Level		
265					**Data Not Normal at 1% Significance Level**							
266												
267					**Assuming Normal Distribution**							
268					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		

269				95% Student's-t UCL		21.72			95% Adjusted-CLT UCL (Chen-1995)			23.43
270									95% Modified-t UCL (Johnson-1978)			22
271												
272						Gamma GOF Test						
273				A-D Test Statistic		2.515			Anderson-Darling Gamma GOF Test			
274				5% A-D Critical Value		0.753			Data Not Gamma Distributed at 5% Significance Level			
275				K-S Test Statistic		0.185			Kolmogorov-Smirnov Gamma GOF Test			
276				5% K-S Critical Value		0.132			Data Not Gamma Distributed at 5% Significance Level			
277						Data Not Gamma Distributed at 5% Significance Level						
278												
279						Gamma Statistics						
280				k hat (MLE)		3.841			k star (bias corrected MLE)			3.599
281				Theta hat (MLE)		4.695			Theta star (bias corrected MLE)			5.01
282				nu hat (MLE)		345.7			nu star (bias corrected)			323.9
283				MLE Mean (bias corrected)		18.03			MLE Sd (bias corrected)			9.504
284									Approximate Chi Square Value (0.05)			283.2
285				Adjusted Level of Significance		0.0447			Adjusted Chi Square Value			282
286												
287						Assuming Gamma Distribution						
288				95% Approximate Gamma UCL		20.62			95% Adjusted Gamma UCL			20.71
289												
290						Lognormal GOF Test						
291				Shapiro Wilk Test Statistic		0.857			Shapiro Wilk Lognormal GOF Test			
292				10% Shapiro Wilk Critical Value		0.953			Data Not Lognormal at 10% Significance Level			
293				Lilliefors Test Statistic		0.161			Lilliefors Lognormal GOF Test			
294				10% Lilliefors Critical Value		0.12			Data Not Lognormal at 10% Significance Level			
295						Data Not Lognormal at 10% Significance Level						
296												
297						Lognormal Statistics						
298				Minimum of Logged Data		2.201			Mean of logged Data			2.756
299				Maximum of Logged Data		4.663			SD of logged Data			0.448
300												
301						Assuming Lognormal Distribution						
302				95% H-UCL		19.75			90% Chebyshev (MVUE) UCL			20.98
303				95% Chebyshev (MVUE) UCL		22.62			97.5% Chebyshev (MVUE) UCL			24.9
304				99% Chebyshev (MVUE) UCL		29.37						
305												
306						Nonparametric Distribution Free UCL Statistics						
307						Data do not follow a Discernible Distribution						
308												
309						Nonparametric Distribution Free UCLs						
310				95% CLT UCL		21.64			95% BCA Bootstrap UCL			24.24
311				95% Standard Bootstrap UCL		21.55			95% Bootstrap-t UCL			26.59
312				95% Hall's Bootstrap UCL		36.5			95% Percentile Bootstrap UCL			21.81
313				90% Chebyshev(Mean, Sd) UCL		24.62			95% Chebyshev(Mean, Sd) UCL			27.6
314				97.5% Chebyshev(Mean, Sd) UCL		31.74			99% Chebyshev(Mean, Sd) UCL			39.87
315												
316						Suggested UCL to Use						
317				95% Student's-t UCL		21.72						
318												
319						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
320						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
321						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
322												
323												
324	Copper											
325												
326						General Statistics						
327				Total Number of Observations		45			Number of Distinct Observations			45
328									Number of Missing Observations			19
329				Minimum		7.67			Mean			51.54
330				Maximum		556			Median			28.2
331				SD		83.62			Std. Error of Mean			12.46
332				Coefficient of Variation		1.622			Skewness			5.264
333												
334						Normal GOF Test						
335				Shapiro Wilk Test Statistic		0.445			Shapiro Wilk GOF Test			

336			1% Shapiro Wilk Critical Value		0.926	Data Not Normal at 1% Significance Level						
337			Lilliefors Test Statistic		0.3	**Lilliefors GOF Test**						
338			1% Lilliefors Critical Value		0.153	Data Not Normal at 1% Significance Level						
339	**Data Not Normal at 1% Significance Level**											
340												
341	**Assuming Normal Distribution**											
342	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
343			95% Student's-t UCL		72.48	95% Adjusted-CLT UCL (Chen-1995)					82.49	
344						95% Modified-t UCL (Johnson-1978)					74.11	
345												
346	**Gamma GOF Test**											
347			A-D Test Statistic		2.139	**Anderson-Darling Gamma GOF Test**						
348			5% A-D Critical Value		0.773	Data Not Gamma Distributed at 5% Significance Level						
349			K-S Test Statistic		0.163	**Kolmogorov-Smirnov Gamma GOF Test**						
350			5% K-S Critical Value		0.135	Data Not Gamma Distributed at 5% Significance Level						
351	**Data Not Gamma Distributed at 5% Significance Level**											
352												
353	**Gamma Statistics**											
354			k hat (MLE)		1.234	k star (bias corrected MLE)					1.167	
355			Theta hat (MLE)		41.76	Theta star (bias corrected MLE)					44.17	
356			nu hat (MLE)		111.1	nu star (bias corrected)					105	
357			MLE Mean (bias corrected)		51.54	MLE Sd (bias corrected)					47.71	
358						Approximate Chi Square Value (0.05)					82.35	
359			Adjusted Level of Significance		0.0447	Adjusted Chi Square Value					81.69	
360												
361	**Assuming Gamma Distribution**											
362			95% Approximate Gamma UCL		65.71	95% Adjusted Gamma UCL					66.24	
363												
364	**Lognormal GOF Test**											
365			Shapiro Wilk Test Statistic		0.947	**Shapiro Wilk Lognormal GOF Test**						
366			10% Shapiro Wilk Critical Value		0.953	Data Not Lognormal at 10% Significance Level						
367			Lilliefors Test Statistic		0.0955	**Lilliefors Lognormal GOF Test**						
368			10% Lilliefors Critical Value		0.12	Data appear Lognormal at 10% Significance Level						
369	**Data appear Approximate Lognormal at 10% Significance Level**											
370												
371	**Lognormal Statistics**											
372			Minimum of Logged Data		2.037	Mean of logged Data					3.485	
373			Maximum of Logged Data		6.321	SD of logged Data					0.835	
374												
375	**Assuming Lognormal Distribution**											
376			95% H-UCL		60.97	90% Chebyshev (MVUE) UCL					65.03	
377			95% Chebyshev (MVUE) UCL		73.74	97.5% Chebyshev (MVUE) UCL					85.85	
378			99% Chebyshev (MVUE) UCL		109.6							
379												
380	**Nonparametric Distribution Free UCL Statistics**											
381	**Data appear to follow a Discernible Distribution**											
382												
383	**Nonparametric Distribution Free UCLs**											
384			95% CLT UCL		72.04	95% BCA Bootstrap UCL					87.41	
385			95% Standard Bootstrap UCL		71.45	95% Bootstrap-t UCL					103	
386			95% Hall's Bootstrap UCL		151.2	95% Percentile Bootstrap UCL					73.35	
387			90% Chebyshev(Mean, Sd) UCL		88.93	95% Chebyshev(Mean, Sd) UCL					105.9	
388			97.5% Chebyshev(Mean, Sd) UCL		129.4	99% Chebyshev(Mean, Sd) UCL					175.6	
389												
390	**Suggested UCL to Use**											
391			95% H-UCL		60.97							
392												
393	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
394	**Please verify the data were collected from random locations.**											
395	**If the data were collected using judgmental or other non-random methods,**											
396	**then contact a statistician to correctly calculate UCLs.**											
397												
398	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
399	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
400	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
401												
402												

403	**Lead**										
404											
405	**General Statistics**										
406					Total Number of Observations	45			Number of Distinct Observations		44
407									Number of Missing Observations		19
408					Minimum	4.51			Mean		149.4
409					Maximum	851			Median		78.8
410					SD	176.1			Std. Error of Mean		26.24
411					Coefficient of Variation	1.178			Skewness		2.442
412											
413	**Normal GOF Test**										
414					Shapiro Wilk Test Statistic	0.707			**Shapiro Wilk GOF Test**		
415					1% Shapiro Wilk Critical Value	0.926			Data Not Normal at 1% Significance Level		
416					Lilliefors Test Statistic	0.222			**Lilliefors GOF Test**		
417					1% Lilliefors Critical Value	0.153			Data Not Normal at 1% Significance Level		
418	**Data Not Normal at 1% Significance Level**										
419											
420	**Assuming Normal Distribution**										
421					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**		
422					95% Student's-t UCL	193.5			95% Adjusted-CLT UCL (Chen-1995)		202.8
423									95% Modified-t UCL (Johnson-1978)		195.1
424											
425	**Gamma GOF Test**										
426					A-D Test Statistic	0.821			**Anderson-Darling Gamma GOF Test**		
427					5% A-D Critical Value	0.775			Data Not Gamma Distributed at 5% Significance Level		
428					K-S Test Statistic	0.128			**Kolmogorov-Smirnov Gamma GOF Test**		
429					5% K-S Critical Value	0.135			Detected data appear Gamma Distributed at 5% Significance Level		
430	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**										
431											
432	**Gamma Statistics**										
433					k hat (MLE)	1.089			k star (bias corrected MLE)		1.032
434					Theta hat (MLE)	137.1			Theta star (bias corrected MLE)		144.8
435					nu hat (MLE)	98.04			nu star (bias corrected)		92.84
436					MLE Mean (bias corrected)	149.4			MLE Sd (bias corrected)		147.1
437									Approximate Chi Square Value (0.05)		71.62
438					Adjusted Level of Significance	0.0447			Adjusted Chi Square Value		71
439											
440	**Assuming Gamma Distribution**										
441					95% Approximate Gamma UCL	193.7			95% Adjusted Gamma UCL		195.3
442											
443	**Lognormal GOF Test**										
444					Shapiro Wilk Test Statistic	0.988			**Shapiro Wilk Lognormal GOF Test**		
445					10% Shapiro Wilk Critical Value	0.953			Data appear Lognormal at 10% Significance Level		
446					Lilliefors Test Statistic	0.0616			**Lilliefors Lognormal GOF Test**		
447					10% Lilliefors Critical Value	0.12			Data appear Lognormal at 10% Significance Level		
448	**Data appear Lognormal at 10% Significance Level**										
449											
450	**Lognormal Statistics**										
451					Minimum of Logged Data	1.506			Mean of logged Data		4.482
452					Maximum of Logged Data	6.746			SD of logged Data		1.058
453											
454	**Assuming Lognormal Distribution**										
455					95% H-UCL	228.4			90% Chebyshev (MVUE) UCL		237.3
456					95% Chebyshev (MVUE) UCL	276			97.5% Chebyshev (MVUE) UCL		329.8
457					99% Chebyshev (MVUE) UCL	435.3					
458											
459	**Nonparametric Distribution Free UCL Statistics**										
460	**Data appear to follow a Discernible Distribution**										
461											
462	**Nonparametric Distribution Free UCLs**										
463					95% CLT UCL	192.6			95% BCA Bootstrap UCL		204.8
464					95% Standard Bootstrap UCL	191.9			95% Bootstrap-t UCL		213.5
465					95% Hall's Bootstrap UCL	216.6			95% Percentile Bootstrap UCL		193.2
466					90% Chebyshev(Mean, Sd) UCL	228.1			95% Chebyshev(Mean, Sd) UCL		263.8
467					97.5% Chebyshev(Mean, Sd) UCL	313.3			99% Chebyshev(Mean, Sd) UCL		410.5
468											
469	**Suggested UCL to Use**										

470				95% Adjusted Gamma UCL	195.3							
471												
472	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
473	**Please verify the data were collected from random locations.**											
474	**If the data were collected using judgmental or other non-random methods,**											
475	**then contact a statistician to correctly calculate UCLs.**											
476												
477	When a data set follows an approximate distribution passing only one of the GOF tests,											
478	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
479												
480	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
481	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
482	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
483												
484	**Mercury**											
485												
486	**General Statistics**											
487				Total Number of Observations	45			Number of Distinct Observations	43			
488								Number of Missing Observations	19			
489				Number of Detects	44			Number of Non-Detects	1			
490				Number of Distinct Detects	42			Number of Distinct Non-Detects	1			
491				Minimum Detect	0.0043			Minimum Non-Detect	0.259			
492				Maximum Detect	0.69			Maximum Non-Detect	0.259			
493				Variance Detects	0.0352			Percent Non-Detects	2.222%			
494				Mean Detects	0.235			SD Detects	0.188			
495				Median Detects	0.17			CV Detects	0.799			
496				Skewness Detects	0.946			Kurtosis Detects	-0.0287			
497				Mean of Logged Detects	-1.872			SD of Logged Detects	1.105			
498												
499	**Normal GOF Test on Detects Only**											
500				Shapiro Wilk Test Statistic	0.886			**Shapiro Wilk GOF Test**				
501				1% Shapiro Wilk Critical Value	0.924			Detected Data Not Normal at 1% Significance Level				
502				Lilliefors Test Statistic	0.189			**Lilliefors GOF Test**				
503				1% Lilliefors Critical Value	0.154			Detected Data Not Normal at 1% Significance Level				
504	**Detected Data Not Normal at 1% Significance Level**											
505												
506	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
507				KM Mean	0.232			KM Standard Error of Mean	0.0279			
508				90KM SD	0.184			95% KM (BCA) UCL	0.277			
509				95% KM (t) UCL	0.279			95% KM (Percentile Bootstrap) UCL	0.277			
510				95% KM (z) UCL	0.278			95% KM Bootstrap t UCL	0.286			
511				90% KM Chebyshev UCL	0.316			95% KM Chebyshev UCL	0.354			
512				97.5% KM Chebyshev UCL	0.406			99% KM Chebyshev UCL	0.509			
513												
514	**Gamma GOF Tests on Detected Observations Only**											
515				A-D Test Statistic	0.279			**Anderson-Darling GOF Test**				
516				5% A-D Critical Value	0.771			Detected data appear Gamma Distributed at 5% Significance Level				
517				K-S Test Statistic	0.0707			**Kolmogorov-Smirnov GOF**				
518				5% K-S Critical Value	0.136			Detected data appear Gamma Distributed at 5% Significance Level				
519	**Detected data appear Gamma Distributed at 5% Significance Level**											
520												
521	**Gamma Statistics on Detected Data Only**											
522				k hat (MLE)	1.325			k star (bias corrected MLE)	1.25			
523				Theta hat (MLE)	0.177			Theta star (bias corrected MLE)	0.188			
524				nu hat (MLE)	116.6			nu star (bias corrected)	110			
525				Mean (detects)	0.235							
526												
527	**Gamma ROS Statistics using Imputed Non-Detects**											
528	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
529	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
530	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
531	This is especially true when the sample size is small.											
532	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
533				Minimum	0.0043			Mean	0.232			
534				Maximum	0.69			Median	0.166			
535				SD	0.186			CV	0.802			
536				k hat (MLE)	1.339			k star (bias corrected MLE)	1.265			

537					Theta hat (MLE)	0.173				Theta star (bias corrected MLE)		0.184
538					nu hat (MLE)	120.5				nu star (bias corrected)		113.8
539					Adjusted Level of Significance (β)	0.0447						
540					Approximate Chi Square Value (113.82, α)	90.19				Adjusted Chi Square Value (113.82, β)		89.49
541					95% Gamma Approximate UCL	0.293				95% Gamma Adjusted UCL		0.295
542												
543					**Estimates of Gamma Parameters using KM Estimates**							
544					Mean (KM)	0.232				SD (KM)		0.184
545					Variance (KM)	0.034				SE of Mean (KM)		0.0279
546					k hat (KM)	1.584				k star (KM)		1.493
547					nu hat (KM)	142.6				nu star (KM)		134.4
548					theta hat (KM)	0.147				theta star (KM)		0.155
549					80% gamma percentile (KM)	0.359				90% gamma percentile (KM)		0.484
550					95% gamma percentile (KM)	0.606				99% gamma percentile (KM)		0.88
551												
552					**Gamma Kaplan-Meier (KM) Statistics**							
553					Approximate Chi Square Value (134.38, α)	108.6				Adjusted Chi Square Value (134.38, β)		107.8
554					95% KM Approximate Gamma UCL	0.287				95% KM Adjusted Gamma UCL		0.289
555												
556					**Lognormal GOF Test on Detected Observations Only**							
557					Shapiro Wilk Test Statistic	0.912				**Shapiro Wilk GOF Test**		
558					10% Shapiro Wilk Critical Value	0.952				Detected Data Not Lognormal at 10% Significance Level		
559					Lilliefors Test Statistic	0.102				**Lilliefors GOF Test**		
560					10% Lilliefors Critical Value	0.122				Detected Data appear Lognormal at 10% Significance Level		
561					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
562												
563					**Lognormal ROS Statistics Using Imputed Non-Detects**							
564					Mean in Original Scale	0.232				Mean in Log Scale		-1.883
565					SD in Original Scale	0.187				SD in Log Scale		1.095
566					95% t UCL (assumes normality of ROS data)	0.278				95% Percentile Bootstrap UCL		0.277
567					95% BCA Bootstrap UCL	0.278				95% Bootstrap t UCL		0.283
568					95% H-UCL (Log ROS)	0.417						
569												
570					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
571					KM Mean (logged)	-1.884				KM Geo Mean		0.152
572					KM SD (logged)	1.093				95% Critical H Value (KM-Log)		2.478
573					KM Standard Error of Mean (logged)	0.166				95% H-UCL (KM -Log)		0.415
574					KM SD (logged)	1.093				95% Critical H Value (KM-Log)		2.478
575					KM Standard Error of Mean (logged)	0.166						
576												
577					**DL/2 Statistics**							
578					**DL/2 Normal**					**DL/2 Log-Transformed**		
579					Mean in Original Scale	0.232				Mean in Log Scale		-1.875
580					SD in Original Scale	0.186				SD in Log Scale		1.093
581					95% t UCL (Assumes normality)	0.279				95% H-Stat UCL		0.419
582					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
583												
584					**Nonparametric Distribution Free UCL Statistics**							
585					**Detected Data appear Gamma Distributed at 5% Significance Level**							
586												
587					**Suggested UCL to Use**							
588					95% KM Adjusted Gamma UCL	0.289				95% GROS Adjusted Gamma UCL		0.295
589												
590					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
591					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
592					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
593												
594												
595	**Nickel**											
596												
597					**General Statistics**							
598					Total Number of Observations	45				Number of Distinct Observations		41
599										Number of Missing Observations		19
600					Minimum	3.22				Mean		15.01
601					Maximum	151				Median		11.1
602					SD	21.2				Std. Error of Mean		3.16
603					Coefficient of Variation	1.412				Skewness		6.258

604												
605						**Normal GOF Test**						
606					Shapiro Wilk Test Statistic	0.321		**Shapiro Wilk GOF Test**				
607					1% Shapiro Wilk Critical Value	0.926		Data Not Normal at 1% Significance Level				
608					Lilliefors Test Statistic	0.368		**Lilliefors GOF Test**				
609					1% Lilliefors Critical Value	0.153		Data Not Normal at 1% Significance Level				
610					**Data Not Normal at 1% Significance Level**							
611												
612					**Assuming Normal Distribution**							
613					**95% Normal UCL**			**95% UCLs (Adjusted for Skewness)**				
614					95% Student's-t UCL	20.32		95% Adjusted-CLT UCL (Chen-1995)	23.36			
615								95% Modified-t UCL (Johnson-1978)	20.81			
616												
617					**Gamma GOF Test**							
618					A-D Test Statistic	3.867		**Anderson-Darling Gamma GOF Test**				
619					5% A-D Critical Value	0.76		Data Not Gamma Distributed at 5% Significance Level				
620					K-S Test Statistic	0.208		**Kolmogorov-Smirnov Gamma GOF Test**				
621					5% K-S Critical Value	0.133		Data Not Gamma Distributed at 5% Significance Level				
622					**Data Not Gamma Distributed at 5% Significance Level**							
623												
624					**Gamma Statistics**							
625					k hat (MLE)	2.183		k star (bias corrected MLE)	2.052			
626					Theta hat (MLE)	6.879		Theta star (bias corrected MLE)	7.317			
627					nu hat (MLE)	196.4		nu star (bias corrected)	184.7			
628					MLE Mean (bias corrected)	15.01		MLE Sd (bias corrected)	10.48			
629								Approximate Chi Square Value (0.05)	154.2			
630					Adjusted Level of Significance	0.0447		Adjusted Chi Square Value	153.3			
631												
632					**Assuming Gamma Distribution**							
633					95% Approximate Gamma UCL	17.98		95% Adjusted Gamma UCL	18.08			
634												
635					**Lognormal GOF Test**							
636					Shapiro Wilk Test Statistic	0.844		**Shapiro Wilk Lognormal GOF Test**				
637					10% Shapiro Wilk Critical Value	0.953		Data Not Lognormal at 10% Significance Level				
638					Lilliefors Test Statistic	0.128		**Lilliefors Lognormal GOF Test**				
639					10% Lilliefors Critical Value	0.12		Data Not Lognormal at 10% Significance Level				
640					**Data Not Lognormal at 10% Significance Level**							
641												
642					**Lognormal Statistics**							
643					Minimum of Logged Data	1.169		Mean of logged Data	2.463			
644					Maximum of Logged Data	5.017		SD of logged Data	0.557			
645												
646					**Assuming Lognormal Distribution**							
647					95% H-UCL	16.15		90% Chebyshev (MVUE) UCL	17.27			
648					95% Chebyshev (MVUE) UCL	18.9		97.5% Chebyshev (MVUE) UCL	21.17			
649					99% Chebyshev (MVUE) UCL	25.63						
650												
651					**Nonparametric Distribution Free UCL Statistics**							
652					**Data do not follow a Discernible Distribution**							
653												
654					**Nonparametric Distribution Free UCLs**							
655					95% CLT UCL	20.21		95% BCA Bootstrap UCL	24.81			
656					95% Standard Bootstrap UCL	20.05		95% Bootstrap-t UCL	34.75			
657					95% Hall's Bootstrap UCL	41.06		95% Percentile Bootstrap UCL	20.88			
658					90% Chebyshev(Mean, Sd) UCL	24.49		95% Chebyshev(Mean, Sd) UCL	28.79			
659					97.5% Chebyshev(Mean, Sd) UCL	34.75		99% Chebyshev(Mean, Sd) UCL	46.46			
660												
661					**Suggested UCL to Use**							
662					95% Student's-t UCL	20.32						
663												
664					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
665					**Please verify the data were collected from random locations.**							
666					**If the data were collected using judgmental or other non-random methods,**							
667					**then contact a statistician to correctly calculate UCLs.**							
668												
669					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
670					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							

671	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
672												
673	**Silver**											
674												
675	**General Statistics**											
676						Total Number of Observations	45			Number of Distinct Observations	44	
677										Number of Missing Observations	19	
678						Number of Detects	3			Number of Non-Detects	42	
679						Number of Distinct Detects	3			Number of Distinct Non-Detects	42	
680						Minimum Detect	0.498			Minimum Non-Detect	0.295	
681						Maximum Detect	1.32			Maximum Non-Detect	3.05	
682						Variance Detects	0.182			Percent Non-Detects	93.33%	
683						Mean Detects	0.976			SD Detects	0.427	
684						Median Detects	1.11			CV Detects	0.438	
685						Skewness Detects	-1.273			Kurtosis Detects	N/A	
686						Mean of Logged Detects	-0.105			SD of Logged Detects	0.52	
687												
688	**Warning: Data set has only 3 Detected Values.**											
689	**This is not enough to compute meaningful or reliable statistics and estimates.**											
690												
691												
692	**Normal GOF Test on Detects Only**											
693						Shapiro Wilk Test Statistic	0.926			**Shapiro Wilk GOF Test**		
694						1% Shapiro Wilk Critical Value	0.753			Detected Data appear Normal at 1% Significance Level		
695						Lilliefors Test Statistic	0.29			**Lilliefors GOF Test**		
696						1% Lilliefors Critical Value	0.429			Detected Data appear Normal at 1% Significance Level		
697	**Detected Data appear Normal at 1% Significance Level**											
698	**Note GOF tests may be unreliable for small sample sizes**											
699												
700	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
701						KM Mean	0.363			KM Standard Error of Mean	0.0493	
702						90KM SD	0.225			95% KM (BCA) UCL	N/A	
703						95% KM (t) UCL	0.445			95% KM (Percentile Bootstrap) UCL	N/A	
704						95% KM (z) UCL	0.444			95% KM Bootstrap t UCL	N/A	
705						90% KM Chebyshev UCL	0.511			95% KM Chebyshev UCL	0.578	
706						97.5% KM Chebyshev UCL	0.671			99% KM Chebyshev UCL	0.853	
707												
708	**Gamma GOF Tests on Detected Observations Only**											
709						A-D Test Statistic	0.398			**Anderson-Darling GOF Test**		
710						5% A-D Critical Value	0.637			Detected data appear Gamma Distributed at 5% Significance Level		
711						K-S Test Statistic	0.345			**Kolmogorov-Smirnov GOF**		
712						5% K-S Critical Value	0.433			Detected data appear Gamma Distributed at 5% Significance Level		
713	**Detected Data Not Gamma Distributed at 5% Significance Level**											
714												
715	**Gamma Statistics on Detected Data Only**											
716						k hat (MLE)	6.353			k star (bias corrected MLE)	N/A	
717						Theta hat (MLE)	0.154			Theta star (bias corrected MLE)	N/A	
718						nu hat (MLE)	38.12			nu star (bias corrected)	N/A	
719						Mean (detects)	0.976					
720												
721	**Gamma ROS Statistics using Imputed Non-Detects**											
722	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
723	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
724	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
725	This is especially true when the sample size is small.											
726	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
727						Minimum	0.01			Mean	0.0744	
728						Maximum	1.32			Median	0.01	
729						SD	0.26			CV	3.497	
730						k hat (MLE)	0.388			k star (bias corrected MLE)	0.376	
731						Theta hat (MLE)	0.192			Theta star (bias corrected MLE)	0.198	
732						nu hat (MLE)	34.88			nu star (bias corrected)	33.88	
733						Adjusted Level of Significance (β)	0.0447					
734						Approximate Chi Square Value (33.88, α)	21.57			Adjusted Chi Square Value (33.88, β)	21.25	
735						95% Gamma Approximate UCL	0.117			95% Gamma Adjusted UCL	N/A	
736												
737	**Estimates of Gamma Parameters using KM Estimates**											

738					Mean (KM)	0.363					SD (KM)	0.225
739					Variance (KM)	0.0507					SE of Mean (KM)	0.0493
740					k hat (KM)	2.592					k star (KM)	2.434
741					nu hat (KM)	233.3					nu star (KM)	219
742					theta hat (KM)	0.14					theta star (KM)	0.149
743					80% gamma percentile (KM)	0.53					90% gamma percentile (KM)	0.674
744					95% gamma percentile (KM)	0.809					99% gamma percentile (KM)	1.106
745												
746					**Gamma Kaplan-Meier (KM) Statistics**							
747					Approximate Chi Square Value (219.05, α)	185.8					Adjusted Chi Square Value (219.05, β)	184.8
748					95% KM Approximate Gamma UCL	0.427					95% KM Adjusted Gamma UCL	0.43
749												
750					**Lognormal GOF Test on Detected Observations Only**							
751					Shapiro Wilk Test Statistic	0.878					**Shapiro Wilk GOF Test**	
752					10% Shapiro Wilk Critical Value	0.789					Detected Data appear Lognormal at 10% Significance Level	
753					Lilliefors Test Statistic	0.323					**Lilliefors GOF Test**	
754					10% Lilliefors Critical Value	0.389					Detected Data appear Lognormal at 10% Significance Level	
755					**Detected Data appear Lognormal at 10% Significance Level**							
756					**Note GOF tests may be unreliable for small sample sizes**							
757												
758					**Lognormal ROS Statistics Using Imputed Non-Detects**							
759					Mean in Original Scale	0.177					Mean in Log Scale	-1.991
760					SD in Original Scale	0.235					SD in Log Scale	0.526
761					95% t UCL (assumes normality of ROS data)	0.235					95% Percentile Bootstrap UCL	0.239
762					95% BCA Bootstrap UCL	0.26					95% Bootstrap t UCL	0.38
763					95% H-UCL (Log ROS)	0.183						
764												
765					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
766					KM Mean (logged)	-1.107					KM Geo Mean	0.331
767					KM SD (logged)	0.355					95% Critical H Value (KM-Log)	1.814
768					KM Standard Error of Mean (logged)	0.0797					95% H-UCL (KM -Log)	0.388
769					KM SD (logged)	0.355					95% Critical H Value (KM-Log)	1.814
770					KM Standard Error of Mean (logged)	0.0797						
771					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
772												
773					**DL/2 Statistics**							
774					**DL/2 Normal**						**DL/2 Log-Transformed**	
775					Mean in Original Scale	0.539					Mean in Log Scale	-0.899
776					SD in Original Scale	0.416					SD in Log Scale	0.757
777					95% t UCL (Assumes normality)	0.643					95% H-Stat UCL	0.69
778					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
779												
780					**Nonparametric Distribution Free UCL Statistics**							
781					**Detected Data appear Normal Distributed at 1% Significance Level**							
782												
783					**Suggested UCL to Use**							
784					95% KM (t) UCL	0.445						
785												
786					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
787					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
788					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
789												
790												
791	**Zinc**											
792												
793					**General Statistics**							
794					Total Number of Observations	45					Number of Distinct Observations	43
795											Number of Missing Observations	19
796					Minimum	32					Mean	329.3
797					Maximum	1110					Median	269
798					SD	251.4					Std. Error of Mean	37.48
799					Coefficient of Variation	0.764					Skewness	1.72
800												
801					**Normal GOF Test**							
802					Shapiro Wilk Test Statistic	0.813					**Shapiro Wilk GOF Test**	
803					1% Shapiro Wilk Critical Value	0.926					Data Not Normal at 1% Significance Level	
804					Lilliefors Test Statistic	0.194					**Lilliefors GOF Test**	

805				1% Lilliefors Critical Value		0.153	Data Not Normal at 1% Significance Level					
806	**Data Not Normal at 1% Significance Level**											
807												
808	**Assuming Normal Distribution**											
809	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
810				95% Student's-t UCL		392.2	95% Adjusted-CLT UCL (Chen-1995)					401.2
811							95% Modified-t UCL (Johnson-1978)					393.8
812												
813	**Gamma GOF Test**											
814				A-D Test Statistic		0.598	**Anderson-Darling Gamma GOF Test**					
815				5% A-D Critical Value		0.76	Detected data appear Gamma Distributed at 5% Significance Level					
816				K-S Test Statistic		0.102	**Kolmogorov-Smirnov Gamma GOF Test**					
817				5% K-S Critical Value		0.133	Detected data appear Gamma Distributed at 5% Significance Level					
818	**Detected data appear Gamma Distributed at 5% Significance Level**											
819												
820	**Gamma Statistics**											
821				k hat (MLE)		2.129	k star (bias corrected MLE)					2.002
822				Theta hat (MLE)		154.7	Theta star (bias corrected MLE)					164.5
823				nu hat (MLE)		191.6	nu star (bias corrected)					180.1
824				MLE Mean (bias corrected)		329.3	MLE Sd (bias corrected)					232.7
825							Approximate Chi Square Value (0.05)					150.1
826				Adjusted Level of Significance		0.0447	Adjusted Chi Square Value					149.2
827												
828	**Assuming Gamma Distribution**											
829				95% Approximate Gamma UCL		395.2	95% Adjusted Gamma UCL					397.6
830												
831	**Lognormal GOF Test**											
832				Shapiro Wilk Test Statistic		0.974	**Shapiro Wilk Lognormal GOF Test**					
833				10% Shapiro Wilk Critical Value		0.953	Data appear Lognormal at 10% Significance Level					
834				Lilliefors Test Statistic		0.0996	**Lilliefors Lognormal GOF Test**					
835				10% Lilliefors Critical Value		0.12	Data appear Lognormal at 10% Significance Level					
836	**Data appear Lognormal at 10% Significance Level**											
837												
838	**Lognormal Statistics**											
839				Minimum of Logged Data		3.466	Mean of logged Data					5.544
840				Maximum of Logged Data		7.012	SD of logged Data					0.74
841												
842	**Assuming Lognormal Distribution**											
843				95% H-UCL		425.6	90% Chebyshev (MVUE) UCL					455.6
844				95% Chebyshev (MVUE) UCL		510.8	97.5% Chebyshev (MVUE) UCL					587.3
845				99% Chebyshev (MVUE) UCL		737.8						
846												
847	**Nonparametric Distribution Free UCL Statistics**											
848	**Data appear to follow a Discernible Distribution**											
849												
850	**Nonparametric Distribution Free UCLs**											
851				95% CLT UCL		390.9	95% BCA Bootstrap UCL					406.6
852				95% Standard Bootstrap UCL		388.5	95% Bootstrap-t UCL					403.8
853				95% Hall's Bootstrap UCL		400.7	95% Percentile Bootstrap UCL					391.8
854				90% Chebyshev(Mean, Sd) UCL		441.7	95% Chebyshev(Mean, Sd) UCL					492.6
855				97.5% Chebyshev(Mean, Sd) UCL		563.3	99% Chebyshev(Mean, Sd) UCL					702.2
856												
857	**Suggested UCL to Use**											
858				95% Adjusted Gamma UCL		397.6						
859												
860	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
861	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
862	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
863												
864	**2,4-Dinitrotoluene**											
865												
866	**General Statistics**											
867				Total Number of Observations		27	Number of Distinct Observations					23
868							Number of Missing Observations					36
869				Number of Detects		2	Number of Non-Detects					25
870				Number of Distinct Detects		2	Number of Distinct Non-Detects					22
871				Minimum Detect		270	Minimum Non-Detect					100

872					Maximum Detect	4500				Maximum Non-Detect	10000	
873					Variance Detects	8946450				Percent Non-Detects	92.59%	
874					Mean Detects	2385				SD Detects	2991	
875					Median Detects	2385				CV Detects	1.254	
876					Skewness Detects	N/A				Kurtosis Detects	N/A	
877					Mean of Logged Detects	7.005				SD of Logged Detects	1.989	
878												
879	**Warning: Data set has only 2 Detected Values.**											
880	**This is not enough to compute meaningful or reliable statistics and estimates.**											
881												
882												
883	**Normal GOF Test on Detects Only**											
884	**Not Enough Data to Perform GOF Test**											
885												
886	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
887					KM Mean	278.8				KM Standard Error of Mean	234.5	
888					90KM SD	845.1				95% KM (BCA) UCL	N/A	
889					95% KM (t) UCL	678.8				95% KM (Percentile Bootstrap) UCL	N/A	
890					95% KM (z) UCL	664.6				95% KM Bootstrap t UCL	N/A	
891					90% KM Chebyshev UCL	982.4				95% KM Chebyshev UCL	1301	
892					97.5% KM Chebyshev UCL	1743				99% KM Chebyshev UCL	2612	
893												
894	**Gamma GOF Tests on Detected Observations Only**											
895	**Not Enough Data to Perform GOF Test**											
896												
897	**Gamma Statistics on Detected Data Only**											
898					k hat (MLE)	0.773				k star (bias corrected MLE)	N/A	
899					Theta hat (MLE)	3087				Theta star (bias corrected MLE)	N/A	
900					nu hat (MLE)	3.09				nu star (bias corrected)	N/A	
901					Mean (detects)	2385						
902												
903	**Estimates of Gamma Parameters using KM Estimates**											
904					Mean (KM)	278.8				SD (KM)	845.1	
905					Variance (KM)	714264				SE of Mean (KM)	234.5	
906					k hat (KM)	0.109				k star (KM)	0.121	
907					nu hat (KM)	5.878				nu star (KM)	6.559	
908					theta hat (KM)	2561				theta star (KM)	2296	
909					80% gamma percentile (KM)	247.9				90% gamma percentile (KM)	792.6	
910					95% gamma percentile (KM)	1589				99% gamma percentile (KM)	4011	
911												
912	**Gamma Kaplan-Meier (KM) Statistics**											
913										Adjusted Level of Significance (β)	0.0401	
914					Approximate Chi Square Value (6.56, α)	1.932				Adjusted Chi Square Value (6.56, β)	1.776	
915					95% KM Approximate Gamma UCL	946.8				95% KM Adjusted Gamma UCL	1030	
916												
917	**Lognormal GOF Test on Detected Observations Only**											
918	**Not Enough Data to Perform GOF Test**											
919												
920	**Lognormal ROS Statistics Using Imputed Non-Detects**											
921					Mean in Original Scale	176.8				Mean in Log Scale	-1.591	
922					SD in Original Scale	865.6				SD in Log Scale	2.687	
923					95% t UCL (assumes normality of ROS data)	460.9				95% Percentile Bootstrap UCL	510.1	
924					95% BCA Bootstrap UCL	686.8				95% Bootstrap t UCL	793787	
925					95% H-UCL (Log ROS)	116.9						
926												
927	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
928					KM Mean (logged)	4.808				KM Geo Mean	122.5	
929					KM SD (logged)	0.756				95% Critical H Value (KM-Log)	2.223	
930					KM Standard Error of Mean (logged)	0.214				95% H-UCL (KM -Log)	226.7	
931					KM SD (logged)	0.756				95% Critical H Value (KM-Log)	2.223	
932					KM Standard Error of Mean (logged)	0.214						
933	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
934												
935	**DL/2 Statistics**											
936	**DL/2 Normal**									**DL/2 Log-Transformed**		
937					Mean in Original Scale	688.5				Mean in Log Scale	5.329	
938					SD in Original Scale	1281				SD in Log Scale	1.464	

939			95% t UCL (Assumes normality)			1109					95% H-Stat UCL	1500
940	DL/2 is not a recommended method, provided for comparisons and historical reasons											
941												
942	Nonparametric Distribution Free UCL Statistics											
943	Data do not follow a Discernible Distribution											
944												
945	Suggested UCL to Use											
946				95% KM (t) UCL		678.8						
947												
948	The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.											
949	Please verify the data were collected from random locations.											
950	If the data were collected using judgmental or other non-random methods,											
951	then contact a statistician to correctly calculate UCLs.											
952												
953	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
954	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
955	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
956												
957	Acenaphthylene											
958												
959	General Statistics											
960				Total Number of Observations		27					Number of Distinct Observations	25
961											Number of Missing Observations	36
962				Number of Detects		2					Number of Non-Detects	25
963				Number of Distinct Detects		2					Number of Distinct Non-Detects	23
964				Minimum Detect		130					Minimum Non-Detect	70
965				Maximum Detect		580					Maximum Non-Detect	10000
966				Variance Detects		101250					Percent Non-Detects	92.59%
967				Mean Detects		355					SD Detects	318.2
968				Median Detects		355					CV Detects	0.896
969				Skewness Detects		N/A					Kurtosis Detects	N/A
970				Mean of Logged Detects		5.615					SD of Logged Detects	1.057
971												
972	Warning: Data set has only 2 Detected Values.											
973	This is not enough to compute meaningful or reliable statistics and estimates.											
974												
975												
976	Normal GOF Test on Detects Only											
977	Not Enough Data to Perform GOF Test											
978												
979	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
980				KM Mean		103.9					KM Standard Error of Mean	37.6
981				90KM SD		113.9					95% KM (BCA) UCL	N/A
982				95% KM (t) UCL		168.1					95% KM (Percentile Bootstrap) UCL	N/A
983				95% KM (z) UCL		165.8					95% KM Bootstrap t UCL	N/A
984				90% KM Chebyshev UCL		216.7					95% KM Chebyshev UCL	267.8
985				97.5% KM Chebyshev UCL		338.7					99% KM Chebyshev UCL	478
986												
987	Gamma GOF Tests on Detected Observations Only											
988	Not Enough Data to Perform GOF Test											
989												
990	Gamma Statistics on Detected Data Only											
991				k hat (MLE)		2.098					k star (bias corrected MLE)	N/A
992				Theta hat (MLE)		169.2					Theta star (bias corrected MLE)	N/A
993				nu hat (MLE)		8.393					nu star (bias corrected)	N/A
994				Mean (detects)		355						
995												
996	Estimates of Gamma Parameters using KM Estimates											
997				Mean (KM)		103.9					SD (KM)	113.9
998				Variance (KM)		12963					SE of Mean (KM)	37.6
999				k hat (KM)		0.834					k star (KM)	0.766
1000				nu hat (KM)		45.01					nu star (KM)	41.34
1001				theta hat (KM)		124.7					theta star (KM)	135.8
1002				80% gamma percentile (KM)		170.3					90% gamma percentile (KM)	255.4
1003				95% gamma percentile (KM)		342.6					99% gamma percentile (KM)	549.1
1004												
1005	Gamma Kaplan-Meier (KM) Statistics											

1006											Adjusted Level of Significance (β)	0.0401
1007				Approximate Chi Square Value (41.34, α)		27.61					Adjusted Chi Square Value (41.34, β)	26.89
1008				95% KM Approximate Gamma UCL		155.7					95% KM Adjusted Gamma UCL	159.8
1009												
1010						**Lognormal GOF Test on Detected Observations Only**							
1011						**Not Enough Data to Perform GOF Test**							
1012												
1013						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1014				Mean in Original Scale		34.94					Mean in Log Scale	2.417
1015				SD in Original Scale		111.4					SD in Log Scale	1.014
1016				95% t UCL (assumes normality of ROS data)		71.52					95% Percentile Bootstrap UCL	76.9
1017				95% BCA Bootstrap UCL		103.2					95% Bootstrap t UCL	799.2
1018				95% H-UCL (Log ROS)		31.1						
1019												
1020						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1021				KM Mean (logged)		4.433					KM Geo Mean	84.19
1022				KM SD (logged)		0.497					95% Critical H Value (KM-Log)	1.967
1023				KM Standard Error of Mean (logged)		0.177					95% H-UCL (KM -Log)	115.4
1024				KM SD (logged)		0.497					95% Critical H Value (KM-Log)	1.967
1025				KM Standard Error of Mean (logged)		0.177						
1026						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1027												
1028						**DL/2 Statistics**						
1029				**DL/2 Normal**							**DL/2 Log-Transformed**	
1030				Mean in Original Scale		570.9					Mean in Log Scale	5.294
1031				SD in Original Scale		1032					SD in Log Scale	1.4
1032				95% t UCL (Assumes normality)		909.7					95% H-Stat UCL	1236
1033						**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1034												
1035						**Nonparametric Distribution Free UCL Statistics**							
1036						**Data do not follow a Discernible Distribution**							
1037												
1038						**Suggested UCL to Use**							
1039				95% KM (t) UCL		168.1						
1040												
1041						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1042						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1043						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1044												
1045	**Anthracene**											
1046												
1047						**General Statistics**						
1048				Total Number of Observations		27					Number of Distinct Observations	24
1049											Number of Missing Observations	36
1050				Number of Detects		2					Number of Non-Detects	25
1051				Number of Distinct Detects		2					Number of Distinct Non-Detects	23
1052				Minimum Detect		120					Minimum Non-Detect	70
1053				Maximum Detect		560					Maximum Non-Detect	10000
1054				Variance Detects		96800					Percent Non-Detects	92.59%
1055				Mean Detects		340					SD Detects	311.1
1056				Median Detects		340					CV Detects	0.915
1057				Skewness Detects		N/A					Kurtosis Detects	N/A
1058				Mean of Logged Detects		5.558					SD of Logged Detects	1.089
1059												
1060						**Warning: Data set has only 2 Detected Values.**							
1061						**This is not enough to compute meaningful or reliable statistics and estimates.**							
1062												
1063												
1064						**Normal GOF Test on Detects Only**							
1065						**Not Enough Data to Perform GOF Test**							
1066												
1067						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1068				KM Mean		101.7					KM Standard Error of Mean	35.91
1069				90KM SD		109.2					95% KM (BCA) UCL	N/A
1070				95% KM (t) UCL		163					95% KM (Percentile Bootstrap) UCL	N/A
1071				95% KM (z) UCL		160.8					95% KM Bootstrap t UCL	N/A
1072				90% KM Chebyshev UCL		209.4					95% KM Chebyshev UCL	258.2

1073				97.5% KM Chebyshev UCL		326				99% KM Chebyshev UCL		459
1074												
1075						**Gamma GOF Tests on Detected Observations Only**							
1076						**Not Enough Data to Perform GOF Test**							
1077												
1078						**Gamma Statistics on Detected Data Only**							
1079					k hat (MLE)	1.994				k star (bias corrected MLE)		N/A
1080					Theta hat (MLE)	170.5				Theta star (bias corrected MLE)		N/A
1081					nu hat (MLE)	7.976				nu star (bias corrected)		N/A
1082					Mean (detects)	340						
1083												
1084						**Estimates of Gamma Parameters using KM Estimates**							
1085					Mean (KM)	101.7				SD (KM)		109.2
1086					Variance (KM)	11927				SE of Mean (KM)		35.91
1087					k hat (KM)	0.867				k star (KM)		0.796
1088					nu hat (KM)	46.84				nu star (KM)		42.97
1089					theta hat (KM)	117.3				theta star (KM)		127.8
1090					80% gamma percentile (KM)	166.3				90% gamma percentile (KM)		247.6
1091					95% gamma percentile (KM)	330.6				99% gamma percentile (KM)		526.6
1092												
1093						**Gamma Kaplan-Meier (KM) Statistics**							
1094										Adjusted Level of Significance (β)		0.0401
1095					Approximate Chi Square Value (42.97, α)	28.94				Adjusted Chi Square Value (42.97, β)		28.2
1096					95% KM Approximate Gamma UCL	151				95% KM Adjusted Gamma UCL		155
1097												
1098						**Lognormal GOF Test on Detected Observations Only**							
1099						**Not Enough Data to Perform GOF Test**							
1100												
1101						**Lognormal ROS Statistics Using Imputed Non-Detects**							
1102					Mean in Original Scale	32.57				Mean in Log Scale		2.264
1103					SD in Original Scale	107.6				SD in Log Scale		1.045
1104					95% t UCL (assumes normality of ROS data)	67.9				95% Percentile Bootstrap UCL		73.19
1105					95% BCA Bootstrap UCL	98.44				95% Bootstrap t UCL		830
1106					95% H-UCL (Log ROS)	28.17						
1107												
1108						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1109					KM Mean (logged)	4.422				KM Geo Mean		83.24
1110					KM SD (logged)	0.482				95% Critical H Value (KM-Log)		1.955
1111					KM Standard Error of Mean (logged)	0.168				95% H-UCL (KM -Log)		112.4
1112					KM SD (logged)	0.482				95% Critical H Value (KM-Log)		1.955
1113					KM Standard Error of Mean (logged)	0.168						
1114						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1115												
1116						**DL/2 Statistics**							
1117					**DL/2 Normal**					**DL/2 Log-Transformed**		
1118					Mean in Original Scale	569.8				Mean in Log Scale		5.289
1119					SD in Original Scale	1032				SD in Log Scale		1.4
1120					95% t UCL (Assumes normality)	908.7				95% H-Stat UCL		1231
1121						**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1122												
1123						**Nonparametric Distribution Free UCL Statistics**							
1124						**Data do not follow a Discernible Distribution**							
1125												
1126						**Suggested UCL to Use**							
1127					95% KM (t) UCL	163						
1128												
1129						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1130						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1131						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1132												
1133	**Benzo[a]anthracene**											
1134												
1135						**General Statistics**							
1136					Total Number of Observations	27				Number of Distinct Observations		25
1137										Number of Missing Observations		36
1138					Number of Detects	10				Number of Non-Detects		17
1139					Number of Distinct Detects	10				Number of Distinct Non-Detects		16

1140					Minimum Detect	53					Minimum Non-Detect	105
1141					Maximum Detect	1800					Maximum Non-Detect	10000
1142					Variance Detects	322722					Percent Non-Detects	62.96%
1143					Mean Detects	407.1					SD Detects	568.1
1144					Median Detects	135					CV Detects	1.395
1145					Skewness Detects	2.023					Kurtosis Detects	3.883
1146					Mean of Logged Detects	5.267					SD of Logged Detects	1.232
1147												
1148					**Normal GOF Test on Detects Only**							
1149					Shapiro Wilk Test Statistic	0.692					**Shapiro Wilk GOF Test**	
1150					1% Shapiro Wilk Critical Value	0.781					Detected Data Not Normal at 1% Significance Level	
1151					Lilliefors Test Statistic	0.322					**Lilliefors GOF Test**	
1152					1% Lilliefors Critical Value	0.304					Detected Data Not Normal at 1% Significance Level	
1153					**Detected Data Not Normal at 1% Significance Level**							
1154												
1155					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1156					KM Mean	239.2					KM Standard Error of Mean	94.94
1157					90KM SD	408.7					95% KM (BCA) UCL	402.3
1158					95% KM (t) UCL	401.1					95% KM (Percentile Bootstrap) UCL	394.2
1159					95% KM (z) UCL	395.3					95% KM Bootstrap t UCL	748.3
1160					90% KM Chebyshev UCL	524					95% KM Chebyshev UCL	653
1161					97.5% KM Chebyshev UCL	832.1					99% KM Chebyshev UCL	1184
1162					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1163												
1164					**Gamma GOF Tests on Detected Observations Only**							
1165					A-D Test Statistic	0.716					**Anderson-Darling GOF Test**	
1166					5% A-D Critical Value	0.755					Detected data appear Gamma Distributed at 5% Significance Level	
1167					K-S Test Statistic	0.261					**Kolmogorov-Smirnov GOF**	
1168					5% K-S Critical Value	0.276					Detected data appear Gamma Distributed at 5% Significance Level	
1169					**Detected data appear Gamma Distributed at 5% Significance Level**							
1170												
1171					**Gamma Statistics on Detected Data Only**							
1172					k hat (MLE)	0.8					k star (bias corrected MLE)	0.627
1173					Theta hat (MLE)	508.8					Theta star (bias corrected MLE)	649.5
1174					nu hat (MLE)	16					nu star (bias corrected)	12.54
1175					Mean (detects)	407.1						
1176												
1177					**Gamma ROS Statistics using Imputed Non-Detects**							
1178					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1179					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1180					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1181					This is especially true when the sample size is small.							
1182					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1183					Minimum	0.01					Mean	169.6
1184					Maximum	1800					Median	55
1185					SD	385.2					CV	2.272
1186					k hat (MLE)	0.181					k star (bias corrected MLE)	0.186
1187					Theta hat (MLE)	935.2					Theta star (bias corrected MLE)	912.3
1188					nu hat (MLE)	9.79					nu star (bias corrected)	10.04
1189					Adjusted Level of Significance (β)	0.0401						
1190					Approximate Chi Square Value (10.04, α)	3.964					Adjusted Chi Square Value (10.04, β)	3.723
1191					95% Gamma Approximate UCL	429.2					95% Gamma Adjusted UCL	457.1
1192												
1193					**Estimates of Gamma Parameters using KM Estimates**							
1194					Mean (KM)	239.2					SD (KM)	408.7
1195					Variance (KM)	167051					SE of Mean (KM)	94.94
1196					k hat (KM)	0.342					k star (KM)	0.329
1197					nu hat (KM)	18.49					nu star (KM)	17.77
1198					theta hat (KM)	698.5					theta star (KM)	726.9
1199					80% gamma percentile (KM)	374.4					90% gamma percentile (KM)	696.9
1200					95% gamma percentile (KM)	1062					99% gamma percentile (KM)	1999
1201												
1202					**Gamma Kaplan-Meier (KM) Statistics**							
1203					Approximate Chi Square Value (17.77, α)	9.223					Adjusted Chi Square Value (17.77, β)	8.83
1204					95% KM Approximate Gamma UCL	460.7					95% KM Adjusted Gamma UCL	481.2
1205					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1206												

	A	B	C	D	E	F	G	H	I	J	K	L
1207	**Lognormal GOF Test on Detected Observations Only**											
1208					Shapiro Wilk Test Statistic	0.9	**Shapiro Wilk GOF Test**					
1209					10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level					
1210					Lilliefors Test Statistic	0.204	**Lilliefors GOF Test**					
1211					10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level					
1212	**Detected Data appear Lognormal at 10% Significance Level**											
1213												
1214	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1215					Mean in Original Scale	209.7			Mean in Log Scale			4.782
1216					SD in Original Scale	368.9			SD in Log Scale			0.849
1217					95% t UCL (assumes normality of ROS data)	330.8			95% Percentile Bootstrap UCL			333.5
1218					95% BCA Bootstrap UCL	407.8			95% Bootstrap t UCL			627.8
1219					95% H-UCL (Log ROS)	252.4						
1220												
1221	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1222					KM Mean (logged)	4.778			KM Geo Mean			118.9
1223					KM SD (logged)	0.98			95% Critical H Value (KM-Log)			2.494
1224					KM Standard Error of Mean (logged)	0.242			95% H-UCL (KM -Log)			310.1
1225					KM SD (logged)	0.98			95% Critical H Value (KM-Log)			2.494
1226					KM Standard Error of Mean (logged)	0.242						
1227	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1228												
1229	**DL/2 Statistics**											
1230	**DL/2 Normal**						**DL/2 Log-Transformed**					
1231					Mean in Original Scale	654			Mean in Log Scale			5.496
1232					SD in Original Scale	1052			SD in Log Scale			1.412
1233					95% t UCL (Assumes normality)	999.2			95% H-Stat UCL			1560
1234	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1235												
1236	**Nonparametric Distribution Free UCL Statistics**											
1237	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1238												
1239	**Suggested UCL to Use**											
1240					95% KM Adjusted Gamma UCL	481.2						
1241												
1242	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1243	**Please verify the data were collected from random locations.**											
1244	**If the data were collected using judgmental or other non-random methods,**											
1245	**then contact a statistician to correctly calculate UCLs.**											
1246												
1247	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1248	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1249	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1250												
1251	**Benzo[a]pyrene**											
1252												
1253	**General Statistics**											
1254					Total Number of Observations	27			Number of Distinct Observations			25
1255									Number of Missing Observations			36
1256					Number of Detects	10			Number of Non-Detects			17
1257					Number of Distinct Detects	10			Number of Distinct Non-Detects			16
1258					Minimum Detect	67			Minimum Non-Detect			100
1259					Maximum Detect	1500			Maximum Non-Detect			10000
1260					Variance Detects	271702			Percent Non-Detects			62.96%
1261					Mean Detects	486			SD Detects			521.3
1262					Median Detects	190			CV Detects			1.073
1263					Skewness Detects	1.101			Kurtosis Detects			-0.268
1264					Mean of Logged Detects	5.612			SD of Logged Detects			1.15
1265												
1266	**Normal GOF Test on Detects Only**											
1267					Shapiro Wilk Test Statistic	0.792	**Shapiro Wilk GOF Test**					
1268					1% Shapiro Wilk Critical Value	0.781	Detected Data appear Normal at 1% Significance Level					
1269					Lilliefors Test Statistic	0.302	**Lilliefors GOF Test**					
1270					1% Lilliefors Critical Value	0.304	Detected Data appear Normal at 1% Significance Level					
1271	**Detected Data appear Normal at 1% Significance Level**											
1272												
1273	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											

1274					KM Mean	273.4				KM Standard Error of Mean		88.4
1275					90KM SD	389.5				95% KM (BCA) UCL		430.4
1276					95% KM (t) UCL	424.2				95% KM (Percentile Bootstrap) UCL		417.9
1277					95% KM (z) UCL	418.8				95% KM Bootstrap t UCL		503.7
1278					90% KM Chebyshev UCL	538.6				95% KM Chebyshev UCL		658.8
1279					97.5% KM Chebyshev UCL	825.5				99% KM Chebyshev UCL		1153
1280					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1281												
1282					**Gamma GOF Tests on Detected Observations Only**							
1283					A-D Test Statistic	0.614				**Anderson-Darling GOF Test**		
1284					5% A-D Critical Value	0.748				Detected data appear Gamma Distributed at 5% Significance Level		
1285					K-S Test Statistic	0.25				**Kolmogorov-Smirnov GOF**		
1286					5% K-S Critical Value	0.274				Detected data appear Gamma Distributed at 5% Significance Level		
1287					**Detected data appear Gamma Distributed at 5% Significance Level**							
1288												
1289					**Gamma Statistics on Detected Data Only**							
1290					k hat (MLE)	1.005				k star (bias corrected MLE)		0.77
1291					Theta hat (MLE)	483.7				Theta star (bias corrected MLE)		631.2
1292					nu hat (MLE)	20.09				nu star (bias corrected)		15.4
1293					Mean (detects)	486						
1294												
1295					**Gamma ROS Statistics using Imputed Non-Detects**							
1296					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1297					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1298					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1299					This is especially true when the sample size is small.							
1300					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1301					Minimum	0.01				Mean		203.8
1302					Maximum	1500				Median		67
1303					SD	381.9				CV		1.873
1304					k hat (MLE)	0.214				k star (bias corrected MLE)		0.215
1305					Theta hat (MLE)	951.6				Theta star (bias corrected MLE)		947.6
1306					nu hat (MLE)	11.57				nu star (bias corrected)		11.61
1307					Adjusted Level of Significance (β)	0.0401						
1308					Approximate Chi Square Value (11.61, α)	4.974				Adjusted Chi Square Value (11.61, β)		4.698
1309					95% Gamma Approximate UCL	475.9				95% Gamma Adjusted UCL		503.9
1310												
1311					**Estimates of Gamma Parameters using KM Estimates**							
1312					Mean (KM)	273.4				SD (KM)		389.5
1313					Variance (KM)	151690				SE of Mean (KM)		88.4
1314					k hat (KM)	0.493				k star (KM)		0.463
1315					nu hat (KM)	26.61				nu star (KM)		24.99
1316					theta hat (KM)	554.8				theta star (KM)		590.8
1317					80% gamma percentile (KM)	447.2				90% gamma percentile (KM)		751.5
1318					95% gamma percentile (KM)	1080				99% gamma percentile (KM)		1893
1319												
1320					**Gamma Kaplan-Meier (KM) Statistics**							
1321					Approximate Chi Square Value (24.99, α)	14.6				Adjusted Chi Square Value (24.99, β)		14.1
1322					95% KM Approximate Gamma UCL	467.9				95% KM Adjusted Gamma UCL		484.7
1323					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1324												
1325					**Lognormal GOF Test on Detected Observations Only**							
1326					Shapiro Wilk Test Statistic	0.903				**Shapiro Wilk GOF Test**		
1327					10% Shapiro Wilk Critical Value	0.869				Detected Data appear Lognormal at 10% Significance Level		
1328					Lilliefors Test Statistic	0.191				**Lilliefors GOF Test**		
1329					10% Lilliefors Critical Value	0.241				Detected Data appear Lognormal at 10% Significance Level		
1330					**Detected Data appear Lognormal at 10% Significance Level**							
1331												
1332					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1333					Mean in Original Scale	244				Mean in Log Scale		4.951
1334					SD in Original Scale	361.7				SD in Log Scale		0.891
1335					95% t UCL (assumes normality of ROS data)	362.7				95% Percentile Bootstrap UCL		364.2
1336					95% BCA Bootstrap UCL	397				95% Bootstrap t UCL		452.6
1337					95% H-UCL (Log ROS)	319						
1338												
1339					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1340					KM Mean (logged)	4.994				KM Geo Mean		147.5

1341				KM SD (logged)	0.961				95% Critical H Value (KM-Log)			2.471
1342				KM Standard Error of Mean (logged)	0.228				95% H-UCL (KM -Log)			372.9
1343				KM SD (logged)	0.961				95% Critical H Value (KM-Log)			2.471
1344				KM Standard Error of Mean (logged)	0.228							
1345					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1346												
1347					**DL/2 Statistics**							
1348				**DL/2 Normal**					**DL/2 Log-Transformed**			
1349				Mean in Original Scale	648.1				Mean in Log Scale			5.513
1350				SD in Original Scale	1042				SD in Log Scale			1.39
1351				95% t UCL (Assumes normality)	990				95% H-Stat UCL			1502
1352					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1353												
1354					**Nonparametric Distribution Free UCL Statistics**							
1355					**Detected Data appear Normal Distributed at 1% Significance Level**							
1356												
1357					**Suggested UCL to Use**							
1358				95% KM (t) UCL	424.2							
1359												
1360					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1361					**Please verify the data were collected from random locations.**							
1362					**If the data were collected using judgmental or other non-random methods,**							
1363					**then contact a statistician to correctly calculate UCLs.**							
1364												
1365					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1366					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1367					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1368												
1369	**Benzo[g,h,i]perylene**											
1370												
1371					**General Statistics**							
1372				Total Number of Observations	27				Number of Distinct Observations			23
1373									Number of Missing Observations			36
1374				Number of Detects	7				Number of Non-Detects			20
1375				Number of Distinct Detects	7				Number of Distinct Non-Detects			19
1376				Minimum Detect	59				Minimum Non-Detect			100
1377				Maximum Detect	850				Maximum Non-Detect			10000
1378				Variance Detects	105090				Percent Non-Detects			74.07%
1379				Mean Detects	357				SD Detects			324.2
1380				Median Detects	270				CV Detects			0.908
1381				Skewness Detects	0.98				Kurtosis Detects			-0.969
1382				Mean of Logged Detects	5.486				SD of Logged Detects			0.989
1383												
1384					**Normal GOF Test on Detects Only**							
1385				Shapiro Wilk Test Statistic	0.812				**Shapiro Wilk GOF Test**			
1386				1% Shapiro Wilk Critical Value	0.73				Detected Data appear Normal at 1% Significance Level			
1387				Lilliefors Test Statistic	0.296				**Lilliefors GOF Test**			
1388				1% Lilliefors Critical Value	0.35				Detected Data appear Normal at 1% Significance Level			
1389					**Detected Data appear Normal at 1% Significance Level**							
1390					**Note GOF tests may be unreliable for small sample sizes**							
1391												
1392					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1393				KM Mean	171.8				KM Standard Error of Mean			54.95
1394				90KM SD	225.3				95% KM (BCA) UCL			291
1395				95% KM (t) UCL	265.5				95% KM (Percentile Bootstrap) UCL			272.4
1396				95% KM (z) UCL	262.2				95% KM Bootstrap t UCL			361.4
1397				90% KM Chebyshev UCL	336.7				95% KM Chebyshev UCL			411.3
1398				97.5% KM Chebyshev UCL	515				99% KM Chebyshev UCL			718.6
1399					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1400												
1401					**Gamma GOF Tests on Detected Observations Only**							
1402				A-D Test Statistic	0.385				**Anderson-Darling GOF Test**			
1403				5% A-D Critical Value	0.722				Detected data appear Gamma Distributed at 5% Significance Level			
1404				K-S Test Statistic	0.197				**Kolmogorov-Smirnov GOF**			
1405				5% K-S Critical Value	0.317				Detected data appear Gamma Distributed at 5% Significance Level			
1406					**Detected data appear Gamma Distributed at 5% Significance Level**							
1407					**Note GOF tests may be unreliable for small sample sizes**							

1408											
1409	**Gamma Statistics on Detected Data Only**										
1410					k hat (MLE)	1.422		k star (bias corrected MLE)			0.908
1411					Theta hat (MLE)	251.1		Theta star (bias corrected MLE)			393.4
1412					nu hat (MLE)	19.9		nu star (bias corrected)			12.71
1413					Mean (detects)	357					
1414											
1415	**Gamma ROS Statistics using Imputed Non-Detects**										
1416	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1417	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1418	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1419	This is especially true when the sample size is small.										
1420	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1421					Minimum	0.01		Mean			104
1422					Maximum	850		Median			0.01
1423					SD	220.1		CV			2.117
1424					k hat (MLE)	0.159		k star (bias corrected MLE)			0.166
1425					Theta hat (MLE)	653.7		Theta star (bias corrected MLE)			626.1
1426					nu hat (MLE)	8.588		nu star (bias corrected)			8.967
1427					Adjusted Level of Significance (β)	0.0401					
1428					Approximate Chi Square Value (8.97, α)	3.307		Adjusted Chi Square Value (8.97, β)			3.09
1429					95% Gamma Approximate UCL	281.9		95% Gamma Adjusted UCL			301.7
1430											
1431	**Estimates of Gamma Parameters using KM Estimates**										
1432					Mean (KM)	171.8		SD (KM)			225.3
1433					Variance (KM)	50760		SE of Mean (KM)			54.95
1434					k hat (KM)	0.581		k star (KM)			0.541
1435					nu hat (KM)	31.4		nu star (KM)			29.24
1436					theta hat (KM)	295.5		theta star (KM)			317.3
1437					80% gamma percentile (KM)	282.9		90% gamma percentile (KM)			457
1438					95% gamma percentile (KM)	641.4		99% gamma percentile (KM)			1091
1439											
1440	**Gamma Kaplan-Meier (KM) Statistics**										
1441					Approximate Chi Square Value (29.24, α)	17.9		Adjusted Chi Square Value (29.24, β)			17.33
1442					95% KM Approximate Gamma UCL	280.7		95% KM Adjusted Gamma UCL			289.9
1443	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
1444											
1445	**Lognormal GOF Test on Detected Observations Only**										
1446					Shapiro Wilk Test Statistic	0.936		**Shapiro Wilk GOF Test**			
1447					10% Shapiro Wilk Critical Value	0.838		Detected Data appear Lognormal at 10% Significance Level			
1448					Lilliefors Test Statistic	0.168		**Lilliefors GOF Test**			
1449					10% Lilliefors Critical Value	0.28		Detected Data appear Lognormal at 10% Significance Level			
1450	**Detected Data appear Lognormal at 10% Significance Level**										
1451	**Note GOF tests may be unreliable for small sample sizes**										
1452											
1453	**Lognormal ROS Statistics Using Imputed Non-Detects**										
1454					Mean in Original Scale	143.4		Mean in Log Scale			4.519
1455					SD in Original Scale	203.1		SD in Log Scale			0.798
1456					95% t UCL (assumes normality of ROS data)	210.1		95% Percentile Bootstrap UCL			213
1457					95% BCA Bootstrap UCL	231.4		95% Bootstrap t UCL			349.1
1458					95% H-UCL (Log ROS)	179.9					
1459											
1460	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
1461					KM Mean (logged)	4.658		KM Geo Mean			105.5
1462					KM SD (logged)	0.853		95% Critical H Value (KM-Log)			2.338
1463					KM Standard Error of Mean (logged)	0.22		95% H-UCL (KM -Log)			224.4
1464					KM SD (logged)	0.853		95% Critical H Value (KM-Log)			2.338
1465					KM Standard Error of Mean (logged)	0.22					
1466	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
1467											
1468	**DL/2 Statistics**										
1469	**DL/2 Normal**							**DL/2 Log-Transformed**			
1470					Mean in Original Scale	604.2		Mean in Log Scale			5.443
1471					SD in Original Scale	1027		SD in Log Scale			1.361
1472					95% t UCL (Assumes normality)	941.4		95% H-Stat UCL			1310
1473	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
1474											

1475	**Nonparametric Distribution Free UCL Statistics**											
1476	**Detected Data appear Normal Distributed at 1% Significance Level**											
1477												
1478	**Suggested UCL to Use**											
1479				95% KM (t) UCL	265.5							
1480												
1481	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1482	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1483	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1484												
1485	**Benzo[k]fluoranthene**											
1486												
1487	**General Statistics**											
1488				Total Number of Observations	27			Number of Distinct Observations	25			
1489								Number of Missing Observations	36			
1490				Number of Detects	10			Number of Non-Detects	17			
1491				Number of Distinct Detects	10			Number of Distinct Non-Detects	16			
1492				Minimum Detect	71			Minimum Non-Detect	100			
1493				Maximum Detect	1600			Maximum Non-Detect	10000			
1494				Variance Detects	260773			Percent Non-Detects	62.96%			
1495				Mean Detects	436.4			SD Detects	510.7			
1496				Median Detects	155			CV Detects	1.17			
1497				Skewness Detects	1.61			Kurtosis Detects	2.103			
1498				Mean of Logged Detects	5.481			SD of Logged Detects	1.144			
1499												
1500	**Normal GOF Test on Detects Only**											
1501				Shapiro Wilk Test Statistic	0.765			**Shapiro Wilk GOF Test**				
1502				1% Shapiro Wilk Critical Value	0.781			Detected Data Not Normal at 1% Significance Level				
1503				Lilliefors Test Statistic	0.299			**Lilliefors GOF Test**				
1504				1% Lilliefors Critical Value	0.304			Detected Data appear Normal at 1% Significance Level				
1505	**Detected Data appear Approximate Normal at 1% Significance Level**											
1506												
1507	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1508				KM Mean	249.8			KM Standard Error of Mean	84.68			
1509				90KM SD	372.6			95% KM (BCA) UCL	405.5			
1510				95% KM (t) UCL	394.2			95% KM (Percentile Bootstrap) UCL	386.8			
1511				95% KM (z) UCL	389.1			95% KM Bootstrap t UCL	547.9			
1512				90% KM Chebyshev UCL	503.8			95% KM Chebyshev UCL	618.9			
1513				97.5% KM Chebyshev UCL	778.6			99% KM Chebyshev UCL	1092			
1514	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1515												
1516	**Gamma GOF Tests on Detected Observations Only**											
1517				A-D Test Statistic	0.637			**Anderson-Darling GOF Test**				
1518				5% A-D Critical Value	0.749			Detected data appear Gamma Distributed at 5% Significance Level				
1519				K-S Test Statistic	0.271			**Kolmogorov-Smirnov GOF**				
1520				5% K-S Critical Value	0.274			Detected data appear Gamma Distributed at 5% Significance Level				
1521	**Detected data appear Gamma Distributed at 5% Significance Level**											
1522												
1523	**Gamma Statistics on Detected Data Only**											
1524				k hat (MLE)	0.97			k star (bias corrected MLE)	0.746			
1525				Theta hat (MLE)	450			Theta star (bias corrected MLE)	585.3			
1526				nu hat (MLE)	19.4			nu star (bias corrected)	14.91			
1527				Mean (detects)	436.4							
1528												
1529	**Gamma ROS Statistics using Imputed Non-Detects**											
1530	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1531	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1532	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1533	This is especially true when the sample size is small.											
1534	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1535				Minimum	0.01			Mean	181.3			
1536				Maximum	1600			Median	71			
1537				SD	364.1			CV	2.009			
1538				k hat (MLE)	0.172			k star (bias corrected MLE)	0.177			
1539				Theta hat (MLE)	1055			Theta star (bias corrected MLE)	1022			
1540				nu hat (MLE)	9.278			nu star (bias corrected)	9.581			
1541				Adjusted Level of Significance (β)	0.0401							

1542					Approximate Chi Square Value (9.58, α)	3.681				Adjusted Chi Square Value (9.58, β)		3.45
1543					95% Gamma Approximate UCL	471.7				95% Gamma Adjusted UCL		503.4
1544												
1545					**Estimates of Gamma Parameters using KM Estimates**							
1546					Mean (KM)	249.8				SD (KM)		372.6
1547					Variance (KM)	138865				SE of Mean (KM)		84.68
1548					k hat (KM)	0.449				k star (KM)		0.424
1549					nu hat (KM)	24.26				nu star (KM)		22.9
1550					theta hat (KM)	556				theta star (KM)		589
1551					80% gamma percentile (KM)	405.6				90% gamma percentile (KM)		698.1
1552					95% gamma percentile (KM)	1017				99% gamma percentile (KM)		1814
1553												
1554					**Gamma Kaplan-Meier (KM) Statistics**							
1555					Approximate Chi Square Value (22.90, α)	13.01				Adjusted Chi Square Value (22.90, β)		12.54
1556					95% KM Approximate Gamma UCL	439.5				95% KM Adjusted Gamma UCL		456.2
1557					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1558												
1559					**Lognormal GOF Test on Detected Observations Only**							
1560					Shapiro Wilk Test Statistic	0.891				**Shapiro Wilk GOF Test**		
1561					10% Shapiro Wilk Critical Value	0.869				Detected Data appear Lognormal at 10% Significance Level		
1562					Lilliefors Test Statistic	0.219				**Lilliefors GOF Test**		
1563					10% Lilliefors Critical Value	0.241				Detected Data appear Lognormal at 10% Significance Level		
1564					**Detected Data appear Lognormal at 10% Significance Level**							
1565												
1566					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1567					Mean in Original Scale	223.9				Mean in Log Scale		4.893
1568					SD in Original Scale	344.4				SD in Log Scale		0.849
1569					95% t UCL (assumes normality of ROS data)	336.9				95% Percentile Bootstrap UCL		341
1570					95% BCA Bootstrap UCL	388				95% Bootstrap t UCL		473
1571					95% H-UCL (Log ROS)	282						
1572												
1573					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1574					KM Mean (logged)	4.923				KM Geo Mean		137.4
1575					KM SD (logged)	0.924				95% Critical H Value (KM-Log)		2.424
1576					KM Standard Error of Mean (logged)	0.217				95% H-UCL (KM -Log)		326.6
1577					KM SD (logged)	0.924				95% Critical H Value (KM-Log)		2.424
1578					KM Standard Error of Mean (logged)	0.217						
1579					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1580												
1581					**DL/2 Statistics**							
1582					**DL/2 Normal**					**DL/2 Log-Transformed**		
1583					Mean in Original Scale	629.7				Mean in Log Scale		5.464
1584					SD in Original Scale	1043				SD in Log Scale		1.386
1585					95% t UCL (Assumes normality)	972.1				95% H-Stat UCL		1418
1586					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1587												
1588					**Nonparametric Distribution Free UCL Statistics**							
1589					**Detected Data appear Approximate Normal Distributed at 1% Significance Level**							
1590												
1591					**Suggested UCL to Use**							
1592					95% KM (t) UCL	394.2						
1593												
1594					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1595					**Please verify the data were collected from random locations.**							
1596					**If the data were collected using judgmental or other non-random methods,**							
1597					**then contact a statistician to correctly calculate UCLs.**							
1598												
1599					When a data set follows an approximate distribution passing only one of the GOF tests,							
1600					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
1601												
1602					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1603					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1604					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1605												
1606	**Chrysene**											
1607												
1608					**General Statistics**							

1609	Total Number of Observations				27	Number of Distinct Observations					23	
1610						Number of Missing Observations					36	
1611	Number of Detects				12	Number of Non-Detects					15	
1612	Number of Distinct Detects				12	Number of Distinct Non-Detects					14	
1613	Minimum Detect				62	Minimum Non-Detect					105	
1614	Maximum Detect				2000	Maximum Non-Detect					10000	
1615	Variance Detects				330873	Percent Non-Detects					55.56%	
1616	Mean Detects				415.8	SD Detects					575.2	
1617	Median Detects				150	CV Detects					1.383	
1618	Skewness Detects				2.271	Kurtosis Detects					5.309	
1619	Mean of Logged Detects				5.372	SD of Logged Detects					1.126	
1620												
1621	**Normal GOF Test on Detects Only**											
1622	Shapiro Wilk Test Statistic				0.67	**Shapiro Wilk GOF Test**						
1623	1% Shapiro Wilk Critical Value				0.805	Detected Data Not Normal at 1% Significance Level						
1624	Lilliefors Test Statistic				0.293	**Lilliefors GOF Test**						
1625	1% Lilliefors Critical Value				0.281	Detected Data Not Normal at 1% Significance Level						
1626	**Detected Data Not Normal at 1% Significance Level**											
1627												
1628	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1629	KM Mean				278.6	KM Standard Error of Mean					99.84	
1630	90KM SD				441.1	95% KM (BCA) UCL					444.1	
1631	95% KM (t) UCL				448.9	95% KM (Percentile Bootstrap) UCL					440.4	
1632	95% KM (z) UCL				442.8	95% KM Bootstrap t UCL					728.9	
1633	90% KM Chebyshev UCL				578.1	95% KM Chebyshev UCL					713.8	
1634	97.5% KM Chebyshev UCL				902.1	99% KM Chebyshev UCL					1272	
1635	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1636												
1637	**Gamma GOF Tests on Detected Observations Only**											
1638	A-D Test Statistic				0.836	**Anderson-Darling GOF Test**						
1639	5% A-D Critical Value				0.761	Detected Data Not Gamma Distributed at 5% Significance Level						
1640	K-S Test Statistic				0.239	**Kolmogorov-Smirnov GOF**						
1641	5% K-S Critical Value				0.253	Detected data appear Gamma Distributed at 5% Significance Level						
1642	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
1643												
1644	**Gamma Statistics on Detected Data Only**											
1645	k hat (MLE)				0.889	k star (bias corrected MLE)					0.723	
1646	Theta hat (MLE)				467.6	Theta star (bias corrected MLE)					575.5	
1647	nu hat (MLE)				21.34	nu star (bias corrected)					17.34	
1648	Mean (detects)				415.8							
1649												
1650	**Gamma ROS Statistics using Imputed Non-Detects**											
1651	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1652	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1653	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1654	This is especially true when the sample size is small.											
1655	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1656	Minimum				0.01	Mean					212.5	
1657	Maximum				2000	Median					80	
1658	SD				421.3	CV					1.983	
1659	k hat (MLE)				0.26	k star (bias corrected MLE)					0.256	
1660	Theta hat (MLE)				816.6	Theta star (bias corrected MLE)					830	
1661	nu hat (MLE)				14.05	nu star (bias corrected)					13.82	
1662	Adjusted Level of Significance (β)				0.0401							
1663	Approximate Chi Square Value (13.82, α)				6.452	Adjusted Chi Square Value (13.82, β)					6.131	
1664	95% Gamma Approximate UCL				455.4	95% Gamma Adjusted UCL					479.2	
1665												
1666	**Estimates of Gamma Parameters using KM Estimates**											
1667	Mean (KM)				278.6	SD (KM)					441.1	
1668	Variance (KM)				194542	SE of Mean (KM)					99.84	
1669	k hat (KM)				0.399	k star (KM)					0.379	
1670	nu hat (KM)				21.54	nu star (KM)					20.48	
1671	theta hat (KM)				698.3	theta star (KM)					734.5	
1672	80% gamma percentile (KM)				446.6	90% gamma percentile (KM)					794.1	
1673	95% gamma percentile (KM)				1179	99% gamma percentile (KM)					2152	
1674												
1675	**Gamma Kaplan-Meier (KM) Statistics**											

1676					Approximate Chi Square Value (20.48, α)		11.21			Adjusted Chi Square Value (20.48, β)		10.77
1677					95% KM Approximate Gamma UCL		509.1			95% KM Adjusted Gamma UCL		529.9
1678	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1679												
1680	**Lognormal GOF Test on Detected Observations Only**											
1681					Shapiro Wilk Test Statistic		0.9	**Shapiro Wilk GOF Test**				
1682					10% Shapiro Wilk Critical Value		0.883	Detected Data appear Lognormal at 10% Significance Level				
1683					Lilliefors Test Statistic		0.187	**Lilliefors GOF Test**				
1684					10% Lilliefors Critical Value		0.223	Detected Data appear Lognormal at 10% Significance Level				
1685	**Detected Data appear Lognormal at 10% Significance Level**											
1686												
1687	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1688					Mean in Original Scale		248.8			Mean in Log Scale		4.996
1689					SD in Original Scale		405			SD in Log Scale		0.843
1690					95% t UCL (assumes normality of ROS data)		381.8			95% Percentile Bootstrap UCL		387.2
1691					95% BCA Bootstrap UCL		453.4			95% Bootstrap t UCL		650.6
1692					95% H-UCL (Log ROS)		310					
1693												
1694	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1695					KM Mean (logged)		5			KM Geo Mean		148.5
1696					KM SD (logged)		0.95			95% Critical H Value (KM-Log)		2.457
1697					KM Standard Error of Mean (logged)		0.225			95% H-UCL (KM -Log)		368.6
1698					KM SD (logged)		0.95			95% Critical H Value (KM-Log)		2.457
1699					KM Standard Error of Mean (logged)		0.225					
1700	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1701												
1702	**DL/2 Statistics**											
1703	**DL/2 Normal**							**DL/2 Log-Transformed**				
1704					Mean in Original Scale		682.5			Mean in Log Scale		5.613
1705					SD in Original Scale		1054			SD in Log Scale		1.368
1706					95% t UCL (Assumes normality)		1028			95% H-Stat UCL		1576
1707	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1708												
1709	**Nonparametric Distribution Free UCL Statistics**											
1710	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
1711												
1712	**Suggested UCL to Use**											
1713					95% KM Adjusted Gamma UCL		529.9					
1714												
1715	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1716	**Please verify the data were collected from random locations.**											
1717	**If the data were collected using judgmental or other non-random methods,**											
1718	**then contact a statistician to correctly calculate UCLs.**											
1719												
1720	When a data set follows an approximate distribution passing only one of the GOF tests,											
1721	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
1722												
1723	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1724	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1725	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1726												
1727	**Dibenzo[a,h]anthracene**											
1728												
1729	**General Statistics**											
1730					Total Number of Observations		27			Number of Distinct Observations		25
1731										Number of Missing Observations		36
1732					Number of Detects		2			Number of Non-Detects		25
1733					Number of Distinct Detects		2			Number of Distinct Non-Detects		23
1734					Minimum Detect		95			Minimum Non-Detect		70
1735					Maximum Detect		240			Maximum Non-Detect		10000
1736					Variance Detects		10513			Percent Non-Detects		92.59%
1737					Mean Detects		167.5			SD Detects		102.5
1738					Median Detects		167.5			CV Detects		0.612
1739					Skewness Detects		N/A			Kurtosis Detects		N/A
1740					Mean of Logged Detects		5.017			SD of Logged Detects		0.655
1741												
1742	**Warning: Data set has only 2 Detected Values.**											

	A	B	C	D	E	F	G	H	I	J	K	L
1743	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1744												
1745												
1746	**Normal GOF Test on Detects Only**											
1747	**Not Enough Data to Perform GOF Test**											
1748												
1749	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1750					KM Mean	92.34			KM Standard Error of Mean			17.86
1751					90KM SD	40			95% KM (BCA) UCL			N/A
1752					95% KM (t) UCL	122.8			95% KM (Percentile Bootstrap) UCL			N/A
1753					95% KM (z) UCL	121.7			95% KM Bootstrap t UCL			N/A
1754					90% KM Chebyshev UCL	145.9			95% KM Chebyshev UCL			170.2
1755					97.5% KM Chebyshev UCL	203.9			99% KM Chebyshev UCL			270.1
1756												
1757	**Gamma GOF Tests on Detected Observations Only**											
1758	**Not Enough Data to Perform GOF Test**											
1759												
1760	**Gamma Statistics on Detected Data Only**											
1761					k hat (MLE)	4.981			k star (bias corrected MLE)			N/A
1762					Theta hat (MLE)	33.63			Theta star (bias corrected MLE)			N/A
1763					nu hat (MLE)	19.92			nu star (bias corrected)			N/A
1764					Mean (detects)	167.5						
1765												
1766	**Estimates of Gamma Parameters using KM Estimates**											
1767					Mean (KM)	92.34			SD (KM)			40
1768					Variance (KM)	1600			SE of Mean (KM)			17.86
1769					k hat (KM)	5.33			k star (KM)			4.762
1770					nu hat (KM)	287.8			nu star (KM)			257.2
1771					theta hat (KM)	17.33			theta star (KM)			19.39
1772					80% gamma percentile (KM)	124.8			90% gamma percentile (KM)			149
1773					95% gamma percentile (KM)	171.1			99% gamma percentile (KM)			217.9
1774												
1775	**Gamma Kaplan-Meier (KM) Statistics**											
1776									Adjusted Level of Significance (β)			0.0401
1777					Approximate Chi Square Value (257.16, α)	221			Adjusted Chi Square Value (257.16, β)			218.9
1778					95% KM Approximate Gamma UCL	107.4			95% KM Adjusted Gamma UCL			108.5
1779												
1780	**Lognormal GOF Test on Detected Observations Only**											
1781	**Not Enough Data to Perform GOF Test**											
1782												
1783	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1784					Mean in Original Scale	70.79			Mean in Log Scale			4.198
1785					SD in Original Scale	35.52			SD in Log Scale			0.307
1786					95% t UCL (assumes normality of ROS data)	82.45			95% Percentile Bootstrap UCL			84.06
1787					95% BCA Bootstrap UCL	92.54			95% Bootstrap t UCL			105.3
1788					95% H-UCL (Log ROS)	77.91						
1789												
1790	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1791					KM Mean (logged)	4.469			KM Geo Mean			87.24
1792					KM SD (logged)	0.3			95% Critical H Value (KM-Log)			1.82
1793					KM Standard Error of Mean (logged)	0.17			95% H-UCL (KM -Log)			101.6
1794					KM SD (logged)	0.3			95% Critical H Value (KM-Log)			1.82
1795					KM Standard Error of Mean (logged)	0.17						
1796	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1797												
1798	**DL/2 Statistics**											
1799	**DL/2 Normal**						**DL/2 Log-Transformed**					
1800					Mean in Original Scale	557			Mean in Log Scale			5.249
1801					SD in Original Scale	1035			SD in Log Scale			1.389
1802					95% t UCL (Assumes normality)	896.7			95% H-Stat UCL			1152
1803	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1804												
1805	**Nonparametric Distribution Free UCL Statistics**											
1806	**Data do not follow a Discernible Distribution**											
1807												
1808	**Suggested UCL to Use**											
1809					95% KM (t) UCL	122.8						

1810												
1811	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1812	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1813	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1814												
1815	**Fluoranthene**											
1816												
1817	**General Statistics**											
1818					Total Number of Observations	27			Number of Distinct Observations	22		
1819									Number of Missing Observations	36		
1820					Number of Detects	14			Number of Non-Detects	13		
1821					Number of Distinct Detects	12			Number of Distinct Non-Detects	12		
1822					Minimum Detect	80			Minimum Non-Detect	105		
1823					Maximum Detect	2000			Maximum Non-Detect	10000		
1824					Variance Detects	451145			Percent Non-Detects	48.15%		
1825					Mean Detects	482.4			SD Detects	671.7		
1826					Median Detects	145			CV Detects	1.392		
1827					Skewness Detects	1.951			Kurtosis Detects	2.633		
1828					Mean of Logged Detects	5.509			SD of Logged Detects	1.102		
1829												
1830	**Normal GOF Test on Detects Only**											
1831					Shapiro Wilk Test Statistic	0.62			**Shapiro Wilk GOF Test**			
1832					1% Shapiro Wilk Critical Value	0.825			Detected Data Not Normal at 1% Significance Level			
1833					Lilliefors Test Statistic	0.344			**Lilliefors GOF Test**			
1834					1% Lilliefors Critical Value	0.263			Detected Data Not Normal at 1% Significance Level			
1835	**Detected Data Not Normal at 1% Significance Level**											
1836												
1837	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1838					KM Mean	351.5			KM Standard Error of Mean	121.9		
1839					90KM SD	547.8			95% KM (BCA) UCL	561.4		
1840					95% KM (t) UCL	559.4			95% KM (Percentile Bootstrap) UCL	555.8		
1841					95% KM (z) UCL	552			95% KM Bootstrap t UCL	936.9		
1842					90% KM Chebyshev UCL	717.2			95% KM Chebyshev UCL	882.8		
1843					97.5% KM Chebyshev UCL	1113			99% KM Chebyshev UCL	1564		
1844	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1845												
1846	**Gamma GOF Tests on Detected Observations Only**											
1847					A-D Test Statistic	1.424			**Anderson-Darling GOF Test**			
1848					5% A-D Critical Value	0.765			Detected Data Not Gamma Distributed at 5% Significance Level			
1849					K-S Test Statistic	0.275			**Kolmogorov-Smirnov GOF**			
1850					5% K-S Critical Value	0.236			Detected Data Not Gamma Distributed at 5% Significance Level			
1851	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1852												
1853	**Gamma Statistics on Detected Data Only**											
1854					k hat (MLE)	0.875			k star (bias corrected MLE)	0.735		
1855					Theta hat (MLE)	551			Theta star (bias corrected MLE)	655.8		
1856					nu hat (MLE)	24.51			nu star (bias corrected)	20.59		
1857					Mean (detects)	482.4						
1858												
1859	**Gamma ROS Statistics using Imputed Non-Detects**											
1860	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1861	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1862	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1863	This is especially true when the sample size is small.											
1864	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1865					Minimum	0.01			Mean	281.8		
1866					Maximum	2000			Median	116.8		
1867					SD	524.8			CV	1.862		
1868					k hat (MLE)	0.265			k star (bias corrected MLE)	0.26		
1869					Theta hat (MLE)	1065			Theta star (bias corrected MLE)	1084		
1870					nu hat (MLE)	14.29			nu star (bias corrected)	14.04		
1871					Adjusted Level of Significance (β)	0.0401						
1872					Approximate Chi Square Value (14.04, α)	6.598			Adjusted Chi Square Value (14.04, β)	6.273		
1873					95% Gamma Approximate UCL	599.7			95% Gamma Adjusted UCL	630.7		
1874												
1875	**Estimates of Gamma Parameters using KM Estimates**											
1876					Mean (KM)	351.5			SD (KM)	547.8		

1877					Variance (KM)	300106				SE of Mean (KM)		121.9
1878					k hat (KM)	0.412				k star (KM)		0.391
1879					nu hat (KM)	22.23				nu star (KM)		21.09
1880					theta hat (KM)	853.8				theta star (KM)		899.8
1881					80% gamma percentile (KM)	565.6				90% gamma percentile (KM)		996.9
1882					95% gamma percentile (KM)	1472				99% gamma percentile (KM)		2671
1883												
1884					**Gamma Kaplan-Meier (KM) Statistics**							
1885					Approximate Chi Square Value (21.09, α)	11.66				Adjusted Chi Square Value (21.09, β)		11.21
1886					95% KM Approximate Gamma UCL	635.8				95% KM Adjusted Gamma UCL		661.2
1887					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1888												
1889					**Lognormal GOF Test on Detected Observations Only**							
1890					Shapiro Wilk Test Statistic	0.836				**Shapiro Wilk GOF Test**		
1891					10% Shapiro Wilk Critical Value	0.895				Detected Data Not Lognormal at 10% Significance Level		
1892					Lilliefors Test Statistic	0.246				**Lilliefors GOF Test**		
1893					10% Lilliefors Critical Value	0.208				Detected Data Not Lognormal at 10% Significance Level		
1894					**Detected Data Not Lognormal at 10% Significance Level**							
1895												
1896					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1897					Mean in Original Scale	312				Mean in Log Scale		5.151
1898					SD in Original Scale	509.5				SD in Log Scale		0.918
1899					95% t UCL (assumes normality of ROS data)	479.3				95% Percentile Bootstrap UCL		475.2
1900					95% BCA Bootstrap UCL	528.5				95% Bootstrap t UCL		905.5
1901					95% H-UCL (Log ROS)	406						
1902												
1903					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1904					KM Mean (logged)	5.209				KM Geo Mean		182.9
1905					KM SD (logged)	0.965				95% Critical H Value (KM-Log)		2.476
1906					KM Standard Error of Mean (logged)	0.22				95% H-UCL (KM -Log)		465.9
1907					KM SD (logged)	0.965				95% Critical H Value (KM-Log)		2.476
1908					KM Standard Error of Mean (logged)	0.22						
1909					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
1910												
1911					**DL/2 Statistics**							
1912					**DL/2 Normal**					**DL/2 Log-Transformed**		
1913					Mean in Original Scale	737.4				Mean in Log Scale		5.716
1914					SD in Original Scale	1077				SD in Log Scale		1.369
1915					95% t UCL (Assumes normality)	1091				95% H-Stat UCL		1752
1916					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1917												
1918					**Nonparametric Distribution Free UCL Statistics**							
1919					**Data do not follow a Discernible Distribution**							
1920												
1921					**Suggested UCL to Use**							
1922					95% KM (t) UCL	559.4						
1923												
1924					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1925					**Please verify the data were collected from random locations.**							
1926					**If the data were collected using judgmental or other non-random methods,**							
1927					**then contact a statistician to correctly calculate UCLs.**							
1928												
1929					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1930					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1931					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1932												
1933												
1934	**Indeno[1,2,3-cd]pyrene**											
1935												
1936					**General Statistics**							
1937					Total Number of Observations	1				Number of Distinct Observations		1
1938										Number of Missing Observations		4
1939					Minimum	270				Mean		270
1940					Maximum	270				Median		270
1941												
1942					**Warning: This data set only has 1 observations!**							
1943					**Data set is too small to compute reliable and meaningful statistics and estimates!**							

1944	**The data set for variable Indeno[1,2,3-cd]pyrene was not processed!**											
1945												
1946	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
1947	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
1948												
1949												
1950	**Phenanthrene**											
1951												
1952	**General Statistics**											
1953					Total Number of Observations	27			Number of Distinct Observations	24		
1954									Number of Missing Observations	36		
1955					Number of Detects	5			Number of Non-Detects	22		
1956					Number of Distinct Detects	5			Number of Distinct Non-Detects	21		
1957					Minimum Detect	59			Minimum Non-Detect	100		
1958					Maximum Detect	770			Maximum Non-Detect	10000		
1959					Variance Detects	89319			Percent Non-Detects	81.48%		
1960					Mean Detects	256.8			SD Detects	298.9		
1961					Median Detects	110			CV Detects	1.164		
1962					Skewness Detects	1.846			Kurtosis Detects	3.352		
1963					Mean of Logged Detects	5.068			SD of Logged Detects	1.055		
1964												
1965	**Normal GOF Test on Detects Only**											
1966					Shapiro Wilk Test Statistic	0.756			**Shapiro Wilk GOF Test**			
1967					1% Shapiro Wilk Critical Value	0.686			Detected Data appear Normal at 1% Significance Level			
1968					Lilliefors Test Statistic	0.288			**Lilliefors GOF Test**			
1969					1% Lilliefors Critical Value	0.396			Detected Data appear Normal at 1% Significance Level			
1970	**Detected Data appear Normal at 1% Significance Level**											
1971	**Note GOF tests may be unreliable for small sample sizes**											
1972												
1973	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1974					KM Mean	119.9			KM Standard Error of Mean	39.95		
1975					90KM SD	156.6			95% KM (BCA) UCL	210.4		
1976					95% KM (t) UCL	188			95% KM (Percentile Bootstrap) UCL	195.8		
1977					95% KM (z) UCL	185.6			95% KM Bootstrap t UCL	331.1		
1978					90% KM Chebyshev UCL	239.8			95% KM Chebyshev UCL	294		
1979					97.5% KM Chebyshev UCL	369.4			99% KM Chebyshev UCL	517.4		
1980	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1981												
1982	**Gamma GOF Tests on Detected Observations Only**											
1983					A-D Test Statistic	0.432			**Anderson-Darling GOF Test**			
1984					5% A-D Critical Value	0.69			Detected data appear Gamma Distributed at 5% Significance Level			
1985					K-S Test Statistic	0.285			**Kolmogorov-Smirnov GOF**			
1986					5% K-S Critical Value	0.363			Detected data appear Gamma Distributed at 5% Significance Level			
1987	**Detected data appear Gamma Distributed at 5% Significance Level**											
1988	**Note GOF tests may be unreliable for small sample sizes**											
1989												
1990	**Gamma Statistics on Detected Data Only**											
1991					k hat (MLE)	1.18			k star (bias corrected MLE)	0.605		
1992					Theta hat (MLE)	217.6			Theta star (bias corrected MLE)	424.2		
1993					nu hat (MLE)	11.8			nu star (bias corrected)	6.053		
1994					Mean (detects)	256.8						
1995												
1996	**Gamma ROS Statistics using Imputed Non-Detects**											
1997	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1998	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1999	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2000	This is especially true when the sample size is small.											
2001	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2002					Minimum	0.01			Mean	73.75		
2003					Maximum	770			Median	26.68		
2004					SD	149.1			CV	2.021		
2005					k hat (MLE)	0.51			k star (bias corrected MLE)	0.478		
2006					Theta hat (MLE)	144.5			Theta star (bias corrected MLE)	154.2		
2007					nu hat (MLE)	27.56			nu star (bias corrected)	25.83		
2008					Adjusted Level of Significance (β)	0.0401						
2009					Approximate Chi Square Value (25.83, α)	15.25			Adjusted Chi Square Value (25.83, β)	14.73		
2010					95% Gamma Approximate UCL	124.9			95% Gamma Adjusted UCL	129.3		

2011											
2012	**Estimates of Gamma Parameters using KM Estimates**										
2013				Mean (KM)	119.9			SD (KM)	156.6		
2014				Variance (KM)	24538			SE of Mean (KM)	39.95		
2015				k hat (KM)	0.586			k star (KM)	0.545		
2016				nu hat (KM)	31.64			nu star (KM)	29.46		
2017				theta hat (KM)	204.6			theta star (KM)	219.8		
2018				80% gamma percentile (KM)	197.5			90% gamma percentile (KM)	318.5		
2019				95% gamma percentile (KM)	446.5			99% gamma percentile (KM)	758.8		
2020											
2021	**Gamma Kaplan-Meier (KM) Statistics**										
2022				Approximate Chi Square Value (29.46, α)	18.07			Adjusted Chi Square Value (29.46, β)	17.49		
2023				95% KM Approximate Gamma UCL	195.5			95% KM Adjusted Gamma UCL	201.9		
2024	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
2025											
2026	**Lognormal GOF Test on Detected Observations Only**										
2027				Shapiro Wilk Test Statistic	0.913			**Shapiro Wilk GOF Test**			
2028				10% Shapiro Wilk Critical Value	0.806			Detected Data appear Lognormal at 10% Significance Level			
2029				Lilliefors Test Statistic	0.236			**Lilliefors GOF Test**			
2030				10% Lilliefors Critical Value	0.319			Detected Data appear Lognormal at 10% Significance Level			
2031	**Detected Data appear Lognormal at 10% Significance Level**										
2032	**Note GOF tests may be unreliable for small sample sizes**										
2033											
2034	**Lognormal ROS Statistics Using Imputed Non-Detects**										
2035				Mean in Original Scale	108.5			Mean in Log Scale	4.445		
2036				SD in Original Scale	138.1			SD in Log Scale	0.532		
2037				95% t UCL (assumes normality of ROS data)	153.9			95% Percentile Bootstrap UCL	158.9		
2038				95% BCA Bootstrap UCL	195.6			95% Bootstrap t UCL	476.2		
2039				95% H-UCL (Log ROS)	120.8						
2040											
2041	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
2042				KM Mean (logged)	4.473			KM Geo Mean	87.64		
2043				KM SD (logged)	0.618			95% Critical H Value (KM-Log)	2.079		
2044				KM Standard Error of Mean (logged)	0.181			95% H-UCL (KM -Log)	136.5		
2045				KM SD (logged)	0.618			95% Critical H Value (KM-Log)	2.079		
2046				KM Standard Error of Mean (logged)	0.181						
2047	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
2048											
2049	**DL/2 Statistics**										
2050	**DL/2 Normal**							**DL/2 Log-Transformed**			
2051				Mean in Original Scale	566.6			Mean in Log Scale	5.299		
2052				SD in Original Scale	1034			SD in Log Scale	1.365		
2053				95% t UCL (Assumes normality)	906.1			95% H-Stat UCL	1144		
2054	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
2055											
2056	**Nonparametric Distribution Free UCL Statistics**										
2057	**Detected Data appear Normal Distributed at 1% Significance Level**										
2058											
2059	**Suggested UCL to Use**										
2060				95% KM (t) UCL	188						
2061											
2062	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
2063	**Please verify the data were collected from random locations.**										
2064	**If the data were collected using judgmental or other non-random methods,**										
2065	**then contact a statistician to correctly calculate UCLs.**										
2066											
2067	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
2068	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
2069	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
2070											
2071	**Pyrene**										
2072											
2073	**General Statistics**										
2074				Total Number of Observations	27			Number of Distinct Observations	23		
2075								Number of Missing Observations	36		
2076				Number of Detects	14			Number of Non-Detects	13		
2077				Number of Distinct Detects	13			Number of Distinct Non-Detects	12		

2078				Minimum Detect	85				Minimum Non-Detect	105	
2079				Maximum Detect	4000				Maximum Non-Detect	10000	
2080				Variance Detects	1143052				Percent Non-Detects	48.15%	
2081				Mean Detects	621.6				SD Detects	1069	
2082				Median Detects	175				CV Detects	1.72	
2083				Skewness Detects	2.848				Kurtosis Detects	8.536	
2084				Mean of Logged Detects	5.614				SD of Logged Detects	1.175	
2085											
2086				**Normal GOF Test on Detects Only**							
2087				Shapiro Wilk Test Statistic	0.561				**Shapiro Wilk GOF Test**		
2088				1% Shapiro Wilk Critical Value	0.825				Detected Data Not Normal at 1% Significance Level		
2089				Lilliefors Test Statistic	0.335				**Lilliefors GOF Test**		
2090				1% Lilliefors Critical Value	0.263				Detected Data Not Normal at 1% Significance Level		
2091				**Detected Data Not Normal at 1% Significance Level**							
2092											
2093				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
2094				KM Mean	419.9				KM Standard Error of Mean	169	
2095				90KM SD	807.3				95% KM (BCA) UCL	714	
2096				95% KM (t) UCL	708.1				95% KM (Percentile Bootstrap) UCL	700.4	
2097				95% KM (z) UCL	697.9				95% KM Bootstrap t UCL	1363	
2098				90% KM Chebyshev UCL	926.9				95% KM Chebyshev UCL	1157	
2099				97.5% KM Chebyshev UCL	1475				99% KM Chebyshev UCL	2101	
2100				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
2101											
2102				**Gamma GOF Tests on Detected Observations Only**							
2103				A-D Test Statistic	1.376				**Anderson-Darling GOF Test**		
2104				5% A-D Critical Value	0.772				Detected Data Not Gamma Distributed at 5% Significance Level		
2105				K-S Test Statistic	0.264				**Kolmogorov-Smirnov GOF**		
2106				5% K-S Critical Value	0.238				Detected Data Not Gamma Distributed at 5% Significance Level		
2107				**Detected Data Not Gamma Distributed at 5% Significance Level**							
2108											
2109				**Gamma Statistics on Detected Data Only**							
2110				k hat (MLE)	0.733				k star (bias corrected MLE)	0.624	
2111				Theta hat (MLE)	847.6				Theta star (bias corrected MLE)	996.4	
2112				nu hat (MLE)	20.54				nu star (bias corrected)	17.47	
2113				Mean (detects)	621.6						
2114											
2115				**Gamma ROS Statistics using Imputed Non-Detects**							
2116				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2117				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2118				For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2119				This is especially true when the sample size is small.							
2120				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2121				Minimum	0.01				Mean	334.8	
2122				Maximum	4000				Median	98	
2123				SD	816.7				CV	2.439	
2124				k hat (MLE)	0.17				k star (bias corrected MLE)	0.176	
2125				Theta hat (MLE)	1973				Theta star (bias corrected MLE)	1907	
2126				nu hat (MLE)	9.165				nu star (bias corrected)	9.48	
2127				Adjusted Level of Significance (β)	0.0401						
2128				Approximate Chi Square Value (9.48, α)	3.62				Adjusted Chi Square Value (9.48, β)	3.391	
2129				95% Gamma Approximate UCL	876.9				95% Gamma Adjusted UCL	936.1	
2130											
2131				**Estimates of Gamma Parameters using KM Estimates**							
2132				Mean (KM)	419.9				SD (KM)	807.3	
2133				Variance (KM)	651799				SE of Mean (KM)	169	
2134				k hat (KM)	0.27				k star (KM)	0.265	
2135				nu hat (KM)	14.6				nu star (KM)	14.32	
2136				theta hat (KM)	1552				theta star (KM)	1584	
2137				80% gamma percentile (KM)	621.9				90% gamma percentile (KM)	1254	
2138				95% gamma percentile (KM)	1997				99% gamma percentile (KM)	3957	
2139											
2140				**Gamma Kaplan-Meier (KM) Statistics**							
2141				Approximate Chi Square Value (14.32, α)	6.788				Adjusted Chi Square Value (14.32, β)	6.457	
2142				95% KM Approximate Gamma UCL	885.5				95% KM Adjusted Gamma UCL	930.8	
2143				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
2144											

2145	**Lognormal GOF Test on Detected Observations Only**											
2146					Shapiro Wilk Test Statistic	0.857	**Shapiro Wilk GOF Test**					
2147					10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level					
2148					Lilliefors Test Statistic	0.196	**Lilliefors GOF Test**					
2149					10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level					
2150	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
2151												
2152	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2153					Mean in Original Scale	381.5	Mean in Log Scale	5.169				
2154					SD in Original Scale	798.6	SD in Log Scale	1.02				
2155					95% t UCL (assumes normality of ROS data)	643.7	95% Percentile Bootstrap UCL	661.7				
2156					95% BCA Bootstrap UCL	819.6	95% Bootstrap t UCL	1353				
2157					95% H-UCL (Log ROS)	492.4						
2158												
2159	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2160					KM Mean (logged)	5.272	KM Geo Mean	194.8				
2161					KM SD (logged)	1.009	95% Critical H Value (KM-Log)	2.533				
2162					KM Standard Error of Mean (logged)	0.226	95% H-UCL (KM -Log)	534.9				
2163					KM SD (logged)	1.009	95% Critical H Value (KM-Log)	2.533				
2164					KM Standard Error of Mean (logged)	0.226						
2165	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2166												
2167	**DL/2 Statistics**											
2168	**DL/2 Normal**						**DL/2 Log-Transformed**					
2169					Mean in Original Scale	809.6	Mean in Log Scale	5.77				
2170					SD in Original Scale	1213	SD in Log Scale	1.392				
2171					95% t UCL (Assumes normality)	1208	95% H-Stat UCL	1954				
2172	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2173												
2174	**Nonparametric Distribution Free UCL Statistics**											
2175	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
2176												
2177	**Suggested UCL to Use**											
2178					KM H-UCL	534.9						
2179												
2180	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2181	**Please verify the data were collected from random locations.**											
2182	**If the data were collected using judgmental or other non-random methods,**											
2183	**then contact a statistician to correctly calculate UCLs.**											
2184												
2185	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2186	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2187	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2188												
2189	**Toluene**											
2190												
2191	**General Statistics**											
2192					Total Number of Observations	8	Number of Distinct Observations	8				
2193							Number of Missing Observations	4				
2194					Number of Detects	0	Number of Non-Detects	8				
2195					Number of Distinct Detects	0	Number of Distinct Non-Detects	8				
2196												
2197	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
2198	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											
2199	**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**											
2200												
2201	**The data set for variable Toluene was not processed!**											
2202												
2203												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:44:22 AM
From File	sediment_eastern tributary
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

2,4,6-Trinitrotoluene

General Statistics

Total Number of Observations	8	Number of Distinct Observations	7
		Number of Missing Observations	10
Number of Detects	1	Number of Non-Detects	7
Number of Distinct Detects	1	Number of Distinct Non-Detects	6

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable 2,4,6-Trinitrotoluene was not processed!

Arsenic

General Statistics

Total Number of Observations	8	Number of Distinct Observations	7
		Number of Missing Observations	10
Minimum	1.17	Mean	3.584
Maximum	11.7	Median	2.7
SD	3.346	Std. Error of Mean	1.183
Coefficient of Variation	0.934	Skewness	2.604

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.613	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.749	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.4	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.333	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	5.825	95% Adjusted-CLT UCL (Chen-1995)	6.693
		95% Modified-t UCL (Johnson-1978)	6.006

Gamma GOF Test

A-D Test Statistic	0.908	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.723	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.323	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.297	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.284	k star (bias corrected MLE)	1.511
Theta hat (MLE)	1.569	Theta star (bias corrected MLE)	2.372
nu hat (MLE)	36.55	nu star (bias corrected)	24.18
MLE Mean (bias corrected)	3.584	MLE Sd (bias corrected)	2.915
		Approximate Chi Square Value (0.05)	13.98
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	12.07

68	**Assuming Gamma Distribution**											
69				95% Approximate Gamma UCL		6.196			95% Adjusted Gamma UCL			7.18
70												
71	**Lognormal GOF Test**											
72				Shapiro Wilk Test Statistic		0.856		**Shapiro Wilk Lognormal GOF Test**				
73				10% Shapiro Wilk Critical Value		0.851		Data appear Lognormal at 10% Significance Level				
74				Lilliefors Test Statistic		0.271		**Lilliefors Lognormal GOF Test**				
75				10% Lilliefors Critical Value		0.265		Data Not Lognormal at 10% Significance Level				
76	**Data appear Approximate Lognormal at 10% Significance Level**											
77	**Note GOF tests may be unreliable for small sample sizes**											
78												
79	**Lognormal Statistics**											
80				Minimum of Logged Data		0.157			Mean of logged Data			1.042
81				Maximum of Logged Data		2.46			SD of logged Data			0.657
82												
83	**Assuming Lognormal Distribution**											
84				95% H-UCL		6.791			90% Chebyshev (MVUE) UCL			5.826
85				95% Chebyshev (MVUE) UCL		6.919			97.5% Chebyshev (MVUE) UCL			8.437
86				99% Chebyshev (MVUE) UCL		11.42						
87												
88	**Nonparametric Distribution Free UCL Statistics**											
89	**Data appear to follow a Discernible Distribution**											
90												
91	**Nonparametric Distribution Free UCLs**											
92				95% CLT UCL		5.529			95% BCA Bootstrap UCL			6.199
93				95% Standard Bootstrap UCL		5.38			95% Bootstrap-t UCL			11.91
94				95% Hall's Bootstrap UCL		15.96			95% Percentile Bootstrap UCL			5.711
95				90% Chebyshev(Mean, Sd) UCL		7.132			95% Chebyshev(Mean, Sd) UCL			8.74
96				97.5% Chebyshev(Mean, Sd) UCL		10.97			99% Chebyshev(Mean, Sd) UCL			15.35
97												
98	**Suggested UCL to Use**											
99				Recommendation cannot be provided								
100												
101	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
102	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
103	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
104												
105	**Cadmium**											
106												
107	**General Statistics**											
108				Total Number of Observations		8			Number of Distinct Observations			8
109									Number of Missing Observations			10
110				Number of Detects		1			Number of Non-Detects			7
111				Number of Distinct Detects		1			Number of Distinct Non-Detects			7
112												
113	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
114	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
115												
116	**The data set for variable Cadmium was not processed!**											
117												
118												
119												
120	**Copper**											
121												
122	**General Statistics**											
123				Total Number of Observations		8			Number of Distinct Observations			8
124									Number of Missing Observations			10
125				Minimum		10.4			Mean			38.33
126				Maximum		189			Median			16.8
127				SD		61.07			Std. Error of Mean			21.59
128				Coefficient of Variation		1.593			Skewness			2.795
129												
130	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
131	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
132	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
133	**The Chebyshev UCL often results in gross overestimates of the mean.**											
134	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											

135												
136						**Normal GOF Test**						
137					Shapiro Wilk Test Statistic	0.492		**Shapiro Wilk GOF Test**				
138					1% Shapiro Wilk Critical Value	0.749		Data Not Normal at 1% Significance Level				
139					Lilliefors Test Statistic	0.457		**Lilliefors GOF Test**				
140					1% Lilliefors Critical Value	0.333		Data Not Normal at 1% Significance Level				
141					**Data Not Normal at 1% Significance Level**							
142												
143						**Assuming Normal Distribution**						
144					**95% Normal UCL**			**95% UCLs (Adjusted for Skewness)**				
145					95% Student's-t UCL	79.23		95% Adjusted-CLT UCL (Chen-1995)	96.63			
146								95% Modified-t UCL (Johnson-1978)	82.78			
147												
148						**Gamma GOF Test**						
149					A-D Test Statistic	1.503		**Anderson-Darling Gamma GOF Test**				
150					5% A-D Critical Value	0.735		Data Not Gamma Distributed at 5% Significance Level				
151					K-S Test Statistic	0.391		**Kolmogorov-Smirnov Gamma GOF Test**				
152					5% K-S Critical Value	0.301		Data Not Gamma Distributed at 5% Significance Level				
153					**Data Not Gamma Distributed at 5% Significance Level**							
154												
155						**Gamma Statistics**						
156					k hat (MLE)	1.034		k star (bias corrected MLE)	0.73			
157					Theta hat (MLE)	37.07		Theta star (bias corrected MLE)	52.53			
158					nu hat (MLE)	16.54		nu star (bias corrected)	11.67			
159					MLE Mean (bias corrected)	38.33		MLE Sd (bias corrected)	44.87			
160								Approximate Chi Square Value (0.05)	5.012			
161					Adjusted Level of Significance	0.0195		Adjusted Chi Square Value	3.966			
162												
163						**Assuming Gamma Distribution**						
164					95% Approximate Gamma UCL	89.25		95% Adjusted Gamma UCL	112.8			
165												
166						**Lognormal GOF Test**						
167					Shapiro Wilk Test Statistic	0.715		**Shapiro Wilk Lognormal GOF Test**				
168					10% Shapiro Wilk Critical Value	0.851		Data Not Lognormal at 10% Significance Level				
169					Lilliefors Test Statistic	0.307		**Lilliefors Lognormal GOF Test**				
170					10% Lilliefors Critical Value	0.265		Data Not Lognormal at 10% Significance Level				
171					**Data Not Lognormal at 10% Significance Level**							
172												
173						**Lognormal Statistics**						
174					Minimum of Logged Data	2.342		Mean of logged Data	3.09			
175					Maximum of Logged Data	5.242		SD of logged Data	0.913			
176												
177						**Assuming Lognormal Distribution**						
178					95% H-UCL	101.1		90% Chebyshev (MVUE) UCL	62.07			
179					95% Chebyshev (MVUE) UCL	76.04		97.5% Chebyshev (MVUE) UCL	95.43			
180					99% Chebyshev (MVUE) UCL	133.5						
181												
182						**Nonparametric Distribution Free UCL Statistics**						
183						**Data do not follow a Discernible Distribution**						
184												
185						**Nonparametric Distribution Free UCLs**						
186					95% CLT UCL	73.84		95% BCA Bootstrap UCL	84.36			
187					95% Standard Bootstrap UCL	71.81		95% Bootstrap-t UCL	489.6			
188					95% Hall's Bootstrap UCL	303.6		95% Percentile Bootstrap UCL	80.51			
189					90% Chebyshev(Mean, Sd) UCL	103.1		95% Chebyshev(Mean, Sd) UCL	132.4			
190					97.5% Chebyshev(Mean, Sd) UCL	173.2		99% Chebyshev(Mean, Sd) UCL	253.1			
191												
192						**Suggested UCL to Use**						
193					Recommendation cannot be provided							
194												
195						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
196						**Please verify the data were collected from random locations.**						
197						**If the data were collected using judgmental or other non-random methods,**						
198						**then contact a statistician to correctly calculate UCLs.**						
199												
200						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
201						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						

202	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
203												
204												
205	**Lead**											
206												
207	**General Statistics**											
208						Total Number of Observations	8			Number of Distinct Observations	8	
209										Number of Missing Observations	10	
210						Minimum	7.63			Mean	42.88	
211						Maximum	235			Median	12.3	
212						SD	78.16			Std. Error of Mean	27.63	
213						Coefficient of Variation	1.823			Skewness	2.754	
214												
215	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
216	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
217	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
218	**The Chebyshev UCL often results in gross overestimates of the mean.**											
219	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
220												
221	**Normal GOF Test**											
222						Shapiro Wilk Test Statistic	0.514			**Shapiro Wilk GOF Test**		
223						1% Shapiro Wilk Critical Value	0.749			Data Not Normal at 1% Significance Level		
224						Lilliefors Test Statistic	0.429			**Lilliefors GOF Test**		
225						1% Lilliefors Critical Value	0.333			Data Not Normal at 1% Significance Level		
226	**Data Not Normal at 1% Significance Level**											
227												
228	**Assuming Normal Distribution**											
229						**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**		
230						95% Student's-t UCL	95.23			95% Adjusted-CLT UCL (Chen-1995)	117.1	
231										95% Modified-t UCL (Johnson-1978)	99.72	
232												
233	**Gamma GOF Test**											
234						A-D Test Statistic	1.184			**Anderson-Darling Gamma GOF Test**		
235						5% A-D Critical Value	0.746			Data Not Gamma Distributed at 5% Significance Level		
236						K-S Test Statistic	0.308			**Kolmogorov-Smirnov Gamma GOF Test**		
237						5% K-S Critical Value	0.304			Data Not Gamma Distributed at 5% Significance Level		
238	**Data Not Gamma Distributed at 5% Significance Level**											
239												
240	**Gamma Statistics**											
241						k hat (MLE)	0.736			k star (bias corrected MLE)	0.544	
242						Theta hat (MLE)	58.22			Theta star (bias corrected MLE)	78.88	
243						nu hat (MLE)	11.78			nu star (bias corrected)	8.697	
244						MLE Mean (bias corrected)	42.88			MLE Sd (bias corrected)	58.15	
245										Approximate Chi Square Value (0.05)	3.145	
246						Adjusted Level of Significance	0.0195			Adjusted Chi Square Value	2.363	
247												
248	**Assuming Gamma Distribution**											
249						95% Approximate Gamma UCL	118.6			95% Adjusted Gamma UCL	157.8	
250												
251	**Lognormal GOF Test**											
252						Shapiro Wilk Test Statistic	0.791			**Shapiro Wilk Lognormal GOF Test**		
253						10% Shapiro Wilk Critical Value	0.851			Data Not Lognormal at 10% Significance Level		
254						Lilliefors Test Statistic	0.264			**Lilliefors Lognormal GOF Test**		
255						10% Lilliefors Critical Value	0.265			Data appear Lognormal at 10% Significance Level		
256	**Data appear Approximate Lognormal at 10% Significance Level**											
257	**Note GOF tests may be unreliable for small sample sizes**											
258												
259	**Lognormal Statistics**											
260						Minimum of Logged Data	2.032			Mean of logged Data	2.943	
261						Maximum of Logged Data	5.46			SD of logged Data	1.147	
262												
263	**Assuming Lognormal Distribution**											
264						95% H-UCL	190.1			90% Chebyshev (MVUE) UCL	73.23	
265						95% Chebyshev (MVUE) UCL	91.6			97.5% Chebyshev (MVUE) UCL	117.1	
266						99% Chebyshev (MVUE) UCL	167.2					
267												
268	**Nonparametric Distribution Free UCL Statistics**											

269	**Data appear to follow a Discernible Distribution**											
270												
271	**Nonparametric Distribution Free UCLs**											
272					95% CLT UCL	88.33				95% BCA Bootstrap UCL	123.8	
273					95% Standard Bootstrap UCL	85.53				95% Bootstrap-t UCL	431	
274					95% Hall's Bootstrap UCL	371.3				95% Percentile Bootstrap UCL	96.63	
275					90% Chebyshev(Mean, Sd) UCL	125.8				95% Chebyshev(Mean, Sd) UCL	163.3	
276					97.5% Chebyshev(Mean, Sd) UCL	215.5				99% Chebyshev(Mean, Sd) UCL	317.8	
277												
278	**Suggested UCL to Use**											
279					Recommendation cannot be provided							
280												
281	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
282	**Please verify the data were collected from random locations.**											
283	**If the data were collected using judgmental or other non-random methods,**											
284	**then contact a statistician to correctly calculate UCLs.**											
285												
286	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
287	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
288	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
289												
290												
291	**Nickel**											
292												
293	**General Statistics**											
294					Total Number of Observations	8				Number of Distinct Observations	8	
295										Number of Missing Observations	10	
296					Minimum	6.25				Mean	11.17	
297					Maximum	25.3				Median	9.39	
298					SD	6.234				Std. Error of Mean	2.204	
299					Coefficient of Variation	0.558				Skewness	2.015	
300												
301	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
302	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
303	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
304	**The Chebyshev UCL often results in gross overestimates of the mean.**											
305	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
306												
307	**Normal GOF Test**											
308					Shapiro Wilk Test Statistic	0.771				**Shapiro Wilk GOF Test**		
309					1% Shapiro Wilk Critical Value	0.749				Data appear Normal at 1% Significance Level		
310					Lilliefors Test Statistic	0.274				**Lilliefors GOF Test**		
311					1% Lilliefors Critical Value	0.333				Data appear Normal at 1% Significance Level		
312	**Data appear Normal at 1% Significance Level**											
313	**Note GOF tests may be unreliable for small sample sizes**											
314												
315	**Assuming Normal Distribution**											
316	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
317					95% Student's-t UCL	15.34				95% Adjusted-CLT UCL (Chen-1995)	16.47	
318										95% Modified-t UCL (Johnson-1978)	15.61	
319												
320	**Gamma GOF Test**											
321					A-D Test Statistic	0.479				**Anderson-Darling Gamma GOF Test**		
322					5% A-D Critical Value	0.719				Detected data appear Gamma Distributed at 5% Significance Level		
323					K-S Test Statistic	0.22				**Kolmogorov-Smirnov Gamma GOF Test**		
324					5% K-S Critical Value	0.295				Detected data appear Gamma Distributed at 5% Significance Level		
325	**Detected data appear Gamma Distributed at 5% Significance Level**											
326	**Note GOF tests may be unreliable for small sample sizes**											
327												
328	**Gamma Statistics**											
329					k hat (MLE)	4.97				k star (bias corrected MLE)	3.19	
330					Theta hat (MLE)	2.247				Theta star (bias corrected MLE)	3.501	
331					nu hat (MLE)	79.52				nu star (bias corrected)	51.04	
332					MLE Mean (bias corrected)	11.17				MLE Sd (bias corrected)	6.254	
333										Approximate Chi Square Value (0.05)	35.63	
334					Adjusted Level of Significance	0.0195				Adjusted Chi Square Value	32.4	
335												

336	**Assuming Gamma Distribution**											
337				95% Approximate Gamma UCL		16			95% Adjusted Gamma UCL			17.59
338												
339	**Lognormal GOF Test**											
340				Shapiro Wilk Test Statistic		0.905			**Shapiro Wilk Lognormal GOF Test**			
341				10% Shapiro Wilk Critical Value		0.851			Data appear Lognormal at 10% Significance Level			
342				Lilliefors Test Statistic		0.189			**Lilliefors Lognormal GOF Test**			
343				10% Lilliefors Critical Value		0.265			Data appear Lognormal at 10% Significance Level			
344	**Data appear Lognormal at 10% Significance Level**											
345	**Note GOF tests may be unreliable for small sample sizes**											
346												
347	**Lognormal Statistics**											
348				Minimum of Logged Data		1.833			Mean of logged Data			2.309
349				Maximum of Logged Data		3.231			SD of logged Data			0.459
350												
351	**Assuming Lognormal Distribution**											
352				95% H-UCL		16.62			90% Chebyshev (MVUE) UCL			16.44
353				95% Chebyshev (MVUE) UCL		18.89			97.5% Chebyshev (MVUE) UCL			22.3
354				99% Chebyshev (MVUE) UCL		28.98						
355												
356	**Nonparametric Distribution Free UCL Statistics**											
357	**Data appear to follow a Discernible Distribution**											
358												
359	**Nonparametric Distribution Free UCLs**											
360				95% CLT UCL		14.79			95% BCA Bootstrap UCL			16.52
361				95% Standard Bootstrap UCL		14.57			95% Bootstrap-t UCL			21.41
362				95% Hall's Bootstrap UCL		32.56			95% Percentile Bootstrap UCL			15
363				90% Chebyshev(Mean, Sd) UCL		17.78			95% Chebyshev(Mean, Sd) UCL			20.78
364				97.5% Chebyshev(Mean, Sd) UCL		24.93			99% Chebyshev(Mean, Sd) UCL			33.1
365												
366	**Suggested UCL to Use**											
367				95% Student's-t UCL		15.34						
368												
369	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
370	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
371	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
372												
373	**Silver**											
374												
375	**General Statistics**											
376				Total Number of Observations		8			Number of Distinct Observations			8
377									Number of Missing Observations			10
378				Number of Detects		1			Number of Non-Detects			7
379				Number of Distinct Detects		1			Number of Distinct Non-Detects			7
380												
381	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
382	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
383												
384	**The data set for variable Silver was not processed!**											
385												
386												
387												
388	**Zinc**											
389												
390	**General Statistics**											
391				Total Number of Observations		8			Number of Distinct Observations			8
392									Number of Missing Observations			10
393				Minimum		32.8			Mean			122.9
394				Maximum		294			Median			83.55
395				SD		101.5			Std. Error of Mean			35.89
396				Coefficient of Variation		0.826			Skewness			1.248
397												
398	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
399	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
400	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
401	**The Chebyshev UCL often results in gross overestimates of the mean.**											
402	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											

403												
404						**Normal GOF Test**						
405					Shapiro Wilk Test Statistic	0.773	**Shapiro Wilk GOF Test**					
406					1% Shapiro Wilk Critical Value	0.749	Data appear Normal at 1% Significance Level					
407					Lilliefors Test Statistic	0.316	**Lilliefors GOF Test**					
408					1% Lilliefors Critical Value	0.333	Data appear Normal at 1% Significance Level					
409					**Data appear Normal at 1% Significance Level**							
410					**Note GOF tests may be unreliable for small sample sizes**							
411												
412					**Assuming Normal Distribution**							
413					**95% Normal UCL**		**95% UCLs (Adjusted for Skewness)**					
414					95% Student's-t UCL	190.9	95% Adjusted-CLT UCL (Chen-1995)	198.8				
415							95% Modified-t UCL (Johnson-1978)	193.5				
416												
417					**Gamma GOF Test**							
418					A-D Test Statistic	0.538	**Anderson-Darling Gamma GOF Test**					
419					5% A-D Critical Value	0.724	Detected data appear Gamma Distributed at 5% Significance Level					
420					K-S Test Statistic	0.235	**Kolmogorov-Smirnov Gamma GOF Test**					
421					5% K-S Critical Value	0.297	Detected data appear Gamma Distributed at 5% Significance Level					
422					**Detected data appear Gamma Distributed at 5% Significance Level**							
423					**Note GOF tests may be unreliable for small sample sizes**							
424												
425					**Gamma Statistics**							
426					k hat (MLE)	1.997	k star (bias corrected MLE)	1.331				
427					Theta hat (MLE)	61.52	Theta star (bias corrected MLE)	92.27				
428					nu hat (MLE)	31.95	nu star (bias corrected)	21.3				
429					MLE Mean (bias corrected)	122.9	MLE Sd (bias corrected)	106.5				
430							Approximate Chi Square Value (0.05)	11.82				
431					Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	10.08				
432												
433					**Assuming Gamma Distribution**							
434					95% Approximate Gamma UCL	221.5	95% Adjusted Gamma UCL	259.7				
435												
436					**Lognormal GOF Test**							
437					Shapiro Wilk Test Statistic	0.922	**Shapiro Wilk Lognormal GOF Test**					
438					10% Shapiro Wilk Critical Value	0.851	Data appear Lognormal at 10% Significance Level					
439					Lilliefors Test Statistic	0.186	**Lilliefors Lognormal GOF Test**					
440					10% Lilliefors Critical Value	0.265	Data appear Lognormal at 10% Significance Level					
441					**Data appear Lognormal at 10% Significance Level**							
442					**Note GOF tests may be unreliable for small sample sizes**							
443												
444					**Lognormal Statistics**							
445					Minimum of Logged Data	3.49	Mean of logged Data	4.54				
446					Maximum of Logged Data	5.684	SD of logged Data	0.77				
447												
448					**Assuming Lognormal Distribution**							
449					95% H-UCL	291.8	90% Chebyshev (MVUE) UCL	220.9				
450					95% Chebyshev (MVUE) UCL	266.3	97.5% Chebyshev (MVUE) UCL	329.3				
451					99% Chebyshev (MVUE) UCL	453.1						
452												
453					**Nonparametric Distribution Free UCL Statistics**							
454					**Data appear to follow a Discernible Distribution**							
455												
456					**Nonparametric Distribution Free UCLs**							
457					95% CLT UCL	181.9	95% BCA Bootstrap UCL	199.4				
458					95% Standard Bootstrap UCL	179	95% Bootstrap-t UCL	353.6				
459					95% Hall's Bootstrap UCL	664	95% Percentile Bootstrap UCL	179.7				
460					90% Chebyshev(Mean, Sd) UCL	230.5	95% Chebyshev(Mean, Sd) UCL	279.3				
461					97.5% Chebyshev(Mean, Sd) UCL	347	99% Chebyshev(Mean, Sd) UCL	480				
462												
463					**Suggested UCL to Use**							
464					95% Student's-t UCL	190.9						
465												
466	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
467	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
468	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
469												

	A	B	C	D	E	F	G	H	I	J	K	L
470												
471	**Bis(2-Ethylhexyl)phthalate**											
472												
473	**General Statistics**											
474					Total Number of Observations	2				Number of Distinct Observations	2	
475										Number of Missing Observations	8	
476					Minimum	150				Mean	190	
477					Maximum	230				Median	190	
478												
479	**Warning: This data set only has 2 observations!**											
480	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
481	**The data set for variable Bis(2-Ethylhexyl)phthalate was not processed!**											
482												
483	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
484	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
485												
486												

1	**UCL Statistics for Data Sets with Non-Detects**										
2											
3	User Selected Options										
4	Date/Time of Computation	ProUCL 5.2 7/28/2025 11:58:03 AM									
5	From File	sediment_northeast ponds									
6	Full Precision	OFF									
7	Confidence Coefficient	95%									
8	Number of Bootstrap Operations	2000									
9											
10											
11	**Aluminum**										
12											
13	**General Statistics**										
14	Total Number of Observations	3				Number of Distinct Observations	3				
15						Number of Missing Observations	14				
16	Minimum	12200				Mean	21933				
17	Maximum	38000				Median	15600				
18	SD	14018				Std. Error of Mean	8093				
19	Coefficient of Variation	0.639				Skewness	1.618				
20											
21	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**										
22	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**										
23	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**										
24	**The Chebyshev UCL often results in gross overestimates of the mean.**										
25	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**										
26											
27	**Normal GOF Test**										
28	Shapiro Wilk Test Statistic	0.847				**Shapiro Wilk GOF Test**					
29	1% Shapiro Wilk Critical Value	0.753				Data appear Normal at 1% Significance Level					
30	Lilliefors Test Statistic	0.341				**Lilliefors GOF Test**					
31	1% Lilliefors Critical Value	0.429				Data appear Normal at 1% Significance Level					
32	**Data appear Normal at 1% Significance Level**										
33	**Note GOF tests may be unreliable for small sample sizes**										
34											
35	**Assuming Normal Distribution**										
36	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**					
37	95% Student's-t UCL	45565				95% Adjusted-CLT UCL (Chen-1995)	43324				
38						95% Modified-t UCL (Johnson-1978)	46825				
39											
40	**Gamma GOF Test**										
41	A-D Test Statistic	0.413				**Anderson-Darling Gamma GOF Test**					
42	5% A-D Critical Value	0.637				Detected data appear Gamma Distributed at 5% Significance Level					
43	K-S Test Statistic	0.353				**Kolmogorov-Smirnov Gamma GOF Test**					
44	5% K-S Critical Value	0.434				Detected data appear Gamma Distributed at 5% Significance Level					
45	**Data Not Gamma Distributed at 5% Significance Level**										
46											
47	**Gamma Statistics**										
48	k hat (MLE)	4.13				k star (bias corrected MLE)	N/A				
49	Theta hat (MLE)	5310				Theta star (bias corrected MLE)	N/A				
50	nu hat (MLE)	24.78				nu star (bias corrected)	N/A				
51	MLE Mean (bias corrected)	N/A				MLE Sd (bias corrected)	N/A				
52						Approximate Chi Square Value (0.05)	N/A				
53	Adjusted Level of Significance	N/A				Adjusted Chi Square Value	N/A				
54											
55	**Assuming Gamma Distribution**										
56	95% Approximate Gamma UCL	N/A				95% Adjusted Gamma UCL	N/A				
57											
58	**Lognormal GOF Test**										
59	Shapiro Wilk Test Statistic	0.903				**Shapiro Wilk Lognormal GOF Test**					
60	10% Shapiro Wilk Critical Value	0.789				Data appear Lognormal at 10% Significance Level					
61	Lilliefors Test Statistic	0.307				**Lilliefors Lognormal GOF Test**					
62	10% Lilliefors Critical Value	0.389				Data appear Lognormal at 10% Significance Level					
63	**Data appear Lognormal at 10% Significance Level**										
64	**Note GOF tests may be unreliable for small sample sizes**										
65											
66	**Lognormal Statistics**										
67	Minimum of Logged Data	9.409				Mean of logged Data	9.87				

68				Maximum of Logged Data	10.55					SD of logged Data	0.598	
69												
70					**Assuming Lognormal Distribution**							
71				95% H-UCL	618983					90% Chebyshev (MVUE) UCL	43244	
72				95% Chebyshev (MVUE) UCL	52998					97.5% Chebyshev (MVUE) UCL	66535	
73				99% Chebyshev (MVUE) UCL	93128							
74												
75					**Nonparametric Distribution Free UCL Statistics**							
76					**Data appear to follow a Discernible Distribution**							
77												
78					**Nonparametric Distribution Free UCLs**							
79				95% CLT UCL	35245					95% BCA Bootstrap UCL	N/A	
80				95% Standard Bootstrap UCL	N/A					95% Bootstrap-t UCL	N/A	
81				95% Hall's Bootstrap UCL	N/A					95% Percentile Bootstrap UCL	N/A	
82				90% Chebyshev(Mean, Sd) UCL	46213					95% Chebyshev(Mean, Sd) UCL	57210	
83				97.5% Chebyshev(Mean, Sd) UCL	72475					99% Chebyshev(Mean, Sd) UCL	102458	
84												
85					**Suggested UCL to Use**							
86				95% Student's-t UCL	45565							
87					**Recommended UCL exceeds the maximum observation**							
88												
89					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
90					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
91					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
92												
93	**Arsenic**											
94												
95					**General Statistics**							
96				Total Number of Observations	16					Number of Distinct Observations	16	
97										Number of Missing Observations	15	
98				Number of Detects	12					Number of Non-Detects	4	
99				Number of Distinct Detects	12					Number of Distinct Non-Detects	4	
100				Minimum Detect	0.9					Minimum Non-Detect	3.515	
101				Maximum Detect	9.7					Maximum Non-Detect	99	
102				Variance Detects	7.254					Percent Non-Detects	25%	
103				Mean Detects	3.927					SD Detects	2.693	
104				Median Detects	3.815					CV Detects	0.686	
105				Skewness Detects	0.83					Kurtosis Detects	0.331	
106				Mean of Logged Detects	1.117					SD of Logged Detects	0.785	
107												
108					**Normal GOF Test on Detects Only**							
109				Shapiro Wilk Test Statistic	0.923					**Shapiro Wilk GOF Test**		
110				1% Shapiro Wilk Critical Value	0.805					Detected Data appear Normal at 1% Significance Level		
111				Lilliefors Test Statistic	0.157					**Lilliefors GOF Test**		
112				1% Lilliefors Critical Value	0.281					Detected Data appear Normal at 1% Significance Level		
113					**Detected Data appear Normal at 1% Significance Level**							
114												
115					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
116				KM Mean	3.742					KM Standard Error of Mean	0.745	
117				90KM SD	2.566					95% KM (BCA) UCL	4.983	
118				95% KM (t) UCL	5.048					95% KM (Percentile Bootstrap) UCL	4.972	
119				95% KM (z) UCL	4.968					95% KM Bootstrap t UCL	5.397	
120				90% KM Chebyshev UCL	5.978					95% KM Chebyshev UCL	6.991	
121				97.5% KM Chebyshev UCL	8.397					99% KM Chebyshev UCL	11.16	
122					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
123												
124					**Gamma GOF Tests on Detected Observations Only**							
125				A-D Test Statistic	0.287					**Anderson-Darling GOF Test**		
126				5% A-D Critical Value	0.741					Detected data appear Gamma Distributed at 5% Significance Level		
127				K-S Test Statistic	0.149					**Kolmogorov-Smirnov GOF**		
128				5% K-S Critical Value	0.248					Detected data appear Gamma Distributed at 5% Significance Level		
129					**Detected data appear Gamma Distributed at 5% Significance Level**							
130												
131					**Gamma Statistics on Detected Data Only**							
132				k hat (MLE)	2.142					k star (bias corrected MLE)	1.662	
133				Theta hat (MLE)	1.833					Theta star (bias corrected MLE)	2.363	
134				nu hat (MLE)	51.4					nu star (bias corrected)	39.88	

135					Mean (detects)	3.927						
136												
137					**Gamma ROS Statistics using Imputed Non-Detects**							
138					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
139					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
140					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
141					This is especially true when the sample size is small.							
142					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
143					Minimum	0.9				Mean	3.643	
144					Maximum	9.7				Median	3.225	
145					SD	2.393				CV	0.657	
146					k hat (MLE)	2.526				k star (bias corrected MLE)	2.094	
147					Theta hat (MLE)	1.442				Theta star (bias corrected MLE)	1.739	
148					nu hat (MLE)	80.84				nu star (bias corrected)	67.02	
149					Adjusted Level of Significance (β)	0.0335						
150					Approximate Chi Square Value (67.02, α)	49.18				Adjusted Chi Square Value (67.02, β)	47.44	
151					95% Gamma Approximate UCL	4.965				95% Gamma Adjusted UCL	5.146	
152												
153					**Estimates of Gamma Parameters using KM Estimates**							
154					Mean (KM)	3.742				SD (KM)	2.566	
155					Variance (KM)	6.582				SE of Mean (KM)	0.745	
156					k hat (KM)	2.127				k star (KM)	1.77	
157					nu hat (KM)	68.06				nu star (KM)	56.63	
158					theta hat (KM)	1.759				theta star (KM)	2.114	
159					80% gamma percentile (KM)	5.682				90% gamma percentile (KM)	7.491	
160					95% gamma percentile (KM)	9.229				99% gamma percentile (KM)	13.11	
161												
162					**Gamma Kaplan-Meier (KM) Statistics**							
163					Approximate Chi Square Value (56.63, α)	40.34				Adjusted Chi Square Value (56.63, β)	38.77	
164					95% KM Approximate Gamma UCL	5.253				95% KM Adjusted Gamma UCL	5.465	
165					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
166												
167					**Lognormal GOF Test on Detected Observations Only**							
168					Shapiro Wilk Test Statistic	0.934				**Shapiro Wilk GOF Test**		
169					10% Shapiro Wilk Critical Value	0.883				Detected Data appear Lognormal at 10% Significance Level		
170					Lilliefors Test Statistic	0.185				**Lilliefors GOF Test**		
171					10% Lilliefors Critical Value	0.223				Detected Data appear Lognormal at 10% Significance Level		
172					**Detected Data appear Lognormal at 10% Significance Level**							
173												
174					**Lognormal ROS Statistics Using Imputed Non-Detects**							
175					Mean in Original Scale	3.58				Mean in Log Scale	1.062	
176					SD in Original Scale	2.408				SD in Log Scale	0.694	
177					95% t UCL (assumes normality of ROS data)	4.635				95% Percentile Bootstrap UCL	4.612	
178					95% BCA Bootstrap UCL	4.682				95% Bootstrap t UCL	4.98	
179					95% H-UCL (Log ROS)	5.527						
180												
181					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
182					KM Mean (logged)	1.056				KM Geo Mean	2.876	
183					KM SD (logged)	0.759				95% Critical H Value (KM-Log)	2.357	
184					KM Standard Error of Mean (logged)	0.223				95% H-UCL (KM -Log)	6.089	
185					KM SD (logged)	0.759				95% Critical H Value (KM-Log)	2.357	
186					KM Standard Error of Mean (logged)	0.223						
187					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
188												
189					**DL/2 Statistics**							
190					**DL/2 Normal**					**DL/2 Log-Transformed**		
191					Mean in Original Scale	7.539				Mean in Log Scale	1.415	
192					SD in Original Scale	11.73				SD in Log Scale	1.056	
193					95% t UCL (Assumes normality)	12.68				95% H-Stat UCL	15.4	
194					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
195												
196					**Nonparametric Distribution Free UCL Statistics**							
197					**Detected Data appear Normal Distributed at 1% Significance Level**							
198												
199					**Suggested UCL to Use**							
200					95% KM (t) UCL	5.048						
201												

	A	B	C	D	E	F	G	H	I	J	K	L
202	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
203	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
204	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
205												
206	**Cadmium**											
207												
208	**General Statistics**											
209					Total Number of Observations	16			Number of Distinct Observations	16		
210									Number of Missing Observations	15		
211					Number of Detects	5			Number of Non-Detects	11		
212					Number of Distinct Detects	5			Number of Distinct Non-Detects	11		
213					Minimum Detect	0.11			Minimum Non-Detect	0.045		
214					Maximum Detect	0.392			Maximum Non-Detect	24.75		
215					Variance Detects	0.0146			Percent Non-Detects	68.75%		
216					Mean Detects	0.253			SD Detects	0.121		
217					Median Detects	0.272			CV Detects	0.478		
218					Skewness Detects	-0.152			Kurtosis Detects	-2.363		
219					Mean of Logged Detects	-1.484			SD of Logged Detects	0.546		
220												
221	**Normal GOF Test on Detects Only**											
222					Shapiro Wilk Test Statistic	0.932			**Shapiro Wilk GOF Test**			
223					1% Shapiro Wilk Critical Value	0.686			Detected Data appear Normal at 1% Significance Level			
224					Lilliefors Test Statistic	0.203			**Lilliefors GOF Test**			
225					1% Lilliefors Critical Value	0.396			Detected Data appear Normal at 1% Significance Level			
226	**Detected Data appear Normal at 1% Significance Level**											
227	**Note GOF tests may be unreliable for small sample sizes**											
228												
229	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
230					KM Mean	0.213			KM Standard Error of Mean	0.0556		
231					90KM SD	0.124			95% KM (BCA) UCL	0.306		
232					95% KM (t) UCL	0.311			95% KM (Percentile Bootstrap) UCL	0.307		
233					95% KM (z) UCL	0.305			95% KM Bootstrap t UCL	0.309		
234					90% KM Chebyshev UCL	0.38			95% KM Chebyshev UCL	0.456		
235					97.5% KM Chebyshev UCL	0.561			99% KM Chebyshev UCL	0.767		
236	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
237												
238	**Gamma GOF Tests on Detected Observations Only**											
239					A-D Test Statistic	0.33			**Anderson-Darling GOF Test**			
240					5% A-D Critical Value	0.681			Detected data appear Gamma Distributed at 5% Significance Level			
241					K-S Test Statistic	0.223			**Kolmogorov-Smirnov GOF**			
242					5% K-S Critical Value	0.358			Detected data appear Gamma Distributed at 5% Significance Level			
243	**Detected data appear Gamma Distributed at 5% Significance Level**											
244	**Note GOF tests may be unreliable for small sample sizes**											
245												
246	**Gamma Statistics on Detected Data Only**											
247					k hat (MLE)	4.732			k star (bias corrected MLE)	2.026		
248					Theta hat (MLE)	0.0535			Theta star (bias corrected MLE)	0.125		
249					nu hat (MLE)	47.32			nu star (bias corrected)	20.26		
250					Mean (detects)	0.253						
251												
252	**Gamma ROS Statistics using Imputed Non-Detects**											
253	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
254	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
255	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
256	This is especially true when the sample size is small.											
257	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
258					Minimum	0.0646			Mean	0.207		
259					Maximum	0.392			Median	0.201		
260					SD	0.0777			CV	0.375		
261					k hat (MLE)	7.149			k star (bias corrected MLE)	5.851		
262					Theta hat (MLE)	0.029			Theta star (bias corrected MLE)	0.0354		
263					nu hat (MLE)	228.8			nu star (bias corrected)	187.2		
264					Adjusted Level of Significance (β)	0.0335						
265					Approximate Chi Square Value (187.22, α)	156.6			Adjusted Chi Square Value (187.22, β)	153.4		
266					95% Gamma Approximate UCL	0.248			95% Gamma Adjusted UCL	0.253		
267												
268	**Estimates of Gamma Parameters using KM Estimates**											

269					Mean (KM)	0.213				SD (KM)		0.124
270					Variance (KM)	0.0153				SE of Mean (KM)		0.0556
271					k hat (KM)	2.972				k star (KM)		2.456
272					nu hat (KM)	95.1				nu star (KM)		78.6
273					theta hat (KM)	0.0718				theta star (KM)		0.0869
274					80% gamma percentile (KM)	0.312				90% gamma percentile (KM)		0.396
275					95% gamma percentile (KM)	0.475				99% gamma percentile (KM)		0.649
276												
277					**Gamma Kaplan-Meier (KM) Statistics**							
278					Approximate Chi Square Value (78.60, α)	59.17				Adjusted Chi Square Value (78.60, β)		57.26
279					95% KM Approximate Gamma UCL	0.283				95% KM Adjusted Gamma UCL		0.293
280					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
281												
282					**Lognormal GOF Test on Detected Observations Only**							
283					Shapiro Wilk Test Statistic	0.911				**Shapiro Wilk GOF Test**		
284					10% Shapiro Wilk Critical Value	0.806				Detected Data appear Lognormal at 10% Significance Level		
285					Lilliefors Test Statistic	0.23				**Lilliefors GOF Test**		
286					10% Lilliefors Critical Value	0.319				Detected Data appear Lognormal at 10% Significance Level		
287					**Detected Data appear Lognormal at 10% Significance Level**							
288					**Note GOF tests may be unreliable for small sample sizes**							
289												
290					**Lognormal ROS Statistics Using Imputed Non-Detects**							
291					Mean in Original Scale	0.197				Mean in Log Scale		-1.694
292					SD in Original Scale	0.0783				SD in Log Scale		0.387
293					95% t UCL (assumes normality of ROS data)	0.231				95% Percentile Bootstrap UCL		0.229
294					95% BCA Bootstrap UCL	0.233				95% Bootstrap t UCL		0.246
295					95% H-UCL (Log ROS)	0.24						
296												
297					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
298					KM Mean (logged)	-1.777				KM Geo Mean		0.169
299					KM SD (logged)	0.747				95% Critical H Value (KM-Log)		2.341
300					KM Standard Error of Mean (logged)	0.34				95% H-UCL (KM -Log)		0.352
301					KM SD (logged)	0.747				95% Critical H Value (KM-Log)		2.341
302					KM Standard Error of Mean (logged)	0.34						
303					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
304												
305					**DL/2 Statistics**							
306					**DL/2 Normal**					**DL/2 Log-Transformed**		
307					Mean in Original Scale	1.389				Mean in Log Scale		-0.825
308					SD in Original Scale	3.057				SD in Log Scale		1.449
309					95% t UCL (Assumes normality)	2.729				95% H-Stat UCL		4.551
310					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
311												
312					**Nonparametric Distribution Free UCL Statistics**							
313					**Detected Data appear Normal Distributed at 1% Significance Level**							
314												
315					**Suggested UCL to Use**							
316					95% KM (t) UCL	0.311						
317												
318					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
319					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
320					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
321												
322												
323	**Copper**											
324												
325					**General Statistics**							
326					Total Number of Observations	16				Number of Distinct Observations		16
327										Number of Missing Observations		15
328					Minimum	3.6				Mean		32.89
329					Maximum	98.7				Median		30.85
330					SD	24.33				Std. Error of Mean		6.082
331					Coefficient of Variation	0.74				Skewness		1.14
332												
333					**Normal GOF Test**							
334					Shapiro Wilk Test Statistic	0.897				**Shapiro Wilk GOF Test**		
335					1% Shapiro Wilk Critical Value	0.844				Data appear Normal at 1% Significance Level		

336				Lilliefors Test Statistic		0.131		**Lilliefors GOF Test**				
337				1% Lilliefors Critical Value		0.248		Data appear Normal at 1% Significance Level				
338	**Data appear Normal at 1% Significance Level**											
339												
340	**Assuming Normal Distribution**											
341	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
342				95% Student's-t UCL		43.55		95% Adjusted-CLT UCL (Chen-1995)				44.75
343								95% Modified-t UCL (Johnson-1978)				43.84
344												
345	**Gamma GOF Test**											
346				A-D Test Statistic		0.583		**Anderson-Darling Gamma GOF Test**				
347				5% A-D Critical Value		0.754		Detected data appear Gamma Distributed at 5% Significance Level				
348				K-S Test Statistic		0.223		**Kolmogorov-Smirnov Gamma GOF Test**				
349				5% K-S Critical Value		0.219		Data Not Gamma Distributed at 5% Significance Level				
350	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
351												
352	**Gamma Statistics**											
353				k hat (MLE)		1.538		k star (bias corrected MLE)				1.291
354				Theta hat (MLE)		21.39		Theta star (bias corrected MLE)				25.47
355				nu hat (MLE)		49.21		nu star (bias corrected)				41.32
356				MLE Mean (bias corrected)		32.89		MLE Sd (bias corrected)				28.95
357								Approximate Chi Square Value (0.05)				27.59
358				Adjusted Level of Significance		0.0335		Adjusted Chi Square Value				26.31
359												
360	**Assuming Gamma Distribution**											
361				95% Approximate Gamma UCL		49.26		95% Adjusted Gamma UCL				51.65
362												
363	**Lognormal GOF Test**											
364				Shapiro Wilk Test Statistic		0.874		**Shapiro Wilk Lognormal GOF Test**				
365				10% Shapiro Wilk Critical Value		0.906		Data Not Lognormal at 10% Significance Level				
366				Lilliefors Test Statistic		0.268		**Lilliefors Lognormal GOF Test**				
367				10% Lilliefors Critical Value		0.196		Data Not Lognormal at 10% Significance Level				
368	**Data Not Lognormal at 10% Significance Level**											
369												
370	**Lognormal Statistics**											
371				Minimum of Logged Data		1.281		Mean of logged Data				3.134
372				Maximum of Logged Data		4.592		SD of logged Data				1.009
373												
374	**Assuming Lognormal Distribution**											
375				95% H-UCL		77.63		90% Chebyshev (MVUE) UCL				67.02
376				95% Chebyshev (MVUE) UCL		80.81		97.5% Chebyshev (MVUE) UCL				99.95
377				99% Chebyshev (MVUE) UCL		137.6						
378												
379	**Nonparametric Distribution Free UCL Statistics**											
380	**Data appear to follow a Discernible Distribution**											
381												
382	**Nonparametric Distribution Free UCLs**											
383				95% CLT UCL		42.89		95% BCA Bootstrap UCL				44.98
384				95% Standard Bootstrap UCL		42.51		95% Bootstrap-t UCL				45.43
385				95% Hall's Bootstrap UCL		49.15		95% Percentile Bootstrap UCL				42.69
386				90% Chebyshev(Mean, Sd) UCL		51.14		95% Chebyshev(Mean, Sd) UCL				59.4
387				97.5% Chebyshev(Mean, Sd) UCL		70.87		99% Chebyshev(Mean, Sd) UCL				93.4
388												
389	**Suggested UCL to Use**											
390				95% Student's-t UCL		43.55						
391												
392	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
393	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
394	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
395												
396												
397	**Lead**											
398												
399	**General Statistics**											
400				Total Number of Observations		16		Number of Distinct Observations				16
401								Number of Missing Observations				15
402				Minimum		9.7		Mean				42.04

403					Maximum	214				Median		31.8
404					SD	47.21				Std. Error of Mean		11.8
405					Coefficient of Variation	1.123				Skewness		3.615
406												
407	**Normal GOF Test**											
408					Shapiro Wilk Test Statistic	0.5	**Shapiro Wilk GOF Test**					
409					1% Shapiro Wilk Critical Value	0.844	Data Not Normal at 1% Significance Level					
410					Lilliefors Test Statistic	0.389	**Lilliefors GOF Test**					
411					1% Lilliefors Critical Value	0.248	Data Not Normal at 1% Significance Level					
412	**Data Not Normal at 1% Significance Level**											
413												
414	**Assuming Normal Distribution**											
415	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
416					95% Student's-t UCL	62.73	95% Adjusted-CLT UCL (Chen-1995)					72.85
417							95% Modified-t UCL (Johnson-1978)					64.51
418												
419	**Gamma GOF Test**											
420					A-D Test Statistic	1.258	**Anderson-Darling Gamma GOF Test**					
421					5% A-D Critical Value	0.751	Data Not Gamma Distributed at 5% Significance Level					
422					K-S Test Statistic	0.274	**Kolmogorov-Smirnov Gamma GOF Test**					
423					5% K-S Critical Value	0.218	Data Not Gamma Distributed at 5% Significance Level					
424	**Data Not Gamma Distributed at 5% Significance Level**											
425												
426	**Gamma Statistics**											
427					k hat (MLE)	1.961	k star (bias corrected MLE)					1.635
428					Theta hat (MLE)	21.44	Theta star (bias corrected MLE)					25.72
429					nu hat (MLE)	62.75	nu star (bias corrected)					52.31
430					MLE Mean (bias corrected)	42.04	MLE Sd (bias corrected)					32.88
431							Approximate Chi Square Value (0.05)					36.7
432					Adjusted Level of Significance	0.0335	Adjusted Chi Square Value					35.22
433												
434	**Assuming Gamma Distribution**											
435					95% Approximate Gamma UCL	59.93	95% Adjusted Gamma UCL					62.46
436												
437	**Lognormal GOF Test**											
438					Shapiro Wilk Test Statistic	0.886	**Shapiro Wilk Lognormal GOF Test**					
439					10% Shapiro Wilk Critical Value	0.906	Data Not Lognormal at 10% Significance Level					
440					Lilliefors Test Statistic	0.211	**Lilliefors Lognormal GOF Test**					
441					10% Lilliefors Critical Value	0.196	Data Not Lognormal at 10% Significance Level					
442	**Data Not Lognormal at 10% Significance Level**											
443												
444	**Lognormal Statistics**											
445					Minimum of Logged Data	2.272	Mean of logged Data					3.463
446					Maximum of Logged Data	5.366	SD of logged Data					0.672
447												
448	**Assuming Lognormal Distribution**											
449					95% H-UCL	59.01	90% Chebyshev (MVUE) UCL					60.18
450					95% Chebyshev (MVUE) UCL	69.63	97.5% Chebyshev (MVUE) UCL					82.75
451					99% Chebyshev (MVUE) UCL	108.5						
452												
453	**Nonparametric Distribution Free UCL Statistics**											
454	**Data do not follow a Discernible Distribution**											
455												
456	**Nonparametric Distribution Free UCLs**											
457					95% CLT UCL	61.46	95% BCA Bootstrap UCL					77.99
458					95% Standard Bootstrap UCL	60.97	95% Bootstrap-t UCL					103.3
459					95% Hall's Bootstrap UCL	142.9	95% Percentile Bootstrap UCL					64.74
460					90% Chebyshev(Mean, Sd) UCL	77.45	95% Chebyshev(Mean, Sd) UCL					93.49
461					97.5% Chebyshev(Mean, Sd) UCL	115.7	99% Chebyshev(Mean, Sd) UCL					159.5
462												
463	**Suggested UCL to Use**											
464					95% Student's-t UCL	62.73						
465												
466	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
467	**Please verify the data were collected from random locations.**											
468	**If the data were collected using judgmental or other non-random methods,**											
469	**then contact a statistician to correctly calculate UCLs.**											

470												
471	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
472	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
473	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
474												
475	**Mercury**											
476												
477	**General Statistics**											
478						Total Number of Observations	16				Number of Distinct Observations	15	
479											Number of Missing Observations	15
480						Number of Detects	15				Number of Non-Detects	1
481						Number of Distinct Detects	14				Number of Distinct Non-Detects	1
482						Minimum Detect	0.036				Minimum Non-Detect	0.505
483						Maximum Detect	0.495				Maximum Non-Detect	0.505
484						Variance Detects	0.0135				Percent Non-Detects	6.25%
485						Mean Detects	0.141				SD Detects	0.116
486						Median Detects	0.146				CV Detects	0.825
487						Skewness Detects	2.139				Kurtosis Detects	6.051
488						Mean of Logged Detects	-2.227				SD of Logged Detects	0.754
489												
490	**Normal GOF Test on Detects Only**											
491						Shapiro Wilk Test Statistic	0.77				**Shapiro Wilk GOF Test**	
492						1% Shapiro Wilk Critical Value	0.835				Detected Data Not Normal at 1% Significance Level	
493						Lilliefors Test Statistic	0.214				**Lilliefors GOF Test**	
494						1% Lilliefors Critical Value	0.255				Detected Data appear Normal at 1% Significance Level	
495	**Detected Data appear Approximate Normal at 1% Significance Level**											
496												
497	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
498						KM Mean	0.141				KM Standard Error of Mean	0.03
499						90KM SD	0.112				95% KM (BCA) UCL	0.193
500						95% KM (t) UCL	0.193				95% KM (Percentile Bootstrap) UCL	0.192
501						95% KM (z) UCL	0.19				95% KM Bootstrap t UCL	0.226
502						90% KM Chebyshev UCL	0.231				95% KM Chebyshev UCL	0.271
503						97.5% KM Chebyshev UCL	0.328				99% KM Chebyshev UCL	0.439
504												
505	**Gamma GOF Tests on Detected Observations Only**											
506						A-D Test Statistic	0.495				**Anderson-Darling GOF Test**	
507						5% A-D Critical Value	0.747				Detected data appear Gamma Distributed at 5% Significance Level	
508						K-S Test Statistic	0.155				**Kolmogorov-Smirnov GOF**	
509						5% K-S Critical Value	0.224				Detected data appear Gamma Distributed at 5% Significance Level	
510	**Detected data appear Gamma Distributed at 5% Significance Level**											
511												
512	**Gamma Statistics on Detected Data Only**											
513						k hat (MLE)	2.026				k star (bias corrected MLE)	1.666
514						Theta hat (MLE)	0.0695				Theta star (bias corrected MLE)	0.0845
515						nu hat (MLE)	60.79				nu star (bias corrected)	49.97
516						Mean (detects)	0.141					
517												
518	**Gamma ROS Statistics using Imputed Non-Detects**											
519	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
520	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
521	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
522	This is especially true when the sample size is small.											
523	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
524						Minimum	0.036				Mean	0.139
525						Maximum	0.495				Median	0.133
526						SD	0.112				CV	0.806
527						k hat (MLE)	2.147				k star (bias corrected MLE)	1.786
528						Theta hat (MLE)	0.065				Theta star (bias corrected MLE)	0.0781
529						nu hat (MLE)	68.69				nu star (bias corrected)	57.14
530						Adjusted Level of Significance (β)	0.0335					
531						Approximate Chi Square Value (57.14, α)	40.77				Adjusted Chi Square Value (57.14, β)	39.19
532						95% Gamma Approximate UCL	0.195				95% Gamma Adjusted UCL	0.203
533												
534	**Estimates of Gamma Parameters using KM Estimates**											
535						Mean (KM)	0.141				SD (KM)	0.112
536						Variance (KM)	0.0126				SE of Mean (KM)	0.03

537					k hat (KM)	1.573				k star (KM)		1.32
538					nu hat (KM)	50.35				nu star (KM)		42.24
539					theta hat (KM)	0.0895				theta star (KM)		0.107
540					80% gamma percentile (KM)	0.221				90% gamma percentile (KM)		0.303
541					95% gamma percentile (KM)	0.383				99% gamma percentile (KM)		0.565
542												
543					**Gamma Kaplan-Meier (KM) Statistics**							
544					Approximate Chi Square Value (42.24, α)	28.34				Adjusted Chi Square Value (42.24, β)		27.05
545					95% KM Approximate Gamma UCL	0.21				95% KM Adjusted Gamma UCL		0.22
546												
547					**Lognormal GOF Test on Detected Observations Only**							
548					Shapiro Wilk Test Statistic	0.934				**Shapiro Wilk GOF Test**		
549					10% Shapiro Wilk Critical Value	0.901				Detected Data appear Lognormal at 10% Significance Level		
550					Lilliefors Test Statistic	0.189				**Lilliefors GOF Test**		
551					10% Lilliefors Critical Value	0.202				Detected Data appear Lognormal at 10% Significance Level		
552					**Detected Data appear Lognormal at 10% Significance Level**							
553												
554					**Lognormal ROS Statistics Using Imputed Non-Detects**							
555					Mean in Original Scale	0.139				Mean in Log Scale		-2.227
556					SD in Original Scale	0.113				SD in Log Scale		0.729
557					95% t UCL (assumes normality of ROS data)	0.188				95% Percentile Bootstrap UCL		0.188
558					95% BCA Bootstrap UCL	0.203				95% Bootstrap t UCL		0.219
559					95% H-UCL (Log ROS)	0.217						
560												
561					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
562					KM Mean (logged)	-2.227				KM Geo Mean		0.108
563					KM SD (logged)	0.729				95% Critical H Value (KM-Log)		2.317
564					KM Standard Error of Mean (logged)	0.195				95% H-UCL (KM -Log)		0.217
565					KM SD (logged)	0.729				95% Critical H Value (KM-Log)		2.317
566					KM Standard Error of Mean (logged)	0.195						
567												
568					**DL/2 Statistics**							
569					**DL/2 Normal**					**DL/2 Log-Transformed**		
570					Mean in Original Scale	0.148				Mean in Log Scale		-2.174
571					SD in Original Scale	0.116				SD in Log Scale		0.759
572					95% t UCL (Assumes normality)	0.198				95% H-Stat UCL		0.241
573					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
574												
575					**Nonparametric Distribution Free UCL Statistics**							
576					**Detected Data appear Approximate Normal Distributed at 1% Significance Level**							
577												
578					**Suggested UCL to Use**							
579					95% KM (t) UCL	0.193						
580												
581					When a data set follows an approximate distribution passing only one of the GOF tests,							
582					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
583												
584					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
585					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
586					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
587												
588												
589	**Nickel**											
590												
591					**General Statistics**							
592					Total Number of Observations	16				Number of Distinct Observations		16
593										Number of Missing Observations		15
594					Minimum	1.7				Mean		8.74
595					Maximum	17.6				Median		8.545
596					SD	4.259				Std. Error of Mean		1.065
597					Coefficient of Variation	0.487				Skewness		0.666
598												
599					**Normal GOF Test**							
600					Shapiro Wilk Test Statistic	0.86				**Shapiro Wilk GOF Test**		
601					1% Shapiro Wilk Critical Value	0.844				Data appear Normal at 1% Significance Level		
602					Lilliefors Test Statistic	0.244				**Lilliefors GOF Test**		
603					1% Lilliefors Critical Value	0.248				Data appear Normal at 1% Significance Level		

604	**Data appear Normal at 1% Significance Level**											
605												
606	**Assuming Normal Distribution**											
607	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
608	95% Student's-t UCL				10.61		95% Adjusted-CLT UCL (Chen-1995)				10.68	
609							95% Modified-t UCL (Johnson-1978)				10.64	
610												
611	**Gamma GOF Test**											
612	A-D Test Statistic				1.22		**Anderson-Darling Gamma GOF Test**					
613	5% A-D Critical Value				0.743		Data Not Gamma Distributed at 5% Significance Level					
614	K-S Test Statistic				0.269		**Kolmogorov-Smirnov Gamma GOF Test**					
615	5% K-S Critical Value				0.216		Data Not Gamma Distributed at 5% Significance Level					
616	**Data Not Gamma Distributed at 5% Significance Level**											
617												
618	**Gamma Statistics**											
619	k hat (MLE)				3.529		k star (bias corrected MLE)				2.909	
620	Theta hat (MLE)				2.477		Theta star (bias corrected MLE)				3.005	
621	nu hat (MLE)				112.9		nu star (bias corrected)				93.08	
622	MLE Mean (bias corrected)				8.74		MLE Sd (bias corrected)				5.125	
623							Approximate Chi Square Value (0.05)				71.83	
624	Adjusted Level of Significance				0.0335		Adjusted Chi Square Value				69.71	
625												
626	**Assuming Gamma Distribution**											
627	95% Approximate Gamma UCL				11.33		95% Adjusted Gamma UCL				11.67	
628												
629	**Lognormal GOF Test**											
630	Shapiro Wilk Test Statistic				0.781		**Shapiro Wilk Lognormal GOF Test**					
631	10% Shapiro Wilk Critical Value				0.906		Data Not Lognormal at 10% Significance Level					
632	Lilliefors Test Statistic				0.306		**Lilliefors Lognormal GOF Test**					
633	10% Lilliefors Critical Value				0.196		Data Not Lognormal at 10% Significance Level					
634	**Data Not Lognormal at 10% Significance Level**											
635												
636	**Lognormal Statistics**											
637	Minimum of Logged Data				0.531		Mean of logged Data				2.02	
638	Maximum of Logged Data				2.868		SD of logged Data				0.636	
639												
640	**Assuming Lognormal Distribution**											
641	95% H-UCL				13.25		90% Chebyshev (MVUE) UCL				13.64	
642	95% Chebyshev (MVUE) UCL				15.7		97.5% Chebyshev (MVUE) UCL				18.57	
643	99% Chebyshev (MVUE) UCL				24.19							
644												
645	**Nonparametric Distribution Free UCL Statistics**											
646	**Data appear to follow a Discernible Distribution**											
647												
648	**Nonparametric Distribution Free UCLs**											
649	95% CLT UCL				10.49		95% BCA Bootstrap UCL				10.74	
650	95% Standard Bootstrap UCL				10.43		95% Bootstrap-t UCL				11.01	
651	95% Hall's Bootstrap UCL				12.3		95% Percentile Bootstrap UCL				10.53	
652	90% Chebyshev(Mean, Sd) UCL				11.93		95% Chebyshev(Mean, Sd) UCL				13.38	
653	97.5% Chebyshev(Mean, Sd) UCL				15.39		99% Chebyshev(Mean, Sd) UCL				19.33	
654												
655	**Suggested UCL to Use**											
656	95% Student's-t UCL				10.61							
657												
658	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
659	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
660	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
661												
662	**Silver**											
663												
664	**General Statistics**											
665	Total Number of Observations				16		Number of Distinct Observations				15	
666							Number of Missing Observations				15	
667	Number of Detects				5		Number of Non-Detects				11	
668	Number of Distinct Detects				5		Number of Distinct Non-Detects				10	
669	Minimum Detect				0.813		Minimum Non-Detect				0.07	
670	Maximum Detect				5.06		Maximum Non-Detect				24.75	

671				Variance Detects	3.428					Percent Non-Detects		68.75%
672				Mean Detects	2.209					SD Detects		1.851
673				Median Detects	1.05					CV Detects		0.838
674				Skewness Detects	1.175					Kurtosis Detects		-0.0726
675				Mean of Logged Detects	0.52					SD of Logged Detects		0.809
676												
677				**Normal GOF Test on Detects Only**								
678				Shapiro Wilk Test Statistic	0.811				**Shapiro Wilk GOF Test**			
679				1% Shapiro Wilk Critical Value	0.686				Detected Data appear Normal at 1% Significance Level			
680				Lilliefors Test Statistic	0.334				**Lilliefors GOF Test**			
681				1% Lilliefors Critical Value	0.396				Detected Data appear Normal at 1% Significance Level			
682				**Detected Data appear Normal at 1% Significance Level**								
683				**Note GOF tests may be unreliable for small sample sizes**								
684												
685				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
686				KM Mean	0.821				KM Standard Error of Mean			0.402
687				90KM SD	1.38				95% KM (BCA) UCL			1.628
688				95% KM (t) UCL	1.525				95% KM (Percentile Bootstrap) UCL			1.528
689				95% KM (z) UCL	1.482				95% KM Bootstrap t UCL			1.742
690				90% KM Chebyshev UCL	2.027				95% KM Chebyshev UCL			2.573
691				97.5% KM Chebyshev UCL	3.331				99% KM Chebyshev UCL			4.821
692				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
693												
694				**Gamma GOF Tests on Detected Observations Only**								
695				A-D Test Statistic	0.546				**Anderson-Darling GOF Test**			
696				5% A-D Critical Value	0.684				Detected data appear Gamma Distributed at 5% Significance Level			
697				K-S Test Statistic	0.353				**Kolmogorov-Smirnov GOF**			
698				5% K-S Critical Value	0.36				Detected data appear Gamma Distributed at 5% Significance Level			
699				**Detected data appear Gamma Distributed at 5% Significance Level**								
700				**Note GOF tests may be unreliable for small sample sizes**								
701												
702				**Gamma Statistics on Detected Data Only**								
703				k hat (MLE)	1.988				k star (bias corrected MLE)			0.928
704				Theta hat (MLE)	1.111				Theta star (bias corrected MLE)			2.379
705				nu hat (MLE)	19.88				nu star (bias corrected)			9.284
706				Mean (detects)	2.209							
707												
708				**Gamma ROS Statistics using Imputed Non-Detects**								
709				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
710				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
711				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
712				This is especially true when the sample size is small.								
713				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
714				Minimum	0.01				Mean			0.697
715				Maximum	5.06				Median			0.01
716				SD	1.422				CV			2.04
717				k hat (MLE)	0.266				k star (bias corrected MLE)			0.258
718				Theta hat (MLE)	2.62				Theta star (bias corrected MLE)			2.703
719				nu hat (MLE)	8.515				nu star (bias corrected)			8.252
720				Adjusted Level of Significance (β)	0.0335							
721				Approximate Chi Square Value (8.25, α)	2.882				Adjusted Chi Square Value (8.25, β)			2.532
722				95% Gamma Approximate UCL	1.996				95% Gamma Adjusted UCL			2.272
723												
724				**Estimates of Gamma Parameters using KM Estimates**								
725				Mean (KM)	0.821				SD (KM)			1.38
726				Variance (KM)	1.906				SE of Mean (KM)			0.402
727				k hat (KM)	0.353				k star (KM)			0.329
728				nu hat (KM)	11.31				nu star (KM)			10.52
729				theta hat (KM)	2.322				theta star (KM)			2.496
730				80% gamma percentile (KM)	1.284				90% gamma percentile (KM)			2.392
731				95% gamma percentile (KM)	3.643				99% gamma percentile (KM)			6.861
732												
733				**Gamma Kaplan-Meier (KM) Statistics**								
734				Approximate Chi Square Value (10.52, α)	4.27				Adjusted Chi Square Value (10.52, β)			3.827
735				95% KM Approximate Gamma UCL	2.022				95% KM Adjusted Gamma UCL			2.256
736				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
737												

	A	B	C	D	E	F	G	H	I	J	K	L
738	**Lognormal GOF Test on Detected Observations Only**											
739					Shapiro Wilk Test Statistic	0.848	**Shapiro Wilk GOF Test**					
740					10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level					
741					Lilliefors Test Statistic	0.32	**Lilliefors GOF Test**					
742					10% Lilliefors Critical Value	0.319	Detected Data Not Lognormal at 10% Significance Level					
743	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
744	**Note GOF tests may be unreliable for small sample sizes**											
745												
746	**Lognormal ROS Statistics Using Imputed Non-Detects**											
747					Mean in Original Scale	0.821				Mean in Log Scale	-1.014	
748					SD in Original Scale	1.36				SD in Log Scale	1.18	
749				95% t UCL (assumes normality of ROS data)		1.417				95% Percentile Bootstrap UCL	1.427	
750					95% BCA Bootstrap UCL	1.632				95% Bootstrap t UCL	2.94	
751					95% H-UCL (Log ROS)	1.811						
752												
753	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
754					KM Mean (logged)	-1.48				KM Geo Mean	0.228	
755					KM SD (logged)	1.566				95% Critical H Value (KM-Log)	3.663	
756					KM Standard Error of Mean (logged)	0.483				95% H-UCL (KM -Log)	3.414	
757					KM SD (logged)	1.566				95% Critical H Value (KM-Log)	3.663	
758					KM Standard Error of Mean (logged)	0.483						
759												
760	**DL/2 Statistics**											
761	**DL/2 Normal**						**DL/2 Log-Transformed**					
762					Mean in Original Scale	1.64				Mean in Log Scale	-0.725	
763					SD in Original Scale	3.156				SD in Log Scale	1.651	
764					95% t UCL (Assumes normality)	3.023				95% H-Stat UCL	9.621	
765	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
766												
767	**Nonparametric Distribution Free UCL Statistics**											
768	**Detected Data appear Normal Distributed at 1% Significance Level**											
769												
770	**Suggested UCL to Use**											
771					95% KM (t) UCL	1.525						
772												
773	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
774	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
775	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
776												
777												
778	**Zinc**											
779												
780	**General Statistics**											
781					Total Number of Observations	16				Number of Distinct Observations	16	
782										Number of Missing Observations	15	
783					Minimum	10.6				Mean	136.7	
784					Maximum	929				Median	66.5	
785					SD	222.1				Std. Error of Mean	55.53	
786					Coefficient of Variation	1.626				Skewness	3.416	
787												
788	**Normal GOF Test**											
789					Shapiro Wilk Test Statistic	0.525	**Shapiro Wilk GOF Test**					
790					1% Shapiro Wilk Critical Value	0.844	Data Not Normal at 1% Significance Level					
791					Lilliefors Test Statistic	0.308	**Lilliefors GOF Test**					
792					1% Lilliefors Critical Value	0.248	Data Not Normal at 1% Significance Level					
793	**Data Not Normal at 1% Significance Level**											
794												
795	**Assuming Normal Distribution**											
796	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
797					95% Student's-t UCL	234				95% Adjusted-CLT UCL (Chen-1995)	278.7	
798										95% Modified-t UCL (Johnson-1978)	241.9	
799												
800	**Gamma GOF Test**											
801					A-D Test Statistic	0.843	**Anderson-Darling Gamma GOF Test**					
802					5% A-D Critical Value	0.768	Data Not Gamma Distributed at 5% Significance Level					
803					K-S Test Statistic	0.205	**Kolmogorov-Smirnov Gamma GOF Test**					
804					5% K-S Critical Value	0.222	Detected data appear Gamma Distributed at 5% Significance Level					

805	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**										
806											
807	**Gamma Statistics**										
808					k hat (MLE)	0.902			k star (bias corrected MLE)	0.774	
809					Theta hat (MLE)	151.5			Theta star (bias corrected MLE)	176.5	
810					nu hat (MLE)	28.86			nu star (bias corrected)	24.78	
811					MLE Mean (bias corrected)	136.7			MLE Sd (bias corrected)	155.3	
812									Approximate Chi Square Value (0.05)	14.44	
813					Adjusted Level of Significance	0.0335			Adjusted Chi Square Value	13.55	
814											
815	**Assuming Gamma Distribution**										
816					95% Approximate Gamma UCL	234.5			95% Adjusted Gamma UCL	249.9	
817											
818	**Lognormal GOF Test**										
819					Shapiro Wilk Test Statistic	0.96			**Shapiro Wilk Lognormal GOF Test**		
820					10% Shapiro Wilk Critical Value	0.906			Data appear Lognormal at 10% Significance Level		
821					Lilliefors Test Statistic	0.133			**Lilliefors Lognormal GOF Test**		
822					10% Lilliefors Critical Value	0.196			Data appear Lognormal at 10% Significance Level		
823	**Data appear Lognormal at 10% Significance Level**										
824											
825	**Lognormal Statistics**										
826					Minimum of Logged Data	2.361			Mean of logged Data	4.269	
827					Maximum of Logged Data	6.834			SD of logged Data	1.103	
828											
829	**Assuming Lognormal Distribution**										
830					95% H-UCL	296.7			90% Chebyshev (MVUE) UCL	238.3	
831					95% Chebyshev (MVUE) UCL	290.1			97.5% Chebyshev (MVUE) UCL	361.9	
832					99% Chebyshev (MVUE) UCL	502.9					
833											
834	**Nonparametric Distribution Free UCL Statistics**										
835	**Data appear to follow a Discernible Distribution**										
836											
837	**Nonparametric Distribution Free UCLs**										
838					95% CLT UCL	228			95% BCA Bootstrap UCL	303.7	
839					95% Standard Bootstrap UCL	227.9			95% Bootstrap-t UCL	495.3	
840					95% Hall's Bootstrap UCL	581.5			95% Percentile Bootstrap UCL	237.8	
841					90% Chebyshev(Mean, Sd) UCL	303.3			95% Chebyshev(Mean, Sd) UCL	378.7	
842					97.5% Chebyshev(Mean, Sd) UCL	483.5			99% Chebyshev(Mean, Sd) UCL	689.2	
843											
844	**Suggested UCL to Use**										
845					95% Adjusted Gamma UCL	249.9					
846											
847	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
848	**Please verify the data were collected from random locations.**										
849	**If the data were collected using judgmental or other non-random methods,**										
850	**then contact a statistician to correctly calculate UCLs.**										
851											
852	When a data set follows an approximate distribution passing only one of the GOF tests,										
853	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL										
854											
855	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
856	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
857	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
858											
859	**Benzo[a]anthracene**										
860											
861	**General Statistics**										
862					Total Number of Observations	6			Number of Distinct Observations	6	
863									Number of Missing Observations	13	
864					Number of Detects	1			Number of Non-Detects	5	
865					Number of Distinct Detects	1			Number of Distinct Non-Detects	5	
866											
867	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**										
868	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**										
869											
870	**The data set for variable Benzo[a]anthracene was not processed!**										
871											

Benzo[g,h,i]perylene

General Statistics

Total Number of Observations	6	Number of Distinct Observations	6
		Number of Missing Observations	13
Number of Detects	1	Number of Non-Detects	5
Number of Distinct Detects	1	Number of Distinct Non-Detects	5

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Benzo[g,h,i]perylene was not processed!

Benzo[k]fluoranthene

General Statistics

Total Number of Observations	6	Number of Distinct Observations	6
		Number of Missing Observations	13
Number of Detects	1	Number of Non-Detects	5
Number of Distinct Detects	1	Number of Distinct Non-Detects	5

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Benzo[k]fluoranthene was not processed!

Chrysene

General Statistics

Total Number of Observations	6	Number of Distinct Observations	6
		Number of Missing Observations	13
Number of Detects	2	Number of Non-Detects	4
Number of Distinct Detects	2	Number of Distinct Non-Detects	4
Minimum Detect	41	Minimum Non-Detect	27.5
Maximum Detect	110	Maximum Non-Detect	2600
Variance Detects	2381	Percent Non-Detects	66.67%
Mean Detects	75.5	SD Detects	48.79
Median Detects	75.5	CV Detects	0.646
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	4.207	SD of Logged Detects	0.698

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,

refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,

but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).

The Chebyshev UCL often results in gross overestimates of the mean.

Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	47.6	KM Standard Error of Mean	20.17
90KM SD	31.71	95% KM (BCA) UCL	N/A
95% KM (t) UCL	88.23	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	80.77	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	108.1	95% KM Chebyshev UCL	135.5
97.5% KM Chebyshev UCL	173.5	99% KM Chebyshev UCL	248.2

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

939											
940	**Gamma Statistics on Detected Data Only**										
941					k hat (MLE)	4.429		k star (bias corrected MLE)			N/A
942					Theta hat (MLE)	17.04		Theta star (bias corrected MLE)			N/A
943					nu hat (MLE)	17.72		nu star (bias corrected)			N/A
944					Mean (detects)	75.5					
945											
946	**Estimates of Gamma Parameters using KM Estimates**										
947					Mean (KM)	47.6		SD (KM)			31.71
948					Variance (KM)	1006		SE of Mean (KM)			20.17
949					k hat (KM)	2.253		k star (KM)			1.237
950					nu hat (KM)	27.03		nu star (KM)			14.85
951					theta hat (KM)	21.13		theta star (KM)			38.47
952					80% gamma percentile (KM)	75.14		90% gamma percentile (KM)			104
953					95% gamma percentile (KM)	132.4		99% gamma percentile (KM)			197.3
954											
955	**Gamma Kaplan-Meier (KM) Statistics**										
956								Adjusted Level of Significance (β)			0.0122
957					Approximate Chi Square Value (14.85, α)	7.157		Adjusted Chi Square Value (14.85, β)			5.346
958					95% KM Approximate Gamma UCL	98.76		95% KM Adjusted Gamma UCL			132.2
959											
960	**Lognormal GOF Test on Detected Observations Only**										
961	**Not Enough Data to Perform GOF Test**										
962											
963	**Lognormal ROS Statistics Using Imputed Non-Detects**										
964					Mean in Original Scale	36.43		Mean in Log Scale			3.255
965					SD in Original Scale	37.61		SD in Log Scale			0.846
966					95% t UCL (assumes normality of ROS data)	67.37		95% Percentile Bootstrap UCL			64.25
967					95% BCA Bootstrap UCL	69.07		95% Bootstrap t UCL			180.5
968					95% H-UCL (Log ROS)	145.5					
969											
970	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
971					KM Mean (logged)	3.698		KM Geo Mean			40.36
972					KM SD (logged)	0.529		95% Critical H Value (KM-Log)			2.708
973					KM Standard Error of Mean (logged)	0.34		95% H-UCL (KM -Log)			88.07
974					KM SD (logged)	0.529		95% Critical H Value (KM-Log)			2.708
975					KM Standard Error of Mean (logged)	0.34					
976	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
977											
978	**DL/2 Statistics**										
979	**DL/2 Normal**							**DL/2 Log-Transformed**			
980					Mean in Original Scale	250.1		Mean in Log Scale			3.99
981					SD in Original Scale	515.6		SD in Log Scale			1.741
982					95% t UCL (Assumes normality)	674.3		95% H-Stat UCL			47142
983	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
984											
985	**Nonparametric Distribution Free UCL Statistics**										
986	**Data do not follow a Discernible Distribution**										
987											
988	**Suggested UCL to Use**										
989					Recommendation cannot be provided						
990											
991	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
992	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
993	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
994											
995	**Fluoranthene**										
996											
997	**General Statistics**										
998					Total Number of Observations	6		Number of Distinct Observations			6
999								Number of Missing Observations			13
1000					Number of Detects	3		Number of Non-Detects			3
1001					Number of Distinct Detects	3		Number of Distinct Non-Detects			3
1002					Minimum Detect	56		Minimum Non-Detect			27.5
1003					Maximum Detect	1100		Maximum Non-Detect			42
1004					Variance Detects	325285		Percent Non-Detects			50%
1005					Mean Detects	445.3		SD Detects			570.3

1006					Median Detects	180					CV Detects	1.281
1007					Skewness Detects	1.64					Kurtosis Detects	N/A
1008					Mean of Logged Detects	5.407					SD of Logged Detects	1.5
1009												
1010					**Warning: Data set has only 3 Detected Values.**							
1011					**This is not enough to compute meaningful or reliable statistics and estimates.**							
1012												
1013												
1014					**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
1015					**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
1016					**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
1017					**The Chebyshev UCL often results in gross overestimates of the mean.**							
1018					**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							
1019												
1020					**Normal GOF Test on Detects Only**							
1021					Shapiro Wilk Test Statistic	0.838	**Shapiro Wilk GOF Test**					
1022					1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level					
1023					Lilliefors Test Statistic	0.346	**Lilliefors GOF Test**					
1024					1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level					
1025					**Detected Data appear Normal at 1% Significance Level**							
1026					**Note GOF tests may be unreliable for small sample sizes**							
1027												
1028					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1029					KM Mean	236.4	KM Standard Error of Mean	195				
1030					90KM SD	390	95% KM (BCA) UCL	N/A				
1031					95% KM (t) UCL	629.3	95% KM (Percentile Bootstrap) UCL	N/A				
1032					95% KM (z) UCL	557.1	95% KM Bootstrap t UCL	N/A				
1033					90% KM Chebyshev UCL	821.4	95% KM Chebyshev UCL	1086				
1034					97.5% KM Chebyshev UCL	1454	99% KM Chebyshev UCL	2176				
1035												
1036					**Gamma GOF Tests on Detected Observations Only**							
1037					A-D Test Statistic	0.318	**Anderson-Darling GOF Test**					
1038					5% A-D Critical Value	0.642	Detected data appear Gamma Distributed at 5% Significance Level					
1039					K-S Test Statistic	0.301	**Kolmogorov-Smirnov GOF**					
1040					5% K-S Critical Value	0.442	Detected data appear Gamma Distributed at 5% Significance Level					
1041					**Detected Data Not Gamma Distributed at 5% Significance Level**							
1042												
1043					**Gamma Statistics on Detected Data Only**							
1044					k hat (MLE)	0.851	k star (bias corrected MLE)	N/A				
1045					Theta hat (MLE)	523.2	Theta star (bias corrected MLE)	N/A				
1046					nu hat (MLE)	5.107	nu star (bias corrected)	N/A				
1047					Mean (detects)	445.3						
1048												
1049					**Gamma ROS Statistics using Imputed Non-Detects**							
1050					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1051					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1052					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1053					This is especially true when the sample size is small.							
1054					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1055					Minimum	0.01	Mean	222.7				
1056					Maximum	1100	Median	28.01				
1057					SD	435.4	CV	1.956				
1058					k hat (MLE)	0.153	k star (bias corrected MLE)	0.188				
1059					Theta hat (MLE)	1454	Theta star (bias corrected MLE)	1187				
1060					nu hat (MLE)	1.837	nu star (bias corrected)	2.252				
1061					Adjusted Level of Significance (β)	0.0122						
1062					Approximate Chi Square Value (2.25, α)	0.19	Adjusted Chi Square Value (2.25, β)	0.0963				
1063					95% Gamma Approximate UCL	2634	95% Gamma Adjusted UCL	N/A				
1064												
1065					**Estimates of Gamma Parameters using KM Estimates**							
1066					Mean (KM)	236.4	SD (KM)	390				
1067					Variance (KM)	152075	SE of Mean (KM)	195				
1068					k hat (KM)	0.368	k star (KM)	0.295				
1069					nu hat (KM)	4.41	nu star (KM)	3.539				
1070					theta hat (KM)	643.2	theta star (KM)	801.7				
1071					80% gamma percentile (KM)	361	90% gamma percentile (KM)	698.7				
1072					95% gamma percentile (KM)	1087	99% gamma percentile (KM)	2100				

1073												
1074	**Gamma Kaplan-Meier (KM) Statistics**											
1075				Approximate Chi Square Value (3.54, α)		0.548		Adjusted Chi Square Value (3.54, β)				0.255
1076				95% KM Approximate Gamma UCL		1526		95% KM Adjusted Gamma UCL				3280
1077												
1078	**Lognormal GOF Test on Detected Observations Only**											
1079				Shapiro Wilk Test Statistic		0.985		**Shapiro Wilk GOF Test**				
1080				10% Shapiro Wilk Critical Value		0.789		Detected Data appear Lognormal at 10% Significance Level				
1081				Lilliefors Test Statistic		0.223		**Lilliefors GOF Test**				
1082				10% Lilliefors Critical Value		0.389		Detected Data appear Lognormal at 10% Significance Level				
1083	**Detected Data appear Lognormal at 10% Significance Level**											
1084	**Note GOF tests may be unreliable for small sample sizes**											
1085												
1086	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1087				Mean in Original Scale		223.4		Mean in Log Scale				2.912
1088				SD in Original Scale		435		SD in Log Scale				2.893
1089				95% t UCL (assumes normality of ROS data)		581.3		95% Percentile Bootstrap UCL				N/A
1090				95% BCA Bootstrap UCL		N/A		95% Bootstrap t UCL				N/A
1091				95% H-UCL (Log ROS)		1.840E+9						
1092												
1093	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1094				KM Mean (logged)		4.361		KM Geo Mean				78.31
1095				KM SD (logged)		1.358		95% Critical H Value (KM-Log)				5.373
1096				KM Standard Error of Mean (logged)		0.679		95% H-UCL (KM -Log)				5154
1097				KM SD (logged)		1.358		95% Critical H Value (KM-Log)				5.373
1098				KM Standard Error of Mean (logged)		0.679						
1099												
1100	**DL/2 Statistics**											
1101				**DL/2 Normal**				**DL/2 Log-Transformed**				
1102				Mean in Original Scale		230.9		Mean in Log Scale				4.096
1103				SD in Original Scale		430.5		SD in Log Scale				1.727
1104				95% t UCL (Assumes normality)		585		95% H-Stat UCL				47303
1105	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1106												
1107	**Nonparametric Distribution Free UCL Statistics**											
1108	**Detected Data appear Normal Distributed at 1% Significance Level**											
1109												
1110	**Suggested UCL to Use**											
1111				95% KM (t) UCL		629.3						
1112												
1113	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1114	**Please verify the data were collected from random locations.**											
1115	**If the data were collected using judgmental or other non-random methods,**											
1116	**then contact a statistician to correctly calculate UCLs.**											
1117												
1118	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1119	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1120	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1121												
1122	**Indeno[1,2,3-cd]pyrene**											
1123												
1124	**General Statistics**											
1125				Total Number of Observations		6		Number of Distinct Observations				6
1126								Number of Missing Observations				13
1127				Number of Detects		1		Number of Non-Detects				5
1128				Number of Distinct Detects		1		Number of Distinct Non-Detects				5
1129												
1130	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
1131	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
1132												
1133	**The data set for variable Indeno[1,2,3-cd]pyrene was not processed!**											
1134												
1135												
1136	**Naphthalene**											
1137												
1138	**General Statistics**											
1139				Total Number of Observations		6		Number of Distinct Observations				6

1140											Number of Missing Observations	13
1141					Number of Detects	1					Number of Non-Detects	5
1142					Number of Distinct Detects	1					Number of Distinct Non-Detects	5
1143												
1144	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
1145	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
1146												
1147	**The data set for variable Naphthalene was not processed!**											
1148												
1149												
1150	**Phenanthrene**											
1151												
1152	**General Statistics**											
1153					Total Number of Observations	6					Number of Distinct Observations	6
1154											Number of Missing Observations	13
1155					Number of Detects	3					Number of Non-Detects	3
1156					Number of Distinct Detects	3					Number of Distinct Non-Detects	3
1157					Minimum Detect	49					Minimum Non-Detect	27.5
1158					Maximum Detect	1100					Maximum Non-Detect	42
1159					Variance Detects	322900					Percent Non-Detects	50%
1160					Mean Detects	449.7					SD Detects	568.2
1161					Median Detects	200					CV Detects	1.264
1162					Skewness Detects	1.595					Kurtosis Detects	N/A
1163					Mean of Logged Detects	5.398					SD of Logged Detects	1.558
1164												
1165	**Warning: Data set has only 3 Detected Values.**											
1166	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1167												
1168												
1169	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1170	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1171	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1172	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1173	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1174												
1175	**Normal GOF Test on Detects Only**											
1176					Shapiro Wilk Test Statistic	0.855					**Shapiro Wilk GOF Test**	
1177					1% Shapiro Wilk Critical Value	0.753					Detected Data appear Normal at 1% Significance Level	
1178					Lilliefors Test Statistic	0.336					**Lilliefors GOF Test**	
1179					1% Lilliefors Critical Value	0.429					Detected Data appear Normal at 1% Significance Level	
1180	**Detected Data appear Normal at 1% Significance Level**											
1181	**Note GOF tests may be unreliable for small sample sizes**											
1182												
1183	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1184					KM Mean	238.6					KM Standard Error of Mean	195.1
1185					90KM SD	390.1					95% KM (BCA) UCL	N/A
1186					95% KM (t) UCL	631.6					95% KM (Percentile Bootstrap) UCL	N/A
1187					95% KM (z) UCL	559.4					95% KM Bootstrap t UCL	N/A
1188					90% KM Chebyshev UCL	823.8					95% KM Chebyshev UCL	1089
1189					97.5% KM Chebyshev UCL	1457					99% KM Chebyshev UCL	2179
1190												
1191	**Gamma GOF Tests on Detected Observations Only**											
1192					A-D Test Statistic	0.286					**Anderson-Darling GOF Test**	
1193					5% A-D Critical Value	0.642					Detected data appear Gamma Distributed at 5% Significance Level	
1194					K-S Test Statistic	0.271					**Kolmogorov-Smirnov GOF**	
1195					5% K-S Critical Value	0.442					Detected data appear Gamma Distributed at 5% Significance Level	
1196	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1197												
1198	**Gamma Statistics on Detected Data Only**											
1199					k hat (MLE)	0.831					k star (bias corrected MLE)	N/A
1200					Theta hat (MLE)	541.2					Theta star (bias corrected MLE)	N/A
1201					nu hat (MLE)	4.985					nu star (bias corrected)	N/A
1202					Mean (detects)	449.7						
1203												
1204	**Gamma ROS Statistics using Imputed Non-Detects**											
1205	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1206	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											

	A	B	C	D	E	F	G	H	I	J	K	L
1207	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1208	This is especially true when the sample size is small.											
1209	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1210					Minimum	0.01				Mean		224.8
1211					Maximum	1100				Median		24.51
1212					SD	435.7				CV		1.938
1213					k hat (MLE)	0.153				k star (bias corrected MLE)		0.187
1214					Theta hat (MLE)	1472				Theta star (bias corrected MLE)		1199
1215					nu hat (MLE)	1.833				nu star (bias corrected)		2.25
1216					Adjusted Level of Significance (β)	0.0122						
1217					Approximate Chi Square Value (2.25, α)	0.19				Adjusted Chi Square Value (2.25, β)		0.0962
1218					95% Gamma Approximate UCL	2663				95% Gamma Adjusted UCL		N/A
1219												
1220	**Estimates of Gamma Parameters using KM Estimates**											
1221					Mean (KM)	238.6				SD (KM)		390.1
1222					Variance (KM)	152190				SE of Mean (KM)		195.1
1223					k hat (KM)	0.374				k star (KM)		0.298
1224					nu hat (KM)	4.488				nu star (KM)		3.577
1225					theta hat (KM)	637.9				theta star (KM)		800.3
1226					80% gamma percentile (KM)	365.3				90% gamma percentile (KM)		704.2
1227					95% gamma percentile (KM)	1094				99% gamma percentile (KM)		2106
1228												
1229	**Gamma Kaplan-Meier (KM) Statistics**											
1230					Approximate Chi Square Value (3.58, α)	0.562				Adjusted Chi Square Value (3.58, β)		0.262
1231					95% KM Approximate Gamma UCL	1518				95% KM Adjusted Gamma UCL		3252
1232												
1233	**Lognormal GOF Test on Detected Observations Only**											
1234					Shapiro Wilk Test Statistic	0.997				**Shapiro Wilk GOF Test**		
1235					10% Shapiro Wilk Critical Value	0.789				Detected Data appear Lognormal at 10% Significance Level		
1236					Lilliefors Test Statistic	0.192				**Lilliefors GOF Test**		
1237					10% Lilliefors Critical Value	0.389				Detected Data appear Lognormal at 10% Significance Level		
1238	**Detected Data appear Lognormal at 10% Significance Level**											
1239	**Note GOF tests may be unreliable for small sample sizes**											
1240												
1241	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1242					Mean in Original Scale	225.5				Mean in Log Scale		2.806
1243					SD in Original Scale	435.3				SD in Log Scale		3.005
1244					95% t UCL (assumes normality of ROS data)	583.5				95% Percentile Bootstrap UCL		N/A
1245					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL		N/A
1246					95% H-UCL (Log ROS)	7.018E+9						
1247												
1248	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1249					KM Mean (logged)	4.356				KM Geo Mean		77.94
1250					KM SD (logged)	1.376				95% Critical H Value (KM-Log)		5.437
1251					KM Standard Error of Mean (logged)	0.688				95% H-UCL (KM -Log)		5708
1252					KM SD (logged)	1.376				95% Critical H Value (KM-Log)		5.437
1253					KM Standard Error of Mean (logged)	0.688						
1254												
1255	**DL/2 Statistics**											
1256	**DL/2 Normal**									**DL/2 Log-Transformed**		
1257					Mean in Original Scale	233.1				Mean in Log Scale		4.092
1258					SD in Original Scale	430.6				SD in Log Scale		1.743
1259					95% t UCL (Assumes normality)	587.4				95% H-Stat UCL		53180
1260	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1261												
1262	**Nonparametric Distribution Free UCL Statistics**											
1263	**Detected Data appear Normal Distributed at 1% Significance Level**											
1264												
1265	**Suggested UCL to Use**											
1266					95% KM (t) UCL	631.6						
1267												
1268	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1269	**Please verify the data were collected from random locations.**											
1270	**If the data were collected using judgmental or other non-random methods,**											
1271	**then contact a statistician to correctly calculate UCLs.**											
1272												
1273	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

1274	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1275	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1276												
1277	**Pyrene**											
1278												
1279	**General Statistics**											
1280						Total Number of Observations	6				Number of Distinct Observations	6	
1281											Number of Missing Observations	13
1282						Number of Detects	3				Number of Non-Detects	3
1283						Number of Distinct Detects	3				Number of Distinct Non-Detects	3
1284						Minimum Detect	57				Minimum Non-Detect	27.5
1285						Maximum Detect	1100				Maximum Non-Detect	42
1286						Variance Detects	330343				Percent Non-Detects	50%
1287						Mean Detects	439				SD Detects	574.8
1288						Median Detects	160				CV Detects	1.309
1289						Skewness Detects	1.67				Kurtosis Detects	N/A
1290						Mean of Logged Detects	5.374				SD of Logged Detects	1.502
1291												
1292	**Warning: Data set has only 3 Detected Values.**											
1293	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1294												
1295												
1296	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1297	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1298	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1299	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1300	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1301												
1302	**Normal GOF Test on Detects Only**											
1303						Shapiro Wilk Test Statistic	0.823				**Shapiro Wilk GOF Test**	
1304						1% Shapiro Wilk Critical Value	0.753				Detected Data appear Normal at 1% Significance Level	
1305						Lilliefors Test Statistic	0.353				**Lilliefors GOF Test**	
1306						1% Lilliefors Critical Value	0.429				Detected Data appear Normal at 1% Significance Level	
1307	**Detected Data appear Normal at 1% Significance Level**											
1308	**Note GOF tests may be unreliable for small sample sizes**											
1309												
1310	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1311						KM Mean	233.3				KM Standard Error of Mean	195.2
1312						90KM SD	390.4				95% KM (BCA) UCL	N/A
1313						95% KM (t) UCL	626.6				95% KM (Percentile Bootstrap) UCL	N/A
1314						95% KM (z) UCL	554.4				95% KM Bootstrap t UCL	N/A
1315						90% KM Chebyshev UCL	818.9				95% KM Chebyshev UCL	1084
1316						97.5% KM Chebyshev UCL	1452				99% KM Chebyshev UCL	2176
1317												
1318	**Gamma GOF Tests on Detected Observations Only**											
1319						A-D Test Statistic	0.345				**Anderson-Darling GOF Test**	
1320						5% A-D Critical Value	0.642				Detected data appear Gamma Distributed at 5% Significance Level	
1321						K-S Test Statistic	0.322				**Kolmogorov-Smirnov GOF**	
1322						5% K-S Critical Value	0.442				Detected data appear Gamma Distributed at 5% Significance Level	
1323	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1324												
1325	**Gamma Statistics on Detected Data Only**											
1326						k hat (MLE)	0.831				k star (bias corrected MLE)	N/A
1327						Theta hat (MLE)	528.3				Theta star (bias corrected MLE)	N/A
1328						nu hat (MLE)	4.985				nu star (bias corrected)	N/A
1329						Mean (detects)	439					
1330												
1331	**Gamma ROS Statistics using Imputed Non-Detects**											
1332	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1333	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1334	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1335	This is especially true when the sample size is small.											
1336	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1337						Minimum	0.01				Mean	219.5
1338						Maximum	1100				Median	28.51
1339						SD	435.8				CV	1.986
1340						k hat (MLE)	0.153				k star (bias corrected MLE)	0.188

1341					Theta hat (MLE)	1434				Theta star (bias corrected MLE)		1170
1342					nu hat (MLE)	1.837				nu star (bias corrected)		2.252
1343					Adjusted Level of Significance (β)	0.0122						
1344					Approximate Chi Square Value (2.25, α)	0.19				Adjusted Chi Square Value (2.25, β)		0.0963
1345					95% Gamma Approximate UCL	2597				95% Gamma Adjusted UCL		N/A
1346												
1347					**Estimates of Gamma Parameters using KM Estimates**							
1348					Mean (KM)	233.3				SD (KM)		390.4
1349					Variance (KM)	152447				SE of Mean (KM)		195.2
1350					k hat (KM)	0.357				k star (KM)		0.29
1351					nu hat (KM)	4.283				nu star (KM)		3.475
1352					theta hat (KM)	653.6				theta star (KM)		805.6
1353					80% gamma percentile (KM)	354.5				90% gamma percentile (KM)		690.8
1354					95% gamma percentile (KM)	1079				99% gamma percentile (KM)		2093
1355												
1356					**Gamma Kaplan-Meier (KM) Statistics**							
1357					Approximate Chi Square Value (3.47, α)	0.526				Adjusted Chi Square Value (3.47, β)		0.243
1358					95% KM Approximate Gamma UCL	1541				95% KM Adjusted Gamma UCL		3333
1359												
1360					**Lognormal GOF Test on Detected Observations Only**							
1361					Shapiro Wilk Test Statistic	0.97				**Shapiro Wilk GOF Test**		
1362					10% Shapiro Wilk Critical Value	0.789				Detected Data appear Lognormal at 10% Significance Level		
1363					Lilliefors Test Statistic	0.245				**Lilliefors GOF Test**		
1364					10% Lilliefors Critical Value	0.389				Detected Data appear Lognormal at 10% Significance Level		
1365					**Detected Data appear Lognormal at 10% Significance Level**							
1366					**Note GOF tests may be unreliable for small sample sizes**							
1367												
1368					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1369					Mean in Original Scale	220.2				Mean in Log Scale		2.883
1370					SD in Original Scale	435.4				SD in Log Scale		2.889
1371					95% t UCL (assumes normality of ROS data)	578.4				95% Percentile Bootstrap UCL		N/A
1372					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL		N/A
1373					95% H-UCL (Log ROS)	1.693E+9						
1374												
1375					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1376					KM Mean (logged)	4.344				KM Geo Mean		77.01
1377					KM SD (logged)	1.346				95% Critical H Value (KM-Log)		5.33
1378					KM Standard Error of Mean (logged)	0.673				95% H-UCL (KM -Log)		4722
1379					KM SD (logged)	1.346				95% Critical H Value (KM-Log)		5.33
1380					KM Standard Error of Mean (logged)	0.673						
1381												
1382					**DL/2 Statistics**							
1383					**DL/2 Normal**					**DL/2 Log-Transformed**		
1384					Mean in Original Scale	227.8				Mean in Log Scale		4.08
1385					SD in Original Scale	430.9				SD in Log Scale		1.713
1386					95% t UCL (Assumes normality)	582.2				95% H-Stat UCL		41739
1387					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1388												
1389					**Nonparametric Distribution Free UCL Statistics**							
1390					**Detected Data appear Normal Distributed at 1% Significance Level**							
1391												
1392					**Suggested UCL to Use**							
1393					95% KM (t) UCL	626.6						
1394												
1395					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1396					**Please verify the data were collected from random locations.**							
1397					**If the data were collected using judgmental or other non-random methods,**							
1398					**then contact a statistician to correctly calculate UCLs.**							
1399												
1400					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1401					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1402					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1403												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:57:24 AM
From File	sediment_unnamed ponds
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	22	Number of Distinct Observations	22
		Number of Missing Observations	10
Number of Detects	20	Number of Non-Detects	2
Number of Distinct Detects	20	Number of Distinct Non-Detects	2
Minimum Detect	2.16	Minimum Non-Detect	1.59
Maximum Detect	111	Maximum Non-Detect	2.11
Variance Detects	617.4	Percent Non-Detects	9.091%
Mean Detects	14.71	SD Detects	24.85
Median Detects	6.74	CV Detects	1.689
Skewness Detects	3.446	Kurtosis Detects	12.92
Mean of Logged Detects	2.031	SD of Logged Detects	1.025

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.517	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.868	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.329	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.223	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	13.52	KM Standard Error of Mean	5.118
90KM SD	23.4	95% KM (BCA) UCL	23.4
95% KM (t) UCL	22.32	95% KM (Percentile Bootstrap) UCL	23.01
95% KM (z) UCL	21.94	95% KM Bootstrap t UCL	40.98
90% KM Chebyshev UCL	28.87	95% KM Chebyshev UCL	35.83
97.5% KM Chebyshev UCL	45.48	99% KM Chebyshev UCL	64.44

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.509	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.773	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.249	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.2	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.89	k star (bias corrected MLE)	0.79
Theta hat (MLE)	16.52	Theta star (bias corrected MLE)	18.62
nu hat (MLE)	35.62	nu star (bias corrected)	31.61
Mean (detects)	14.71		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	13.37
Maximum	111	Median	5.805
SD	24.03	CV	1.797
k hat (MLE)	0.539	k star (bias corrected MLE)	0.496
Theta hat (MLE)	24.82	Theta star (bias corrected MLE)	26.99
nu hat (MLE)	23.71	nu star (bias corrected)	21.81
Adjusted Level of Significance (β)	0.0386		
Approximate Chi Square Value (21.81, α)	12.19	Adjusted Chi Square Value (21.81, β)	11.66
95% Gamma Approximate UCL	23.92	95% Gamma Adjusted UCL	25.02

68											
69	**Estimates of Gamma Parameters using KM Estimates**										
70					Mean (KM)	13.52			SD (KM)	23.4	
71					Variance (KM)	547.5			SE of Mean (KM)	5.118	
72					k hat (KM)	0.334			k star (KM)	0.319	
73					nu hat (KM)	14.68			nu star (KM)	14.02	
74					theta hat (KM)	40.5			theta star (KM)	42.43	
75					80% gamma percentile (KM)	21.02			90% gamma percentile (KM)	39.57	
76					95% gamma percentile (KM)	60.64			99% gamma percentile (KM)	115	
77											
78	**Gamma Kaplan-Meier (KM) Statistics**										
79					Approximate Chi Square Value (14.02, α)	6.582			Adjusted Chi Square Value (14.02, β)	6.204	
80					95% KM Approximate Gamma UCL	28.78			95% KM Adjusted Gamma UCL	30.54	
81											
82	**Lognormal GOF Test on Detected Observations Only**										
83					Shapiro Wilk Test Statistic	0.911			**Shapiro Wilk GOF Test**		
84					10% Shapiro Wilk Critical Value	0.92			Detected Data Not Lognormal at 10% Significance Level		
85					Lilliefors Test Statistic	0.161			**Lilliefors GOF Test**		
86					10% Lilliefors Critical Value	0.176			Detected Data appear Lognormal at 10% Significance Level		
87	**Detected Data appear Approximate Lognormal at 10% Significance Level**										
88											
89	**Lognormal ROS Statistics Using Imputed Non-Detects**										
90					Mean in Original Scale	13.44			Mean in Log Scale	1.817	
91					SD in Original Scale	23.99			SD in Log Scale	1.197	
92					95% t UCL (assumes normality of ROS data)	22.24			95% Percentile Bootstrap UCL	22.4	
93					95% BCA Bootstrap UCL	27.38			95% Bootstrap t UCL	39.26	
94					95% H-UCL (Log ROS)	26.61					
95											
96	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
97					KM Mean (logged)	1.889			KM Geo Mean	6.61	
98					KM SD (logged)	1.054			95% Critical H Value (KM-Log)	2.659	
99					KM Standard Error of Mean (logged)	0.231			95% H-UCL (KM -Log)	21.24	
100					KM SD (logged)	1.054			95% Critical H Value (KM-Log)	2.659	
101					KM Standard Error of Mean (logged)	0.231					
102											
103	**DL/2 Statistics**										
104					**DL/2 Normal**				**DL/2 Log-Transformed**		
105					Mean in Original Scale	13.46			Mean in Log Scale	1.838	
106					SD in Original Scale	23.98			SD in Log Scale	1.158	
107					95% t UCL (Assumes normality)	22.25			95% H-Stat UCL	25.02	
108	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
109											
110	**Nonparametric Distribution Free UCL Statistics**										
111	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**										
112											
113	**Suggested UCL to Use**										
114					KM H-UCL	21.24					
115											
116	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
117	**Please verify the data were collected from random locations.**										
118	**If the data were collected using judgmental or other non-random methods,**										
119	**then contact a statistician to correctly calculate UCLs.**										
120											
121	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
122	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
123	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
124											
125	**Cadmium**										
126											
127	**General Statistics**										
128					Total Number of Observations	17			Number of Distinct Observations	17	
129									Number of Missing Observations	15	
130					Number of Detects	14			Number of Non-Detects	3	
131					Number of Distinct Detects	14			Number of Distinct Non-Detects	3	
132					Minimum Detect	0.255			Minimum Non-Detect	0.328	
133					Maximum Detect	7.19			Maximum Non-Detect	3.58	
134					Variance Detects	3.354			Percent Non-Detects	17.65%	

135				Mean Detects	1.085					SD Detects	1.831	
136				Median Detects	0.431					CV Detects	1.689	
137				Skewness Detects	3.284					Kurtosis Detects	11.32	
138				Mean of Logged Detects	-0.536					SD of Logged Detects	0.966	
139												
140				**Normal GOF Test on Detects Only**								
141				Shapiro Wilk Test Statistic	0.498	**Shapiro Wilk GOF Test**						
142				1% Shapiro Wilk Critical Value	0.825	Detected Data Not Normal at 1% Significance Level						
143				Lilliefors Test Statistic	0.354	**Lilliefors GOF Test**						
144				1% Lilliefors Critical Value	0.263	Detected Data Not Normal at 1% Significance Level						
145				**Detected Data Not Normal at 1% Significance Level**								
146												
147				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
148				KM Mean	0.96	KM Standard Error of Mean	0.411					
149				90KM SD	1.629	95% KM (BCA) UCL	1.754					
150				95% KM (t) UCL	1.678	95% KM (Percentile Bootstrap) UCL	1.735					
151				95% KM (z) UCL	1.637	95% KM Bootstrap t UCL	4.004					
152				90% KM Chebyshev UCL	2.194	95% KM Chebyshev UCL	2.753					
153				97.5% KM Chebyshev UCL	3.528	99% KM Chebyshev UCL	5.052					
154												
155				**Gamma GOF Tests on Detected Observations Only**								
156				A-D Test Statistic	1.538	**Anderson-Darling GOF Test**						
157				5% A-D Critical Value	0.762	Detected Data Not Gamma Distributed at 5% Significance Level						
158				K-S Test Statistic	0.269	**Kolmogorov-Smirnov GOF**						
159				5% K-S Critical Value	0.236	Detected Data Not Gamma Distributed at 5% Significance Level						
160				**Detected Data Not Gamma Distributed at 5% Significance Level**								
161												
162				**Gamma Statistics on Detected Data Only**								
163				k hat (MLE)	0.942	k star (bias corrected MLE)	0.788					
164				Theta hat (MLE)	1.151	Theta star (bias corrected MLE)	1.376					
165				nu hat (MLE)	26.38	nu star (bias corrected)	22.06					
166				Mean (detects)	1.085							
167												
168				**Gamma ROS Statistics using Imputed Non-Detects**								
169				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
170				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
171				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
172				This is especially true when the sample size is small.								
173				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
174				Minimum	0.01	Mean	0.914					
175				Maximum	7.19	Median	0.375					
176				SD	1.695	CV	1.854					
177				k hat (MLE)	0.64	k star (bias corrected MLE)	0.566					
178				Theta hat (MLE)	1.429	Theta star (bias corrected MLE)	1.615					
179				nu hat (MLE)	21.74	nu star (bias corrected)	19.24					
180				Adjusted Level of Significance (β)	0.0346							
181				Approximate Chi Square Value (19.24, α)	10.29	Adjusted Chi Square Value (19.24, β)	9.612					
182				95% Gamma Approximate UCL	1.709	95% Gamma Adjusted UCL	1.83					
183												
184				**Estimates of Gamma Parameters using KM Estimates**								
185				Mean (KM)	0.96	SD (KM)	1.629					
186				Variance (KM)	2.655	SE of Mean (KM)	0.411					
187				k hat (KM)	0.347	k star (KM)	0.325					
188				nu hat (KM)	11.8	nu star (KM)	11.05					
189				theta hat (KM)	2.765	theta star (KM)	2.953					
190				80% gamma percentile (KM)	1.499	90% gamma percentile (KM)	2.802					
191				95% gamma percentile (KM)	4.278	99% gamma percentile (KM)	8.077					
192												
193				**Gamma Kaplan-Meier (KM) Statistics**								
194				Approximate Chi Square Value (11.05, α)	4.611	Adjusted Chi Square Value (11.05, β)	4.183					
195				95% KM Approximate Gamma UCL	2.302	95% KM Adjusted Gamma UCL	2.537					
196												
197				**Lognormal GOF Test on Detected Observations Only**								
198				Shapiro Wilk Test Statistic	0.825	**Shapiro Wilk GOF Test**						
199				10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level						
200				Lilliefors Test Statistic	0.195	**Lilliefors GOF Test**						
201				10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level						

202	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
203												
204	**Lognormal ROS Statistics Using Imputed Non-Detects**											
205						Mean in Original Scale	0.953			Mean in Log Scale	-0.638	
206						SD in Original Scale	1.677			SD in Log Scale	0.908	
207						95% t UCL (assumes normality of ROS data)	1.664			95% Percentile Bootstrap UCL	1.671	
208						95% BCA Bootstrap UCL	2.12			95% Bootstrap t UCL	4.153	
209						95% H-UCL (Log ROS)	1.419					
210												
211	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
212						KM Mean (logged)	-0.638			KM Geo Mean	0.528	
213						KM SD (logged)	0.892			95% Critical H Value (KM-Log)	2.506	
214						KM Standard Error of Mean (logged)	0.228			95% H-UCL (KM -Log)	1.375	
215						KM SD (logged)	0.892			95% Critical H Value (KM-Log)	2.506	
216						KM Standard Error of Mean (logged)	0.228					
217												
218	**DL/2 Statistics**											
219					**DL/2 Normal**					**DL/2 Log-Transformed**		
220						Mean in Original Scale	1.02			Mean in Log Scale	-0.608	
221						SD in Original Scale	1.689			SD in Log Scale	1.002	
222						95% t UCL (Assumes normality)	1.735			95% H-Stat UCL	1.756	
223	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
224												
225	**Nonparametric Distribution Free UCL Statistics**											
226	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
227												
228	**Suggested UCL to Use**											
229						KM H-UCL	1.375					
230												
231	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
232	**Please verify the data were collected from random locations.**											
233	**If the data were collected using judgmental or other non-random methods,**											
234	**then contact a statistician to correctly calculate UCLs.**											
235												
236	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
237	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
238	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
239												
240												
241	**Chromium**											
242												
243	**General Statistics**											
244						Total Number of Observations	17			Number of Distinct Observations	16	
245										Number of Missing Observations	15	
246						Minimum	4.89			Mean	14.75	
247						Maximum	48.9			Median	13.6	
248						SD	10.36			Std. Error of Mean	2.512	
249						Coefficient of Variation	0.702			Skewness	2.397	
250												
251	**Normal GOF Test**											
252						Shapiro Wilk Test Statistic	0.754			**Shapiro Wilk GOF Test**		
253						1% Shapiro Wilk Critical Value	0.851			Data Not Normal at 1% Significance Level		
254						Lilliefors Test Statistic	0.2			**Lilliefors GOF Test**		
255						1% Lilliefors Critical Value	0.241			Data appear Normal at 1% Significance Level		
256	**Data appear Approximate Normal at 1% Significance Level**											
257												
258	**Assuming Normal Distribution**											
259					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
260						95% Student's-t UCL	19.14			95% Adjusted-CLT UCL (Chen-1995)	20.44	
261										95% Modified-t UCL (Johnson-1978)	19.38	
262												
263	**Gamma GOF Test**											
264						A-D Test Statistic	0.457			**Anderson-Darling Gamma GOF Test**		
265						5% A-D Critical Value	0.745			Detected data appear Gamma Distributed at 5% Significance Level		
266						K-S Test Statistic	0.155			**Kolmogorov-Smirnov Gamma GOF Test**		
267						5% K-S Critical Value	0.211			Detected data appear Gamma Distributed at 5% Significance Level		
268	**Detected data appear Gamma Distributed at 5% Significance Level**											

269												
270						**Gamma Statistics**						
271						k hat (MLE)	3.077			k star (bias corrected MLE)	2.573	
272						Theta hat (MLE)	4.795			Theta star (bias corrected MLE)	5.733	
273						nu hat (MLE)	104.6			nu star (bias corrected)	87.48	
274						MLE Mean (bias corrected)	14.75			MLE Sd (bias corrected)	9.196	
275										Approximate Chi Square Value (0.05)	66.92	
276						Adjusted Level of Significance	0.0346			Adjusted Chi Square Value	65.03	
277												
278						**Assuming Gamma Distribution**						
279						95% Approximate Gamma UCL	19.28			95% Adjusted Gamma UCL	19.84	
280												
281						**Lognormal GOF Test**						
282						Shapiro Wilk Test Statistic	0.96			**Shapiro Wilk Lognormal GOF Test**		
283						10% Shapiro Wilk Critical Value	0.91			Data appear Lognormal at 10% Significance Level		
284						Lilliefors Test Statistic	0.143			**Lilliefors Lognormal GOF Test**		
285						10% Lilliefors Critical Value	0.19			Data appear Lognormal at 10% Significance Level		
286						**Data appear Lognormal at 10% Significance Level**						
287												
288						**Lognormal Statistics**						
289						Minimum of Logged Data	1.587			Mean of logged Data	2.52	
290						Maximum of Logged Data	3.89			SD of logged Data	0.579	
291												
292						**Assuming Lognormal Distribution**						
293						95% H-UCL	19.98			90% Chebyshev (MVUE) UCL	20.93	
294						95% Chebyshev (MVUE) UCL	23.82			97.5% Chebyshev (MVUE) UCL	27.84	
295						99% Chebyshev (MVUE) UCL	35.73					
296												
297						**Nonparametric Distribution Free UCL Statistics**						
298						**Data appear to follow a Discernible Distribution**						
299												
300						**Nonparametric Distribution Free UCLs**						
301						95% CLT UCL	18.88			95% BCA Bootstrap UCL	20.94	
302						95% Standard Bootstrap UCL	18.87			95% Bootstrap-t UCL	22.51	
303						95% Hall's Bootstrap UCL	37.93			95% Percentile Bootstrap UCL	19.22	
304						90% Chebyshev(Mean, Sd) UCL	22.29			95% Chebyshev(Mean, Sd) UCL	25.7	
305						97.5% Chebyshev(Mean, Sd) UCL	30.44			99% Chebyshev(Mean, Sd) UCL	39.74	
306												
307						**Suggested UCL to Use**						
308						95% Student's-t UCL	19.14					
309												
310						When a data set follows an approximate distribution passing only one of the GOF tests,						
311						it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL						
312												
313						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
314						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
315						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
316												
317												
318	**Copper**											
319												
320						**General Statistics**						
321						Total Number of Observations	17			Number of Distinct Observations	17	
322										Number of Missing Observations	15	
323						Minimum	3.77			Mean	47.83	
324						Maximum	357			Median	24.1	
325						SD	82.16			Std. Error of Mean	19.93	
326						Coefficient of Variation	1.718			Skewness	3.73	
327												
328						**Normal GOF Test**						
329						Shapiro Wilk Test Statistic	0.47			**Shapiro Wilk GOF Test**		
330						1% Shapiro Wilk Critical Value	0.851			Data Not Normal at 1% Significance Level		
331						Lilliefors Test Statistic	0.33			**Lilliefors GOF Test**		
332						1% Lilliefors Critical Value	0.241			Data Not Normal at 1% Significance Level		
333						**Data Not Normal at 1% Significance Level**						
334												
335						**Assuming Normal Distribution**						

336	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
337				95% Student's-t UCL		82.62				95% Adjusted-CLT UCL (Chen-1995)		99.87
338										95% Modified-t UCL (Johnson-1978)		85.62
339												
340	**Gamma GOF Test**											
341				A-D Test Statistic		1.149	**Anderson-Darling Gamma GOF Test**					
342				5% A-D Critical Value		0.768	Data Not Gamma Distributed at 5% Significance Level					
343				K-S Test Statistic		0.247	**Kolmogorov-Smirnov Gamma GOF Test**					
344				5% K-S Critical Value		0.215	Data Not Gamma Distributed at 5% Significance Level					
345	**Data Not Gamma Distributed at 5% Significance Level**											
346												
347	**Gamma Statistics**											
348				k hat (MLE)		0.956	k star (bias corrected MLE)					0.827
349				Theta hat (MLE)		50.02	Theta star (bias corrected MLE)					57.85
350				nu hat (MLE)		32.51	nu star (bias corrected)					28.11
351				MLE Mean (bias corrected)		47.83	MLE Sd (bias corrected)					52.6
352							Approximate Chi Square Value (0.05)					17.01
353				Adjusted Level of Significance		0.0346	Adjusted Chi Square Value					16.11
354												
355	**Assuming Gamma Distribution**											
356				95% Approximate Gamma UCL		79.02	95% Adjusted Gamma UCL					83.45
357												
358	**Lognormal GOF Test**											
359				Shapiro Wilk Test Statistic		0.949	**Shapiro Wilk Lognormal GOF Test**					
360				10% Shapiro Wilk Critical Value		0.91	Data appear Lognormal at 10% Significance Level					
361				Lilliefors Test Statistic		0.157	**Lilliefors Lognormal GOF Test**					
362				10% Lilliefors Critical Value		0.19	Data appear Lognormal at 10% Significance Level					
363	**Data appear Lognormal at 10% Significance Level**											
364												
365	**Lognormal Statistics**											
366				Minimum of Logged Data		1.327	Mean of logged Data					3.261
367				Maximum of Logged Data		5.878	SD of logged Data					1.006
368												
369	**Assuming Lognormal Distribution**											
370				95% H-UCL		84.72	90% Chebyshev (MVUE) UCL					75
371				95% Chebyshev (MVUE) UCL		90.19	97.5% Chebyshev (MVUE) UCL					111.3
372				99% Chebyshev (MVUE) UCL		152.7						
373												
374	**Nonparametric Distribution Free UCL Statistics**											
375	**Data appear to follow a Discernible Distribution**											
376												
377	**Nonparametric Distribution Free UCLs**											
378				95% CLT UCL		80.61	95% BCA Bootstrap UCL					108
379				95% Standard Bootstrap UCL		79.84	95% Bootstrap-t UCL					177.4
380				95% Hall's Bootstrap UCL		198.3	95% Percentile Bootstrap UCL					84.35
381				90% Chebyshev(Mean, Sd) UCL		107.6	95% Chebyshev(Mean, Sd) UCL					134.7
382				97.5% Chebyshev(Mean, Sd) UCL		172.3	99% Chebyshev(Mean, Sd) UCL					246.1
383												
384	**Suggested UCL to Use**											
385				95% H-UCL		84.72						
386												
387	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
388	**Please verify the data were collected from random locations.**											
389	**If the data were collected using judgmental or other non-random methods,**											
390	**then contact a statistician to correctly calculate UCLs.**											
391												
392	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
393	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
394	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
395												
396												
397	**Lead**											
398												
399	**General Statistics**											
400				Total Number of Observations		22	Number of Distinct Observations					22
401							Number of Missing Observations					10
402				Minimum		15.9	Mean					201.1

403					Maximum	2370				Median		88.5
404					SD	489				Std. Error of Mean		104.2
405					Coefficient of Variation	2.431				Skewness		4.551
406												
407					**Normal GOF Test**							
408					Shapiro Wilk Test Statistic	0.331				**Shapiro Wilk GOF Test**		
409					1% Shapiro Wilk Critical Value	0.878				Data Not Normal at 1% Significance Level		
410					Lilliefors Test Statistic	0.397				**Lilliefors GOF Test**		
411					1% Lilliefors Critical Value	0.214				Data Not Normal at 1% Significance Level		
412					**Data Not Normal at 1% Significance Level**							
413												
414					**Assuming Normal Distribution**							
415					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
416					95% Student's-t UCL	380.5				95% Adjusted-CLT UCL (Chen-1995)		480.7
417										95% Modified-t UCL (Johnson-1978)		397.4
418												
419					**Gamma GOF Test**							
420					A-D Test Statistic	2.281				**Anderson-Darling Gamma GOF Test**		
421					5% A-D Critical Value	0.784				Data Not Gamma Distributed at 5% Significance Level		
422					K-S Test Statistic	0.263				**Kolmogorov-Smirnov Gamma GOF Test**		
423					5% K-S Critical Value	0.193				Data Not Gamma Distributed at 5% Significance Level		
424					**Data Not Gamma Distributed at 5% Significance Level**							
425												
426					**Gamma Statistics**							
427					k hat (MLE)	0.741				k star (bias corrected MLE)		0.67
428					Theta hat (MLE)	271.5				Theta star (bias corrected MLE)		300.1
429					nu hat (MLE)	32.6				nu star (bias corrected)		29.49
430					MLE Mean (bias corrected)	201.1				MLE Sd (bias corrected)		245.7
431										Approximate Chi Square Value (0.05)		18.09
432					Adjusted Level of Significance	0.0386				Adjusted Chi Square Value		17.42
433												
434					**Assuming Gamma Distribution**							
435					95% Approximate Gamma UCL	327.9				95% Adjusted Gamma UCL		340.4
436												
437					**Lognormal GOF Test**							
438					Shapiro Wilk Test Statistic	0.901				**Shapiro Wilk Lognormal GOF Test**		
439					10% Shapiro Wilk Critical Value	0.926				Data Not Lognormal at 10% Significance Level		
440					Lilliefors Test Statistic	0.147				**Lilliefors Lognormal GOF Test**		
441					10% Lilliefors Critical Value	0.169				Data appear Lognormal at 10% Significance Level		
442					**Data appear Approximate Lognormal at 10% Significance Level**							
443												
444					**Lognormal Statistics**							
445					Minimum of Logged Data	2.766				Mean of logged Data		4.495
446					Maximum of Logged Data	7.771				SD of logged Data		1.042
447												
448					**Assuming Lognormal Distribution**							
449					95% H-UCL	281				90% Chebyshev (MVUE) UCL		261.2
450					95% Chebyshev (MVUE) UCL	312.1				97.5% Chebyshev (MVUE) UCL		382.8
451					99% Chebyshev (MVUE) UCL	521.7						
452												
453					**Nonparametric Distribution Free UCL Statistics**							
454					**Data appear to follow a Discernible Distribution**							
455												
456					**Nonparametric Distribution Free UCLs**							
457					95% CLT UCL	372.6				95% BCA Bootstrap UCL		530.7
458					95% Standard Bootstrap UCL	370.4				95% Bootstrap-t UCL		1281
459					95% Hall's Bootstrap UCL	1028				95% Percentile Bootstrap UCL		405.3
460					90% Chebyshev(Mean, Sd) UCL	513.9				95% Chebyshev(Mean, Sd) UCL		655.5
461					97.5% Chebyshev(Mean, Sd) UCL	852.2				99% Chebyshev(Mean, Sd) UCL		1238
462												
463					**Suggested UCL to Use**							
464					95% H-UCL	281						
465												
466					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
467					**Please verify the data were collected from random locations.**							
468					**If the data were collected using judgmental or other non-random methods,**							
469					**then contact a statistician to correctly calculate UCLs.**							

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury

General Statistics

Total Number of Observations	22	Number of Distinct Observations	22
		Number of Missing Observations	10
Minimum	0.0079	Mean	0.798
Maximum	11.4	Median	0.241
SD	2.383	Std. Error of Mean	0.508
Coefficient of Variation	2.987	Skewness	4.596

Normal GOF Test

Shapiro Wilk Test Statistic	0.299	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.878	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.408	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.214	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.672	95% Adjusted-CLT UCL (Chen-1995)	2.166
		95% Modified-t UCL (Johnson-1978)	1.755

Gamma GOF Test

A-D Test Statistic	3.014	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.802	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.329	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.196	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.528	k star (bias corrected MLE)	0.486
Theta hat (MLE)	1.512	Theta star (bias corrected MLE)	1.641
nu hat (MLE)	23.23	nu star (bias corrected)	21.39
MLE Mean (bias corrected)	0.798	MLE Sd (bias corrected)	1.144
		Approximate Chi Square Value (0.05)	11.88
Adjusted Level of Significance	0.0386	Adjusted Chi Square Value	11.36

Assuming Gamma Distribution

95% Approximate Gamma UCL	1.436	95% Adjusted Gamma UCL	1.503

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.864	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.926	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.215	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.169	Data Not Lognormal at 10% Significance Level

Data Not Lognormal at 10% Significance Level

Lognormal Statistics

Minimum of Logged Data	-4.841	Mean of logged Data	-1.419
Maximum of Logged Data	2.434	SD of logged Data	1.307

Assuming Lognormal Distribution

95% H-UCL	1.35	90% Chebyshev (MVUE) UCL	1.058
95% Chebyshev (MVUE) UCL	1.296	97.5% Chebyshev (MVUE) UCL	1.627
99% Chebyshev (MVUE) UCL	2.276		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	1.634	95% BCA Bootstrap UCL	2.398

537				95% Standard Bootstrap UCL		1.622				95% Bootstrap-t UCL		8.627
538				95% Hall's Bootstrap UCL		5.486				95% Percentile Bootstrap UCL		1.794
539				90% Chebyshev(Mean, Sd) UCL		2.322				95% Chebyshev(Mean, Sd) UCL		3.013
540				97.5% Chebyshev(Mean, Sd) UCL		3.971				99% Chebyshev(Mean, Sd) UCL		5.853
541												
542						**Suggested UCL to Use**							
543				95% Student's-t UCL		1.672						
544												
545						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
546						**Please verify the data were collected from random locations.**							
547						**If the data were collected using judgmental or other non-random methods,**							
548						**then contact a statistician to correctly calculate UCLs.**							
549												
550						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
551						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
552						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
553												
554												
555	**Nickel**											
556												
557						**General Statistics**							
558				Total Number of Observations		17				Number of Distinct Observations		17
559										Number of Missing Observations		15
560				Minimum		3.01				Mean		12.7
561				Maximum		36.5				Median		12.3
562				SD		8.719				Std. Error of Mean		2.115
563				Coefficient of Variation		0.687				Skewness		1.461
564												
565						**Normal GOF Test**							
566				Shapiro Wilk Test Statistic		0.854				**Shapiro Wilk GOF Test**		
567				1% Shapiro Wilk Critical Value		0.851				Data appear Normal at 1% Significance Level		
568				Lilliefors Test Statistic		0.255				**Lilliefors GOF Test**		
569				1% Lilliefors Critical Value		0.241				Data Not Normal at 1% Significance Level		
570						**Data appear Approximate Normal at 1% Significance Level**							
571												
572						**Assuming Normal Distribution**							
573				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
574				95% Student's-t UCL		16.39				95% Adjusted-CLT UCL (Chen-1995)		16.98
575										95% Modified-t UCL (Johnson-1978)		16.52
576												
577						**Gamma GOF Test**							
578				A-D Test Statistic		0.393				**Anderson-Darling Gamma GOF Test**		
579				5% A-D Critical Value		0.747				Detected data appear Gamma Distributed at 5% Significance Level		
580				K-S Test Statistic		0.172				**Kolmogorov-Smirnov Gamma GOF Test**		
581				5% K-S Critical Value		0.211				Detected data appear Gamma Distributed at 5% Significance Level		
582						**Detected data appear Gamma Distributed at 5% Significance Level**							
583												
584						**Gamma Statistics**							
585				k hat (MLE)		2.551				k star (bias corrected MLE)		2.14
586				Theta hat (MLE)		4.979				Theta star (bias corrected MLE)		5.935
587				nu hat (MLE)		86.73				nu star (bias corrected)		72.75
588				MLE Mean (bias corrected)		12.7				MLE Sd (bias corrected)		8.681
589										Approximate Chi Square Value (0.05)		54.11
590				Adjusted Level of Significance		0.0346				Adjusted Chi Square Value		52.43
591												
592						**Assuming Gamma Distribution**							
593				95% Approximate Gamma UCL		17.07				95% Adjusted Gamma UCL		17.62
594												
595						**Lognormal GOF Test**							
596				Shapiro Wilk Test Statistic		0.964				**Shapiro Wilk Lognormal GOF Test**		
597				10% Shapiro Wilk Critical Value		0.91				Data appear Lognormal at 10% Significance Level		
598				Lilliefors Test Statistic		0.142				**Lilliefors Lognormal GOF Test**		
599				10% Lilliefors Critical Value		0.19				Data appear Lognormal at 10% Significance Level		
600						**Data appear Lognormal at 10% Significance Level**							
601												
602						**Lognormal Statistics**							
603				Minimum of Logged Data		1.102				Mean of logged Data		2.333

604				Maximum of Logged Data	3.597				SD of logged Data		0.676	
605												
606				**Assuming Lognormal Distribution**								
607				95% H-UCL	18.88				90% Chebyshev (MVUE) UCL		19.38	
608				95% Chebyshev (MVUE) UCL	22.38				97.5% Chebyshev (MVUE) UCL		26.54	
609				99% Chebyshev (MVUE) UCL	34.73							
610												
611				**Nonparametric Distribution Free UCL Statistics**								
612				**Data appear to follow a Discernible Distribution**								
613												
614				**Nonparametric Distribution Free UCLs**								
615				95% CLT UCL	16.18				95% BCA Bootstrap UCL		17.04	
616				95% Standard Bootstrap UCL	16.18				95% Bootstrap-t UCL		18.36	
617				95% Hall's Bootstrap UCL	18.9				95% Percentile Bootstrap UCL		16.36	
618				90% Chebyshev(Mean, Sd) UCL	19.04				95% Chebyshev(Mean, Sd) UCL		21.92	
619				97.5% Chebyshev(Mean, Sd) UCL	25.91				99% Chebyshev(Mean, Sd) UCL		33.74	
620												
621				**Suggested UCL to Use**								
622				95% Student's-t UCL	16.39							
623												
624				When a data set follows an approximate distribution passing only one of the GOF tests,								
625				it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL								
626												
627				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
628				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
629				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
630												
631	**Silver**											
632												
633				**General Statistics**								
634				Total Number of Observations	17				Number of Distinct Observations		16	
635									Number of Missing Observations		15	
636				Number of Detects	3				Number of Non-Detects		14	
637				Number of Distinct Detects	3				Number of Distinct Non-Detects		13	
638				Minimum Detect	0.274				Minimum Non-Detect		0.398	
639				Maximum Detect	1.46				Maximum Non-Detect		1.745	
640				Variance Detects	0.355				Percent Non-Detects		82.35%	
641				Mean Detects	0.901				SD Detects		0.596	
642				Median Detects	0.968				CV Detects		0.662	
643				Skewness Detects	-0.502				Kurtosis Detects		N/A	
644				Mean of Logged Detects	-0.316				SD of Logged Detects		0.872	
645												
646				**Warning: Data set has only 3 Detected Values.**								
647				**This is not enough to compute meaningful or reliable statistics and estimates.**								
648												
649												
650				**Normal GOF Test on Detects Only**								
651				Shapiro Wilk Test Statistic	0.99				**Shapiro Wilk GOF Test**			
652				1% Shapiro Wilk Critical Value	0.753				Detected Data appear Normal at 1% Significance Level			
653				Lilliefors Test Statistic	0.212				**Lilliefors GOF Test**			
654				1% Lilliefors Critical Value	0.429				Detected Data appear Normal at 1% Significance Level			
655				**Detected Data appear Normal at 1% Significance Level**								
656				**Note GOF tests may be unreliable for small sample sizes**								
657												
658				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
659				KM Mean	0.399				KM Standard Error of Mean		0.105	
660				90KM SD	0.332				95% KM (BCA) UCL		N/A	
661				95% KM (t) UCL	0.583				95% KM (Percentile Bootstrap) UCL		N/A	
662				95% KM (z) UCL	0.572				95% KM Bootstrap t UCL		N/A	
663				90% KM Chebyshev UCL	0.714				95% KM Chebyshev UCL		0.857	
664				97.5% KM Chebyshev UCL	1.055				99% KM Chebyshev UCL		1.444	
665												
666				**Gamma GOF Tests on Detected Observations Only**								
667				A-D Test Statistic	0.32				**Anderson-Darling GOF Test**			
668				5% A-D Critical Value	0.636				Detected data appear Gamma Distributed at 5% Significance Level			
669				K-S Test Statistic	0.295				**Kolmogorov-Smirnov GOF**			
670				5% K-S Critical Value	0.434				Detected data appear Gamma Distributed at 5% Significance Level			

671	**Detected Data Not Gamma Distributed at 5% Significance Level**										
672											
673	**Gamma Statistics on Detected Data Only**										
674					k hat (MLE)	2.517			k star (bias corrected MLE)	N/A	
675					Theta hat (MLE)	0.358			Theta star (bias corrected MLE)	N/A	
676					nu hat (MLE)	15.1			nu star (bias corrected)	N/A	
677					Mean (detects)	0.901					
678											
679	**Gamma ROS Statistics using Imputed Non-Detects**										
680	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
681	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
682	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
683	This is especially true when the sample size is small.										
684	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
685					Minimum	0.101			Mean	0.369	
686					Maximum	1.46			Median	0.244	
687					SD	0.335			CV	0.908	
688					k hat (MLE)	2.493			k star (bias corrected MLE)	2.092	
689					Theta hat (MLE)	0.148			Theta star (bias corrected MLE)	0.176	
690					nu hat (MLE)	84.76			nu star (bias corrected)	71.13	
691					Adjusted Level of Significance (β)	0.0346					
692					Approximate Chi Square Value (71.13, α)	52.72			Adjusted Chi Square Value (71.13, β)	51.06	
693					95% Gamma Approximate UCL	0.498			95% Gamma Adjusted UCL	N/A	
694											
695	**Estimates of Gamma Parameters using KM Estimates**										
696					Mean (KM)	0.399			SD (KM)	0.332	
697					Variance (KM)	0.11			SE of Mean (KM)	0.105	
698					k hat (KM)	1.447			k star (KM)	1.231	
699					nu hat (KM)	49.21			nu star (KM)	41.86	
700					theta hat (KM)	0.276			theta star (KM)	0.324	
701					80% gamma percentile (KM)	0.631			90% gamma percentile (KM)	0.873	
702					95% gamma percentile (KM)	1.112			99% gamma percentile (KM)	1.659	
703											
704	**Gamma Kaplan-Meier (KM) Statistics**										
705					Approximate Chi Square Value (41.86, α)	28.03			Adjusted Chi Square Value (41.86, β)	26.85	
706					95% KM Approximate Gamma UCL	0.596			95% KM Adjusted Gamma UCL	0.623	
707											
708	**Lognormal GOF Test on Detected Observations Only**										
709					Shapiro Wilk Test Statistic	0.921			**Shapiro Wilk GOF Test**		
710					10% Shapiro Wilk Critical Value	0.789			Detected Data appear Lognormal at 10% Significance Level		
711					Lilliefors Test Statistic	0.294			**Lilliefors GOF Test**		
712					10% Lilliefors Critical Value	0.389			Detected Data appear Lognormal at 10% Significance Level		
713	**Detected Data appear Lognormal at 10% Significance Level**										
714	**Note GOF tests may be unreliable for small sample sizes**										
715											
716	**Lognormal ROS Statistics Using Imputed Non-Detects**										
717					Mean in Original Scale	0.389			Mean in Log Scale	-1.115	
718					SD in Original Scale	0.324			SD in Log Scale	0.506	
719					95% t UCL (assumes normality of ROS data)	0.526			95% Percentile Bootstrap UCL	0.53	
720					95% BCA Bootstrap UCL	0.583			95% Bootstrap t UCL	1.369	
721					95% H-UCL (Log ROS)	0.483					
722											
723	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
724					KM Mean (logged)	-1.099			KM Geo Mean	0.333	
725					KM SD (logged)	0.504			95% Critical H Value (KM-Log)	2.039	
726					KM Standard Error of Mean (logged)	0.16			95% H-UCL (KM -Log)	0.489	
727					KM SD (logged)	0.504			95% Critical H Value (KM-Log)	2.039	
728					KM Standard Error of Mean (logged)	0.16					
729											
730	**DL/2 Statistics**										
731	**DL/2 Normal**								**DL/2 Log-Transformed**		
732					Mean in Original Scale	0.476			Mean in Log Scale	-0.92	
733					SD in Original Scale	0.345			SD in Log Scale	0.566	
734					95% t UCL (Assumes normality)	0.622			95% H-Stat UCL	0.63	
735	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
736											
737	**Nonparametric Distribution Free UCL Statistics**										

738	**Detected Data appear Normal Distributed at 1% Significance Level**											
739												
740	**Suggested UCL to Use**											
741					95% KM (t) UCL	0.583						
742												
743	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
744	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
745	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
746												
747												
748	**Zinc**											
749												
750	**General Statistics**											
751					Total Number of Observations	22			Number of Distinct Observations	22		
752									Number of Missing Observations	10		
753					Minimum	35.8			Mean	398.9		
754					Maximum	4500			Median	108		
755					SD	962.5			Std. Error of Mean	205.2		
756					Coefficient of Variation	2.413			Skewness	4.08		
757												
758	**Normal GOF Test**											
759					Shapiro Wilk Test Statistic	0.39			**Shapiro Wilk GOF Test**			
760					1% Shapiro Wilk Critical Value	0.878			Data Not Normal at 1% Significance Level			
761					Lilliefors Test Statistic	0.426			**Lilliefors GOF Test**			
762					1% Lilliefors Critical Value	0.214			Data Not Normal at 1% Significance Level			
763	**Data Not Normal at 1% Significance Level**											
764												
765	**Assuming Normal Distribution**											
766					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**			
767					95% Student's-t UCL	752			95% Adjusted-CLT UCL (Chen-1995)	927.1		
768									95% Modified-t UCL (Johnson-1978)	781.7		
769												
770	**Gamma GOF Test**											
771					A-D Test Statistic	2.709			**Anderson-Darling Gamma GOF Test**			
772					5% A-D Critical Value	0.795			Data Not Gamma Distributed at 5% Significance Level			
773					K-S Test Statistic	0.323			**Kolmogorov-Smirnov Gamma GOF Test**			
774					5% K-S Critical Value	0.194			Data Not Gamma Distributed at 5% Significance Level			
775	**Data Not Gamma Distributed at 5% Significance Level**											
776												
777	**Gamma Statistics**											
778					k hat (MLE)	0.609			k star (bias corrected MLE)	0.556		
779					Theta hat (MLE)	655.1			Theta star (bias corrected MLE)	717.2		
780					nu hat (MLE)	26.79			nu star (bias corrected)	24.47		
781					MLE Mean (bias corrected)	398.9			MLE Sd (bias corrected)	534.9		
782									Approximate Chi Square Value (0.05)	14.21		
783					Adjusted Level of Significance	0.0386			Adjusted Chi Square Value	13.62		
784												
785	**Assuming Gamma Distribution**											
786					95% Approximate Gamma UCL	687			95% Adjusted Gamma UCL	716.5		
787												
788	**Lognormal GOF Test**											
789					Shapiro Wilk Test Statistic	0.86			**Shapiro Wilk Lognormal GOF Test**			
790					10% Shapiro Wilk Critical Value	0.926			Data Not Lognormal at 10% Significance Level			
791					Lilliefors Test Statistic	0.185			**Lilliefors Lognormal GOF Test**			
792					10% Lilliefors Critical Value	0.169			Data Not Lognormal at 10% Significance Level			
793	**Data Not Lognormal at 10% Significance Level**											
794												
795	**Lognormal Statistics**											
796					Minimum of Logged Data	3.578			Mean of logged Data	4.976		
797					Maximum of Logged Data	8.412			SD of logged Data	1.164		
798												
799	**Assuming Lognormal Distribution**											
800					95% H-UCL	583.1			90% Chebyshev (MVUE) UCL	506		
801					95% Chebyshev (MVUE) UCL	612.1			97.5% Chebyshev (MVUE) UCL	759.3		
802					99% Chebyshev (MVUE) UCL	1048						
803												
804	**Nonparametric Distribution Free UCL Statistics**											

805	**Data do not follow a Discernible Distribution**										
806											
807	**Nonparametric Distribution Free UCLs**										
808				95% CLT UCL	736.4			95% BCA Bootstrap UCL	1021		
809				95% Standard Bootstrap UCL	726.6			95% Bootstrap-t UCL	2340		
810				95% Hall's Bootstrap UCL	2125			95% Percentile Bootstrap UCL	766.8		
811				90% Chebyshev(Mean, Sd) UCL	1015			95% Chebyshev(Mean, Sd) UCL	1293		
812				97.5% Chebyshev(Mean, Sd) UCL	1680			99% Chebyshev(Mean, Sd) UCL	2441		
813											
814	**Suggested UCL to Use**										
815				95% Student's-t UCL	752						
816											
817	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
818	**Please verify the data were collected from random locations.**										
819	**If the data were collected using judgmental or other non-random methods,**										
820	**then contact a statistician to correctly calculate UCLs.**										
821											
822	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
823	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
824	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
825											
826	**Acenaphthylene**										
827											
828	**General Statistics**										
829				Total Number of Observations	12			Number of Distinct Observations	12		
830								Number of Missing Observations	20		
831				Number of Detects	2			Number of Non-Detects	10		
832				Number of Distinct Detects	2			Number of Distinct Non-Detects	10		
833				Minimum Detect	170			Minimum Non-Detect	110		
834				Maximum Detect	230			Maximum Non-Detect	2950		
835				Variance Detects	1800			Percent Non-Detects	83.33%		
836				Mean Detects	200			SD Detects	42.43		
837				Median Detects	200			CV Detects	0.212		
838				Skewness Detects	N/A			Kurtosis Detects	N/A		
839				Mean of Logged Detects	5.287			SD of Logged Detects	0.214		
840											
841	**Warning: Data set has only 2 Detected Values.**										
842	**This is not enough to compute meaningful or reliable statistics and estimates.**										
843											
844											
845	**Normal GOF Test on Detects Only**										
846	**Not Enough Data to Perform GOF Test**										
847											
848	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
849				KM Mean	152.9			KM Standard Error of Mean	30.73		
850				90KM SD	41.99			95% KM (BCA) UCL	N/A		
851				95% KM (t) UCL	208.1			95% KM (Percentile Bootstrap) UCL	N/A		
852				95% KM (z) UCL	203.4			95% KM Bootstrap t UCL	N/A		
853				90% KM Chebyshev UCL	245.1			95% KM Chebyshev UCL	286.8		
854				97.5% KM Chebyshev UCL	344.8			99% KM Chebyshev UCL	458.7		
855											
856	**Gamma GOF Tests on Detected Observations Only**										
857	**Not Enough Data to Perform GOF Test**										
858											
859	**Gamma Statistics on Detected Data Only**										
860				k hat (MLE)	44.11			k star (bias corrected MLE)	N/A		
861				Theta hat (MLE)	4.534			Theta star (bias corrected MLE)	N/A		
862				nu hat (MLE)	176.4			nu star (bias corrected)	N/A		
863				Mean (detects)	200						
864											
865	**Estimates of Gamma Parameters using KM Estimates**										
866				Mean (KM)	152.9			SD (KM)	41.99		
867				Variance (KM)	1763			SE of Mean (KM)	30.73		
868				k hat (KM)	13.25			k star (KM)	9.994		
869				nu hat (KM)	318			nu star (KM)	239.9		
870				theta hat (KM)	11.54			theta star (KM)	15.3		
871				80% gamma percentile (KM)	191.4			90% gamma percentile (KM)	217.2		

872	95% gamma percentile (KM)					240.1	99% gamma percentile (KM)					287.2
873												
874	**Gamma Kaplan-Meier (KM) Statistics**											
875							Adjusted Level of Significance (β)					0.029
876	Approximate Chi Square Value (239.85, α)					205	Adjusted Chi Square Value (239.85, β)					200.1
877	95% KM Approximate Gamma UCL					178.8	95% KM Adjusted Gamma UCL					183.2
878												
879	**Lognormal GOF Test on Detected Observations Only**											
880	**Not Enough Data to Perform GOF Test**											
881												
882	**Lognormal ROS Statistics Using Imputed Non-Detects**											
883	Mean in Original Scale					156.4	Mean in Log Scale					5.042
884	SD in Original Scale					25.44	SD in Log Scale					0.144
885	95% t UCL (assumes normality of ROS data)					169.6	95% Percentile Bootstrap UCL					169.8
886	95% BCA Bootstrap UCL					174.4	95% Bootstrap t UCL					186.3
887	95% H-UCL (Log ROS)					169.2						
888												
889	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
890	KM Mean (logged)					4.992	KM Geo Mean					147.3
891	KM SD (logged)					0.271	95% Critical H Value (KM-Log)					1.901
892	KM Standard Error of Mean (logged)					0.21	95% H-UCL (KM -Log)					178.6
893	KM SD (logged)					0.271	95% Critical H Value (KM-Log)					1.901
894	KM Standard Error of Mean (logged)					0.21						
895	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
896												
897	**DL/2 Statistics**											
898	**DL/2 Normal**						**DL/2 Log-Transformed**					
899	Mean in Original Scale					393.1	Mean in Log Scale					5.353
900	SD in Original Scale					504.5	SD in Log Scale					1.095
901	95% t UCL (Assumes normality)					654.7	95% H-Stat UCL					1067
902	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
903												
904	**Nonparametric Distribution Free UCL Statistics**											
905	**Data do not follow a Discernible Distribution**											
906												
907	**Suggested UCL to Use**											
908	95% KM (t) UCL					208.1						
909												
910	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
911	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
912	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
913												
914	**Anthracene**											
915												
916	**General Statistics**											
917	Total Number of Observations					12	Number of Distinct Observations					12
918							Number of Missing Observations					20
919	Number of Detects					2	Number of Non-Detects					10
920	Number of Distinct Detects					2	Number of Distinct Non-Detects					10
921	Minimum Detect					230	Minimum Non-Detect					110
922	Maximum Detect					430	Maximum Non-Detect					2950
923	Variance Detects					20000	Percent Non-Detects					83.33%
924	Mean Detects					330	SD Detects					141.4
925	Median Detects					330	CV Detects					0.429
926	Skewness Detects					N/A	Kurtosis Detects					N/A
927	Mean of Logged Detects					5.751	SD of Logged Detects					0.442
928												
929	**Warning: Data set has only 2 Detected Values.**											
930	**This is not enough to compute meaningful or reliable statistics and estimates.**											
931												
932												
933	**Normal GOF Test on Detects Only**											
934	**Not Enough Data to Perform GOF Test**											
935												
936	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
937	KM Mean					167.5	KM Standard Error of Mean					54.51
938	90KM SD					107.7	95% KM (BCA) UCL					N/A

939				95% KM (t) UCL	265.4			95% KM (Percentile Bootstrap) UCL			N/A	
940				95% KM (z) UCL	257.2			95% KM Bootstrap t UCL			N/A	
941				90% KM Chebyshev UCL	331			95% KM Chebyshev UCL			405.1	
942				97.5% KM Chebyshev UCL	507.9			99% KM Chebyshev UCL			709.9	
943												
944	**Gamma GOF Tests on Detected Observations Only**											
945	**Not Enough Data to Perform GOF Test**											
946												
947	**Gamma Statistics on Detected Data Only**											
948				k hat (MLE)	10.55			k star (bias corrected MLE)			N/A	
949				Theta hat (MLE)	31.29			Theta star (bias corrected MLE)			N/A	
950				nu hat (MLE)	42.18			nu star (bias corrected)			N/A	
951				Mean (detects)	330							
952												
953	**Estimates of Gamma Parameters using KM Estimates**											
954				Mean (KM)	167.5			SD (KM)			107.7	
955				Variance (KM)	11594			SE of Mean (KM)			54.51	
956				k hat (KM)	2.42			k star (KM)			1.871	
957				nu hat (KM)	58.08			nu star (KM)			44.89	
958				theta hat (KM)	69.22			theta star (KM)			89.55	
959				80% gamma percentile (KM)	252.7			90% gamma percentile (KM)			331	
960				95% gamma percentile (KM)	405.9			99% gamma percentile (KM)			572.7	
961												
962	**Gamma Kaplan-Meier (KM) Statistics**											
963								Adjusted Level of Significance (β)			0.029	
964				Approximate Chi Square Value (44.89, α)	30.52			Adjusted Chi Square Value (44.89, β)			28.72	
965				95% KM Approximate Gamma UCL	246.4			95% KM Adjusted Gamma UCL			261.8	
966												
967	**Lognormal GOF Test on Detected Observations Only**											
968	**Not Enough Data to Perform GOF Test**											
969												
970	**Lognormal ROS Statistics Using Imputed Non-Detects**											
971				Mean in Original Scale	130.1			Mean in Log Scale			4.7	
972				SD in Original Scale	103.5			SD in Log Scale			0.528	
973				95% t UCL (assumes normality of ROS data)	183.7			95% Percentile Bootstrap UCL			182.6	
974				95% BCA Bootstrap UCL	209.9			95% Bootstrap t UCL			444.5	
975				95% H-UCL (Log ROS)	178.8							
976												
977	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
978				KM Mean (logged)	4.978			KM Geo Mean			145.3	
979				KM SD (logged)	0.484			95% Critical H Value (KM-Log)			2.122	
980				KM Standard Error of Mean (logged)	0.248			95% H-UCL (KM -Log)			222.6	
981				KM SD (logged)	0.484			95% Critical H Value (KM-Log)			2.122	
982				KM Standard Error of Mean (logged)	0.248							
983	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
984												
985	**DL/2 Statistics**											
986	**DL/2 Normal**							**DL/2 Log-Transformed**				
987				Mean in Original Scale	414.8			Mean in Log Scale			5.43	
988				SD in Original Scale	499.6			SD in Log Scale			1.111	
989				95% t UCL (Assumes normality)	673.8			95% H-Stat UCL			1203	
990	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
991												
992	**Nonparametric Distribution Free UCL Statistics**											
993	**Data do not follow a Discernible Distribution**											
994												
995	**Suggested UCL to Use**											
996				95% KM (t) UCL	265.4							
997												
998	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
999	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1000	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1001												
1002	**Benzo[a]anthracene**											
1003												
1004	**General Statistics**											
1005				Total Number of Observations	12			Number of Distinct Observations			12	

1006											Number of Missing Observations	20
1007					Number of Detects	6					Number of Non-Detects	6
1008					Number of Distinct Detects	6					Number of Distinct Non-Detects	6
1009					Minimum Detect	81					Minimum Non-Detect	180
1010					Maximum Detect	2100					Maximum Non-Detect	2950
1011					Variance Detects	587914					Percent Non-Detects	50%
1012					Mean Detects	763.5					SD Detects	766.8
1013					Median Detects	570					CV Detects	1.004
1014					Skewness Detects	1.194					Kurtosis Detects	1.031
1015					Mean of Logged Detects	6.097					SD of Logged Detects	1.241
1016												
1017					**Normal GOF Test on Detects Only**							
1018					Shapiro Wilk Test Statistic	0.879	**Shapiro Wilk GOF Test**					
1019					1% Shapiro Wilk Critical Value	0.713	Detected Data appear Normal at 1% Significance Level					
1020					Lilliefors Test Statistic	0.223	**Lilliefors GOF Test**					
1021					1% Lilliefors Critical Value	0.373	Detected Data appear Normal at 1% Significance Level					
1022					**Detected Data appear Normal at 1% Significance Level**							
1023					**Note GOF tests may be unreliable for small sample sizes**							
1024												
1025					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1026					KM Mean	490.2					KM Standard Error of Mean	205.3
1027					90KM SD	609.8					95% KM (BCA) UCL	839
1028					95% KM (t) UCL	859					95% KM (Percentile Bootstrap) UCL	830
1029					95% KM (z) UCL	828					95% KM Bootstrap t UCL	1087
1030					90% KM Chebyshev UCL	1106					95% KM Chebyshev UCL	1385
1031					97.5% KM Chebyshev UCL	1773					99% KM Chebyshev UCL	2533
1032												
1033					**Gamma GOF Tests on Detected Observations Only**							
1034					A-D Test Statistic	0.222	**Anderson-Darling GOF Test**					
1035					5% A-D Critical Value	0.714	Detected data appear Gamma Distributed at 5% Significance Level					
1036					K-S Test Statistic	0.178	**Kolmogorov-Smirnov GOF**					
1037					5% K-S Critical Value	0.34	Detected data appear Gamma Distributed at 5% Significance Level					
1038					**Detected data appear Gamma Distributed at 5% Significance Level**							
1039					**Note GOF tests may be unreliable for small sample sizes**							
1040												
1041					**Gamma Statistics on Detected Data Only**							
1042					k hat (MLE)	1.059					k star (bias corrected MLE)	0.641
1043					Theta hat (MLE)	720.6					Theta star (bias corrected MLE)	1191
1044					nu hat (MLE)	12.71					nu star (bias corrected)	7.69
1045					Mean (detects)	763.5						
1046												
1047					**Gamma ROS Statistics using Imputed Non-Detects**							
1048					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1049					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1050					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1051					This is especially true when the sample size is small.							
1052					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1053					Minimum	23.09					Mean	429.5
1054					Maximum	2100					Median	183.9
1055					SD	628.4					CV	1.463
1056					k hat (MLE)	0.587					k star (bias corrected MLE)	0.496
1057					Theta hat (MLE)	731.5					Theta star (bias corrected MLE)	866
1058					nu hat (MLE)	14.09					nu star (bias corrected)	11.9
1059					Adjusted Level of Significance (β)	0.029						
1060					Approximate Chi Square Value (11.90, α)	5.163					Adjusted Chi Square Value (11.90, β)	4.504
1061					95% Gamma Approximate UCL	990.1					95% Gamma Adjusted UCL	1135
1062												
1063					**Estimates of Gamma Parameters using KM Estimates**							
1064					Mean (KM)	490.2					SD (KM)	609.8
1065					Variance (KM)	371872					SE of Mean (KM)	205.3
1066					k hat (KM)	0.646					k star (KM)	0.54
1067					nu hat (KM)	15.51					nu star (KM)	12.96
1068					theta hat (KM)	758.6					theta star (KM)	907.5
1069					80% gamma percentile (KM)	807.2					90% gamma percentile (KM)	1305
1070					95% gamma percentile (KM)	1832					99% gamma percentile (KM)	3118
1071												
1072					**Gamma Kaplan-Meier (KM) Statistics**							

1073	Approximate Chi Square Value (12.96, α)					5.869	Adjusted Chi Square Value (12.96, β)					5.158
1074	95% KM Approximate Gamma UCL					1083	95% KM Adjusted Gamma UCL					1232
1075												
1076	**Lognormal GOF Test on Detected Observations Only**											
1077	Shapiro Wilk Test Statistic					0.962	**Shapiro Wilk GOF Test**					
1078	10% Shapiro Wilk Critical Value					0.826	Detected Data appear Lognormal at 10% Significance Level					
1079	Lilliefors Test Statistic					0.193	**Lilliefors GOF Test**					
1080	10% Lilliefors Critical Value					0.298	Detected Data appear Lognormal at 10% Significance Level					
1081	**Detected Data appear Lognormal at 10% Significance Level**											
1082	**Note GOF tests may be unreliable for small sample sizes**											
1083												
1084	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1085	Mean in Original Scale					458	Mean in Log Scale					5.538
1086	SD in Original Scale					608.6	SD in Log Scale					1.043
1087	95% t UCL (assumes normality of ROS data)					773.5	95% Percentile Bootstrap UCL					749.4
1088	95% BCA Bootstrap UCL					842.6	95% Bootstrap t UCL					1192
1089	95% H-UCL (Log ROS)					1123						
1090												
1091	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1092	KM Mean (logged)					5.531	KM Geo Mean					252.3
1093	KM SD (logged)					1.109	95% Critical H Value (KM-Log)					3.115
1094	KM Standard Error of Mean (logged)					0.401	95% H-UCL (KM -Log)					1321
1095	KM SD (logged)					1.109	95% Critical H Value (KM-Log)					3.115
1096	KM Standard Error of Mean (logged)					0.401						
1097												
1098	**DL/2 Statistics**											
1099	**DL/2 Normal**						**DL/2 Log-Transformed**					
1100	Mean in Original Scale					594.9	Mean in Log Scale					5.738
1101	SD in Original Scale					665	SD in Log Scale					1.229
1102	95% t UCL (Assumes normality)					939.6	95% H-Stat UCL					2280
1103	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1104												
1105	**Nonparametric Distribution Free UCL Statistics**											
1106	**Detected Data appear Normal Distributed at 1% Significance Level**											
1107												
1108	**Suggested UCL to Use**											
1109	95% KM (t) UCL					859						
1110												
1111	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1112	**Please verify the data were collected from random locations.**											
1113	**If the data were collected using judgmental or other non-random methods,**											
1114	**then contact a statistician to correctly calculate UCLs.**											
1115												
1116	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1117	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1119												
1120	**Benzo[a]pyrene**											
1121												
1122	**General Statistics**											
1123	Total Number of Observations					12	Number of Distinct Observations					12
1124							Number of Missing Observations					20
1125	Number of Detects					6	Number of Non-Detects					6
1126	Number of Distinct Detects					6	Number of Distinct Non-Detects					6
1127	Minimum Detect					76	Minimum Non-Detect					180
1128	Maximum Detect					1500	Maximum Non-Detect					2950
1129	Variance Detects					274782	Percent Non-Detects					50%
1130	Mean Detects					581	SD Detects					524.2
1131	Median Detects					510	CV Detects					0.902
1132	Skewness Detects					1.17	Kurtosis Detects					1.3
1133	Mean of Logged Detects					5.941	SD of Logged Detects					1.098
1134												
1135	**Normal GOF Test on Detects Only**											
1136	Shapiro Wilk Test Statistic					0.892	**Shapiro Wilk GOF Test**					
1137	1% Shapiro Wilk Critical Value					0.713	Detected Data appear Normal at 1% Significance Level					
1138	Lilliefors Test Statistic					0.221	**Lilliefors GOF Test**					
1139	1% Lilliefors Critical Value					0.373	Detected Data appear Normal at 1% Significance Level					

	A	B	C	D	E	F	G	H	I	J	K	L
1140	**Detected Data appear Normal at 1% Significance Level**											
1141	**Note GOF tests may be unreliable for small sample sizes**											
1142												
1143	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1144	KM Mean					384.6	KM Standard Error of Mean					143
1145	90KM SD					423.1	95% KM (BCA) UCL					626.4
1146	95% KM (t) UCL					641.5	95% KM (Percentile Bootstrap) UCL					624
1147	95% KM (z) UCL					619.9	95% KM Bootstrap t UCL					780.7
1148	90% KM Chebyshev UCL					813.7	95% KM Chebyshev UCL					1008
1149	97.5% KM Chebyshev UCL					1278	99% KM Chebyshev UCL					1808
1150												
1151	**Gamma GOF Tests on Detected Observations Only**											
1152	A-D Test Statistic					0.213	**Anderson-Darling GOF Test**					
1153	5% A-D Critical Value					0.71	Detected data appear Gamma Distributed at 5% Significance Level					
1154	K-S Test Statistic					0.189	**Kolmogorov-Smirnov GOF**					
1155	5% K-S Critical Value					0.339	Detected data appear Gamma Distributed at 5% Significance Level					
1156	**Detected data appear Gamma Distributed at 5% Significance Level**											
1157	**Note GOF tests may be unreliable for small sample sizes**											
1158												
1159	**Gamma Statistics on Detected Data Only**											
1160	k hat (MLE)					1.323	k star (bias corrected MLE)					0.772
1161	Theta hat (MLE)					439.3	Theta star (bias corrected MLE)					752.1
1162	nu hat (MLE)					15.87	nu star (bias corrected)					9.269
1163	Mean (detects)					581						
1164												
1165	**Gamma ROS Statistics using Imputed Non-Detects**											
1166	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1167	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1168	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1169	This is especially true when the sample size is small.											
1170	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1171	Minimum					65.04	Mean					349.9
1172	Maximum					1500	Median					181.5
1173	SD					431.7	CV					1.234
1174	k hat (MLE)					0.977	k star (bias corrected MLE)					0.788
1175	Theta hat (MLE)					358.2	Theta star (bias corrected MLE)					444
1176	nu hat (MLE)					23.45	nu star (bias corrected)					18.92
1177	Adjusted Level of Significance (β)					0.029						
1178	Approximate Chi Square Value (18.92, α)					10.06	Adjusted Chi Square Value (18.92, β)					9.086
1179	95% Gamma Approximate UCL					658.2	95% Gamma Adjusted UCL					728.6
1180												
1181	**Estimates of Gamma Parameters using KM Estimates**											
1182	Mean (KM)					384.6	SD (KM)					423.1
1183	Variance (KM)					179020	SE of Mean (KM)					143
1184	k hat (KM)					0.826	k star (KM)					0.675
1185	nu hat (KM)					19.84	nu star (KM)					16.21
1186	theta hat (KM)					465.4	theta star (KM)					569.5
1187	80% gamma percentile (KM)					632.9	90% gamma percentile (KM)					973.6
1188	95% gamma percentile (KM)					1326	99% gamma percentile (KM)					2170
1189												
1190	**Gamma Kaplan-Meier (KM) Statistics**											
1191	Approximate Chi Square Value (16.21, α)					8.11	Adjusted Chi Square Value (16.21, β)					7.252
1192	95% KM Approximate Gamma UCL					768.8	95% KM Adjusted Gamma UCL					859.8
1193												
1194	**Lognormal GOF Test on Detected Observations Only**											
1195	Shapiro Wilk Test Statistic					0.963	**Shapiro Wilk GOF Test**					
1196	10% Shapiro Wilk Critical Value					0.826	Detected Data appear Lognormal at 10% Significance Level					
1197	Lilliefors Test Statistic					0.206	**Lilliefors GOF Test**					
1198	10% Lilliefors Critical Value					0.298	Detected Data appear Lognormal at 10% Significance Level					
1199	**Detected Data appear Lognormal at 10% Significance Level**											
1200	**Note GOF tests may be unreliable for small sample sizes**											
1201												
1202	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1203	Mean in Original Scale					363.4	Mean in Log Scale					5.443
1204	SD in Original Scale					421.4	SD in Log Scale					0.926
1205	95% t UCL (assumes normality of ROS data)					581.8	95% Percentile Bootstrap UCL					571.2
1206	95% BCA Bootstrap UCL					628.7	95% Bootstrap t UCL					793.7

1207				95% H-UCL (Log ROS)		771.6						
1208												
1209	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1210				KM Mean (logged)		5.427				KM Geo Mean		227.5
1211				KM SD (logged)		1				95% Critical H Value (KM-Log)		2.916
1212				KM Standard Error of Mean (logged)		0.371				95% H-UCL (KM -Log)		904.2
1213				KM SD (logged)		1				95% Critical H Value (KM-Log)		2.916
1214				KM Standard Error of Mean (logged)		0.371						
1215												
1216	**DL/2 Statistics**											
1217	**DL/2 Normal**						**DL/2 Log-Transformed**					
1218				Mean in Original Scale		503.6				Mean in Log Scale		5.66
1219				SD in Original Scale		524.8				SD in Log Scale		1.142
1220				95% t UCL (Assumes normality)		775.7				95% H-Stat UCL		1645
1221	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1222												
1223	**Nonparametric Distribution Free UCL Statistics**											
1224	**Detected Data appear Normal Distributed at 1% Significance Level**											
1225												
1226	**Suggested UCL to Use**											
1227				95% KM (t) UCL		641.5						
1228												
1229	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1230	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1231	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1232												
1233	**Benzo[g,h,i]perylene**											
1234												
1235	**General Statistics**											
1236				Total Number of Observations		12				Number of Distinct Observations		11
1237										Number of Missing Observations		20
1238				Number of Detects		6				Number of Non-Detects		6
1239				Number of Distinct Detects		6				Number of Distinct Non-Detects		6
1240				Minimum Detect		57				Minimum Non-Detect		180
1241				Maximum Detect		1300				Maximum Non-Detect		2950
1242				Variance Detects		206632				Percent Non-Detects		50%
1243				Mean Detects		462.8				SD Detects		454.6
1244				Median Detects		330				CV Detects		0.982
1245				Skewness Detects		1.542				Kurtosis Detects		2.446
1246				Mean of Logged Detects		5.696				SD of Logged Detects		1.098
1247												
1248	**Normal GOF Test on Detects Only**											
1249				Shapiro Wilk Test Statistic		0.86	**Shapiro Wilk GOF Test**					
1250				1% Shapiro Wilk Critical Value		0.713	Detected Data appear Normal at 1% Significance Level					
1251				Lilliefors Test Statistic		0.213	**Lilliefors GOF Test**					
1252				1% Lilliefors Critical Value		0.373	Detected Data appear Normal at 1% Significance Level					
1253	**Detected Data appear Normal at 1% Significance Level**											
1254	**Note GOF tests may be unreliable for small sample sizes**											
1255												
1256	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1257				KM Mean		319.1				KM Standard Error of Mean		128.6
1258				90KM SD		367.7				95% KM (BCA) UCL		536.7
1259				95% KM (t) UCL		550				95% KM (Percentile Bootstrap) UCL		532.7
1260				95% KM (z) UCL		530.6				95% KM Bootstrap t UCL		810.1
1261				90% KM Chebyshev UCL		704.8				95% KM Chebyshev UCL		879.5
1262				97.5% KM Chebyshev UCL		1122				99% KM Chebyshev UCL		1598
1263												
1264	**Gamma GOF Tests on Detected Observations Only**											
1265				A-D Test Statistic		0.153	**Anderson-Darling GOF Test**					
1266				5% A-D Critical Value		0.711	Detected data appear Gamma Distributed at 5% Significance Level					
1267				K-S Test Statistic		0.126	**Kolmogorov-Smirnov GOF**					
1268				5% K-S Critical Value		0.339	Detected data appear Gamma Distributed at 5% Significance Level					
1269	**Detected data appear Gamma Distributed at 5% Significance Level**											
1270	**Note GOF tests may be unreliable for small sample sizes**											
1271												
1272	**Gamma Statistics on Detected Data Only**											
1273				k hat (MLE)		1.273				k star (bias corrected MLE)		0.748

1274					Theta hat (MLE)	363.5				Theta star (bias corrected MLE)		619
1275					nu hat (MLE)	15.28				nu star (bias corrected)		8.973
1276					Mean (detects)	462.8						
1277												
1278					**Gamma ROS Statistics using Imputed Non-Detects**							
1279					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1280					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1281					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1282					This is especially true when the sample size is small.							
1283					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1284					Minimum	0.01				Mean		261.4
1285					Maximum	1300				Median		165.1
1286					SD	377				CV		1.442
1287					k hat (MLE)	0.215				k star (bias corrected MLE)		0.217
1288					Theta hat (MLE)	1217				Theta star (bias corrected MLE)		1207
1289					nu hat (MLE)	5.155				nu star (bias corrected)		5.2
1290					Adjusted Level of Significance (β)	0.029						
1291					Approximate Chi Square Value (5.20, α)	1.246				Adjusted Chi Square Value (5.20, β)		0.978
1292					95% Gamma Approximate UCL	1091				95% Gamma Adjusted UCL		1390
1293												
1294					**Estimates of Gamma Parameters using KM Estimates**							
1295					Mean (KM)	319.1				SD (KM)		367.7
1296					Variance (KM)	135170				SE of Mean (KM)		128.6
1297					k hat (KM)	0.753				k star (KM)		0.621
1298					nu hat (KM)	18.08				nu star (KM)		14.89
1299					theta hat (KM)	423.6				theta star (KM)		514.2
1300					80% gamma percentile (KM)	525.9				90% gamma percentile (KM)		823.6
1301					95% gamma percentile (KM)	1134				99% gamma percentile (KM)		1884
1302												
1303					**Gamma Kaplan-Meier (KM) Statistics**							
1304					Approximate Chi Square Value (14.89, α)	7.187				Adjusted Chi Square Value (14.89, β)		6.387
1305					95% KM Approximate Gamma UCL	661.2				95% KM Adjusted Gamma UCL		744.1
1306												
1307					**Lognormal GOF Test on Detected Observations Only**							
1308					Shapiro Wilk Test Statistic	0.995				**Shapiro Wilk GOF Test**		
1309					10% Shapiro Wilk Critical Value	0.826				Detected Data appear Lognormal at 10% Significance Level		
1310					Lilliefors Test Statistic	0.115				**Lilliefors GOF Test**		
1311					10% Lilliefors Critical Value	0.298				Detected Data appear Lognormal at 10% Significance Level		
1312					**Detected Data appear Lognormal at 10% Significance Level**							
1313					**Note GOF tests may be unreliable for small sample sizes**							
1314												
1315					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1316					Mean in Original Scale	289.3				Mean in Log Scale		5.196
1317					SD in Original Scale	357.3				SD in Log Scale		0.937
1318					95% t UCL (assumes normality of ROS data)	474.6				95% Percentile Bootstrap UCL		470.9
1319					95% BCA Bootstrap UCL	522				95% Bootstrap t UCL		794.9
1320					95% H-UCL (Log ROS)	617.6						
1321												
1322					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1323					KM Mean (logged)	5.228				KM Geo Mean		186.5
1324					KM SD (logged)	1.012				95% Critical H Value (KM-Log)		2.936
1325					KM Standard Error of Mean (logged)	0.396				95% H-UCL (KM -Log)		762.1
1326					KM SD (logged)	1.012				95% Critical H Value (KM-Log)		2.936
1327					KM Standard Error of Mean (logged)	0.396						
1328												
1329					**DL/2 Statistics**							
1330					**DL/2 Normal**					**DL/2 Log-Transformed**		
1331					Mean in Original Scale	444.5				Mean in Log Scale		5.537
1332					SD in Original Scale	488.1				SD in Log Scale		1.115
1333					95% t UCL (Assumes normality)	697.6				95% H-Stat UCL		1355
1334					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1335												
1336					**Nonparametric Distribution Free UCL Statistics**							
1337					**Detected Data appear Normal Distributed at 1% Significance Level**							
1338												
1339					**Suggested UCL to Use**							
1340					95% KM (t) UCL	550						

1341												
1342	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1343	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1344	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1345												
1346	**Benzo[k]fluoranthene**											
1347												
1348	**General Statistics**											
1349					Total Number of Observations	12			Number of Distinct Observations	12		
1350									Number of Missing Observations	20		
1351					Number of Detects	5			Number of Non-Detects	7		
1352					Number of Distinct Detects	5			Number of Distinct Non-Detects	7		
1353					Minimum Detect	57			Minimum Non-Detect	180		
1354					Maximum Detect	1700			Maximum Non-Detect	2950		
1355					Variance Detects	440378			Percent Non-Detects	58.33%		
1356					Mean Detects	623.4			SD Detects	663.6		
1357					Median Detects	530			CV Detects	1.065		
1358					Skewness Detects	1.327			Kurtosis Detects	1.771		
1359					Mean of Logged Detects	5.807			SD of Logged Detects	1.397		
1360												
1361	**Normal GOF Test on Detects Only**											
1362					Shapiro Wilk Test Statistic	0.872			**Shapiro Wilk GOF Test**			
1363					1% Shapiro Wilk Critical Value	0.686			Detected Data appear Normal at 1% Significance Level			
1364					Lilliefors Test Statistic	0.242			**Lilliefors GOF Test**			
1365					1% Lilliefors Critical Value	0.396			Detected Data appear Normal at 1% Significance Level			
1366	**Detected Data appear Normal at 1% Significance Level**											
1367	**Note GOF tests may be unreliable for small sample sizes**											
1368												
1369	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1370					KM Mean	339.8			KM Standard Error of Mean	165.2		
1371					90KM SD	483.1			95% KM (BCA) UCL	640		
1372					95% KM (t) UCL	636.5			95% KM (Percentile Bootstrap) UCL	618.6		
1373					95% KM (z) UCL	611.6			95% KM Bootstrap t UCL	881.3		
1374					90% KM Chebyshev UCL	835.4			95% KM Chebyshev UCL	1060		
1375					97.5% KM Chebyshev UCL	1371			99% KM Chebyshev UCL	1984		
1376												
1377	**Gamma GOF Tests on Detected Observations Only**											
1378					A-D Test Statistic	0.258			**Anderson-Darling GOF Test**			
1379					5% A-D Critical Value	0.693			Detected data appear Gamma Distributed at 5% Significance Level			
1380					K-S Test Statistic	0.222			**Kolmogorov-Smirnov GOF**			
1381					5% K-S Critical Value	0.365			Detected data appear Gamma Distributed at 5% Significance Level			
1382	**Detected data appear Gamma Distributed at 5% Significance Level**											
1383	**Note GOF tests may be unreliable for small sample sizes**											
1384												
1385	**Gamma Statistics on Detected Data Only**											
1386					k hat (MLE)	0.927			k star (bias corrected MLE)	0.504		
1387					Theta hat (MLE)	672.5			Theta star (bias corrected MLE)	1237		
1388					nu hat (MLE)	9.27			nu star (bias corrected)	5.041		
1389					Mean (detects)	623.4						
1390												
1391	**Gamma ROS Statistics using Imputed Non-Detects**											
1392	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1393	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1394	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1395	This is especially true when the sample size is small.											
1396	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1397					Minimum	18.08			Mean	290.6		
1398					Maximum	1700			Median	83.5		
1399					SD	498.5			CV	1.715		
1400					k hat (MLE)	0.516			k star (bias corrected MLE)	0.442		
1401					Theta hat (MLE)	563.4			Theta star (bias corrected MLE)	656.9		
1402					nu hat (MLE)	12.38			nu star (bias corrected)	10.62		
1403					Adjusted Level of Significance (β)	0.029						
1404					Approximate Chi Square Value (10.62, α)	4.332			Adjusted Chi Square Value (10.62, β)	3.739		
1405					95% Gamma Approximate UCL	712.4			95% Gamma Adjusted UCL	825.4		
1406												
1407	**Estimates of Gamma Parameters using KM Estimates**											

1408					Mean (KM)	339.8					SD (KM)	483.1
1409					Variance (KM)	233394					SE of Mean (KM)	165.2
1410					k hat (KM)	0.495					k star (KM)	0.427
1411					nu hat (KM)	11.88					nu star (KM)	10.24
1412					theta hat (KM)	686.8					theta star (KM)	796.5
1413					80% gamma percentile (KM)	552.2					90% gamma percentile (KM)	948.7
1414					95% gamma percentile (KM)	1381					99% gamma percentile (KM)	2460
1415												
1416					**Gamma Kaplan-Meier (KM) Statistics**							
1417					Approximate Chi Square Value (10.24, α)	4.093					Adjusted Chi Square Value (10.24, β)	3.52
1418					95% KM Approximate Gamma UCL	850.3					95% KM Adjusted Gamma UCL	988.8
1419												
1420					**Lognormal GOF Test on Detected Observations Only**							
1421					Shapiro Wilk Test Statistic	0.94					**Shapiro Wilk GOF Test**	
1422					10% Shapiro Wilk Critical Value	0.806					Detected Data appear Lognormal at 10% Significance Level	
1423					Lilliefors Test Statistic	0.231					**Lilliefors GOF Test**	
1424					10% Lilliefors Critical Value	0.319					Detected Data appear Lognormal at 10% Significance Level	
1425					**Detected Data appear Lognormal at 10% Significance Level**							
1426					**Note GOF tests may be unreliable for small sample sizes**							
1427												
1428					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1429					Mean in Original Scale	319.4					Mean in Log Scale	5.105
1430					SD in Original Scale	482.2					SD in Log Scale	1.06
1431					95% t UCL (assumes normality of ROS data)	569.4					95% Percentile Bootstrap UCL	553.2
1432					95% BCA Bootstrap UCL	655.8					95% Bootstrap t UCL	1030
1433					95% H-UCL (Log ROS)	760.5						
1434												
1435					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1436					KM Mean (logged)	5.066					KM Geo Mean	158.5
1437					KM SD (logged)	1.143					95% Critical H Value (KM-Log)	3.181
1438					KM Standard Error of Mean (logged)	0.427					95% H-UCL (KM -Log)	912.2
1439					KM SD (logged)	1.143					95% Critical H Value (KM-Log)	3.181
1440					KM Standard Error of Mean (logged)	0.427						
1441												
1442					**DL/2 Statistics**							
1443					**DL/2 Normal**						**DL/2 Log-Transformed**	
1444					Mean in Original Scale	493.7					Mean in Log Scale	5.569
1445					SD in Original Scale	565.3					SD in Log Scale	1.194
1446					95% t UCL (Assumes normality)	786.8					95% H-Stat UCL	1740
1447					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1448												
1449					**Nonparametric Distribution Free UCL Statistics**							
1450					**Detected Data appear Normal Distributed at 1% Significance Level**							
1451												
1452					**Suggested UCL to Use**							
1453					95% KM (t) UCL	636.5						
1454												
1455					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1456					**Please verify the data were collected from random locations.**							
1457					**If the data were collected using judgmental or other non-random methods,**							
1458					**then contact a statistician to correctly calculate UCLs.**							
1459												
1460					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1461					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1462					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1463												
1464	**Chrysene**											
1465												
1466					**General Statistics**							
1467					Total Number of Observations	12					Number of Distinct Observations	12
1468											Number of Missing Observations	20
1469					Number of Detects	6					Number of Non-Detects	6
1470					Number of Distinct Detects	6					Number of Distinct Non-Detects	6
1471					Minimum Detect	110					Minimum Non-Detect	180
1472					Maximum Detect	2900					Maximum Non-Detect	2950
1473					Variance Detects	1163307					Percent Non-Detects	50%
1474					Mean Detects	1143					SD Detects	1079

1475					Median Detects	895					CV Detects	0.943
1476					Skewness Detects	0.869					Kurtosis Detects	-0.229
1477					Mean of Logged Detects	6.516					SD of Logged Detects	1.251
1478												
1479					**Normal GOF Test on Detects Only**							
1480					Shapiro Wilk Test Statistic	0.907					**Shapiro Wilk GOF Test**	
1481					1% Shapiro Wilk Critical Value	0.713					Detected Data appear Normal at 1% Significance Level	
1482					Lilliefors Test Statistic	0.228					**Lilliefors GOF Test**	
1483					1% Lilliefors Critical Value	0.373					Detected Data appear Normal at 1% Significance Level	
1484					**Detected Data appear Normal at 1% Significance Level**							
1485					**Note GOF tests may be unreliable for small sample sizes**							
1486												
1487					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1488					KM Mean	693.2					KM Standard Error of Mean	296.3
1489					90KM SD	888.3					95% KM (BCA) UCL	1196
1490					95% KM (t) UCL	1225					95% KM (Percentile Bootstrap) UCL	1171
1491					95% KM (z) UCL	1180					95% KM Bootstrap t UCL	1505
1492					90% KM Chebyshev UCL	1582					95% KM Chebyshev UCL	1985
1493					97.5% KM Chebyshev UCL	2543					99% KM Chebyshev UCL	3641
1494												
1495					**Gamma GOF Tests on Detected Observations Only**							
1496					A-D Test Statistic	0.221					**Anderson-Darling GOF Test**	
1497					5% A-D Critical Value	0.714					Detected data appear Gamma Distributed at 5% Significance Level	
1498					K-S Test Statistic	0.176					**Kolmogorov-Smirnov GOF**	
1499					5% K-S Critical Value	0.34					Detected data appear Gamma Distributed at 5% Significance Level	
1500					**Detected data appear Gamma Distributed at 5% Significance Level**							
1501					**Note GOF tests may be unreliable for small sample sizes**							
1502												
1503					**Gamma Statistics on Detected Data Only**							
1504					k hat (MLE)	1.087					k star (bias corrected MLE)	0.655
1505					Theta hat (MLE)	1052					Theta star (bias corrected MLE)	1747
1506					nu hat (MLE)	13.04					nu star (bias corrected)	7.854
1507					Mean (detects)	1143						
1508												
1509					**Gamma ROS Statistics using Imputed Non-Detects**							
1510					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1511					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1512					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1513					This is especially true when the sample size is small.							
1514					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1515					Minimum	0.01					Mean	604.3
1516					Maximum	2900					Median	185
1517					SD	923.2					CV	1.528
1518					k hat (MLE)	0.193					k star (bias corrected MLE)	0.201
1519					Theta hat (MLE)	3126					Theta star (bias corrected MLE)	3013
1520					nu hat (MLE)	4.64					nu star (bias corrected)	4.813
1521					Adjusted Level of Significance (β)	0.029						
1522					Approximate Chi Square Value (4.81, α)	1.067					Adjusted Chi Square Value (4.81, β)	0.826
1523					95% Gamma Approximate UCL	2726					95% Gamma Adjusted UCL	3519
1524												
1525					**Estimates of Gamma Parameters using KM Estimates**							
1526					Mean (KM)	693.2					SD (KM)	888.3
1527					Variance (KM)	789088					SE of Mean (KM)	296.3
1528					k hat (KM)	0.609					k star (KM)	0.512
1529					nu hat (KM)	14.61					nu star (KM)	12.29
1530					theta hat (KM)	1138					theta star (KM)	1353
1531					80% gamma percentile (KM)	1140					90% gamma percentile (KM)	1866
1532					95% gamma percentile (KM)	2640					99% gamma percentile (KM)	4539
1533												
1534					**Gamma Kaplan-Meier (KM) Statistics**							
1535					Approximate Chi Square Value (12.29, α)	5.421					Adjusted Chi Square Value (12.29, β)	4.743
1536					95% KM Approximate Gamma UCL	1572					95% KM Adjusted Gamma UCL	1797
1537												
1538					**Lognormal GOF Test on Detected Observations Only**							
1539					Shapiro Wilk Test Statistic	0.955					**Shapiro Wilk GOF Test**	
1540					10% Shapiro Wilk Critical Value	0.826					Detected Data appear Lognormal at 10% Significance Level	
1541					Lilliefors Test Statistic	0.2					**Lilliefors GOF Test**	

1542				10% Lilliefors Critical Value		0.298	Detected Data appear Lognormal at 10% Significance Level					
1543	**Detected Data appear Lognormal at 10% Significance Level**											
1544	**Note GOF tests may be unreliable for small sample sizes**											
1545												
1546	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1547				Mean in Original Scale		644.6				Mean in Log Scale		5.701
1548				SD in Original Scale		896				SD in Log Scale		1.236
1549			95% t UCL (assumes normality of ROS data)			1109				95% Percentile Bootstrap UCL		1086
1550				95% BCA Bootstrap UCL		1205				95% Bootstrap t UCL		1574
1551				95% H-UCL (Log ROS)		2249						
1552												
1553	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1554				KM Mean (logged)		5.745				KM Geo Mean		312.7
1555				KM SD (logged)		1.233				95% Critical H Value (KM-Log)		3.355
1556			KM Standard Error of Mean (logged)			0.418				95% H-UCL (KM -Log)		2326
1557				KM SD (logged)		1.233				95% Critical H Value (KM-Log)		3.355
1558			KM Standard Error of Mean (logged)			0.418						
1559												
1560	**DL/2 Statistics**											
1561	**DL/2 Normal**						**DL/2 Log-Transformed**					
1562				Mean in Original Scale		784.8				Mean in Log Scale		5.947
1563				SD in Original Scale		901.6				SD in Log Scale		1.316
1564				95% t UCL (Assumes normality)		1252				95% H-Stat UCL		3680
1565	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1566												
1567	**Nonparametric Distribution Free UCL Statistics**											
1568	**Detected Data appear Normal Distributed at 1% Significance Level**											
1569												
1570	**Suggested UCL to Use**											
1571				95% KM (t) UCL		1225						
1572												
1573	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1574	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1575	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1576												
1577	**Dibenzo[a,h]anthracene**											
1578												
1579	**General Statistics**											
1580				Total Number of Observations		12				Number of Distinct Observations		10
1581										Number of Missing Observations		20
1582				Number of Detects		2				Number of Non-Detects		10
1583				Number of Distinct Detects		1				Number of Distinct Non-Detects		10
1584												
1585	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
1586	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
1587												
1588	**The data set for variable Dibenzo[a,h]anthracene was not processed!**											
1589												
1590												
1591	**Fluoranthene**											
1592												
1593	**General Statistics**											
1594				Total Number of Observations		12				Number of Distinct Observations		12
1595										Number of Missing Observations		20
1596				Number of Detects		8				Number of Non-Detects		4
1597				Number of Distinct Detects		8				Number of Distinct Non-Detects		4
1598				Minimum Detect		83				Minimum Non-Detect		180
1599				Maximum Detect		2200				Maximum Non-Detect		2950
1600				Variance Detects		568399				Percent Non-Detects		33.33%
1601				Mean Detects		698.6				SD Detects		753.9
1602				Median Detects		390				CV Detects		1.079
1603				Skewness Detects		1.298				Kurtosis Detects		1.072
1604				Mean of Logged Detects		5.938				SD of Logged Detects		1.254
1605												
1606	**Normal GOF Test on Detects Only**											
1607				Shapiro Wilk Test Statistic		0.836	**Shapiro Wilk GOF Test**					
1608				1% Shapiro Wilk Critical Value		0.749	Detected Data appear Normal at 1% Significance Level					

1609				Lilliefors Test Statistic	0.239	**Lilliefors GOF Test**						
1610				1% Lilliefors Critical Value	0.333	Detected Data appear Normal at 1% Significance Level						
1611	**Detected Data appear Normal at 1% Significance Level**											
1612	**Note GOF tests may be unreliable for small sample sizes**											
1613												
1614	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1615				KM Mean	563.1	KM Standard Error of Mean	216.5					
1616				90KM SD	657.7	95% KM (BCA) UCL	903.3					
1617				95% KM (t) UCL	951.9	95% KM (Percentile Bootstrap) UCL	904.9					
1618				95% KM (z) UCL	919.2	95% KM Bootstrap t UCL	1275					
1619				90% KM Chebyshev UCL	1212	95% KM Chebyshev UCL	1507					
1620				97.5% KM Chebyshev UCL	1915	99% KM Chebyshev UCL	2717					
1621												
1622	**Gamma GOF Tests on Detected Observations Only**											
1623				A-D Test Statistic	0.329	**Anderson-Darling GOF Test**						
1624				5% A-D Critical Value	0.737	Detected data appear Gamma Distributed at 5% Significance Level						
1625				K-S Test Statistic	0.194	**Kolmogorov-Smirnov GOF**						
1626				5% K-S Critical Value	0.302	Detected data appear Gamma Distributed at 5% Significance Level						
1627	**Detected data appear Gamma Distributed at 5% Significance Level**											
1628	**Note GOF tests may be unreliable for small sample sizes**											
1629												
1630	**Gamma Statistics on Detected Data Only**											
1631				k hat (MLE)	0.95	k star (bias corrected MLE)	0.677					
1632				Theta hat (MLE)	735.4	Theta star (bias corrected MLE)	1032					
1633				nu hat (MLE)	15.2	nu star (bias corrected)	10.83					
1634				Mean (detects)	698.6							
1635												
1636	**Gamma ROS Statistics using Imputed Non-Detects**											
1637	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1638	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1639	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1640	This is especially true when the sample size is small.											
1641	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1642				Minimum	49.16	Mean	527.1					
1643				Maximum	2200	Median	292.9					
1644				SD	657.8	CV	1.248					
1645				k hat (MLE)	0.842	k star (bias corrected MLE)	0.687					
1646				Theta hat (MLE)	625.7	Theta star (bias corrected MLE)	766.8					
1647				nu hat (MLE)	20.22	nu star (bias corrected)	16.5					
1648				Adjusted Level of Significance (β)	0.029							
1649				Approximate Chi Square Value (16.50, α)	8.314	Adjusted Chi Square Value (16.50, β)	7.443					
1650				95% Gamma Approximate UCL	1046	95% Gamma Adjusted UCL	1168					
1651												
1652	**Estimates of Gamma Parameters using KM Estimates**											
1653				Mean (KM)	563.1	SD (KM)	657.7					
1654				Variance (KM)	432520	SE of Mean (KM)	216.5					
1655				k hat (KM)	0.733	k star (KM)	0.605					
1656				nu hat (KM)	17.6	nu star (KM)	14.53					
1657				theta hat (KM)	768.1	theta star (KM)	930.1					
1658				80% gamma percentile (KM)	928.2	90% gamma percentile (KM)	1462					
1659				95% gamma percentile (KM)	2020	99% gamma percentile (KM)	3369					
1660												
1661	**Gamma Kaplan-Meier (KM) Statistics**											
1662				Approximate Chi Square Value (14.53, α)	6.936	Adjusted Chi Square Value (14.53, β)	6.152					
1663				95% KM Approximate Gamma UCL	1180	95% KM Adjusted Gamma UCL	1330					
1664												
1665	**Lognormal GOF Test on Detected Observations Only**											
1666				Shapiro Wilk Test Statistic	0.925	**Shapiro Wilk GOF Test**						
1667				10% Shapiro Wilk Critical Value	0.851	Detected Data appear Lognormal at 10% Significance Level						
1668				Lilliefors Test Statistic	0.178	**Lilliefors GOF Test**						
1669				10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level						
1670	**Detected Data appear Lognormal at 10% Significance Level**											
1671	**Note GOF tests may be unreliable for small sample sizes**											
1672												
1673	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1674				Mean in Original Scale	528.1	Mean in Log Scale	5.675					
1675				SD in Original Scale	653.5	SD in Log Scale	1.101					

1676				95% t UCL (assumes normality of ROS data)		866.9				95% Percentile Bootstrap UCL		847.7
1677				95% BCA Bootstrap UCL		933.6				95% Bootstrap t UCL		1224
1678				95% H-UCL (Log ROS)		1496						
1679												
1680	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1681				KM Mean (logged)		5.653				KM Geo Mean		285.2
1682				KM SD (logged)		1.166				95% Critical H Value (KM-Log)		3.224
1683				KM Standard Error of Mean (logged)		0.392				95% H-UCL (KM -Log)		1747
1684				KM SD (logged)		1.166				95% Critical H Value (KM-Log)		3.224
1685				KM Standard Error of Mean (logged)		0.392						
1686												
1687	**DL/2 Statistics**											
1688	**DL/2 Normal**						**DL/2 Log-Transformed**					
1689				Mean in Original Scale		660.5				Mean in Log Scale		5.866
1690				SD in Original Scale		693.9				SD in Log Scale		1.244
1691				95% t UCL (Assumes normality)		1020				95% H-Stat UCL		2717
1692	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1693												
1694	**Nonparametric Distribution Free UCL Statistics**											
1695	**Detected Data appear Normal Distributed at 1% Significance Level**											
1696												
1697	**Suggested UCL to Use**											
1698				95% KM (t) UCL		951.9						
1699												
1700	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1701	**Please verify the data were collected from random locations.**											
1702	**If the data were collected using judgmental or other non-random methods,**											
1703	**then contact a statistician to correctly calculate UCLs.**											
1704												
1705	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1706	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1707	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1708												
1709	**Phenanthrene**											
1710												
1711	**General Statistics**											
1712				Total Number of Observations		12				Number of Distinct Observations		11
1713										Number of Missing Observations		20
1714				Number of Detects		3				Number of Non-Detects		9
1715				Number of Distinct Detects		3				Number of Distinct Non-Detects		9
1716				Minimum Detect		110				Minimum Non-Detect		110
1717				Maximum Detect		230				Maximum Non-Detect		2950
1718				Variance Detects		3900				Percent Non-Detects		75%
1719				Mean Detects		160				SD Detects		62.45
1720				Median Detects		140				CV Detects		0.39
1721				Skewness Detects		1.293				Kurtosis Detects		N/A
1722				Mean of Logged Detects		5.027				SD of Logged Detects		0.376
1723												
1724	**Warning: Data set has only 3 Detected Values.**											
1725	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1726												
1727												
1728	**Normal GOF Test on Detects Only**											
1729				Shapiro Wilk Test Statistic		0.923	**Shapiro Wilk GOF Test**					
1730				1% Shapiro Wilk Critical Value		0.753	Detected Data appear Normal at 1% Significance Level					
1731				Lilliefors Test Statistic		0.292	**Lilliefors GOF Test**					
1732				1% Lilliefors Critical Value		0.429	Detected Data appear Normal at 1% Significance Level					
1733	**Detected Data appear Normal at 1% Significance Level**											
1734	**Note GOF tests may be unreliable for small sample sizes**											
1735												
1736	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1737				KM Mean		135.7				KM Standard Error of Mean		19.77
1738				90KM SD		40.66				95% KM (BCA) UCL		N/A
1739				95% KM (t) UCL		171.2				95% KM (Percentile Bootstrap) UCL		N/A
1740				95% KM (z) UCL		168.2				95% KM Bootstrap t UCL		N/A
1741				90% KM Chebyshev UCL		195				95% KM Chebyshev UCL		221.9
1742				97.5% KM Chebyshev UCL		259.2				99% KM Chebyshev UCL		332.5

1743											
1744	**Gamma GOF Tests on Detected Observations Only**										
1745				A-D Test Statistic	0.317	**Anderson-Darling GOF Test**					
1746				5% A-D Critical Value	0.635	Detected data appear Gamma Distributed at 5% Significance Level					
1747				K-S Test Statistic	0.292	**Kolmogorov-Smirnov GOF**					
1748				5% K-S Critical Value	0.432	Detected data appear Gamma Distributed at 5% Significance Level					
1749	**Detected Data Not Gamma Distributed at 5% Significance Level**										
1750											
1751	**Gamma Statistics on Detected Data Only**										
1752				k hat (MLE)	10.49	k star (bias corrected MLE)	N/A				
1753				Theta hat (MLE)	15.26	Theta star (bias corrected MLE)	N/A				
1754				nu hat (MLE)	62.92	nu star (bias corrected)	N/A				
1755				Mean (detects)	160						
1756											
1757	**Gamma ROS Statistics using Imputed Non-Detects**										
1758	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1759	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1760	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1761	This is especially true when the sample size is small.										
1762	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1763				Minimum	46.26	Mean	115.4				
1764				Maximum	230	Median	111.9				
1765				SD	41.93	CV	0.363				
1766				k hat (MLE)	9.092	k star (bias corrected MLE)	6.874				
1767				Theta hat (MLE)	12.7	Theta star (bias corrected MLE)	16.79				
1768				nu hat (MLE)	218.2	nu star (bias corrected)	165				
1769				Adjusted Level of Significance (β)	0.029						
1770				Approximate Chi Square Value (164.99, α)	136.3	Adjusted Chi Square Value (164.99, β)	132.3				
1771				95% Gamma Approximate UCL	139.7	95% Gamma Adjusted UCL	N/A				
1772											
1773	**Estimates of Gamma Parameters using KM Estimates**										
1774				Mean (KM)	135.7	SD (KM)	40.66				
1775				Variance (KM)	1653	SE of Mean (KM)	19.77				
1776				k hat (KM)	11.14	k star (KM)	8.412				
1777				nu hat (KM)	267.4	nu star (KM)	201.9				
1778				theta hat (KM)	12.18	theta star (KM)	16.13				
1779				80% gamma percentile (KM)	172.7	90% gamma percentile (KM)	198.1				
1780				95% gamma percentile (KM)	220.7	99% gamma percentile (KM)	267.5				
1781											
1782	**Gamma Kaplan-Meier (KM) Statistics**										
1783				Approximate Chi Square Value (201.89, α)	170	Adjusted Chi Square Value (201.89, β)	165.5				
1784				95% KM Approximate Gamma UCL	161.2	95% KM Adjusted Gamma UCL	165.5				
1785											
1786	**Lognormal GOF Test on Detected Observations Only**										
1787				Shapiro Wilk Test Statistic	0.962	**Shapiro Wilk GOF Test**					
1788				10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level					
1789				Lilliefors Test Statistic	0.256	**Lilliefors GOF Test**					
1790				10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level					
1791	**Detected Data appear Lognormal at 10% Significance Level**										
1792	**Note GOF tests may be unreliable for small sample sizes**										
1793											
1794	**Lognormal ROS Statistics Using Imputed Non-Detects**										
1795				Mean in Original Scale	118.9	Mean in Log Scale	4.74				
1796				SD in Original Scale	38.5	SD in Log Scale	0.275				
1797				95% t UCL (assumes normality of ROS data)	138.9	95% Percentile Bootstrap UCL	139.1				
1798				95% BCA Bootstrap UCL	145.9	95% Bootstrap t UCL	158.5				
1799				95% H-UCL (Log ROS)	139.2						
1800											
1801	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
1802				KM Mean (logged)	4.875	KM Geo Mean	130.9				
1803				KM SD (logged)	0.253	95% Critical H Value (KM-Log)	1.885				
1804				KM Standard Error of Mean (logged)	0.127	95% H-UCL (KM -Log)	156.1				
1805				KM SD (logged)	0.253	95% Critical H Value (KM-Log)	1.885				
1806				KM Standard Error of Mean (logged)	0.127						
1807	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
1808											
1809	**DL/2 Statistics**										

	A	B	C	D	E	F	G	H	I	J	K	L
1810	**DL/2 Normal**						**DL/2 Log-Transformed**					
1811					Mean in Original Scale	391				Mean in Log Scale		5.341
1812					SD in Original Scale	505.5				SD in Log Scale		1.097
1813					95% t UCL (Assumes normality)	653.1				95% H-Stat UCL		1061
1814	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1815												
1816	**Nonparametric Distribution Free UCL Statistics**											
1817	**Detected Data appear Normal Distributed at 1% Significance Level**											
1818												
1819	**Suggested UCL to Use**											
1820					95% KM (t) UCL	171.2						
1821												
1822	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1823	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1824	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1825												

1	**UCL Statistics for Data Sets with Non-Detects**											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.2 7/28/2025 11:45:06 AM										
5	From File	sediment_western tributary										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10	**2,4,6-Trinitrotoluene**											
11												
12	**General Statistics**											
13	Total Number of Observations	34				Number of Distinct Observations	24					
14						Number of Missing Observations	10					
15	Number of Detects	1				Number of Non-Detects	33					
16	Number of Distinct Detects	1				Number of Distinct Non-Detects	23					
17												
18	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
19	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
20												
21	**The data set for variable 2,4,6-Trinitrotoluene was not processed!**											
22												
23												
24												
25	**Aluminum**											
26												
27	**General Statistics**											
28	Total Number of Observations	2				Number of Distinct Observations	2					
29						Number of Missing Observations	9					
30	Minimum	13800				Mean	18450					
31	Maximum	23100				Median	18450					
32												
33	**Warning: This data set only has 2 observations!**											
34	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
35	**The data set for variable Aluminum was not processed!**											
36												
37	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
38	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
39												
40												
41	**Arsenic**											
42												
43	**General Statistics**											
44	Total Number of Observations	34				Number of Distinct Observations	32					
45						Number of Missing Observations	10					
46	Number of Detects	29				Number of Non-Detects	5					
47	Number of Distinct Detects	28				Number of Distinct Non-Detects	5					
48	Minimum Detect	1.84				Minimum Non-Detect	1.615					
49	Maximum Detect	16.2				Maximum Non-Detect	7.45					
50	Variance Detects	13.24				Percent Non-Detects	14.71%					
51	Mean Detects	8.01				SD Detects	3.639					
52	Median Detects	7.66				CV Detects	0.454					
53	Skewness Detects	0.263				Kurtosis Detects	-0.439					
54	Mean of Logged Detects	1.959				SD of Logged Detects	0.538					
55												
56	**Normal GOF Test on Detects Only**											
57	Shapiro Wilk Test Statistic	0.976				**Shapiro Wilk GOF Test**						
58	1% Shapiro Wilk Critical Value	0.898				Detected Data appear Normal at 1% Significance Level						
59	Lilliefors Test Statistic	0.0803				**Lilliefors GOF Test**						
60	1% Lilliefors Critical Value	0.189				Detected Data appear Normal at 1% Significance Level						
61	**Detected Data appear Normal at 1% Significance Level**											
62												
63	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
64	KM Mean	7.163				KM Standard Error of Mean	0.687					
65	90KM SD	3.916				95% KM (BCA) UCL	8.349					
66	95% KM (t) UCL	8.325				95% KM (Percentile Bootstrap) UCL	8.295					
67	95% KM (z) UCL	8.293				95% KM Bootstrap t UCL	8.341					

68				90% KM Chebyshev UCL	9.223				95% KM Chebyshev UCL	10.16		
69				97.5% KM Chebyshev UCL	11.45				99% KM Chebyshev UCL	14		
70												
71				**Gamma GOF Tests on Detected Observations Only**								
72				A-D Test Statistic	0.329	**Anderson-Darling GOF Test**						
73				5% A-D Critical Value	0.75	Detected data appear Gamma Distributed at 5% Significance Level						
74				K-S Test Statistic	0.114	**Kolmogorov-Smirnov GOF**						
75				5% K-S Critical Value	0.163	Detected data appear Gamma Distributed at 5% Significance Level						
76				**Detected data appear Gamma Distributed at 5% Significance Level**								
77												
78				**Gamma Statistics on Detected Data Only**								
79				k hat (MLE)	4.277	k star (bias corrected MLE)	3.857					
80				Theta hat (MLE)	1.873	Theta star (bias corrected MLE)	2.076					
81				nu hat (MLE)	248.1	nu star (bias corrected)	223.7					
82				Mean (detects)	8.01							
83												
84				**Gamma ROS Statistics using Imputed Non-Detects**								
85				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
86				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
87				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
88				This is especially true when the sample size is small.								
89				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
90				Minimum	1.659	Mean	7.206					
91				Maximum	16.2	Median	6.98					
92				SD	3.906	CV	0.542					
93				k hat (MLE)	2.98	k star (bias corrected MLE)	2.737					
94				Theta hat (MLE)	2.418	Theta star (bias corrected MLE)	2.633					
95				nu hat (MLE)	202.6	nu star (bias corrected)	186.1					
96				Adjusted Level of Significance (β)	0.0422							
97				Approximate Chi Square Value (186.09, α)	155.5	Adjusted Chi Square Value (186.09, β)	154.2					
98				95% Gamma Approximate UCL	8.622	95% Gamma Adjusted UCL	8.699					
99												
100				**Estimates of Gamma Parameters using KM Estimates**								
101				Mean (KM)	7.163	SD (KM)	3.916					
102				Variance (KM)	15.34	SE of Mean (KM)	0.687					
103				k hat (KM)	3.346	k star (KM)	3.07					
104				nu hat (KM)	227.5	nu star (KM)	208.8					
105				theta hat (KM)	2.141	theta star (KM)	2.333					
106				80% gamma percentile (KM)	10.19	90% gamma percentile (KM)	12.65					
107				95% gamma percentile (KM)	14.93	99% gamma percentile (KM)	19.89					
108												
109				**Gamma Kaplan-Meier (KM) Statistics**								
110				Approximate Chi Square Value (208.77, α)	176.3	Adjusted Chi Square Value (208.77, β)	174.9					
111				95% KM Approximate Gamma UCL	8.481	95% KM Adjusted Gamma UCL	8.552					
112												
113				**Lognormal GOF Test on Detected Observations Only**								
114				Shapiro Wilk Test Statistic	0.943	**Shapiro Wilk GOF Test**						
115				10% Shapiro Wilk Critical Value	0.937	Detected Data appear Lognormal at 10% Significance Level						
116				Lilliefors Test Statistic	0.121	**Lilliefors GOF Test**						
117				10% Lilliefors Critical Value	0.148	Detected Data appear Lognormal at 10% Significance Level						
118				**Detected Data appear Lognormal at 10% Significance Level**								
119												
120				**Lognormal ROS Statistics Using Imputed Non-Detects**								
121				Mean in Original Scale	7.23	Mean in Log Scale	1.812					
122				SD in Original Scale	3.867	SD in Log Scale	0.62					
123				95% t UCL (assumes normality of ROS data)	8.353	95% Percentile Bootstrap UCL	8.325					
124				95% BCA Bootstrap UCL	8.345	95% Bootstrap t UCL	8.451					
125				95% H-UCL (Log ROS)	9.251							
126												
127				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
128				KM Mean (logged)	1.774	KM Geo Mean	5.897					
129				KM SD (logged)	0.679	95% Critical H Value (KM-Log)	2.097					
130				KM Standard Error of Mean (logged)	0.12	95% H-UCL (KM -Log)	9.516					
131				KM SD (logged)	0.679	95% Critical H Value (KM-Log)	2.097					
132				KM Standard Error of Mean (logged)	0.12							
133												
134				**DL/2 Statistics**								

	A	B	C	D	E	F	G	H	I	J	K	L
135	**DL/2 Normal**						**DL/2 Log-Transformed**					
136					Mean in Original Scale	7.068				Mean in Log Scale		1.716
137					SD in Original Scale	4.087				SD in Log Scale		0.801
138					95% t UCL (Assumes normality)	8.255				95% H-Stat UCL		10.45
139	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
140												
141	**Nonparametric Distribution Free UCL Statistics**											
142	**Detected Data appear Normal Distributed at 1% Significance Level**											
143												
144	**Suggested UCL to Use**											
145					95% KM (t) UCL	8.325						
146												
147	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
148	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
149	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
150												
151	**Cadmium**											
152												
153	**General Statistics**											
154					Total Number of Observations	34				Number of Distinct Observations		30
155										Number of Missing Observations		10
156					Number of Detects	33				Number of Non-Detects		1
157					Number of Distinct Detects	29				Number of Distinct Non-Detects		1
158					Minimum Detect	0.317				Minimum Non-Detect		0.404
159					Maximum Detect	2.85				Maximum Non-Detect		0.404
160					Variance Detects	0.369				Percent Non-Detects		2.941%
161					Mean Detects	1.115				SD Detects		0.607
162					Median Detects	1.09				CV Detects		0.545
163					Skewness Detects	0.874				Kurtosis Detects		0.692
164					Mean of Logged Detects	-0.0429				SD of Logged Detects		0.578
165												
166	**Normal GOF Test on Detects Only**											
167					Shapiro Wilk Test Statistic	0.93	**Shapiro Wilk GOF Test**					
168					1% Shapiro Wilk Critical Value	0.906	Detected Data appear Normal at 1% Significance Level					
169					Lilliefors Test Statistic	0.13	**Lilliefors GOF Test**					
170					1% Lilliefors Critical Value	0.177	Detected Data appear Normal at 1% Significance Level					
171	**Detected Data appear Normal at 1% Significance Level**											
172												
173	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
174					KM Mean	1.091				KM Standard Error of Mean		0.105
175					90KM SD	0.604				95% KM (BCA) UCL		1.259
176					95% KM (t) UCL	1.27				95% KM (Percentile Bootstrap) UCL		1.255
177					95% KM (z) UCL	1.265				95% KM Bootstrap t UCL		1.296
178					90% KM Chebyshev UCL	1.407				95% KM Chebyshev UCL		1.55
179					97.5% KM Chebyshev UCL	1.749				99% KM Chebyshev UCL		2.138
180												
181	**Gamma GOF Tests on Detected Observations Only**											
182					A-D Test Statistic	0.329	**Anderson-Darling GOF Test**					
183					5% A-D Critical Value	0.752	Detected data appear Gamma Distributed at 5% Significance Level					
184					K-S Test Statistic	0.0832	**Kolmogorov-Smirnov GOF**					
185					5% K-S Critical Value	0.154	Detected data appear Gamma Distributed at 5% Significance Level					
186	**Detected data appear Gamma Distributed at 5% Significance Level**											
187												
188	**Gamma Statistics on Detected Data Only**											
189					k hat (MLE)	3.455				k star (bias corrected MLE)		3.161
190					Theta hat (MLE)	0.323				Theta star (bias corrected MLE)		0.353
191					nu hat (MLE)	228.1				nu star (bias corrected)		208.7
192					Mean (detects)	1.115						
193												
194	**Gamma ROS Statistics using Imputed Non-Detects**											
195	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
196	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
197	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
198	This is especially true when the sample size is small.											
199	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
200					Minimum	0.227				Mean		1.089
201					Maximum	2.85				Median		1.055

202					SD	0.617				CV		0.567
203					k hat (MLE)	3.093				k star (bias corrected MLE)		2.839
204					Theta hat (MLE)	0.352				Theta star (bias corrected MLE)		0.383
205					nu hat (MLE)	210.3				nu star (bias corrected)		193.1
206					Adjusted Level of Significance (β)	0.0422						
207					Approximate Chi Square Value (193.08, α)	161.9				Adjusted Chi Square Value (193.08, β)		160.5
208					95% Gamma Approximate UCL	1.298				95% Gamma Adjusted UCL		1.31
209												
210					**Estimates of Gamma Parameters using KM Estimates**							
211					Mean (KM)	1.091				SD (KM)		0.604
212					Variance (KM)	0.365				SE of Mean (KM)		0.105
213					k hat (KM)	3.263				k star (KM)		2.994
214					nu hat (KM)	221.9				nu star (KM)		203.6
215					theta hat (KM)	0.335				theta star (KM)		0.364
216					80% gamma percentile (KM)	1.557				90% gamma percentile (KM)		1.937
217					95% gamma percentile (KM)	2.292				99% gamma percentile (KM)		3.06
218												
219					**Gamma Kaplan-Meier (KM) Statistics**							
220					Approximate Chi Square Value (203.62, α)	171.6				Adjusted Chi Square Value (203.62, β)		170.2
221					95% KM Approximate Gamma UCL	1.295				95% KM Adjusted Gamma UCL		1.306
222												
223					**Lognormal GOF Test on Detected Observations Only**							
224					Shapiro Wilk Test Statistic	0.96				**Shapiro Wilk GOF Test**		
225					10% Shapiro Wilk Critical Value	0.942				Detected Data appear Lognormal at 10% Significance Level		
226					Lilliefors Test Statistic	0.119				**Lilliefors GOF Test**		
227					10% Lilliefors Critical Value	0.139				Detected Data appear Lognormal at 10% Significance Level		
228					**Detected Data appear Lognormal at 10% Significance Level**							
229												
230					**Lognormal ROS Statistics Using Imputed Non-Detects**							
231					Mean in Original Scale	1.091				Mean in Log Scale		-0.0754
232					SD in Original Scale	0.613				SD in Log Scale		0.6
233					95% t UCL (assumes normality of ROS data)	1.269				95% Percentile Bootstrap UCL		1.264
234					95% BCA Bootstrap UCL	1.278				95% Bootstrap t UCL		1.291
235					95% H-UCL (Log ROS)	1.372						
236												
237					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
238					KM Mean (logged)	-0.0753				KM Geo Mean		0.927
239					KM SD (logged)	0.591				95% Critical H Value (KM-Log)		2.015
240					KM Standard Error of Mean (logged)	0.103				95% H-UCL (KM -Log)		1.359
241					KM SD (logged)	0.591				95% Critical H Value (KM-Log)		2.015
242					KM Standard Error of Mean (logged)	0.103						
243												
244					**DL/2 Statistics**							
245					**DL/2 Normal**					**DL/2 Log-Transformed**		
246					Mean in Original Scale	1.088				Mean in Log Scale		-0.0887
247					SD in Original Scale	0.618				SD in Log Scale		0.629
248					95% t UCL (Assumes normality)	1.267				95% H-Stat UCL		1.396
249					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
250												
251					**Nonparametric Distribution Free UCL Statistics**							
252					**Detected Data appear Normal Distributed at 1% Significance Level**							
253												
254					**Suggested UCL to Use**							
255					95% KM (t) UCL	1.27						
256												
257					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
258					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
259					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
260												
261												
262	**Chromium**											
263												
264					**General Statistics**							
265					Total Number of Observations	34				Number of Distinct Observations		30
266										Number of Missing Observations		10
267					Minimum	6.3				Mean		17.62
268					Maximum	52.1				Median		17.65

269				SD	9.563				Std. Error of Mean		1.64	
270				Coefficient of Variation	0.543				Skewness		2.403	
271												
272				**Normal GOF Test**								
273				Shapiro Wilk Test Statistic	0.737	**Shapiro Wilk GOF Test**						
274				1% Shapiro Wilk Critical Value	0.908	Data Not Normal at 1% Significance Level						
275				Lilliefors Test Statistic	0.237	**Lilliefors GOF Test**						
276				1% Lilliefors Critical Value	0.175	Data Not Normal at 1% Significance Level						
277				**Data Not Normal at 1% Significance Level**								
278												
279				**Assuming Normal Distribution**								
280				**95% Normal UCL**		**95% UCLs (Adjusted for Skewness)**						
281				95% Student's-t UCL	20.39	95% Adjusted-CLT UCL (Chen-1995)					21.04	
282						95% Modified-t UCL (Johnson-1978)					20.51	
283												
284				**Gamma GOF Test**								
285				A-D Test Statistic	1.117	**Anderson-Darling Gamma GOF Test**						
286				5% A-D Critical Value	0.749	Data Not Gamma Distributed at 5% Significance Level						
287				K-S Test Statistic	0.169	**Kolmogorov-Smirnov Gamma GOF Test**						
288				5% K-S Critical Value	0.151	Data Not Gamma Distributed at 5% Significance Level						
289				**Data Not Gamma Distributed at 5% Significance Level**								
290												
291				**Gamma Statistics**								
292				k hat (MLE)	4.872	k star (bias corrected MLE)					4.462	
293				Theta hat (MLE)	3.616	Theta star (bias corrected MLE)					3.949	
294				nu hat (MLE)	331.3	nu star (bias corrected)					303.4	
295				MLE Mean (bias corrected)	17.62	MLE Sd (bias corrected)					8.341	
296						Approximate Chi Square Value (0.05)					264.1	
297				Adjusted Level of Significance	0.0422	Adjusted Chi Square Value					262.3	
298												
299				**Assuming Gamma Distribution**								
300				95% Approximate Gamma UCL	20.24	95% Adjusted Gamma UCL					20.38	
301												
302				**Lognormal GOF Test**								
303				Shapiro Wilk Test Statistic	0.934	**Shapiro Wilk Lognormal GOF Test**						
304				10% Shapiro Wilk Critical Value	0.943	Data Not Lognormal at 10% Significance Level						
305				Lilliefors Test Statistic	0.137	**Lilliefors Lognormal GOF Test**						
306				10% Lilliefors Critical Value	0.137	Data appear Lognormal at 10% Significance Level						
307				**Data appear Approximate Lognormal at 10% Significance Level**								
308												
309				**Lognormal Statistics**								
310				Minimum of Logged Data	1.841	Mean of logged Data					2.763	
311				Maximum of Logged Data	3.953	SD of logged Data					0.449	
312												
313				**Assuming Lognormal Distribution**								
314				95% H-UCL	20.33	90% Chebyshev (MVUE) UCL					21.66	
315				95% Chebyshev (MVUE) UCL	23.56	97.5% Chebyshev (MVUE) UCL					26.19	
316				99% Chebyshev (MVUE) UCL	31.36							
317												
318				**Nonparametric Distribution Free UCL Statistics**								
319				**Data appear to follow a Discernible Distribution**								
320												
321				**Nonparametric Distribution Free UCLs**								
322				95% CLT UCL	20.32	95% BCA Bootstrap UCL					21.23	
323				95% Standard Bootstrap UCL	20.35	95% Bootstrap-t UCL					22.22	
324				95% Hall's Bootstrap UCL	36.54	95% Percentile Bootstrap UCL					20.49	
325				90% Chebyshev(Mean, Sd) UCL	22.54	95% Chebyshev(Mean, Sd) UCL					24.77	
326				97.5% Chebyshev(Mean, Sd) UCL	27.86	99% Chebyshev(Mean, Sd) UCL					33.94	
327												
328				**Suggested UCL to Use**								
329				95% H-UCL	20.33							
330												
331	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
332	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
333	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
334												
335												

336	**Copper**										
337											
338						**General Statistics**					
339					Total Number of Observations	34		Number of Distinct Observations		32	
340								Number of Missing Observations		10	
341					Minimum	6.85		Mean		65.32	
342					Maximum	584		Median		36.3	
343					SD	97.94		Std. Error of Mean		16.8	
344					Coefficient of Variation	1.5		Skewness		4.765	
345											
346						**Normal GOF Test**					
347					Shapiro Wilk Test Statistic	0.469		**Shapiro Wilk GOF Test**			
348					1% Shapiro Wilk Critical Value	0.908		Data Not Normal at 1% Significance Level			
349					Lilliefors Test Statistic	0.275		**Lilliefors GOF Test**			
350					1% Lilliefors Critical Value	0.175		Data Not Normal at 1% Significance Level			
351						**Data Not Normal at 1% Significance Level**					
352											
353						**Assuming Normal Distribution**					
354					**95% Normal UCL**			**95% UCLs (Adjusted for Skewness)**			
355					95% Student's-t UCL	93.74		95% Adjusted-CLT UCL (Chen-1995)		107.6	
356								95% Modified-t UCL (Johnson-1978)		96.03	
357											
358						**Gamma GOF Test**					
359					A-D Test Statistic	1.228		**Anderson-Darling Gamma GOF Test**			
360					5% A-D Critical Value	0.77		Data Not Gamma Distributed at 5% Significance Level			
361					K-S Test Statistic	0.157		**Kolmogorov-Smirnov Gamma GOF Test**			
362					5% K-S Critical Value	0.154		Data Not Gamma Distributed at 5% Significance Level			
363						**Data Not Gamma Distributed at 5% Significance Level**					
364											
365						**Gamma Statistics**					
366					k hat (MLE)	1.277		k star (bias corrected MLE)		1.184	
367					Theta hat (MLE)	51.16		Theta star (bias corrected MLE)		55.18	
368					nu hat (MLE)	86.82		nu star (bias corrected)		80.49	
369					MLE Mean (bias corrected)	65.32		MLE Sd (bias corrected)		60.03	
370								Approximate Chi Square Value (0.05)		60.82	
371					Adjusted Level of Significance	0.0422		Adjusted Chi Square Value		59.98	
372											
373						**Assuming Gamma Distribution**					
374					95% Approximate Gamma UCL	86.44		95% Adjusted Gamma UCL		87.66	
375											
376						**Lognormal GOF Test**					
377					Shapiro Wilk Test Statistic	0.972		**Shapiro Wilk Lognormal GOF Test**			
378					10% Shapiro Wilk Critical Value	0.943		Data appear Lognormal at 10% Significance Level			
379					Lilliefors Test Statistic	0.103		**Lilliefors Lognormal GOF Test**			
380					10% Lilliefors Critical Value	0.137		Data appear Lognormal at 10% Significance Level			
381						**Data appear Lognormal at 10% Significance Level**					
382											
383						**Lognormal Statistics**					
384					Minimum of Logged Data	1.924		Mean of logged Data		3.739	
385					Maximum of Logged Data	6.37		SD of logged Data		0.862	
386											
387						**Assuming Lognormal Distribution**					
388					95% H-UCL	85.94		90% Chebyshev (MVUE) UCL		89.99	
389					95% Chebyshev (MVUE) UCL	103.5		97.5% Chebyshev (MVUE) UCL		122.3	
390					99% Chebyshev (MVUE) UCL	159.3					
391											
392						**Nonparametric Distribution Free UCL Statistics**					
393						**Data appear to follow a Discernible Distribution**					
394											
395						**Nonparametric Distribution Free UCLs**					
396					95% CLT UCL	92.94		95% BCA Bootstrap UCL		115.2	
397					95% Standard Bootstrap UCL	92.38		95% Bootstrap-t UCL		137.4	
398					95% Hall's Bootstrap UCL	197.3		95% Percentile Bootstrap UCL		94.99	
399					90% Chebyshev(Mean, Sd) UCL	115.7		95% Chebyshev(Mean, Sd) UCL		138.5	
400					97.5% Chebyshev(Mean, Sd) UCL	170.2		99% Chebyshev(Mean, Sd) UCL		232.4	
401											
402						**Suggested UCL to Use**					

403					95% H-UCL	85.94						
404												
405	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
406	**Please verify the data were collected from random locations.**											
407	**If the data were collected using judgmental or other non-random methods,**											
408	**then contact a statistician to correctly calculate UCLs.**											
409												
410	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
411	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
412	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
413												
414												
415	**Lead**											
416												
417	**General Statistics**											
418					Total Number of Observations	34			Number of Distinct Observations	33		
419									Number of Missing Observations	10		
420					Minimum	18.8			Mean	228.1		
421					Maximum	2990			Median	131		
422					SD	506.4			Std. Error of Mean	86.85		
423					Coefficient of Variation	2.22			Skewness	5.246		
424												
425	**Normal GOF Test**											
426					Shapiro Wilk Test Statistic	0.348			**Shapiro Wilk GOF Test**			
427					1% Shapiro Wilk Critical Value	0.908			Data Not Normal at 1% Significance Level			
428					Lilliefors Test Statistic	0.402			**Lilliefors GOF Test**			
429					1% Lilliefors Critical Value	0.175			Data Not Normal at 1% Significance Level			
430	**Data Not Normal at 1% Significance Level**											
431												
432	**Assuming Normal Distribution**											
433	**95% Normal UCL**								**95% UCLs (Adjusted for Skewness)**			
434					95% Student's-t UCL	375.1			95% Adjusted-CLT UCL (Chen-1995)	454.4		
435									95% Modified-t UCL (Johnson-1978)	388.1		
436												
437	**Gamma GOF Test**											
438					A-D Test Statistic	2.406			**Anderson-Darling Gamma GOF Test**			
439					5% A-D Critical Value	0.782			Data Not Gamma Distributed at 5% Significance Level			
440					K-S Test Statistic	0.252			**Kolmogorov-Smirnov Gamma GOF Test**			
441					5% K-S Critical Value	0.156			Data Not Gamma Distributed at 5% Significance Level			
442	**Data Not Gamma Distributed at 5% Significance Level**											
443												
444	**Gamma Statistics**											
445					k hat (MLE)	0.869			k star (bias corrected MLE)	0.811		
446					Theta hat (MLE)	262.6			Theta star (bias corrected MLE)	281.1		
447					nu hat (MLE)	59.06			nu star (bias corrected)	55.18		
448					MLE Mean (bias corrected)	228.1			MLE Sd (bias corrected)	253.2		
449									Approximate Chi Square Value (0.05)	39.11		
450					Adjusted Level of Significance	0.0422			Adjusted Chi Square Value	38.44		
451												
452	**Assuming Gamma Distribution**											
453					95% Approximate Gamma UCL	321.8			95% Adjusted Gamma UCL	327.4		
454												
455	**Lognormal GOF Test**											
456					Shapiro Wilk Test Statistic	0.936			**Shapiro Wilk Lognormal GOF Test**			
457					10% Shapiro Wilk Critical Value	0.943			Data Not Lognormal at 10% Significance Level			
458					Lilliefors Test Statistic	0.144			**Lilliefors Lognormal GOF Test**			
459					10% Lilliefors Critical Value	0.137			Data Not Lognormal at 10% Significance Level			
460	**Data Not Lognormal at 10% Significance Level**											
461												
462	**Lognormal Statistics**											
463					Minimum of Logged Data	2.934			Mean of logged Data	4.754		
464					Maximum of Logged Data	8.003			SD of logged Data	0.998		
465												
466	**Assuming Lognormal Distribution**											
467					95% H-UCL	292			90% Chebyshev (MVUE) UCL	297.9		
468					95% Chebyshev (MVUE) UCL	348.2			97.5% Chebyshev (MVUE) UCL	418		
469					99% Chebyshev (MVUE) UCL	555						

470												
471	**Nonparametric Distribution Free UCL Statistics**											
472	**Data do not follow a Discernible Distribution**											
473												
474	**Nonparametric Distribution Free UCLs**											
475				95% CLT UCL	371			95% BCA Bootstrap UCL	519.4			
476				95% Standard Bootstrap UCL	368			95% Bootstrap-t UCL	996.2			
477				95% Hall's Bootstrap UCL	1017			95% Percentile Bootstrap UCL	389.5			
478				90% Chebyshev(Mean, Sd) UCL	488.6			95% Chebyshev(Mean, Sd) UCL	606.7			
479				97.5% Chebyshev(Mean, Sd) UCL	770.5			99% Chebyshev(Mean, Sd) UCL	1092			
480												
481	**Suggested UCL to Use**											
482				95% Student's-t UCL	375.1							
483												
484	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
485	**Please verify the data were collected from random locations.**											
486	**If the data were collected using judgmental or other non-random methods,**											
487	**then contact a statistician for correctly calculate UCLs.**											
488												
489	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
490	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
491	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
492												
493												
494	**Mercury**											
495												
496	**General Statistics**											
497				Total Number of Observations	34			Number of Distinct Observations	33			
498								Number of Missing Observations	10			
499				Minimum	0.0444			Mean	0.702			
500				Maximum	2.79			Median	0.483			
501				SD	0.679			Std. Error of Mean	0.116			
502				Coefficient of Variation	0.967			Skewness	1.614			
503												
504	**Normal GOF Test**											
505				Shapiro Wilk Test Statistic	0.816			**Shapiro Wilk GOF Test**				
506				1% Shapiro Wilk Critical Value	0.908			Data Not Normal at 1% Significance Level				
507				Lilliefors Test Statistic	0.22			**Lilliefors GOF Test**				
508				1% Lilliefors Critical Value	0.175			Data Not Normal at 1% Significance Level				
509	**Data Not Normal at 1% Significance Level**											
510												
511	**Assuming Normal Distribution**											
512				**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**				
513				95% Student's-t UCL	0.899			95% Adjusted-CLT UCL (Chen-1995)	0.928			
514								95% Modified-t UCL (Johnson-1978)	0.904			
515												
516	**Gamma GOF Test**											
517				A-D Test Statistic	0.276			**Anderson-Darling Gamma GOF Test**				
518				5% A-D Critical Value	0.771			Detected data appear Gamma Distributed at 5% Significance Level				
519				K-S Test Statistic	0.117			**Kolmogorov-Smirnov Gamma GOF Test**				
520				5% K-S Critical Value	0.155			Detected data appear Gamma Distributed at 5% Significance Level				
521	**Detected data appear Gamma Distributed at 5% Significance Level**											
522												
523	**Gamma Statistics**											
524				k hat (MLE)	1.238			k star (bias corrected MLE)	1.149			
525				Theta hat (MLE)	0.567			Theta star (bias corrected MLE)	0.611			
526				nu hat (MLE)	84.2			nu star (bias corrected)	78.11			
527				MLE Mean (bias corrected)	0.702			MLE Sd (bias corrected)	0.655			
528								Approximate Chi Square Value (0.05)	58.75			
529				Adjusted Level of Significance	0.0422			Adjusted Chi Square Value	57.92			
530												
531	**Assuming Gamma Distribution**											
532				95% Approximate Gamma UCL	0.933			95% Adjusted Gamma UCL	0.946			
533												
534	**Lognormal GOF Test**											
535				Shapiro Wilk Test Statistic	0.976			**Shapiro Wilk Lognormal GOF Test**				
536				10% Shapiro Wilk Critical Value	0.943			Data appear Lognormal at 10% Significance Level				

537				Lilliefors Test Statistic	0.0767	**Lilliefors Lognormal GOF Test**						
538				10% Lilliefors Critical Value	0.137	Data appear Lognormal at 10% Significance Level						
539	**Data appear Lognormal at 10% Significance Level**											
540												
541	**Lognormal Statistics**											
542				Minimum of Logged Data	-3.115	Mean of logged Data	-0.809					
543				Maximum of Logged Data	1.026	SD of logged Data	1.03					
544												
545	**Assuming Lognormal Distribution**											
546				95% H-UCL	1.18	90% Chebyshev (MVUE) UCL	1.195					
547				95% Chebyshev (MVUE) UCL	1.402	97.5% Chebyshev (MVUE) UCL	1.688					
548				99% Chebyshev (MVUE) UCL	2.251							
549												
550	**Nonparametric Distribution Free UCL Statistics**											
551	**Data appear to follow a Discernible Distribution**											
552												
553	**Nonparametric Distribution Free UCLs**											
554				95% CLT UCL	0.893	95% BCA Bootstrap UCL	0.919					
555				95% Standard Bootstrap UCL	0.891	95% Bootstrap-t UCL	0.968					
556				95% Hall's Bootstrap UCL	0.956	95% Percentile Bootstrap UCL	0.893					
557				90% Chebyshev(Mean, Sd) UCL	1.051	95% Chebyshev(Mean, Sd) UCL	1.209					
558				97.5% Chebyshev(Mean, Sd) UCL	1.429	99% Chebyshev(Mean, Sd) UCL	1.86					
559												
560	**Suggested UCL to Use**											
561				95% Adjusted Gamma UCL	0.946							
562												
563	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
564	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
565	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
566												
567												
568	**Nickel**											
569												
570	**General Statistics**											
571				Total Number of Observations	34	Number of Distinct Observations	32					
572						Number of Missing Observations	10					
573				Minimum	3.21	Mean	10.39					
574				Maximum	16.6	Median	10.55					
575				SD	3.237	Std. Error of Mean	0.555					
576				Coefficient of Variation	0.311	Skewness	-0.143					
577												
578	**Normal GOF Test**											
579				Shapiro Wilk Test Statistic	0.982	**Shapiro Wilk GOF Test**						
580				1% Shapiro Wilk Critical Value	0.908	Data appear Normal at 1% Significance Level						
581				Lilliefors Test Statistic	0.0798	**Lilliefors GOF Test**						
582				1% Lilliefors Critical Value	0.175	Data appear Normal at 1% Significance Level						
583	**Data appear Normal at 1% Significance Level**											
584												
585	**Assuming Normal Distribution**											
586	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
587				95% Student's-t UCL	11.33	95% Adjusted-CLT UCL (Chen-1995)	11.29					
588						95% Modified-t UCL (Johnson-1978)	11.33					
589												
590	**Gamma GOF Test**											
591				A-D Test Statistic	0.368	**Anderson-Darling Gamma GOF Test**						
592				5% A-D Critical Value	0.748	Detected data appear Gamma Distributed at 5% Significance Level						
593				K-S Test Statistic	0.103	**Kolmogorov-Smirnov Gamma GOF Test**						
594				5% K-S Critical Value	0.151	Detected data appear Gamma Distributed at 5% Significance Level						
595	**Detected data appear Gamma Distributed at 5% Significance Level**											
596												
597	**Gamma Statistics**											
598				k hat (MLE)	9.095	k star (bias corrected MLE)	8.312					
599				Theta hat (MLE)	1.143	Theta star (bias corrected MLE)	1.25					
600				nu hat (MLE)	618.5	nu star (bias corrected)	565.2					
601				MLE Mean (bias corrected)	10.39	MLE Sd (bias corrected)	3.605					
602						Approximate Chi Square Value (0.05)	511.1					
603				Adjusted Level of Significance	0.0422	Adjusted Chi Square Value	508.5					

	A	B	C	D	E	F	G	H	I	J	K	L
604												
605						**Assuming Gamma Distribution**							
606					95% Approximate Gamma UCL	11.5				95% Adjusted Gamma UCL		11.55
607												
608						**Lognormal GOF Test**						
609					Shapiro Wilk Test Statistic	0.934		**Shapiro Wilk Lognormal GOF Test**				
610					10% Shapiro Wilk Critical Value	0.943		Data Not Lognormal at 10% Significance Level				
611					Lilliefors Test Statistic	0.112		**Lilliefors Lognormal GOF Test**				
612					10% Lilliefors Critical Value	0.137		Data appear Lognormal at 10% Significance Level				
613					**Data appear Approximate Lognormal at 10% Significance Level**							
614												
615						**Lognormal Statistics**						
616					Minimum of Logged Data	1.166				Mean of logged Data		2.285
617					Maximum of Logged Data	2.809				SD of logged Data		0.36
618												
619						**Assuming Lognormal Distribution**						
620					95% H-UCL	11.76				90% Chebyshev (MVUE) UCL		12.45
621					95% Chebyshev (MVUE) UCL	13.34				97.5% Chebyshev (MVUE) UCL		14.59
622					99% Chebyshev (MVUE) UCL	17.04						
623												
624						**Nonparametric Distribution Free UCL Statistics**						
625						**Data appear to follow a Discernible Distribution**						
626												
627						**Nonparametric Distribution Free UCLs**						
628					95% CLT UCL	11.31				95% BCA Bootstrap UCL		11.28
629					95% Standard Bootstrap UCL	11.28				95% Bootstrap-t UCL		11.32
630					95% Hall's Bootstrap UCL	11.3				95% Percentile Bootstrap UCL		11.27
631					90% Chebyshev(Mean, Sd) UCL	12.06				95% Chebyshev(Mean, Sd) UCL		12.81
632					97.5% Chebyshev(Mean, Sd) UCL	13.86				99% Chebyshev(Mean, Sd) UCL		15.92
633												
634						**Suggested UCL to Use**						
635					95% Student's-t UCL	11.33						
636												
637						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
638						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
639						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
640												
641						**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**						
642						**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**						
643												
644	**Silver**											
645												
646						**General Statistics**						
647					Total Number of Observations	34				Number of Distinct Observations		32
648										Number of Missing Observations		10
649					Number of Detects	1				Number of Non-Detects		33
650					Number of Distinct Detects	1				Number of Distinct Non-Detects		31
651												
652						**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**						
653						**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**						
654												
655						**The data set for variable Silver was not processed!**						
656												
657												
658												
659	**Zinc**											
660												
661						**General Statistics**						
662					Total Number of Observations	34				Number of Distinct Observations		34
663										Number of Missing Observations		10
664					Minimum	71.2				Mean		250.7
665					Maximum	1000				Median		182.5
666					SD	199.2				Std. Error of Mean		34.17
667					Coefficient of Variation	0.795				Skewness		2.177
668												
669						**Normal GOF Test**						
670					Shapiro Wilk Test Statistic	0.773		**Shapiro Wilk GOF Test**				

	A	B	C	D	E	F	G	H	I	J	K	L
671				1% Shapiro Wilk Critical Value		0.908	Data Not Normal at 1% Significance Level					
672				Lilliefors Test Statistic		0.193	**Lilliefors GOF Test**					
673				1% Lilliefors Critical Value		0.175	Data Not Normal at 1% Significance Level					
674	**Data Not Normal at 1% Significance Level**											
675												
676	**Assuming Normal Distribution**											
677	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
678				95% Student's-t UCL		308.5	95% Adjusted-CLT UCL (Chen-1995)					320.6
679							95% Modified-t UCL (Johnson-1978)					310.7
680												
681	**Gamma GOF Test**											
682				A-D Test Statistic		0.709	**Anderson-Darling Gamma GOF Test**					
683				5% A-D Critical Value		0.757	Detected data appear Gamma Distributed at 5% Significance Level					
684				K-S Test Statistic		0.119	**Kolmogorov-Smirnov Gamma GOF Test**					
685				5% K-S Critical Value		0.153	Detected data appear Gamma Distributed at 5% Significance Level					
686	**Detected data appear Gamma Distributed at 5% Significance Level**											
687												
688	**Gamma Statistics**											
689				k hat (MLE)		2.352	k star (bias corrected MLE)					2.164
690				Theta hat (MLE)		106.6	Theta star (bias corrected MLE)					115.8
691				nu hat (MLE)		159.9	nu star (bias corrected)					147.2
692				MLE Mean (bias corrected)		250.7	MLE Sd (bias corrected)					170.4
693							Approximate Chi Square Value (0.05)					120.1
694				Adjusted Level of Significance		0.0422	Adjusted Chi Square Value					118.9
695												
696	**Assuming Gamma Distribution**											
697				95% Approximate Gamma UCL		307.2	95% Adjusted Gamma UCL					310.3
698												
699	**Lognormal GOF Test**											
700				Shapiro Wilk Test Statistic		0.966	**Shapiro Wilk Lognormal GOF Test**					
701				10% Shapiro Wilk Critical Value		0.943	Data appear Lognormal at 10% Significance Level					
702				Lilliefors Test Statistic		0.093	**Lilliefors Lognormal GOF Test**					
703				10% Lilliefors Critical Value		0.137	Data appear Lognormal at 10% Significance Level					
704	**Data appear Lognormal at 10% Significance Level**											
705												
706	**Lognormal Statistics**											
707				Minimum of Logged Data		4.265	Mean of logged Data					5.297
708				Maximum of Logged Data		6.908	SD of logged Data					0.655
709												
710	**Assuming Lognormal Distribution**											
711				95% H-UCL		313.7	90% Chebyshev (MVUE) UCL					334.9
712				95% Chebyshev (MVUE) UCL		375.2	97.5% Chebyshev (MVUE) UCL					431.3
713				99% Chebyshev (MVUE) UCL		541.4						
714												
715	**Nonparametric Distribution Free UCL Statistics**											
716	**Data appear to follow a Discernible Distribution**											
717												
718	**Nonparametric Distribution Free UCLs**											
719				95% CLT UCL		306.9	95% BCA Bootstrap UCL					319.7
720				95% Standard Bootstrap UCL		306.6	95% Bootstrap-t UCL					335.1
721				95% Hall's Bootstrap UCL		343.1	95% Percentile Bootstrap UCL					309.4
722				90% Chebyshev(Mean, Sd) UCL		353.2	95% Chebyshev(Mean, Sd) UCL					399.7
723				97.5% Chebyshev(Mean, Sd) UCL		464.1	99% Chebyshev(Mean, Sd) UCL					590.7
724												
725	**Suggested UCL to Use**											
726				95% Adjusted Gamma UCL		310.3						
727												
728	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
729	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
730	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
731												
732	**2-Methylnaphthalene**											
733												
734	**General Statistics**											
735				Total Number of Observations		2	Number of Distinct Observations					2
736							Number of Missing Observations					9
737				Number of Detects		1	Number of Non-Detects					1

738				Number of Distinct Detects	1				Number of Distinct Non-Detects	1		
739												
740												
741												
742												
743												
744												
745												
746												
747												
748												
749												
750												
751				Total Number of Observations	3				Number of Distinct Observations	3		
752									Number of Missing Observations	16		
753				Number of Detects	1				Number of Non-Detects	2		
754				Number of Distinct Detects	1				Number of Distinct Non-Detects	2		
755												
756												
757												
758												
759												
760												
761												
762												
763												
764												
765				Total Number of Observations	3				Number of Distinct Observations	3		
766									Number of Missing Observations	16		
767				Number of Detects	2				Number of Non-Detects	1		
768				Number of Distinct Detects	2				Number of Distinct Non-Detects	1		
769				Minimum Detect	89				Minimum Non-Detect	330		
770				Maximum Detect	180				Maximum Non-Detect	330		
771				Variance Detects	4141				Percent Non-Detects	33.33%		
772				Mean Detects	134.5				SD Detects	64.35		
773				Median Detects	134.5				CV Detects	0.478		
774				Skewness Detects	N/A				Kurtosis Detects	N/A		
775				Mean of Logged Detects	4.841				SD of Logged Detects	0.498		
776												
777												
778												
779												
780												
781												
782												
783												
784												
785												
786												
787												
788												
789												
790												
791				KM Mean	134.5				KM Standard Error of Mean	45.5		
792				90KM SD	45.5				95% KM (BCA) UCL	N/A		
793				95% KM (t) UCL	267.4				95% KM (Percentile Bootstrap) UCL	N/A		
794				95% KM (z) UCL	209.3				95% KM Bootstrap t UCL	N/A		
795				90% KM Chebyshev UCL	271				95% KM Chebyshev UCL	332.8		
796				97.5% KM Chebyshev UCL	418.6				99% KM Chebyshev UCL	587.2		
797												
798												
799												
800												
801												
802				k hat (MLE)	8.391				k star (bias corrected MLE)	N/A		
803				Theta hat (MLE)	16.03				Theta star (bias corrected MLE)	N/A		
804				nu hat (MLE)	33.57				nu star (bias corrected)	N/A		

Warning: This data set only has 2 observations!

Data set is too small to compute reliable and meaningful statistics and estimates!

The data set for variable 2-Methylnaphthalene was not processed!

It is suggested to collect at least 8 to 10 observations before using these statistical methods!

If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Benzo[a]anthracene

General Statistics

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Benzo[a]anthracene was not processed!

Benzo[a]pyrene

General Statistics

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,

refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,

but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).

The Chebyshev UCL often results in gross overestimates of the mean.

Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

805					Mean (detects)	134.5						
806												
807					**Estimates of Gamma Parameters using KM Estimates**							
808					Mean (KM)	134.5				SD (KM)	45.5	
809					Variance (KM)	2070				SE of Mean (KM)	45.5	
810					k hat (KM)	8.738				k star (KM)	N/A	
811					nu hat (KM)	52.43				nu star (KM)	N/A	
812					theta hat (KM)	15.39				theta star (KM)	N/A	
813					80% gamma percentile (KM)	N/A				90% gamma percentile (KM)	N/A	
814					95% gamma percentile (KM)	N/A				99% gamma percentile (KM)	N/A	
815												
816					**Gamma Kaplan-Meier (KM) Statistics**							
817										Adjusted Level of Significance (β)	0.00136	
818					Approximate Chi Square Value (N/A, α)	N/A				Adjusted Chi Square Value (N/A, β)	N/A	
819					95% KM Approximate Gamma UCL	N/A				95% KM Adjusted Gamma UCL	N/A	
820												
821					**Lognormal GOF Test on Detected Observations Only**							
822					**Not Enough Data to Perform GOF Test**							
823												
824					**Lognormal ROS Statistics Using Imputed Non-Detects**							
825					Mean in Original Scale	131.9				Mean in Log Scale	4.841	
826					SD in Original Scale	45.73				SD in Log Scale	0.352	
827					95% t UCL (assumes normality of ROS data)	209				95% Percentile Bootstrap UCL	N/A	
828					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A	
829					95% H-UCL (Log ROS)	428.8						
830												
831					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
832					KM Mean (logged)	4.841				KM Geo Mean	126.6	
833					KM SD (logged)	0.352				95% Critical H Value (KM-Log)	4.651	
834					KM Standard Error of Mean (logged)	0.352				95% H-UCL (KM -Log)	428.8	
835					KM SD (logged)	0.352				95% Critical H Value (KM-Log)	4.651	
836					KM Standard Error of Mean (logged)	0.352						
837												
838					**DL/2 Statistics**							
839					**DL/2 Normal**					**DL/2 Log-Transformed**		
840					Mean in Original Scale	144.7				Mean in Log Scale	4.929	
841					SD in Original Scale	48.79				SD in Log Scale	0.384	
842					95% t UCL (Assumes normality)	226.9				95% H-Stat UCL	582.1	
843					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
844												
845					**Nonparametric Distribution Free UCL Statistics**							
846					**Data do not follow a Discernible Distribution**							
847												
848					**Suggested UCL to Use**							
849					Recommendation cannot be provided							
850												
851					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
852					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
853					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
854												
855	**Benzo[g,h,i]perylene**											
856												
857					**General Statistics**							
858					Total Number of Observations	3				Number of Distinct Observations	3	
859										Number of Missing Observations	16	
860					Number of Detects	2				Number of Non-Detects	1	
861					Number of Distinct Detects	2				Number of Distinct Non-Detects	1	
862					Minimum Detect	100				Minimum Non-Detect	330	
863					Maximum Detect	160				Maximum Non-Detect	330	
864					Variance Detects	1800				Percent Non-Detects	33.33%	
865					Mean Detects	130				SD Detects	42.43	
866					Median Detects	130				CV Detects	0.326	
867					Skewness Detects	N/A				Kurtosis Detects	N/A	
868					Mean of Logged Detects	4.84				SD of Logged Detects	0.332	
869												
870					**Warning: Data set has only 2 Detected Values.**							
871					**This is not enough to compute meaningful or reliable statistics and estimates.**							

872												
873												
874	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
875	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
876	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
877	**The Chebyshev UCL often results in gross overestimates of the mean.**											
878	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
879												
880	**Normal GOF Test on Detects Only**											
881	**Not Enough Data to Perform GOF Test**											
882												
883	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
884					KM Mean	130			KM Standard Error of Mean	30		
885					90KM SD	30			95% KM (BCA) UCL	N/A		
886					95% KM (t) UCL	217.6			95% KM (Percentile Bootstrap) UCL	N/A		
887					95% KM (z) UCL	179.3			95% KM Bootstrap t UCL	N/A		
888					90% KM Chebyshev UCL	220			95% KM Chebyshev UCL	260.8		
889					97.5% KM Chebyshev UCL	317.3			99% KM Chebyshev UCL	428.5		
890												
891	**Gamma GOF Tests on Detected Observations Only**											
892	**Not Enough Data to Perform GOF Test**											
893												
894	**Gamma Statistics on Detected Data Only**											
895					k hat (MLE)	18.44			k star (bias corrected MLE)	N/A		
896					Theta hat (MLE)	7.051			Theta star (bias corrected MLE)	N/A		
897					nu hat (MLE)	73.75			nu star (bias corrected)	N/A		
898					Mean (detects)	130						
899												
900	**Estimates of Gamma Parameters using KM Estimates**											
901					Mean (KM)	130			SD (KM)	30		
902					Variance (KM)	900			SE of Mean (KM)	30		
903					k hat (KM)	18.78			k star (KM)	N/A		
904					nu hat (KM)	112.7			nu star (KM)	N/A		
905					theta hat (KM)	6.923			theta star (KM)	N/A		
906					80% gamma percentile (KM)	N/A			90% gamma percentile (KM)	N/A		
907					95% gamma percentile (KM)	N/A			99% gamma percentile (KM)	N/A		
908												
909	**Gamma Kaplan-Meier (KM) Statistics**											
910									Adjusted Level of Significance (β)	0.00136		
911					Approximate Chi Square Value (N/A, α)	N/A			Adjusted Chi Square Value (N/A, β)	N/A		
912					95% KM Approximate Gamma UCL	N/A			95% KM Adjusted Gamma UCL	N/A		
913												
914	**Lognormal GOF Test on Detected Observations Only**											
915	**Not Enough Data to Perform GOF Test**											
916												
917	**Lognormal ROS Statistics Using Imputed Non-Detects**											
918					Mean in Original Scale	128.8			Mean in Log Scale	4.84		
919					SD in Original Scale	30.07			SD in Log Scale	0.235		
920					95% t UCL (assumes normality of ROS data)	179.5			95% Percentile Bootstrap UCL	N/A		
921					95% BCA Bootstrap UCL	N/A			95% Bootstrap t UCL	N/A		
922					95% H-UCL (Log ROS)	234.5						
923												
924	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
925					KM Mean (logged)	4.84			KM Geo Mean	126.5		
926					KM SD (logged)	0.235			95% Critical H Value (KM-Log)	3.549		
927					KM Standard Error of Mean (logged)	0.235			95% H-UCL (KM -Log)	234.5		
928					KM SD (logged)	0.235			95% Critical H Value (KM-Log)	3.549		
929					KM Standard Error of Mean (logged)	0.235						
930												
931	**DL/2 Statistics**											
932	**DL/2 Normal**								**DL/2 Log-Transformed**			
933					Mean in Original Scale	141.7			Mean in Log Scale	4.929		
934					SD in Original Scale	36.17			SD in Log Scale	0.281		
935					95% t UCL (Assumes normality)	202.6			95% H-Stat UCL	313.6		
936	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
937												
938	**Nonparametric Distribution Free UCL Statistics**											

939	**Data do not follow a Discernible Distribution**											
940												
941	**Suggested UCL to Use**											
942	Recommendation cannot be provided											
943												
944	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
945	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
946	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
947												
948	**Benzo[k]fluoranthene**											
949												
950	**General Statistics**											
951	Total Number of Observations			3		Number of Distinct Observations				3		
952						Number of Missing Observations				16		
953	Number of Detects			2		Number of Non-Detects				1		
954	Number of Distinct Detects			2		Number of Distinct Non-Detects				1		
955	Minimum Detect			95		Minimum Non-Detect				330		
956	Maximum Detect			150		Maximum Non-Detect				330		
957	Variance Detects			1513		Percent Non-Detects				33.33%		
958	Mean Detects			122.5		SD Detects				38.89		
959	Median Detects			122.5		CV Detects				0.317		
960	Skewness Detects			N/A		Kurtosis Detects				N/A		
961	Mean of Logged Detects			4.782		SD of Logged Detects				0.323		
962												
963	**Warning: Data set has only 2 Detected Values.**											
964	**This is not enough to compute meaningful or reliable statistics and estimates.**											
965												
966												
967	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
968	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
969	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
970	**The Chebyshev UCL often results in gross overestimates of the mean.**											
971	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
972												
973	**Normal GOF Test on Detects Only**											
974	**Not Enough Data to Perform GOF Test**											
975												
976	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
977	KM Mean			122.5		KM Standard Error of Mean				27.5		
978	90KM SD			27.5		95% KM (BCA) UCL				N/A		
979	95% KM (t) UCL			202.8		95% KM (Percentile Bootstrap) UCL				N/A		
980	95% KM (z) UCL			167.7		95% KM Bootstrap t UCL				N/A		
981	90% KM Chebyshev UCL			205		95% KM Chebyshev UCL				242.4		
982	97.5% KM Chebyshev UCL			294.2		99% KM Chebyshev UCL				396.1		
983												
984	**Gamma GOF Tests on Detected Observations Only**											
985	**Not Enough Data to Perform GOF Test**											
986												
987	**Gamma Statistics on Detected Data Only**											
988	k hat (MLE)			19.5		k star (bias corrected MLE)				N/A		
989	Theta hat (MLE)			6.281		Theta star (bias corrected MLE)				N/A		
990	nu hat (MLE)			78.02		nu star (bias corrected)				N/A		
991	Mean (detects)			122.5								
992												
993	**Estimates of Gamma Parameters using KM Estimates**											
994	Mean (KM)			122.5		SD (KM)				27.5		
995	Variance (KM)			756.3		SE of Mean (KM)				27.5		
996	k hat (KM)			19.84		k star (KM)				N/A		
997	nu hat (KM)			119.1		nu star (KM)				N/A		
998	theta hat (KM)			6.173		theta star (KM)				N/A		
999	80% gamma percentile (KM)			N/A		90% gamma percentile (KM)				N/A		
1000	95% gamma percentile (KM)			N/A		99% gamma percentile (KM)				N/A		
1001												
1002	**Gamma Kaplan-Meier (KM) Statistics**											
1003						Adjusted Level of Significance (β)				0.00136		
1004	Approximate Chi Square Value (N/A, α)			N/A		Adjusted Chi Square Value (N/A, β)				N/A		
1005	95% KM Approximate Gamma UCL			N/A		95% KM Adjusted Gamma UCL				N/A		

1006												
1007	**Lognormal GOF Test on Detected Observations Only**											
1008	**Not Enough Data to Perform GOF Test**											
1009												
1010	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1011				Mean in Original Scale	121.5			Mean in Log Scale	4.782			
1012				SD in Original Scale	27.56			SD in Log Scale	0.228			
1013				95% t UCL (assumes normality of ROS data)	167.9			95% Percentile Bootstrap UCL	N/A			
1014				95% BCA Bootstrap UCL	N/A			95% Bootstrap t UCL	N/A			
1015				95% H-UCL (Log ROS)	215.6							
1016												
1017	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1018				KM Mean (logged)	4.782			KM Geo Mean	119.4			
1019				KM SD (logged)	0.228			95% Critical H Value (KM-Log)	3.499			
1020				KM Standard Error of Mean (logged)	0.228			95% H-UCL (KM -Log)	215.6			
1021				KM SD (logged)	0.228			95% Critical H Value (KM-Log)	3.499			
1022				KM Standard Error of Mean (logged)	0.228							
1023												
1024	**DL/2 Statistics**											
1025				**DL/2 Normal**				**DL/2 Log-Transformed**				
1026				Mean in Original Scale	136.7			Mean in Log Scale	4.89			
1027				SD in Original Scale	36.86			SD in Log Scale	0.295			
1028				95% t UCL (Assumes normality)	198.8			95% H-Stat UCL	324.2			
1029	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1030												
1031	**Nonparametric Distribution Free UCL Statistics**											
1032	**Data do not follow a Discernible Distribution**											
1033												
1034	**Suggested UCL to Use**											
1035				Recommendation cannot be provided								
1036												
1037	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1038	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1039	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1040												
1041	**Chrysene**											
1042												
1043	**General Statistics**											
1044				Total Number of Observations	3			Number of Distinct Observations	3			
1045								Number of Missing Observations	16			
1046				Number of Detects	2			Number of Non-Detects	1			
1047				Number of Distinct Detects	2			Number of Distinct Non-Detects	1			
1048				Minimum Detect	240			Minimum Non-Detect	330			
1049				Maximum Detect	360			Maximum Non-Detect	330			
1050				Variance Detects	7200			Percent Non-Detects	33.33%			
1051				Mean Detects	300			SD Detects	84.85			
1052				Median Detects	300			CV Detects	0.283			
1053				Skewness Detects	N/A			Kurtosis Detects	N/A			
1054				Mean of Logged Detects	5.683			SD of Logged Detects	0.287			
1055												
1056	**Warning: Data set has only 2 Detected Values.**											
1057	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1058												
1059												
1060	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1061	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1062	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1063	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1064	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1065												
1066	**Normal GOF Test on Detects Only**											
1067	**Not Enough Data to Perform GOF Test**											
1068												
1069	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1070				KM Mean	280			KM Standard Error of Mean	46.19			
1071				90KM SD	56.57			95% KM (BCA) UCL	N/A			
1072				95% KM (t) UCL	414.9			95% KM (Percentile Bootstrap) UCL	N/A			

1073					95% KM (z) UCL	356				95% KM Bootstrap t UCL		N/A
1074					90% KM Chebyshev UCL	418.6				95% KM Chebyshev UCL		481.3
1075					97.5% KM Chebyshev UCL	568.4				99% KM Chebyshev UCL		739.6
1076												
1077					**Gamma GOF Tests on Detected Observations Only**							
1078					**Not Enough Data to Perform GOF Test**							
1079												
1080					**Gamma Statistics on Detected Data Only**							
1081					k hat (MLE)	24.66				k star (bias corrected MLE)		N/A
1082					Theta hat (MLE)	12.16				Theta star (bias corrected MLE)		N/A
1083					nu hat (MLE)	98.65				nu star (bias corrected)		N/A
1084					Mean (detects)	300						
1085												
1086					**Estimates of Gamma Parameters using KM Estimates**							
1087					Mean (KM)	280				SD (KM)		56.57
1088					Variance (KM)	3200				SE of Mean (KM)		46.19
1089					k hat (KM)	24.5				k star (KM)		N/A
1090					nu hat (KM)	147				nu star (KM)		N/A
1091					theta hat (KM)	11.43				theta star (KM)		N/A
1092					80% gamma percentile (KM)	N/A				90% gamma percentile (KM)		N/A
1093					95% gamma percentile (KM)	N/A				99% gamma percentile (KM)		N/A
1094												
1095					**Gamma Kaplan-Meier (KM) Statistics**							
1096										Adjusted Level of Significance (β)		0.00136
1097					Approximate Chi Square Value (N/A, α)	N/A				Adjusted Chi Square Value (N/A, β)		N/A
1098					95% KM Approximate Gamma UCL	N/A				95% KM Adjusted Gamma UCL		N/A
1099												
1100					**Lognormal GOF Test on Detected Observations Only**							
1101					**Not Enough Data to Perform GOF Test**							
1102												
1103					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1104					Mean in Original Scale	280				Mean in Log Scale		5.616
1105					SD in Original Scale	69.28				SD in Log Scale		0.234
1106					95% t UCL (assumes normality of ROS data)	396.8				95% Percentile Bootstrap UCL		N/A
1107					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL		N/A
1108					95% H-UCL (Log ROS)	507.5						
1109												
1110					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1111					KM Mean (logged)	5.616				KM Geo Mean		274.7
1112					KM SD (logged)	0.191				95% Critical H Value (KM-Log)		3.236
1113					KM Standard Error of Mean (logged)	0.156				95% H-UCL (KM -Log)		433.3
1114					KM SD (logged)	0.191				95% Critical H Value (KM-Log)		3.236
1115					KM Standard Error of Mean (logged)	0.156						
1116												
1117					**DL/2 Statistics**							
1118					**DL/2 Normal**					**DL/2 Log-Transformed**		
1119					Mean in Original Scale	255				Mean in Log Scale		5.491
1120					SD in Original Scale	98.36				SD in Log Scale		0.39
1121					95% t UCL (Assumes normality)	420.8				95% H-Stat UCL		1068
1122					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1123												
1124					**Nonparametric Distribution Free UCL Statistics**							
1125					**Data do not follow a Discernible Distribution**							
1126												
1127					**Suggested UCL to Use**							
1128					Recommendation cannot be provided							
1129												
1130					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1131					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1132					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1133												
1134												
1135	**Fluoranthene**											
1136												
1137					**General Statistics**							
1138					Total Number of Observations	3				Number of Distinct Observations		3
1139										Number of Missing Observations		16

1140					Minimum	150				Mean		413.3
1141					Maximum	630				Median		460
1142					SD	243.4				Std. Error of Mean		140.5
1143					Coefficient of Variation	0.589				Skewness		-0.831
1144												
1145	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1146	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1147	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1148	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1149	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1150												
1151	**Normal GOF Test**											
1152					Shapiro Wilk Test Statistic	0.972			**Shapiro Wilk GOF Test**			
1153					1% Shapiro Wilk Critical Value	0.753			Data appear Normal at 1% Significance Level			
1154					Lilliefors Test Statistic	0.243			**Lilliefors GOF Test**			
1155					1% Lilliefors Critical Value	0.429			Data appear Normal at 1% Significance Level			
1156	**Data appear Normal at 1% Significance Level**											
1157	**Note GOF tests may be unreliable for small sample sizes**											
1158												
1159	**Assuming Normal Distribution**											
1160				**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**			
1161					95% Student's-t UCL	823.6			95% Adjusted-CLT UCL (Chen-1995)			572.4
1162									95% Modified-t UCL (Johnson-1978)			812.4
1163												
1164	**Gamma GOF Test**											
1165					A-D Test Statistic	0.348			**Anderson-Darling Gamma GOF Test**			
1166					5% A-D Critical Value	0.636			Detected data appear Gamma Distributed at 5% Significance Level			
1167					K-S Test Statistic	0.315			**Kolmogorov-Smirnov Gamma GOF Test**			
1168					5% K-S Critical Value	0.434			Detected data appear Gamma Distributed at 5% Significance Level			
1169	**Data Not Gamma Distributed at 5% Significance Level**											
1170												
1171	**Gamma Statistics**											
1172					k hat (MLE)	3.249			k star (bias corrected MLE)			N/A
1173					Theta hat (MLE)	127.2			Theta star (bias corrected MLE)			N/A
1174					nu hat (MLE)	19.49			nu star (bias corrected)			N/A
1175					MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)			N/A
1176									Approximate Chi Square Value (0.05)			N/A
1177					Adjusted Level of Significance	N/A			Adjusted Chi Square Value			N/A
1178												
1179	**Assuming Gamma Distribution**											
1180					95% Approximate Gamma UCL	N/A			95% Adjusted Gamma UCL			N/A
1181												
1182	**Lognormal GOF Test**											
1183					Shapiro Wilk Test Statistic	0.905			**Shapiro Wilk Lognormal GOF Test**			
1184					10% Shapiro Wilk Critical Value	0.789			Data appear Lognormal at 10% Significance Level			
1185					Lilliefors Test Statistic	0.306			**Lilliefors Lognormal GOF Test**			
1186					10% Lilliefors Critical Value	0.389			Data appear Lognormal at 10% Significance Level			
1187	**Data appear Lognormal at 10% Significance Level**											
1188	**Note GOF tests may be unreliable for small sample sizes**											
1189												
1190	**Lognormal Statistics**											
1191					Minimum of Logged Data	5.011			Mean of logged Data			5.863
1192					Maximum of Logged Data	6.446			SD of logged Data			0.754
1193												
1194	**Assuming Lognormal Distribution**											
1195					95% H-UCL	88559			90% Chebyshev (MVUE) UCL			936.6
1196					95% Chebyshev (MVUE) UCL	1170			97.5% Chebyshev (MVUE) UCL			1494
1197					99% Chebyshev (MVUE) UCL	2130						
1198												
1199	**Nonparametric Distribution Free UCL Statistics**											
1200	**Data appear to follow a Discernible Distribution**											
1201												
1202	**Nonparametric Distribution Free UCLs**											
1203					95% CLT UCL	644.5			95% BCA Bootstrap UCL			N/A
1204					95% Standard Bootstrap UCL	N/A			95% Bootstrap-t UCL			N/A
1205					95% Hall's Bootstrap UCL	N/A			95% Percentile Bootstrap UCL			N/A
1206					90% Chebyshev(Mean, Sd) UCL	834.9			95% Chebyshev(Mean, Sd) UCL			1026

1207				97.5% Chebyshev(Mean, Sd) UCL		1291			99% Chebyshev(Mean, Sd) UCL			1811
1208												
1209						**Suggested UCL to Use**						
1210				95% Student's-t UCL		823.6						
1211						**Recommended UCL exceeds the maximum observation**						
1212												
1213						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1214						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1215						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1216												
1217						**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**						
1218						**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**						
1219												
1220	**Fluorene**											
1221												
1222						**General Statistics**						
1223				Total Number of Observations		3			Number of Distinct Observations			3
1224									Number of Missing Observations			16
1225				Number of Detects		1			Number of Non-Detects			2
1226				Number of Distinct Detects		1			Number of Distinct Non-Detects			2
1227												
1228						**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**						
1229						**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**						
1230												
1231						**The data set for variable Fluorene was not processed!**						
1232												
1233												
1234	**Indeno[1,2,3-cd]pyrene**											
1235												
1236						**General Statistics**						
1237				Total Number of Observations		2			Number of Distinct Observations			2
1238									Number of Missing Observations			9
1239				Number of Detects		1			Number of Non-Detects			1
1240				Number of Distinct Detects		1			Number of Distinct Non-Detects			1
1241												
1242						**Warning: This data set only has 2 observations!**						
1243						**Data set is too small to compute reliable and meaningful statistics and estimates!**						
1244						**The data set for variable Indeno[1,2,3-cd]pyrene was not processed!**						
1245												
1246						**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**						
1247						**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**						
1248												
1249												
1250	**Naphthalene**											
1251												
1252						**General Statistics**						
1253				Total Number of Observations		3			Number of Distinct Observations			3
1254									Number of Missing Observations			16
1255				Number of Detects		1			Number of Non-Detects			2
1256				Number of Distinct Detects		1			Number of Distinct Non-Detects			2
1257												
1258						**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**						
1259						**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**						
1260												
1261						**The data set for variable Naphthalene was not processed!**						
1262												
1263												
1264	**Phenanthrene**											
1265												
1266						**General Statistics**						
1267				Total Number of Observations		3			Number of Distinct Observations			3
1268									Number of Missing Observations			16
1269				Number of Detects		2			Number of Non-Detects			1
1270				Number of Distinct Detects		2			Number of Distinct Non-Detects			1
1271				Minimum Detect		190			Minimum Non-Detect			330
1272				Maximum Detect		380			Maximum Non-Detect			330
1273				Variance Detects		18050			Percent Non-Detects			33.33%

1274				Mean Detects	285				SD Detects	134.4	
1275				Median Detects	285				CV Detects	0.471	
1276				Skewness Detects	N/A				Kurtosis Detects	N/A	
1277				Mean of Logged Detects	5.594				SD of Logged Detects	0.49	
1278											
1279				**Warning: Data set has only 2 Detected Values.**							
1280				**This is not enough to compute meaningful or reliable statistics and estimates.**							
1281											
1282											
1283				**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
1284				**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
1285				**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
1286				**The Chebyshev UCL often results in gross overestimates of the mean.**							
1287				**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							
1288											
1289				**Normal GOF Test on Detects Only**							
1290				**Not Enough Data to Perform GOF Test**							
1291											
1292				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1293				KM Mean	253.3				KM Standard Error of Mean	73.13	
1294				90KM SD	89.57				95% KM (BCA) UCL	N/A	
1295				95% KM (t) UCL	466.9				95% KM (Percentile Bootstrap) UCL	N/A	
1296				95% KM (z) UCL	373.6				95% KM Bootstrap t UCL	N/A	
1297				90% KM Chebyshev UCL	472.7				95% KM Chebyshev UCL	572.1	
1298				97.5% KM Chebyshev UCL	710				99% KM Chebyshev UCL	981	
1299											
1300				**Gamma GOF Tests on Detected Observations Only**							
1301				**Not Enough Data to Perform GOF Test**							
1302											
1303				**Gamma Statistics on Detected Data Only**							
1304				k hat (MLE)	8.653				k star (bias corrected MLE)	N/A	
1305				Theta hat (MLE)	32.93				Theta star (bias corrected MLE)	N/A	
1306				nu hat (MLE)	34.61				nu star (bias corrected)	N/A	
1307				Mean (detects)	285						
1308											
1309				**Estimates of Gamma Parameters using KM Estimates**							
1310				Mean (KM)	253.3				SD (KM)	89.57	
1311				Variance (KM)	8022				SE of Mean (KM)	73.13	
1312				k hat (KM)	8				k star (KM)	N/A	
1313				nu hat (KM)	48				nu star (KM)	N/A	
1314				theta hat (KM)	31.67				theta star (KM)	N/A	
1315				80% gamma percentile (KM)	N/A				90% gamma percentile (KM)	N/A	
1316				95% gamma percentile (KM)	N/A				99% gamma percentile (KM)	N/A	
1317											
1318				**Gamma Kaplan-Meier (KM) Statistics**							
1319									Adjusted Level of Significance (β)	0.00136	
1320				Approximate Chi Square Value (N/A, α)	N/A				Adjusted Chi Square Value (N/A, β)	N/A	
1321				95% KM Approximate Gamma UCL	N/A				95% KM Adjusted Gamma UCL	N/A	
1322											
1323				**Lognormal GOF Test on Detected Observations Only**							
1324				**Not Enough Data to Perform GOF Test**							
1325											
1326				**Lognormal ROS Statistics Using Imputed Non-Detects**							
1327				Mean in Original Scale	253.3				Mean in Log Scale	5.478	
1328				SD in Original Scale	109.7				SD in Log Scale	0.4	
1329				95% t UCL (assumes normality of ROS data)	438.3				95% Percentile Bootstrap UCL	N/A	
1330				95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A	
1331				95% H-UCL (Log ROS)	1137						
1332											
1333				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1334				KM Mean (logged)	5.478				KM Geo Mean	239.4	
1335				KM SD (logged)	0.327				95% Critical H Value (KM-Log)	4.377	
1336				KM Standard Error of Mean (logged)	0.267				95% H-UCL (KM -Log)	694.2	
1337				KM SD (logged)	0.327				95% Critical H Value (KM-Log)	4.377	
1338				KM Standard Error of Mean (logged)	0.267						
1339											
1340				**DL/2 Statistics**							

1341	**DL/2 Normal**						**DL/2 Log-Transformed**					
1342				Mean in Original Scale	245					Mean in Log Scale	5.431	
1343				SD in Original Scale	117.6					SD in Log Scale	0.447	
1344				95% t UCL (Assumes normality)	443.2					95% H-Stat UCL	1571	
1345	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1346												
1347	**Nonparametric Distribution Free UCL Statistics**											
1348	**Data do not follow a Discernible Distribution**											
1349												
1350	**Suggested UCL to Use**											
1351				Recommendation cannot be provided								
1352												
1353	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1354	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1355	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1356												
1357	**Pyrene**											
1358												
1359	**General Statistics**											
1360				Total Number of Observations	3					Number of Distinct Observations	3	
1361										Number of Missing Observations	16	
1362				Number of Detects	2					Number of Non-Detects	1	
1363				Number of Distinct Detects	2					Number of Distinct Non-Detects	1	
1364				Minimum Detect	270					Minimum Non-Detect	330	
1365				Maximum Detect	400					Maximum Non-Detect	330	
1366				Variance Detects	8450					Percent Non-Detects	33.33%	
1367				Mean Detects	335					SD Detects	91.92	
1368				Median Detects	335					CV Detects	0.274	
1369				Skewness Detects	N/A					Kurtosis Detects	N/A	
1370				Mean of Logged Detects	5.795					SD of Logged Detects	0.278	
1371												
1372	**Warning: Data set has only 2 Detected Values.**											
1373	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1374												
1375												
1376	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1377	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1378	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1379	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1380	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1381												
1382	**Normal GOF Test on Detects Only**											
1383	**Not Enough Data to Perform GOF Test**											
1384												
1385	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1386				KM Mean	313.3					KM Standard Error of Mean	50.04	
1387				90KM SD	61.28					95% KM (BCA) UCL	N/A	
1388				95% KM (t) UCL	459.4					95% KM (Percentile Bootstrap) UCL	N/A	
1389				95% KM (z) UCL	395.6					95% KM Bootstrap t UCL	N/A	
1390				90% KM Chebyshev UCL	463.4					95% KM Chebyshev UCL	531.4	
1391				97.5% KM Chebyshev UCL	625.8					99% KM Chebyshev UCL	811.2	
1392												
1393	**Gamma GOF Tests on Detected Observations Only**											
1394	**Not Enough Data to Perform GOF Test**											
1395												
1396	**Gamma Statistics on Detected Data Only**											
1397				k hat (MLE)	26.22					k star (bias corrected MLE)	N/A	
1398				Theta hat (MLE)	12.77					Theta star (bias corrected MLE)	N/A	
1399				nu hat (MLE)	104.9					nu star (bias corrected)	N/A	
1400				Mean (detects)	335							
1401												
1402	**Estimates of Gamma Parameters using KM Estimates**											
1403				Mean (KM)	313.3					SD (KM)	61.28	
1404				Variance (KM)	3756					SE of Mean (KM)	50.04	
1405				k hat (KM)	26.14					k star (KM)	N/A	
1406				nu hat (KM)	156.9					nu star (KM)	N/A	
1407				theta hat (KM)	11.99					theta star (KM)	N/A	

1408	80% gamma percentile (KM)					N/A	90% gamma percentile (KM)					N/A
1409	95% gamma percentile (KM)					N/A	99% gamma percentile (KM)					N/A
1410												
1411	**Gamma Kaplan-Meier (KM) Statistics**											
1412							Adjusted Level of Significance (β)					0.00136
1413	Approximate Chi Square Value (N/A, α)					N/A	Adjusted Chi Square Value (N/A, β)					N/A
1414	95% KM Approximate Gamma UCL					N/A	95% KM Adjusted Gamma UCL					N/A
1415												
1416	**Lognormal GOF Test on Detected Observations Only**											
1417	**Not Enough Data to Perform GOF Test**											
1418												
1419	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1420	Mean in Original Scale					313.3	Mean in Log Scale					5.729
1421	SD in Original Scale					75.06	SD in Log Scale					0.227
1422	95% t UCL (assumes normality of ROS data)					439.9	95% Percentile Bootstrap UCL					N/A
1423	95% BCA Bootstrap UCL					N/A	95% Bootstrap t UCL					N/A
1424	95% H-UCL (Log ROS)					552.7						
1425												
1426	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1427	KM Mean (logged)					5.729	KM Geo Mean					307.8
1428	KM SD (logged)					0.185	95% Critical H Value (KM-Log)					3.198
1429	KM Standard Error of Mean (logged)					0.151	95% H-UCL (KM -Log)					476.1
1430	KM SD (logged)					0.185	95% Critical H Value (KM-Log)					3.198
1431	KM Standard Error of Mean (logged)					0.151						
1432												
1433	**DL/2 Statistics**											
1434	**DL/2 Normal**						**DL/2 Log-Transformed**					
1435	Mean in Original Scale					278.3	Mean in Log Scale					5.565
1436	SD in Original Scale					117.7	SD in Log Scale					0.444
1437	95% t UCL (Assumes normality)					476.8	95% H-Stat UCL					1754
1438	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1439												
1440	**Nonparametric Distribution Free UCL Statistics**											
1441	**Data do not follow a Discernible Distribution**											
1442												
1443	**Suggested UCL to Use**											
1444	Recommendation cannot be provided											
1445												
1446	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1447	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1448	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1449												

1	**UCL Statistics for Data Sets with Non-Detects**											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.2 7/28/2025 11:45:56 AM										
5	From File	sediment_central drainage basin										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10	**2,4,6-Trinitrotoluene**											
11												
12	**General Statistics**											
13	Total Number of Observations	16				Number of Distinct Observations	13					
14						Number of Missing Observations	16					
15	Number of Detects	1				Number of Non-Detects	15					
16	Number of Distinct Detects	1				Number of Distinct Non-Detects	12					
17												
18	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
19	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
20												
21	**The data set for variable 2,4,6-Trinitrotoluene was not processed!**											
22												
23												
24												
25	**Aluminum**											
26												
27	**General Statistics**											
28	Total Number of Observations	2				Number of Distinct Observations	2					
29						Number of Missing Observations	16					
30	Minimum	1670				Mean	3150					
31	Maximum	4630				Median	3150					
32												
33	**Warning: This data set only has 2 observations!**											
34	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
35	**The data set for variable Aluminum was not processed!**											
36												
37	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
38	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
39												
40												
41	**Arsenic**											
42												
43	**General Statistics**											
44	Total Number of Observations	15				Number of Distinct Observations	15					
45						Number of Missing Observations	17					
46	Number of Detects	13				Number of Non-Detects	2					
47	Number of Distinct Detects	13				Number of Distinct Non-Detects	2					
48	Minimum Detect	2.64				Minimum Non-Detect	9.15					
49	Maximum Detect	97.3				Maximum Non-Detect	148					
50	Variance Detects	902.7				Percent Non-Detects	13.33%					
51	Mean Detects	29.21				SD Detects	30.05					
52	Median Detects	16				CV Detects	1.029					
53	Skewness Detects	1.334				Kurtosis Detects	0.862					
54	Mean of Logged Detects	2.85				SD of Logged Detects	1.117					
55												
56	**Normal GOF Test on Detects Only**											
57	Shapiro Wilk Test Statistic	0.822				**Shapiro Wilk GOF Test**						
58	1% Shapiro Wilk Critical Value	0.814				Detected Data appear Normal at 1% Significance Level						
59	Lilliefors Test Statistic	0.271				**Lilliefors GOF Test**						
60	1% Lilliefors Critical Value	0.271				Detected Data appear Normal at 1% Significance Level						
61	**Detected Data appear Normal at 1% Significance Level**											
62												
63	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
64	KM Mean	27.5				KM Standard Error of Mean	7.929					
65	90KM SD	28.5				95% KM (BCA) UCL	40.65					
66	95% KM (t) UCL	41.46				95% KM (Percentile Bootstrap) UCL	40.74					
67	95% KM (z) UCL	40.54				95% KM Bootstrap t UCL	50.41					

	A	B	C	D	E	F	G	H	I	J	K	L
68					90% KM Chebyshev UCL	51.28				95% KM Chebyshev UCL		62.06
69					97.5% KM Chebyshev UCL	77.01				99% KM Chebyshev UCL		106.4
70												
71					**Gamma GOF Tests on Detected Observations Only**							
72					A-D Test Statistic	0.3	**Anderson-Darling GOF Test**					
73					5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level					
74					K-S Test Statistic	0.184	**Kolmogorov-Smirnov GOF**					
75					5% K-S Critical Value	0.243	Detected data appear Gamma Distributed at 5% Significance Level					
76					**Detected data appear Gamma Distributed at 5% Significance Level**							
77												
78					**Gamma Statistics on Detected Data Only**							
79					k hat (MLE)	1.089	k star (bias corrected MLE)					0.889
80					Theta hat (MLE)	26.82	Theta star (bias corrected MLE)					32.85
81					nu hat (MLE)	28.32	nu star (bias corrected)					23.12
82					Mean (detects)	29.21						
83												
84					**Gamma ROS Statistics using Imputed Non-Detects**							
85					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
86					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
87					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
88					This is especially true when the sample size is small.							
89					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
90					Minimum	0.0916	Mean					26.59
91					Maximum	97.3	Median					16
92					SD	28.88	CV					1.086
93					k hat (MLE)	0.771	k star (bias corrected MLE)					0.661
94					Theta hat (MLE)	34.49	Theta star (bias corrected MLE)					40.22
95					nu hat (MLE)	23.13	nu star (bias corrected)					19.83
96					Adjusted Level of Significance (β)	0.0324						
97					Approximate Chi Square Value (19.83, α)	10.73	Adjusted Chi Square Value (19.83, β)					9.912
98					95% Gamma Approximate UCL	49.16	95% Gamma Adjusted UCL					53.21
99												
100					**Estimates of Gamma Parameters using KM Estimates**							
101					Mean (KM)	27.5	SD (KM)					28.5
102					Variance (KM)	812.1	SE of Mean (KM)					7.929
103					k hat (KM)	0.931	k star (KM)					0.789
104					nu hat (KM)	27.93	nu star (KM)					23.68
105					theta hat (KM)	29.53	theta star (KM)					34.84
106					80% gamma percentile (KM)	44.97	90% gamma percentile (KM)					67.08
107					95% gamma percentile (KM)	89.63	99% gamma percentile (KM)					142.9
108												
109					**Gamma Kaplan-Meier (KM) Statistics**							
110					Approximate Chi Square Value (23.68, α)	13.6	Adjusted Chi Square Value (23.68, β)					12.67
111					95% KM Approximate Gamma UCL	47.86	95% KM Adjusted Gamma UCL					51.38
112												
113					**Lognormal GOF Test on Detected Observations Only**							
114					Shapiro Wilk Test Statistic	0.973	**Shapiro Wilk GOF Test**					
115					10% Shapiro Wilk Critical Value	0.889	Detected Data appear Lognormal at 10% Significance Level					
116					Lilliefors Test Statistic	0.117	**Lilliefors GOF Test**					
117					10% Lilliefors Critical Value	0.215	Detected Data appear Lognormal at 10% Significance Level					
118					**Detected Data appear Lognormal at 10% Significance Level**							
119												
120					**Lognormal ROS Statistics Using Imputed Non-Detects**							
121					Mean in Original Scale	26.7	Mean in Log Scale					2.76
122					SD in Original Scale	28.67	SD in Log Scale					1.083
123					95% t UCL (assumes normality of ROS data)	39.73	95% Percentile Bootstrap UCL					39.67
124					95% BCA Bootstrap UCL	42.15	95% Bootstrap t UCL					45.54
125					95% H-UCL (Log ROS)	65.37						
126												
127					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
128					KM Mean (logged)	2.759	KM Geo Mean					15.78
129					KM SD (logged)	1.09	95% Critical H Value (KM-Log)					2.89
130					KM Standard Error of Mean (logged)	0.305	95% H-UCL (KM -Log)					66.33
131					KM SD (logged)	1.09	95% Critical H Value (KM-Log)					2.89
132					KM Standard Error of Mean (logged)	0.305						
133												
134					**DL/2 Statistics**							

135	**DL/2 Normal**						**DL/2 Log-Transformed**					
136				Mean in Original Scale	30.55					Mean in Log Scale	2.858	
137				SD in Original Scale	30.96					SD in Log Scale	1.16	
138				95% t UCL (Assumes normality)	44.63					95% H-Stat UCL	86.86	
139	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
140												
141	**Nonparametric Distribution Free UCL Statistics**											
142	**Detected Data appear Normal Distributed at 1% Significance Level**											
143												
144	**Suggested UCL to Use**											
145				95% KM (t) UCL	41.46							
146												
147	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
148	**Please verify the data were collected from random locations.**											
149	**If the data were collected using judgmental or other non-random methods,**											
150	**then contact a statistician to correctly calculate UCLs.**											
151												
152	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
153	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
154	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
155												
156	**Cadmium**											
157												
158	**General Statistics**											
159				Total Number of Observations	15					Number of Distinct Observations	15	
160										Number of Missing Observations	17	
161				Number of Detects	8					Number of Non-Detects	7	
162				Number of Distinct Detects	8					Number of Distinct Non-Detects	7	
163				Minimum Detect	0.51					Minimum Non-Detect	0.447	
164				Maximum Detect	2.37					Maximum Non-Detect	36.95	
165				Variance Detects	0.347					Percent Non-Detects	46.67%	
166				Mean Detects	1.309					SD Detects	0.589	
167				Median Detects	1.215					CV Detects	0.45	
168				Skewness Detects	0.577					Kurtosis Detects	0.181	
169				Mean of Logged Detects	0.174					SD of Logged Detects	0.482	
170												
171	**Normal GOF Test on Detects Only**											
172				Shapiro Wilk Test Statistic	0.97		**Shapiro Wilk GOF Test**					
173				1% Shapiro Wilk Critical Value	0.749		Detected Data appear Normal at 1% Significance Level					
174				Lilliefors Test Statistic	0.151		**Lilliefors GOF Test**					
175				1% Lilliefors Critical Value	0.333		Detected Data appear Normal at 1% Significance Level					
176	**Detected Data appear Normal at 1% Significance Level**											
177	**Note GOF tests may be unreliable for small sample sizes**											
178												
179	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
180				KM Mean	1.169					KM Standard Error of Mean	0.186	
181				90KM SD	0.55					95% KM (BCA) UCL	1.452	
182				95% KM (t) UCL	1.497					95% KM (Percentile Bootstrap) UCL	1.459	
183				95% KM (z) UCL	1.475					95% KM Bootstrap t UCL	1.505	
184				90% KM Chebyshev UCL	1.728					95% KM Chebyshev UCL	1.981	
185				97.5% KM Chebyshev UCL	2.332					99% KM Chebyshev UCL	3.022	
186	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
187												
188	**Gamma GOF Tests on Detected Observations Only**											
189				A-D Test Statistic	0.151		**Anderson-Darling GOF Test**					
190				5% A-D Critical Value	0.719		Detected data appear Gamma Distributed at 5% Significance Level					
191				K-S Test Statistic	0.133		**Kolmogorov-Smirnov GOF**					
192				5% K-S Critical Value	0.295		Detected data appear Gamma Distributed at 5% Significance Level					
193	**Detected data appear Gamma Distributed at 5% Significance Level**											
194	**Note GOF tests may be unreliable for small sample sizes**											
195												
196	**Gamma Statistics on Detected Data Only**											
197				k hat (MLE)	5.401					k star (bias corrected MLE)	3.459	
198				Theta hat (MLE)	0.242					Theta star (bias corrected MLE)	0.379	
199				nu hat (MLE)	86.41					nu star (bias corrected)	55.34	
200				Mean (detects)	1.309							
201												

	A	B	C	D	E	F	G	H	I	J	K	L
202	**Gamma ROS Statistics using Imputed Non-Detects**											
203	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
204	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
205	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
206	This is especially true when the sample size is small.											
207	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
208					Minimum	0.331				Mean		1.138
209					Maximum	2.37				Median		1.024
210					SD	0.491				CV		0.431
211					k hat (MLE)	5.536				k star (bias corrected MLE)		4.473
212					Theta hat (MLE)	0.206				Theta star (bias corrected MLE)		0.254
213					nu hat (MLE)	166.1				nu star (bias corrected)		134.2
214					Adjusted Level of Significance (β)	0.0324						
215					Approximate Chi Square Value (134.19, α)	108.4				Adjusted Chi Square Value (134.19, β)		105.6
216					95% Gamma Approximate UCL	1.408				95% Gamma Adjusted UCL		1.446
217												
218	**Estimates of Gamma Parameters using KM Estimates**											
219					Mean (KM)	1.169				SD (KM)		0.55
220					Variance (KM)	0.303				SE of Mean (KM)		0.186
221					k hat (KM)	4.51				k star (KM)		3.653
222					nu hat (KM)	135.3				nu star (KM)		109.6
223					theta hat (KM)	0.259				theta star (KM)		0.32
224					80% gamma percentile (KM)	1.629				90% gamma percentile (KM)		1.989
225					95% gamma percentile (KM)	2.322				99% gamma percentile (KM)		3.036
226												
227	**Gamma Kaplan-Meier (KM) Statistics**											
228					Approximate Chi Square Value (109.58, α)	86.42				Adjusted Chi Square Value (109.58, β)		83.89
229					95% KM Approximate Gamma UCL	1.482				95% KM Adjusted Gamma UCL		1.527
230	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
231												
232	**Lognormal GOF Test on Detected Observations Only**											
233					Shapiro Wilk Test Statistic	0.98				**Shapiro Wilk GOF Test**		
234					10% Shapiro Wilk Critical Value	0.851				Detected Data appear Lognormal at 10% Significance Level		
235					Lilliefors Test Statistic	0.126				**Lilliefors GOF Test**		
236					10% Lilliefors Critical Value	0.265				Detected Data appear Lognormal at 10% Significance Level		
237	**Detected Data appear Lognormal at 10% Significance Level**											
238	**Note GOF tests may be unreliable for small sample sizes**											
239												
240	**Lognormal ROS Statistics Using Imputed Non-Detects**											
241					Mean in Original Scale	1.121				Mean in Log Scale		0.0294
242					SD in Original Scale	0.487				SD in Log Scale		0.432
243					95% t UCL (assumes normality of ROS data)	1.342				95% Percentile Bootstrap UCL		1.33
244					95% BCA Bootstrap UCL	1.377				95% Bootstrap t UCL		1.423
245					95% H-UCL (Log ROS)	1.423						
246												
247	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
248					KM Mean (logged)	0.0345				KM Geo Mean		1.035
249					KM SD (logged)	0.51				95% Critical H Value (KM-Log)		2.079
250					KM Standard Error of Mean (logged)	0.178				95% H-UCL (KM -Log)		1.566
251					KM SD (logged)	0.51				95% Critical H Value (KM-Log)		2.079
252					KM Standard Error of Mean (logged)	0.178						
253	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
254												
255	**DL/2 Statistics**											
256	**DL/2 Normal**									**DL/2 Log-Transformed**		
257					Mean in Original Scale	2.318				Mean in Log Scale		0.224
258					SD in Original Scale	4.498				SD in Log Scale		0.924
259					95% t UCL (Assumes normality)	4.363				95% H-Stat UCL		3.665
260	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
261												
262	**Nonparametric Distribution Free UCL Statistics**											
263	**Detected Data appear Normal Distributed at 1% Significance Level**											
264												
265	**Suggested UCL to Use**											
266					95% KM (t) UCL	1.497						
267												
268	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

269	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
270	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
271												
272	**Chromium**											
273												
274	**General Statistics**											
275						Total Number of Observations	15			Number of Distinct Observations	15	
276										Number of Missing Observations	17	
277						Number of Detects	14			Number of Non-Detects	1	
278						Number of Distinct Detects	14			Number of Distinct Non-Detects	1	
279						Minimum Detect	10.4			Minimum Non-Detect	111	
280						Maximum Detect	46.1			Maximum Non-Detect	111	
281						Variance Detects	137.1			Percent Non-Detects	6.667%	
282						Mean Detects	22.68			SD Detects	11.71	
283						Median Detects	20.9			CV Detects	0.516	
284						Skewness Detects	0.853			Kurtosis Detects	-0.21	
285						Mean of Logged Detects	3.001			SD of Logged Detects	0.507	
286												
287	**Normal GOF Test on Detects Only**											
288						Shapiro Wilk Test Statistic	0.889			**Shapiro Wilk GOF Test**		
289						1% Shapiro Wilk Critical Value	0.825			Detected Data appear Normal at 1% Significance Level		
290						Lilliefors Test Statistic	0.175			**Lilliefors GOF Test**		
291						1% Lilliefors Critical Value	0.263			Detected Data appear Normal at 1% Significance Level		
292	**Detected Data appear Normal at 1% Significance Level**											
293												
294	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
295						KM Mean	22.68			KM Standard Error of Mean	3.13	
296						90KM SD	11.28			95% KM (BCA) UCL	27.93	
297						95% KM (t) UCL	28.19			95% KM (Percentile Bootstrap) UCL	27.91	
298						95% KM (z) UCL	27.83			95% KM Bootstrap t UCL	30.36	
299						90% KM Chebyshev UCL	32.07			95% KM Chebyshev UCL	36.32	
300						97.5% KM Chebyshev UCL	42.22			99% KM Chebyshev UCL	53.82	
301												
302	**Gamma GOF Tests on Detected Observations Only**											
303						A-D Test Statistic	0.415			**Anderson-Darling GOF Test**		
304						5% A-D Critical Value	0.739			Detected data appear Gamma Distributed at 5% Significance Level		
305						K-S Test Statistic	0.171			**Kolmogorov-Smirnov GOF**		
306						5% K-S Critical Value	0.23			Detected data appear Gamma Distributed at 5% Significance Level		
307	**Detected data appear Gamma Distributed at 5% Significance Level**											
308												
309	**Gamma Statistics on Detected Data Only**											
310						k hat (MLE)	4.327			k star (bias corrected MLE)	3.447	
311						Theta hat (MLE)	5.241			Theta star (bias corrected MLE)	6.579	
312						nu hat (MLE)	121.2			nu star (bias corrected)	96.52	
313						Mean (detects)	22.68					
314												
315	**Gamma ROS Statistics using Imputed Non-Detects**											
316	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
317	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
318	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
319	This is especially true when the sample size is small.											
320	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
321						Minimum	10.4			Mean	22.58	
322						Maximum	46.1			Median	21.18	
323						SD	11.29			CV	0.5	
324						k hat (MLE)	4.619			k star (bias corrected MLE)	3.74	
325						Theta hat (MLE)	4.888			Theta star (bias corrected MLE)	6.037	
326						nu hat (MLE)	138.6			nu star (bias corrected)	112.2	
327						Adjusted Level of Significance (β)	0.0324					
328						Approximate Chi Square Value (112.20, α)	88.75			Adjusted Chi Square Value (112.20, β)	86.18	
329						95% Gamma Approximate UCL	28.55			95% Gamma Adjusted UCL	29.4	
330												
331	**Estimates of Gamma Parameters using KM Estimates**											
332						Mean (KM)	22.68			SD (KM)	11.28	
333						Variance (KM)	127.3			SE of Mean (KM)	3.13	
334						k hat (KM)	4.039			k star (KM)	3.275	
335						nu hat (KM)	121.2			nu star (KM)	98.26	

336					theta hat (KM)	5.615				theta star (KM)		6.924
337					80% gamma percentile (KM)	32.01				90% gamma percentile (KM)		39.48
338					95% gamma percentile (KM)	46.42				99% gamma percentile (KM)		61.4
339												
340					**Gamma Kaplan-Meier (KM) Statistics**							
341					Approximate Chi Square Value (98.26, α)	76.4				Adjusted Chi Square Value (98.26, β)		74.02
342					95% KM Approximate Gamma UCL	29.17				95% KM Adjusted Gamma UCL		30.1
343												
344					**Lognormal GOF Test on Detected Observations Only**							
345					Shapiro Wilk Test Statistic	0.93				**Shapiro Wilk GOF Test**		
346					10% Shapiro Wilk Critical Value	0.895				Detected Data appear Lognormal at 10% Significance Level		
347					Lilliefors Test Statistic	0.152				**Lilliefors GOF Test**		
348					10% Lilliefors Critical Value	0.208				Detected Data appear Lognormal at 10% Significance Level		
349					**Detected Data appear Lognormal at 10% Significance Level**							
350												
351					**Lognormal ROS Statistics Using Imputed Non-Detects**							
352					Mean in Original Scale	22.51				Mean in Log Scale		3.001
353					SD in Original Scale	11.3				SD in Log Scale		0.488
354					95% t UCL (assumes normality of ROS data)	27.65				95% Percentile Bootstrap UCL		27.56
355					95% BCA Bootstrap UCL	27.95				95% Bootstrap t UCL		28.69
356					95% H-UCL (Log ROS)	29.64						
357												
358					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
359					KM Mean (logged)	3.001				KM Geo Mean		20.11
360					KM SD (logged)	0.488				95% Critical H Value (KM-Log)		2.056
361					KM Standard Error of Mean (logged)	0.135				95% H-UCL (KM -Log)		29.64
362					KM SD (logged)	0.488				95% Critical H Value (KM-Log)		2.056
363					KM Standard Error of Mean (logged)	0.135						
364												
365					**DL/2 Statistics**							
366					**DL/2 Normal**					**DL/2 Log-Transformed**		
367					Mean in Original Scale	24.87				Mean in Log Scale		3.069
368					SD in Original Scale	14.11				SD in Log Scale		0.554
369					95% t UCL (Assumes normality)	31.28				95% H-Stat UCL		34.39
370					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
371												
372					**Nonparametric Distribution Free UCL Statistics**							
373					**Detected Data appear Normal Distributed at 1% Significance Level**							
374												
375					**Suggested UCL to Use**							
376					95% KM (t) UCL	28.19						
377												
378					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
379					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
380					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
381												
382	**Cobalt**											
383												
384					**General Statistics**							
385					Total Number of Observations	2				Number of Distinct Observations		2
386										Number of Missing Observations		16
387					Number of Detects	1				Number of Non-Detects		1
388					Number of Distinct Detects	1				Number of Distinct Non-Detects		1
389												
390					**Warning: This data set only has 2 observations!**							
391					**Data set is too small to compute reliable and meaningful statistics and estimates!**							
392					**The data set for variable Cobalt was not processed!**							
393												
394					**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**							
395					**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**							
396												
397												
398	**Copper**											
399												
400					**General Statistics**							
401					Total Number of Observations	15				Number of Distinct Observations		14
402										Number of Missing Observations		17

403					Number of Detects	14				Number of Non-Detects	1	
404					Number of Distinct Detects	13				Number of Distinct Non-Detects	1	
405					Minimum Detect	6.88				Minimum Non-Detect	74	
406					Maximum Detect	217				Maximum Non-Detect	74	
407					Variance Detects	2851				Percent Non-Detects	6.667%	
408					Mean Detects	53.32				SD Detects	53.4	
409					Median Detects	46.65				CV Detects	1.001	
410					Skewness Detects	2.454				Kurtosis Detects	7.191	
411					Mean of Logged Detects	3.606				SD of Logged Detects	0.904	
412												
413					**Normal GOF Test on Detects Only**							
414					Shapiro Wilk Test Statistic	0.722				**Shapiro Wilk GOF Test**		
415					1% Shapiro Wilk Critical Value	0.825				Detected Data Not Normal at 1% Significance Level		
416					Lilliefors Test Statistic	0.311				**Lilliefors GOF Test**		
417					1% Lilliefors Critical Value	0.263				Detected Data Not Normal at 1% Significance Level		
418					**Detected Data Not Normal at 1% Significance Level**							
419												
420					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
421					KM Mean	51.92				KM Standard Error of Mean	13.5	
422					90KM SD	50.17				95% KM (BCA) UCL	76.15	
423					95% KM (t) UCL	75.69				95% KM (Percentile Bootstrap) UCL	75.55	
424					95% KM (z) UCL	74.12				95% KM Bootstrap t UCL	97.18	
425					90% KM Chebyshev UCL	92.41				95% KM Chebyshev UCL	110.7	
426					97.5% KM Chebyshev UCL	136.2				99% KM Chebyshev UCL	186.2	
427												
428					**Gamma GOF Tests on Detected Observations Only**							
429					A-D Test Statistic	0.415				**Anderson-Darling GOF Test**		
430					5% A-D Critical Value	0.751				Detected data appear Gamma Distributed at 5% Significance Level		
431					K-S Test Statistic	0.207				**Kolmogorov-Smirnov GOF**		
432					5% K-S Critical Value	0.233				Detected data appear Gamma Distributed at 5% Significance Level		
433					**Detected data appear Gamma Distributed at 5% Significance Level**							
434												
435					**Gamma Statistics on Detected Data Only**							
436					k hat (MLE)	1.496				k star (bias corrected MLE)	1.223	
437					Theta hat (MLE)	35.64				Theta star (bias corrected MLE)	43.59	
438					nu hat (MLE)	41.89				nu star (bias corrected)	34.25	
439					Mean (detects)	53.32						
440												
441					**Gamma ROS Statistics using Imputed Non-Detects**							
442					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
443					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
444					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
445					This is especially true when the sample size is small.							
446					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
447					Minimum	6.88				Mean	51.72	
448					Maximum	217				Median	44.6	
449					SD	51.83				CV	1.002	
450					k hat (MLE)	1.555				k star (bias corrected MLE)	1.288	
451					Theta hat (MLE)	33.26				Theta star (bias corrected MLE)	40.14	
452					nu hat (MLE)	46.65				nu star (bias corrected)	38.65	
453					Adjusted Level of Significance (β)	0.0324						
454					Approximate Chi Square Value (38.65, α)	25.41				Adjusted Chi Square Value (38.65, β)	24.1	
455					95% Gamma Approximate UCL	78.66				95% Gamma Adjusted UCL	82.96	
456												
457					**Estimates of Gamma Parameters using KM Estimates**							
458					Mean (KM)	51.92				SD (KM)	50.17	
459					Variance (KM)	2517				SE of Mean (KM)	13.5	
460					k hat (KM)	1.071				k star (KM)	0.901	
461					nu hat (KM)	32.12				nu star (KM)	27.03	
462					theta hat (KM)	48.49				theta star (KM)	57.62	
463					80% gamma percentile (KM)	84.22				90% gamma percentile (KM)	122.6	
464					95% gamma percentile (KM)	161.4				99% gamma percentile (KM)	252.1	
465												
466					**Gamma Kaplan-Meier (KM) Statistics**							
467					Approximate Chi Square Value (27.03, α)	16.18				Adjusted Chi Square Value (27.03, β)	15.15	
468					95% KM Approximate Gamma UCL	86.76				95% KM Adjusted Gamma UCL	92.64	
469												

470	**Lognormal GOF Test on Detected Observations Only**											
471					Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**					
472					10% Shapiro Wilk Critical Value	0.895	Detected Data appear Lognormal at 10% Significance Level					
473					Lilliefors Test Statistic	0.155	**Lilliefors GOF Test**					
474					10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level					
475	**Detected Data appear Lognormal at 10% Significance Level**											
476												
477	**Lognormal ROS Statistics Using Imputed Non-Detects**											
478					Mean in Original Scale	51.62	Mean in Log Scale	3.588				
479					SD in Original Scale	51.87	SD in Log Scale	0.874				
480					95% t UCL (assumes normality of ROS data)	75.21	95% Percentile Bootstrap UCL	73.81				
481					95% BCA Bootstrap UCL	84.5	95% Bootstrap t UCL	98.73				
482					95% H-UCL (Log ROS)	96.03						
483												
484	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
485					KM Mean (logged)	3.585	KM Geo Mean	36.06				
486					KM SD (logged)	0.862	95% Critical H Value (KM-Log)	2.533				
487					KM Standard Error of Mean (logged)	0.236	95% H-UCL (KM -Log)	93.72				
488					KM SD (logged)	0.862	95% Critical H Value (KM-Log)	2.533				
489					KM Standard Error of Mean (logged)	0.236						
490												
491	**DL/2 Statistics**											
492					**DL/2 Normal**		**DL/2 Log-Transformed**					
493					Mean in Original Scale	52.23	Mean in Log Scale	3.607				
494					SD in Original Scale	51.63	SD in Log Scale	0.871				
495					95% t UCL (Assumes normality)	75.71	95% H-Stat UCL	97.31				
496	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
497												
498	**Nonparametric Distribution Free UCL Statistics**											
499	**Detected Data appear Gamma Distributed at 5% Significance Level**											
500												
501	**Suggested UCL to Use**											
502					95% KM Adjusted Gamma UCL	92.64	95% GROS Adjusted Gamma UCL	82.96				
503												
504	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
505	**Please verify the data were collected from random locations.**											
506	**If the data were collected using judgmental or other non-random methods,**											
507	**then contact a statistician to correctly calculate UCLs.**											
508												
509	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
510	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
511	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
512												
513	**Lead**											
514												
515	**General Statistics**											
516					Total Number of Observations	25	Number of Distinct Observations	25				
517							Number of Missing Observations	7				
518					Number of Detects	24	Number of Non-Detects	1				
519					Number of Distinct Detects	24	Number of Distinct Non-Detects	1				
520					Minimum Detect	9.43	Minimum Non-Detect	8.2				
521					Maximum Detect	3400	Maximum Non-Detect	8.2				
522					Variance Detects	634983	Percent Non-Detects	4%				
523					Mean Detects	680.3	SD Detects	796.9				
524					Median Detects	397	CV Detects	1.171				
525					Skewness Detects	2.113	Kurtosis Detects	5.128				
526					Mean of Logged Detects	5.812	SD of Logged Detects	1.402				
527												
528	**Normal GOF Test on Detects Only**											
529					Shapiro Wilk Test Statistic	0.768	**Shapiro Wilk GOF Test**					
530					1% Shapiro Wilk Critical Value	0.884	Detected Data Not Normal at 1% Significance Level					
531					Lilliefors Test Statistic	0.2	**Lilliefors GOF Test**					
532					1% Lilliefors Critical Value	0.205	Detected Data appear Normal at 1% Significance Level					
533	**Detected Data appear Approximate Normal at 1% Significance Level**											
534												
535	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
536					KM Mean	653.4	KM Standard Error of Mean	158.5				

537					90KM SD	775.6				95% KM (BCA) UCL		941.9
538					95% KM (t) UCL	924.5				95% KM (Percentile Bootstrap) UCL		927.4
539					95% KM (z) UCL	914				95% KM Bootstrap t UCL		1071
540					90% KM Chebyshev UCL	1129				95% KM Chebyshev UCL		1344
541					97.5% KM Chebyshev UCL	1643				99% KM Chebyshev UCL		2230
542												
543					**Gamma GOF Tests on Detected Observations Only**							
544					A-D Test Statistic	0.114				**Anderson-Darling GOF Test**		
545					5% A-D Critical Value	0.779				Detected data appear Gamma Distributed at 5% Significance Level		
546					K-S Test Statistic	0.0808				**Kolmogorov-Smirnov GOF**		
547					5% K-S Critical Value	0.184				Detected data appear Gamma Distributed at 5% Significance Level		
548					**Detected data appear Gamma Distributed at 5% Significance Level**							
549												
550					**Gamma Statistics on Detected Data Only**							
551					k hat (MLE)	0.832				k star (bias corrected MLE)		0.755
552					Theta hat (MLE)	818				Theta star (bias corrected MLE)		900.5
553					nu hat (MLE)	39.92				nu star (bias corrected)		36.26
554					Mean (detects)	680.3						
555												
556					**Gamma ROS Statistics using Imputed Non-Detects**							
557					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
558					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
559					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
560					This is especially true when the sample size is small.							
561					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
562					Minimum	0.01				Mean		653
563					Maximum	3400				Median		330
564					SD	791.9				CV		1.213
565					k hat (MLE)	0.573				k star (bias corrected MLE)		0.531
566					Theta hat (MLE)	1140				Theta star (bias corrected MLE)		1230
567					nu hat (MLE)	28.64				nu star (bias corrected)		26.54
568					Adjusted Level of Significance (β)	0.0395						
569					Approximate Chi Square Value (26.54, α)	15.8				Adjusted Chi Square Value (26.54, β)		15.23
570					95% Gamma Approximate UCL	1097				95% Gamma Adjusted UCL		1138
571												
572					**Estimates of Gamma Parameters using KM Estimates**							
573					Mean (KM)	653.4				SD (KM)		775.6
574					Variance (KM)	601528				SE of Mean (KM)		158.5
575					k hat (KM)	0.71				k star (KM)		0.651
576					nu hat (KM)	35.48				nu star (KM)		32.56
577					theta hat (KM)	920.6				theta star (KM)		1003
578					80% gamma percentile (KM)	1076				90% gamma percentile (KM)		1668
579					95% gamma percentile (KM)	2283				99% gamma percentile (KM)		3759
580												
581					**Gamma Kaplan-Meier (KM) Statistics**							
582					Approximate Chi Square Value (32.56, α)	20.52				Adjusted Chi Square Value (32.56, β)		19.86
583					95% KM Approximate Gamma UCL	1037				95% KM Adjusted Gamma UCL		1071
584												
585					**Lognormal GOF Test on Detected Observations Only**							
586					Shapiro Wilk Test Statistic	0.969				**Shapiro Wilk GOF Test**		
587					10% Shapiro Wilk Critical Value	0.93				Detected Data appear Lognormal at 10% Significance Level		
588					Lilliefors Test Statistic	0.108				**Lilliefors GOF Test**		
589					10% Lilliefors Critical Value	0.162				Detected Data appear Lognormal at 10% Significance Level		
590					**Detected Data appear Lognormal at 10% Significance Level**							
591												
592					**Lognormal ROS Statistics Using Imputed Non-Detects**							
593					Mean in Original Scale	653.5				Mean in Log Scale		5.675
594					SD in Original Scale	791.5				SD in Log Scale		1.535
595					95% t UCL (assumes normality of ROS data)	924.3				95% Percentile Bootstrap UCL		914.1
596					95% BCA Bootstrap UCL	968.6				95% Bootstrap t UCL		1058
597					95% H-UCL (Log ROS)	2622						
598												
599					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
600					KM Mean (logged)	5.664				KM Geo Mean		288.3
601					KM SD (logged)	1.529				95% Critical H Value (KM-Log)		3.238
602					KM Standard Error of Mean (logged)	0.312				95% H-UCL (KM -Log)		2547
603					KM SD (logged)	1.529				95% Critical H Value (KM-Log)		3.238

604	KM Standard Error of Mean (logged)				0.312							
605												
606	**DL/2 Statistics**											
607	**DL/2 Normal**					**DL/2 Log-Transformed**						
608	Mean in Original Scale				653.2	Mean in Log Scale						5.636
609	SD in Original Scale				791.7	SD in Log Scale						1.631
610	95% t UCL (Assumes normality)				924.1	95% H-Stat UCL						3279
611	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
612												
613	**Nonparametric Distribution Free UCL Statistics**											
614	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
615												
616	**Suggested UCL to Use**											
617	95% KM (t) UCL				924.5							
618												
619	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
620	**Please verify the data were collected from random locations.**											
621	**If the data were collected using judgmental or other non-random methods,**											
622	**then contact a statistician to correctly calculate UCLs.**											
623												
624	When a data set follows an approximate distribution passing only one of the GOF tests,											
625	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
626												
627	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
628	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
629	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
630												
631												
632	**Manganese**											
633												
634	**General Statistics**											
635	Total Number of Observations				2	Number of Distinct Observations						2
636						Number of Missing Observations						16
637	Minimum				697	Mean						1549
638	Maximum				2400	Median						1549
639												
640	**Warning: This data set only has 2 observations!**											
641	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
642	**The data set for variable Manganese was not processed!**											
643												
644	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
645	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
646												
647												
648												
649	**Mercury**											
650												
651	**General Statistics**											
652	Total Number of Observations				25	Number of Distinct Observations						25
653						Number of Missing Observations						7
654	Minimum				0.0205	Mean						2.32
655	Maximum				25.4	Median						0.485
656	SD				5.185	Std. Error of Mean						1.037
657	Coefficient of Variation				2.235	Skewness						4
658												
659	**Normal GOF Test**											
660	Shapiro Wilk Test Statistic				0.461	**Shapiro Wilk GOF Test**						
661	1% Shapiro Wilk Critical Value				0.886	Data Not Normal at 1% Significance Level						
662	Lilliefors Test Statistic				0.342	**Lilliefors GOF Test**						
663	1% Lilliefors Critical Value				0.201	Data Not Normal at 1% Significance Level						
664	**Data Not Normal at 1% Significance Level**											
665												
666	**Assuming Normal Distribution**											
667	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
668	95% Student's-t UCL				4.094	95% Adjusted-CLT UCL (Chen-1995)						4.912
669						95% Modified-t UCL (Johnson-1978)						4.232
670												

671	**Gamma GOF Test**											
672					A-D Test Statistic	1.247	**Anderson-Darling Gamma GOF Test**					
673					5% A-D Critical Value	0.815	Data Not Gamma Distributed at 5% Significance Level					
674					K-S Test Statistic	0.196	**Kolmogorov-Smirnov Gamma GOF Test**					
675					5% K-S Critical Value	0.185	Data Not Gamma Distributed at 5% Significance Level					
676	**Data Not Gamma Distributed at 5% Significance Level**											
677												
678	**Gamma Statistics**											
679					k hat (MLE)	0.466	k star (bias corrected MLE)	0.436				
680					Theta hat (MLE)	4.982	Theta star (bias corrected MLE)	5.316				
681					nu hat (MLE)	23.28	nu star (bias corrected)	21.82				
682					MLE Mean (bias corrected)	2.32	MLE Sd (bias corrected)	3.512				
683							Approximate Chi Square Value (0.05)	12.21				
684					Adjusted Level of Significance	0.0395	Adjusted Chi Square Value	11.72				
685												
686	**Assuming Gamma Distribution**											
687					95% Approximate Gamma UCL	4.148	95% Adjusted Gamma UCL	4.322				
688												
689	**Lognormal GOF Test**											
690					Shapiro Wilk Test Statistic	0.972	**Shapiro Wilk Lognormal GOF Test**					
691					10% Shapiro Wilk Critical Value	0.931	Data appear Lognormal at 10% Significance Level					
692					Lilliefors Test Statistic	0.0906	**Lilliefors Lognormal GOF Test**					
693					10% Lilliefors Critical Value	0.159	Data appear Lognormal at 10% Significance Level					
694	**Data appear Lognormal at 10% Significance Level**											
695												
696	**Lognormal Statistics**											
697					Minimum of Logged Data	-3.887	Mean of logged Data	-0.538				
698					Maximum of Logged Data	3.235	SD of logged Data	1.717				
699												
700	**Assuming Lognormal Distribution**											
701					95% H-UCL	8.79	90% Chebyshev (MVUE) UCL	5.179				
702					95% Chebyshev (MVUE) UCL	6.507	97.5% Chebyshev (MVUE) UCL	8.351				
703					99% Chebyshev (MVUE) UCL	11.97						
704												
705	**Nonparametric Distribution Free UCL Statistics**											
706	**Data appear to follow a Discernible Distribution**											
707												
708	**Nonparametric Distribution Free UCLs**											
709					95% CLT UCL	4.026	95% BCA Bootstrap UCL	5.408				
710					95% Standard Bootstrap UCL	4.044	95% Bootstrap-t UCL	6.997				
711					95% Hall's Bootstrap UCL	9.611	95% Percentile Bootstrap UCL	4.259				
712					90% Chebyshev(Mean, Sd) UCL	5.431	95% Chebyshev(Mean, Sd) UCL	6.84				
713					97.5% Chebyshev(Mean, Sd) UCL	8.796	99% Chebyshev(Mean, Sd) UCL	12.64				
714												
715	**Suggested UCL to Use**											
716					95% Student's-t UCL	4.094						
717												
718	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
719	**Please verify the data were collected from random locations.**											
720	**If the data were collected using judgmental or other non-random methods,**											
721	**then contact a statistician to correctly calculate UCLs.**											
722												
723	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
724	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
725	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
726												
727	**Nickel**											
728												
729	**General Statistics**											
730					Total Number of Observations	15	Number of Distinct Observations	14				
731							Number of Missing Observations	17				
732					Number of Detects	14	Number of Non-Detects	1				
733					Number of Distinct Detects	13	Number of Distinct Non-Detects	1				
734					Minimum Detect	3.85	Minimum Non-Detect	74				
735					Maximum Detect	27.9	Maximum Non-Detect	74				
736					Variance Detects	52.91	Percent Non-Detects	6.667%				
737					Mean Detects	12.23	SD Detects	7.274				

	A	B	C	D	E	F	G	H	I	J	K	L
738					Median Detects	10.43					CV Detects	0.595
739					Skewness Detects	1.1					Kurtosis Detects	0.471
740					Mean of Logged Detects	2.349					SD of Logged Detects	0.578
741												
742					**Normal GOF Test on Detects Only**							
743					Shapiro Wilk Test Statistic	0.883	**Shapiro Wilk GOF Test**					
744					1% Shapiro Wilk Critical Value	0.825	Detected Data appear Normal at 1% Significance Level					
745					Lilliefors Test Statistic	0.184	**Lilliefors GOF Test**					
746					1% Lilliefors Critical Value	0.263	Detected Data appear Normal at 1% Significance Level					
747					**Detected Data appear Normal at 1% Significance Level**							
748												
749					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
750					KM Mean	12.23	KM Standard Error of Mean	1.944				
751					90KM SD	7.01	95% KM (BCA) UCL	15.24				
752					95% KM (t) UCL	15.66	95% KM (Percentile Bootstrap) UCL	15.23				
753					95% KM (z) UCL	15.43	95% KM Bootstrap t UCL	17.07				
754					90% KM Chebyshev UCL	18.07	95% KM Chebyshev UCL	20.71				
755					97.5% KM Chebyshev UCL	24.38	99% KM Chebyshev UCL	31.58				
756												
757					**Gamma GOF Tests on Detected Observations Only**							
758					A-D Test Statistic	0.299	**Anderson-Darling GOF Test**					
759					5% A-D Critical Value	0.742	Detected data appear Gamma Distributed at 5% Significance Level					
760					K-S Test Statistic	0.153	**Kolmogorov-Smirnov GOF**					
761					5% K-S Critical Value	0.23	Detected data appear Gamma Distributed at 5% Significance Level					
762					**Detected data appear Gamma Distributed at 5% Significance Level**							
763												
764					**Gamma Statistics on Detected Data Only**							
765					k hat (MLE)	3.379	k star (bias corrected MLE)	2.702				
766					Theta hat (MLE)	3.621	Theta star (bias corrected MLE)	4.527				
767					nu hat (MLE)	94.6	nu star (bias corrected)	75.66				
768					Mean (detects)	12.23						
769												
770					**Gamma ROS Statistics using Imputed Non-Detects**							
771					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
772					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
773					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
774					This is especially true when the sample size is small.							
775					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
776					Minimum	3.85	Mean	12.16				
777					Maximum	27.9	Median	11.18				
778					SD	7.015	CV	0.577				
779					k hat (MLE)	3.603	k star (bias corrected MLE)	2.927				
780					Theta hat (MLE)	3.376	Theta star (bias corrected MLE)	4.156				
781					nu hat (MLE)	108.1	nu star (bias corrected)	87.82				
782					Adjusted Level of Significance (β)	0.0324						
783					Approximate Chi Square Value (87.82, α)	67.21	Adjusted Chi Square Value (87.82, β)	65				
784					95% Gamma Approximate UCL	15.89	95% Gamma Adjusted UCL	16.43				
785												
786					**Estimates of Gamma Parameters using KM Estimates**							
787					Mean (KM)	12.23	SD (KM)	7.01				
788					Variance (KM)	49.13	SE of Mean (KM)	1.944				
789					k hat (KM)	3.046	k star (KM)	2.481				
790					nu hat (KM)	91.39	nu star (KM)	74.44				
791					theta hat (KM)	4.016	theta star (KM)	4.93				
792					80% gamma percentile (KM)	17.85	90% gamma percentile (KM)	22.64				
793					95% gamma percentile (KM)	27.15	99% gamma percentile (KM)	37.03				
794												
795					**Gamma Kaplan-Meier (KM) Statistics**							
796					Approximate Chi Square Value (74.44, α)	55.57	Adjusted Chi Square Value (74.44, β)	53.57				
797					95% KM Approximate Gamma UCL	16.39	95% KM Adjusted Gamma UCL	17				
798												
799					**Lognormal GOF Test on Detected Observations Only**							
800					Shapiro Wilk Test Statistic	0.973	**Shapiro Wilk GOF Test**					
801					10% Shapiro Wilk Critical Value	0.895	Detected Data appear Lognormal at 10% Significance Level					
802					Lilliefors Test Statistic	0.122	**Lilliefors GOF Test**					
803					10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level					
804					**Detected Data appear Lognormal at 10% Significance Level**							

805											
806	**Lognormal ROS Statistics Using Imputed Non-Detects**										
807					Mean in Original Scale	12.12			Mean in Log Scale	2.349	
808					SD in Original Scale	7.024			SD in Log Scale	0.557	
809					95% t UCL (assumes normality of ROS data)	15.31			95% Percentile Bootstrap UCL	15.32	
810					95% BCA Bootstrap UCL	15.68			95% Bootstrap t UCL	16.27	
811					95% H-UCL (Log ROS)	16.79					
812											
813	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
814					KM Mean (logged)	2.349			KM Geo Mean	10.48	
815					KM SD (logged)	0.557			95% Critical H Value (KM-Log)	2.131	
816					KM Standard Error of Mean (logged)	0.154			95% H-UCL (KM -Log)	16.79	
817					KM SD (logged)	0.557			95% Critical H Value (KM-Log)	2.131	
818					KM Standard Error of Mean (logged)	0.154					
819											
820	**DL/2 Statistics**										
821				**DL/2 Normal**					**DL/2 Log-Transformed**		
822					Mean in Original Scale	13.89			Mean in Log Scale	2.433	
823					SD in Original Scale	9.488			SD in Log Scale	0.645	
824					95% t UCL (Assumes normality)	18.2			95% H-Stat UCL	20.63	
825	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
826											
827	**Nonparametric Distribution Free UCL Statistics**										
828	**Detected Data appear Normal Distributed at 1% Significance Level**										
829											
830	**Suggested UCL to Use**										
831					95% KM (t) UCL	15.66					
832											
833	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
834	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
835	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
836											
837	**Silver**										
838											
839	**General Statistics**										
840					Total Number of Observations	15			Number of Distinct Observations	15	
841									Number of Missing Observations	17	
842					Number of Detects	3			Number of Non-Detects	12	
843					Number of Distinct Detects	3			Number of Distinct Non-Detects	12	
844					Minimum Detect	0.561			Minimum Non-Detect	0.294	
845					Maximum Detect	2.4			Maximum Non-Detect	36.95	
846					Variance Detects	1.114			Percent Non-Detects	80%	
847					Mean Detects	1.181			SD Detects	1.055	
848					Median Detects	0.583			CV Detects	0.893	
849					Skewness Detects	1.731			Kurtosis Detects	N/A	
850					Mean of Logged Detects	-0.0807			SD of Logged Detects	0.828	
851											
852	**Warning: Data set has only 3 Detected Values.**										
853	**This is not enough to compute meaningful or reliable statistics and estimates.**										
854											
855											
856	**Normal GOF Test on Detects Only**										
857					Shapiro Wilk Test Statistic	0.759			**Shapiro Wilk GOF Test**		
858					1% Shapiro Wilk Critical Value	0.753			Detected Data appear Normal at 1% Significance Level		
859					Lilliefors Test Statistic	0.381			**Lilliefors GOF Test**		
860					1% Lilliefors Critical Value	0.429			Detected Data appear Normal at 1% Significance Level		
861	**Detected Data appear Normal at 1% Significance Level**										
862	**Note GOF tests may be unreliable for small sample sizes**										
863											
864	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
865					KM Mean	0.584			KM Standard Error of Mean	0.195	
866					90KM SD	0.541			95% KM (BCA) UCL	N/A	
867					95% KM (t) UCL	0.927			95% KM (Percentile Bootstrap) UCL	N/A	
868					95% KM (z) UCL	0.904			95% KM Bootstrap t UCL	N/A	
869					90% KM Chebyshev UCL	1.168			95% KM Chebyshev UCL	1.433	
870					97.5% KM Chebyshev UCL	1.8			99% KM Chebyshev UCL	2.522	
871											

872	**Gamma GOF Tests on Detected Observations Only**											
873					A-D Test Statistic	0.594	**Anderson-Darling GOF Test**					
874					5% A-D Critical Value	0.637	Detected data appear Gamma Distributed at 5% Significance Level					
875					K-S Test Statistic	0.423	**Kolmogorov-Smirnov GOF**					
876					5% K-S Critical Value	0.435	Detected data appear Gamma Distributed at 5% Significance Level					
877	**Detected Data Not Gamma Distributed at 5% Significance Level**											
878												
879	**Gamma Statistics on Detected Data Only**											
880					k hat (MLE)	2.173	k star (bias corrected MLE)	N/A				
881					Theta hat (MLE)	0.544	Theta star (bias corrected MLE)	N/A				
882					nu hat (MLE)	13.04	nu star (bias corrected)	N/A				
883					Mean (detects)	1.181						
884												
885	**Gamma ROS Statistics using Imputed Non-Detects**											
886	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
887	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
888	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
889	This is especially true when the sample size is small.											
890	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
891					Minimum	0.01	Mean	0.256				
892					Maximum	2.4	Median	0.0114				
893					SD	0.624	CV	2.437				
894					k hat (MLE)	0.342	k star (bias corrected MLE)	0.318				
895					Theta hat (MLE)	0.748	Theta star (bias corrected MLE)	0.804				
896					nu hat (MLE)	10.27	nu star (bias corrected)	9.551				
897					Adjusted Level of Significance (β)	0.0324						
898					Approximate Chi Square Value (9.55, α)	3.663	Adjusted Chi Square Value (9.55, β)	3.227				
899					95% Gamma Approximate UCL	0.668	95% Gamma Adjusted UCL	N/A				
900												
901	**Estimates of Gamma Parameters using KM Estimates**											
902					Mean (KM)	0.584	SD (KM)	0.541				
903					Variance (KM)	0.293	SE of Mean (KM)	0.195				
904					k hat (KM)	1.165	k star (KM)	0.977				
905					nu hat (KM)	34.96	nu star (KM)	29.3				
906					theta hat (KM)	0.501	theta star (KM)	0.598				
907					80% gamma percentile (KM)	0.942	90% gamma percentile (KM)	1.353				
908					95% gamma percentile (KM)	1.764	99% gamma percentile (KM)	2.722				
909												
910	**Gamma Kaplan-Meier (KM) Statistics**											
911					Approximate Chi Square Value (29.30, α)	17.94	Adjusted Chi Square Value (29.30, β)	16.86				
912					95% KM Approximate Gamma UCL	0.954	95% KM Adjusted Gamma UCL	1.015				
913												
914	**Lognormal GOF Test on Detected Observations Only**											
915					Shapiro Wilk Test Statistic	0.77	**Shapiro Wilk GOF Test**					
916					10% Shapiro Wilk Critical Value	0.789	Detected Data Not Lognormal at 10% Significance Level					
917					Lilliefors Test Statistic	0.377	**Lilliefors GOF Test**					
918					10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level					
919	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
920	**Note GOF tests may be unreliable for small sample sizes**											
921												
922	**Lognormal ROS Statistics Using Imputed Non-Detects**											
923					Mean in Original Scale	0.47	Mean in Log Scale	-1.024				
924					SD in Original Scale	0.546	SD in Log Scale	0.629				
925					95% t UCL (assumes normality of ROS data)	0.718	95% Percentile Bootstrap UCL	0.742				
926					95% BCA Bootstrap UCL	0.888	95% Bootstrap t UCL	1.446				
927					95% H-UCL (Log ROS)	0.635						
928												
929	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
930					KM Mean (logged)	-0.756	KM Geo Mean	0.469				
931					KM SD (logged)	0.57	95% Critical H Value (KM-Log)	2.146				
932					KM Standard Error of Mean (logged)	0.247	95% H-UCL (KM -Log)	0.766				
933					KM SD (logged)	0.57	95% Critical H Value (KM-Log)	2.146				
934					KM Standard Error of Mean (logged)	0.247						
935	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
936												
937	**DL/2 Statistics**											
938	**DL/2 Normal**						**DL/2 Log-Transformed**					

939				Mean in Original Scale	2.071					Mean in Log Scale	-0.0891	
940				SD in Original Scale	4.569					SD in Log Scale	1.08	
941				95% t UCL (Assumes normality)	4.149					95% H-Stat UCL	3.754	
942	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
943												
944	**Nonparametric Distribution Free UCL Statistics**											
945	**Detected Data appear Normal Distributed at 1% Significance Level**											
946												
947	**Suggested UCL to Use**											
948				95% KM (t) UCL	0.927							
949												
950	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
951	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
952	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
953												
954												
955	**Zinc**											
956												
957	**General Statistics**											
958				Total Number of Observations	15					Number of Distinct Observations	15	
959										Number of Missing Observations	17	
960				Minimum	24.6					Mean	183.9	
961				Maximum	426					Median	155	
962				SD	121.9					Std. Error of Mean	31.47	
963				Coefficient of Variation	0.663					Skewness	0.533	
964												
965	**Normal GOF Test**											
966				Shapiro Wilk Test Statistic	0.944					**Shapiro Wilk GOF Test**		
967				1% Shapiro Wilk Critical Value	0.835					Data appear Normal at 1% Significance Level		
968				Lilliefors Test Statistic	0.134					**Lilliefors GOF Test**		
969				1% Lilliefors Critical Value	0.255					Data appear Normal at 1% Significance Level		
970	**Data appear Normal at 1% Significance Level**											
971												
972	**Assuming Normal Distribution**											
973				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
974				95% Student's-t UCL	239.3					95% Adjusted-CLT UCL (Chen-1995)	240.3	
975										95% Modified-t UCL (Johnson-1978)	240.1	
976												
977	**Gamma GOF Test**											
978				A-D Test Statistic	0.211					**Anderson-Darling Gamma GOF Test**		
979				5% A-D Critical Value	0.747					Detected data appear Gamma Distributed at 5% Significance Level		
980				K-S Test Statistic	0.116					**Kolmogorov-Smirnov Gamma GOF Test**		
981				5% K-S Critical Value	0.224					Detected data appear Gamma Distributed at 5% Significance Level		
982	**Detected data appear Gamma Distributed at 5% Significance Level**											
983												
984	**Gamma Statistics**											
985				k hat (MLE)	2.04					k star (bias corrected MLE)	1.676	
986				Theta hat (MLE)	90.17					Theta star (bias corrected MLE)	109.7	
987				nu hat (MLE)	61.19					nu star (bias corrected)	50.28	
988				MLE Mean (bias corrected)	183.9					MLE Sd (bias corrected)	142.1	
989										Approximate Chi Square Value (0.05)	35	
990				Adjusted Level of Significance	0.0324					Adjusted Chi Square Value	33.44	
991												
992	**Assuming Gamma Distribution**											
993				95% Approximate Gamma UCL	264.2					95% Adjusted Gamma UCL	276.6	
994												
995	**Lognormal GOF Test**											
996				Shapiro Wilk Test Statistic	0.947					**Shapiro Wilk Lognormal GOF Test**		
997				10% Shapiro Wilk Critical Value	0.901					Data appear Lognormal at 10% Significance Level		
998				Lilliefors Test Statistic	0.134					**Lilliefors Lognormal GOF Test**		
999				10% Lilliefors Critical Value	0.202					Data appear Lognormal at 10% Significance Level		
1000	**Data appear Lognormal at 10% Significance Level**											
1001												
1002	**Lognormal Statistics**											
1003				Minimum of Logged Data	3.203					Mean of logged Data	4.95	
1004				Maximum of Logged Data	6.054					SD of logged Data	0.826	
1005												

1006	**Assuming Lognormal Distribution**											
1007					95% H-UCL	343.2			90% Chebyshev (MVUE) UCL	325		
1008					95% Chebyshev (MVUE) UCL	384.8			97.5% Chebyshev (MVUE) UCL	467.8		
1009					99% Chebyshev (MVUE) UCL	630.9						
1010												
1011	**Nonparametric Distribution Free UCL Statistics**											
1012	**Data appear to follow a Discernible Distribution**											
1013												
1014	**Nonparametric Distribution Free UCLs**											
1015					95% CLT UCL	235.7			95% BCA Bootstrap UCL	235.9		
1016					95% Standard Bootstrap UCL	233.8			95% Bootstrap-t UCL	246.9		
1017					95% Hall's Bootstrap UCL	241.9			95% Percentile Bootstrap UCL	233		
1018					90% Chebyshev(Mean, Sd) UCL	278.3			95% Chebyshev(Mean, Sd) UCL	321.1		
1019					97.5% Chebyshev(Mean, Sd) UCL	380.4			99% Chebyshev(Mean, Sd) UCL	497		
1020												
1021	**Suggested UCL to Use**											
1022					95% Student's-t UCL	239.3						
1023												
1024	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1025	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1026	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1027												
1028	**2-Methylnaphthalene**											
1029												
1030	**General Statistics**											
1031					Total Number of Observations	2			Number of Distinct Observations	2		
1032									Number of Missing Observations	16		
1033					Number of Detects	1			Number of Non-Detects	1		
1034					Number of Distinct Detects	1			Number of Distinct Non-Detects	1		
1035												
1036	**Warning: This data set only has 2 observations!**											
1037	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
1038	**The data set for variable 2-Methylnaphthalene was not processed!**											
1039												
1040	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
1041	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
1042												
1043												
1044	**Acenaphthene**											
1045												
1046	**General Statistics**											
1047					Total Number of Observations	7			Number of Distinct Observations	7		
1048									Number of Missing Observations	24		
1049					Number of Detects	2			Number of Non-Detects	5		
1050					Number of Distinct Detects	2			Number of Distinct Non-Detects	5		
1051					Minimum Detect	250			Minimum Non-Detect	100		
1052					Maximum Detect	140000			Maximum Non-Detect	800		
1053					Variance Detects	9.765E+9			Percent Non-Detects	71.43%		
1054					Mean Detects	70125			SD Detects	98818		
1055					Median Detects	70125			CV Detects	1.409		
1056					Skewness Detects	N/A			Kurtosis Detects	N/A		
1057					Mean of Logged Detects	8.685			SD of Logged Detects	4.475		
1058												
1059	**Warning: Data set has only 2 Detected Values.**											
1060	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1061												
1062												
1063	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1064	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1065	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1066	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1067	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1068												
1069	**Normal GOF Test on Detects Only**											
1070	**Not Enough Data to Perform GOF Test**											
1071												
1072	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											

1073	KM Mean	20129				KM Standard Error of Mean	26158					
1074	90KM SD	48937				95% KM (BCA) UCL	N/A					
1075	95% KM (t) UCL	70959				95% KM (Percentile Bootstrap) UCL	N/A					
1076	95% KM (z) UCL	63155				95% KM Bootstrap t UCL	N/A					
1077	90% KM Chebyshev UCL	98603				95% KM Chebyshev UCL	134149					
1078	97.5% KM Chebyshev UCL	183486				99% KM Chebyshev UCL	280399					
1079												
1080	**Gamma GOF Tests on Detected Observations Only**											
1081	**Not Enough Data to Perform GOF Test**											
1082												
1083	**Gamma Statistics on Detected Data Only**											
1084	k hat (MLE)	0.282				k star (bias corrected MLE)	N/A					
1085	Theta hat (MLE)	248891				Theta star (bias corrected MLE)	N/A					
1086	nu hat (MLE)	1.127				nu star (bias corrected)	N/A					
1087	Mean (detects)	70125										
1088												
1089	**Estimates of Gamma Parameters using KM Estimates**											
1090	Mean (KM)	20129				SD (KM)	48937					
1091	Variance (KM)	2.395E+9				SE of Mean (KM)	26158					
1092	k hat (KM)	0.169				k star (KM)	0.192					
1093	nu hat (KM)	2.368				nu star (KM)	2.687					
1094	theta hat (KM)	118978				theta star (KM)	104885					
1095	80% gamma percentile (KM)	25936				90% gamma percentile (KM)	60844					
1096	95% gamma percentile (KM)	104819				99% gamma percentile (KM)	226717					
1097												
1098	**Gamma Kaplan-Meier (KM) Statistics**											
1099						Adjusted Level of Significance (β)	0.0158					
1100	Approximate Chi Square Value (2.69, α)	0.286				Adjusted Chi Square Value (2.69, β)	0.148					
1101	95% KM Approximate Gamma UCL	189088				95% KM Adjusted Gamma UCL	364563					
1102												
1103	**Lognormal GOF Test on Detected Observations Only**											
1104	**Not Enough Data to Perform GOF Test**											
1105												
1106	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1107	Mean in Original Scale	20036				Mean in Log Scale	1.9					
1108	SD in Original Scale	52899				SD in Log Scale	5.128					
1109	95% t UCL (assumes normality of ROS data)	58888				95% Percentile Bootstrap UCL	N/A					
1110	95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A					
1111	95% H-UCL (Log ROS)	7.124E+21										
1112												
1113	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1114	KM Mean (logged)	5.902				KM Geo Mean	365.7					
1115	KM SD (logged)	2.461				95% Critical H Value (KM-Log)	8.213					
1116	KM Standard Error of Mean (logged)	1.333				95% H-UCL (KM -Log)	28939894					
1117	KM SD (logged)	2.461				95% Critical H Value (KM-Log)	8.213					
1118	KM Standard Error of Mean (logged)	1.333										
1119												
1120	**DL/2 Statistics**											
1121	**DL/2 Normal**					**DL/2 Log-Transformed**						
1122	Mean in Original Scale	20219				Mean in Log Scale	6.245					
1123	SD in Original Scale	52819				SD in Log Scale	2.589					
1124	95% t UCL (Assumes normality)	59012				95% H-Stat UCL	1.339E+8					
1125	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1126												
1127	**Nonparametric Distribution Free UCL Statistics**											
1128	**Data do not follow a Discernible Distribution**											
1129												
1130	**Suggested UCL to Use**											
1131	Recommendation cannot be provided											
1132												
1133	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1134	**Please verify the data were collected from random locations.**											
1135	**If the data were collected using judgmental or other non-random methods,**											
1136	**then contact a statistician to correctly calculate UCLs.**											
1137												
1138	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1139	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											

1140	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1141												
1142	**Acenaphthylene**											
1143												
1144	**General Statistics**											
1145						Total Number of Observations	7			Number of Distinct Observations	7	
1146										Number of Missing Observations	24	
1147						Number of Detects	2			Number of Non-Detects	5	
1148						Number of Distinct Detects	2			Number of Distinct Non-Detects	5	
1149						Minimum Detect	340			Minimum Non-Detect	100	
1150						Maximum Detect	900000			Maximum Non-Detect	800	
1151						Variance Detects	4.047E+11			Percent Non-Detects	71.43%	
1152						Mean Detects	450170			SD Detects	636156	
1153						Median Detects	450170			CV Detects	1.413	
1154						Skewness Detects	N/A			Kurtosis Detects	N/A	
1155						Mean of Logged Detects	9.77			SD of Logged Detects	5.573	
1156												
1157	**Warning: Data set has only 2 Detected Values.**											
1158	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1159												
1160												
1161	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1162	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1163	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1164	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1165	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1166												
1167	**Normal GOF Test on Detects Only**											
1168	**Not Enough Data to Perform GOF Test**											
1169												
1170	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1171						KM Mean	128726			KM Standard Error of Mean	168306	
1172						90KM SD	314871			95% KM (BCA) UCL	N/A	
1173						95% KM (t) UCL	455774			95% KM (Percentile Bootstrap) UCL	N/A	
1174						95% KM (z) UCL	405564			95% KM Bootstrap t UCL	N/A	
1175						90% KM Chebyshev UCL	633643			95% KM Chebyshev UCL	862354	
1176						97.5% KM Chebyshev UCL	1179796			99% KM Chebyshev UCL	1803348	
1177												
1178	**Gamma GOF Tests on Detected Observations Only**											
1179	**Not Enough Data to Perform GOF Test**											
1180												
1181	**Gamma Statistics on Detected Data Only**											
1182						k hat (MLE)	0.223			k star (bias corrected MLE)	N/A	
1183						Theta hat (MLE)	2020759			Theta star (bias corrected MLE)	N/A	
1184						nu hat (MLE)	0.891			nu star (bias corrected)	N/A	
1185						Mean (detects)	450170					
1186												
1187	**Estimates of Gamma Parameters using KM Estimates**											
1188						Mean (KM)	128726			SD (KM)	314871	
1189						Variance (KM)	9.914E+10			SE of Mean (KM)	168306	
1190						k hat (KM)	0.167			k star (KM)	0.191	
1191						nu hat (KM)	2.34			nu star (KM)	2.67	
1192						theta hat (KM)	770196			theta star (KM)	674864	
1193						80% gamma percentile (KM)	165297			90% gamma percentile (KM)	389050	
1194						95% gamma percentile (KM)	671365			99% gamma percentile (KM)	1454747	
1195												
1196	**Gamma Kaplan-Meier (KM) Statistics**											
1197										Adjusted Level of Significance (β)	0.0158	
1198						Approximate Chi Square Value (2.67, α)	0.282			Adjusted Chi Square Value (2.67, β)	0.146	
1199						95% KM Approximate Gamma UCL	1219545			95% KM Adjusted Gamma UCL	2347965	
1200												
1201	**Lognormal GOF Test on Detected Observations Only**											
1202	**Not Enough Data to Perform GOF Test**											
1203												
1204	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1205						Mean in Original Scale	128620			Mean in Log Scale	1.319	
1206						SD in Original Scale	340147			SD in Log Scale	6.387	

1207				95% t UCL (assumes normality of ROS data)		378442				95% Percentile Bootstrap UCL		N/A
1208				95% BCA Bootstrap UCL		N/A				95% Bootstrap t UCL		N/A
1209				95% H-UCL (Log ROS)		1.387E+33						
1210												
1211				Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution								
1212				KM Mean (logged)		6.256				KM Geo Mean		520.9
1213				KM SD (logged)		3.09				95% Critical H Value (KM-Log)		10.23
1214				KM Standard Error of Mean (logged)		1.676				95% H-UCL (KM -Log)		2.493E+10
1215				KM SD (logged)		3.09				95% Critical H Value (KM-Log)		10.23
1216				KM Standard Error of Mean (logged)		1.676						
1217												
1218				DL/2 Statistics								
1219				DL/2 Normal						DL/2 Log-Transformed		
1220				Mean in Original Scale		128803				Mean in Log Scale		6.554
1221				SD in Original Scale		340066				SD in Log Scale		3.254
1222				95% t UCL (Assumes normality)		378565				95% H-Stat UCL		2.263E+11
1223				DL/2 is not a recommended method, provided for comparisons and historical reasons								
1224												
1225				Nonparametric Distribution Free UCL Statistics								
1226				Data do not follow a Discernible Distribution								
1227												
1228				Suggested UCL to Use								
1229				Recommendation cannot be provided								
1230												
1231				The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.								
1232				Please verify the data were collected from random locations.								
1233				If the data were collected using judgmental or other non-random methods,								
1234				then contact a statistician to correctly calculate UCLs.								
1235												
1236				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
1237				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
1238				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
1239												
1240	Anthracene											
1241												
1242				General Statistics								
1243				Total Number of Observations		7				Number of Distinct Observations		7
1244										Number of Missing Observations		24
1245				Number of Detects		2				Number of Non-Detects		5
1246				Number of Distinct Detects		2				Number of Distinct Non-Detects		5
1247				Minimum Detect		200				Minimum Non-Detect		100
1248				Maximum Detect		1100000				Maximum Non-Detect		800
1249				Variance Detects		6.048E+11				Percent Non-Detects		71.43%
1250				Mean Detects		550100				SD Detects		777676
1251				Median Detects		550100				CV Detects		1.414
1252				Skewness Detects		N/A				Kurtosis Detects		N/A
1253				Mean of Logged Detects		9.605				SD of Logged Detects		6.09
1254												
1255				Warning: Data set has only 2 Detected Values.								
1256				This is not enough to compute meaningful or reliable statistics and estimates.								
1257												
1258												
1259				Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,								
1260				refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,								
1261				but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).								
1262				The Chebyshev UCL often results in gross overestimates of the mean.								
1263				Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.								
1264												
1265				Normal GOF Test on Detects Only								
1266				Not Enough Data to Perform GOF Test								
1267												
1268				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs								
1269				KM Mean		157271				KM Standard Error of Mean		205720
1270				90KM SD		384867				95% KM (BCA) UCL		N/A
1271				95% KM (t) UCL		557023				95% KM (Percentile Bootstrap) UCL		N/A
1272				95% KM (z) UCL		495651				95% KM Bootstrap t UCL		N/A
1273				90% KM Chebyshev UCL		774432				95% KM Chebyshev UCL		1053985

1274				97.5% KM Chebyshev UCL	1441994				99% KM Chebyshev UCL	2204162		
1275												
1276					Gamma GOF Tests on Detected Observations Only							
1277					Not Enough Data to Perform GOF Test							
1278												
1279					Gamma Statistics on Detected Data Only							
1280				k hat (MLE)	0.203				k star (bias corrected MLE)	N/A		
1281				Theta hat (MLE)	2707573				Theta star (bias corrected MLE)	N/A		
1282				nu hat (MLE)	0.813				nu star (bias corrected)	N/A		
1283				Mean (detects)	550100							
1284												
1285					Estimates of Gamma Parameters using KM Estimates							
1286				Mean (KM)	157271				SD (KM)	384867		
1287				Variance (KM)	1.481E+11				SE of Mean (KM)	205720		
1288				k hat (KM)	0.167				k star (KM)	0.191		
1289				nu hat (KM)	2.338				nu star (KM)	2.669		
1290				theta hat (KM)	941829				theta star (KM)	824887		
1291				80% gamma percentile (KM)	201902				90% gamma percentile (KM)	475319		
1292				95% gamma percentile (KM)	820335				99% gamma percentile (KM)	1777780		
1293												
1294					Gamma Kaplan-Meier (KM) Statistics							
1295									Adjusted Level of Significance (β)	0.0158		
1296				Approximate Chi Square Value (2.67, α)	0.282				Adjusted Chi Square Value (2.67, β)	0.146		
1297				95% KM Approximate Gamma UCL	1490907				95% KM Adjusted Gamma UCL	2870104		
1298												
1299					Lognormal GOF Test on Detected Observations Only							
1300					Not Enough Data to Perform GOF Test							
1301												
1302					Lognormal ROS Statistics Using Imputed Non-Detects							
1303				Mean in Original Scale	157173				Mean in Log Scale	2.787		
1304				SD in Original Scale	415748				SD in Log Scale	5.562		
1305				95% t UCL (assumes normality of ROS data)	462520				95% Percentile Bootstrap UCL	N/A		
1306				95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A		
1307				95% H-UCL (Log ROS)	8.508E+25							
1308												
1309					Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution							
1310				KM Mean (logged)	6.232				KM Geo Mean	508.6		
1311				KM SD (logged)	3.151				95% Critical H Value (KM-Log)	10.43		
1312				KM Standard Error of Mean (logged)	1.702				95% H-UCL (KM -Log)	4.924E+10		
1313				KM SD (logged)	3.151				95% Critical H Value (KM-Log)	10.43		
1314				KM Standard Error of Mean (logged)	1.702							
1315												
1316					DL/2 Statistics							
1317				DL/2 Normal					DL/2 Log-Transformed			
1318				Mean in Original Scale	157354				Mean in Log Scale	6.507		
1319				SD in Original Scale	415668				SD in Log Scale	3.353		
1320				95% t UCL (Assumes normality)	462643				95% H-Stat UCL	7.221E+11		
1321					DL/2 is not a recommended method, provided for comparisons and historical reasons							
1322												
1323					Nonparametric Distribution Free UCL Statistics							
1324					Data do not follow a Discernible Distribution							
1325												
1326					Suggested UCL to Use							
1327				Recommendation cannot be provided								
1328												
1329					The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.							
1330					Please verify the data were collected from random locations.							
1331					If the data were collected using judgmental or other non-random methods,							
1332					then contact a statistician to correctly calculate UCLs.							
1333												
1334					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1335					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1336					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1337												
1338	Benzo[a]anthracene											
1339												
1340					General Statistics							

Total Number of Observations	7	Number of Distinct Observations 7
		Number of Missing Observations 24
Number of Detects	4	Number of Non-Detects 3
Number of Distinct Detects	4	Number of Distinct Non-Detects 3
Minimum Detect	72	Minimum Non-Detect 700
Maximum Detect	1500000	Maximum Non-Detect 800
Variance Detects	5.623E+11	Percent Non-Detects 42.86%
Mean Detects	375191	SD Detects 749873
Median Detects	345	CV Detects 1.999
Skewness Detects	2	Kurtosis Detects 4
Mean of Logged Detects	7.45	SD of Logged Detects 4.59

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.63	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.687	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.441	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.413	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	214503	KM Standard Error of Mean	229042
90KM SD	524802	95% KM (BCA) UCL	N/A
95% KM (t) UCL	659574	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	591244	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	901630	95% KM Chebyshev UCL	1212876
97.5% KM Chebyshev UCL	1644872	99% KM Chebyshev UCL	2493446

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.726	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.777	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.434	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.43	Detected Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level
Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.144	k star (bias corrected MLE)	0.203
Theta hat (MLE)	2612404	Theta star (bias corrected MLE)	1852140
nu hat (MLE)	1.149	nu star (bias corrected)	1.621
Mean (detects)	375191		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)
For such situations, GROS method may yield incorrect values of UCLs and BTVs
This is especially true when the sample size is small.
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	214395
Maximum	1500000	Median	72
SD	566899	CV	2.644
k hat (MLE)	0.0831	k star (bias corrected MLE)	0.143
Theta hat (MLE)	2579465	Theta star (bias corrected MLE)	1502068
nu hat (MLE)	1.164	nu star (bias corrected)	1.998
Adjusted Level of Significance (β)	0.0158		
Approximate Chi Square Value (2.00, α)	0.151	Adjusted Chi Square Value (2.00, β)	0.0961
95% Gamma Approximate UCL	2846510	95% Gamma Adjusted UCL	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	214503	SD (KM)	524802
Variance (KM)	2.754E+11	SE of Mean (KM)	229042
k hat (KM)	0.167	k star (KM)	0.191

1408					nu hat (KM)	2.339					nu star (KM)	2.67
1409					theta hat (KM)	1283975					theta star (KM)	1124809
1410					80% gamma percentile (KM)	275411					90% gamma percentile (KM)	648294
1411					95% gamma percentile (KM)	1118796					99% gamma percentile (KM)	2424418
1412												
1413					**Gamma Kaplan-Meier (KM) Statistics**							
1414					Approximate Chi Square Value (2.67, α)	0.282					Adjusted Chi Square Value (2.67, β)	0.146
1415					95% KM Approximate Gamma UCL	2032807					95% KM Adjusted Gamma UCL	3913518
1416												
1417					**Lognormal GOF Test on Detected Observations Only**							
1418					Shapiro Wilk Test Statistic	0.786					**Shapiro Wilk GOF Test**	
1419					10% Shapiro Wilk Critical Value	0.792					Detected Data Not Lognormal at 10% Significance Level	
1420					Lilliefors Test Statistic	0.35					**Lilliefors GOF Test**	
1421					10% Lilliefors Critical Value	0.346					Detected Data Not Lognormal at 10% Significance Level	
1422					**Detected Data Not Lognormal at 10% Significance Level**							
1423												
1424					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1425					Mean in Original Scale	214518					Mean in Log Scale	6.685
1426					SD in Original Scale	566844					SD in Log Scale	3.383
1427					95% t UCL (assumes normality of ROS data)	630839					95% Percentile Bootstrap UCL	642991
1428					95% BCA Bootstrap UCL	643094					95% Bootstrap t UCL	1.323E+9
1429					95% H-UCL (Log ROS)	1.244E+12						
1430												
1431					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1432					KM Mean (logged)	6.483					KM Geo Mean	653.7
1433					KM SD (logged)	3.252					95% Critical H Value (KM-Log)	10.76
1434					KM Standard Error of Mean (logged)	1.459					95% H-UCL (KM -Log)	2.059E+11
1435					KM SD (logged)	3.252					95% Critical H Value (KM-Log)	10.76
1436					KM Standard Error of Mean (logged)	1.459						
1437												
1438					**DL/2 Statistics**							
1439					**DL/2 Normal**						**DL/2 Log-Transformed**	
1440					Mean in Original Scale	214555					Mean in Log Scale	6.797
1441					SD in Original Scale	566828					SD in Log Scale	3.347
1442					95% t UCL (Assumes normality)	630864					95% H-Stat UCL	8.887E+11
1443					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1444												
1445					**Nonparametric Distribution Free UCL Statistics**							
1446					**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**							
1447												
1448					**Suggested UCL to Use**							
1449					95% KM Bootstrap t UCL	N/A					95% Hall's Bootstrap	2.059E+11
1450												
1451					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1452					**Please verify the data were collected from random locations.**							
1453					**If the data were collected using judgmental or other non-random methods,**							
1454					**then contact a statistician to correctly calculate UCLs.**							
1455												
1456					When a data set follows an approximate distribution passing only one of the GOF tests,							
1457					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
1458												
1459					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1460					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1461					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1462												
1463	**Benzo[a]pyrene**											
1464												
1465					**General Statistics**							
1466					Total Number of Observations	7					Number of Distinct Observations	7
1467											Number of Missing Observations	24
1468					Number of Detects	4					Number of Non-Detects	3
1469					Number of Distinct Detects	4					Number of Distinct Non-Detects	3
1470					Minimum Detect	70					Minimum Non-Detect	700
1471					Maximum Detect	900000					Maximum Non-Detect	800
1472					Variance Detects	2.024E+11					Percent Non-Detects	42.86%
1473					Mean Detects	225225					SD Detects	449850
1474					Median Detects	415					CV Detects	1.997

1475				Skewness Detects	2					Kurtosis Detects	4	
1476				Mean of Logged Detects	7.426					SD of Logged Detects	4.285	
1477												
1478	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1479	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1480	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1481	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1482	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1483												
1484	**Normal GOF Test on Detects Only**											
1485				Shapiro Wilk Test Statistic	0.63	**Shapiro Wilk GOF Test**						
1486				1% Shapiro Wilk Critical Value	0.687	Detected Data Not Normal at 1% Significance Level						
1487				Lilliefors Test Statistic	0.441	**Lilliefors GOF Test**						
1488				1% Lilliefors Critical Value	0.413	Detected Data Not Normal at 1% Significance Level						
1489	**Detected Data Not Normal at 1% Significance Level**											
1490												
1491	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1492				KM Mean	128829					KM Standard Error of Mean	137403	
1493				90KM SD	314829					95% KM (BCA) UCL	N/A	
1494				95% KM (t) UCL	395827					95% KM (Percentile Bootstrap) UCL	N/A	
1495				95% KM (z) UCL	354836					95% KM Bootstrap t UCL	N/A	
1496				90% KM Chebyshev UCL	541037					95% KM Chebyshev UCL	727754	
1497				97.5% KM Chebyshev UCL	986909					99% KM Chebyshev UCL	1495970	
1498												
1499	**Gamma GOF Tests on Detected Observations Only**											
1500				A-D Test Statistic	0.695	**Anderson-Darling GOF Test**						
1501				5% A-D Critical Value	0.767	Detected data appear Gamma Distributed at 5% Significance Level						
1502				K-S Test Statistic	0.429	**Kolmogorov-Smirnov GOF**						
1503				5% K-S Critical Value	0.429	Detected data appear Gamma Distributed at 5% Significance Level						
1504	**Detected data appear Gamma Distributed at 5% Significance Level**											
1505	**Note GOF tests may be unreliable for small sample sizes**											
1506												
1507	**Gamma Statistics on Detected Data Only**											
1508				k hat (MLE)	0.156					k star (bias corrected MLE)	0.206	
1509				Theta hat (MLE)	1443890					Theta star (bias corrected MLE)	1095117	
1510				nu hat (MLE)	1.248					nu star (bias corrected)	1.645	
1511				Mean (detects)	225225							
1512												
1513	**Gamma ROS Statistics using Imputed Non-Detects**											
1514	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1515	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1516	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1517	This is especially true when the sample size is small.											
1518	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1519				Minimum	0.01					Mean	128700	
1520				Maximum	900000					Median	70	
1521				SD	340111					CV	2.643	
1522				k hat (MLE)	0.087					k star (bias corrected MLE)	0.145	
1523				Theta hat (MLE)	1479407					Theta star (bias corrected MLE)	887898	
1524				nu hat (MLE)	1.218					nu star (bias corrected)	2.029	
1525				Adjusted Level of Significance (β)	0.0158							
1526				Approximate Chi Square Value (2.03, α)	0.155					Adjusted Chi Square Value (2.03, β)	0.0972	
1527				95% Gamma Approximate UCL	1688662					95% Gamma Adjusted UCL	N/A	
1528												
1529	**Estimates of Gamma Parameters using KM Estimates**											
1530				Mean (KM)	128829					SD (KM)	314829	
1531				Variance (KM)	9.912E+10					SE of Mean (KM)	137403	
1532				k hat (KM)	0.167					k star (KM)	0.191	
1533				nu hat (KM)	2.344					nu star (KM)	2.673	
1534				theta hat (KM)	769376					theta star (KM)	674773	
1535				80% gamma percentile (KM)	165517					90% gamma percentile (KM)	389370	
1536				95% gamma percentile (KM)	671743					99% gamma percentile (KM)	1455167	
1537												
1538	**Gamma Kaplan-Meier (KM) Statistics**											
1539				Approximate Chi Square Value (2.67, α)	0.282					Adjusted Chi Square Value (2.67, β)	0.147	
1540				95% KM Approximate Gamma UCL	1218940					95% KM Adjusted Gamma UCL	2347325	
1541												

	A	B	C	D	E	F	G	H	I	J	K	L
1542	**Lognormal GOF Test on Detected Observations Only**											
1543					Shapiro Wilk Test Statistic	0.814	**Shapiro Wilk GOF Test**					
1544					10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level					
1545					Lilliefors Test Statistic	0.34	**Lilliefors GOF Test**					
1546					10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level					
1547	**Detected Data appear Lognormal at 10% Significance Level**											
1548	**Note GOF tests may be unreliable for small sample sizes**											
1549												
1550	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1551					Mean in Original Scale	128834				Mean in Log Scale	6.704	
1552					SD in Original Scale	340052				SD in Log Scale	3.161	
1553				95% t UCL (assumes normality of ROS data)		378586				95% Percentile Bootstrap UCL	385860	
1554					95% BCA Bootstrap UCL	385983				95% Bootstrap t UCL	4.653E+8	
1555					95% H-UCL (Log ROS)	8.784E+10						
1556												
1557	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1558					KM Mean (logged)	6.528				KM Geo Mean	684	
1559					KM SD (logged)	3.048				95% Critical H Value (KM-Log)	10.1	
1560					KM Standard Error of Mean (logged)	1.379				95% H-UCL (KM -Log)	2.033E+10	
1561					KM SD (logged)	3.048				95% Critical H Value (KM-Log)	10.1	
1562					KM Standard Error of Mean (logged)	1.379						
1563												
1564	**DL/2 Statistics**											
1565	**DL/2 Normal**						**DL/2 Log-Transformed**					
1566					Mean in Original Scale	128861				Mean in Log Scale	6.783	
1567					SD in Original Scale	340041				SD in Log Scale	3.134	
1568					95% t UCL (Assumes normality)	378605				95% H-Stat UCL	7.014E+10	
1569	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1570												
1571	**Nonparametric Distribution Free UCL Statistics**											
1572	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1573												
1574	**Suggested UCL to Use**											
1575					95% KM Bootstrap t UCL	N/A				95% Hall's Bootstrap	2.033E+10	
1576												
1577	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1578	**Please verify the data were collected from random locations.**											
1579	**If the data were collected using judgmental or other non-random methods,**											
1580	**then contact a statistician to correctly calculate UCLs.**											
1581												
1582	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1583	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1584	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1585												
1586	**Benzo[g,h,i]perylene**											
1587												
1588	**General Statistics**											
1589					Total Number of Observations	7				Number of Distinct Observations	7	
1590										Number of Missing Observations	24	
1591					Number of Detects	4				Number of Non-Detects	3	
1592					Number of Distinct Detects	4				Number of Distinct Non-Detects	3	
1593					Minimum Detect	51				Minimum Non-Detect	700	
1594					Maximum Detect	470000				Maximum Non-Detect	800	
1595					Variance Detects	5.517E+10				Percent Non-Detects	42.86%	
1596					Mean Detects	117678				SD Detects	234882	
1597					Median Detects	330				CV Detects	1.996	
1598					Skewness Detects	2				Kurtosis Detects	4	
1599					Mean of Logged Detects	7.081				SD of Logged Detects	4.092	
1600												
1601	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1602	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1603	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1604	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1605	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1606												
1607	**Normal GOF Test on Detects Only**											
1608					Shapiro Wilk Test Statistic	0.63	**Shapiro Wilk GOF Test**					

	A	B	C	D	E	F	G	H	I	J	K	L
1609				1% Shapiro Wilk Critical Value		0.687	Detected Data Not Normal at 1% Significance Level					
1610				Lilliefors Test Statistic		0.441	**Lilliefors GOF Test**					
1611				1% Lilliefors Critical Value		0.413	Detected Data Not Normal at 1% Significance Level					
1612	**Detected Data Not Normal at 1% Significance Level**											
1613												
1614	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1615				KM Mean		67346	KM Standard Error of Mean					71743
1616				90KM SD		164383	95% KM (BCA) UCL					N/A
1617				95% KM (t) UCL		206755	95% KM (Percentile Bootstrap) UCL					N/A
1618				95% KM (z) UCL		185352	95% KM Bootstrap t UCL					N/A
1619				90% KM Chebyshev UCL		282574	95% KM Chebyshev UCL					380065
1620				97.5% KM Chebyshev UCL		515378	99% KM Chebyshev UCL					781176
1621												
1622	**Gamma GOF Tests on Detected Observations Only**											
1623				A-D Test Statistic		0.678	**Anderson-Darling GOF Test**					
1624				5% A-D Critical Value		0.76	Detected data appear Gamma Distributed at 5% Significance Level					
1625				K-S Test Statistic		0.426	**Kolmogorov-Smirnov GOF**					
1626				5% K-S Critical Value		0.429	Detected data appear Gamma Distributed at 5% Significance Level					
1627	**Detected data appear Gamma Distributed at 5% Significance Level**											
1628	**Note GOF tests may be unreliable for small sample sizes**											
1629												
1630	**Gamma Statistics on Detected Data Only**											
1631				k hat (MLE)		0.165	k star (bias corrected MLE)					0.208
1632				Theta hat (MLE)		713462	Theta star (bias corrected MLE)					566027
1633				nu hat (MLE)		1.32	nu star (bias corrected)					1.663
1634				Mean (detects)		117678						
1635												
1636	**Gamma ROS Statistics using Imputed Non-Detects**											
1637	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1638	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1639	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1640	This is especially true when the sample size is small.											
1641	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1642				Minimum		0.01	Mean					67244
1643				Maximum		470000	Median					51
1644				SD		177599	CV					2.641
1645				k hat (MLE)		0.0909	k star (bias corrected MLE)					0.147
1646				Theta hat (MLE)		740031	Theta star (bias corrected MLE)					456941
1647				nu hat (MLE)		1.272	nu star (bias corrected)					2.06
1648				Adjusted Level of Significance (β)		0.0158						
1649				Approximate Chi Square Value (2.06, α)		0.159	Adjusted Chi Square Value (2.06, β)					0.0983
1650				95% Gamma Approximate UCL		871228	95% Gamma Adjusted UCL					N/A
1651												
1652	**Estimates of Gamma Parameters using KM Estimates**											
1653				Mean (KM)		67346	SD (KM)					164383
1654				Variance (KM)		2.702E+10	SE of Mean (KM)					71743
1655				k hat (KM)		0.168	k star (KM)					0.191
1656				nu hat (KM)		2.35	nu star (KM)					2.676
1657				theta hat (KM)		401237	theta star (KM)					352320
1658				80% gamma percentile (KM)		86584	90% gamma percentile (KM)					203552
1659				95% gamma percentile (KM)		351053	99% gamma percentile (KM)					760200
1660												
1661	**Gamma Kaplan-Meier (KM) Statistics**											
1662				Approximate Chi Square Value (2.68, α)		0.283	Adjusted Chi Square Value (2.68, β)					0.147
1663				95% KM Approximate Gamma UCL		636152	95% KM Adjusted Gamma UCL					1225390
1664												
1665	**Lognormal GOF Test on Detected Observations Only**											
1666				Shapiro Wilk Test Statistic		0.828	**Shapiro Wilk GOF Test**					
1667				10% Shapiro Wilk Critical Value		0.792	Detected Data appear Lognormal at 10% Significance Level					
1668				Lilliefors Test Statistic		0.336	**Lilliefors GOF Test**					
1669				10% Lilliefors Critical Value		0.346	Detected Data appear Lognormal at 10% Significance Level					
1670	**Detected Data appear Lognormal at 10% Significance Level**											
1671	**Note GOF tests may be unreliable for small sample sizes**											
1672												
1673	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1674				Mean in Original Scale		67346	Mean in Log Scale					6.388
1675				SD in Original Scale		177554	SD in Log Scale					3.02

1676				95% t UCL (assumes normality of ROS data)		197751				95% Percentile Bootstrap UCL		201545
1677				95% BCA Bootstrap UCL		201672				95% Bootstrap t UCL		1.699E+8
1678				95% H-UCL (Log ROS)		1.301E+10						
1679												
1680						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1681				KM Mean (logged)		6.226				KM Geo Mean		505.9
1682				KM SD (logged)		2.918				95% Critical H Value (KM-Log)		9.682
1683				KM Standard Error of Mean (logged)		1.327				95% H-UCL (KM -Log)		3.655E+9
1684				KM SD (logged)		2.918				95% Critical H Value (KM-Log)		9.682
1685				KM Standard Error of Mean (logged)		1.327						
1686												
1687						**DL/2 Statistics**						
1688				**DL/2 Normal**						**DL/2 Log-Transformed**		
1689				Mean in Original Scale		67405				Mean in Log Scale		6.586
1690				SD in Original Scale		177528				SD in Log Scale		2.959
1691				95% t UCL (Assumes normality)		197791				95% H-Stat UCL		8.127E+9
1692				**DL/2 is not a recommended method, provided for comparisons and historical reasons**								
1693												
1694						**Nonparametric Distribution Free UCL Statistics**							
1695						**Detected Data appear Gamma Distributed at 5% Significance Level**							
1696												
1697						**Suggested UCL to Use**						
1698				95% KM Bootstrap t UCL		N/A				95% Hall's Bootstrap		3.655E+9
1699												
1700						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1701						**Please verify the data were collected from random locations.**							
1702						**If the data were collected using judgmental or other non-random methods,**							
1703						**then contact a statistician to correctly calculate UCLs.**							
1704												
1705						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1706						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1707						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1708												
1709	**Benzo[k]fluoranthene**											
1710												
1711						**General Statistics**						
1712				Total Number of Observations		7				Number of Distinct Observations		7
1713										Number of Missing Observations		24
1714				Number of Detects		4				Number of Non-Detects		3
1715				Number of Distinct Detects		4				Number of Distinct Non-Detects		3
1716				Minimum Detect		41				Minimum Non-Detect		700
1717				Maximum Detect		580000				Maximum Non-Detect		800
1718				Variance Detects		8.405E+10				Percent Non-Detects		42.86%
1719				Mean Detects		145135				SD Detects		289910
1720				Median Detects		250				CV Detects		1.998
1721				Skewness Detects		2				Kurtosis Detects		4
1722				Mean of Logged Detects		6.913				SD of Logged Detects		4.338
1723												
1724						**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
1725						**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
1726						**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
1727						**The Chebyshev UCL often results in gross overestimates of the mean.**							
1728						**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							
1729												
1730						**Normal GOF Test on Detects Only**							
1731				Shapiro Wilk Test Statistic		0.63				**Shapiro Wilk GOF Test**		
1732				1% Shapiro Wilk Critical Value		0.687				Detected Data Not Normal at 1% Significance Level		
1733				Lilliefors Test Statistic		0.441				**Lilliefors GOF Test**		
1734				1% Lilliefors Critical Value		0.413				Detected Data Not Normal at 1% Significance Level		
1735						**Detected Data Not Normal at 1% Significance Level**							
1736												
1737						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1738				KM Mean		83012				KM Standard Error of Mean		88551
1739				90KM SD		202895				95% KM (BCA) UCL		N/A
1740				95% KM (t) UCL		255081				95% KM (Percentile Bootstrap) UCL		N/A
1741				95% KM (z) UCL		228664				95% KM Bootstrap t UCL		N/A
1742				90% KM Chebyshev UCL		348663				95% KM Chebyshev UCL		468994

	A	B	C	D	E	F	G	H	I	J	K	L
1743					97.5% KM Chebyshev UCL	636009				99% KM Chebyshev UCL		964078
1744												
1745					**Gamma GOF Tests on Detected Observations Only**							
1746					A-D Test Statistic	0.692	**Anderson-Darling GOF Test**					
1747					5% A-D Critical Value	0.769	Detected data appear Gamma Distributed at 5% Significance Level					
1748					K-S Test Statistic	0.427	**Kolmogorov-Smirnov GOF**					
1749					5% K-S Critical Value	0.43	Detected data appear Gamma Distributed at 5% Significance Level					
1750					**Detected data appear Gamma Distributed at 5% Significance Level**							
1751					**Note GOF tests may be unreliable for small sample sizes**							
1752												
1753					**Gamma Statistics on Detected Data Only**							
1754					k hat (MLE)	0.154	k star (bias corrected MLE)					0.205
1755					Theta hat (MLE)	942604	Theta star (bias corrected MLE)					707425
1756					nu hat (MLE)	1.232	nu star (bias corrected)					1.641
1757					Mean (detects)	145135						
1758												
1759					**Gamma ROS Statistics using Imputed Non-Detects**							
1760					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1761					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1762					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1763					This is especially true when the sample size is small.							
1764					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1765					Minimum	0.01	Mean					82934
1766					Maximum	580000	Median					41
1767					SD	219185	CV					2.643
1768					k hat (MLE)	0.0882	k star (bias corrected MLE)					0.146
1769					Theta hat (MLE)	940191	Theta star (bias corrected MLE)					569433
1770					nu hat (MLE)	1.235	nu star (bias corrected)					2.039
1771					Adjusted Level of Significance (β)	0.0158						
1772					Approximate Chi Square Value (2.04, α)	0.156	Adjusted Chi Square Value (2.04, β)					0.0975
1773					95% Gamma Approximate UCL	1083958	95% Gamma Adjusted UCL					N/A
1774												
1775					**Estimates of Gamma Parameters using KM Estimates**							
1776					Mean (KM)	83012	SD (KM)					202895
1777					Variance (KM)	4.117E+10	SE of Mean (KM)					88551
1778					k hat (KM)	0.167	k star (KM)					0.191
1779					nu hat (KM)	2.344	nu star (KM)					2.672
1780					theta hat (KM)	495909	theta star (KM)					434864
1781					80% gamma percentile (KM)	106643	90% gamma percentile (KM)					250893
1782					95% gamma percentile (KM)	432860	99% gamma percentile (KM)					937729
1783												
1784					**Gamma Kaplan-Meier (KM) Statistics**							
1785					Approximate Chi Square Value (2.67, α)	0.282	Adjusted Chi Square Value (2.67, β)					0.147
1786					95% KM Approximate Gamma UCL	785605	95% KM Adjusted Gamma UCL					1512791
1787												
1788					**Lognormal GOF Test on Detected Observations Only**							
1789					Shapiro Wilk Test Statistic	0.814	**Shapiro Wilk GOF Test**					
1790					10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level					
1791					Lilliefors Test Statistic	0.336	**Lilliefors GOF Test**					
1792					10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level					
1793					**Detected Data appear Lognormal at 10% Significance Level**							
1794					**Note GOF tests may be unreliable for small sample sizes**							
1795												
1796					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1797					Mean in Original Scale	83013	Mean in Log Scale					6.182
1798					SD in Original Scale	219151	SD in Log Scale					3.2
1799					95% t UCL (assumes normality of ROS data)	243969	95% Percentile Bootstrap UCL					248656
1800					95% BCA Bootstrap UCL	331446	95% Bootstrap t UCL					3.243E+8
1801					95% H-UCL (Log ROS)	8.246E+10						
1802												
1803					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1804					KM Mean (logged)	6.004	KM Geo Mean					405.2
1805					KM SD (logged)	3.087	95% Critical H Value (KM-Log)					10.22
1806					KM Standard Error of Mean (logged)	1.398	95% H-UCL (KM -Log)					1.874E+10
1807					KM SD (logged)	3.087	95% Critical H Value (KM-Log)					10.22
1808					KM Standard Error of Mean (logged)	1.398						
1809												

1810	**DL/2 Statistics**											
1811	**DL/2 Normal**						**DL/2 Log-Transformed**					
1812				Mean in Original Scale	83095					Mean in Log Scale	6.49	
1813				SD in Original Scale	219114					SD in Log Scale	3.113	
1814				95% t UCL (Assumes normality)	244024					95% H-Stat UCL	4.081E+10	
1815	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1816												
1817	**Nonparametric Distribution Free UCL Statistics**											
1818	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1819												
1820	**Suggested UCL to Use**											
1821				95% KM Bootstrap t UCL	N/A					95% Hall's Bootstrap	1.874E+10	
1822												
1823	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1824	**Please verify the data were collected from random locations.**											
1825	**If the data were collected using judgmental or other non-random methods,**											
1826	**then contact a statistician to correctly calculate UCLs.**											
1827												
1828	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1829	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1830	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1831												
1832	**Chrysene**											
1833												
1834	**General Statistics**											
1835				Total Number of Observations	7					Number of Distinct Observations	7	
1836										Number of Missing Observations	24	
1837				Number of Detects	4					Number of Non-Detects	3	
1838				Number of Distinct Detects	4					Number of Distinct Non-Detects	3	
1839				Minimum Detect	70					Minimum Non-Detect	700	
1840				Maximum Detect	1100000					Maximum Non-Detect	800	
1841				Variance Detects	3.023E+11					Percent Non-Detects	42.86%	
1842				Mean Detects	275248					SD Detects	549835	
1843				Median Detects	460					CV Detects	1.998	
1844				Skewness Detects	2					Kurtosis Detects	4	
1845				Mean of Logged Detects	7.559					SD of Logged Detects	4.333	
1846												
1847	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1848	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1849	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1850	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1851	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1852												
1853	**Normal GOF Test on Detects Only**											
1854				Shapiro Wilk Test Statistic	0.63		**Shapiro Wilk GOF Test**					
1855				1% Shapiro Wilk Critical Value	0.687		Detected Data Not Normal at 1% Significance Level					
1856				Lilliefors Test Statistic	0.441		**Lilliefors GOF Test**					
1857				1% Lilliefors Critical Value	0.413		Detected Data Not Normal at 1% Significance Level					
1858	**Detected Data Not Normal at 1% Significance Level**											
1859												
1860	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1861				KM Mean	157426					KM Standard Error of Mean	167942	
1862				90KM SD	384804					95% KM (BCA) UCL	N/A	
1863				95% KM (t) UCL	483768					95% KM (Percentile Bootstrap) UCL	N/A	
1864				95% KM (z) UCL	433666					95% KM Bootstrap t UCL	N/A	
1865				90% KM Chebyshev UCL	661253					95% KM Chebyshev UCL	889470	
1866				97.5% KM Chebyshev UCL	1206226					99% KM Chebyshev UCL	1828432	
1867												
1868	**Gamma GOF Tests on Detected Observations Only**											
1869				A-D Test Statistic	0.695		**Anderson-Darling GOF Test**					
1870				5% A-D Critical Value	0.768		Detected data appear Gamma Distributed at 5% Significance Level					
1871				K-S Test Statistic	0.433		**Kolmogorov-Smirnov GOF**					
1872				5% K-S Critical Value	0.429		Detected Data Not Gamma Distributed at 5% Significance Level					
1873	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
1874	**Note GOF tests may be unreliable for small sample sizes**											
1875												
1876	**Gamma Statistics on Detected Data Only**											

1877					k hat (MLE)	0.154			k star (bias corrected MLE)			0.205
1878					Theta hat (MLE)	1785781			Theta star (bias corrected MLE)			1341363
1879					nu hat (MLE)	1.233			nu star (bias corrected)			1.642
1880					Mean (detects)	275248						
1881												
1882					**Gamma ROS Statistics using Imputed Non-Detects**							
1883					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1884					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1885					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1886					This is especially true when the sample size is small.							
1887					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1888					Minimum	0.01			Mean			157284
1889					Maximum	1100000			Median			70
1890					SD	415699			CV			2.643
1891					k hat (MLE)	0.086			k star (bias corrected MLE)			0.144
1892					Theta hat (MLE)	1829177			Theta star (bias corrected MLE)			1089429
1893					nu hat (MLE)	1.204			nu star (bias corrected)			2.021
1894					Adjusted Level of Significance (β)	0.0158						
1895					Approximate Chi Square Value (2.02, α)	0.154			Adjusted Chi Square Value (2.02, β)			0.0969
1896					95% Gamma Approximate UCL	2070240			95% Gamma Adjusted UCL			N/A
1897												
1898					**Estimates of Gamma Parameters using KM Estimates**							
1899					Mean (KM)	157426			SD (KM)			384804
1900					Variance (KM)	1.481E+11			SE of Mean (KM)			167942
1901					k hat (KM)	0.167			k star (KM)			0.191
1902					nu hat (KM)	2.343			nu star (KM)			2.672
1903					theta hat (KM)	940599			theta star (KM)			824751
1904					80% gamma percentile (KM)	202231			90% gamma percentile (KM)			475799
1905					95% gamma percentile (KM)	820904			99% gamma percentile (KM)			1778409
1906												
1907					**Gamma Kaplan-Meier (KM) Statistics**							
1908					Approximate Chi Square Value (2.67, α)	0.282			Adjusted Chi Square Value (2.67, β)			0.147
1909					95% KM Approximate Gamma UCL	1490000			95% KM Adjusted Gamma UCL			2869150
1910												
1911					**Lognormal GOF Test on Detected Observations Only**							
1912					Shapiro Wilk Test Statistic	0.818			**Shapiro Wilk GOF Test**			
1913					10% Shapiro Wilk Critical Value	0.792			Detected Data appear Lognormal at 10% Significance Level			
1914					Lilliefors Test Statistic	0.349			**Lilliefors GOF Test**			
1915					10% Lilliefors Critical Value	0.346			Detected Data Not Lognormal at 10% Significance Level			
1916					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
1917					**Note GOF tests may be unreliable for small sample sizes**							
1918												
1919					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1920					Mean in Original Scale	157434			Mean in Log Scale			6.829
1921					SD in Original Scale	415633			SD in Log Scale			3.196
1922					95% t UCL (assumes normality of ROS data)	462697			95% Percentile Bootstrap UCL			471591
1923					95% BCA Bootstrap UCL	471714			95% Bootstrap t UCL			6.194E+8
1924					95% H-UCL (Log ROS)	1.507E+11						
1925												
1926					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1927					KM Mean (logged)	6.651			KM Geo Mean			773.7
1928					KM SD (logged)	3.083			95% Critical H Value (KM-Log)			10.21
1929					KM Standard Error of Mean (logged)	1.395			95% H-UCL (KM -Log)			3.419E+10
1930					KM SD (logged)	3.083			95% Critical H Value (KM-Log)			10.21
1931					KM Standard Error of Mean (logged)	1.395						
1932												
1933					**DL/2 Statistics**							
1934					**DL/2 Normal**				**DL/2 Log-Transformed**			
1935					Mean in Original Scale	157445			Mean in Log Scale			6.859
1936					SD in Original Scale	415628			SD in Log Scale			3.186
1937					95% t UCL (Assumes normality)	462704			95% H-Stat UCL			1.377E+11
1938					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1939												
1940					**Nonparametric Distribution Free UCL Statistics**							
1941					**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**							
1942												
1943					**Suggested UCL to Use**							

1944				95% KM Bootstrap t UCL		N/A				95% Hall's Bootstrap		3.419E+10
1945												
1946	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1947	**Please verify the data were collected from random locations.**											
1948	**If the data were collected using judgmental or other non-random methods,**											
1949	**then contact a statistician to correctly calculate UCLs.**											
1950												
1951	When a data set follows an approximate distribution passing only one of the GOF tests,											
1952	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
1953												
1954	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1955	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1956	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1957												
1958	**Dibenzo[a,h]anthracene**											
1959												
1960	**General Statistics**											
1961				Total Number of Observations		7				Number of Distinct Observations		7
1962										Number of Missing Observations		24
1963				Number of Detects		2				Number of Non-Detects		5
1964				Number of Distinct Detects		2				Number of Distinct Non-Detects		5
1965				Minimum Detect		120				Minimum Non-Detect		100
1966				Maximum Detect		180000				Maximum Non-Detect		800
1967				Variance Detects		1.618E+10				Percent Non-Detects		71.43%
1968				Mean Detects		90060				SD Detects		127194
1969				Median Detects		90060				CV Detects		1.412
1970				Skewness Detects		N/A				Kurtosis Detects		N/A
1971				Mean of Logged Detects		8.444				SD of Logged Detects		5.171
1972												
1973	**Warning: Data set has only 2 Detected Values.**											
1974	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1975												
1976												
1977	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1978	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1979	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1980	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1981	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1982												
1983	**Normal GOF Test on Detects Only**											
1984	**Not Enough Data to Perform GOF Test**											
1985												
1986	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1987				KM Mean		25809				KM Standard Error of Mean		33647
1988				90KM SD		62948				95% KM (BCA) UCL		N/A
1989				95% KM (t) UCL		91191				95% KM (Percentile Bootstrap) UCL		N/A
1990				95% KM (z) UCL		81154				95% KM Bootstrap t UCL		N/A
1991				90% KM Chebyshev UCL		126751				95% KM Chebyshev UCL		172474
1992				97.5% KM Chebyshev UCL		235936				99% KM Chebyshev UCL		360595
1993												
1994	**Gamma GOF Tests on Detected Observations Only**											
1995	**Not Enough Data to Perform GOF Test**											
1996												
1997	**Gamma Statistics on Detected Data Only**											
1998				k hat (MLE)		0.241				k star (bias corrected MLE)		N/A
1999				Theta hat (MLE)		373631				Theta star (bias corrected MLE)		N/A
2000				nu hat (MLE)		0.964				nu star (bias corrected)		N/A
2001				Mean (detects)		90060						
2002												
2003	**Estimates of Gamma Parameters using KM Estimates**											
2004				Mean (KM)		25809				SD (KM)		62948
2005				Variance (KM)		3.962E+9				SE of Mean (KM)		33647
2006				k hat (KM)		0.168				k star (KM)		0.191
2007				nu hat (KM)		2.353				nu star (KM)		2.678
2008				theta hat (KM)		153534				theta star (KM)		134916
2009				80% gamma percentile (KM)		33195				90% gamma percentile (KM)		78007
2010				95% gamma percentile (KM)		134506				99% gamma percentile (KM)		291207

2011												
2012	**Gamma Kaplan-Meier (KM) Statistics**											
2013									Adjusted Level of Significance (β)		0.0158	
2014				Approximate Chi Square Value (2.68, α)		0.284			Adjusted Chi Square Value (2.68, β)		0.147	
2015				95% KM Approximate Gamma UCL		243535			95% KM Adjusted Gamma UCL		469192	
2016												
2017	**Lognormal GOF Test on Detected Observations Only**											
2018	**Not Enough Data to Perform GOF Test**											
2019												
2020	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2021				Mean in Original Scale		25733			Mean in Log Scale		2.655	
2022				SD in Original Scale		68025			SD in Log Scale		4.723	
2023				95% t UCL (assumes normality of ROS data)		75695			95% Percentile Bootstrap UCL		N/A	
2024				95% BCA Bootstrap UCL		N/A			95% Bootstrap t UCL		N/A	
2025				95% H-UCL (Log ROS)		9.885E+18						
2026												
2027	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2028				KM Mean (logged)		5.754			KM Geo Mean		315.5	
2029				KM SD (logged)		2.592			95% Critical H Value (KM-Log)		8.635	
2030				KM Standard Error of Mean (logged)		1.387			95% H-UCL (KM -Log)		84526259	
2031				KM SD (logged)		2.592			95% Critical H Value (KM-Log)		8.635	
2032				KM Standard Error of Mean (logged)		1.387						
2033												
2034	**DL/2 Statistics**											
2035		**DL/2 Normal**							**DL/2 Log-Transformed**			
2036				Mean in Original Scale		25914			Mean in Log Scale		6.176	
2037				SD in Original Scale		67946			SD in Log Scale		2.729	
2038				95% t UCL (Assumes normality)		75817			95% H-Stat UCL		4.866E+8	
2039	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2040												
2041	**Nonparametric Distribution Free UCL Statistics**											
2042	**Data do not follow a Discernible Distribution**											
2043												
2044	**Suggested UCL to Use**											
2045				Recommendation cannot be provided								
2046												
2047	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2048	**Please verify the data were collected from random locations.**											
2049	**If the data were collected using judgmental or other non-random methods,**											
2050	**then contact a statistician to correctly calculate UCLs.**											
2051												
2052	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2053	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2054	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2055												
2056	**Fluoranthene**											
2057												
2058	**General Statistics**											
2059				Total Number of Observations		7			Number of Distinct Observations		7	
2060									Number of Missing Observations		24	
2061				Number of Detects		6			Number of Non-Detects		1	
2062				Number of Distinct Detects		6			Number of Distinct Non-Detects		1	
2063				Minimum Detect		110			Minimum Non-Detect		800	
2064				Maximum Detect		3500000			Maximum Non-Detect		800	
2065				Variance Detects		2.041E+12			Percent Non-Detects		14.29%	
2066				Mean Detects		583832			SD Detects		1428625	
2067				Median Detects		475			CV Detects		2.447	
2068				Skewness Detects		2.449			Kurtosis Detects		6	
2069				Mean of Logged Detects		7.544			SD of Logged Detects		3.785	
2070												
2071	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
2072	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
2073	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
2074	**The Chebyshev UCL often results in gross overestimates of the mean.**											
2075	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
2076												
2077	**Normal GOF Test on Detects Only**											

	A	B	C	D	E	F	G	H	I	J	K	L
2078					Shapiro Wilk Test Statistic	0.497	**Shapiro Wilk GOF Test**					
2079					1% Shapiro Wilk Critical Value	0.713	Detected Data Not Normal at 1% Significance Level					
2080					Lilliefors Test Statistic	0.492	**Lilliefors GOF Test**					
2081					1% Lilliefors Critical Value	0.373	Detected Data Not Normal at 1% Significance Level					
2082					**Detected Data Not Normal at 1% Significance Level**							
2083												
2084					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
2085					KM Mean	500477	KM Standard Error of Mean	507012				
2086					90KM SD	1224550	95% KM (BCA) UCL	1500271				
2087					95% KM (t) UCL	1485692	95% KM (Percentile Bootstrap) UCL	1500244				
2088					95% KM (z) UCL	1334437	95% KM Bootstrap t UCL	4.084E+9				
2089					90% KM Chebyshev UCL	2021513	95% KM Chebyshev UCL	2710491				
2090					97.5% KM Chebyshev UCL	3666766	99% KM Chebyshev UCL	5545182				
2091												
2092					**Gamma GOF Tests on Detected Observations Only**							
2093					A-D Test Statistic	1.322	**Anderson-Darling GOF Test**					
2094					5% A-D Critical Value	0.86	Detected Data Not Gamma Distributed at 5% Significance Level					
2095					K-S Test Statistic	0.469	**Kolmogorov-Smirnov GOF**					
2096					5% K-S Critical Value	0.371	Detected Data Not Gamma Distributed at 5% Significance Level					
2097					**Detected Data Not Gamma Distributed at 5% Significance Level**							
2098												
2099					**Gamma Statistics on Detected Data Only**							
2100					k hat (MLE)	0.136	k star (bias corrected MLE)	0.179				
2101					Theta hat (MLE)	4294409	Theta star (bias corrected MLE)	3260047				
2102					nu hat (MLE)	1.631	nu star (bias corrected)	2.149				
2103					Mean (detects)	583832						
2104												
2105					**Gamma ROS Statistics using Imputed Non-Detects**							
2106					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2107					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2108					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2109					This is especially true when the sample size is small.							
2110					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2111					Minimum	0.01	Mean	500427				
2112					Maximum	3500000	Median	430				
2113					SD	1322687	CV	2.643				
2114					k hat (MLE)	0.11	k star (bias corrected MLE)	0.158				
2115					Theta hat (MLE)	4561349	Theta star (bias corrected MLE)	3168670				
2116					nu hat (MLE)	1.536	nu star (bias corrected)	2.211				
2117					Adjusted Level of Significance (β)	0.0158						
2118					Approximate Chi Square Value (2.21, α)	0.183	Adjusted Chi Square Value (2.21, β)	0.106				
2119					95% Gamma Approximate UCL	6043767	95% Gamma Adjusted UCL	10465063				
2120												
2121					**Estimates of Gamma Parameters using KM Estimates**							
2122					Mean (KM)	500477	SD (KM)	1224550				
2123					Variance (KM)	1.500E+12	SE of Mean (KM)	507012				
2124					k hat (KM)	0.167	k star (KM)	0.191				
2125					nu hat (KM)	2.339	nu star (KM)	2.67				
2126					theta hat (KM)	2996190	theta star (KM)	2624581				
2127					80% gamma percentile (KM)	642559	90% gamma percentile (KM)	1512589				
2128					95% gamma percentile (KM)	2610408	99% gamma percentile (KM)	5656848				
2129												
2130					**Gamma Kaplan-Meier (KM) Statistics**							
2131					Approximate Chi Square Value (2.67, α)	0.282	Adjusted Chi Square Value (2.67, β)	0.146				
2132					95% KM Approximate Gamma UCL	4743399	95% KM Adjusted Gamma UCL	9131735				
2133												
2134					**Lognormal GOF Test on Detected Observations Only**							
2135					Shapiro Wilk Test Statistic	0.709	**Shapiro Wilk GOF Test**					
2136					10% Shapiro Wilk Critical Value	0.826	Detected Data Not Lognormal at 10% Significance Level					
2137					Lilliefors Test Statistic	0.351	**Lilliefors GOF Test**					
2138					10% Lilliefors Critical Value	0.298	Detected Data Not Lognormal at 10% Significance Level					
2139					**Detected Data Not Lognormal at 10% Significance Level**							
2140												
2141					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2142					Mean in Original Scale	500482	Mean in Log Scale	7.316				
2143					SD in Original Scale	1322663	SD in Log Scale	3.507				
2144					95% t UCL (assumes normality of ROS data)	1471916	95% Percentile Bootstrap UCL	1500218				

2145				95% BCA Bootstrap UCL	2000047				95% Bootstrap t UCL	4.736E+9		
2146				95% H-UCL (Log ROS)	1.126E+13							
2147												
2148				Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution								
2149				KM Mean (logged)	7.281				KM Geo Mean	1453		
2150				KM SD (logged)	3.271				95% Critical H Value (KM-Log)	10.82		
2151				KM Standard Error of Mean (logged)	1.358				95% H-UCL (KM -Log)	5.747E+11		
2152				KM SD (logged)	3.271				95% Critical H Value (KM-Log)	10.82		
2153				KM Standard Error of Mean (logged)	1.358							
2154												
2155				DL/2 Statistics								
2156				DL/2 Normal					DL/2 Log-Transformed			
2157				Mean in Original Scale	500484				Mean in Log Scale	7.322		
2158				SD in Original Scale	1322662				SD in Log Scale	3.505		
2159				95% t UCL (Assumes normality)	1471918				95% H-Stat UCL	1.095E+13		
2160				DL/2 is not a recommended method, provided for comparisons and historical reasons								
2161												
2162				Nonparametric Distribution Free UCL Statistics								
2163				Data do not follow a Discernible Distribution								
2164												
2165				Suggested UCL to Use								
2166				Recommendation cannot be provided								
2167												
2168				The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.								
2169				Please verify the data were collected from random locations.								
2170				If the data were collected using judgmental or other non-random methods,								
2171				then contact a statistician to correctly calculate UCLs.								
2172												
2173				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
2174				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
2175				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
2176												
2177	Fluorene											
2178												
2179				General Statistics								
2180				Total Number of Observations	7				Number of Distinct Observations	7		
2181									Number of Missing Observations	24		
2182				Number of Detects	2				Number of Non-Detects	5		
2183				Number of Distinct Detects	2				Number of Distinct Non-Detects	5		
2184				Minimum Detect	98				Minimum Non-Detect	100		
2185				Maximum Detect	1200000				Maximum Non-Detect	800		
2186				Variance Detects	7.199E+11				Percent Non-Detects	71.43%		
2187				Mean Detects	600049				SD Detects	848459		
2188				Median Detects	600049				CV Detects	1.414		
2189				Skewness Detects	N/A				Kurtosis Detects	N/A		
2190				Mean of Logged Detects	9.291				SD of Logged Detects	6.656		
2191												
2192				Warning: Data set has only 2 Detected Values.								
2193				This is not enough to compute meaningful or reliable statistics and estimates.								
2194												
2195												
2196				Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,								
2197				refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,								
2198				but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).								
2199				The Chebyshev UCL often results in gross overestimates of the mean.								
2200				Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.								
2201												
2202				Normal GOF Test on Detects Only								
2203				Not Enough Data to Perform GOF Test								
2204												
2205				Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs								
2206				KM Mean	171513				KM Standard Error of Mean	224434		
2207				90KM SD	419878				95% KM (BCA) UCL	N/A		
2208				95% KM (t) UCL	607629				95% KM (Percentile Bootstrap) UCL	N/A		
2209				95% KM (z) UCL	540674				95% KM Bootstrap t UCL	N/A		
2210				90% KM Chebyshev UCL	844816				95% KM Chebyshev UCL	1149799		
2211				97.5% KM Chebyshev UCL	1573105				99% KM Chebyshev UCL	2404606		

2212											
2213	**Gamma GOF Tests on Detected Observations Only**										
2214	**Not Enough Data to Perform GOF Test**										
2215											
2216	**Gamma Statistics on Detected Data Only**										
2217	k hat (MLE)	0.186	k star (bias corrected MLE)	N/A							
2218	Theta hat (MLE)	3234526	Theta star (bias corrected MLE)	N/A							
2219	nu hat (MLE)	0.742	nu star (bias corrected)	N/A							
2220	Mean (detects)	600049									
2221											
2222	**Estimates of Gamma Parameters using KM Estimates**										
2223	Mean (KM)	171513	SD (KM)	419878							
2224	Variance (KM)	1.763E+11	SE of Mean (KM)	224434							
2225	k hat (KM)	0.167	k star (KM)	0.191							
2226	nu hat (KM)	2.336	nu star (KM)	2.668							
2227	theta hat (KM)	1027900	theta star (KM)	899926							
2228	80% gamma percentile (KM)	220137	90% gamma percentile (KM)	518355							
2229	95% gamma percentile (KM)	894704	99% gamma percentile (KM)	1939166							
2230											
2231	**Gamma Kaplan-Meier (KM) Statistics**										
2232			Adjusted Level of Significance (β)	0.0158							
2233	Approximate Chi Square Value (2.67, α)	0.281	Adjusted Chi Square Value (2.67, β)	0.146							
2234	95% KM Approximate Gamma UCL	1626775	95% KM Adjusted Gamma UCL	3131367							
2235											
2236	**Lognormal GOF Test on Detected Observations Only**										
2237	**Not Enough Data to Perform GOF Test**										
2238											
2239	**Lognormal ROS Statistics Using Imputed Non-Detects**										
2240	Mean in Original Scale	171513	Mean in Log Scale	5.93							
2241	SD in Original Scale	453520	SD in Log Scale	3.558							
2242	95% t UCL (assumes normality of ROS data)	504602	95% Percentile Bootstrap UCL	N/A							
2243	95% BCA Bootstrap UCL	N/A	95% Bootstrap t UCL	N/A							
2244	95% H-UCL (Log ROS)	5.413E+12									
2245											
2246	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
2247	KM Mean (logged)	5.93	KM Geo Mean	376							
2248	KM SD (logged)	3.294	95% Critical H Value (KM-Log)	10.89							
2249	KM Standard Error of Mean (logged)	1.761	95% H-UCL (KM -Log)	1.961E+11							
2250	KM SD (logged)	3.294	95% Critical H Value (KM-Log)	10.89							
2251	KM Standard Error of Mean (logged)	1.761									
2252											
2253	**DL/2 Statistics**										
2254	**DL/2 Normal**		**DL/2 Log-Transformed**								
2255	Mean in Original Scale	171625	Mean in Log Scale	6.418							
2256	SD in Original Scale	453471	SD in Log Scale	3.439							
2257	95% t UCL (Assumes normality)	504678	95% H-Stat UCL	1.910E+12							
2258	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
2259											
2260	**Nonparametric Distribution Free UCL Statistics**										
2261	**Data do not follow a Discernible Distribution**										
2262											
2263	**Suggested UCL to Use**										
2264	Recommendation cannot be provided										
2265											
2266	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
2267	**Please verify the data were collected from random locations.**										
2268	**If the data were collected using judgmental or other non-random methods,**										
2269	**then contact a statistician to correctly calculate UCLs.**										
2270											
2271	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
2272	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
2273	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
2274											
2275	**Indeno[1,2,3-cd]pyrene**										
2276											
2277	**General Statistics**										
2278	Total Number of Observations	2	Number of Distinct Observations	2							

2279											Number of Missing Observations	16
2280					Number of Detects	1					Number of Non-Detects	1
2281					Number of Distinct Detects	1					Number of Distinct Non-Detects	1
2282												
2283						**Warning: This data set only has 2 observations!**						
2284						**Data set is too small to compute reliable and meaningful statistics and estimates!**						
2285						**The data set for variable Indeno[1,2,3-cd]pyrene was not processed!**						
2286												
2287						**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**						
2288						**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**						
2289												
2290												
2291	**Naphthalene**											
2292												
2293						**General Statistics**						
2294					Total Number of Observations	7					Number of Distinct Observations	7
2295											Number of Missing Observations	24
2296					Number of Detects	2					Number of Non-Detects	5
2297					Number of Distinct Detects	2					Number of Distinct Non-Detects	5
2298					Minimum Detect	150					Minimum Non-Detect	100
2299					Maximum Detect	240000					Maximum Non-Detect	800
2300					Variance Detects	2.876E+10					Percent Non-Detects	71.43%
2301					Mean Detects	120075					SD Detects	169600
2302					Median Detects	120075					CV Detects	1.412
2303					Skewness Detects	N/A					Kurtosis Detects	N/A
2304					Mean of Logged Detects	8.7					SD of Logged Detects	5.217
2305												
2306						**Warning: Data set has only 2 Detected Values.**						
2307						**This is not enough to compute meaningful or reliable statistics and estimates.**						
2308												
2309												
2310						**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**						
2311						**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**						
2312						**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**						
2313						**The Chebyshev UCL often results in gross overestimates of the mean.**						
2314						**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**						
2315												
2316						**Normal GOF Test on Detects Only**						
2317						**Not Enough Data to Perform GOF Test**						
2318												
2319						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**						
2320					KM Mean	34393					KM Standard Error of Mean	44867
2321					90KM SD	83939					95% KM (BCA) UCL	N/A
2322					95% KM (t) UCL	121578					95% KM (Percentile Bootstrap) UCL	N/A
2323					95% KM (z) UCL	108193					95% KM Bootstrap t UCL	N/A
2324					90% KM Chebyshev UCL	168994					95% KM Chebyshev UCL	229964
2325					97.5% KM Chebyshev UCL	314588					99% KM Chebyshev UCL	480815
2326												
2327						**Gamma GOF Tests on Detected Observations Only**						
2328						**Not Enough Data to Perform GOF Test**						
2329												
2330						**Gamma Statistics on Detected Data Only**						
2331					k hat (MLE)	0.239					k star (bias corrected MLE)	N/A
2332					Theta hat (MLE)	502817					Theta star (bias corrected MLE)	N/A
2333					nu hat (MLE)	0.955					nu star (bias corrected)	N/A
2334					Mean (detects)	120075						
2335												
2336						**Estimates of Gamma Parameters using KM Estimates**						
2337					Mean (KM)	34393					SD (KM)	83939
2338					Variance (KM)	7.046E+9					SE of Mean (KM)	44867
2339					k hat (KM)	0.168					k star (KM)	0.191
2340					nu hat (KM)	2.35					nu star (KM)	2.676
2341					theta hat (KM)	204860					theta star (KM)	179905
2342					80% gamma percentile (KM)	44220					90% gamma percentile (KM)	103952
2343					95% gamma percentile (KM)	179274					99% gamma percentile (KM)	388201
2344												
2345						**Gamma Kaplan-Meier (KM) Statistics**						

2346											Adjusted Level of Significance (β)	0.0158
2347				Approximate Chi Square Value (2.68, α)		0.283					Adjusted Chi Square Value (2.68, β)	0.147
2348				95% KM Approximate Gamma UCL		324823					95% KM Adjusted Gamma UCL	625709
2349												
2350						**Lognormal GOF Test on Detected Observations Only**							
2351						**Not Enough Data to Perform GOF Test**							
2352												
2353						**Lognormal ROS Statistics Using Imputed Non-Detects**							
2354						Mean in Original Scale	34309				Mean in Log Scale	2.86
2355						SD in Original Scale	90701				SD in Log Scale	4.764
2356						95% t UCL (assumes normality of ROS data)	100925				95% Percentile Bootstrap UCL	N/A
2357						95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A
2358						95% H-UCL (Log ROS)	2.506E+19					
2359												
2360						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2361						KM Mean (logged)	5.891				KM Geo Mean	361.7
2362						KM SD (logged)	2.659				95% Critical H Value (KM-Log)	8.849
2363						KM Standard Error of Mean (logged)	1.428				95% H-UCL (KM -Log)	1.845E+8
2364						KM SD (logged)	2.659				95% Critical H Value (KM-Log)	8.849
2365						KM Standard Error of Mean (logged)	1.428					
2366												
2367						**DL/2 Statistics**							
2368						**DL/2 Normal**					**DL/2 Log-Transformed**	
2369						Mean in Original Scale	34486				Mean in Log Scale	6.205
2370						SD in Original Scale	90623				SD in Log Scale	2.846
2371						95% t UCL (Assumes normality)	101045				95% H-Stat UCL	1.668E+9
2372						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2373												
2374						**Nonparametric Distribution Free UCL Statistics**							
2375						**Data do not follow a Discernible Distribution**							
2376												
2377						**Suggested UCL to Use**							
2378						Recommendation cannot be provided						
2379												
2380						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2381						**Please verify the data were collected from random locations.**							
2382						**If the data were collected using judgmental or other non-random methods,**							
2383						**then contact a statistician to correctly calculate UCLs.**							
2384												
2385						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2386						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2387						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2388												
2389	**Phenanthrene**											
2390												
2391						**General Statistics**							
2392						Total Number of Observations	7				Number of Distinct Observations	7
2393											Number of Missing Observations	24
2394						Number of Detects	3				Number of Non-Detects	4
2395						Number of Distinct Detects	3				Number of Distinct Non-Detects	4
2396						Minimum Detect	240				Minimum Non-Detect	100
2397						Maximum Detect	5300000				Maximum Non-Detect	800
2398						Variance Detects	9.362E+12				Percent Non-Detects	57.14%
2399						Mean Detects	1766843				SD Detects	3059803
2400						Median Detects	290				CV Detects	1.732
2401						Skewness Detects	1.732				Kurtosis Detects	N/A
2402						Mean of Logged Detects	8.878				SD of Logged Detects	5.721
2403												
2404						**Warning: Data set has only 3 Detected Values.**							
2405						**This is not enough to compute meaningful or reliable statistics and estimates.**							
2406												
2407												
2408						**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
2409						**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
2410						**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
2411						**The Chebyshev UCL often results in gross overestimates of the mean.**							
2412						**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							

2413												
2414	**Normal GOF Test on Detects Only**											
2415					Shapiro Wilk Test Statistic	0.75	**Shapiro Wilk GOF Test**					
2416					1% Shapiro Wilk Critical Value	0.753	Detected Data Not Normal at 1% Significance Level					
2417					Lilliefors Test Statistic	0.385	**Lilliefors GOF Test**					
2418					1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level					
2419	**Detected Data appear Approximate Normal at 1% Significance Level**											
2420	**Note GOF tests may be unreliable for small sample sizes**											
2421												
2422	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2423					KM Mean	757323	KM Standard Error of Mean	858485				
2424					90KM SD	1854540	95% KM (BCA) UCL	N/A				
2425					95% KM (t) UCL	2425515	95% KM (Percentile Bootstrap) UCL	N/A				
2426					95% KM (z) UCL	2169405	95% KM Bootstrap t UCL	N/A				
2427					90% KM Chebyshev UCL	3332779	95% KM Chebyshev UCL	4499373				
2428					97.5% KM Chebyshev UCL	6118562	99% KM Chebyshev UCL	9299144				
2429												
2430	**Gamma GOF Tests on Detected Observations Only**											
2431					A-D Test Statistic	0.581	**Anderson-Darling GOF Test**					
2432					5% A-D Critical Value	0.728	Detected data appear Gamma Distributed at 5% Significance Level					
2433					K-S Test Statistic	0.429	**Kolmogorov-Smirnov GOF**					
2434					5% K-S Critical Value	0.463	Detected data appear Gamma Distributed at 5% Significance Level					
2435	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2436												
2437	**Gamma Statistics on Detected Data Only**											
2438					k hat (MLE)	0.141	k star (bias corrected MLE)	N/A				
2439					Theta hat (MLE)	12544932	Theta star (bias corrected MLE)	N/A				
2440					nu hat (MLE)	0.845	nu star (bias corrected)	N/A				
2441					Mean (detects)	1766843						
2442												
2443	**Gamma ROS Statistics using Imputed Non-Detects**											
2444	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2445	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2446	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2447	This is especially true when the sample size is small.											
2448	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2449					Minimum	0.01	Mean	757219				
2450					Maximum	5300000	Median	0.01				
2451					SD	2003178	CV	2.645				
2452					k hat (MLE)	0.0686	k star (bias corrected MLE)	0.134				
2453					Theta hat (MLE)	11035440	Theta star (bias corrected MLE)	5632064				
2454					nu hat (MLE)	0.961	nu star (bias corrected)	1.882				
2455					Adjusted Level of Significance (β)	0.0158						
2456					Approximate Chi Square Value (1.88, α)	0.137	Adjusted Chi Square Value (1.88, β)	0.0933				
2457					95% Gamma Approximate UCL	10410174	95% Gamma Adjusted UCL	N/A				
2458												
2459	**Estimates of Gamma Parameters using KM Estimates**											
2460					Mean (KM)	757323	SD (KM)	1854540				
2461					Variance (KM)	3.439E+12	SE of Mean (KM)	858485				
2462					k hat (KM)	0.167	k star (KM)	0.191				
2463					nu hat (KM)	2.335	nu star (KM)	2.667				
2464					theta hat (KM)	4541417	theta star (KM)	3974842				
2465					80% gamma percentile (KM)	971862	90% gamma percentile (KM)	2288805				
2466					95% gamma percentile (KM)	3950904	99% gamma percentile (KM)	8563869				
2467												
2468	**Gamma Kaplan-Meier (KM) Statistics**											
2469					Approximate Chi Square Value (2.67, α)	0.281	Adjusted Chi Square Value (2.67, β)	0.146				
2470					95% KM Approximate Gamma UCL	7186042	95% KM Adjusted Gamma UCL	13831367				
2471												
2472	**Lognormal GOF Test on Detected Observations Only**											
2473					Shapiro Wilk Test Statistic	0.764	**Shapiro Wilk GOF Test**					
2474					10% Shapiro Wilk Critical Value	0.789	Detected Data Not Lognormal at 10% Significance Level					
2475					Lilliefors Test Statistic	0.379	**Lilliefors GOF Test**					
2476					10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level					
2477	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
2478	**Note GOF tests may be unreliable for small sample sizes**											
2479												

2480	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2481					Mean in Original Scale	757230				Mean in Log Scale	4.815	
2482					SD in Original Scale	2003173				SD in Log Scale	5.495	
2483				95% t UCL (assumes normality of ROS data)		2228467				95% Percentile Bootstrap UCL	2271471	
2484					95% BCA Bootstrap UCL	2271573				95% Bootstrap t UCL	1.752E+10	
2485					95% H-UCL (Log ROS)	1.682E+26						
2486												
2487	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2488					KM Mean (logged)	6.714				KM Geo Mean	823.5	
2489					KM SD (logged)	3.606				95% Critical H Value (KM-Log)	11.9	
2490					KM Standard Error of Mean (logged)	1.681				95% H-UCL (KM -Log)	2.232E+13	
2491					KM SD (logged)	3.606				95% Critical H Value (KM-Log)	11.9	
2492					KM Standard Error of Mean (logged)	1.681						
2493												
2494	**DL/2 Statistics**											
2495	**DL/2 Normal**									**DL/2 Log-Transformed**		
2496					Mean in Original Scale	757386				Mean in Log Scale	6.903	
2497					SD in Original Scale	2003104				SD in Log Scale	3.851	
2498					95% t UCL (Assumes normality)	2228573				95% H-Stat UCL	7.727E+14	
2499	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2500												
2501	**Nonparametric Distribution Free UCL Statistics**											
2502	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
2503												
2504	**Suggested UCL to Use**											
2505					95% KM (t) UCL	2425515						
2506												
2507	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2508	**Please verify the data were collected from random locations.**											
2509	**If the data were collected using judgmental or other non-random methods,**											
2510	**then contact a statistician to correctly calculate UCLs.**											
2511												
2512	When a data set follows an approximate distribution passing only one of the GOF tests,											
2513	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
2514												
2515	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2516	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2517	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2518												
2519	**Pyrene**											
2520												
2521	**General Statistics**											
2522					Total Number of Observations	7				Number of Distinct Observations	7	
2523										Number of Missing Observations	24	
2524					Number of Detects	6				Number of Non-Detects	1	
2525					Number of Distinct Detects	6				Number of Distinct Non-Detects	1	
2526					Minimum Detect	100				Minimum Non-Detect	800	
2527					Maximum Detect	2600000				Maximum Non-Detect	800	
2528					Variance Detects	1.126E+12				Percent Non-Detects	14.29%	
2529					Mean Detects	433762				SD Detects	1061236	
2530					Median Detects	435				CV Detects	2.447	
2531					Skewness Detects	2.449				Kurtosis Detects	6	
2532					Mean of Logged Detects	7.399				SD of Logged Detects	3.704	
2533												
2534	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
2535	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
2536	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
2537	**The Chebyshev UCL often results in gross overestimates of the mean.**											
2538	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
2539												
2540	**Normal GOF Test on Detects Only**											
2541					Shapiro Wilk Test Statistic	0.497				**Shapiro Wilk GOF Test**		
2542					1% Shapiro Wilk Critical Value	0.713				Detected Data Not Normal at 1% Significance Level		
2543					Lilliefors Test Statistic	0.492				**Lilliefors GOF Test**		
2544					1% Lilliefors Critical Value	0.373				Detected Data Not Normal at 1% Significance Level		
2545	**Detected Data Not Normal at 1% Significance Level**											
2546												

	A	B	C	D	E	F	G	H	I	J	K	L
2547	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2548					KM Mean	371841			KM Standard Error of Mean			376628
2549					90KM SD	909642			95% KM (BCA) UCL			1114528
2550					95% KM (t) UCL	1103696			95% KM (Percentile Bootstrap) UCL			1114509
2551					95% KM (z) UCL	991338			95% KM Bootstrap t UCL			2.480E+9
2552					90% KM Chebyshev UCL	1501724			95% KM Chebyshev UCL			2013523
2553					97.5% KM Chebyshev UCL	2723880			99% KM Chebyshev UCL			4119239
2554												
2555	**Gamma GOF Tests on Detected Observations Only**											
2556					A-D Test Statistic	1.328	**Anderson-Darling GOF Test**					
2557					5% A-D Critical Value	0.857	Detected Data Not Gamma Distributed at 5% Significance Level					
2558					K-S Test Statistic	0.472	**Kolmogorov-Smirnov GOF**					
2559					5% K-S Critical Value	0.371	Detected Data Not Gamma Distributed at 5% Significance Level					
2560	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2561												
2562	**Gamma Statistics on Detected Data Only**											
2563					k hat (MLE)	0.139			k star (bias corrected MLE)			0.181
2564					Theta hat (MLE)	3116193			Theta star (bias corrected MLE)			2400331
2565					nu hat (MLE)	1.67			nu star (bias corrected)			2.169
2566					Mean (detects)	433762						
2567												
2568	**Gamma ROS Statistics using Imputed Non-Detects**											
2569	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2570	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2571	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2572	This is especially true when the sample size is small.											
2573	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2574					Minimum	0.01			Mean			371796
2575					Maximum	2600000			Median			400
2576					SD	982546			CV			2.643
2577					k hat (MLE)	0.112			k star (bias corrected MLE)			0.159
2578					Theta hat (MLE)	3317936			Theta star (bias corrected MLE)			2334370
2579					nu hat (MLE)	1.569			nu star (bias corrected)			2.23
2580					Adjusted Level of Significance (β)	0.0158						
2581					Approximate Chi Square Value (2.23, α)	0.186			Adjusted Chi Square Value (2.23, β)			0.107
2582					95% Gamma Approximate UCL	4447923			95% Gamma Adjusted UCL			7758386
2583												
2584	**Estimates of Gamma Parameters using KM Estimates**											
2585					Mean (KM)	371841			SD (KM)			909642
2586					Variance (KM)	8.274E+11			SE of Mean (KM)			376628
2587					k hat (KM)	0.167			k star (KM)			0.191
2588					nu hat (KM)	2.339			nu star (KM)			2.67
2589					theta hat (KM)	2225276			theta star (KM)			1949638
2590					80% gamma percentile (KM)	477454			90% gamma percentile (KM)			1123819
2591					95% gamma percentile (KM)	1939375			99% gamma percentile (KM)			4202468
2592												
2593	**Gamma Kaplan-Meier (KM) Statistics**											
2594					Approximate Chi Square Value (2.67, α)	0.282			Adjusted Chi Square Value (2.67, β)			0.146
2595					95% KM Approximate Gamma UCL	3523325			95% KM Adjusted Gamma UCL			6783216
2596												
2597	**Lognormal GOF Test on Detected Observations Only**											
2598					Shapiro Wilk Test Statistic	0.707	**Shapiro Wilk GOF Test**					
2599					10% Shapiro Wilk Critical Value	0.826	Detected Data Not Lognormal at 10% Significance Level					
2600					Lilliefors Test Statistic	0.358	**Lilliefors GOF Test**					
2601					10% Lilliefors Critical Value	0.298	Detected Data Not Lognormal at 10% Significance Level					
2602	**Detected Data Not Lognormal at 10% Significance Level**											
2603												
2604	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2605					Mean in Original Scale	371845			Mean in Log Scale			7.177
2606					SD in Original Scale	982524			SD in Log Scale			3.432
2607					95% t UCL (assumes normality of ROS data)	1093463			95% Percentile Bootstrap UCL			1114484
2608					95% BCA Bootstrap UCL	1485757			95% Bootstrap t UCL			2.853E+9
2609					95% H-UCL (Log ROS)	3.770E+12						
2610												
2611	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2612					KM Mean (logged)	7.144			KM Geo Mean			1266
2613					KM SD (logged)	3.201			95% Critical H Value (KM-Log)			10.59

2614				KM Standard Error of Mean (logged)		1.329				95% H-UCL (KM -Log)		2.177E+11
2615				KM SD (logged)		3.201				95% Critical H Value (KM-Log)		10.59
2616				KM Standard Error of Mean (logged)		1.329						
2617												
2618						DL/2 Statistics						
2619				DL/2 Normal						DL/2 Log-Transformed		
2620				Mean in Original Scale		371853				Mean in Log Scale		7.198
2621				SD in Original Scale		982521				SD in Log Scale		3.423
2622				95% t UCL (Assumes normality)		1093468				95% H-Stat UCL		3.436E+12
2623				DL/2 is not a recommended method, provided for comparisons and historical reasons								
2624												
2625						Nonparametric Distribution Free UCL Statistics						
2626						Data do not follow a Discernible Distribution						
2627												
2628						Suggested UCL to Use						
2629				Recommendation cannot be provided								
2630												
2631						The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.						
2632						Please verify the data were collected from random locations.						
2633						If the data were collected using judgmental or other non-random methods,						
2634						then contact a statistician to correctly calculate UCLs.						
2635												
2636						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2637						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2638						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2639												
2640	Acenaphthene_SIM											
2641												
2642						General Statistics						
2643				Total Number of Observations		10				Number of Distinct Observations		10
2644										Number of Missing Observations		6
2645				Number of Detects		2				Number of Non-Detects		8
2646				Number of Distinct Detects		2				Number of Distinct Non-Detects		8
2647				Minimum Detect		1.5				Minimum Non-Detect		1.4
2648				Maximum Detect		640				Maximum Non-Detect		3.5
2649				Variance Detects		203841				Percent Non-Detects		80%
2650				Mean Detects		320.8				SD Detects		451.5
2651				Median Detects		320.8				CV Detects		1.408
2652				Skewness Detects		N/A				Kurtosis Detects		N/A
2653				Mean of Logged Detects		3.433				SD of Logged Detects		4.282
2654												
2655						Warning: Data set has only 2 Detected Values.						
2656						This is not enough to compute meaningful or reliable statistics and estimates.						
2657												
2658												
2659						Normal GOF Test on Detects Only						
2660						Not Enough Data to Perform GOF Test						
2661												
2662						Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs						
2663				KM Mean		65.31				KM Standard Error of Mean		85.67
2664				90KM SD		191.6				95% KM (BCA) UCL		N/A
2665				95% KM (t) UCL		222.3				95% KM (Percentile Bootstrap) UCL		N/A
2666				95% KM (z) UCL		206.2				95% KM Bootstrap t UCL		N/A
2667				90% KM Chebyshev UCL		322.3				95% KM Chebyshev UCL		438.7
2668				97.5% KM Chebyshev UCL		600.3				99% KM Chebyshev UCL		917.7
2669												
2670						Gamma GOF Tests on Detected Observations Only						
2671						Not Enough Data to Perform GOF Test						
2672												
2673						Gamma Statistics on Detected Data Only						
2674				k hat (MLE)		0.296				k star (bias corrected MLE)		N/A
2675				Theta hat (MLE)		1085				Theta star (bias corrected MLE)		N/A
2676				nu hat (MLE)		1.183				nu star (bias corrected)		N/A
2677				Mean (detects)		320.8						
2678												
2679						Estimates of Gamma Parameters using KM Estimates						
2680				Mean (KM)		65.31				SD (KM)		191.6

2681					Variance (KM)	36697				SE of Mean (KM)		85.67
2682					k hat (KM)	0.116				k star (KM)		0.148
2683					nu hat (KM)	2.324				nu star (KM)		2.96
2684					theta hat (KM)	561.9				theta star (KM)		441.2
2685					80% gamma percentile (KM)	70.31				90% gamma percentile (KM)		193.3
2686					95% gamma percentile (KM)	360.4				99% gamma percentile (KM)		846.5
2687												
2688					**Gamma Kaplan-Meier (KM) Statistics**							
2689										Adjusted Level of Significance (β)		0.0267
2690					Approximate Chi Square Value (2.96, α)	0.361				Adjusted Chi Square Value (2.96, β)		0.247
2691					95% KM Approximate Gamma UCL	535.9				95% KM Adjusted Gamma UCL		782.6
2692												
2693					**Lognormal GOF Test on Detected Observations Only**							
2694					**Not Enough Data to Perform GOF Test**							
2695												
2696					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2697					Mean in Original Scale	64.21				Mean in Log Scale		-1.666
2698					SD in Original Scale	202.3				SD in Log Scale		3.203
2699					95% t UCL (assumes normality of ROS data)	181.5				95% Percentile Bootstrap UCL		N/A
2700					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL		N/A
2701					95% H-UCL (Log ROS)	242750						
2702												
2703					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2704					KM Mean (logged)	0.98				KM Geo Mean		2.665
2705					KM SD (logged)	1.827				95% Critical H Value (KM-Log)		4.98
2706					KM Standard Error of Mean (logged)	0.818				95% H-UCL (KM -Log)		293.9
2707					KM SD (logged)	1.827				95% Critical H Value (KM-Log)		4.98
2708					KM Standard Error of Mean (logged)	0.818						
2709												
2710					**DL/2 Statistics**							
2711					**DL/2 Normal**					**DL/2 Log-Transformed**		
2712					Mean in Original Scale	65.21				Mean in Log Scale		0.88
2713					SD in Original Scale	202				SD in Log Scale		1.982
2714					95% t UCL (Assumes normality)	182.3				95% H-Stat UCL		588.5
2715					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2716												
2717					**Nonparametric Distribution Free UCL Statistics**							
2718					**Data do not follow a Discernible Distribution**							
2719												
2720					**Suggested UCL to Use**							
2721					95% KM (t) UCL	222.3						
2722												
2723					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2724					**Please verify the data were collected from random locations.**							
2725					**If the data were collected using judgmental or other non-random methods,**							
2726					**then contact a statistician to correctly calculate UCLs.**							
2727												
2728					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2729					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2730					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2731												
2732	**Acenaphthylene_SIM**											
2733												
2734					**General Statistics**							
2735					Total Number of Observations	10				Number of Distinct Observations		10
2736										Number of Missing Observations		6
2737					Number of Detects	3				Number of Non-Detects		7
2738					Number of Distinct Detects	3				Number of Distinct Non-Detects		7
2739					Minimum Detect	5				Minimum Non-Detect		1.9
2740					Maximum Detect	1700				Maximum Non-Detect		3.5
2741					Variance Detects	954297				Percent Non-Detects		70%
2742					Mean Detects	572				SD Detects		976.9
2743					Median Detects	11				CV Detects		1.708
2744					Skewness Detects	1.732				Kurtosis Detects		N/A
2745					Mean of Logged Detects	3.815				SD of Logged Detects		3.162
2746												
2747					**Warning: Data set has only 3 Detected Values.**							

	A	B	C	D	E	F	G	H	I	J	K	L
2748	**This is not enough to compute meaningful or reliable statistics and estimates.**											
2749												
2750												
2751	**Normal GOF Test on Detects Only**											
2752					Shapiro Wilk Test Statistic	0.753	**Shapiro Wilk GOF Test**					
2753					1% Shapiro Wilk Critical Value	0.753	Detected Data Not Normal at 1% Significance Level					
2754					Lilliefors Test Statistic	0.384	**Lilliefors GOF Test**					
2755					1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level					
2756	**Detected Data appear Approximate Normal at 1% Significance Level**											
2757	**Note GOF tests may be unreliable for small sample sizes**											
2758												
2759	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2760					KM Mean	172.9	KM Standard Error of Mean	197.1				
2761					90KM SD	509	95% KM (BCA) UCL	N/A				
2762					95% KM (t) UCL	534.3	95% KM (Percentile Bootstrap) UCL	N/A				
2763					95% KM (z) UCL	497.2	95% KM Bootstrap t UCL	N/A				
2764					90% KM Chebyshev UCL	764.4	95% KM Chebyshev UCL	1032				
2765					97.5% KM Chebyshev UCL	1404	99% KM Chebyshev UCL	2135				
2766												
2767	**Gamma GOF Tests on Detected Observations Only**											
2768					A-D Test Statistic	0.501	**Anderson-Darling GOF Test**					
2769					5% A-D Critical Value	0.674	Detected data appear Gamma Distributed at 5% Significance Level					
2770					K-S Test Statistic	0.406	**Kolmogorov-Smirnov GOF**					
2771					5% K-S Critical Value	0.458	Detected data appear Gamma Distributed at 5% Significance Level					
2772	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2773												
2774	**Gamma Statistics on Detected Data Only**											
2775					k hat (MLE)	0.276	k star (bias corrected MLE)	N/A				
2776					Theta hat (MLE)	2073	Theta star (bias corrected MLE)	N/A				
2777					nu hat (MLE)	1.655	nu star (bias corrected)	N/A				
2778					Mean (detects)	572						
2779												
2780	**Gamma ROS Statistics using Imputed Non-Detects**											
2781	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2782	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2783	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2784	This is especially true when the sample size is small.											
2785	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2786					Minimum	0.01	Mean	171.6				
2787					Maximum	1700	Median	0.01				
2788					SD	537	CV	3.129				
2789					k hat (MLE)	0.111	k star (bias corrected MLE)	0.144				
2790					Theta hat (MLE)	1547	Theta star (bias corrected MLE)	1189				
2791					nu hat (MLE)	2.219	nu star (bias corrected)	2.886				
2792					Adjusted Level of Significance (β)	0.0267						
2793					Approximate Chi Square Value (2.89, α)	0.34	Adjusted Chi Square Value (2.89, β)	0.232				
2794					95% Gamma Approximate UCL	1459	95% Gamma Adjusted UCL	N/A				
2795												
2796	**Estimates of Gamma Parameters using KM Estimates**											
2797					Mean (KM)	172.9	SD (KM)	509				
2798					Variance (KM)	259112	SE of Mean (KM)	197.1				
2799					k hat (KM)	0.115	k star (KM)	0.147				
2800					nu hat (KM)	2.308	nu star (KM)	2.949				
2801					theta hat (KM)	1498	theta star (KM)	1173				
2802					80% gamma percentile (KM)	185.6	90% gamma percentile (KM)	511.5				
2803					95% gamma percentile (KM)	954.9	99% gamma percentile (KM)	2246				
2804												
2805	**Gamma Kaplan-Meier (KM) Statistics**											
2806					Approximate Chi Square Value (2.95, α)	0.358	Adjusted Chi Square Value (2.95, β)	0.245				
2807					95% KM Approximate Gamma UCL	1427	95% KM Adjusted Gamma UCL	2084				
2808												
2809	**Lognormal GOF Test on Detected Observations Only**											
2810					Shapiro Wilk Test Statistic	0.849	**Shapiro Wilk GOF Test**					
2811					10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level					
2812					Lilliefors Test Statistic	0.34	**Lilliefors GOF Test**					
2813					10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level					
2814	**Detected Data appear Lognormal at 10% Significance Level**											

2815	**Note GOF tests may be unreliable for small sample sizes**											
2816												
2817	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2818					Mean in Original Scale	171.6				Mean in Log Scale	-5.19	
2819					SD in Original Scale	537				SD in Log Scale	6.391	
2820				95% t UCL (assumes normality of ROS data)		482.9				95% Percentile Bootstrap UCL	N/A	
2821					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A	
2822					95% H-UCL (Log ROS)	6.726E+21						
2823												
2824	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2825					KM Mean (logged)	1.594				KM Geo Mean	4.923	
2826					KM SD (logged)	2.029				95% Critical H Value (KM-Log)	5.465	
2827					KM Standard Error of Mean (logged)	0.786				95% H-UCL (KM -Log)	1551	
2828					KM SD (logged)	2.029				95% Critical H Value (KM-Log)	5.465	
2829					KM Standard Error of Mean (logged)	0.786						
2830												
2831	**DL/2 Statistics**											
2832	**DL/2 Normal**						**DL/2 Log-Transformed**					
2833					Mean in Original Scale	172.6				Mean in Log Scale	1.374	
2834					SD in Original Scale	536.7				SD in Log Scale	2.257	
2835					95% t UCL (Assumes normality)	483.7				95% H-Stat UCL	4677	
2836	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2837												
2838	**Nonparametric Distribution Free UCL Statistics**											
2839	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
2840												
2841	**Suggested UCL to Use**											
2842					95% KM (t) UCL	534.3						
2843												
2844	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2845	**Please verify the data were collected from random locations.**											
2846	**If the data were collected using judgmental or other non-random methods,**											
2847	**then contact a statistician to correctly calculate UCLs.**											
2848												
2849	When a data set follows an approximate distribution passing only one of the GOF tests,											
2850	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
2851												
2852	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2853	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2854	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2855												
2856	**Anthracene_SIM**											
2857												
2858	**General Statistics**											
2859					Total Number of Observations	10				Number of Distinct Observations	10	
2860										Number of Missing Observations	6	
2861					Number of Detects	4				Number of Non-Detects	6	
2862					Number of Distinct Detects	4				Number of Distinct Non-Detects	6	
2863					Minimum Detect	6.5				Minimum Non-Detect	1.9	
2864					Maximum Detect	1600				Maximum Non-Detect	3.5	
2865					Variance Detects	631436				Percent Non-Detects	60%	
2866					Mean Detects	408.1				SD Detects	794.6	
2867					Median Detects	12.9				CV Detects	1.947	
2868					Skewness Detects	2				Kurtosis Detects	3.999	
2869					Mean of Logged Detects	3.564				SD of Logged Detects	2.574	
2870												
2871	**Normal GOF Test on Detects Only**											
2872					Shapiro Wilk Test Statistic	0.635	**Shapiro Wilk GOF Test**					
2873					1% Shapiro Wilk Critical Value	0.687	Detected Data Not Normal at 1% Significance Level					
2874					Lilliefors Test Statistic	0.439	**Lilliefors GOF Test**					
2875					1% Lilliefors Critical Value	0.413	Detected Data Not Normal at 1% Significance Level					
2876	**Detected Data Not Normal at 1% Significance Level**											
2877												
2878	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2879					KM Mean	164.4				KM Standard Error of Mean	174.7	
2880					90KM SD	478.6				95% KM (BCA) UCL	N/A	
2881					95% KM (t) UCL	484.7				95% KM (Percentile Bootstrap) UCL	N/A	

2882				95% KM (z) UCL	451.8				95% KM Bootstrap t UCL		N/A	
2883				90% KM Chebyshev UCL	688.6				95% KM Chebyshev UCL		926.1	
2884				97.5% KM Chebyshev UCL	1256				99% KM Chebyshev UCL		1903	
2885												
2886					**Gamma GOF Tests on Detected Observations Only**							
2887				A-D Test Statistic	0.75				**Anderson-Darling GOF Test**			
2888				5% A-D Critical Value	0.708				Detected Data Not Gamma Distributed at 5% Significance Level			
2889				K-S Test Statistic	0.436				**Kolmogorov-Smirnov GOF**			
2890				5% K-S Critical Value	0.419				Detected Data Not Gamma Distributed at 5% Significance Level			
2891					**Detected Data Not Gamma Distributed at 5% Significance Level**							
2892												
2893					**Gamma Statistics on Detected Data Only**							
2894				k hat (MLE)	0.284				k star (bias corrected MLE)		0.238	
2895				Theta hat (MLE)	1435				Theta star (bias corrected MLE)		1717	
2896				nu hat (MLE)	2.274				nu star (bias corrected)		1.902	
2897				Mean (detects)	408.1							
2898												
2899					**Gamma ROS Statistics using Imputed Non-Detects**							
2900					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2901					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2902					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2903					This is especially true when the sample size is small.							
2904					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2905				Minimum	0.01				Mean		163.2	
2906				Maximum	1600				Median		0.01	
2907				SD	504.9				CV		3.093	
2908				k hat (MLE)	0.123				k star (bias corrected MLE)		0.153	
2909				Theta hat (MLE)	1328				Theta star (bias corrected MLE)		1069	
2910				nu hat (MLE)	2.458				nu star (bias corrected)		3.054	
2911				Adjusted Level of Significance (β)	0.0267							
2912				Approximate Chi Square Value (3.05, α)	0.389				Adjusted Chi Square Value (3.05, β)		0.267	
2913				95% Gamma Approximate UCL	1283				95% Gamma Adjusted UCL		N/A	
2914												
2915					**Estimates of Gamma Parameters using KM Estimates**							
2916				Mean (KM)	164.4				SD (KM)		478.6	
2917				Variance (KM)	229026				SE of Mean (KM)		174.7	
2918				k hat (KM)	0.118				k star (KM)		0.149	
2919				nu hat (KM)	2.359				nu star (KM)		2.985	
2920				theta hat (KM)	1393				theta star (KM)		1101	
2921				80% gamma percentile (KM)	178.2				90% gamma percentile (KM)		487.1	
2922				95% gamma percentile (KM)	905.6				99% gamma percentile (KM)		2121	
2923												
2924					**Gamma Kaplan-Meier (KM) Statistics**							
2925				Approximate Chi Square Value (2.98, α)	0.368				Adjusted Chi Square Value (2.98, β)		0.252	
2926				95% KM Approximate Gamma UCL	1333				95% KM Adjusted Gamma UCL		1946	
2927												
2928					**Lognormal GOF Test on Detected Observations Only**							
2929				Shapiro Wilk Test Statistic	0.763				**Shapiro Wilk GOF Test**			
2930				10% Shapiro Wilk Critical Value	0.792				Detected Data Not Lognormal at 10% Significance Level			
2931				Lilliefors Test Statistic	0.362				**Lilliefors GOF Test**			
2932				10% Lilliefors Critical Value	0.346				Detected Data Not Lognormal at 10% Significance Level			
2933					**Detected Data Not Lognormal at 10% Significance Level**							
2934												
2935					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2936				Mean in Original Scale	163.2				Mean in Log Scale		-1.415	
2937				SD in Original Scale	504.9				SD in Log Scale		4.536	
2938				95% t UCL (assumes normality of ROS data)	455.9				95% Percentile Bootstrap UCL		481.7	
2939				95% BCA Bootstrap UCL	641.5				95% Bootstrap t UCL		22994	
2940				95% H-UCL (Log ROS)	3.591E+11							
2941												
2942					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2943				KM Mean (logged)	1.811				KM Geo Mean		6.116	
2944				KM SD (logged)	2.009				95% Critical H Value (KM-Log)		5.418	
2945				KM Standard Error of Mean (logged)	0.734				95% H-UCL (KM -Log)		1734	
2946				KM SD (logged)	2.009				95% Critical H Value (KM-Log)		5.418	
2947				KM Standard Error of Mean (logged)	0.734							
2948												

2949	**DL/2 Statistics**											
2950	**DL/2 Normal**						**DL/2 Log-Transformed**					
2951				Mean in Original Scale	164.1					Mean in Log Scale	1.645	
2952				SD in Original Scale	504.5					SD in Log Scale	2.227	
2953				95% t UCL (Assumes normality)	456.6					95% H-Stat UCL	5134	
2954	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2955												
2956	**Nonparametric Distribution Free UCL Statistics**											
2957	**Data do not follow a Discernible Distribution**											
2958												
2959	**Suggested UCL to Use**											
2960				95% KM (t) UCL	484.7							
2961												
2962	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2963	**Please verify the data were collected from random locations.**											
2964	**If the data were collected using judgmental or other non-random methods,**											
2965	**then contact a statistician to correctly calculate UCLs.**											
2966												
2967	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2968	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2969	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2970												
2971	**Benzo[a]anthracene_SIM**											
2972												
2973	**General Statistics**											
2974				Total Number of Observations	10					Number of Distinct Observations	10	
2975										Number of Missing Observations	6	
2976				Number of Detects	7					Number of Non-Detects	3	
2977				Number of Distinct Detects	7					Number of Distinct Non-Detects	3	
2978				Minimum Detect	7.7					Minimum Non-Detect	3.05	
2979				Maximum Detect	13000					Maximum Non-Detect	3.15	
2980				Variance Detects	24032257					Percent Non-Detects	30%	
2981				Mean Detects	1883					SD Detects	4902	
2982				Median Detects	23					CV Detects	2.604	
2983				Skewness Detects	2.646					Kurtosis Detects	6.999	
2984				Mean of Logged Detects	3.905					SD of Logged Detects	2.616	
2985												
2986	**Normal GOF Test on Detects Only**											
2987				Shapiro Wilk Test Statistic	0.458		**Shapiro Wilk GOF Test**					
2988				1% Shapiro Wilk Critical Value	0.73		Detected Data Not Normal at 1% Significance Level					
2989				Lilliefors Test Statistic	0.5		**Lilliefors GOF Test**					
2990				1% Lilliefors Critical Value	0.35		Detected Data Not Normal at 1% Significance Level					
2991	**Detected Data Not Normal at 1% Significance Level**											
2992												
2993	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2994				KM Mean	1319					KM Standard Error of Mean	1330	
2995				90KM SD	3894					95% KM (BCA) UCL	3916	
2996				95% KM (t) UCL	3757					95% KM (Percentile Bootstrap) UCL	3911	
2997				95% KM (z) UCL	3507					95% KM Bootstrap t UCL	416657	
2998				90% KM Chebyshev UCL	5309					95% KM Chebyshev UCL	7116	
2999				97.5% KM Chebyshev UCL	9625					99% KM Chebyshev UCL	14552	
3000												
3001	**Gamma GOF Tests on Detected Observations Only**											
3002				A-D Test Statistic	1.419		**Anderson-Darling GOF Test**					
3003				5% A-D Critical Value	0.822		Detected Data Not Gamma Distributed at 5% Significance Level					
3004				K-S Test Statistic	0.433		**Kolmogorov-Smirnov GOF**					
3005				5% K-S Critical Value	0.343		Detected Data Not Gamma Distributed at 5% Significance Level					
3006	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3007												
3008	**Gamma Statistics on Detected Data Only**											
3009				k hat (MLE)	0.202					k star (bias corrected MLE)	0.211	
3010				Theta hat (MLE)	9317					Theta star (bias corrected MLE)	8935	
3011				nu hat (MLE)	2.829					nu star (bias corrected)	2.95	
3012				Mean (detects)	1883							
3013												
3014	**Gamma ROS Statistics using Imputed Non-Detects**											
3015	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											

	A	B	C	D	E	F	G	H	I	J	K	L
3016	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3017	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3018	This is especially true when the sample size is small.											
3019	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3020					Minimum	0.01				Mean	1318	
3021					Maximum	13000				Median	9.25	
3022					SD	4105				CV	3.114	
3023					k hat (MLE)	0.134				k star (bias corrected MLE)	0.16	
3024					Theta hat (MLE)	9841				Theta star (bias corrected MLE)	8216	
3025					nu hat (MLE)	2.679				nu star (bias corrected)	3.208	
3026					Adjusted Level of Significance (β)	0.0267						
3027					Approximate Chi Square Value (3.21, α)	0.437				Adjusted Chi Square Value (3.21, β)	0.302	
3028					95% Gamma Approximate UCL	9682				95% Gamma Adjusted UCL	14024	
3029												
3030	**Estimates of Gamma Parameters using KM Estimates**											
3031					Mean (KM)	1319				SD (KM)	3894	
3032					Variance (KM)	15161449				SE of Mean (KM)	1330	
3033					k hat (KM)	0.115				k star (KM)	0.147	
3034					nu hat (KM)	2.295				nu star (KM)	2.94	
3035					theta hat (KM)	11495				theta star (KM)	8973	
3036					80% gamma percentile (KM)	1412				90% gamma percentile (KM)	3900	
3037					95% gamma percentile (KM)	7288				99% gamma percentile (KM)	17161	
3038												
3039	**Gamma Kaplan-Meier (KM) Statistics**											
3040					Approximate Chi Square Value (2.94, α)	0.355				Adjusted Chi Square Value (2.94, β)	0.243	
3041					95% KM Approximate Gamma UCL	10929				95% KM Adjusted Gamma UCL	15966	
3042												
3043	**Lognormal GOF Test on Detected Observations Only**											
3044					Shapiro Wilk Test Statistic	0.747				**Shapiro Wilk GOF Test**		
3045					10% Shapiro Wilk Critical Value	0.838				Detected Data Not Lognormal at 10% Significance Level		
3046					Lilliefors Test Statistic	0.271				**Lilliefors GOF Test**		
3047					10% Lilliefors Critical Value	0.28				Detected Data appear Lognormal at 10% Significance Level		
3048	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
3049	**Note GOF tests may be unreliable for small sample sizes**											
3050												
3051	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3052					Mean in Original Scale	1318				Mean in Log Scale	2.094	
3053					SD in Original Scale	4105				SD in Log Scale	3.615	
3054					95% t UCL (assumes normality of ROS data)	3697				95% Percentile Bootstrap UCL	3910	
3055					95% BCA Bootstrap UCL	5212				95% Bootstrap t UCL	405178	
3056					95% H-UCL (Log ROS)	4.668E+8						
3057												
3058	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3059					KM Mean (logged)	3.068				KM Geo Mean	21.5	
3060					KM SD (logged)	2.396				95% Critical H Value (KM-Log)	6.364	
3061					KM Standard Error of Mean (logged)	0.818				95% H-UCL (KM -Log)	61220	
3062					KM SD (logged)	2.396				95% Critical H Value (KM-Log)	6.364	
3063					KM Standard Error of Mean (logged)	0.818						
3064												
3065	**DL/2 Statistics**											
3066	**DL/2 Normal**									**DL/2 Log-Transformed**		
3067					Mean in Original Scale	1318				Mean in Log Scale	2.865	
3068					SD in Original Scale	4105				SD in Log Scale	2.714	
3069					95% t UCL (Assumes normality)	3698				95% H-Stat UCL	451399	
3070	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3071												
3072	**Nonparametric Distribution Free UCL Statistics**											
3073	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
3074												
3075	**Suggested UCL to Use**											
3076					KM (t) UCL	3757						
3077												
3078	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3079	**Please verify the data were collected from random locations.**											
3080	**If the data were collected using judgmental or other non-random methods,**											
3081	**then contact a statistician to correctly calculate UCLs.**											
3082												

	A	B	C	D	E	F	G	H	I	J	K	L
3083	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3084	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3085	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3086												
3087	**Benzo[a]pyrene_SIM**											
3088												
3089	**General Statistics**											
3090	Total Number of Observations					10	Number of Distinct Observations					10
3091							Number of Missing Observations					6
3092	Number of Detects					7	Number of Non-Detects					3
3093	Number of Distinct Detects					7	Number of Distinct Non-Detects					3
3094	Minimum Detect					8.5	Minimum Non-Detect					3.05
3095	Maximum Detect					13000	Maximum Non-Detect					3.15
3096	Variance Detects					24039407	Percent Non-Detects					30%
3097	Mean Detects					1881	SD Detects					4903
3098	Median Detects					21	CV Detects					2.606
3099	Skewness Detects					2.646	Kurtosis Detects					6.999
3100	Mean of Logged Detects					3.875	SD of Logged Detects					2.615
3101												
3102	**Normal GOF Test on Detects Only**											
3103	Shapiro Wilk Test Statistic					0.458	**Shapiro Wilk GOF Test**					
3104	1% Shapiro Wilk Critical Value					0.73	Detected Data Not Normal at 1% Significance Level					
3105	Lilliefors Test Statistic					0.5	**Lilliefors GOF Test**					
3106	1% Lilliefors Critical Value					0.35	Detected Data Not Normal at 1% Significance Level					
3107	**Detected Data Not Normal at 1% Significance Level**											
3108												
3109	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3110	KM Mean					1318	KM Standard Error of Mean					1330
3111	90KM SD					3894	95% KM (BCA) UCL					3914
3112	95% KM (t) UCL					3756	95% KM (Percentile Bootstrap) UCL					3910
3113	95% KM (z) UCL					3506	95% KM Bootstrap t UCL					456205
3114	90% KM Chebyshev UCL					5308	95% KM Chebyshev UCL					7116
3115	97.5% KM Chebyshev UCL					9624	99% KM Chebyshev UCL					14552
3116												
3117	**Gamma GOF Tests on Detected Observations Only**											
3118	A-D Test Statistic					1.462	**Anderson-Darling GOF Test**					
3119	5% A-D Critical Value					0.822	Detected Data Not Gamma Distributed at 5% Significance Level					
3120	K-S Test Statistic					0.438	**Kolmogorov-Smirnov GOF**					
3121	5% K-S Critical Value					0.343	Detected Data Not Gamma Distributed at 5% Significance Level					
3122	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3123												
3124	**Gamma Statistics on Detected Data Only**											
3125	k hat (MLE)					0.201	k star (bias corrected MLE)					0.21
3126	Theta hat (MLE)					9374	Theta star (bias corrected MLE)					8962
3127	nu hat (MLE)					2.81	nu star (bias corrected)					2.939
3128	Mean (detects)					1881						
3129												
3130	**Gamma ROS Statistics using Imputed Non-Detects**											
3131	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3132	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3133	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3134	This is especially true when the sample size is small.											
3135	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3136	Minimum					0.01	Mean					1317
3137	Maximum					13000	Median					8.95
3138	SD					4105	CV					3.117
3139	k hat (MLE)					0.134	k star (bias corrected MLE)					0.16
3140	Theta hat (MLE)					9862	Theta star (bias corrected MLE)					8223
3141	nu hat (MLE)					2.671	nu star (bias corrected)					3.203
3142	Adjusted Level of Significance (β)					0.0267						
3143	Approximate Chi Square Value (3.20, α)					0.435	Adjusted Chi Square Value (3.20, β)					0.3
3144	95% Gamma Approximate UCL					9697	95% Gamma Adjusted UCL					14049
3145												
3146	**Estimates of Gamma Parameters using KM Estimates**											
3147	Mean (KM)					1318	SD (KM)					3894
3148	Variance (KM)					15164408	SE of Mean (KM)					1330
3149	k hat (KM)					0.115	k star (KM)					0.147

3150					nu hat (KM)	2.29					nu star (KM)	2.936
3151					theta hat (KM)	11508					theta star (KM)	8975
3152					80% gamma percentile (KM)	1409					90% gamma percentile (KM)	3896
3153					95% gamma percentile (KM)	7283					99% gamma percentile (KM)	17155
3154												
3155					**Gamma Kaplan-Meier (KM) Statistics**							
3156					Approximate Chi Square Value (2.94, α)	0.354					Adjusted Chi Square Value (2.94, β)	0.242
3157					95% KM Approximate Gamma UCL	10936					95% KM Adjusted Gamma UCL	15977
3158												
3159					**Lognormal GOF Test on Detected Observations Only**							
3160					Shapiro Wilk Test Statistic	0.725					**Shapiro Wilk GOF Test**	
3161					10% Shapiro Wilk Critical Value	0.838					Detected Data Not Lognormal at 10% Significance Level	
3162					Lilliefors Test Statistic	0.278					**Lilliefors GOF Test**	
3163					10% Lilliefors Critical Value	0.28					Detected Data appear Lognormal at 10% Significance Level	
3164					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
3165					**Note GOF tests may be unreliable for small sample sizes**							
3166												
3167					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3168					Mean in Original Scale	1317					Mean in Log Scale	2.085
3169					SD in Original Scale	4105					SD in Log Scale	3.586
3170					95% t UCL (assumes normality of ROS data)	3697					95% Percentile Bootstrap UCL	3910
3171					95% BCA Bootstrap UCL	5211					95% Bootstrap t UCL	434783
3172					95% H-UCL (Log ROS)	3.483E+8						
3173												
3174					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3175					KM Mean (logged)	3.047					KM Geo Mean	21.05
3176					KM SD (logged)	2.388					95% Critical H Value (KM-Log)	6.343
3177					KM Standard Error of Mean (logged)	0.816					95% H-UCL (KM -Log)	56673
3178					KM SD (logged)	2.388					95% Critical H Value (KM-Log)	6.343
3179					KM Standard Error of Mean (logged)	0.816						
3180												
3181					**DL/2 Statistics**							
3182					**DL/2 Normal**						**DL/2 Log-Transformed**	
3183					Mean in Original Scale	1317					Mean in Log Scale	2.844
3184					SD in Original Scale	4105					SD in Log Scale	2.704
3185					95% t UCL (Assumes normality)	3697					95% H-Stat UCL	409948
3186					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3187												
3188					**Nonparametric Distribution Free UCL Statistics**							
3189					**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**							
3190												
3191					**Suggested UCL to Use**							
3192					KM (t) UCL	3756						
3193												
3194					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
3195					**Please verify the data were collected from random locations.**							
3196					**If the data were collected using judgmental or other non-random methods,**							
3197					**then contact a statistician to correctly calculate UCLs.**							
3198												
3199					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3200					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3201					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3202												
3203	**Benzo[b]fluoranthene_SIM**											
3204												
3205					**General Statistics**							
3206					Total Number of Observations	10					Number of Distinct Observations	9
3207											Number of Missing Observations	6
3208					Number of Detects	7					Number of Non-Detects	3
3209					Number of Distinct Detects	6					Number of Distinct Non-Detects	3
3210					Minimum Detect	7.6					Minimum Non-Detect	3.05
3211					Maximum Detect	11000					Maximum Non-Detect	3.15
3212					Variance Detects	17192997					Percent Non-Detects	30%
3213					Mean Detects	1597					SD Detects	4146
3214					Median Detects	22					CV Detects	2.596
3215					Skewness Detects	2.645					Kurtosis Detects	6.999
3216					Mean of Logged Detects	3.857					SD of Logged Detects	2.578

	A	B	C	D	E	F	G	H	I	J	K	L
3217												
3218	**Normal GOF Test on Detects Only**											
3219					Shapiro Wilk Test Statistic	0.459	**Shapiro Wilk GOF Test**					
3220					1% Shapiro Wilk Critical Value	0.73	Detected Data Not Normal at 1% Significance Level					
3221					Lilliefors Test Statistic	0.499	**Lilliefors GOF Test**					
3222					1% Lilliefors Critical Value	0.35	Detected Data Not Normal at 1% Significance Level					
3223	**Detected Data Not Normal at 1% Significance Level**											
3224												
3225	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3226					KM Mean	1119	KM Standard Error of Mean	1125				
3227					90KM SD	3294	95% KM (BCA) UCL	3316				
3228					95% KM (t) UCL	3181	95% KM (Percentile Bootstrap) UCL	3311				
3229					95% KM (z) UCL	2969	95% KM Bootstrap t UCL	281620				
3230					90% KM Chebyshev UCL	4494	95% KM Chebyshev UCL	6023				
3231					97.5% KM Chebyshev UCL	8145	99% KM Chebyshev UCL	12313				
3232												
3233	**Gamma GOF Tests on Detected Observations Only**											
3234					A-D Test Statistic	1.384	**Anderson-Darling GOF Test**					
3235					5% A-D Critical Value	0.82	Detected Data Not Gamma Distributed at 5% Significance Level					
3236					K-S Test Statistic	0.429	**Kolmogorov-Smirnov GOF**					
3237					5% K-S Critical Value	0.342	Detected Data Not Gamma Distributed at 5% Significance Level					
3238	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3239												
3240	**Gamma Statistics on Detected Data Only**											
3241					k hat (MLE)	0.208	k star (bias corrected MLE)	0.214				
3242					Theta hat (MLE)	7683	Theta star (bias corrected MLE)	7462				
3243					nu hat (MLE)	2.91	nu star (bias corrected)	2.996				
3244					Mean (detects)	1597						
3245												
3246	**Gamma ROS Statistics using Imputed Non-Detects**											
3247	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3248	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3249	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3250	This is especially true when the sample size is small.											
3251	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3252					Minimum	0.01	Mean	1118				
3253					Maximum	11000	Median	8.6				
3254					SD	3472	CV	3.106				
3255					k hat (MLE)	0.137	k star (bias corrected MLE)	0.162				
3256					Theta hat (MLE)	8182	Theta star (bias corrected MLE)	6887				
3257					nu hat (MLE)	2.733	nu star (bias corrected)	3.246				
3258					Adjusted Level of Significance (β)	0.0267						
3259					Approximate Chi Square Value (3.25, α)	0.449	Adjusted Chi Square Value (3.25, β)	0.31				
3260					95% Gamma Approximate UCL	8083	95% Gamma Adjusted UCL	11689				
3261												
3262	**Estimates of Gamma Parameters using KM Estimates**											
3263					Mean (KM)	1119	SD (KM)	3294				
3264					Variance (KM)	10849321	SE of Mean (KM)	1125				
3265					k hat (KM)	0.115	k star (KM)	0.147				
3266					nu hat (KM)	2.307	nu star (KM)	2.949				
3267					theta hat (KM)	9697	theta star (KM)	7589				
3268					80% gamma percentile (KM)	1201	90% gamma percentile (KM)	3309				
3269					95% gamma percentile (KM)	6178	99% gamma percentile (KM)	14533				
3270												
3271	**Gamma Kaplan-Meier (KM) Statistics**											
3272					Approximate Chi Square Value (2.95, α)	0.357	Adjusted Chi Square Value (2.95, β)	0.245				
3273					95% KM Approximate Gamma UCL	9232	95% KM Adjusted Gamma UCL	13485				
3274												
3275	**Lognormal GOF Test on Detected Observations Only**											
3276					Shapiro Wilk Test Statistic	0.756	**Shapiro Wilk GOF Test**					
3277					10% Shapiro Wilk Critical Value	0.838	Detected Data Not Lognormal at 10% Significance Level					
3278					Lilliefors Test Statistic	0.265	**Lilliefors GOF Test**					
3279					10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level					
3280	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
3281	**Note GOF tests may be unreliable for small sample sizes**											
3282												
3283	**Lognormal ROS Statistics Using Imputed Non-Detects**											

3284				Mean in Original Scale	1118					Mean in Log Scale	2.059	
3285				SD in Original Scale	3472					SD in Log Scale	3.578	
3286			95% t UCL (assumes normality of ROS data)		3131					95% Percentile Bootstrap UCL	3310	
3287				95% BCA Bootstrap UCL	4412					95% Bootstrap t UCL	272457	
3288				95% H-UCL (Log ROS)	3.165E+8							
3289												
3290				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
3291				KM Mean (logged)	3.034					KM Geo Mean	20.79	
3292				KM SD (logged)	2.359					95% Critical H Value (KM-Log)	6.273	
3293				KM Standard Error of Mean (logged)	0.806					95% H-UCL (KM -Log)	46600	
3294				KM SD (logged)	2.359					95% Critical H Value (KM-Log)	6.273	
3295				KM Standard Error of Mean (logged)	0.806							
3296												
3297				**DL/2 Statistics**								
3298				**DL/2 Normal**						**DL/2 Log-Transformed**		
3299				Mean in Original Scale	1118					Mean in Log Scale	2.831	
3300				SD in Original Scale	3472					SD in Log Scale	2.675	
3301				95% t UCL (Assumes normality)	3131					95% H-Stat UCL	327829	
3302				**DL/2 is not a recommended method, provided for comparisons and historical reasons**								
3303												
3304				**Nonparametric Distribution Free UCL Statistics**								
3305				**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**								
3306												
3307				**Suggested UCL to Use**								
3308				KM (t) UCL	3181							
3309												
3310				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
3311				**Please verify the data were collected from random locations.**								
3312				**If the data were collected using judgmental or other non-random methods,**								
3313				**then contact a statistician to correctly calculate UCLs.**								
3314												
3315				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
3316				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
3317				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
3318												
3319	**Benzo[g,h,i]perylene_SIM**											
3320												
3321				**General Statistics**								
3322				Total Number of Observations	10					Number of Distinct Observations	10	
3323										Number of Missing Observations	6	
3324				Number of Detects	6					Number of Non-Detects	4	
3325				Number of Distinct Detects	6					Number of Distinct Non-Detects	4	
3326				Minimum Detect	6					Minimum Non-Detect	3.05	
3327				Maximum Detect	7800					Maximum Non-Detect	3.5	
3328				Variance Detects	10086997					Percent Non-Detects	40%	
3329				Mean Detects	1317					SD Detects	3176	
3330				Median Detects	19.5					CV Detects	2.411	
3331				Skewness Detects	2.449					Kurtosis Detects	5.999	
3332				Mean of Logged Detects	3.738					SD of Logged Detects	2.684	
3333												
3334				**Normal GOF Test on Detects Only**								
3335				Shapiro Wilk Test Statistic	0.501					**Shapiro Wilk GOF Test**		
3336				1% Shapiro Wilk Critical Value	0.713					Detected Data Not Normal at 1% Significance Level		
3337				Lilliefors Test Statistic	0.488					**Lilliefors GOF Test**		
3338				1% Lilliefors Critical Value	0.373					Detected Data Not Normal at 1% Significance Level		
3339				**Detected Data Not Normal at 1% Significance Level**								
3340												
3341				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
3342				KM Mean	791.5					KM Standard Error of Mean	809.3	
3343				90KM SD	2336					95% KM (BCA) UCL	2349	
3344				95% KM (t) UCL	2275					95% KM (Percentile Bootstrap) UCL	2347	
3345				95% KM (z) UCL	2123					95% KM Bootstrap t UCL	244120	
3346				90% KM Chebyshev UCL	3219					95% KM Chebyshev UCL	4319	
3347				97.5% KM Chebyshev UCL	5845					99% KM Chebyshev UCL	8844	
3348												
3349				**Gamma GOF Tests on Detected Observations Only**								
3350				A-D Test Statistic	1.171					**Anderson-Darling GOF Test**		

3351				5% A-D Critical Value	0.798	Detected Data Not Gamma Distributed at 5% Significance Level						
3352				K-S Test Statistic	0.439	**Kolmogorov-Smirnov GOF**						
3353				5% K-S Critical Value	0.363	Detected Data Not Gamma Distributed at 5% Significance Level						
3354	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3355												
3356	**Gamma Statistics on Detected Data Only**											
3357				k hat (MLE)	0.212	k star (bias corrected MLE)	0.217					
3358				Theta hat (MLE)	6221	Theta star (bias corrected MLE)	6070					
3359				nu hat (MLE)	2.541	nu star (bias corrected)	2.604					
3360				Mean (detects)	1317							
3361												
3362	**Gamma ROS Statistics using Imputed Non-Detects**											
3363	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3364	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3365	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3366	This is especially true when the sample size is small.											
3367	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3368				Minimum	0.01	Mean	790.3					
3369				Maximum	7800	Median	6.3					
3370				SD	2463	CV	3.117					
3371				k hat (MLE)	0.126	k star (bias corrected MLE)	0.155					
3372				Theta hat (MLE)	6289	Theta star (bias corrected MLE)	5111					
3373				nu hat (MLE)	2.513	nu star (bias corrected)	3.093					
3374				Adjusted Level of Significance (β)	0.0267							
3375				Approximate Chi Square Value (3.09, α)	0.4	Adjusted Chi Square Value (3.09, β)	0.275					
3376				95% Gamma Approximate UCL	6104	95% Gamma Adjusted UCL	8881					
3377												
3378	**Estimates of Gamma Parameters using KM Estimates**											
3379				Mean (KM)	791.5	SD (KM)	2336					
3380				Variance (KM)	5457913	SE of Mean (KM)	809.3					
3381				k hat (KM)	0.115	k star (KM)	0.147					
3382				nu hat (KM)	2.296	nu star (KM)	2.94					
3383				theta hat (KM)	6896	theta star (KM)	5384					
3384				80% gamma percentile (KM)	847.3	90% gamma percentile (KM)	2340					
3385				95% gamma percentile (KM)	4373	99% gamma percentile (KM)	10297					
3386												
3387	**Gamma Kaplan-Meier (KM) Statistics**											
3388				Approximate Chi Square Value (2.94, α)	0.355	Adjusted Chi Square Value (2.94, β)	0.243					
3389				95% KM Approximate Gamma UCL	6557	95% KM Adjusted Gamma UCL	9579					
3390												
3391	**Lognormal GOF Test on Detected Observations Only**											
3392				Shapiro Wilk Test Statistic	0.761	**Shapiro Wilk GOF Test**						
3393				10% Shapiro Wilk Critical Value	0.826	Detected Data Not Lognormal at 10% Significance Level						
3394				Lilliefors Test Statistic	0.305	**Lilliefors GOF Test**						
3395				10% Lilliefors Critical Value	0.298	Detected Data Not Lognormal at 10% Significance Level						
3396	**Detected Data Not Lognormal at 10% Significance Level**											
3397												
3398	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3399				Mean in Original Scale	790.3	Mean in Log Scale	1.044					
3400				SD in Original Scale	2463	SD in Log Scale	4.013					
3401				95% t UCL (assumes normality of ROS data)	2218	95% Percentile Bootstrap UCL	2346					
3402				95% BCA Bootstrap UCL	3126	95% Bootstrap t UCL	235180					
3403				95% H-UCL (Log ROS)	9.966E+9							
3404												
3405	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3406				KM Mean (logged)	2.689	KM Geo Mean	14.72					
3407				KM SD (logged)	2.292	95% Critical H Value (KM-Log)	6.108					
3408				KM Standard Error of Mean (logged)	0.794	95% H-UCL (KM -Log)	21635					
3409				KM SD (logged)	2.292	95% Critical H Value (KM-Log)	6.108					
3410				KM Standard Error of Mean (logged)	0.794							
3411												
3412	**DL/2 Statistics**											
3413	**DL/2 Normal**					**DL/2 Log-Transformed**						
3414				Mean in Original Scale	790.9	Mean in Log Scale	2.43					
3415				SD in Original Scale	2463	SD in Log Scale	2.618					
3416				95% t UCL (Assumes normality)	2219	95% H-Stat UCL	145896					
3417	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

	A	B	C	D	E	F	G	H	I	J	K	L
3418												
3419	**Nonparametric Distribution Free UCL Statistics**											
3420	**Data do not follow a Discernible Distribution**											
3421												
3422	**Suggested UCL to Use**											
3423	95% KM (t) UCL					2275						
3424												
3425	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3426	**Please verify the data were collected from random locations.**											
3427	**If the data were collected using judgmental or other non-random methods,**											
3428	**then contact a statistician to correctly calculate UCLs.**											
3429												
3430	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3431	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3432	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3433												
3434	**Benzo[k]fluoranthene_SIM**											
3435												
3436	**General Statistics**											
3437	Total Number of Observations					10			Number of Distinct Observations			10
3438									Number of Missing Observations			6
3439	Number of Detects					7			Number of Non-Detects			3
3440	Number of Distinct Detects					7			Number of Distinct Non-Detects			3
3441	Minimum Detect					7.3			Minimum Non-Detect			3.05
3442	Maximum Detect					12000			Maximum Non-Detect			3.15
3443	Variance Detects					20477362			Percent Non-Detects			30%
3444	Mean Detects					1738			SD Detects			4525
3445	Median Detects					17			CV Detects			2.604
3446	Skewness Detects					2.646			Kurtosis Detects			6.999
3447	Mean of Logged Detects					3.788			SD of Logged Detects			2.642
3448												
3449	**Normal GOF Test on Detects Only**											
3450	Shapiro Wilk Test Statistic					0.458			**Shapiro Wilk GOF Test**			
3451	1% Shapiro Wilk Critical Value					0.73			Detected Data Not Normal at 1% Significance Level			
3452	Lilliefors Test Statistic					0.5			**Lilliefors GOF Test**			
3453	1% Lilliefors Critical Value					0.35			Detected Data Not Normal at 1% Significance Level			
3454	**Detected Data Not Normal at 1% Significance Level**											
3455												
3456	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3457	KM Mean					1218			KM Standard Error of Mean			1228
3458	90KM SD					3594			95% KM (BCA) UCL			3615
3459	95% KM (t) UCL					3468			95% KM (Percentile Bootstrap) UCL			3610
3460	95% KM (z) UCL					3237			95% KM Bootstrap t UCL			383250
3461	90% KM Chebyshev UCL					4901			95% KM Chebyshev UCL			6569
3462	97.5% KM Chebyshev UCL					8884			99% KM Chebyshev UCL			13433
3463												
3464	**Gamma GOF Tests on Detected Observations Only**											
3465	A-D Test Statistic					1.416			**Anderson-Darling GOF Test**			
3466	5% A-D Critical Value					0.823			Detected Data Not Gamma Distributed at 5% Significance Level			
3467	K-S Test Statistic					0.427			**Kolmogorov-Smirnov GOF**			
3468	5% K-S Critical Value					0.343			Detected Data Not Gamma Distributed at 5% Significance Level			
3469	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3470												
3471	**Gamma Statistics on Detected Data Only**											
3472	k hat (MLE)					0.2			k star (bias corrected MLE)			0.21
3473	Theta hat (MLE)					8676			Theta star (bias corrected MLE)			8288
3474	nu hat (MLE)					2.805			nu star (bias corrected)			2.936
3475	Mean (detects)					1738						
3476												
3477	**Gamma ROS Statistics using Imputed Non-Detects**											
3478	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3479	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3480	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3481	This is especially true when the sample size is small.											
3482	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3483	Minimum					0.01			Mean			1217
3484	Maximum					12000			Median			7.95

3485					SD	3789				CV		3.114
3486					k hat (MLE)	0.134				k star (bias corrected MLE)		0.16
3487					Theta hat (MLE)	9086				Theta star (bias corrected MLE)		7585
3488					nu hat (MLE)	2.678				nu star (bias corrected)		3.208
3489					Adjusted Level of Significance (β)	0.0267						
3490					Approximate Chi Square Value (3.21, α)	0.437				Adjusted Chi Square Value (3.21, β)		0.301
3491					95% Gamma Approximate UCL	8939				95% Gamma Adjusted UCL		12949
3492												
3493					**Estimates of Gamma Parameters using KM Estimates**							
3494					Mean (KM)	1218				SD (KM)		3594
3495					Variance (KM)	12918549				SE of Mean (KM)		1228
3496					k hat (KM)	0.115				k star (KM)		0.147
3497					nu hat (KM)	2.295				nu star (KM)		2.94
3498					theta hat (KM)	10610				theta star (KM)		8283
3499					80% gamma percentile (KM)	1303				90% gamma percentile (KM)		3600
3500					95% gamma percentile (KM)	6727				99% gamma percentile (KM)		15841
3501												
3502					**Gamma Kaplan-Meier (KM) Statistics**							
3503					Approximate Chi Square Value (2.94, α)	0.355				Adjusted Chi Square Value (2.94, β)		0.243
3504					95% KM Approximate Gamma UCL	10088				95% KM Adjusted Gamma UCL		14738
3505												
3506					**Lognormal GOF Test on Detected Observations Only**							
3507					Shapiro Wilk Test Statistic	0.741				**Shapiro Wilk GOF Test**		
3508					10% Shapiro Wilk Critical Value	0.838				Detected Data Not Lognormal at 10% Significance Level		
3509					Lilliefors Test Statistic	0.259				**Lilliefors GOF Test**		
3510					10% Lilliefors Critical Value	0.28				Detected Data appear Lognormal at 10% Significance Level		
3511					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
3512					**Note GOF tests may be unreliable for small sample sizes**							
3513												
3514					**Lognormal ROS Statistics Using Imputed Non-Detects**							
3515					Mean in Original Scale	1217				Mean in Log Scale		1.959
3516					SD in Original Scale	3789				SD in Log Scale		3.65
3517					95% t UCL (assumes normality of ROS data)	3413				95% Percentile Bootstrap UCL		3609
3518					95% BCA Bootstrap UCL	4812				95% Bootstrap t UCL		366702
3519					95% H-UCL (Log ROS)	5.766E+8						
3520												
3521					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
3522					KM Mean (logged)	2.986				KM Geo Mean		19.81
3523					KM SD (logged)	2.385				95% Critical H Value (KM-Log)		6.337
3524					KM Standard Error of Mean (logged)	0.815				95% H-UCL (KM -Log)		52509
3525					KM SD (logged)	2.385				95% Critical H Value (KM-Log)		6.337
3526					KM Standard Error of Mean (logged)	0.815						
3527												
3528					**DL/2 Statistics**							
3529					**DL/2 Normal**					**DL/2 Log-Transformed**		
3530					Mean in Original Scale	1217				Mean in Log Scale		2.783
3531					SD in Original Scale	3789				SD in Log Scale		2.697
3532					95% t UCL (Assumes normality)	3413				95% H-Stat UCL		365355
3533					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
3534												
3535					**Nonparametric Distribution Free UCL Statistics**							
3536					**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**							
3537												
3538					**Suggested UCL to Use**							
3539					KM (t) UCL	3468						
3540												
3541					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
3542					**Please verify the data were collected from random locations.**							
3543					**If the data were collected using judgmental or other non-random methods,**							
3544					**then contact a statistician to correctly calculate UCLs.**							
3545												
3546					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
3547					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
3548					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
3549												
3550	**Chrysene_SIM**											
3551												

3552	**General Statistics**											
3553					Total Number of Observations	10			Number of Distinct Observations			10
3554									Number of Missing Observations			6
3555					Number of Detects	7			Number of Non-Detects			3
3556					Number of Distinct Detects	7			Number of Distinct Non-Detects			3
3557					Minimum Detect	9.5			Minimum Non-Detect			3.05
3558					Maximum Detect	11000			Maximum Non-Detect			3.15
3559					Variance Detects	17186047			Percent Non-Detects			30%
3560					Mean Detects	1599			SD Detects			4146
3561					Median Detects	23			CV Detects			2.593
3562					Skewness Detects	2.645			Kurtosis Detects			6.999
3563					Mean of Logged Detects	3.948			SD of Logged Detects			2.52
3564												
3565	**Normal GOF Test on Detects Only**											
3566					Shapiro Wilk Test Statistic	0.459			**Shapiro Wilk GOF Test**			
3567					1% Shapiro Wilk Critical Value	0.73			Detected Data Not Normal at 1% Significance Level			
3568					Lilliefors Test Statistic	0.499			**Lilliefors GOF Test**			
3569					1% Lilliefors Critical Value	0.35			Detected Data Not Normal at 1% Significance Level			
3570	**Detected Data Not Normal at 1% Significance Level**											
3571												
3572	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3573					KM Mean	1120			KM Standard Error of Mean			1125
3574					90KM SD	3293			95% KM (BCA) UCL			3316
3575					95% KM (t) UCL	3182			95% KM (Percentile Bootstrap) UCL			3312
3576					95% KM (z) UCL	2970			95% KM Bootstrap t UCL			296342
3577					90% KM Chebyshev UCL	4495			95% KM Chebyshev UCL			6024
3578					97.5% KM Chebyshev UCL	8145			99% KM Chebyshev UCL			12313
3579												
3580	**Gamma GOF Tests on Detected Observations Only**											
3581					A-D Test Statistic	1.425			**Anderson-Darling GOF Test**			
3582					5% A-D Critical Value	0.818			Detected Data Not Gamma Distributed at 5% Significance Level			
3583					K-S Test Statistic	0.426			**Kolmogorov-Smirnov GOF**			
3584					5% K-S Critical Value	0.342			Detected Data Not Gamma Distributed at 5% Significance Level			
3585	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3586												
3587	**Gamma Statistics on Detected Data Only**											
3588					k hat (MLE)	0.213			k star (bias corrected MLE)			0.217
3589					Theta hat (MLE)	7522			Theta star (bias corrected MLE)			7378
3590					nu hat (MLE)	2.976			nu star (bias corrected)			3.034
3591					Mean (detects)	1599						
3592												
3593	**Gamma ROS Statistics using Imputed Non-Detects**											
3594	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3595	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3596	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3597	This is especially true when the sample size is small.											
3598	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3599					Minimum	0.01			Mean			1119
3600					Maximum	11000			Median			9.95
3601					SD	3472			CV			3.102
3602					k hat (MLE)	0.138			k star (bias corrected MLE)			0.163
3603					Theta hat (MLE)	8113			Theta star (bias corrected MLE)			6856
3604					nu hat (MLE)	2.759			nu star (bias corrected)			3.265
3605					Adjusted Level of Significance (β)	0.0267						
3606					Approximate Chi Square Value (3.26, α)	0.455			Adjusted Chi Square Value (3.26, β)			0.315
3607					95% Gamma Approximate UCL	8031			95% Gamma Adjusted UCL			11604
3608												
3609	**Estimates of Gamma Parameters using KM Estimates**											
3610					Mean (KM)	1120			SD (KM)			3293
3611					Variance (KM)	10846452			SE of Mean (KM)			1125
3612					k hat (KM)	0.116			k star (KM)			0.148
3613					nu hat (KM)	2.314			nu star (KM)			2.953
3614					theta hat (KM)	9683			theta star (KM)			7587
3615					80% gamma percentile (KM)	1203			90% gamma percentile (KM)			3314
3616					95% gamma percentile (KM)	6184			99% gamma percentile (KM)			14539
3617												
3618	**Gamma Kaplan-Meier (KM) Statistics**											

3619	Approximate Chi Square Value (2.95, α)					0.359	Adjusted Chi Square Value (2.95, β)					0.246
3620	95% KM Approximate Gamma UCL					9224	95% KM Adjusted Gamma UCL					13472
3621												
3622	**Lognormal GOF Test on Detected Observations Only**											
3623	Shapiro Wilk Test Statistic					0.735	**Shapiro Wilk GOF Test**					
3624	10% Shapiro Wilk Critical Value					0.838	Detected Data Not Lognormal at 10% Significance Level					
3625	Lilliefors Test Statistic					0.261	**Lilliefors GOF Test**					
3626	10% Lilliefors Critical Value					0.28	Detected Data appear Lognormal at 10% Significance Level					
3627	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
3628	**Note GOF tests may be unreliable for small sample sizes**											
3629												
3630	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3631	Mean in Original Scale					1119	Mean in Log Scale					2.21
3632	SD in Original Scale					3472	SD in Log Scale					3.473
3633	95% t UCL (assumes normality of ROS data)					3132	95% Percentile Bootstrap UCL					3311
3634	95% BCA Bootstrap UCL					4414	95% Bootstrap t UCL					284156
3635	95% H-UCL (Log ROS)					1.344E+8						
3636												
3637	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3638	KM Mean (logged)					3.098	KM Geo Mean					22.16
3639	KM SD (logged)					2.344	95% Critical H Value (KM-Log)					6.236
3640	KM Standard Error of Mean (logged)					0.801	95% H-UCL (KM -Log)					45177
3641	KM SD (logged)					2.344	95% Critical H Value (KM-Log)					6.236
3642	KM Standard Error of Mean (logged)					0.801						
3643												
3644	**DL/2 Statistics**											
3645	**DL/2 Normal**						**DL/2 Log-Transformed**					
3646	Mean in Original Scale					1120	Mean in Log Scale					2.895
3647	SD in Original Scale					3472	SD in Log Scale					2.666
3648	95% t UCL (Assumes normality)					3132	95% H-Stat UCL					327007
3649	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3650												
3651	**Nonparametric Distribution Free UCL Statistics**											
3652	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
3653												
3654	**Suggested UCL to Use**											
3655	KM (t) UCL					3182						
3656												
3657	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3658	**Please verify the data were collected from random locations.**											
3659	**If the data were collected using judgmental or other non-random methods,**											
3660	**then contact a statistician to correctly calculate UCLs.**											
3661												
3662	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3663	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3664	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3665												
3666	**Dibenzo[a,h]anthracene_SIM**											
3667												
3668	**General Statistics**											
3669	Total Number of Observations					10	Number of Distinct Observations					10
3670							Number of Missing Observations					6
3671	Number of Detects					3	Number of Non-Detects					7
3672	Number of Distinct Detects					3	Number of Distinct Non-Detects					7
3673	Minimum Detect					6.2	Minimum Non-Detect					1.9
3674	Maximum Detect					2700	Maximum Non-Detect					3.5
3675	Variance Detects					2411869	Percent Non-Detects					70%
3676	Mean Detects					906.7	SD Detects					1553
3677	Median Detects					14	CV Detects					1.713
3678	Skewness Detects					1.732	Kurtosis Detects					N/A
3679	Mean of Logged Detects					4.122	SD of Logged Detects					3.298
3680												
3681	**Warning: Data set has only 3 Detected Values.**											
3682	**This is not enough to compute meaningful or reliable statistics and estimates.**											
3683												
3684												
3685	**Normal GOF Test on Detects Only**											

3686				Shapiro Wilk Test Statistic		0.752	**Shapiro Wilk GOF Test**					
3687				1% Shapiro Wilk Critical Value		0.753	Detected Data Not Normal at 1% Significance Level					
3688				Lilliefors Test Statistic		0.384	**Lilliefors GOF Test**					
3689				1% Lilliefors Critical Value		0.429	Detected Data appear Normal at 1% Significance Level					
3690	**Detected Data appear Approximate Normal at 1% Significance Level**											
3691	**Note GOF tests may be unreliable for small sample sizes**											
3692												
3693	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3694				KM Mean		273.4	KM Standard Error of Mean					313.3
3695				90KM SD		808.9	95% KM (BCA) UCL					N/A
3696				95% KM (t) UCL		847.6	95% KM (Percentile Bootstrap) UCL					N/A
3697				95% KM (z) UCL		788.7	95% KM Bootstrap t UCL					N/A
3698				90% KM Chebyshev UCL		1213	95% KM Chebyshev UCL					1639
3699				97.5% KM Chebyshev UCL		2230	99% KM Chebyshev UCL					3390
3700												
3701	**Gamma GOF Tests on Detected Observations Only**											
3702				A-D Test Statistic		0.502	**Anderson-Darling GOF Test**					
3703				5% A-D Critical Value		0.676	Detected data appear Gamma Distributed at 5% Significance Level					
3704				K-S Test Statistic		0.406	**Kolmogorov-Smirnov GOF**					
3705				5% K-S Critical Value		0.459	Detected data appear Gamma Distributed at 5% Significance Level					
3706	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3707												
3708	**Gamma Statistics on Detected Data Only**											
3709				k hat (MLE)		0.262	k star (bias corrected MLE)					N/A
3710				Theta hat (MLE)		3458	Theta star (bias corrected MLE)					N/A
3711				nu hat (MLE)		1.573	nu star (bias corrected)					N/A
3712				Mean (detects)		906.7						
3713												
3714	**Gamma ROS Statistics using Imputed Non-Detects**											
3715	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3716	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3717	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3718	This is especially true when the sample size is small.											
3719	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3720				Minimum		0.01	Mean					272
3721				Maximum		2700	Median					0.01
3722				SD		853.1	CV					3.136
3723				k hat (MLE)		0.106	k star (bias corrected MLE)					0.141
3724				Theta hat (MLE)		2563	Theta star (bias corrected MLE)					1930
3725				nu hat (MLE)		2.123	nu star (bias corrected)					2.819
3726				Adjusted Level of Significance (β)		0.0267						
3727				Approximate Chi Square Value (2.82, α)		0.321	Adjusted Chi Square Value (2.82, β)					0.219
3728				95% Gamma Approximate UCL		2389	95% Gamma Adjusted UCL					N/A
3729												
3730	**Estimates of Gamma Parameters using KM Estimates**											
3731				Mean (KM)		273.4	SD (KM)					808.9
3732				Variance (KM)		654306	SE of Mean (KM)					313.3
3733				k hat (KM)		0.114	k star (KM)					0.147
3734				nu hat (KM)		2.284	nu star (KM)					2.932
3735				theta hat (KM)		2394	theta star (KM)					1865
3736				80% gamma percentile (KM)		291.9	90% gamma percentile (KM)					807.9
3737				95% gamma percentile (KM)		1511	99% gamma percentile (KM)					3561
3738												
3739	**Gamma Kaplan-Meier (KM) Statistics**											
3740				Approximate Chi Square Value (2.93, α)		0.353	Adjusted Chi Square Value (2.93, β)					0.241
3741				95% KM Approximate Gamma UCL		2273	95% KM Adjusted Gamma UCL					3321
3742												
3743	**Lognormal GOF Test on Detected Observations Only**											
3744				Shapiro Wilk Test Statistic		0.848	**Shapiro Wilk GOF Test**					
3745				10% Shapiro Wilk Critical Value		0.789	Detected Data appear Lognormal at 10% Significance Level					
3746				Lilliefors Test Statistic		0.34	**Lilliefors GOF Test**					
3747				10% Lilliefors Critical Value		0.389	Detected Data appear Lognormal at 10% Significance Level					
3748	**Detected Data appear Lognormal at 10% Significance Level**											
3749	**Note GOF tests may be unreliable for small sample sizes**											
3750												
3751	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3752				Mean in Original Scale		272	Mean in Log Scale					-5.267

3753				SD in Original Scale		853.1				SD in Log Scale		6.663
3754			95% t UCL (assumes normality of ROS data)			766.6				95% Percentile Bootstrap UCL		N/A
3755				95% BCA Bootstrap UCL		N/A				95% Bootstrap t UCL		N/A
3756				95% H-UCL (Log ROS)		7.674E+23						
3757												
3758	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3759				KM Mean (logged)		1.686				KM Geo Mean		5.397
3760				KM SD (logged)		2.172				95% Critical H Value (KM-Log)		5.814
3761			KM Standard Error of Mean (logged)			0.841				95% H-UCL (KM -Log)		3847
3762				KM SD (logged)		2.172				95% Critical H Value (KM-Log)		5.814
3763			KM Standard Error of Mean (logged)			0.841						
3764												
3765	**DL/2 Statistics**											
3766	**DL/2 Normal**						**DL/2 Log-Transformed**					
3767				Mean in Original Scale		273				Mean in Log Scale		1.465
3768				SD in Original Scale		852.8				SD in Log Scale		2.41
3769			95% t UCL (Assumes normality)			767.3				95% H-Stat UCL		13509
3770	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3771												
3772	**Nonparametric Distribution Free UCL Statistics**											
3773	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
3774												
3775	**Suggested UCL to Use**											
3776				95% KM (t) UCL		847.6						
3777												
3778	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3779	**Please verify the data were collected from random locations.**											
3780	**If the data were collected using judgmental or other non-random methods,**											
3781	**then contact a statistician to correctly calculate UCLs.**											
3782												
3783	When a data set follows an approximate distribution passing only one of the GOF tests,											
3784	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
3785												
3786	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3787	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3788	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3789												
3790	**Fluoranthene_SIM**											
3791												
3792	**General Statistics**											
3793				Total Number of Observations		10				Number of Distinct Observations		10
3794										Number of Missing Observations		6
3795				Number of Detects		9				Number of Non-Detects		1
3796				Number of Distinct Detects		9				Number of Distinct Non-Detects		1
3797				Minimum Detect		6.6				Minimum Non-Detect		3.15
3798				Maximum Detect		21000				Maximum Non-Detect		3.15
3799				Variance Detects		48804880				Percent Non-Detects		10%
3800				Mean Detects		2371				SD Detects		6986
3801				Median Detects		22				CV Detects		2.947
3802				Skewness Detects		3				Kurtosis Detects		8.999
3803				Mean of Logged Detects		3.967				SD of Logged Detects		2.463
3804												
3805	**Normal GOF Test on Detects Only**											
3806				Shapiro Wilk Test Statistic		0.395	**Shapiro Wilk GOF Test**					
3807				1% Shapiro Wilk Critical Value		0.764	Detected Data Not Normal at 1% Significance Level					
3808				Lilliefors Test Statistic		0.514	**Lilliefors GOF Test**					
3809				1% Lilliefors Critical Value		0.316	Detected Data Not Normal at 1% Significance Level					
3810	**Detected Data Not Normal at 1% Significance Level**											
3811												
3812	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3813				KM Mean		2134				KM Standard Error of Mean		2109
3814				90KM SD		6289				95% KM (BCA) UCL		6330
3815				95% KM (t) UCL		6001				95% KM (Percentile Bootstrap) UCL		6321
3816				95% KM (z) UCL		5604				95% KM Bootstrap t UCL		532272
3817				90% KM Chebyshev UCL		8462				95% KM Chebyshev UCL		11328
3818				97.5% KM Chebyshev UCL		15307				99% KM Chebyshev UCL		23122
3819												

	A	B	C	D	E	F	G	H	I	J	K	L
3820	**Gamma GOF Tests on Detected Observations Only**											
3821					A-D Test Statistic	1.9	**Anderson-Darling GOF Test**					
3822					5% A-D Critical Value	0.852	Detected Data Not Gamma Distributed at 5% Significance Level					
3823					K-S Test Statistic	0.433	**Kolmogorov-Smirnov GOF**					
3824					5% K-S Critical Value	0.309	Detected Data Not Gamma Distributed at 5% Significance Level					
3825	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3826												
3827	**Gamma Statistics on Detected Data Only**											
3828					k hat (MLE)	0.194				k star (bias corrected MLE)		0.204
3829					Theta hat (MLE)	12199				Theta star (bias corrected MLE)		11643
3830					nu hat (MLE)	3.498				nu star (bias corrected)		3.666
3831					Mean (detects)	2371						
3832												
3833	**Gamma ROS Statistics using Imputed Non-Detects**											
3834	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3835	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3836	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3837	This is especially true when the sample size is small.											
3838	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3839					Minimum	0.01				Mean		2134
3840					Maximum	21000				Median		20.5
3841					SD	6629				CV		3.107
3842					k hat (MLE)	0.166				k star (bias corrected MLE)		0.183
3843					Theta hat (MLE)	12840				Theta star (bias corrected MLE)		11660
3844					nu hat (MLE)	3.324				nu star (bias corrected)		3.66
3845					Adjusted Level of Significance (β)	0.0267						
3846					Approximate Chi Square Value (3.66, α)	0.592				Adjusted Chi Square Value (3.66, β)		0.418
3847					95% Gamma Approximate UCL	13189				95% Gamma Adjusted UCL		18686
3848												
3849	**Estimates of Gamma Parameters using KM Estimates**											
3850					Mean (KM)	2134				SD (KM)		6289
3851					Variance (KM)	39548475				SE of Mean (KM)		2109
3852					k hat (KM)	0.115				k star (KM)		0.147
3853					nu hat (KM)	2.303				nu star (KM)		2.946
3854					theta hat (KM)	18531				theta star (KM)		14490
3855					80% gamma percentile (KM)	2288				90% gamma percentile (KM)		6312
3856					95% gamma percentile (KM)	11787				99% gamma percentile (KM)		27737
3857												
3858	**Gamma Kaplan-Meier (KM) Statistics**											
3859					Approximate Chi Square Value (2.95, α)	0.356				Adjusted Chi Square Value (2.95, β)		0.244
3860					95% KM Approximate Gamma UCL	17634				95% KM Adjusted Gamma UCL		25759
3861												
3862	**Lognormal GOF Test on Detected Observations Only**											
3863					Shapiro Wilk Test Statistic	0.765				**Shapiro Wilk GOF Test**		
3864					10% Shapiro Wilk Critical Value	0.859				Detected Data Not Lognormal at 10% Significance Level		
3865					Lilliefors Test Statistic	0.235				**Lilliefors GOF Test**		
3866					10% Lilliefors Critical Value	0.252				Detected Data appear Lognormal at 10% Significance Level		
3867	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
3868	**Note GOF tests may be unreliable for small sample sizes**											
3869												
3870	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3871					Mean in Original Scale	2134				Mean in Log Scale		3.425
3872					SD in Original Scale	6629				SD in Log Scale		2.886
3873					95% t UCL (assumes normality of ROS data)	5977				95% Percentile Bootstrap UCL		6320
3874					95% BCA Bootstrap UCL	8421				95% Bootstrap t UCL		531136
3875					95% H-UCL (Log ROS)	2906166						
3876												
3877	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3878					KM Mean (logged)	3.685				KM Geo Mean		39.86
3879					KM SD (logged)	2.36				95% Critical H Value (KM-Log)		6.274
3880					KM Standard Error of Mean (logged)	0.791				95% H-UCL (KM -Log)		89745
3881					KM SD (logged)	2.36				95% Critical H Value (KM-Log)		6.274
3882					KM Standard Error of Mean (logged)	0.791						
3883												
3884	**DL/2 Statistics**											
3885	**DL/2 Normal**						**DL/2 Log-Transformed**					
3886					Mean in Original Scale	2134				Mean in Log Scale		3.616

3887				SD in Original Scale	6629					SD in Log Scale	2.574	
3888				95% t UCL (Assumes normality)	5977					95% H-Stat UCL	350541	
3889	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
3890												
3891	**Nonparametric Distribution Free UCL Statistics**											
3892	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
3893												
3894	**Suggested UCL to Use**											
3895				KM (t) UCL	6001							
3896												
3897	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
3898	**Please verify the data were collected from random locations.**											
3899	**If the data were collected using judgmental or other non-random methods,**											
3900	**then contact a statistician to correctly calculate UCLs.**											
3901												
3902	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
3903	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
3904	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
3905												
3906	**Fluorene_SIM**											
3907												
3908	**General Statistics**											
3909				Total Number of Observations	10					Number of Distinct Observations	10	
3910										Number of Missing Observations	6	
3911				Number of Detects	3					Number of Non-Detects	7	
3912				Number of Distinct Detects	3					Number of Distinct Non-Detects	7	
3913				Minimum Detect	2					Minimum Non-Detect	1.9	
3914				Maximum Detect	960					Maximum Non-Detect	3.5	
3915				Variance Detects	304333					Percent Non-Detects	70%	
3916				Mean Detects	323					SD Detects	551.7	
3917				Median Detects	7					CV Detects	1.708	
3918				Skewness Detects	1.732					Kurtosis Detects	N/A	
3919				Mean of Logged Detects	3.169					SD of Logged Detects	3.263	
3920												
3921	**Warning: Data set has only 3 Detected Values.**											
3922	**This is not enough to compute meaningful or reliable statistics and estimates.**											
3923												
3924												
3925	**Normal GOF Test on Detects Only**											
3926				Shapiro Wilk Test Statistic	0.754					**Shapiro Wilk GOF Test**		
3927				1% Shapiro Wilk Critical Value	0.753					Detected Data appear Normal at 1% Significance Level		
3928				Lilliefors Test Statistic	0.383					**Lilliefors GOF Test**		
3929				1% Lilliefors Critical Value	0.429					Detected Data appear Normal at 1% Significance Level		
3930	**Detected Data appear Normal at 1% Significance Level**											
3931	**Note GOF tests may be unreliable for small sample sizes**											
3932												
3933	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
3934				KM Mean	98.26					KM Standard Error of Mean	111.3	
3935				90KM SD	287.3					95% KM (BCA) UCL	N/A	
3936				95% KM (t) UCL	302.2					95% KM (Percentile Bootstrap) UCL	N/A	
3937				95% KM (z) UCL	281.3					95% KM Bootstrap t UCL	N/A	
3938				90% KM Chebyshev UCL	432					95% KM Chebyshev UCL	583.2	
3939				97.5% KM Chebyshev UCL	793					99% KM Chebyshev UCL	1205	
3940												
3941	**Gamma GOF Tests on Detected Observations Only**											
3942				A-D Test Statistic	0.458					**Anderson-Darling GOF Test**		
3943				5% A-D Critical Value	0.675					Detected data appear Gamma Distributed at 5% Significance Level		
3944				K-S Test Statistic	0.389					**Kolmogorov-Smirnov GOF**		
3945				5% K-S Critical Value	0.458					Detected data appear Gamma Distributed at 5% Significance Level		
3946	**Detected Data Not Gamma Distributed at 5% Significance Level**											
3947												
3948	**Gamma Statistics on Detected Data Only**											
3949				k hat (MLE)	0.269					k star (bias corrected MLE)	N/A	
3950				Theta hat (MLE)	1201					Theta star (bias corrected MLE)	N/A	
3951				nu hat (MLE)	1.614					nu star (bias corrected)	N/A	
3952				Mean (detects)	323							
3953												

	A	B	C	D	E	F	G	H	I	J	K	L
3954	**Gamma ROS Statistics using Imputed Non-Detects**											
3955	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
3956	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
3957	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
3958	This is especially true when the sample size is small.											
3959	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
3960					Minimum	0.01			Mean	96.91		
3961					Maximum	960			Median	0.01		
3962					SD	303.3			CV	3.129		
3963					k hat (MLE)	0.116			k star (bias corrected MLE)	0.148		
3964					Theta hat (MLE)	833.2			Theta star (bias corrected MLE)	654.4		
3965					nu hat (MLE)	2.326			nu star (bias corrected)	2.962		
3966					Adjusted Level of Significance (β)	0.0267						
3967					Approximate Chi Square Value (2.96, α)	0.361			Adjusted Chi Square Value (2.96, β)	0.247		
3968					95% Gamma Approximate UCL	794.7			95% Gamma Adjusted UCL	N/A		
3969												
3970	**Estimates of Gamma Parameters using KM Estimates**											
3971					Mean (KM)	98.26			SD (KM)	287.3		
3972					Variance (KM)	82513			SE of Mean (KM)	111.3		
3973					k hat (KM)	0.117			k star (KM)	0.149		
3974					nu hat (KM)	2.34			nu star (KM)	2.972		
3975					theta hat (KM)	839.7			theta star (KM)	661.3		
3976					80% gamma percentile (KM)	106.1			90% gamma percentile (KM)	291		
3977					95% gamma percentile (KM)	541.8			99% gamma percentile (KM)	1271		
3978												
3979	**Gamma Kaplan-Meier (KM) Statistics**											
3980					Approximate Chi Square Value (2.97, α)	0.364			Adjusted Chi Square Value (2.97, β)	0.249		
3981					95% KM Approximate Gamma UCL	802.1			95% KM Adjusted Gamma UCL	1171		
3982												
3983	**Lognormal GOF Test on Detected Observations Only**											
3984					Shapiro Wilk Test Statistic	0.895			**Shapiro Wilk GOF Test**			
3985					10% Shapiro Wilk Critical Value	0.789			Detected Data appear Lognormal at 10% Significance Level			
3986					Lilliefors Test Statistic	0.313			**Lilliefors GOF Test**			
3987					10% Lilliefors Critical Value	0.389			Detected Data appear Lognormal at 10% Significance Level			
3988	**Detected Data appear Lognormal at 10% Significance Level**											
3989	**Note GOF tests may be unreliable for small sample sizes**											
3990												
3991	**Lognormal ROS Statistics Using Imputed Non-Detects**											
3992					Mean in Original Scale	96.97			Mean in Log Scale	-0.791		
3993					SD in Original Scale	303.2			SD in Log Scale	3.235		
3994					95% t UCL (assumes normality of ROS data)	272.8			95% Percentile Bootstrap UCL	288.3		
3995					95% BCA Bootstrap UCL	384.7			95% Bootstrap t UCL	49006		
3996					95% H-UCL (Log ROS)	770041						
3997												
3998	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
3999					KM Mean (logged)	1.415			KM Geo Mean	4.118		
4000					KM SD (logged)	1.857			95% Critical H Value (KM-Log)	5.05		
4001					KM Standard Error of Mean (logged)	0.719			95% H-UCL (KM -Log)	526		
4002					KM SD (logged)	1.857			95% Critical H Value (KM-Log)	5.05		
4003					KM Standard Error of Mean (logged)	0.719						
4004												
4005	**DL/2 Statistics**											
4006	**DL/2 Normal**								**DL/2 Log-Transformed**			
4007					Mean in Original Scale	97.89			Mean in Log Scale	1.18		
4008					SD in Original Scale	302.9			SD in Log Scale	2.07		
4009					95% t UCL (Assumes normality)	273.5			95% H-Stat UCL	1287		
4010	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
4011												
4012	**Nonparametric Distribution Free UCL Statistics**											
4013	**Detected Data appear Normal Distributed at 1% Significance Level**											
4014												
4015	**Suggested UCL to Use**											
4016					95% KM (t) UCL	302.2						
4017												
4018	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
4019	**Please verify the data were collected from random locations.**											
4020	**If the data were collected using judgmental or other non-random methods,**											

	A	B	C	D	E	F	G	H	I	J	K	L
4021	**then contact a statistician to correctly calculate UCLs.**											
4022												
4023	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
4024	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
4025	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
4026												
4027	**Indeno[1,2,3-cd]pyrene_SIM**											
4028												
4029	**General Statistics**											
4030					Total Number of Observations	10			Number of Distinct Observations	10		
4031									Number of Missing Observations	6		
4032					Number of Detects	6			Number of Non-Detects	4		
4033					Number of Distinct Detects	6			Number of Distinct Non-Detects	4		
4034					Minimum Detect	5.5			Minimum Non-Detect	3.05		
4035					Maximum Detect	7200			Maximum Non-Detect	3.5		
4036					Variance Detects	8592860			Percent Non-Detects	40%		
4037					Mean Detects	1216			SD Detects	2931		
4038					Median Detects	19			CV Detects	2.41		
4039					Skewness Detects	2.449			Kurtosis Detects	5.999		
4040					Mean of Logged Detects	3.68			SD of Logged Detects	2.681		
4041												
4042	**Normal GOF Test on Detects Only**											
4043					Shapiro Wilk Test Statistic	0.501			**Shapiro Wilk GOF Test**			
4044					1% Shapiro Wilk Critical Value	0.713			Detected Data Not Normal at 1% Significance Level			
4045					Lilliefors Test Statistic	0.488			**Lilliefors GOF Test**			
4046					1% Lilliefors Critical Value	0.373			Detected Data Not Normal at 1% Significance Level			
4047	**Detected Data Not Normal at 1% Significance Level**											
4048												
4049	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
4050					KM Mean	731.1			KM Standard Error of Mean	747		
4051					90KM SD	2156			95% KM (BCA) UCL	2169		
4052					95% KM (t) UCL	2100			95% KM (Percentile Bootstrap) UCL	2167		
4053					95% KM (z) UCL	1960			95% KM Bootstrap t UCL	208983		
4054					90% KM Chebyshev UCL	2972			95% KM Chebyshev UCL	3987		
4055					97.5% KM Chebyshev UCL	5396			99% KM Chebyshev UCL	8163		
4056												
4057	**Gamma GOF Tests on Detected Observations Only**											
4058					A-D Test Statistic	1.155			**Anderson-Darling GOF Test**			
4059					5% A-D Critical Value	0.797			Detected Data Not Gamma Distributed at 5% Significance Level			
4060					K-S Test Statistic	0.437			**Kolmogorov-Smirnov GOF**			
4061					5% K-S Critical Value	0.363			Detected Data Not Gamma Distributed at 5% Significance Level			
4062	**Detected Data Not Gamma Distributed at 5% Significance Level**											
4063												
4064	**Gamma Statistics on Detected Data Only**											
4065					k hat (MLE)	0.213			k star (bias corrected MLE)	0.218		
4066					Theta hat (MLE)	5716			Theta star (bias corrected MLE)	5592		
4067					nu hat (MLE)	2.554			nu star (bias corrected)	2.61		
4068					Mean (detects)	1216						
4069												
4070	**Gamma ROS Statistics using Imputed Non-Detects**											
4071	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
4072	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
4073	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4074	This is especially true when the sample size is small.											
4075	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
4076					Minimum	0.01			Mean	729.9		
4077					Maximum	7200			Median	5.95		
4078					SD	2273			CV	3.115		
4079					k hat (MLE)	0.126			k star (bias corrected MLE)	0.155		
4080					Theta hat (MLE)	5772			Theta star (bias corrected MLE)	4704		
4081					nu hat (MLE)	2.529			nu star (bias corrected)	3.104		
4082					Adjusted Level of Significance (β)	0.0267						
4083					Approximate Chi Square Value (3.10, α)	0.404			Adjusted Chi Square Value (3.10, β)	0.278		
4084					95% Gamma Approximate UCL	5611			95% Gamma Adjusted UCL	8160		
4085												
4086	**Estimates of Gamma Parameters using KM Estimates**											
4087					Mean (KM)	731.1			SD (KM)	2156		

4088					Variance (KM)	4649811				SE of Mean (KM)		747
4089					k hat (KM)	0.115				k star (KM)		0.147
4090					nu hat (KM)	2.299				nu star (KM)		2.943
4091					theta hat (KM)	6360				theta star (KM)		4969
4092					80% gamma percentile (KM)	783.2				90% gamma percentile (KM)		2162
4093					95% gamma percentile (KM)	4039				99% gamma percentile (KM)		9507
4094												
4095					**Gamma Kaplan-Meier (KM) Statistics**							
4096					Approximate Chi Square Value (2.94, α)	0.356				Adjusted Chi Square Value (2.94, β)		0.243
4097					95% KM Approximate Gamma UCL	6049				95% KM Adjusted Gamma UCL		8837
4098												
4099					**Lognormal GOF Test on Detected Observations Only**							
4100					Shapiro Wilk Test Statistic	0.768				**Shapiro Wilk GOF Test**		
4101					10% Shapiro Wilk Critical Value	0.826				Detected Data Not Lognormal at 10% Significance Level		
4102					Lilliefors Test Statistic	0.302				**Lilliefors GOF Test**		
4103					10% Lilliefors Critical Value	0.298				Detected Data Not Lognormal at 10% Significance Level		
4104					**Detected Data Not Lognormal at 10% Significance Level**							
4105												
4106					**Lognormal ROS Statistics Using Imputed Non-Detects**							
4107					Mean in Original Scale	729.9				Mean in Log Scale		0.976
4108					SD in Original Scale	2273				SD in Log Scale		4.021
4109					95% t UCL (assumes normality of ROS data)	2048				95% Percentile Bootstrap UCL		2166
4110					95% BCA Bootstrap UCL	2886				95% Bootstrap t UCL		200426
4111					95% H-UCL (Log ROS)	1.023E+10						
4112												
4113					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
4114					KM Mean (logged)	2.654				KM Geo Mean		14.21
4115					KM SD (logged)	2.274				95% Critical H Value (KM-Log)		6.064
4116					KM Standard Error of Mean (logged)	0.788				95% H-UCL (KM -Log)		18712
4117					KM SD (logged)	2.274				95% Critical H Value (KM-Log)		6.064
4118					KM Standard Error of Mean (logged)	0.788						
4119												
4120					**DL/2 Statistics**							
4121					**DL/2 Normal**					**DL/2 Log-Transformed**		
4122					Mean in Original Scale	730.5				Mean in Log Scale		2.395
4123					SD in Original Scale	2273				SD in Log Scale		2.597
4124					95% t UCL (Assumes normality)	2048				95% H-Stat UCL		121289
4125					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
4126												
4127					**Nonparametric Distribution Free UCL Statistics**							
4128					**Data do not follow a Discernible Distribution**							
4129												
4130					**Suggested UCL to Use**							
4131					95% KM (t) UCL	2100						
4132												
4133					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
4134					**Please verify the data were collected from random locations.**							
4135					**If the data were collected using judgmental or other non-random methods,**							
4136					**then contact a statistician to correctly calculate UCLs.**							
4137												
4138					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
4139					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
4140					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
4141												
4142	**Naphthalene_SIM**											
4143												
4144					**General Statistics**							
4145					Total Number of Observations	10				Number of Distinct Observations		10
4146										Number of Missing Observations		6
4147					Number of Detects	6				Number of Non-Detects		4
4148					Number of Distinct Detects	6				Number of Distinct Non-Detects		4
4149					Minimum Detect	4.5				Minimum Non-Detect		1.9
4150					Maximum Detect	1000				Maximum Non-Detect		3.15
4151					Variance Detects	158237				Percent Non-Detects		40%
4152					Mean Detects	192.1				SD Detects		397.8
4153					Median Detects	14.5				CV Detects		2.071
4154					Skewness Detects	2.396				Kurtosis Detects		5.782

4155				Mean of Logged Detects	3.442					SD of Logged Detects		2.007
4156												
4157	**Normal GOF Test on Detects Only**											
4158				Shapiro Wilk Test Statistic	0.566	**Shapiro Wilk GOF Test**						
4159				1% Shapiro Wilk Critical Value	0.713	Detected Data Not Normal at 1% Significance Level						
4160				Lilliefors Test Statistic	0.415	**Lilliefors GOF Test**						
4161				1% Lilliefors Critical Value	0.373	Detected Data Not Normal at 1% Significance Level						
4162	**Detected Data Not Normal at 1% Significance Level**											
4163												
4164	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
4165				KM Mean	116	KM Standard Error of Mean						102.6
4166				90KM SD	296.3	95% KM (BCA) UCL						313.2
4167				95% KM (t) UCL	304.2	95% KM (Percentile Bootstrap) UCL						305.1
4168				95% KM (z) UCL	284.9	95% KM Bootstrap t UCL						6328
4169				90% KM Chebyshev UCL	424	95% KM Chebyshev UCL						563.5
4170				97.5% KM Chebyshev UCL	757.1	99% KM Chebyshev UCL						1137
4171												
4172	**Gamma GOF Tests on Detected Observations Only**											
4173				A-D Test Statistic	0.755	**Anderson-Darling GOF Test**						
4174				5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level						
4175				K-S Test Statistic	0.35	**Kolmogorov-Smirnov GOF**						
4176				5% K-S Critical Value	0.354	Detected data appear Gamma Distributed at 5% Significance Level						
4177	**Detected data appear Gamma Distributed at 5% Significance Level**											
4178	**Note GOF tests may be unreliable for small sample sizes**											
4179												
4180	**Gamma Statistics on Detected Data Only**											
4181				k hat (MLE)	0.367	k star (bias corrected MLE)						0.295
4182				Theta hat (MLE)	523.1	Theta star (bias corrected MLE)						651.8
4183				nu hat (MLE)	4.407	nu star (bias corrected)						3.537
4184				Mean (detects)	192.1							
4185												
4186	**Gamma ROS Statistics using Imputed Non-Detects**											
4187	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
4188	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
4189	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4190	This is especially true when the sample size is small.											
4191	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
4192				Minimum	0.01	Mean						115.3
4193				Maximum	1000	Median						6.85
4194				SD	312.7	CV						2.712
4195				k hat (MLE)	0.167	k star (bias corrected MLE)						0.184
4196				Theta hat (MLE)	689.5	Theta star (bias corrected MLE)						627.5
4197				nu hat (MLE)	3.344	nu star (bias corrected)						3.674
4198				Adjusted Level of Significance (β)	0.0267							
4199				Approximate Chi Square Value (3.67, α)	0.597	Adjusted Chi Square Value (3.67, β)						0.422
4200				95% Gamma Approximate UCL	709.1	95% Gamma Adjusted UCL						1004
4201												
4202	**Estimates of Gamma Parameters using KM Estimates**											
4203				Mean (KM)	116	SD (KM)						296.3
4204				Variance (KM)	87802	SE of Mean (KM)						102.6
4205				k hat (KM)	0.153	k star (KM)						0.174
4206				nu hat (KM)	3.067	nu star (KM)						3.48
4207				theta hat (KM)	756.7	theta star (KM)						666.8
4208				80% gamma percentile (KM)	140.9	90% gamma percentile (KM)						349.2
4209				95% gamma percentile (KM)	618.7	99% gamma percentile (KM)						1379
4210												
4211	**Gamma Kaplan-Meier (KM) Statistics**											
4212				Approximate Chi Square Value (3.48, α)	0.528	Adjusted Chi Square Value (3.48, β)						0.369
4213				95% KM Approximate Gamma UCL	765.1	95% KM Adjusted Gamma UCL						1094
4214												
4215	**Lognormal GOF Test on Detected Observations Only**											
4216				Shapiro Wilk Test Statistic	0.877	**Shapiro Wilk GOF Test**						
4217				10% Shapiro Wilk Critical Value	0.826	Detected Data appear Lognormal at 10% Significance Level						
4218				Lilliefors Test Statistic	0.286	**Lilliefors GOF Test**						
4219				10% Lilliefors Critical Value	0.298	Detected Data appear Lognormal at 10% Significance Level						
4220	**Detected Data appear Lognormal at 10% Significance Level**											
4221	**Note GOF tests may be unreliable for small sample sizes**											

4222												
4223	**Lognormal ROS Statistics Using Imputed Non-Detects**											
4224					Mean in Original Scale	115.3			Mean in Log Scale	1.296		
4225					SD in Original Scale	312.6			SD in Log Scale	3.148		
4226				95% t UCL (assumes normality of ROS data)		296.6			95% Percentile Bootstrap UCL	305.2		
4227					95% BCA Bootstrap UCL	412.8			95% Bootstrap t UCL	5694		
4228					95% H-UCL (Log ROS)	2922457						
4229												
4230	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
4231					KM Mean (logged)	2.322			KM Geo Mean	10.19		
4232					KM SD (logged)	1.973			95% Critical H Value (KM-Log)	5.332		
4233					KM Standard Error of Mean (logged)	0.684			95% H-UCL (KM -Log)	2383		
4234					KM SD (logged)	1.973			95% Critical H Value (KM-Log)	5.332		
4235					KM Standard Error of Mean (logged)	0.684						
4236												
4237	**DL/2 Statistics**											
4238	**DL/2 Normal**								**DL/2 Log-Transformed**			
4239					Mean in Original Scale	115.8			Mean in Log Scale	2.191		
4240					SD in Original Scale	312.4			SD in Log Scale	2.205		
4241					95% t UCL (Assumes normality)	296.9			95% H-Stat UCL	7750		
4242	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
4243												
4244	**Nonparametric Distribution Free UCL Statistics**											
4245	**Detected Data appear Gamma Distributed at 5% Significance Level**											
4246												
4247	**Suggested UCL to Use**											
4248					95% KM Bootstrap t UCL	6328			95% Hall's Bootstrap	2383		
4249												
4250	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
4251	**Please verify the data were collected from random locations.**											
4252	**If the data were collected using judgmental or other non-random methods,**											
4253	**then contact a statistician to correctly calculate UCLs.**											
4254												
4255	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
4256	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
4257	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
4258												
4259	**Phenanthrene_SIM**											
4260												
4261	**General Statistics**											
4262					Total Number of Observations	10			Number of Distinct Observations	10		
4263									Number of Missing Observations	6		
4264					Number of Detects	7			Number of Non-Detects	3		
4265					Number of Distinct Detects	7			Number of Distinct Non-Detects	3		
4266					Minimum Detect	8.6			Minimum Non-Detect	3.05		
4267					Maximum Detect	9500			Maximum Non-Detect	3.15		
4268					Variance Detects	12827844			Percent Non-Detects	30%		
4269					Mean Detects	1378			SD Detects	3582		
4270					Median Detects	17			CV Detects	2.6		
4271					Skewness Detects	2.646			Kurtosis Detects	6.999		
4272					Mean of Logged Detects	3.837			SD of Logged Detects	2.436		
4273												
4274	**Normal GOF Test on Detects Only**											
4275					Shapiro Wilk Test Statistic	0.457			**Shapiro Wilk GOF Test**			
4276					1% Shapiro Wilk Critical Value	0.73			Detected Data Not Normal at 1% Significance Level			
4277					Lilliefors Test Statistic	0.501			**Lilliefors GOF Test**			
4278					1% Lilliefors Critical Value	0.35			Detected Data Not Normal at 1% Significance Level			
4279	**Detected Data Not Normal at 1% Significance Level**											
4280												
4281	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
4282					KM Mean	965.4			KM Standard Error of Mean	971.7		
4283					90KM SD	2845			95% KM (BCA) UCL	2863		
4284					95% KM (t) UCL	2747			95% KM (Percentile Bootstrap) UCL	2860		
4285					95% KM (z) UCL	2564			95% KM Bootstrap t UCL	300722		
4286					90% KM Chebyshev UCL	3881			95% KM Chebyshev UCL	5201		
4287					97.5% KM Chebyshev UCL	7034			99% KM Chebyshev UCL	10634		
4288												

	A	B	C	D	E	F	G	H	I	J	K	L
4289	**Gamma GOF Tests on Detected Observations Only**											
4290					A-D Test Statistic	1.567	**Anderson-Darling GOF Test**					
4291					5% A-D Critical Value	0.817	Detected Data Not Gamma Distributed at 5% Significance Level					
4292					K-S Test Statistic	0.457	**Kolmogorov-Smirnov GOF**					
4293					5% K-S Critical Value	0.342	Detected Data Not Gamma Distributed at 5% Significance Level					
4294	**Detected Data Not Gamma Distributed at 5% Significance Level**											
4295												
4296	**Gamma Statistics on Detected Data Only**											
4297					k hat (MLE)	0.215	k star (bias corrected MLE)					0.218
4298					Theta hat (MLE)	6420	Theta star (bias corrected MLE)					6324
4299					nu hat (MLE)	3.005	nu star (bias corrected)					3.05
4300					Mean (detects)	1378						
4301												
4302	**Gamma ROS Statistics using Imputed Non-Detects**											
4303	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
4304	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
4305	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4306	This is especially true when the sample size is small.											
4307	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
4308					Minimum	0.01	Mean					964.5
4309					Maximum	9500	Median					13
4310					SD	2999	CV					3.11
4311					k hat (MLE)	0.14	k star (bias corrected MLE)					0.164
4312					Theta hat (MLE)	6914	Theta star (bias corrected MLE)					5869
4313					nu hat (MLE)	2.79	nu star (bias corrected)					3.286
4314					Adjusted Level of Significance (β)	0.0267						
4315					Approximate Chi Square Value (3.29, α)	0.462	Adjusted Chi Square Value (3.29, β)					0.32
4316					95% Gamma Approximate UCL	6859	95% Gamma Adjusted UCL					9902
4317												
4318	**Estimates of Gamma Parameters using KM Estimates**											
4319					Mean (KM)	965.4	SD (KM)					2845
4320					Variance (KM)	8093593	SE of Mean (KM)					971.7
4321					k hat (KM)	0.115	k star (KM)					0.147
4322					nu hat (KM)	2.303	nu star (KM)					2.945
4323					theta hat (KM)	8384	theta star (KM)					6555
4324					80% gamma percentile (KM)	1035	90% gamma percentile (KM)					2855
4325					95% gamma percentile (KM)	5332	99% gamma percentile (KM)					12547
4326												
4327	**Gamma Kaplan-Meier (KM) Statistics**											
4328					Approximate Chi Square Value (2.95, α)	0.356	Adjusted Chi Square Value (2.95, β)					0.244
4329					95% KM Approximate Gamma UCL	7978	95% KM Adjusted Gamma UCL					11653
4330												
4331	**Lognormal GOF Test on Detected Observations Only**											
4332					Shapiro Wilk Test Statistic	0.695	**Shapiro Wilk GOF Test**					
4333					10% Shapiro Wilk Critical Value	0.838	Detected Data Not Lognormal at 10% Significance Level					
4334					Lilliefors Test Statistic	0.315	**Lilliefors GOF Test**					
4335					10% Lilliefors Critical Value	0.28	Detected Data Not Lognormal at 10% Significance Level					
4336	**Detected Data Not Lognormal at 10% Significance Level**											
4337												
4338	**Lognormal ROS Statistics Using Imputed Non-Detects**											
4339					Mean in Original Scale	964.5	Mean in Log Scale					2.216
4340					SD in Original Scale	2999	SD in Log Scale					3.281
4341					95% t UCL (assumes normality of ROS data)	2703	95% Percentile Bootstrap UCL					2859
4342					95% BCA Bootstrap UCL	3810	95% Bootstrap t UCL					273976
4343					95% H-UCL (Log ROS)	23480086						
4344												
4345	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
4346					KM Mean (logged)	3.02	KM Geo Mean					20.5
4347					KM SD (logged)	2.262	95% Critical H Value (KM-Log)					6.035
4348					KM Standard Error of Mean (logged)	0.773	95% H-UCL (KM -Log)					25074
4349					KM SD (logged)	2.262	95% Critical H Value (KM-Log)					6.035
4350					KM Standard Error of Mean (logged)	0.773						
4351												
4352	**DL/2 Statistics**											
4353	**DL/2 Normal**						**DL/2 Log-Transformed**					
4354					Mean in Original Scale	964.9	Mean in Log Scale					2.817
4355					SD in Original Scale	2999	SD in Log Scale					2.579

4356			95% t UCL (Assumes normality)			2703					95% H-Stat UCL	163562
4357	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
4358												
4359	**Nonparametric Distribution Free UCL Statistics**											
4360	**Data do not follow a Discernible Distribution**											
4361												
4362	**Suggested UCL to Use**											
4363			95% KM (t) UCL			2747						
4364												
4365	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
4366	**Please verify the data were collected from random locations.**											
4367	**If the data were collected using judgmental or other non-random methods,**											
4368	**then contact a statistician to correctly calculate UCLs.**											
4369												
4370	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
4371	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
4372	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
4373												
4374	**Pyrene_SIM**											
4375												
4376	**General Statistics**											
4377			Total Number of Observations			10			Number of Distinct Observations			10
4378									Number of Missing Observations			6
4379			Number of Detects			7			Number of Non-Detects			3
4380			Number of Distinct Detects			7			Number of Distinct Non-Detects			3
4381			Minimum Detect			14			Minimum Non-Detect			3.05
4382			Maximum Detect			20000			Maximum Non-Detect			3.15
4383			Variance Detects			56859462			Percent Non-Detects			30%
4384			Mean Detects			2900			SD Detects			7541
4385			Median Detects			31			CV Detects			2.6
4386			Skewness Detects			2.646			Kurtosis Detects			6.999
4387			Mean of Logged Detects			4.438			SD of Logged Detects			2.558
4388												
4389	**Normal GOF Test on Detects Only**											
4390			Shapiro Wilk Test Statistic			0.458			**Shapiro Wilk GOF Test**			
4391			1% Shapiro Wilk Critical Value			0.73			Detected Data Not Normal at 1% Significance Level			
4392			Lilliefors Test Statistic			0.5			**Lilliefors GOF Test**			
4393			1% Lilliefors Critical Value			0.35			Detected Data Not Normal at 1% Significance Level			
4394	**Detected Data Not Normal at 1% Significance Level**											
4395												
4396	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
4397			KM Mean			2031			KM Standard Error of Mean			2046
4398			90KM SD			5990			95% KM (BCA) UCL			6029
4399			95% KM (t) UCL			5781			95% KM (Percentile Bootstrap) UCL			6018
4400			95% KM (z) UCL			5396			95% KM Bootstrap t UCL			474309
4401			90% KM Chebyshev UCL			8169			95% KM Chebyshev UCL			10949
4402			97.5% KM Chebyshev UCL			14808			99% KM Chebyshev UCL			22388
4403												
4404	**Gamma GOF Tests on Detected Observations Only**											
4405			A-D Test Statistic			1.447			**Anderson-Darling GOF Test**			
4406			5% A-D Critical Value			0.82			Detected Data Not Gamma Distributed at 5% Significance Level			
4407			K-S Test Statistic			0.444			**Kolmogorov-Smirnov GOF**			
4408			5% K-S Critical Value			0.342			Detected Data Not Gamma Distributed at 5% Significance Level			
4409	**Detected Data Not Gamma Distributed at 5% Significance Level**											
4410												
4411	**Gamma Statistics on Detected Data Only**											
4412			k hat (MLE)			0.207			k star (bias corrected MLE)			0.214
4413			Theta hat (MLE)			14003			Theta star (bias corrected MLE)			13578
4414			nu hat (MLE)			2.899			nu star (bias corrected)			2.99
4415			Mean (detects)			2900						
4416												
4417	**Gamma ROS Statistics using Imputed Non-Detects**											
4418	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
4419	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
4420	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
4421	This is especially true when the sample size is small.											
4422	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											

4423					Minimum	0.01				Mean		2030
4424					Maximum	20000				Median		17.5
4425					SD	6314				CV		3.11
4426					k hat (MLE)	0.133				k star (bias corrected MLE)		0.16
4427					Theta hat (MLE)	15290				Theta star (bias corrected MLE)		12719
4428					nu hat (MLE)	2.655				nu star (bias corrected)		3.192
4429					Adjusted Level of Significance (β)	0.0267						
4430					Approximate Chi Square Value (3.19, α)	0.432				Adjusted Chi Square Value (3.19, β)		0.298
4431					95% Gamma Approximate UCL	15016				95% Gamma Adjusted UCL		21765
4432												
4433					**Estimates of Gamma Parameters using KM Estimates**							
4434					Mean (KM)	2031				SD (KM)		5990
4435					Variance (KM)	35878064				SE of Mean (KM)		2046
4436					k hat (KM)	0.115				k star (KM)		0.147
4437					nu hat (KM)	2.299				nu star (KM)		2.943
4438					theta hat (KM)	17666				theta star (KM)		13803
4439					80% gamma percentile (KM)	2176				90% gamma percentile (KM)		6006
4440					95% gamma percentile (KM)	11219				99% gamma percentile (KM)		26409
4441												
4442					**Gamma Kaplan-Meier (KM) Statistics**							
4443					Approximate Chi Square Value (2.94, α)	0.356				Adjusted Chi Square Value (2.94, β)		0.243
4444					95% KM Approximate Gamma UCL	16803				95% KM Adjusted Gamma UCL		24547
4445												
4446					**Lognormal GOF Test on Detected Observations Only**							
4447					Shapiro Wilk Test Statistic	0.734				**Shapiro Wilk GOF Test**		
4448					10% Shapiro Wilk Critical Value	0.838				Detected Data Not Lognormal at 10% Significance Level		
4449					Lilliefors Test Statistic	0.291				**Lilliefors GOF Test**		
4450					10% Lilliefors Critical Value	0.28				Detected Data Not Lognormal at 10% Significance Level		
4451					**Detected Data Not Lognormal at 10% Significance Level**							
4452												
4453					**Lognormal ROS Statistics Using Imputed Non-Detects**							
4454					Mean in Original Scale	2030				Mean in Log Scale		2.682
4455					SD in Original Scale	6314				SD in Log Scale		3.515
4456					95% t UCL (assumes normality of ROS data)	5690				95% Percentile Bootstrap UCL		6017
4457					95% BCA Bootstrap UCL	8020				95% Bootstrap t UCL		469476
4458					95% H-UCL (Log ROS)	3.222E+8						
4459												
4460					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
4461					KM Mean (logged)	3.441				KM Geo Mean		31.23
4462					KM SD (logged)	2.499				95% Critical H Value (KM-Log)		6.619
4463					KM Standard Error of Mean (logged)	0.854				95% H-UCL (KM -Log)		176129
4464					KM SD (logged)	2.499				95% Critical H Value (KM-Log)		6.619
4465					KM Standard Error of Mean (logged)	0.854						
4466												
4467					**DL/2 Statistics**							
4468					**DL/2 Normal**					**DL/2 Log-Transformed**		
4469					Mean in Original Scale	2030				Mean in Log Scale		3.238
4470					SD in Original Scale	6314				SD in Log Scale		2.846
4471					95% t UCL (Assumes normality)	5691				95% H-Stat UCL		1758733
4472					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
4473												
4474					**Nonparametric Distribution Free UCL Statistics**							
4475					**Data do not follow a Discernible Distribution**							
4476												
4477					**Suggested UCL to Use**							
4478					95% KM (t) UCL	5781						
4479												
4480					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
4481					**Please verify the data were collected from random locations.**							
4482					**If the data were collected using judgmental or other non-random methods,**							
4483					**then contact a statistician to correctly calculate UCLs.**							
4484												
4485					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
4486					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
4487					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
4488												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:50:41 AM
From File	sediment_misc offsite streams lower
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum

General Statistics

Total Number of Observations	4	Number of Distinct Observations	4
		Number of Missing Observations	15
Minimum	4910	Mean	7308
Maximum	9620	Median	7350
SD	2126	Std. Error of Mean	1063
Coefficient of Variation	0.291	Skewness	-0.0763

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach, refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance, but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7). The Chebyshev UCL often results in gross overestimates of the mean. Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.96	**Shapiro Wilk GOF Test**	
1% Shapiro Wilk Critical Value	0.687	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.206	**Lilliefors GOF Test**	
1% Lilliefors Critical Value	0.413	Data appear Normal at 1% Significance Level	

Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	9809	95% Adjusted-CLT UCL (Chen-1995)	9013
		95% Modified-t UCL (Johnson-1978)	9803

Gamma GOF Test

A-D Test Statistic	0.266	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.657	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.248	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.395	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics

k hat (MLE)	15.07	k star (bias corrected MLE)	3.935
Theta hat (MLE)	484.8	Theta star (bias corrected MLE)	1857
nu hat (MLE)	120.6	nu star (bias corrected)	31.48
MLE Mean (bias corrected)	7308	MLE Sd (bias corrected)	3684
		Approximate Chi Square Value (0.05)	19.66
Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A

Assuming Gamma Distribution

95% Approximate Gamma UCL	11701	95% Adjusted Gamma UCL	N/A

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.956	**Shapiro Wilk Lognormal GOF Test**	
10% Shapiro Wilk Critical Value	0.792	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.224	**Lilliefors Lognormal GOF Test**	
10% Lilliefors Critical Value	0.346	Data appear Lognormal at 10% Significance Level	

Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal Statistics

68				Minimum of Logged Data	8.499					Mean of logged Data	8.863	
69				Maximum of Logged Data	9.172					SD of logged Data	0.303	
70												
71				**Assuming Lognormal Distribution**								
72				95% H-UCL	12051					90% Chebyshev (MVUE) UCL	10614	
73				95% Chebyshev (MVUE) UCL	12110					97.5% Chebyshev (MVUE) UCL	14185	
74				99% Chebyshev (MVUE) UCL	18263							
75												
76				**Nonparametric Distribution Free UCL Statistics**								
77				**Data appear to follow a Discernible Distribution**								
78												
79				**Nonparametric Distribution Free UCLs**								
80				95% CLT UCL	9056					95% BCA Bootstrap UCL	N/A	
81				95% Standard Bootstrap UCL	N/A					95% Bootstrap-t UCL	N/A	
82				95% Hall's Bootstrap UCL	N/A					95% Percentile Bootstrap UCL	N/A	
83				90% Chebyshev(Mean, Sd) UCL	10497					95% Chebyshev(Mean, Sd) UCL	11942	
84				97.5% Chebyshev(Mean, Sd) UCL	13947					99% Chebyshev(Mean, Sd) UCL	17886	
85												
86				**Suggested UCL to Use**								
87				95% Student's-t UCL	9809							
88				**Recommended UCL exceeds the maximum observation**								
89												
90				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
91				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
92				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
93												
94				**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**								
95				**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**								
96												
97	**Arsenic**											
98												
99				**General Statistics**								
100				Total Number of Observations	36					Number of Distinct Observations	36	
101										Number of Missing Observations	31	
102				Number of Detects	21					Number of Non-Detects	15	
103				Number of Distinct Detects	21					Number of Distinct Non-Detects	15	
104				Minimum Detect	0.71					Minimum Non-Detect	1.27	
105				Maximum Detect	12.1					Maximum Non-Detect	12.55	
106				Variance Detects	12.51					Percent Non-Detects	41.67%	
107				Mean Detects	4.569					SD Detects	3.537	
108				Median Detects	2.49					CV Detects	0.774	
109				Skewness Detects	0.759					Kurtosis Detects	-0.825	
110				Mean of Logged Detects	1.206					SD of Logged Detects	0.834	
111												
112				**Normal GOF Test on Detects Only**								
113				Shapiro Wilk Test Statistic	0.855					**Shapiro Wilk GOF Test**		
114				1% Shapiro Wilk Critical Value	0.873					Detected Data Not Normal at 1% Significance Level		
115				Lilliefors Test Statistic	0.245					**Lilliefors GOF Test**		
116				1% Lilliefors Critical Value	0.219					Detected Data Not Normal at 1% Significance Level		
117				**Detected Data Not Normal at 1% Significance Level**								
118												
119				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
120				KM Mean	3.408					KM Standard Error of Mean	0.56	
121				90KM SD	3.124					95% KM (BCA) UCL	4.404	
122				95% KM (t) UCL	4.355					95% KM (Percentile Bootstrap) UCL	4.367	
123				95% KM (z) UCL	4.33					95% KM Bootstrap t UCL	4.547	
124				90% KM Chebyshev UCL	5.089					95% KM Chebyshev UCL	5.85	
125				97.5% KM Chebyshev UCL	6.907					99% KM Chebyshev UCL	8.983	
126												
127				**Gamma GOF Tests on Detected Observations Only**								
128				A-D Test Statistic	0.929					**Anderson-Darling GOF Test**		
129				5% A-D Critical Value	0.756					Detected Data Not Gamma Distributed at 5% Significance Level		
130				K-S Test Statistic	0.205					**Kolmogorov-Smirnov GOF**		
131				5% K-S Critical Value	0.192					Detected Data Not Gamma Distributed at 5% Significance Level		
132				**Detected Data Not Gamma Distributed at 5% Significance Level**								
133												
134				**Gamma Statistics on Detected Data Only**								

135					k hat (MLE)	1.745			k star (bias corrected MLE)			1.527
136					Theta hat (MLE)	2.618			Theta star (bias corrected MLE)			2.991
137					nu hat (MLE)	73.28			nu star (bias corrected)			64.15
138					Mean (detects)	4.569						
139												
140					**Gamma ROS Statistics using Imputed Non-Detects**							
141					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
142					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
143					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
144					This is especially true when the sample size is small.							
145					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
146					Minimum	0.01			Mean			3.225
147					Maximum	12.1			Median			1.832
148					SD	3.161			CV			0.98
149					k hat (MLE)	0.951			k star (bias corrected MLE)			0.89
150					Theta hat (MLE)	3.392			Theta star (bias corrected MLE)			3.624
151					nu hat (MLE)	68.46			nu star (bias corrected)			64.09
152					Adjusted Level of Significance (β)	0.0428						
153					Approximate Chi Square Value (64.09, α)	46.67			Adjusted Chi Square Value (64.09, β)			45.99
154					95% Gamma Approximate UCL	4.429			95% Gamma Adjusted UCL			4.494
155												
156					**Estimates of Gamma Parameters using KM Estimates**							
157					Mean (KM)	3.408			SD (KM)			3.124
158					Variance (KM)	9.761			SE of Mean (KM)			0.56
159					k hat (KM)	1.19			k star (KM)			1.109
160					nu hat (KM)	85.68			nu star (KM)			79.87
161					theta hat (KM)	2.864			theta star (KM)			3.072
162					80% gamma percentile (KM)	5.437			90% gamma percentile (KM)			7.649
163					95% gamma percentile (KM)	9.844			99% gamma percentile (KM)			14.9
164												
165					**Gamma Kaplan-Meier (KM) Statistics**							
166					Approximate Chi Square Value (79.87, α)	60.28			Adjusted Chi Square Value (79.87, β)			59.51
167					95% KM Approximate Gamma UCL	4.516			95% KM Adjusted Gamma UCL			4.575
168												
169					**Lognormal GOF Test on Detected Observations Only**							
170					Shapiro Wilk Test Statistic	0.922			**Shapiro Wilk GOF Test**			
171					10% Shapiro Wilk Critical Value	0.923			Detected Data Not Lognormal at 10% Significance Level			
172					Lilliefors Test Statistic	0.174			**Lilliefors GOF Test**			
173					10% Lilliefors Critical Value	0.173			Detected Data Not Lognormal at 10% Significance Level			
174					**Detected Data Not Lognormal at 10% Significance Level**							
175												
176					**Lognormal ROS Statistics Using Imputed Non-Detects**							
177					Mean in Original Scale	3.308			Mean in Log Scale			0.857
178					SD in Original Scale	3.088			SD in Log Scale			0.798
179					95% t UCL (assumes normality of ROS data)	4.178			95% Percentile Bootstrap UCL			4.195
180					95% BCA Bootstrap UCL	4.312			95% Bootstrap t UCL			4.407
181					95% H-UCL (Log ROS)	4.344						
182												
183					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
184					KM Mean (logged)	0.848			KM Geo Mean			2.335
185					KM SD (logged)	0.858			95% Critical H Value (KM-Log)			2.23
186					KM Standard Error of Mean (logged)	0.165			95% H-UCL (KM -Log)			4.662
187					KM SD (logged)	0.858			95% Critical H Value (KM-Log)			2.23
188					KM Standard Error of Mean (logged)	0.165						
189												
190					**DL/2 Statistics**							
191					**DL/2 Normal**				**DL/2 Log-Transformed**			
192					Mean in Original Scale	3.776			Mean in Log Scale			1.016
193					SD in Original Scale	3.015			SD in Log Scale			0.827
194					95% t UCL (Assumes normality)	4.625			95% H-Stat UCL			5.291
195					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
196												
197					**Nonparametric Distribution Free UCL Statistics**							
198					**Data do not follow a Discernible Distribution**							
199												
200					**Suggested UCL to Use**							
201					95% KM (t) UCL	4.355						

202												
203	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
204	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
205	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
206												
207	**Cadmium**											
208												
209	**General Statistics**											
210	Total Number of Observations				36		Number of Distinct Observations				35	
211							Number of Missing Observations				31	
212	Number of Detects				23		Number of Non-Detects				13	
213	Number of Distinct Detects				23		Number of Distinct Non-Detects				13	
214	Minimum Detect				0.176		Minimum Non-Detect				0.033	
215	Maximum Detect				2.09		Maximum Non-Detect				3.14	
216	Variance Detects				0.23		Percent Non-Detects				36.11%	
217	Mean Detects				0.807		SD Detects				0.479	
218	Median Detects				0.699		CV Detects				0.594	
219	Skewness Detects				0.94		Kurtosis Detects				0.705	
220	Mean of Logged Detects				-0.392		SD of Logged Detects				0.629	
221												
222	**Normal GOF Test on Detects Only**											
223	Shapiro Wilk Test Statistic				0.926		**Shapiro Wilk GOF Test**					
224	1% Shapiro Wilk Critical Value				0.881		Detected Data appear Normal at 1% Significance Level					
225	Lilliefors Test Statistic				0.173		**Lilliefors GOF Test**					
226	1% Lilliefors Critical Value				0.209		Detected Data appear Normal at 1% Significance Level					
227	**Detected Data appear Normal at 1% Significance Level**											
228												
229	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
230	KM Mean				0.669		KM Standard Error of Mean				0.0896	
231	90KM SD				0.478		95% KM (BCA) UCL				0.827	
232	95% KM (t) UCL				0.82		95% KM (Percentile Bootstrap) UCL				0.815	
233	95% KM (z) UCL				0.816		95% KM Bootstrap t UCL				0.829	
234	90% KM Chebyshev UCL				0.938		95% KM Chebyshev UCL				1.06	
235	97.5% KM Chebyshev UCL				1.229		99% KM Chebyshev UCL				1.56	
236												
237	**Gamma GOF Tests on Detected Observations Only**											
238	A-D Test Statistic				0.234		**Anderson-Darling GOF Test**					
239	5% A-D Critical Value				0.75		Detected data appear Gamma Distributed at 5% Significance Level					
240	K-S Test Statistic				0.129		**Kolmogorov-Smirnov GOF**					
241	5% K-S Critical Value				0.183		Detected data appear Gamma Distributed at 5% Significance Level					
242	**Detected data appear Gamma Distributed at 5% Significance Level**											
243												
244	**Gamma Statistics on Detected Data Only**											
245	k hat (MLE)				2.982		k star (bias corrected MLE)				2.622	
246	Theta hat (MLE)				0.271		Theta star (bias corrected MLE)				0.308	
247	nu hat (MLE)				137.2		nu star (bias corrected)				120.6	
248	Mean (detects)				0.807							
249												
250	**Gamma ROS Statistics using Imputed Non-Detects**											
251	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
252	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
253	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
254	This is especially true when the sample size is small.											
255	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
256	Minimum				0.01		Mean				0.654	
257	Maximum				2.09		Median				0.56	
258	SD				0.449		CV				0.686	
259	k hat (MLE)				1.92		k star (bias corrected MLE)				1.779	
260	Theta hat (MLE)				0.341		Theta star (bias corrected MLE)				0.368	
261	nu hat (MLE)				138.3		nu star (bias corrected)				128.1	
262	Adjusted Level of Significance (β)				0.0428							
263	Approximate Chi Square Value (128.08, α)				102.9		Adjusted Chi Square Value (128.08, β)				101.9	
264	95% Gamma Approximate UCL				0.814		95% Gamma Adjusted UCL				0.822	
265												
266	**Estimates of Gamma Parameters using KM Estimates**											
267	Mean (KM)				0.669		SD (KM)				0.478	
268	Variance (KM)				0.229		SE of Mean (KM)				0.0896	

269					k hat (KM)	1.959					k star (KM)	1.814
270					nu hat (KM)	141					nu star (KM)	130.6
271					theta hat (KM)	0.342					theta star (KM)	0.369
272					80% gamma percentile (KM)	1.013					90% gamma percentile (KM)	1.332
273					95% gamma percentile (KM)	1.637					99% gamma percentile (KM)	2.319
274												
275					**Gamma Kaplan-Meier (KM) Statistics**							
276					Approximate Chi Square Value (130.60, α)	105.2					Adjusted Chi Square Value (130.60, β)	104.2
277					95% KM Approximate Gamma UCL	0.831					95% KM Adjusted Gamma UCL	0.839
278												
279					**Lognormal GOF Test on Detected Observations Only**							
280					Shapiro Wilk Test Statistic	0.979					**Shapiro Wilk GOF Test**	
281					10% Shapiro Wilk Critical Value	0.928					Detected Data appear Lognormal at 10% Significance Level	
282					Lilliefors Test Statistic	0.114					**Lilliefors GOF Test**	
283					10% Lilliefors Critical Value	0.165					Detected Data appear Lognormal at 10% Significance Level	
284					**Detected Data appear Lognormal at 10% Significance Level**							
285												
286					**Lognormal ROS Statistics Using Imputed Non-Detects**							
287					Mean in Original Scale	0.656					Mean in Log Scale	-0.622
288					SD in Original Scale	0.44					SD in Log Scale	0.643
289					95% t UCL (assumes normality of ROS data)	0.779					95% Percentile Bootstrap UCL	0.775
290					95% BCA Bootstrap UCL	0.79					95% Bootstrap t UCL	0.8
291					95% H-UCL (Log ROS)	0.823						
292												
293					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
294					KM Mean (logged)	-0.745					KM Geo Mean	0.475
295					KM SD (logged)	0.975					95% Critical H Value (KM-Log)	2.355
296					KM Standard Error of Mean (logged)	0.208					95% H-UCL (KM -Log)	1.125
297					KM SD (logged)	0.975					95% Critical H Value (KM-Log)	2.355
298					KM Standard Error of Mean (logged)	0.208						
299												
300					**DL/2 Statistics**							
301					**DL/2 Normal**						**DL/2 Log-Transformed**	
302					Mean in Original Scale	0.737					Mean in Log Scale	-0.608
303					SD in Original Scale	0.483					SD in Log Scale	0.944
304					95% t UCL (Assumes normality)	0.873					95% H-Stat UCL	1.231
305					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
306												
307					**Nonparametric Distribution Free UCL Statistics**							
308					**Detected Data appear Normal Distributed at 1% Significance Level**							
309												
310					**Suggested UCL to Use**							
311					95% KM (t) UCL	0.82						
312												
313					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
314					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
315					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
316												
317												
318	**Chromium**											
319												
320					**General Statistics**							
321					Total Number of Observations	36					Number of Distinct Observations	35
322											Number of Missing Observations	31
323					Minimum	5.35					Mean	24.35
324					Maximum	117					Median	15.05
325					SD	23.1					Std. Error of Mean	3.849
326					Coefficient of Variation	0.949					Skewness	2.391
327												
328					**Normal GOF Test**							
329					Shapiro Wilk Test Statistic	0.731					**Shapiro Wilk GOF Test**	
330					1% Shapiro Wilk Critical Value	0.912					Data Not Normal at 1% Significance Level	
331					Lilliefors Test Statistic	0.223					**Lilliefors GOF Test**	
332					1% Lilliefors Critical Value	0.17					Data Not Normal at 1% Significance Level	
333					**Data Not Normal at 1% Significance Level**							
334												
335					**Assuming Normal Distribution**							

336	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
337				95% Student's-t UCL		30.85				95% Adjusted-CLT UCL (Chen-1995)		32.32
338										95% Modified-t UCL (Johnson-1978)		31.1
339												
340	**Gamma GOF Test**											
341				A-D Test Statistic		1.064	**Anderson-Darling Gamma GOF Test**					
342				5% A-D Critical Value		0.763	Data Not Gamma Distributed at 5% Significance Level					
343				K-S Test Statistic		0.173	**Kolmogorov-Smirnov Gamma GOF Test**					
344				5% K-S Critical Value		0.149	Data Not Gamma Distributed at 5% Significance Level					
345	**Data Not Gamma Distributed at 5% Significance Level**											
346												
347	**Gamma Statistics**											
348				k hat (MLE)		1.774	k star (bias corrected MLE)					1.644
349				Theta hat (MLE)		13.73	Theta star (bias corrected MLE)					14.81
350				nu hat (MLE)		127.7	nu star (bias corrected)					118.4
351				MLE Mean (bias corrected)		24.35	MLE Sd (bias corrected)					18.99
352							Approximate Chi Square Value (0.05)					94.27
353				Adjusted Level of Significance		0.0428	Adjusted Chi Square Value					93.29
354												
355	**Assuming Gamma Distribution**											
356				95% Approximate Gamma UCL		30.57	95% Adjusted Gamma UCL					30.9
357												
358	**Lognormal GOF Test**											
359				Shapiro Wilk Test Statistic		0.962	**Shapiro Wilk Lognormal GOF Test**					
360				10% Shapiro Wilk Critical Value		0.945	Data appear Lognormal at 10% Significance Level					
361				Lilliefors Test Statistic		0.131	**Lilliefors Lognormal GOF Test**					
362				10% Lilliefors Critical Value		0.134	Data appear Lognormal at 10% Significance Level					
363	**Data appear Lognormal at 10% Significance Level**											
364												
365	**Lognormal Statistics**											
366				Minimum of Logged Data		1.677	Mean of logged Data					2.885
367				Maximum of Logged Data		4.762	SD of logged Data					0.756
368												
369	**Assuming Lognormal Distribution**											
370				95% H-UCL		31.27	90% Chebyshev (MVUE) UCL					33.39
371				95% Chebyshev (MVUE) UCL		37.83	97.5% Chebyshev (MVUE) UCL					43.99
372				99% Chebyshev (MVUE) UCL		56.1						
373												
374	**Nonparametric Distribution Free UCL Statistics**											
375	**Data appear to follow a Discernible Distribution**											
376												
377	**Nonparametric Distribution Free UCLs**											
378				95% CLT UCL		30.68	95% BCA Bootstrap UCL					32.2
379				95% Standard Bootstrap UCL		30.59	95% Bootstrap-t UCL					33.29
380				95% Hall's Bootstrap UCL		34.2	95% Percentile Bootstrap UCL					31.05
381				90% Chebyshev(Mean, Sd) UCL		35.89	95% Chebyshev(Mean, Sd) UCL					41.12
382				97.5% Chebyshev(Mean, Sd) UCL		48.38	99% Chebyshev(Mean, Sd) UCL					62.64
383												
384	**Suggested UCL to Use**											
385				95% H-UCL		31.27						
386												
387	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
388	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
389	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
390												
391												
392	**Copper**											
393												
394	**General Statistics**											
395				Total Number of Observations		36	Number of Distinct Observations					33
396							Number of Missing Observations					31
397				Minimum		2.13	Mean					17.82
398				Maximum		60.7	Median					14.5
399				SD		12.48	Std. Error of Mean					2.08
400				Coefficient of Variation		0.7	Skewness					1.503
401												
402	**Normal GOF Test**											

403				Shapiro Wilk Test Statistic	0.875	**Shapiro Wilk GOF Test**						
404				1% Shapiro Wilk Critical Value	0.912	Data Not Normal at 1% Significance Level						
405				Lilliefors Test Statistic	0.165	**Lilliefors GOF Test**						
406				1% Lilliefors Critical Value	0.17	Data appear Normal at 1% Significance Level						
407	**Data appear Approximate Normal at 1% Significance Level**											
408												
409	**Assuming Normal Distribution**											
410	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
411				95% Student's-t UCL	21.33	95% Adjusted-CLT UCL (Chen-1995)	21.8					
412						95% Modified-t UCL (Johnson-1978)	21.42					
413												
414	**Gamma GOF Test**											
415				A-D Test Statistic	0.232	**Anderson-Darling Gamma GOF Test**						
416				5% A-D Critical Value	0.758	Detected data appear Gamma Distributed at 5% Significance Level						
417				K-S Test Statistic	0.0796	**Kolmogorov-Smirnov Gamma GOF Test**						
418				5% K-S Critical Value	0.148	Detected data appear Gamma Distributed at 5% Significance Level						
419	**Detected data appear Gamma Distributed at 5% Significance Level**											
420												
421	**Gamma Statistics**											
422				k hat (MLE)	2.339	k star (bias corrected MLE)	2.163					
423				Theta hat (MLE)	7.616	Theta star (bias corrected MLE)	8.237					
424				nu hat (MLE)	168.4	nu star (bias corrected)	155.7					
425				MLE Mean (bias corrected)	17.82	MLE Sd (bias corrected)	12.11					
426						Approximate Chi Square Value (0.05)	127.9					
427				Adjusted Level of Significance	0.0428	Adjusted Chi Square Value	126.7					
428												
429	**Assuming Gamma Distribution**											
430				95% Approximate Gamma UCL	21.7	95% Adjusted Gamma UCL	21.89					
431												
432	**Lognormal GOF Test**											
433				Shapiro Wilk Test Statistic	0.988	**Shapiro Wilk Lognormal GOF Test**						
434				10% Shapiro Wilk Critical Value	0.945	Data appear Lognormal at 10% Significance Level						
435				Lilliefors Test Statistic	0.0843	**Lilliefors Lognormal GOF Test**						
436				10% Lilliefors Critical Value	0.134	Data appear Lognormal at 10% Significance Level						
437	**Data appear Lognormal at 10% Significance Level**											
438												
439	**Lognormal Statistics**											
440				Minimum of Logged Data	0.756	Mean of logged Data	2.652					
441				Maximum of Logged Data	4.106	SD of logged Data	0.71					
442												
443	**Assuming Lognormal Distribution**											
444				95% H-UCL	23.42	90% Chebyshev (MVUE) UCL	25.07					
445				95% Chebyshev (MVUE) UCL	28.24	97.5% Chebyshev (MVUE) UCL	32.64					
446				99% Chebyshev (MVUE) UCL	41.27							
447												
448	**Nonparametric Distribution Free UCL Statistics**											
449	**Data appear to follow a Discernible Distribution**											
450												
451	**Nonparametric Distribution Free UCLs**											
452				95% CLT UCL	21.24	95% BCA Bootstrap UCL	21.54					
453				95% Standard Bootstrap UCL	21.18	95% Bootstrap-t UCL	22.07					
454				95% Hall's Bootstrap UCL	22.31	95% Percentile Bootstrap UCL	21.34					
455				90% Chebyshev(Mean, Sd) UCL	24.06	95% Chebyshev(Mean, Sd) UCL	26.89					
456				97.5% Chebyshev(Mean, Sd) UCL	30.81	99% Chebyshev(Mean, Sd) UCL	38.52					
457												
458	**Suggested UCL to Use**											
459				95% Student's-t UCL	21.33							
460												
461	When a data set follows an approximate distribution passing only one of the GOF tests,											
462	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
463												
464	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
465	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
466	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
467												
468												
469	**Lead**											

470											
471	**General Statistics**										
472	Total Number of Observations				36	Number of Distinct Observations					36
473						Number of Missing Observations					31
474	Minimum				4.43	Mean					58.27
475	Maximum				206	Median					50
476	SD				47.94	Std. Error of Mean					7.99
477	Coefficient of Variation				0.823	Skewness					1.228
478											
479	**Normal GOF Test**										
480	Shapiro Wilk Test Statistic				0.894	**Shapiro Wilk GOF Test**					
481	1% Shapiro Wilk Critical Value				0.912	Data Not Normal at 1% Significance Level					
482	Lilliefors Test Statistic				0.131	**Lilliefors GOF Test**					
483	1% Lilliefors Critical Value				0.17	Data appear Normal at 1% Significance Level					
484	**Data appear Approximate Normal at 1% Significance Level**										
485											
486	**Assuming Normal Distribution**										
487	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**					
488	95% Student's-t UCL				71.77	95% Adjusted-CLT UCL (Chen-1995)					73.16
489						95% Modified-t UCL (Johnson-1978)					72.04
490											
491	**Gamma GOF Test**										
492	A-D Test Statistic				0.234	**Anderson-Darling Gamma GOF Test**					
493	5% A-D Critical Value				0.769	Detected data appear Gamma Distributed at 5% Significance Level					
494	K-S Test Statistic				0.0738	**Kolmogorov-Smirnov Gamma GOF Test**					
495	5% K-S Critical Value				0.15	Detected data appear Gamma Distributed at 5% Significance Level					
496	**Detected data appear Gamma Distributed at 5% Significance Level**										
497											
498	**Gamma Statistics**										
499	k hat (MLE)				1.349	k star (bias corrected MLE)					1.255
500	Theta hat (MLE)				43.18	Theta star (bias corrected MLE)					46.41
501	nu hat (MLE)				97.15	nu star (bias corrected)					90.39
502	MLE Mean (bias corrected)				58.27	MLE Sd (bias corrected)					52
503						Approximate Chi Square Value (0.05)					69.47
504	Adjusted Level of Significance				0.0428	Adjusted Chi Square Value					68.63
505											
506	**Assuming Gamma Distribution**										
507	95% Approximate Gamma UCL				75.82	95% Adjusted Gamma UCL					76.74
508											
509	**Lognormal GOF Test**										
510	Shapiro Wilk Test Statistic				0.936	**Shapiro Wilk Lognormal GOF Test**					
511	10% Shapiro Wilk Critical Value				0.945	Data Not Lognormal at 10% Significance Level					
512	Lilliefors Test Statistic				0.125	**Lilliefors Lognormal GOF Test**					
513	10% Lilliefors Critical Value				0.134	Data appear Lognormal at 10% Significance Level					
514	**Data appear Approximate Lognormal at 10% Significance Level**										
515											
516	**Lognormal Statistics**										
517	Minimum of Logged Data				1.488	Mean of logged Data					3.651
518	Maximum of Logged Data				5.328	SD of logged Data					1.04
519											
520	**Assuming Lognormal Distribution**										
521	95% H-UCL				101.4	90% Chebyshev (MVUE) UCL					104
522	95% Chebyshev (MVUE) UCL				121.9	97.5% Chebyshev (MVUE) UCL					146.6
523	99% Chebyshev (MVUE) UCL				195.2						
524											
525	**Nonparametric Distribution Free UCL Statistics**										
526	**Data appear to follow a Discernible Distribution**										
527											
528	**Nonparametric Distribution Free UCLs**										
529	95% CLT UCL				71.41	95% BCA Bootstrap UCL					72.48
530	95% Standard Bootstrap UCL				71.21	95% Bootstrap-t UCL					74.05
531	95% Hall's Bootstrap UCL				74.34	95% Percentile Bootstrap UCL					71.84
532	90% Chebyshev(Mean, Sd) UCL				82.24	95% Chebyshev(Mean, Sd) UCL					93.1
533	97.5% Chebyshev(Mean, Sd) UCL				108.2	99% Chebyshev(Mean, Sd) UCL					137.8
534											
535	**Suggested UCL to Use**										
536	95% Student's-t UCL				71.77						

When a data set follows an approximate distribution passing only one of the GOF tests,
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury

General Statistics

Total Number of Observations	36	Number of Distinct Observations	35
		Number of Missing Observations	31
Number of Detects	31	Number of Non-Detects	5
Number of Distinct Detects	30	Number of Distinct Non-Detects	5
Minimum Detect	0.0133	Minimum Non-Detect	0.0675
Maximum Detect	0.37	Maximum Non-Detect	0.374
Variance Detects	0.00614	Percent Non-Detects	13.89%
Mean Detects	0.107	SD Detects	0.0783
Median Detects	0.0976	CV Detects	0.731
Skewness Detects	1.438	Kurtosis Detects	2.93
Mean of Logged Detects	-2.506	SD of Logged Detects	0.798

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.886	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.902	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.177	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.182	Detected Data appear Normal at 1% Significance Level

Detected Data appear Approximate Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.101	KM Standard Error of Mean	0.0132
90KM SD	0.0758	95% KM (BCA) UCL	0.122
95% KM (t) UCL	0.123	95% KM (Percentile Bootstrap) UCL	0.122
95% KM (z) UCL	0.123	95% KM Bootstrap t UCL	0.129
90% KM Chebyshev UCL	0.141	95% KM Chebyshev UCL	0.159
97.5% KM Chebyshev UCL	0.183	99% KM Chebyshev UCL	0.232

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.271	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.759	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0975	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.16	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.982	k star (bias corrected MLE)	1.812
Theta hat (MLE)	0.0541	Theta star (bias corrected MLE)	0.0591
nu hat (MLE)	122.9	nu star (bias corrected)	112.3
Mean (detects)	0.107		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)
For such situations, GROS method may yield incorrect values of UCLs and BTVs
This is especially true when the sample size is small.
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0133	Mean	0.1
Maximum	0.37	Median	0.0856
SD	0.075	CV	0.748
k hat (MLE)	2.046	k star (bias corrected MLE)	1.894
Theta hat (MLE)	0.049	Theta star (bias corrected MLE)	0.0529
nu hat (MLE)	147.3	nu star (bias corrected)	136.4
Adjusted Level of Significance (β)	0.0428		
Approximate Chi Square Value (136.38, α)	110.4	Adjusted Chi Square Value (136.38, β)	109.3
95% Gamma Approximate UCL	0.124	95% Gamma Adjusted UCL	0.125

604	**Estimates of Gamma Parameters using KM Estimates**											
605					Mean (KM)	0.101				SD (KM)	0.0758	
606					Variance (KM)	0.00574				SE of Mean (KM)	0.0132	
607					k hat (KM)	1.781				k star (KM)	1.651	
608					nu hat (KM)	128.3				nu star (KM)	118.9	
609					theta hat (KM)	0.0568				theta star (KM)	0.0612	
610					80% gamma percentile (KM)	0.155				90% gamma percentile (KM)	0.206	
611					95% gamma percentile (KM)	0.255				99% gamma percentile (KM)	0.366	
612												
613	**Gamma Kaplan-Meier (KM) Statistics**											
614					Approximate Chi Square Value (118.90, α)	94.72				Adjusted Chi Square Value (118.90, β)	93.75	
615					95% KM Approximate Gamma UCL	0.127				95% KM Adjusted Gamma UCL	0.128	
616												
617	**Lognormal GOF Test on Detected Observations Only**											
618					Shapiro Wilk Test Statistic	0.969				**Shapiro Wilk GOF Test**		
619					10% Shapiro Wilk Critical Value	0.94				Detected Data appear Lognormal at 10% Significance Level		
620					Lilliefors Test Statistic	0.13				**Lilliefors GOF Test**		
621					10% Lilliefors Critical Value	0.143				Detected Data appear Lognormal at 10% Significance Level		
622	**Detected Data appear Lognormal at 10% Significance Level**											
623												
624	**Lognormal ROS Statistics Using Imputed Non-Detects**											
625					Mean in Original Scale	0.0999				Mean in Log Scale	-2.568	
626					SD in Original Scale	0.0751				SD in Log Scale	0.763	
627					95% t UCL (assumes normality of ROS data)	0.121				95% Percentile Bootstrap UCL	0.121	
628					95% BCA Bootstrap UCL	0.123				95% Bootstrap t UCL	0.126	
629					95% H-UCL (Log ROS)	0.135						
630												
631	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
632					KM Mean (logged)	-2.578				KM Geo Mean	0.076	
633					KM SD (logged)	0.794				95% Critical H Value (KM-Log)	2.165	
634					KM Standard Error of Mean (logged)	0.141				95% H-UCL (KM -Log)	0.139	
635					KM SD (logged)	0.794				95% Critical H Value (KM-Log)	2.165	
636					KM Standard Error of Mean (logged)	0.141						
637												
638	**DL/2 Statistics**											
639	**DL/2 Normal**									**DL/2 Log-Transformed**		
640					Mean in Original Scale	0.105				Mean in Log Scale	-2.526	
641					SD in Original Scale	0.0766				SD in Log Scale	0.787	
642					95% t UCL (Assumes normality)	0.127				95% H-Stat UCL	0.145	
643	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
644												
645	**Nonparametric Distribution Free UCL Statistics**											
646	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
647												
648	**Suggested UCL to Use**											
649					95% KM (t) UCL	0.123						
650												
651	When a data set follows an approximate distribution passing only one of the GOF tests,											
652	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
653												
654	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
655	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
656	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
657												
658	**Silver**											
659												
660	**General Statistics**											
661					Total Number of Observations	36				Number of Distinct Observations	35	
662										Number of Missing Observations	31	
663					Number of Detects	2				Number of Non-Detects	34	
664					Number of Distinct Detects	2				Number of Distinct Non-Detects	33	
665					Minimum Detect	0.943				Minimum Non-Detect	0.085	
666					Maximum Detect	1.58				Maximum Non-Detect	3.14	
667					Variance Detects	0.203				Percent Non-Detects	94.44%	
668					Mean Detects	1.262				SD Detects	0.45	
669					Median Detects	1.262				CV Detects	0.357	
670					Skewness Detects	N/A				Kurtosis Detects	N/A	

671				Mean of Logged Detects		0.199				SD of Logged Detects		0.365
672												
673						**Warning: Data set has only 2 Detected Values.**							
674						**This is not enough to compute meaningful or reliable statistics and estimates.**						
675												
676												
677						**Normal GOF Test on Detects Only**							
678						**Not Enough Data to Perform GOF Test**							
679												
680						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
681				KM Mean		0.184				KM Standard Error of Mean		0.0956
682				90KM SD		0.332				95% KM (BCA) UCL		N/A
683				95% KM (t) UCL		0.345				95% KM (Percentile Bootstrap) UCL		N/A
684				95% KM (z) UCL		0.341				95% KM Bootstrap t UCL		N/A
685				90% KM Chebyshev UCL		0.471				95% KM Chebyshev UCL		0.6
686				97.5% KM Chebyshev UCL		0.781				99% KM Chebyshev UCL		1.135
687												
688						**Gamma GOF Tests on Detected Observations Only**							
689						**Not Enough Data to Perform GOF Test**							
690												
691						**Gamma Statistics on Detected Data Only**							
692				k hat (MLE)		15.35				k star (bias corrected MLE)		N/A
693				Theta hat (MLE)		0.0822				Theta star (bias corrected MLE)		N/A
694				nu hat (MLE)		61.39				nu star (bias corrected)		N/A
695				Mean (detects)		1.262						
696												
697						**Estimates of Gamma Parameters using KM Estimates**							
698				Mean (KM)		0.184				SD (KM)		0.332
699				Variance (KM)		0.11				SE of Mean (KM)		0.0956
700				k hat (KM)		0.306				k star (KM)		0.299
701				nu hat (KM)		22.06				nu star (KM)		21.56
702				theta hat (KM)		0.6				theta star (KM)		0.614
703				80% gamma percentile (KM)		0.282				90% gamma percentile (KM)		0.542
704				95% gamma percentile (KM)		0.842				99% gamma percentile (KM)		1.619
705												
706						**Gamma Kaplan-Meier (KM) Statistics**							
707										Adjusted Level of Significance (β)		0.0428
708				Approximate Chi Square Value (21.56, α)		12.01				Adjusted Chi Square Value (21.56, β)		11.68
709				95% KM Approximate Gamma UCL		0.33				95% KM Adjusted Gamma UCL		0.339
710												
711						**Lognormal GOF Test on Detected Observations Only**							
712						**Not Enough Data to Perform GOF Test**							
713												
714						**Lognormal ROS Statistics Using Imputed Non-Detects**							
715				Mean in Original Scale		0.269				Mean in Log Scale		-1.464
716				SD in Original Scale		0.257				SD in Log Scale		0.427
717				95% t UCL (assumes normality of ROS data)		0.342				95% Percentile Bootstrap UCL		0.346
718				95% BCA Bootstrap UCL		0.384				95% Bootstrap t UCL		0.907
719				95% H-UCL (Log ROS)		0.29						
720												
721						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
722				KM Mean (logged)		-2.235				KM Geo Mean		0.107
723				KM SD (logged)		0.746				95% Critical H Value (KM-Log)		2.118
724				KM Standard Error of Mean (logged)		0.221				95% H-UCL (KM -Log)		0.185
725				KM SD (logged)		0.746				95% Critical H Value (KM-Log)		2.118
726				KM Standard Error of Mean (logged)		0.221						
727						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
728												
729						**DL/2 Statistics**							
730				**DL/2 Normal**						**DL/2 Log-Transformed**		
731				Mean in Original Scale		0.55				Mean in Log Scale		-0.926
732				SD in Original Scale		0.414				SD in Log Scale		0.877
733				95% t UCL (Assumes normality)		0.667				95% H-Stat UCL		0.811
734						**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
735												
736						**Nonparametric Distribution Free UCL Statistics**							
737						**Data do not follow a Discernible Distribution**							

738												
739	**Suggested UCL to Use**											
740				95% KM (t) UCL	0.345							
741												
742	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
743	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
744	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
745												
746												
747	**Zinc**											
748												
749	**General Statistics**											
750				Total Number of Observations	36			Number of Distinct Observations	34			
751								Number of Missing Observations	31			
752				Minimum	18.1			Mean	88.99			
753				Maximum	340			Median	68.7			
754				SD	65.42			Std. Error of Mean	10.9			
755				Coefficient of Variation	0.735			Skewness	1.835			
756												
757	**Normal GOF Test**											
758				Shapiro Wilk Test Statistic	0.832			**Shapiro Wilk GOF Test**				
759				1% Shapiro Wilk Critical Value	0.912			Data Not Normal at 1% Significance Level				
760				Lilliefors Test Statistic	0.2			**Lilliefors GOF Test**				
761				1% Lilliefors Critical Value	0.17			Data Not Normal at 1% Significance Level				
762	**Data Not Normal at 1% Significance Level**											
763												
764	**Assuming Normal Distribution**											
765				**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**				
766				95% Student's-t UCL	107.4			95% Adjusted-CLT UCL (Chen-1995)	110.5			
767								95% Modified-t UCL (Johnson-1978)	108			
768												
769	**Gamma GOF Test**											
770				A-D Test Statistic	0.459			**Anderson-Darling Gamma GOF Test**				
771				5% A-D Critical Value	0.758			Detected data appear Gamma Distributed at 5% Significance Level				
772				K-S Test Statistic	0.129			**Kolmogorov-Smirnov Gamma GOF Test**				
773				5% K-S Critical Value	0.148			Detected data appear Gamma Distributed at 5% Significance Level				
774	**Detected data appear Gamma Distributed at 5% Significance Level**											
775												
776	**Gamma Statistics**											
777				k hat (MLE)	2.341			k star (bias corrected MLE)	2.164			
778				Theta hat (MLE)	38.02			Theta star (bias corrected MLE)	41.12			
779				nu hat (MLE)	168.5			nu star (bias corrected)	155.8			
780				MLE Mean (bias corrected)	88.99			MLE Sd (bias corrected)	60.49			
781								Approximate Chi Square Value (0.05)	128			
782				Adjusted Level of Significance	0.0428			Adjusted Chi Square Value	126.8			
783												
784	**Assuming Gamma Distribution**											
785				95% Approximate Gamma UCL	108.4			95% Adjusted Gamma UCL	109.3			
786												
787	**Lognormal GOF Test**											
788				Shapiro Wilk Test Statistic	0.98			**Shapiro Wilk Lognormal GOF Test**				
789				10% Shapiro Wilk Critical Value	0.945			Data appear Lognormal at 10% Significance Level				
790				Lilliefors Test Statistic	0.0831			**Lilliefors Lognormal GOF Test**				
791				10% Lilliefors Critical Value	0.134			Data appear Lognormal at 10% Significance Level				
792	**Data appear Lognormal at 10% Significance Level**											
793												
794	**Lognormal Statistics**											
795				Minimum of Logged Data	2.896			Mean of logged Data	4.26			
796				Maximum of Logged Data	5.829			SD of logged Data	0.686			
797												
798	**Assuming Lognormal Distribution**											
799				95% H-UCL	113.8			90% Chebyshev (MVUE) UCL	121.9			
800				95% Chebyshev (MVUE) UCL	136.9			97.5% Chebyshev (MVUE) UCL	157.6			
801				99% Chebyshev (MVUE) UCL	198.4							
802												
803	**Nonparametric Distribution Free UCL Statistics**											
804	**Data appear to follow a Discernible Distribution**											

805											
806	**Nonparametric Distribution Free UCLs**										
807	95% CLT UCL	106.9	95% BCA Bootstrap UCL	109.8							
808	95% Standard Bootstrap UCL	106.8	95% Bootstrap-t UCL	111.8							
809	95% Hall's Bootstrap UCL	115.5	95% Percentile Bootstrap UCL	107.7							
810	90% Chebyshev(Mean, Sd) UCL	121.7	95% Chebyshev(Mean, Sd) UCL	136.5							
811	97.5% Chebyshev(Mean, Sd) UCL	157.1	99% Chebyshev(Mean, Sd) UCL	197.5							
812											
813	**Suggested UCL to Use**										
814	95% Adjusted Gamma UCL	109.3									
815											
816	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
817	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
818	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
819											
820	**Acenaphthene**										
821											
822	**General Statistics**										
823	Total Number of Observations	22	Number of Distinct Observations	20							
824			Number of Missing Observations	45							
825	Number of Detects	3	Number of Non-Detects	19							
826	Number of Distinct Detects	3	Number of Distinct Non-Detects	17							
827	Minimum Detect	34	Minimum Non-Detect	0.35							
828	Maximum Detect	99	Maximum Non-Detect	2000							
829	Variance Detects	1063	Percent Non-Detects	86.36%							
830	Mean Detects	68	SD Detects	32.6							
831	Median Detects	71	CV Detects	0.479							
832	Skewness Detects	-0.411	Kurtosis Detects	N/A							
833	Mean of Logged Detects	4.128	SD of Logged Detects	0.547							
834											
835	**Warning: Data set has only 3 Detected Values.**										
836	**This is not enough to compute meaningful or reliable statistics and estimates.**										
837											
838											
839	**Normal GOF Test on Detects Only**										
840	Shapiro Wilk Test Statistic	0.994	**Shapiro Wilk GOF Test**								
841	1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level								
842	Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**								
843	1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level								
844	**Detected Data appear Normal at 1% Significance Level**										
845	**Note GOF tests may be unreliable for small sample sizes**										
846											
847	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
848	KM Mean	36.04	KM Standard Error of Mean	19.28							
849	90KM SD	37.83	95% KM (BCA) UCL	N/A							
850	95% KM (t) UCL	69.23	95% KM (Percentile Bootstrap) UCL	N/A							
851	95% KM (z) UCL	67.76	95% KM Bootstrap t UCL	N/A							
852	90% KM Chebyshev UCL	93.89	95% KM Chebyshev UCL	120.1							
853	97.5% KM Chebyshev UCL	156.5	99% KM Chebyshev UCL	227.9							
854											
855	**Gamma GOF Tests on Detected Observations Only**										
856	A-D Test Statistic	0.287	**Anderson-Darling GOF Test**								
857	5% A-D Critical Value	0.637	Detected data appear Gamma Distributed at 5% Significance Level								
858	K-S Test Statistic	0.263	**Kolmogorov-Smirnov GOF**								
859	5% K-S Critical Value	0.433	Detected data appear Gamma Distributed at 5% Significance Level								
860	**Detected Data Not Gamma Distributed at 5% Significance Level**										
861											
862	**Gamma Statistics on Detected Data Only**										
863	k hat (MLE)	5.629	k star (bias corrected MLE)	N/A							
864	Theta hat (MLE)	12.08	Theta star (bias corrected MLE)	N/A							
865	nu hat (MLE)	33.77	nu star (bias corrected)	N/A							
866	Mean (detects)	68									
867											
868	**Gamma ROS Statistics using Imputed Non-Detects**										
869	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
870	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
871	For such situations, GROS method may yield incorrect values of UCLs and BTVs										

872	This is especially true when the sample size is small.											
873	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
874					Minimum	0.01			Mean	29.75		
875					Maximum	99			Median	27.37		
876					SD	22.6			CV	0.76		
877					k hat (MLE)	0.733			k star (bias corrected MLE)	0.664		
878					Theta hat (MLE)	40.56			Theta star (bias corrected MLE)	44.82		
879					nu hat (MLE)	32.27			nu star (bias corrected)	29.21		
880					Adjusted Level of Significance (β)	0.0386						
881					Approximate Chi Square Value (29.21, α)	17.87			Adjusted Chi Square Value (29.21, β)	17.21		
882					95% Gamma Approximate UCL	48.62			95% Gamma Adjusted UCL	N/A		
883												
884	**Estimates of Gamma Parameters using KM Estimates**											
885					Mean (KM)	36.04			SD (KM)	37.83		
886					Variance (KM)	1431			SE of Mean (KM)	19.28		
887					k hat (KM)	0.908			k star (KM)	0.814		
888					nu hat (KM)	39.94			nu star (KM)	35.82		
889					theta hat (KM)	39.71			theta star (KM)	44.27		
890					80% gamma percentile (KM)	58.85			90% gamma percentile (KM)	87.27		
891					95% gamma percentile (KM)	116.2			99% gamma percentile (KM)	184.4		
892												
893	**Gamma Kaplan-Meier (KM) Statistics**											
894					Approximate Chi Square Value (35.82, α)	23.13			Adjusted Chi Square Value (35.82, β)	22.37		
895					95% KM Approximate Gamma UCL	55.83			95% KM Adjusted Gamma UCL	57.73		
896												
897	**Lognormal GOF Test on Detected Observations Only**											
898					Shapiro Wilk Test Statistic	0.955			**Shapiro Wilk GOF Test**			
899					10% Shapiro Wilk Critical Value	0.789			Detected Data appear Lognormal at 10% Significance Level			
900					Lilliefors Test Statistic	0.264			**Lilliefors GOF Test**			
901					10% Lilliefors Critical Value	0.389			Detected Data appear Lognormal at 10% Significance Level			
902	**Detected Data appear Lognormal at 10% Significance Level**											
903	**Note GOF tests may be unreliable for small sample sizes**											
904												
905	**Lognormal ROS Statistics Using Imputed Non-Detects**											
906					Mean in Original Scale	34.22			Mean in Log Scale	3.427		
907					SD in Original Scale	18.84			SD in Log Scale	0.447		
908					95% t UCL (assumes normality of ROS data)	41.13			95% Percentile Bootstrap UCL	41.59		
909					95% BCA Bootstrap UCL	43			95% Bootstrap t UCL	46.05		
910					95% H-UCL (Log ROS)	41.16						
911												
912	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
913					KM Mean (logged)	1.793			KM Geo Mean	6.01		
914					KM SD (logged)	2.566			95% Critical H Value (KM-Log)	5.189		
915					KM Standard Error of Mean (logged)	1.38			95% H-UCL (KM -Log)	2955		
916					KM SD (logged)	2.566			95% Critical H Value (KM-Log)	5.189		
917					KM Standard Error of Mean (logged)	1.38						
918												
919	**DL/2 Statistics**											
920	**DL/2 Normal**								**DL/2 Log-Transformed**			
921					Mean in Original Scale	147.7			Mean in Log Scale	4.196		
922					SD in Original Scale	227.9			SD in Log Scale	1.64		
923					95% t UCL (Assumes normality)	231.3			95% H-Stat UCL	916.3		
924	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
925												
926	**Nonparametric Distribution Free UCL Statistics**											
927	**Detected Data appear Normal Distributed at 1% Significance Level**											
928												
929	**Suggested UCL to Use**											
930					95% KM (t) UCL	69.23						
931												
932	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
933	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
934	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
935												
936	**Acenaphthylene**											
937												
938	**General Statistics**											

939				Total Number of Observations		22			Number of Distinct Observations			22
940									Number of Missing Observations			45
941				Number of Detects		10			Number of Non-Detects			12
942				Number of Distinct Detects		10			Number of Distinct Non-Detects			12
943				Minimum Detect		1.4			Minimum Non-Detect			105
944				Maximum Detect		210			Maximum Non-Detect			2000
945				Variance Detects		4460			Percent Non-Detects			54.55%
946				Mean Detects		80.34			SD Detects			66.78
947				Median Detects		60			CV Detects			0.831
948				Skewness Detects		1.32			Kurtosis Detects			0.844
949				Mean of Logged Detects		3.907			SD of Logged Detects			1.38
950												
951				**Normal GOF Test on Detects Only**								
952				Shapiro Wilk Test Statistic		0.812			**Shapiro Wilk GOF Test**			
953				1% Shapiro Wilk Critical Value		0.781			Detected Data appear Normal at 1% Significance Level			
954				Lilliefors Test Statistic		0.296			**Lilliefors GOF Test**			
955				1% Lilliefors Critical Value		0.304			Detected Data appear Normal at 1% Significance Level			
956				**Detected Data appear Normal at 1% Significance Level**								
957												
958				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
959				KM Mean		69.12			KM Standard Error of Mean			15.03
960				90KM SD		53.97			95% KM (BCA) UCL			95
961				95% KM (t) UCL		94.98			95% KM (Percentile Bootstrap) UCL			95.43
962				95% KM (z) UCL		93.84			95% KM Bootstrap t UCL			111.5
963				90% KM Chebyshev UCL		114.2			95% KM Chebyshev UCL			134.6
964				97.5% KM Chebyshev UCL		163			99% KM Chebyshev UCL			218.7
965				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
966												
967				**Gamma GOF Tests on Detected Observations Only**								
968				A-D Test Statistic		0.633			**Anderson-Darling GOF Test**			
969				5% A-D Critical Value		0.745			Detected data appear Gamma Distributed at 5% Significance Level			
970				K-S Test Statistic		0.253			**Kolmogorov-Smirnov GOF**			
971				5% K-S Critical Value		0.273			Detected data appear Gamma Distributed at 5% Significance Level			
972				**Detected data appear Gamma Distributed at 5% Significance Level**								
973												
974				**Gamma Statistics on Detected Data Only**								
975				k hat (MLE)		1.182			k star (bias corrected MLE)			0.894
976				Theta hat (MLE)		67.95			Theta star (bias corrected MLE)			89.83
977				nu hat (MLE)		23.65			nu star (bias corrected)			17.89
978				Mean (detects)		80.34						
979												
980				**Gamma ROS Statistics using Imputed Non-Detects**								
981				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
982				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
983				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
984				This is especially true when the sample size is small.								
985				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
986				Minimum		1.4			Mean			64.62
987				Maximum		210			Median			55.44
988				SD		46.22			CV			0.715
989				k hat (MLE)		2.201			k star (bias corrected MLE)			1.932
990				Theta hat (MLE)		29.35			Theta star (bias corrected MLE)			33.45
991				nu hat (MLE)		96.86			nu star (bias corrected)			84.99
992				Adjusted Level of Significance (β)		0.0386						
993				Approximate Chi Square Value (84.99, α)		64.74			Adjusted Chi Square Value (84.99, β)			63.42
994				95% Gamma Approximate UCL		84.83			95% Gamma Adjusted UCL			86.59
995												
996				**Estimates of Gamma Parameters using KM Estimates**								
997				Mean (KM)		69.12			SD (KM)			53.97
998				Variance (KM)		2913			SE of Mean (KM)			15.03
999				k hat (KM)		1.64			k star (KM)			1.447
1000				nu hat (KM)		72.17			nu star (KM)			63.66
1001				theta hat (KM)		42.14			theta star (KM)			47.77
1002				80% gamma percentile (KM)		107.4			90% gamma percentile (KM)			145.3
1003				95% gamma percentile (KM)		182.2			99% gamma percentile (KM)			265.9
1004												
1005				**Gamma Kaplan-Meier (KM) Statistics**								

1006	Approximate Chi Square Value (63.66, α)					46.31	Adjusted Chi Square Value (63.66, β)					45.2
1007	95% KM Approximate Gamma UCL					95.03	95% KM Adjusted Gamma UCL					97.35
1008	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1009												
1010	**Lognormal GOF Test on Detected Observations Only**											
1011	Shapiro Wilk Test Statistic					0.749	**Shapiro Wilk GOF Test**					
1012	10% Shapiro Wilk Critical Value					0.869	Detected Data Not Lognormal at 10% Significance Level					
1013	Lilliefors Test Statistic					0.33	**Lilliefors GOF Test**					
1014	10% Lilliefors Critical Value					0.241	Detected Data Not Lognormal at 10% Significance Level					
1015	**Detected Data Not Lognormal at 10% Significance Level**											
1016												
1017	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1018	Mean in Original Scale					57.23	Mean in Log Scale					3.757
1019	SD in Original Scale					48.83	SD in Log Scale					0.917
1020	95% t UCL (assumes normality of ROS data)					75.15	95% Percentile Bootstrap UCL					75.21
1021	95% BCA Bootstrap UCL					80.41	95% Bootstrap t UCL					102.6
1022	95% H-UCL (Log ROS)					106.9						
1023												
1024	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1025	KM Mean (logged)					3.777	KM Geo Mean					43.68
1026	KM SD (logged)					1.295	95% Critical H Value (KM-Log)					3.016
1027	KM Standard Error of Mean (logged)					0.432	95% H-UCL (KM -Log)					236.7
1028	KM SD (logged)					1.295	95% Critical H Value (KM-Log)					3.016
1029	KM Standard Error of Mean (logged)					0.432						
1030												
1031	**DL/2 Statistics**											
1032	**DL/2 Normal**						**DL/2 Log-Transformed**					
1033	Mean in Original Scale					158.8	Mean in Log Scale					4.433
1034	SD in Original Scale					226.7	SD in Log Scale					1.257
1035	95% t UCL (Assumes normality)					241.9	95% H-Stat UCL					417.5
1036	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1037												
1038	**Nonparametric Distribution Free UCL Statistics**											
1039	**Detected Data appear Normal Distributed at 1% Significance Level**											
1040												
1041	**Suggested UCL to Use**											
1042	95% KM (t) UCL					94.98						
1043												
1044	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1045	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1046	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1047												
1048	**Anthracene**											
1049												
1050	**General Statistics**											
1051	Total Number of Observations					22	Number of Distinct Observations					20
1052							Number of Missing Observations					45
1053	Number of Detects					13	Number of Non-Detects					9
1054	Number of Distinct Detects					12	Number of Distinct Non-Detects					9
1055	Minimum Detect					1.7	Minimum Non-Detect					105
1056	Maximum Detect					440	Maximum Non-Detect					2000
1057	Variance Detects					12458	Percent Non-Detects					40.91%
1058	Mean Detects					164	SD Detects					111.6
1059	Median Detects					160	CV Detects					0.681
1060	Skewness Detects					1.077	Kurtosis Detects					2.344
1061	Mean of Logged Detects					4.665	SD of Logged Detects					1.388
1062												
1063	**Normal GOF Test on Detects Only**											
1064	Shapiro Wilk Test Statistic					0.92	**Shapiro Wilk GOF Test**					
1065	1% Shapiro Wilk Critical Value					0.814	Detected Data appear Normal at 1% Significance Level					
1066	Lilliefors Test Statistic					0.186	**Lilliefors GOF Test**					
1067	1% Lilliefors Critical Value					0.271	Detected Data appear Normal at 1% Significance Level					
1068	**Detected Data appear Normal at 1% Significance Level**											
1069												
1070	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1071	KM Mean					132.9	KM Standard Error of Mean					26.68
1072	90KM SD					106.1	95% KM (BCA) UCL					179.7

1073					95% KM (t) UCL	178.8			95% KM (Percentile Bootstrap) UCL			181
1074					95% KM (z) UCL	176.7			95% KM Bootstrap t UCL			187.5
1075					90% KM Chebyshev UCL	212.9			95% KM Chebyshev UCL			249.2
1076					97.5% KM Chebyshev UCL	299.5			99% KM Chebyshev UCL			398.3
1077	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1078												
1079	**Gamma GOF Tests on Detected Observations Only**											
1080					A-D Test Statistic	0.764	**Anderson-Darling GOF Test**					
1081					5% A-D Critical Value	0.753	Detected Data Not Gamma Distributed at 5% Significance Level					
1082					K-S Test Statistic	0.242	**Kolmogorov-Smirnov GOF**					
1083					5% K-S Critical Value	0.242	Detected Data Not Gamma Distributed at 5% Significance Level					
1084	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1085												
1086	**Gamma Statistics on Detected Data Only**											
1087					k hat (MLE)	1.293			k star (bias corrected MLE)			1.046
1088					Theta hat (MLE)	126.9			Theta star (bias corrected MLE)			156.8
1089					nu hat (MLE)	33.61			nu star (bias corrected)			27.19
1090					Mean (detects)	164						
1091												
1092	**Gamma ROS Statistics using Imputed Non-Detects**											
1093	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1094	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1095	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1096	This is especially true when the sample size is small.											
1097	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1098					Minimum	1.7			Mean			130.1
1099					Maximum	440			Median			107.8
1100					SD	95.8			CV			0.736
1101					k hat (MLE)	1.621			k star (bias corrected MLE)			1.43
1102					Theta hat (MLE)	80.25			Theta star (bias corrected MLE)			90.95
1103					nu hat (MLE)	71.32			nu star (bias corrected)			62.93
1104					Adjusted Level of Significance (β)	0.0386						
1105					Approximate Chi Square Value (62.93, α)	45.68			Adjusted Chi Square Value (62.93, β)			44.58
1106					95% Gamma Approximate UCL	179.2			95% Gamma Adjusted UCL			183.6
1107												
1108	**Estimates of Gamma Parameters using KM Estimates**											
1109					Mean (KM)	132.9			SD (KM)			106.1
1110					Variance (KM)	11250			SE of Mean (KM)			26.68
1111					k hat (KM)	1.569			k star (KM)			1.385
1112					nu hat (KM)	69.04			nu star (KM)			60.96
1113					theta hat (KM)	84.68			theta star (KM)			95.9
1114					80% gamma percentile (KM)	207.3			90% gamma percentile (KM)			282.3
1115					95% gamma percentile (KM)	355.5			99% gamma percentile (KM)			521.6
1116												
1117	**Gamma Kaplan-Meier (KM) Statistics**											
1118					Approximate Chi Square Value (60.96, α)	44			Adjusted Chi Square Value (60.96, β)			42.92
1119					95% KM Approximate Gamma UCL	184.1			95% KM Adjusted Gamma UCL			188.7
1120	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1121												
1122	**Lognormal GOF Test on Detected Observations Only**											
1123					Shapiro Wilk Test Statistic	0.717	**Shapiro Wilk GOF Test**					
1124					10% Shapiro Wilk Critical Value	0.889	Detected Data Not Lognormal at 10% Significance Level					
1125					Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**					
1126					10% Lilliefors Critical Value	0.215	Detected Data Not Lognormal at 10% Significance Level					
1127	**Detected Data Not Lognormal at 10% Significance Level**											
1128												
1129	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1130					Mean in Original Scale	117.2			Mean in Log Scale			4.305
1131					SD in Original Scale	103.1			SD in Log Scale			1.186
1132					95% t UCL (assumes normality of ROS data)	155			95% Percentile Bootstrap UCL			155.5
1133					95% BCA Bootstrap UCL	162.5			95% Bootstrap t UCL			170.2
1134					95% H-UCL (Log ROS)	313.1						
1135												
1136	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1137					KM Mean (logged)	4.243			KM Geo Mean			69.65
1138					KM SD (logged)	1.586			95% Critical H Value (KM-Log)			3.482
1139					KM Standard Error of Mean (logged)	0.494			95% H-UCL (KM -Log)			817.2

1140				KM SD (logged)	1.586			95% Critical H Value (KM-Log)			3.482
1141				KM Standard Error of Mean (logged)	0.494						
1142											
1143				**DL/2 Statistics**							
1144				**DL/2 Normal**				**DL/2 Log-Transformed**			
1145				Mean in Original Scale	208			Mean in Log Scale			4.819
1146				SD in Original Scale	224.1			SD in Log Scale			1.264
1147				95% t UCL (Assumes normality)	290.2			95% H-Stat UCL			624.9
1148				**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1149											
1150				**Nonparametric Distribution Free UCL Statistics**							
1151				**Detected Data appear Normal Distributed at 1% Significance Level**							
1152											
1153				**Suggested UCL to Use**							
1154				95% KM (t) UCL	178.8						
1155											
1156				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1157				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1158				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1159											
1160	**Benzo[a]anthracene**										
1161											
1162				**General Statistics**							
1163				Total Number of Observations	22			Number of Distinct Observations			20
1164								Number of Missing Observations			45
1165				Number of Detects	15			Number of Non-Detects			7
1166				Number of Distinct Detects	13			Number of Distinct Non-Detects			7
1167				Minimum Detect	7.9			Minimum Non-Detect			110
1168				Maximum Detect	1500			Maximum Non-Detect			2000
1169				Variance Detects	150930			Percent Non-Detects			31.82%
1170				Mean Detects	473.1			SD Detects			388.5
1171				Median Detects	480			CV Detects			0.821
1172				Skewness Detects	1.355			Kurtosis Detects			2.509
1173				Mean of Logged Detects	5.674			SD of Logged Detects			1.303
1174											
1175				**Normal GOF Test on Detects Only**							
1176				Shapiro Wilk Test Statistic	0.883			**Shapiro Wilk GOF Test**			
1177				1% Shapiro Wilk Critical Value	0.835			Detected Data appear Normal at 1% Significance Level			
1178				Lilliefors Test Statistic	0.211			**Lilliefors GOF Test**			
1179				1% Lilliefors Critical Value	0.255			Detected Data appear Normal at 1% Significance Level			
1180				**Detected Data appear Normal at 1% Significance Level**							
1181											
1182				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1183				KM Mean	375.5			KM Standard Error of Mean			84.31
1184				90KM SD	364.5			95% KM (BCA) UCL			522.7
1185				95% KM (t) UCL	520.6			95% KM (Percentile Bootstrap) UCL			522.7
1186				95% KM (z) UCL	514.2			95% KM Bootstrap t UCL			566.4
1187				90% KM Chebyshev UCL	628.4			95% KM Chebyshev UCL			743
1188				97.5% KM Chebyshev UCL	902			99% KM Chebyshev UCL			1214
1189											
1190				**Gamma GOF Tests on Detected Observations Only**							
1191				A-D Test Statistic	0.419			**Anderson-Darling GOF Test**			
1192				5% A-D Critical Value	0.76			Detected data appear Gamma Distributed at 5% Significance Level			
1193				K-S Test Statistic	0.191			**Kolmogorov-Smirnov GOF**			
1194				5% K-S Critical Value	0.227			Detected data appear Gamma Distributed at 5% Significance Level			
1195				**Detected data appear Gamma Distributed at 5% Significance Level**							
1196											
1197				**Gamma Statistics on Detected Data Only**							
1198				k hat (MLE)	1.169			k star (bias corrected MLE)			0.98
1199				Theta hat (MLE)	404.7			Theta star (bias corrected MLE)			482.9
1200				nu hat (MLE)	35.07			nu star (bias corrected)			29.39
1201				Mean (detects)	473.1						
1202											
1203				**Gamma ROS Statistics using Imputed Non-Detects**							
1204				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1205				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1206				For such situations, GROS method may yield incorrect values of UCLs and BTVs							

1207	This is especially true when the sample size is small.										
1208	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1209					Minimum	7.9			Mean		368.8
1210					Maximum	1500			Median		265.5
1211					SD	357			CV		0.968
1212					k hat (MLE)	1.11			k star (bias corrected MLE)		0.989
1213					Theta hat (MLE)	332.1			Theta star (bias corrected MLE)		372.8
1214					nu hat (MLE)	48.86			nu star (bias corrected)		43.53
1215					Adjusted Level of Significance (β)	0.0386					
1216					Approximate Chi Square Value (43.53, α)	29.4			Adjusted Chi Square Value (43.53, β)		28.54
1217					95% Gamma Approximate UCL	546			95% Gamma Adjusted UCL		562.6
1218											
1219	**Estimates of Gamma Parameters using KM Estimates**										
1220					Mean (KM)	375.5			SD (KM)		364.5
1221					Variance (KM)	132880			SE of Mean (KM)		84.31
1222					k hat (KM)	1.061			k star (KM)		0.947
1223					nu hat (KM)	46.69			nu star (KM)		41.65
1224					theta hat (KM)	353.9			theta star (KM)		396.6
1225					80% gamma percentile (KM)	606.9			90% gamma percentile (KM)		876.3
1226					95% gamma percentile (KM)	1147			99% gamma percentile (KM)		1778
1227											
1228	**Gamma Kaplan-Meier (KM) Statistics**										
1229					Approximate Chi Square Value (41.65, α)	27.86			Adjusted Chi Square Value (41.65, β)		27.02
1230					95% KM Approximate Gamma UCL	561.4			95% KM Adjusted Gamma UCL		578.9
1231											
1232	**Lognormal GOF Test on Detected Observations Only**										
1233					Shapiro Wilk Test Statistic	0.853			**Shapiro Wilk GOF Test**		
1234					10% Shapiro Wilk Critical Value	0.901			Detected Data Not Lognormal at 10% Significance Level		
1235					Lilliefors Test Statistic	0.24			**Lilliefors GOF Test**		
1236					10% Lilliefors Critical Value	0.202			Detected Data Not Lognormal at 10% Significance Level		
1237	**Detected Data Not Lognormal at 10% Significance Level**										
1238											
1239	**Lognormal ROS Statistics Using Imputed Non-Detects**										
1240					Mean in Original Scale	356.2			Mean in Log Scale		5.309
1241					SD in Original Scale	363.7			SD in Log Scale		1.233
1242					95% t UCL (assumes normality of ROS data)	489.7			95% Percentile Bootstrap UCL		486.5
1243					95% BCA Bootstrap UCL	515.2			95% Bootstrap t UCL		537.7
1244					95% H-UCL (Log ROS)	949					
1245											
1246	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
1247					KM Mean (logged)	5.227			KM Geo Mean		186.3
1248					KM SD (logged)	1.469			95% Critical H Value (KM-Log)		3.293
1249					KM Standard Error of Mean (logged)	0.392			95% H-UCL (KM -Log)		1576
1250					KM SD (logged)	1.469			95% Critical H Value (KM-Log)		3.293
1251					KM Standard Error of Mean (logged)	0.392					
1252											
1253	**DL/2 Statistics**										
1254	**DL/2 Normal**								**DL/2 Log-Transformed**		
1255					Mean in Original Scale	423.3			Mean in Log Scale		5.516
1256					SD in Original Scale	378			SD in Log Scale		1.26
1257					95% t UCL (Assumes normality)	562			95% H-Stat UCL		1243
1258	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
1259											
1260	**Nonparametric Distribution Free UCL Statistics**										
1261	**Detected Data appear Normal Distributed at 1% Significance Level**										
1262											
1263	**Suggested UCL to Use**										
1264					95% KM (t) UCL	520.6					
1265											
1266	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1267	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
1268	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1269											
1270	**Benzo[a]pyrene**										
1271											
1272	**General Statistics**										
1273					Total Number of Observations	22			Number of Distinct Observations		21

1274											Number of Missing Observations	45
1275					Number of Detects	15					Number of Non-Detects	7
1276					Number of Distinct Detects	15					Number of Distinct Non-Detects	7
1277					Minimum Detect	8.4					Minimum Non-Detect	110
1278					Maximum Detect	1500					Maximum Non-Detect	2000
1279					Variance Detects	149862					Percent Non-Detects	31.82%
1280					Mean Detects	486.6					SD Detects	387.1
1281					Median Detects	480					CV Detects	0.796
1282					Skewness Detects	1.307					Kurtosis Detects	2.301
1283					Mean of Logged Detects	5.735					SD of Logged Detects	1.262
1284												
1285					**Normal GOF Test on Detects Only**							
1286					Shapiro Wilk Test Statistic	0.897	**Shapiro Wilk GOF Test**					
1287					1% Shapiro Wilk Critical Value	0.835	Detected Data appear Normal at 1% Significance Level					
1288					Lilliefors Test Statistic	0.189	**Lilliefors GOF Test**					
1289					1% Lilliefors Critical Value	0.255	Detected Data appear Normal at 1% Significance Level					
1290					**Detected Data appear Normal at 1% Significance Level**							
1291												
1292					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1293					KM Mean	388.1					KM Standard Error of Mean	84.59
1294					90KM SD	365					95% KM (BCA) UCL	540.1
1295					95% KM (t) UCL	533.7					95% KM (Percentile Bootstrap) UCL	538.5
1296					95% KM (z) UCL	527.3					95% KM Bootstrap t UCL	573.6
1297					90% KM Chebyshev UCL	641.9					95% KM Chebyshev UCL	756.9
1298					97.5% KM Chebyshev UCL	916.4					99% KM Chebyshev UCL	1230
1299												
1300					**Gamma GOF Tests on Detected Observations Only**							
1301					A-D Test Statistic	0.372	**Anderson-Darling GOF Test**					
1302					5% A-D Critical Value	0.758	Detected data appear Gamma Distributed at 5% Significance Level					
1303					K-S Test Statistic	0.194	**Kolmogorov-Smirnov GOF**					
1304					5% K-S Critical Value	0.227	Detected data appear Gamma Distributed at 5% Significance Level					
1305					**Detected data appear Gamma Distributed at 5% Significance Level**							
1306												
1307					**Gamma Statistics on Detected Data Only**							
1308					k hat (MLE)	1.246					k star (bias corrected MLE)	1.041
1309					Theta hat (MLE)	390.4					Theta star (bias corrected MLE)	467.2
1310					nu hat (MLE)	37.39					nu star (bias corrected)	31.24
1311					Mean (detects)	486.6						
1312												
1313					**Gamma ROS Statistics using Imputed Non-Detects**							
1314					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1315					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1316					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1317					This is especially true when the sample size is small.							
1318					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1319					Minimum	8.4					Mean	380.5
1320					Maximum	1500					Median	278.7
1321					SD	357.9					CV	0.941
1322					k hat (MLE)	1.143					k star (bias corrected MLE)	1.018
1323					Theta hat (MLE)	332.8					Theta star (bias corrected MLE)	373.8
1324					nu hat (MLE)	50.31					nu star (bias corrected)	44.78
1325					Adjusted Level of Significance (β)	0.0386						
1326					Approximate Chi Square Value (44.78, α)	30.43					Adjusted Chi Square Value (44.78, β)	29.55
1327					95% Gamma Approximate UCL	559.9					95% Gamma Adjusted UCL	576.6
1328												
1329					**Estimates of Gamma Parameters using KM Estimates**							
1330					Mean (KM)	388.1					SD (KM)	365
1331					Variance (KM)	133241					SE of Mean (KM)	84.59
1332					k hat (KM)	1.131					k star (KM)	1.007
1333					nu hat (KM)	49.75					nu star (KM)	44.3
1334					theta hat (KM)	343.3					theta star (KM)	385.5
1335					80% gamma percentile (KM)	624.3					90% gamma percentile (KM)	892.2
1336					95% gamma percentile (KM)	1160					99% gamma percentile (KM)	1781
1337												
1338					**Gamma Kaplan-Meier (KM) Statistics**							
1339					Approximate Chi Square Value (44.30, α)	30.03					Adjusted Chi Square Value (44.30, β)	29.16
1340					95% KM Approximate Gamma UCL	572.5					95% KM Adjusted Gamma UCL	589.7

1341												
1342	**Lognormal GOF Test on Detected Observations Only**											
1343					Shapiro Wilk Test Statistic	0.844	**Shapiro Wilk GOF Test**					
1344					10% Shapiro Wilk Critical Value	0.901	Detected Data Not Lognormal at 10% Significance Level					
1345					Lilliefors Test Statistic	0.239	**Lilliefors GOF Test**					
1346					10% Lilliefors Critical Value	0.202	Detected Data Not Lognormal at 10% Significance Level					
1347	**Detected Data Not Lognormal at 10% Significance Level**											
1348												
1349	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1350					Mean in Original Scale	368.1				Mean in Log Scale	5.371	
1351					SD in Original Scale	364.2				SD in Log Scale	1.209	
1352					95% t UCL (assumes normality of ROS data)	501.8				95% Percentile Bootstrap UCL	498.9	
1353					95% BCA Bootstrap UCL	527.6				95% Bootstrap t UCL	553.3	
1354					95% H-UCL (Log ROS)	955.7						
1355												
1356	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1357					KM Mean (logged)	5.276				KM Geo Mean	195.6	
1358					KM SD (logged)	1.48				95% Critical H Value (KM-Log)	3.31	
1359					KM Standard Error of Mean (logged)	0.404				95% H-UCL (KM -Log)	1703	
1360					KM SD (logged)	1.48				95% Critical H Value (KM-Log)	3.31	
1361					KM Standard Error of Mean (logged)	0.404						
1362												
1363	**DL/2 Statistics**											
1364					**DL/2 Normal**					**DL/2 Log-Transformed**		
1365					Mean in Original Scale	432.5				Mean in Log Scale	5.558	
1366					SD in Original Scale	378.4				SD in Log Scale	1.238	
1367					95% t UCL (Assumes normality)	571.4				95% H-Stat UCL	1231	
1368	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1369												
1370	**Nonparametric Distribution Free UCL Statistics**											
1371	**Detected Data appear Normal Distributed at 1% Significance Level**											
1372												
1373	**Suggested UCL to Use**											
1374					95% KM (t) UCL	533.7						
1375												
1376	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1377	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1378	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1379												
1380	**Benzo[g,h,i]perylene**											
1381												
1382	**General Statistics**											
1383					Total Number of Observations	22				Number of Distinct Observations	22	
1384										Number of Missing Observations	45	
1385					Number of Detects	15				Number of Non-Detects	7	
1386					Number of Distinct Detects	15				Number of Distinct Non-Detects	7	
1387					Minimum Detect	8.8				Minimum Non-Detect	110	
1388					Maximum Detect	1000				Maximum Non-Detect	2000	
1389					Variance Detects	63475				Percent Non-Detects	31.82%	
1390					Mean Detects	328.5				SD Detects	251.9	
1391					Median Detects	290				CV Detects	0.767	
1392					Skewness Detects	1.308				Kurtosis Detects	2.529	
1393					Mean of Logged Detects	5.395				SD of Logged Detects	1.15	
1394												
1395	**Normal GOF Test on Detects Only**											
1396					Shapiro Wilk Test Statistic	0.907	**Shapiro Wilk GOF Test**					
1397					1% Shapiro Wilk Critical Value	0.835	Detected Data appear Normal at 1% Significance Level					
1398					Lilliefors Test Statistic	0.145	**Lilliefors GOF Test**					
1399					1% Lilliefors Critical Value	0.255	Detected Data appear Normal at 1% Significance Level					
1400	**Detected Data appear Normal at 1% Significance Level**											
1401												
1402	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1403					KM Mean	273.3				KM Standard Error of Mean	56.23	
1404					90KM SD	237.8				95% KM (BCA) UCL	372.7	
1405					95% KM (t) UCL	370.1				95% KM (Percentile Bootstrap) UCL	371.2	
1406					95% KM (z) UCL	365.8				95% KM Bootstrap t UCL	394.5	
1407					90% KM Chebyshev UCL	442				95% KM Chebyshev UCL	518.4	

1408				97.5% KM Chebyshev UCL		624.5				99% KM Chebyshev UCL		832.8
1409												
1410						**Gamma GOF Tests on Detected Observations Only**							
1411				A-D Test Statistic		0.283				**Anderson-Darling GOF Test**		
1412				5% A-D Critical Value		0.756				Detected data appear Gamma Distributed at 5% Significance Level		
1413				K-S Test Statistic		0.176				**Kolmogorov-Smirnov GOF**		
1414				5% K-S Critical Value		0.226				Detected data appear Gamma Distributed at 5% Significance Level		
1415						**Detected data appear Gamma Distributed at 5% Significance Level**						
1416												
1417						**Gamma Statistics on Detected Data Only**							
1418				k hat (MLE)		1.397				k star (bias corrected MLE)		1.162
1419				Theta hat (MLE)		235.2				Theta star (bias corrected MLE)		282.7
1420				nu hat (MLE)		41.9				nu star (bias corrected)		34.85
1421				Mean (detects)		328.5						
1422												
1423						**Gamma ROS Statistics using Imputed Non-Detects**							
1424						GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1425						GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1426						For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1427						This is especially true when the sample size is small.							
1428						For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1429				Minimum		8.8				Mean		265.9
1430				Maximum		1000				Median		210.9
1431				SD		229.3				CV		0.862
1432				k hat (MLE)		1.399				k star (bias corrected MLE)		1.238
1433				Theta hat (MLE)		190.1				Theta star (bias corrected MLE)		214.7
1434				nu hat (MLE)		61.54				nu star (bias corrected)		54.48
1435				Adjusted Level of Significance (β)		0.0386						
1436				Approximate Chi Square Value (54.48, α)		38.52				Adjusted Chi Square Value (54.48, β)		37.52
1437				95% Gamma Approximate UCL		376				95% Gamma Adjusted UCL		386.1
1438												
1439						**Estimates of Gamma Parameters using KM Estimates**							
1440				Mean (KM)		273.3				SD (KM)		237.8
1441				Variance (KM)		56545				SE of Mean (KM)		56.23
1442				k hat (KM)		1.321				k star (KM)		1.171
1443				nu hat (KM)		58.14				nu star (KM)		51.54
1444				theta hat (KM)		206.9				theta star (KM)		233.3
1445				80% gamma percentile (KM)		433.8				90% gamma percentile (KM)		605.3
1446				95% gamma percentile (KM)		774.7				99% gamma percentile (KM)		1164
1447												
1448						**Gamma Kaplan-Meier (KM) Statistics**							
1449				Approximate Chi Square Value (51.54, α)		36.05				Adjusted Chi Square Value (51.54, β)		35.09
1450				95% KM Approximate Gamma UCL		390.8				95% KM Adjusted Gamma UCL		401.5
1451												
1452						**Lognormal GOF Test on Detected Observations Only**							
1453				Shapiro Wilk Test Statistic		0.867				**Shapiro Wilk GOF Test**		
1454				10% Shapiro Wilk Critical Value		0.901				Detected Data Not Lognormal at 10% Significance Level		
1455				Lilliefors Test Statistic		0.224				**Lilliefors GOF Test**		
1456				10% Lilliefors Critical Value		0.202				Detected Data Not Lognormal at 10% Significance Level		
1457						**Detected Data Not Lognormal at 10% Significance Level**						
1458												
1459						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1460				Mean in Original Scale		256.9				Mean in Log Scale		5.119
1461				SD in Original Scale		233.5				SD in Log Scale		1.065
1462				95% t UCL (assumes normality of ROS data)		342.6				95% Percentile Bootstrap UCL		342.5
1463				95% BCA Bootstrap UCL		354.5				95% Bootstrap t UCL		380.5
1464				95% H-UCL (Log ROS)		548.4						
1465												
1466						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1467				KM Mean (logged)		5.072				KM Geo Mean		159.4
1468				KM SD (logged)		1.27				95% Critical H Value (KM-Log)		2.978
1469				KM Standard Error of Mean (logged)		0.342				95% H-UCL (KM -Log)		815.2
1470				KM SD (logged)		1.27				95% Critical H Value (KM-Log)		2.978
1471				KM Standard Error of Mean (logged)		0.342						
1472												
1473						**DL/2 Statistics**						
1474				**DL/2 Normal**						**DL/2 Log-Transformed**		

1475	Mean in Original Scale				324.7	Mean in Log Scale					5.326
1476	SD in Original Scale				281.2	SD in Log Scale					1.137
1477	95% t UCL (Assumes normality)				427.9	95% H-Stat UCL					781.3
1478	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
1479											
1480	**Nonparametric Distribution Free UCL Statistics**										
1481	**Detected Data appear Normal Distributed at 1% Significance Level**										
1482											
1483	**Suggested UCL to Use**										
1484	95% KM (t) UCL				370.1						
1485											
1486	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1487	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
1488	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1489											
1490	**Benzo[k]fluoranthene**										
1491											
1492	**General Statistics**										
1493	Total Number of Observations				22	Number of Distinct Observations					22
1494						Number of Missing Observations					45
1495	Number of Detects				15	Number of Non-Detects					7
1496	Number of Distinct Detects				15	Number of Distinct Non-Detects					7
1497	Minimum Detect				7.4	Minimum Non-Detect					110
1498	Maximum Detect				710	Maximum Non-Detect					2000
1499	Variance Detects				36137	Percent Non-Detects					31.82%
1500	Mean Detects				246.9	SD Detects					190.1
1501	Median Detects				200	CV Detects					0.77
1502	Skewness Detects				1.116	Kurtosis Detects					1.261
1503	Mean of Logged Detects				5.107	SD of Logged Detects					1.138
1504											
1505	**Normal GOF Test on Detects Only**										
1506	Shapiro Wilk Test Statistic				0.918	**Shapiro Wilk GOF Test**					
1507	1% Shapiro Wilk Critical Value				0.835	Detected Data appear Normal at 1% Significance Level					
1508	Lilliefors Test Statistic				0.181	**Lilliefors GOF Test**					
1509	1% Lilliefors Critical Value				0.255	Detected Data appear Normal at 1% Significance Level					
1510	**Detected Data appear Normal at 1% Significance Level**										
1511											
1512	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
1513	KM Mean				208.6	KM Standard Error of Mean					42.56
1514	90KM SD				178.8	95% KM (BCA) UCL					282.1
1515	95% KM (t) UCL				281.8	95% KM (Percentile Bootstrap) UCL					284
1516	95% KM (z) UCL				278.6	95% KM Bootstrap t UCL					299.9
1517	90% KM Chebyshev UCL				336.3	95% KM Chebyshev UCL					394.1
1518	97.5% KM Chebyshev UCL				474.4	99% KM Chebyshev UCL					632.1
1519											
1520	**Gamma GOF Tests on Detected Observations Only**										
1521	A-D Test Statistic				0.244	**Anderson-Darling GOF Test**					
1522	5% A-D Critical Value				0.756	Detected data appear Gamma Distributed at 5% Significance Level					
1523	K-S Test Statistic				0.161	**Kolmogorov-Smirnov GOF**					
1524	5% K-S Critical Value				0.226	Detected data appear Gamma Distributed at 5% Significance Level					
1525	**Detected data appear Gamma Distributed at 5% Significance Level**										
1526											
1527	**Gamma Statistics on Detected Data Only**										
1528	k hat (MLE)				1.387	k star (bias corrected MLE)					1.154
1529	Theta hat (MLE)				178	Theta star (bias corrected MLE)					213.9
1530	nu hat (MLE)				41.62	nu star (bias corrected)					34.63
1531	Mean (detects)				246.9						
1532											
1533	**Gamma ROS Statistics using Imputed Non-Detects**										
1534	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1535	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1536	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1537	This is especially true when the sample size is small.										
1538	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1539	Minimum				7.4	Mean					203.5
1540	Maximum				710	Median					162.5
1541	SD				170.5	CV					0.838

1542					k hat (MLE)	1.493				k star (bias corrected MLE)		1.32
1543					Theta hat (MLE)	136.3				Theta star (bias corrected MLE)		154.1
1544					nu hat (MLE)	65.7				nu star (bias corrected)		58.08
1545					Adjusted Level of Significance (β)	0.0386						
1546					Approximate Chi Square Value (58.08, α)	41.56				Adjusted Chi Square Value (58.08, β)		40.51
1547					95% Gamma Approximate UCL	284.3				95% Gamma Adjusted UCL		291.7
1548												
1549					**Estimates of Gamma Parameters using KM Estimates**							
1550					Mean (KM)	208.6				SD (KM)		178.8
1551					Variance (KM)	31980				SE of Mean (KM)		42.56
1552					k hat (KM)	1.361				k star (KM)		1.206
1553					nu hat (KM)	59.87				nu star (KM)		53.04
1554					theta hat (KM)	153.3				theta star (KM)		173
1555					80% gamma percentile (KM)	330.2				90% gamma percentile (KM)		458.7
1556					95% gamma percentile (KM)	585.4				99% gamma percentile (KM)		875.7
1557												
1558					**Gamma Kaplan-Meier (KM) Statistics**							
1559					Approximate Chi Square Value (53.04, α)	37.31				Adjusted Chi Square Value (53.04, β)		36.33
1560					95% KM Approximate Gamma UCL	296.6				95% KM Adjusted Gamma UCL		304.6
1561												
1562					**Lognormal GOF Test on Detected Observations Only**							
1563					Shapiro Wilk Test Statistic	0.882				**Shapiro Wilk GOF Test**		
1564					10% Shapiro Wilk Critical Value	0.901				Detected Data Not Lognormal at 10% Significance Level		
1565					Lilliefors Test Statistic	0.222				**Lilliefors GOF Test**		
1566					10% Lilliefors Critical Value	0.202				Detected Data Not Lognormal at 10% Significance Level		
1567					**Detected Data Not Lognormal at 10% Significance Level**							
1568												
1569					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1570					Mean in Original Scale	195.7				Mean in Log Scale		4.868
1571					SD in Original Scale	174.4				SD in Log Scale		1.03
1572					95% t UCL (assumes normality of ROS data)	259.6				95% Percentile Bootstrap UCL		258.5
1573					95% BCA Bootstrap UCL	268.1				95% Bootstrap t UCL		284.6
1574					95% H-UCL (Log ROS)	398.6						
1575												
1576					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1577					KM Mean (logged)	4.833				KM Geo Mean		125.6
1578					KM SD (logged)	1.209				95% Critical H Value (KM-Log)		2.885
1579					KM Standard Error of Mean (logged)	0.32				95% H-UCL (KM -Log)		558.4
1580					KM SD (logged)	1.209				95% Critical H Value (KM-Log)		2.885
1581					KM Standard Error of Mean (logged)	0.32						
1582												
1583					**DL/2 Statistics**							
1584					**DL/2 Normal**					**DL/2 Log-Transformed**		
1585					Mean in Original Scale	269.1				Mean in Log Scale		5.129
1586					SD in Original Scale	248.9				SD in Log Scale		1.125
1587					95% t UCL (Assumes normality)	360.4				95% H-Stat UCL		625.9
1588					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1589												
1590					**Nonparametric Distribution Free UCL Statistics**							
1591					**Detected Data appear Normal Distributed at 1% Significance Level**							
1592												
1593					**Suggested UCL to Use**							
1594					95% KM (t) UCL	281.8						
1595												
1596					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1597					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1598					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1599												
1600	**Bis(2-Ethylhexyl)phthalate**											
1601												
1602					**General Statistics**							
1603					Total Number of Observations	4				Number of Distinct Observations		4
1604										Number of Missing Observations		14
1605					Number of Detects	3				Number of Non-Detects		1
1606					Number of Distinct Detects	3				Number of Distinct Non-Detects		1
1607					Minimum Detect	7.4				Minimum Non-Detect		3500
1608					Maximum Detect	460				Maximum Non-Detect		3500

1609					Variance Detects	62781					Percent Non-Detects	25%
1610					Mean Detects	295.8					SD Detects	250.6
1611					Median Detects	420					CV Detects	0.847
1612					Skewness Detects	-1.683					Kurtosis Detects	N/A
1613					Mean of Logged Detects	4.724					SD of Logged Detects	2.358
1614												
1615					**Warning: Data set has only 3 Detected Values.**							
1616					**This is not enough to compute meaningful or reliable statistics and estimates.**							
1617												
1618												
1619					**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
1620					**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
1621					**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
1622					**The Chebyshev UCL often results in gross overestimates of the mean.**							
1623					**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							
1624												
1625					**Normal GOF Test on Detects Only**							
1626					Shapiro Wilk Test Statistic	0.816					**Shapiro Wilk GOF Test**	
1627					1% Shapiro Wilk Critical Value	0.753					Detected Data appear Normal at 1% Significance Level	
1628					Lilliefors Test Statistic	0.357					**Lilliefors GOF Test**	
1629					1% Lilliefors Critical Value	0.429					Detected Data appear Normal at 1% Significance Level	
1630					**Detected Data appear Normal at 1% Significance Level**							
1631					**Note GOF tests may be unreliable for small sample sizes**							
1632												
1633					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1634					KM Mean	295.8					KM Standard Error of Mean	144.7
1635					90KM SD	204.6					95% KM (BCA) UCL	N/A
1636					95% KM (t) UCL	636.2					95% KM (Percentile Bootstrap) UCL	N/A
1637					95% KM (z) UCL	533.7					95% KM Bootstrap t UCL	N/A
1638					90% KM Chebyshev UCL	729.8					95% KM Chebyshev UCL	926.4
1639					97.5% KM Chebyshev UCL	1199					99% KM Chebyshev UCL	1735
1640												
1641					**Gamma GOF Tests on Detected Observations Only**							
1642					A-D Test Statistic	0.601					**Anderson-Darling GOF Test**	
1643					5% A-D Critical Value	0.646					Detected data appear Gamma Distributed at 5% Significance Level	
1644					K-S Test Statistic	0.428					**Kolmogorov-Smirnov GOF**	
1645					5% K-S Critical Value	0.446					Detected data appear Gamma Distributed at 5% Significance Level	
1646					**Detected Data Not Gamma Distributed at 5% Significance Level**							
1647												
1648					**Gamma Statistics on Detected Data Only**							
1649					k hat (MLE)	0.635					k star (bias corrected MLE)	N/A
1650					Theta hat (MLE)	466					Theta star (bias corrected MLE)	N/A
1651					nu hat (MLE)	3.809					nu star (bias corrected)	N/A
1652					Mean (detects)	295.8						
1653												
1654					**Gamma ROS Statistics using Imputed Non-Detects**							
1655					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1656					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1657					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1658					This is especially true when the sample size is small.							
1659					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1660					Minimum	7.4					Mean	284.2
1661					Maximum	460					Median	334.7
1662					SD	205.9					CV	0.725
1663					k hat (MLE)	0.815					k star (bias corrected MLE)	0.37
1664					Theta hat (MLE)	348.8					Theta star (bias corrected MLE)	767.3
1665					nu hat (MLE)	6.518					nu star (bias corrected)	2.963
1666					Adjusted Level of Significance (β)	0.00498						
1667					Approximate Chi Square Value (2.96, α)	0.361					Adjusted Chi Square Value (2.96, β)	N/A
1668					95% Gamma Approximate UCL	2329					95% Gamma Adjusted UCL	N/A
1669												
1670					**Estimates of Gamma Parameters using KM Estimates**							
1671					Mean (KM)	295.8					SD (KM)	204.6
1672					Variance (KM)	41854					SE of Mean (KM)	144.7
1673					k hat (KM)	2.091					k star (KM)	0.689
1674					nu hat (KM)	16.72					nu star (KM)	5.514
1675					theta hat (KM)	141.5					theta star (KM)	429.1

1676				80% gamma percentile (KM)		486.5				90% gamma percentile (KM)		745.2
1677				95% gamma percentile (KM)		1012				99% gamma percentile (KM)		1651
1678												
1679						**Gamma Kaplan-Meier (KM) Statistics**							
1680				Approximate Chi Square Value (5.51, α)		1.397				Adjusted Chi Square Value (5.51, β)		0.554
1681				95% KM Approximate Gamma UCL		1168				95% KM Adjusted Gamma UCL		2946
1682												
1683						**Lognormal GOF Test on Detected Observations Only**							
1684				Shapiro Wilk Test Statistic		0.766				**Shapiro Wilk GOF Test**		
1685				10% Shapiro Wilk Critical Value		0.789				Detected Data Not Lognormal at 10% Significance Level		
1686				Lilliefors Test Statistic		0.378				**Lilliefors GOF Test**		
1687				10% Lilliefors Critical Value		0.389				Detected Data appear Lognormal at 10% Significance Level		
1688						**Detected Data appear Approximate Lognormal at 10% Significance Level**						
1689						**Note GOF tests may be unreliable for small sample sizes**						
1690												
1691						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1692				Mean in Original Scale		250				Mean in Log Scale		4.724
1693				SD in Original Scale		224.1				SD in Log Scale		1.926
1694				95% t UCL (assumes normality of ROS data)		513.8				95% Percentile Bootstrap UCL		N/A
1695				95% BCA Bootstrap UCL		N/A				95% Bootstrap t UCL		N/A
1696				95% H-UCL (Log ROS)		9.005E+8						
1697												
1698						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
1699				KM Mean (logged)		4.724				KM Geo Mean		112.7
1700				KM SD (logged)		1.926				95% Critical H Value (KM-Log)		12.63
1701				KM Standard Error of Mean (logged)		1.362				95% H-UCL (KM -Log)		9.005E+8
1702				KM SD (logged)		1.926				95% Critical H Value (KM-Log)		12.63
1703				KM Standard Error of Mean (logged)		1.362						
1704												
1705						**DL/2 Statistics**						
1706				**DL/2 Normal**						**DL/2 Log-Transformed**		
1707				Mean in Original Scale		659.4				Mean in Log Scale		5.41
1708				SD in Original Scale		755.3				SD in Log Scale		2.364
1709				95% t UCL (Assumes normality)		1548				95% H-Stat UCL		5.418E+12
1710						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
1711												
1712						**Nonparametric Distribution Free UCL Statistics**						
1713						**Detected Data appear Normal Distributed at 1% Significance Level**						
1714												
1715						**Suggested UCL to Use**						
1716				95% KM (t) UCL		636.2						
1717						**Warning: Recommended UCL exceeds the maximum observation**						
1718												
1719						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1720						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1721						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1722												
1723	**Chrysene**											
1724												
1725						**General Statistics**						
1726				Total Number of Observations		20				Number of Distinct Observations		18
1727										Number of Missing Observations		47
1728				Number of Detects		15				Number of Non-Detects		5
1729				Number of Distinct Detects		14				Number of Distinct Non-Detects		5
1730				Minimum Detect		81				Minimum Non-Detect		110
1731				Maximum Detect		1600				Maximum Non-Detect		2000
1732				Variance Detects		172802				Percent Non-Detects		25%
1733				Mean Detects		551.4				SD Detects		415.7
1734				Median Detects		520				CV Detects		0.754
1735				Skewness Detects		1.275				Kurtosis Detects		1.848
1736				Mean of Logged Detects		6.014				SD of Logged Detects		0.86
1737												
1738						**Normal GOF Test on Detects Only**						
1739				Shapiro Wilk Test Statistic		0.884				**Shapiro Wilk GOF Test**		
1740				1% Shapiro Wilk Critical Value		0.835				Detected Data appear Normal at 1% Significance Level		
1741				Lilliefors Test Statistic		0.168				**Lilliefors GOF Test**		
1742				1% Lilliefors Critical Value		0.255				Detected Data appear Normal at 1% Significance Level		

1743	**Detected Data appear Normal at 1% Significance Level**										
1744											
1745	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
1746				KM Mean	460.9			KM Standard Error of Mean	95.49		
1747				90KM SD	400.2			95% KM (BCA) UCL	625.6		
1748				95% KM (t) UCL	626			95% KM (Percentile Bootstrap) UCL	618.5		
1749				95% KM (z) UCL	618			95% KM Bootstrap t UCL	684		
1750				90% KM Chebyshev UCL	747.4			95% KM Chebyshev UCL	877.1		
1751				97.5% KM Chebyshev UCL	1057			99% KM Chebyshev UCL	1411		
1752											
1753	**Gamma GOF Tests on Detected Observations Only**										
1754				A-D Test Statistic	0.298			**Anderson-Darling GOF Test**			
1755				5% A-D Critical Value	0.749			Detected data appear Gamma Distributed at 5% Significance Level			
1756				K-S Test Statistic	0.162			**Kolmogorov-Smirnov GOF**			
1757				5% K-S Critical Value	0.225			Detected data appear Gamma Distributed at 5% Significance Level			
1758	**Detected data appear Gamma Distributed at 5% Significance Level**										
1759											
1760	**Gamma Statistics on Detected Data Only**										
1761				k hat (MLE)	1.826			k star (bias corrected MLE)	1.505		
1762				Theta hat (MLE)	302			Theta star (bias corrected MLE)	366.3		
1763				nu hat (MLE)	54.78			nu star (bias corrected)	45.16		
1764				Mean (detects)	551.4						
1765											
1766	**Gamma ROS Statistics using Imputed Non-Detects**										
1767	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1768	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1769	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1770	This is especially true when the sample size is small.										
1771	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1772				Minimum	0.01			Mean	442.4		
1773				Maximum	1600			Median	401.7		
1774				SD	411.8			CV	0.931		
1775				k hat (MLE)	0.647			k star (bias corrected MLE)	0.584		
1776				Theta hat (MLE)	683.4			Theta star (bias corrected MLE)	758.1		
1777				nu hat (MLE)	25.89			nu star (bias corrected)	23.34		
1778				Adjusted Level of Significance (β)	0.038						
1779				Approximate Chi Square Value (23.34, α)	13.35			Adjusted Chi Square Value (23.34, β)	12.75		
1780				95% Gamma Approximate UCL	773.6			95% Gamma Adjusted UCL	809.7		
1781											
1782	**Estimates of Gamma Parameters using KM Estimates**										
1783				Mean (KM)	460.9			SD (KM)	400.2		
1784				Variance (KM)	160159			SE of Mean (KM)	95.49		
1785				k hat (KM)	1.326			k star (KM)	1.161		
1786				nu hat (KM)	53.06			nu star (KM)	46.43		
1787				theta hat (KM)	347.5			theta star (KM)	397.1		
1788				80% gamma percentile (KM)	732.1			90% gamma percentile (KM)	1023		
1789				95% gamma percentile (KM)	1310			99% gamma percentile (KM)	1971		
1790											
1791	**Gamma Kaplan-Meier (KM) Statistics**										
1792				Approximate Chi Square Value (46.43, α)	31.8			Adjusted Chi Square Value (46.43, β)	30.84		
1793				95% KM Approximate Gamma UCL	673.1			95% KM Adjusted Gamma UCL	693.9		
1794											
1795	**Lognormal GOF Test on Detected Observations Only**										
1796				Shapiro Wilk Test Statistic	0.948			**Shapiro Wilk GOF Test**			
1797				10% Shapiro Wilk Critical Value	0.901			Detected Data appear Lognormal at 10% Significance Level			
1798				Lilliefors Test Statistic	0.211			**Lilliefors GOF Test**			
1799				10% Lilliefors Critical Value	0.202			Detected Data Not Lognormal at 10% Significance Level			
1800	**Detected Data appear Approximate Lognormal at 10% Significance Level**										
1801											
1802	**Lognormal ROS Statistics Using Imputed Non-Detects**										
1803				Mean in Original Scale	452.5			Mean in Log Scale	5.741		
1804				SD in Original Scale	400.1			SD in Log Scale	0.92		
1805				95% t UCL (assumes normality of ROS data)	607.2			95% Percentile Bootstrap UCL	607		
1806				95% BCA Bootstrap UCL	635.6			95% Bootstrap t UCL	661.2		
1807				95% H-UCL (Log ROS)	808.3						
1808											
1809	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										

1810				KM Mean (logged)	5.724				KM Geo Mean		306.2
1811				KM SD (logged)	0.953				95% Critical H Value (KM-Log)		2.566
1812				KM Standard Error of Mean (logged)	0.23				95% H-UCL (KM -Log)		845.2
1813				KM SD (logged)	0.953				95% Critical H Value (KM-Log)		2.566
1814				KM Standard Error of Mean (logged)	0.23						
1815											
1816					**DL/2 Statistics**						
1817				**DL/2 Normal**					**DL/2 Log-Transformed**		
1818				Mean in Original Scale	486.1				Mean in Log Scale		5.747
1819				SD in Original Scale	419.3				SD in Log Scale		1.059
1820				95% t UCL (Assumes normality)	648.2				95% H-Stat UCL		1062
1821				**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1822											
1823					**Nonparametric Distribution Free UCL Statistics**						
1824					**Detected Data appear Normal Distributed at 1% Significance Level**						
1825											
1826					**Suggested UCL to Use**						
1827				95% KM (t) UCL	626						
1828											
1829					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1830					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1831					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1832											
1833	**Dibenzo[a,h]anthracene**										
1834											
1835					**General Statistics**						
1836				Total Number of Observations	22				Number of Distinct Observations		21
1837									Number of Missing Observations		45
1838				Number of Detects	10				Number of Non-Detects		12
1839				Number of Distinct Detects	10				Number of Distinct Non-Detects		12
1840				Minimum Detect	11				Minimum Non-Detect		65
1841				Maximum Detect	630				Maximum Non-Detect		2000
1842				Variance Detects	32154				Percent Non-Detects		54.55%
1843				Mean Detects	156.4				SD Detects		179.3
1844				Median Detects	95				CV Detects		1.147
1845				Skewness Detects	2.444				Kurtosis Detects		6.452
1846				Mean of Logged Detects	4.588				SD of Logged Detects		1.056
1847											
1848					**Normal GOF Test on Detects Only**						
1849				Shapiro Wilk Test Statistic	0.689				**Shapiro Wilk GOF Test**		
1850				1% Shapiro Wilk Critical Value	0.781				Detected Data Not Normal at 1% Significance Level		
1851				Lilliefors Test Statistic	0.314				**Lilliefors GOF Test**		
1852				1% Lilliefors Critical Value	0.304				Detected Data Not Normal at 1% Significance Level		
1853					**Detected Data Not Normal at 1% Significance Level**						
1854											
1855					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**						
1856				KM Mean	112.2				KM Standard Error of Mean		32.5
1857				90KM SD	132				95% KM (BCA) UCL		173.3
1858				95% KM (t) UCL	168.1				95% KM (Percentile Bootstrap) UCL		170.5
1859				95% KM (z) UCL	165.7				95% KM Bootstrap t UCL		231.5
1860				90% KM Chebyshev UCL	209.7				95% KM Chebyshev UCL		253.9
1861				97.5% KM Chebyshev UCL	315.2				99% KM Chebyshev UCL		435.6
1862					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**						
1863											
1864					**Gamma GOF Tests on Detected Observations Only**						
1865				A-D Test Statistic	0.449				**Anderson-Darling GOF Test**		
1866				5% A-D Critical Value	0.744				Detected data appear Gamma Distributed at 5% Significance Level		
1867				K-S Test Statistic	0.197				**Kolmogorov-Smirnov GOF**		
1868				5% K-S Critical Value	0.273				Detected data appear Gamma Distributed at 5% Significance Level		
1869					**Detected data appear Gamma Distributed at 5% Significance Level**						
1870											
1871					**Gamma Statistics on Detected Data Only**						
1872				k hat (MLE)	1.216				k star (bias corrected MLE)		0.918
1873				Theta hat (MLE)	128.6				Theta star (bias corrected MLE)		170.3
1874				nu hat (MLE)	24.33				nu star (bias corrected)		18.36
1875				Mean (detects)	156.4						
1876											

	A	B	C	D	E	F	G	H	I	J	K	L
1877	**Gamma ROS Statistics using Imputed Non-Detects**											
1878	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1879	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1880	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1881	This is especially true when the sample size is small.											
1882	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1883					Minimum	0.01				Mean		95.6
1884					Maximum	630				Median		58.92
1885					SD	131.2				CV		1.372
1886					k hat (MLE)	0.786				k star (bias corrected MLE)		0.709
1887					Theta hat (MLE)	121.7				Theta star (bias corrected MLE)		134.9
1888					nu hat (MLE)	34.57				nu star (bias corrected)		31.19
1889					Adjusted Level of Significance (β)	0.0386						
1890					Approximate Chi Square Value (31.19, α)	19.43				Adjusted Chi Square Value (31.19, β)		18.74
1891					95% Gamma Approximate UCL	153.5				95% Gamma Adjusted UCL		159.1
1892												
1893	**Estimates of Gamma Parameters using KM Estimates**											
1894					Mean (KM)	112.2				SD (KM)		132
1895					Variance (KM)	17426				SE of Mean (KM)		32.5
1896					k hat (KM)	0.723				k star (KM)		0.654
1897					nu hat (KM)	31.8				nu star (KM)		28.8
1898					theta hat (KM)	155.3				theta star (KM)		171.5
1899					80% gamma percentile (KM)	184.8				90% gamma percentile (KM)		286.2
1900					95% gamma percentile (KM)	391.4				99% gamma percentile (KM)		643.9
1901												
1902	**Gamma Kaplan-Meier (KM) Statistics**											
1903					Approximate Chi Square Value (28.80, α)	17.55				Adjusted Chi Square Value (28.80, β)		16.89
1904					95% KM Approximate Gamma UCL	184.1				95% KM Adjusted Gamma UCL		191.3
1905	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
1906												
1907	**Lognormal GOF Test on Detected Observations Only**											
1908					Shapiro Wilk Test Statistic	0.946				**Shapiro Wilk GOF Test**		
1909					10% Shapiro Wilk Critical Value	0.869				Detected Data appear Lognormal at 10% Significance Level		
1910					Lilliefors Test Statistic	0.167				**Lilliefors GOF Test**		
1911					10% Lilliefors Critical Value	0.241				Detected Data appear Lognormal at 10% Significance Level		
1912	**Detected Data appear Lognormal at 10% Significance Level**											
1913												
1914	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1915					Mean in Original Scale	101.5				Mean in Log Scale		4.263
1916					SD in Original Scale	128.4				SD in Log Scale		0.781
1917					95% t UCL (assumes normality of ROS data)	148.6				95% Percentile Bootstrap UCL		151.1
1918					95% BCA Bootstrap UCL	177.6				95% Bootstrap t UCL		273.4
1919					95% H-UCL (Log ROS)	142.5						
1920												
1921	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1922					KM Mean (logged)	4.257				KM Geo Mean		70.59
1923					KM SD (logged)	0.998				95% Critical H Value (KM-Log)		2.58
1924					KM Standard Error of Mean (logged)	0.32				95% H-UCL (KM -Log)		203.8
1925					KM SD (logged)	0.998				95% Critical H Value (KM-Log)		2.58
1926					KM Standard Error of Mean (logged)	0.32						
1927												
1928	**DL/2 Statistics**											
1929	**DL/2 Normal**									**DL/2 Log-Transformed**		
1930					Mean in Original Scale	192.1				Mean in Log Scale		4.714
1931					SD in Original Scale	243.8				SD in Log Scale		1.037
1932					95% t UCL (Assumes normality)	281.6				95% H-Stat UCL		346.9
1933	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1934												
1935	**Nonparametric Distribution Free UCL Statistics**											
1936	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1937												
1938	**Suggested UCL to Use**											
1939					95% KM Adjusted Gamma UCL	191.3						
1940												
1941	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1942	**Please verify the data were collected from random locations.**											
1943	**If the data were collected using judgmental or other non-random methods,**											

1944	**then contact a statistician to correctly calculate UCLs.**											
1945												
1946	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1947	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1948	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1949												
1950	**Fluoranthene**											
1951												
1952	**General Statistics**											
1953	Total Number of Observations				22		Number of Distinct Observations				21	
1954							Number of Missing Observations				45	
1955	Number of Detects				17		Number of Non-Detects				5	
1956	Number of Distinct Detects				16		Number of Distinct Non-Detects				5	
1957	Minimum Detect				1.6		Minimum Non-Detect				110	
1958	Maximum Detect				2600		Maximum Non-Detect				2000	
1959	Variance Detects				482495		Percent Non-Detects				22.73%	
1960	Mean Detects				825		SD Detects				694.6	
1961	Median Detects				850		CV Detects				0.842	
1962	Skewness Detects				1.018		Kurtosis Detects				1.175	
1963	Mean of Logged Detects				6.051		SD of Logged Detects				1.736	
1964												
1965	**Normal GOF Test on Detects Only**											
1966	Shapiro Wilk Test Statistic				0.911		**Shapiro Wilk GOF Test**					
1967	1% Shapiro Wilk Critical Value				0.851		Detected Data appear Normal at 1% Significance Level					
1968	Lilliefors Test Statistic				0.16		**Lilliefors GOF Test**					
1969	1% Lilliefors Critical Value				0.241		Detected Data appear Normal at 1% Significance Level					
1970	**Detected Data appear Normal at 1% Significance Level**											
1971												
1972	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1973	KM Mean				676.5		KM Standard Error of Mean				149.9	
1974	90KM SD				670.8		95% KM (BCA) UCL				945.1	
1975	95% KM (t) UCL				934.4		95% KM (Percentile Bootstrap) UCL				936.8	
1976	95% KM (z) UCL				923		95% KM Bootstrap t UCL				995.9	
1977	90% KM Chebyshev UCL				1126		95% KM Chebyshev UCL				1330	
1978	97.5% KM Chebyshev UCL				1613		99% KM Chebyshev UCL				2168	
1979												
1980	**Gamma GOF Tests on Detected Observations Only**											
1981	A-D Test Statistic				0.472		**Anderson-Darling GOF Test**					
1982	5% A-D Critical Value				0.771		Detected data appear Gamma Distributed at 5% Significance Level					
1983	K-S Test Statistic				0.187		**Kolmogorov-Smirnov GOF**					
1984	5% K-S Critical Value				0.216		Detected data appear Gamma Distributed at 5% Significance Level					
1985	**Detected data appear Gamma Distributed at 5% Significance Level**											
1986												
1987	**Gamma Statistics on Detected Data Only**											
1988	k hat (MLE)				0.882		k star (bias corrected MLE)				0.765	
1989	Theta hat (MLE)				935.6		Theta star (bias corrected MLE)				1078	
1990	nu hat (MLE)				29.98		nu star (bias corrected)				26.02	
1991	Mean (detects)				825							
1992												
1993	**Gamma ROS Statistics using Imputed Non-Detects**											
1994	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1995	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1996	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1997	This is especially true when the sample size is small.											
1998	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1999	Minimum				1.6		Mean				682.9	
2000	Maximum				2600		Median				405	
2001	SD				666.1		CV				0.975	
2002	k hat (MLE)				0.857		k star (bias corrected MLE)				0.77	
2003	Theta hat (MLE)				797.1		Theta star (bias corrected MLE)				886.6	
2004	nu hat (MLE)				37.7		nu star (bias corrected)				33.89	
2005	Adjusted Level of Significance (β)				0.0386							
2006	Approximate Chi Square Value (33.89, α)				21.58		Adjusted Chi Square Value (33.89, β)				20.84	
2007	95% Gamma Approximate UCL				1073		95% Gamma Adjusted UCL				1110	
2008												
2009	**Estimates of Gamma Parameters using KM Estimates**											
2010	Mean (KM)				676.5		SD (KM)				670.8	

2011					Variance (KM)	449939					SE of Mean (KM)	149.9
2012					k hat (KM)	1.017					k star (KM)	0.909
2013					nu hat (KM)	44.75					nu star (KM)	39.98
2014					theta hat (KM)	665.1					theta star (KM)	744.5
2015					80% gamma percentile (KM)	1097					90% gamma percentile (KM)	1595
2016					95% gamma percentile (KM)	2097					99% gamma percentile (KM)	3270
2017												
2018					**Gamma Kaplan-Meier (KM) Statistics**							
2019					Approximate Chi Square Value (39.98, α)	26.49					Adjusted Chi Square Value (39.98, β)	25.68
2020					95% KM Approximate Gamma UCL	1021					95% KM Adjusted Gamma UCL	1053
2021												
2022					**Lognormal GOF Test on Detected Observations Only**							
2023					Shapiro Wilk Test Statistic	0.776					**Shapiro Wilk GOF Test**	
2024					10% Shapiro Wilk Critical Value	0.91					Detected Data Not Lognormal at 10% Significance Level	
2025					Lilliefors Test Statistic	0.211					**Lilliefors GOF Test**	
2026					10% Lilliefors Critical Value	0.19					Detected Data Not Lognormal at 10% Significance Level	
2027					**Detected Data Not Lognormal at 10% Significance Level**							
2028												
2029					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2030					Mean in Original Scale	657.1					Mean in Log Scale	5.614
2031					SD in Original Scale	685.2					SD in Log Scale	1.763
2032					95% t UCL (assumes normality of ROS data)	908.4					95% Percentile Bootstrap UCL	897.3
2033					95% BCA Bootstrap UCL	930.6					95% Bootstrap t UCL	971.2
2034					95% H-UCL (Log ROS)	5558						
2035												
2036					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2037					KM Mean (logged)	5.43					KM Geo Mean	228.1
2038					KM SD (logged)	2.178					95% Critical H Value (KM-Log)	4.497
2039					KM Standard Error of Mean (logged)	0.58					95% H-UCL (KM -Log)	20731
2040					KM SD (logged)	2.178					95% Critical H Value (KM-Log)	4.497
2041					KM Standard Error of Mean (logged)	0.58						
2042												
2043					**DL/2 Statistics**							
2044					**DL/2 Normal**						**DL/2 Log-Transformed**	
2045					Mean in Original Scale	703.4					Mean in Log Scale	5.799
2046					SD in Original Scale	672.3					SD in Log Scale	1.685
2047					95% t UCL (Assumes normality)	950					95% H-Stat UCL	5211
2048					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2049												
2050					**Nonparametric Distribution Free UCL Statistics**							
2051					**Detected Data appear Normal Distributed at 1% Significance Level**							
2052												
2053					**Suggested UCL to Use**							
2054					95% KM (t) UCL	934.4						
2055												
2056					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2057					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2058					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2059												
2060	**Fluorene**											
2061												
2062					**General Statistics**							
2063					Total Number of Observations	22					Number of Distinct Observations	22
2064											Number of Missing Observations	45
2065					Number of Detects	8					Number of Non-Detects	14
2066					Number of Distinct Detects	8					Number of Distinct Non-Detects	14
2067					Minimum Detect	13					Minimum Non-Detect	65
2068					Maximum Detect	1000					Maximum Non-Detect	2000
2069					Variance Detects	108712					Percent Non-Detects	63.64%
2070					Mean Detects	188.9					SD Detects	329.7
2071					Median Detects	81.5					CV Detects	1.746
2072					Skewness Detects	2.761					Kurtosis Detects	7.717
2073					Mean of Logged Detects	4.453					SD of Logged Detects	1.218
2074												
2075					**Normal GOF Test on Detects Only**							
2076					Shapiro Wilk Test Statistic	0.526					**Shapiro Wilk GOF Test**	
2077					1% Shapiro Wilk Critical Value	0.749					Detected Data Not Normal at 1% Significance Level	

2078					Lilliefors Test Statistic	0.446	**Lilliefors GOF Test**					
2079					1% Lilliefors Critical Value	0.333	Detected Data Not Normal at 1% Significance Level					
2080	**Detected Data Not Normal at 1% Significance Level**											
2081												
2082	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2083					KM Mean	112.6	KM Standard Error of Mean	50.18				
2084					90KM SD	206.3	95% KM (BCA) UCL	212.8				
2085					95% KM (t) UCL	198.9	95% KM (Percentile Bootstrap) UCL	203.1				
2086					95% KM (z) UCL	195.1	95% KM Bootstrap t UCL	398.1				
2087					90% KM Chebyshev UCL	263.1	95% KM Chebyshev UCL	331.3				
2088					97.5% KM Chebyshev UCL	426	99% KM Chebyshev UCL	611.9				
2089												
2090	**Gamma GOF Tests on Detected Observations Only**											
2091					A-D Test Statistic	0.918	**Anderson-Darling GOF Test**					
2092					5% A-D Critical Value	0.745	Detected Data Not Gamma Distributed at 5% Significance Level					
2093					K-S Test Statistic	0.339	**Kolmogorov-Smirnov GOF**					
2094					5% K-S Critical Value	0.304	Detected Data Not Gamma Distributed at 5% Significance Level					
2095	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2096												
2097	**Gamma Statistics on Detected Data Only**											
2098					k hat (MLE)	0.758	k star (bias corrected MLE)	0.557				
2099					Theta hat (MLE)	249.1	Theta star (bias corrected MLE)	339				
2100					nu hat (MLE)	12.13	nu star (bias corrected)	8.914				
2101					Mean (detects)	188.9						
2102												
2103	**Gamma ROS Statistics using Imputed Non-Detects**											
2104	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2105	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2106	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2107	This is especially true when the sample size is small.											
2108	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2109					Minimum	0.01	Mean	81.89				
2110					Maximum	1000	Median	25.46				
2111					SD	207.8	CV	2.537				
2112					k hat (MLE)	0.518	k star (bias corrected MLE)	0.478				
2113					Theta hat (MLE)	158	Theta star (bias corrected MLE)	171.4				
2114					nu hat (MLE)	22.8	nu star (bias corrected)	21.03				
2115					Adjusted Level of Significance (β)	0.0386						
2116					Approximate Chi Square Value (21.03, α)	11.61	Adjusted Chi Square Value (21.03, β)	11.09				
2117					95% Gamma Approximate UCL	148.3	95% Gamma Adjusted UCL	155.3				
2118												
2119	**Estimates of Gamma Parameters using KM Estimates**											
2120					Mean (KM)	112.6	SD (KM)	206.3				
2121					Variance (KM)	42568	SE of Mean (KM)	50.18				
2122					k hat (KM)	0.298	k star (KM)	0.287				
2123					nu hat (KM)	13.1	nu star (KM)	12.65				
2124					theta hat (KM)	378.1	theta star (KM)	391.7				
2125					80% gamma percentile (KM)	170.8	90% gamma percentile (KM)	333.7				
2126					95% gamma percentile (KM)	522.1	99% gamma percentile (KM)	1014				
2127												
2128	**Gamma Kaplan-Meier (KM) Statistics**											
2129					Approximate Chi Square Value (12.65, α)	5.657	Adjusted Chi Square Value (12.65, β)	5.31				
2130					95% KM Approximate Gamma UCL	251.7	95% KM Adjusted Gamma UCL	268.1				
2131												
2132	**Lognormal GOF Test on Detected Observations Only**											
2133					Shapiro Wilk Test Statistic	0.907	**Shapiro Wilk GOF Test**					
2134					10% Shapiro Wilk Critical Value	0.851	Detected Data appear Lognormal at 10% Significance Level					
2135					Lilliefors Test Statistic	0.242	**Lilliefors GOF Test**					
2136					10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level					
2137	**Detected Data appear Lognormal at 10% Significance Level**											
2138	**Note GOF tests may be unreliable for small sample sizes**											
2139												
2140	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2141					Mean in Original Scale	102.5	Mean in Log Scale	4.139				
2142					SD in Original Scale	201.8	SD in Log Scale	0.758				
2143					95% t UCL (assumes normality of ROS data)	176.5	95% Percentile Bootstrap UCL	187.3				
2144					95% BCA Bootstrap UCL	232.8	95% Bootstrap t UCL	696.3				

2145				95% H-UCL (Log ROS)		121.7						
2146												
2147	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2148				KM Mean (logged)		4.131				KM Geo Mean		62.27
2149				KM SD (logged)		0.95				95% Critical H Value (KM-Log)		2.515
2150				KM Standard Error of Mean (logged)		0.317				95% H-UCL (KM -Log)		164.7
2151				KM SD (logged)		0.95				95% Critical H Value (KM-Log)		2.515
2152				KM Standard Error of Mean (logged)		0.317						
2153	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2154												
2155	**DL/2 Statistics**											
2156	**DL/2 Normal**									**DL/2 Log-Transformed**		
2157				Mean in Original Scale		196.8				Mean in Log Scale		4.644
2158				SD in Original Scale		287.3				SD in Log Scale		1.058
2159				95% t UCL (Assumes normality)		302.1				95% H-Stat UCL		336.3
2160	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2161												
2162	**Nonparametric Distribution Free UCL Statistics**											
2163	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
2164												
2165	**Suggested UCL to Use**											
2166				KM H-UCL		164.7						
2167												
2168	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2169	**Please verify the data were collected from random locations.**											
2170	**If the data were collected using judgmental or other non-random methods,**											
2171	**then contact a statistician to correctly calculate UCLs.**											
2172												
2173	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2174	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2175	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2176												
2177	**Indeno[1,2,3-cd]pyrene**											
2178												
2179	**General Statistics**											
2180				Total Number of Observations		7				Number of Distinct Observations		7
2181										Number of Missing Observations		12
2182				Number of Detects		5				Number of Non-Detects		2
2183				Number of Distinct Detects		5				Number of Distinct Non-Detects		2
2184				Minimum Detect		7.7				Minimum Non-Detect		1200
2185				Maximum Detect		370				Maximum Non-Detect		2000
2186				Variance Detects		24557				Percent Non-Detects		28.57%
2187				Mean Detects		179.3				SD Detects		156.7
2188				Median Detects		150				CV Detects		0.874
2189				Skewness Detects		0.253				Kurtosis Detects		-2.421
2190				Mean of Logged Detects		4.556				SD of Logged Detects		1.581
2191												
2192	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
2193	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
2194	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
2195	**The Chebyshev UCL often results in gross overestimates of the mean.**											
2196	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
2197												
2198	**Normal GOF Test on Detects Only**											
2199				Shapiro Wilk Test Statistic		0.925				**Shapiro Wilk GOF Test**		
2200				1% Shapiro Wilk Critical Value		0.686				Detected Data appear Normal at 1% Significance Level		
2201				Lilliefors Test Statistic		0.198				**Lilliefors GOF Test**		
2202				1% Lilliefors Critical Value		0.396				Detected Data appear Normal at 1% Significance Level		
2203	**Detected Data appear Normal at 1% Significance Level**											
2204	**Note GOF tests may be unreliable for small sample sizes**											
2205												
2206	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2207				KM Mean		179.3				KM Standard Error of Mean		70.08
2208				90KM SD		140.2				95% KM (BCA) UCL		290
2209				95% KM (t) UCL		315.5				95% KM (Percentile Bootstrap) UCL		290
2210				95% KM (z) UCL		294.6				95% KM Bootstrap t UCL		414.4
2211				90% KM Chebyshev UCL		389.6				95% KM Chebyshev UCL		484.8

	A	B	C	D	E	F	G	H	I	J	K	L
2212				97.5% KM Chebyshev UCL		617				99% KM Chebyshev UCL		876.6
2213	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2214												
2215	**Gamma GOF Tests on Detected Observations Only**											
2216				A-D Test Statistic		0.284	**Anderson-Darling GOF Test**					
2217				5% A-D Critical Value		0.694	Detected data appear Gamma Distributed at 5% Significance Level					
2218				K-S Test Statistic		0.22	**Kolmogorov-Smirnov GOF**					
2219				5% K-S Critical Value		0.365	Detected data appear Gamma Distributed at 5% Significance Level					
2220	**Detected data appear Gamma Distributed at 5% Significance Level**											
2221	**Note GOF tests may be unreliable for small sample sizes**											
2222												
2223	**Gamma Statistics on Detected Data Only**											
2224				k hat (MLE)		0.92	k star (bias corrected MLE)					0.502
2225				Theta hat (MLE)		194.8	Theta star (bias corrected MLE)					357.6
2226				nu hat (MLE)		9.204	nu star (bias corrected)					5.015
2227				Mean (detects)		179.3						
2228												
2229	**Gamma ROS Statistics using Imputed Non-Detects**											
2230	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2231	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2232	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2233	This is especially true when the sample size is small.											
2234	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2235				Minimum		7.7	Mean					169.3
2236				Maximum		370	Median					144.1
2237				SD		129.1	CV					0.763
2238				k hat (MLE)		1.234	k star (bias corrected MLE)					0.8
2239				Theta hat (MLE)		137.2	Theta star (bias corrected MLE)					211.5
2240				nu hat (MLE)		17.27	nu star (bias corrected)					11.2
2241				Adjusted Level of Significance (β)		0.0158						
2242				Approximate Chi Square Value (11.20, α)		4.707	Adjusted Chi Square Value (11.20, β)					3.521
2243				95% Gamma Approximate UCL		402.9	95% Gamma Adjusted UCL					538.6
2244												
2245	**Estimates of Gamma Parameters using KM Estimates**											
2246				Mean (KM)		179.3	SD (KM)					140.2
2247				Variance (KM)		19645	SE of Mean (KM)					70.08
2248				k hat (KM)		1.637	k star (KM)					1.031
2249				nu hat (KM)		22.92	nu star (KM)					14.43
2250				theta hat (KM)		109.5	theta star (KM)					174
2251				80% gamma percentile (KM)		287.9	90% gamma percentile (KM)					409.9
2252				95% gamma percentile (KM)		531.5	99% gamma percentile (KM)					813.4
2253												
2254	**Gamma Kaplan-Meier (KM) Statistics**											
2255				Approximate Chi Square Value (14.43, α)		6.867	Adjusted Chi Square Value (14.43, β)					5.372
2256				95% KM Approximate Gamma UCL		376.9	95% KM Adjusted Gamma UCL					481.7
2257	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2258												
2259	**Lognormal GOF Test on Detected Observations Only**											
2260				Shapiro Wilk Test Statistic		0.885	**Shapiro Wilk GOF Test**					
2261				10% Shapiro Wilk Critical Value		0.806	Detected Data appear Lognormal at 10% Significance Level					
2262				Lilliefors Test Statistic		0.213	**Lilliefors GOF Test**					
2263				10% Lilliefors Critical Value		0.319	Detected Data appear Lognormal at 10% Significance Level					
2264	**Detected Data appear Lognormal at 10% Significance Level**											
2265	**Note GOF tests may be unreliable for small sample sizes**											
2266												
2267	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2268				Mean in Original Scale		155.3	Mean in Log Scale					4.556
2269				SD in Original Scale		134.4	SD in Log Scale					1.291
2270				95% t UCL (assumes normality of ROS data)		254	95% Percentile Bootstrap UCL					237.7
2271				95% BCA Bootstrap UCL		247.6	95% Bootstrap t UCL					363.3
2272				95% H-UCL (Log ROS)		2405						
2273												
2274	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2275				KM Mean (logged)		4.556	KM Geo Mean					95.19
2276				KM SD (logged)		1.414	95% Critical H Value (KM-Log)					4.92
2277				KM Standard Error of Mean (logged)		0.707	95% H-UCL (KM -Log)					4427
2278				KM SD (logged)		1.414	95% Critical H Value (KM-Log)					4.92

2279				KM Standard Error of Mean (logged)		0.707						
2280												
2281						DL/2 Statistics						
2282					DL/2 Normal					DL/2 Log-Transformed		
2283					Mean in Original Scale	356.7				Mean in Log Scale	5.155	
2284					SD in Original Scale	348.5				SD in Log Scale	1.654	
2285					95% t UCL (Assumes normality)	612.6				95% H-Stat UCL	31003	
2286					DL/2 is not a recommended method, provided for comparisons and historical reasons							
2287												
2288						Nonparametric Distribution Free UCL Statistics						
2289						Detected Data appear Normal Distributed at 1% Significance Level						
2290												
2291						Suggested UCL to Use						
2292					95% KM (t) UCL	315.5						
2293												
2294						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2295						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2296						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2297												
2298	Naphthalene											
2299												
2300						General Statistics						
2301					Total Number of Observations	20				Number of Distinct Observations	17	
2302										Number of Missing Observations	47	
2303					Number of Detects	1				Number of Non-Detects	19	
2304					Number of Distinct Detects	1				Number of Distinct Non-Detects	16	
2305												
2306						Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!						
2307						It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).						
2308												
2309						The data set for variable Naphthalene was not processed!						
2310												
2311												
2312	Phenanthrene											
2313												
2314						General Statistics						
2315					Total Number of Observations	22				Number of Distinct Observations	21	
2316										Number of Missing Observations	45	
2317					Number of Detects	16				Number of Non-Detects	6	
2318					Number of Distinct Detects	15				Number of Distinct Non-Detects	6	
2319					Minimum Detect	7.3				Minimum Non-Detect	110	
2320					Maximum Detect	1500				Maximum Non-Detect	2000	
2321					Variance Detects	143928				Percent Non-Detects	27.27%	
2322					Mean Detects	523.3				SD Detects	379.4	
2323					Median Detects	490				CV Detects	0.725	
2324					Skewness Detects	0.99				Kurtosis Detects	1.729	
2325					Mean of Logged Detects	5.814				SD of Logged Detects	1.298	
2326												
2327						Normal GOF Test on Detects Only						
2328					Shapiro Wilk Test Statistic	0.929				Shapiro Wilk GOF Test		
2329					1% Shapiro Wilk Critical Value	0.844				Detected Data appear Normal at 1% Significance Level		
2330					Lilliefors Test Statistic	0.133				Lilliefors GOF Test		
2331					1% Lilliefors Critical Value	0.248				Detected Data appear Normal at 1% Significance Level		
2332						Detected Data appear Normal at 1% Significance Level						
2333												
2334						Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs						
2335					KM Mean	421.9				KM Standard Error of Mean	84.76	
2336					90KM SD	372.4				95% KM (BCA) UCL	569.4	
2337					95% KM (t) UCL	567.8				95% KM (Percentile Bootstrap) UCL	571.4	
2338					95% KM (z) UCL	561.3				95% KM Bootstrap t UCL	602.4	
2339					90% KM Chebyshev UCL	676.2				95% KM Chebyshev UCL	791.4	
2340					97.5% KM Chebyshev UCL	951.2				99% KM Chebyshev UCL	1265	
2341												
2342						Gamma GOF Tests on Detected Observations Only						
2343					A-D Test Statistic	0.583				Anderson-Darling GOF Test		
2344					5% A-D Critical Value	0.759				Detected data appear Gamma Distributed at 5% Significance Level		
2345					K-S Test Statistic	0.224				Kolmogorov-Smirnov GOF		

2346				5% K-S Critical Value		0.22		Detected Data Not Gamma Distributed at 5% Significance Level				
2347				**Detected data follow Appr. Gamma Distribution at 5% Significance Level**								
2348												
2349				**Gamma Statistics on Detected Data Only**								
2350				k hat (MLE)		1.261		k star (bias corrected MLE)				1.066
2351				Theta hat (MLE)		414.9		Theta star (bias corrected MLE)				490.7
2352				nu hat (MLE)		40.36		nu star (bias corrected)				34.12
2353				Mean (detects)		523.3						
2354												
2355				**Gamma ROS Statistics using Imputed Non-Detects**								
2356				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
2357				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
2358				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
2359				This is especially true when the sample size is small.								
2360				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
2361				Minimum		7.3		Mean				422.5
2362				Maximum		1500		Median				379.1
2363				SD		365.1		CV				0.864
2364				k hat (MLE)		1.18		k star (bias corrected MLE)				1.049
2365				Theta hat (MLE)		358.1		Theta star (bias corrected MLE)				402.6
2366				nu hat (MLE)		51.92		nu star (bias corrected)				46.17
2367				Adjusted Level of Significance (β)		0.0386						
2368				Approximate Chi Square Value (46.17, α)		31.58		Adjusted Chi Square Value (46.17, β)				30.68
2369				95% Gamma Approximate UCL		617.7		95% Gamma Adjusted UCL				635.8
2370												
2371				**Estimates of Gamma Parameters using KM Estimates**								
2372				Mean (KM)		421.9		SD (KM)				372.4
2373				Variance (KM)		138702		SE of Mean (KM)				84.76
2374				k hat (KM)		1.283		k star (KM)				1.139
2375				nu hat (KM)		56.47		nu star (KM)				50.1
2376				theta hat (KM)		328.7		theta star (KM)				370.5
2377				80% gamma percentile (KM)		671.4		90% gamma percentile (KM)				940.8
2378				95% gamma percentile (KM)		1208		99% gamma percentile (KM)				1821
2379												
2380				**Gamma Kaplan-Meier (KM) Statistics**								
2381				Approximate Chi Square Value (50.10, α)		34.85		Adjusted Chi Square Value (50.10, β)				33.9
2382				95% KM Approximate Gamma UCL		606.6		95% KM Adjusted Gamma UCL				623.6
2383												
2384				**Lognormal GOF Test on Detected Observations Only**								
2385				Shapiro Wilk Test Statistic		0.808		**Shapiro Wilk GOF Test**				
2386				10% Shapiro Wilk Critical Value		0.906		Detected Data Not Lognormal at 10% Significance Level				
2387				Lilliefors Test Statistic		0.264		**Lilliefors GOF Test**				
2388				10% Lilliefors Critical Value		0.196		Detected Data Not Lognormal at 10% Significance Level				
2389				**Detected Data Not Lognormal at 10% Significance Level**								
2390												
2391				**Lognormal ROS Statistics Using Imputed Non-Detects**								
2392				Mean in Original Scale		408.6		Mean in Log Scale				5.455
2393				SD in Original Scale		375		SD in Log Scale				1.277
2394				95% t UCL (assumes normality of ROS data)		546.1		95% Percentile Bootstrap UCL				547.3
2395				95% BCA Bootstrap UCL		558.3		95% Bootstrap t UCL				582.9
2396				95% H-UCL (Log ROS)		1217						
2397												
2398				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
2399				KM Mean (logged)		5.361		KM Geo Mean				212.9
2400				KM SD (logged)		1.506		95% Critical H Value (KM-Log)				3.352
2401				KM Standard Error of Mean (logged)		0.392		95% H-UCL (KM -Log)				1989
2402				KM SD (logged)		1.506		95% Critical H Value (KM-Log)				3.352
2403				KM Standard Error of Mean (logged)		0.392						
2404												
2405				**DL/2 Statistics**								
2406				**DL/2 Normal**				**DL/2 Log-Transformed**				
2407				Mean in Original Scale		454.1		Mean in Log Scale				5.585
2408				SD in Original Scale		385.3		SD in Log Scale				1.291
2409				95% t UCL (Assumes normality)		595.4		95% H-Stat UCL				1433
2410				**DL/2 is not a recommended method, provided for comparisons and historical reasons**								
2411												
2412				**Nonparametric Distribution Free UCL Statistics**								

2413	**Detected Data appear Normal Distributed at 1% Significance Level**										
2414											
2415	**Suggested UCL to Use**										
2416	95% KM (t) UCL				567.8						
2417											
2418	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
2419	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
2420	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
2421											
2422	**Pyrene**										
2423											
2424	**General Statistics**										
2425	Total Number of Observations				22			Number of Distinct Observations			20
2426								Number of Missing Observations			45
2427	Number of Detects				17			Number of Non-Detects			5
2428	Number of Distinct Detects				15			Number of Distinct Non-Detects			5
2429	Minimum Detect				12			Minimum Non-Detect			110
2430	Maximum Detect				3300			Maximum Non-Detect			2000
2431	Variance Detects				616996			Percent Non-Detects			22.73%
2432	Mean Detects				950.7			SD Detects			785.5
2433	Median Detects				950			CV Detects			0.826
2434	Skewness Detects				1.613			Kurtosis Detects			4.204
2435	Mean of Logged Detects				6.376			SD of Logged Detects			1.305
2436											
2437	**Normal GOF Test on Detects Only**										
2438	Shapiro Wilk Test Statistic				0.855			**Shapiro Wilk GOF Test**			
2439	1% Shapiro Wilk Critical Value				0.851			Detected Data appear Normal at 1% Significance Level			
2440	Lilliefors Test Statistic				0.166			**Lilliefors GOF Test**			
2441	1% Lilliefors Critical Value				0.241			Detected Data appear Normal at 1% Significance Level			
2442	**Detected Data appear Normal at 1% Significance Level**										
2443											
2444	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
2445	KM Mean				772.9			KM Standard Error of Mean			170.2
2446	90KM SD				764.6			95% KM (BCA) UCL			1086
2447	95% KM (t) UCL				1066			95% KM (Percentile Bootstrap) UCL			1077
2448	95% KM (z) UCL				1053			95% KM Bootstrap t UCL			1148
2449	90% KM Chebyshev UCL				1283			95% KM Chebyshev UCL			1515
2450	97.5% KM Chebyshev UCL				1836			99% KM Chebyshev UCL			2466
2451											
2452	**Gamma GOF Tests on Detected Observations Only**										
2453	A-D Test Statistic				0.538			**Anderson-Darling GOF Test**			
2454	5% A-D Critical Value				0.762			Detected data appear Gamma Distributed at 5% Significance Level			
2455	K-S Test Statistic				0.214			**Kolmogorov-Smirnov GOF**			
2456	5% K-S Critical Value				0.214			Detected Data Not Gamma Distributed at 5% Significance Level			
2457	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**										
2458											
2459	**Gamma Statistics on Detected Data Only**										
2460	k hat (MLE)				1.179			k star (bias corrected MLE)			1.01
2461	Theta hat (MLE)				806.6			Theta star (bias corrected MLE)			941.4
2462	nu hat (MLE)				40.07			nu star (bias corrected)			34.34
2463	Mean (detects)				950.7						
2464											
2465	**Gamma ROS Statistics using Imputed Non-Detects**										
2466	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
2467	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
2468	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
2469	This is especially true when the sample size is small.										
2470	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
2471	Minimum				12			Mean			772.6
2472	Maximum				3300			Median			679.4
2473	SD				769.2			CV			0.996
2474	k hat (MLE)				0.839			k star (bias corrected MLE)			0.755
2475	Theta hat (MLE)				921.3			Theta star (bias corrected MLE)			1024
2476	nu hat (MLE)				36.9			nu star (bias corrected)			33.2
2477	Adjusted Level of Significance (β)				0.0386						
2478	Approximate Chi Square Value (33.20, α)				21.03			Adjusted Chi Square Value (33.20, β)			20.3
2479	95% Gamma Approximate UCL				1220			95% Gamma Adjusted UCL			1263

2480												
2481	**Estimates of Gamma Parameters using KM Estimates**											
2482					Mean (KM)	772.9			SD (KM)	764.6		
2483					Variance (KM)	584551			SE of Mean (KM)	170.2		
2484					k hat (KM)	1.022			k star (KM)	0.913		
2485					nu hat (KM)	44.96			nu star (KM)	40.17		
2486					theta hat (KM)	756.3			theta star (KM)	846.7		
2487					80% gamma percentile (KM)	1253			90% gamma percentile (KM)	1820		
2488					95% gamma percentile (KM)	2392			99% gamma percentile (KM)	3728		
2489												
2490	**Gamma Kaplan-Meier (KM) Statistics**											
2491					Approximate Chi Square Value (40.17, α)	26.64			Adjusted Chi Square Value (40.17, β)	25.82		
2492					95% KM Approximate Gamma UCL	1165			95% KM Adjusted Gamma UCL	1202		
2493												
2494	**Lognormal GOF Test on Detected Observations Only**											
2495					Shapiro Wilk Test Statistic	0.835			**Shapiro Wilk GOF Test**			
2496					10% Shapiro Wilk Critical Value	0.91			Detected Data Not Lognormal at 10% Significance Level			
2497					Lilliefors Test Statistic	0.251			**Lilliefors GOF Test**			
2498					10% Lilliefors Critical Value	0.19			Detected Data Not Lognormal at 10% Significance Level			
2499	**Detected Data Not Lognormal at 10% Significance Level**											
2500												
2501	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2502					Mean in Original Scale	765.9			Mean in Log Scale	5.985		
2503					SD in Original Scale	771.3			SD in Log Scale	1.397		
2504					95% t UCL (assumes normality of ROS data)	1049			95% Percentile Bootstrap UCL	1037		
2505					95% BCA Bootstrap UCL	1088			95% Bootstrap t UCL	1153		
2506					95% H-UCL (Log ROS)	2781						
2507												
2508	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2509					KM Mean (logged)	5.71			KM Geo Mean	301.8		
2510					KM SD (logged)	1.834			95% Critical H Value (KM-Log)	3.899		
2511					KM Standard Error of Mean (logged)	0.42			95% H-UCL (KM -Log)	7718		
2512					KM SD (logged)	1.834			95% Critical H Value (KM-Log)	3.899		
2513					KM Standard Error of Mean (logged)	0.42						
2514												
2515	**DL/2 Statistics**											
2516	**DL/2 Normal**								**DL/2 Log-Transformed**			
2517					Mean in Original Scale	800.5			Mean in Log Scale	6.051		
2518					SD in Original Scale	762.9			SD in Log Scale	1.411		
2519					95% t UCL (Assumes normality)	1080			95% H-Stat UCL	3076		
2520	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2521												
2522	**Nonparametric Distribution Free UCL Statistics**											
2523	**Detected Data appear Normal Distributed at 1% Significance Level**											
2524												
2525	**Suggested UCL to Use**											
2526					95% KM (t) UCL	1066						
2527												
2528	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2529	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2530	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2531												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:49:56 AM
From File	sediment_misc offsite streams upper
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

2,4,6-Trinitrotoluene

General Statistics

Total Number of Observations	26	Number of Distinct Observations	22
		Number of Missing Observations	23
Number of Detects	1	Number of Non-Detects	25
Number of Distinct Detects	1	Number of Distinct Non-Detects	21

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable 2,4,6-Trinitrotoluene was not processed!

Nitrobenzene

General Statistics

Total Number of Observations	26	Number of Distinct Observations	22
		Number of Missing Observations	23
Number of Detects	2	Number of Non-Detects	24
Number of Distinct Detects	2	Number of Distinct Non-Detects	20
Minimum Detect	1500	Minimum Non-Detect	70
Maximum Detect	1800	Maximum Non-Detect	700
Variance Detects	45000	Percent Non-Detects	92.31%
Mean Detects	1650	SD Detects	212.1
Median Detects	1650	CV Detects	0.129
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	7.404	SD of Logged Detects	0.129

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	191.5	KM Standard Error of Mean	117.3
90KM SD	423.1	95% KM (BCA) UCL	N/A
95% KM (t) UCL	392	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	384.5	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	543.6	95% KM Chebyshev UCL	703
97.5% KM Chebyshev UCL	924.3	99% KM Chebyshev UCL	1359

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	120.7	k star (bias corrected MLE)	N/A
Theta hat (MLE)	13.67	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	482.7	nu star (bias corrected)	N/A
Mean (detects)	1650		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	191.5	SD (KM)	423.1
Variance (KM)	178990	SE of Mean (KM)	117.3
k hat (KM)	0.205	k star (KM)	0.207
nu hat (KM)	10.66	nu star (KM)	10.76

68					theta hat (KM)	934.5					theta star (KM)	925.5
69					80% gamma percentile (KM)	256.8					90% gamma percentile (KM)	579.3
70					95% gamma percentile (KM)	978.1					99% gamma percentile (KM)	2070
71												
72					**Gamma Kaplan-Meier (KM) Statistics**							
73											Adjusted Level of Significance (β)	0.0398
74					Approximate Chi Square Value (10.76, α)	4.423					Adjusted Chi Square Value (10.76, β)	4.157
75					95% KM Approximate Gamma UCL	466					95% KM Adjusted Gamma UCL	495.8
76												
77					**Lognormal GOF Test on Detected Observations Only**							
78					**Not Enough Data to Perform GOF Test**							
79												
80					**Lognormal ROS Statistics Using Imputed Non-Detects**							
81					Mean in Original Scale	642.5					Mean in Log Scale	6.399
82					SD in Original Scale	309.2					SD in Log Scale	0.327
83					95% t UCL (assumes normality of ROS data)	746.1					95% Percentile Bootstrap UCL	748.6
84					95% BCA Bootstrap UCL	787.3					95% Bootstrap t UCL	1004
85					95% H-UCL (Log ROS)	715.3						
86												
87					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
88					KM Mean (logged)	4.491					KM Geo Mean	89.23
89					KM SD (logged)	0.841					95% Critical H Value (KM-Log)	2.313
90					KM Standard Error of Mean (logged)	0.233					95% H-UCL (KM -Log)	187.6
91					KM SD (logged)	0.841					95% Critical H Value (KM-Log)	2.313
92					KM Standard Error of Mean (logged)	0.233						
93					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
94												
95					**DL/2 Statistics**							
96					**DL/2 Normal**						**DL/2 Log-Transformed**	
97					Mean in Original Scale	260.8					Mean in Log Scale	5.047
98					SD in Original Scale	417.3					SD in Log Scale	0.862
99					95% t UCL (Assumes normality)	400.6					95% H-Stat UCL	337.2
100					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
101												
102					**Nonparametric Distribution Free UCL Statistics**							
103					**Data do not follow a Discernible Distribution**							
104												
105					**Suggested UCL to Use**							
106					95% KM (t) UCL	392						
107												
108					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
109					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
110					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
111												
112	**Arsenic**											
113												
114					**General Statistics**							
115					Total Number of Observations	26					Number of Distinct Observations	25
116											Number of Missing Observations	23
117					Number of Detects	22					Number of Non-Detects	4
118					Number of Distinct Detects	21					Number of Distinct Non-Detects	4
119					Minimum Detect	1					Minimum Non-Detect	1.3
120					Maximum Detect	31.8					Maximum Non-Detect	4.025
121					Variance Detects	44.2					Percent Non-Detects	15.38%
122					Mean Detects	5.214					SD Detects	6.649
123					Median Detects	2.615					CV Detects	1.275
124					Skewness Detects	3.359					Kurtosis Detects	12.88
125					Mean of Logged Detects	1.244					SD of Logged Detects	0.824
126												
127					**Normal GOF Test on Detects Only**							
128					Shapiro Wilk Test Statistic	0.573					**Shapiro Wilk GOF Test**	
129					1% Shapiro Wilk Critical Value	0.878					Detected Data Not Normal at 1% Significance Level	
130					Lilliefors Test Statistic	0.289					**Lilliefors GOF Test**	
131					1% Lilliefors Critical Value	0.214					Detected Data Not Normal at 1% Significance Level	
132					**Detected Data Not Normal at 1% Significance Level**							
133												
134					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							

135					KM Mean	4.633				KM Standard Error of Mean		1.232
136					90KM SD	6.133				95% KM (BCA) UCL		6.971
137					95% KM (t) UCL	6.737				95% KM (Percentile Bootstrap) UCL		6.881
138					95% KM (z) UCL	6.659				95% KM Bootstrap t UCL		9.424
139					90% KM Chebyshev UCL	8.328				95% KM Chebyshev UCL		10
140					97.5% KM Chebyshev UCL	12.32				99% KM Chebyshev UCL		16.89
141												
142					**Gamma GOF Tests on Detected Observations Only**							
143					A-D Test Statistic	1.362				**Anderson-Darling GOF Test**		
144					5% A-D Critical Value	0.762				Detected Data Not Gamma Distributed at 5% Significance Level		
145					K-S Test Statistic	0.23				**Kolmogorov-Smirnov GOF**		
146					5% K-S Critical Value	0.189				Detected Data Not Gamma Distributed at 5% Significance Level		
147					**Detected Data Not Gamma Distributed at 5% Significance Level**							
148												
149					**Gamma Statistics on Detected Data Only**							
150					k hat (MLE)	1.371				k star (bias corrected MLE)		1.215
151					Theta hat (MLE)	3.802				Theta star (bias corrected MLE)		4.293
152					nu hat (MLE)	60.33				nu star (bias corrected)		53.44
153					Mean (detects)	5.214						
154												
155					**Gamma ROS Statistics using Imputed Non-Detects**							
156					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
157					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
158					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
159					This is especially true when the sample size is small.							
160					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
161					Minimum	0.01				Mean		4.459
162					Maximum	31.8				Median		2.3
163					SD	6.357				CV		1.426
164					k hat (MLE)	0.711				k star (bias corrected MLE)		0.655
165					Theta hat (MLE)	6.272				Theta star (bias corrected MLE)		6.813
166					nu hat (MLE)	36.97				nu star (bias corrected)		34.03
167					Adjusted Level of Significance (β)	0.0398						
168					Approximate Chi Square Value (34.03, α)	21.69				Adjusted Chi Square Value (34.03, β)		21.04
169					95% Gamma Approximate UCL	6.996				95% Gamma Adjusted UCL		7.213
170												
171					**Estimates of Gamma Parameters using KM Estimates**							
172					Mean (KM)	4.633				SD (KM)		6.133
173					Variance (KM)	37.61				SE of Mean (KM)		1.232
174					k hat (KM)	0.571				k star (KM)		0.531
175					nu hat (KM)	29.68				nu star (KM)		27.59
176					theta hat (KM)	8.117				theta star (KM)		8.733
177					80% gamma percentile (KM)	7.626				90% gamma percentile (KM)		12.38
178					95% gamma percentile (KM)	17.43				99% gamma percentile (KM)		29.76
179												
180					**Gamma Kaplan-Meier (KM) Statistics**							
181					Approximate Chi Square Value (27.59, α)	16.61				Adjusted Chi Square Value (27.59, β)		16.05
182					95% KM Approximate Gamma UCL	7.697				95% KM Adjusted Gamma UCL		7.967
183												
184					**Lognormal GOF Test on Detected Observations Only**							
185					Shapiro Wilk Test Statistic	0.916				**Shapiro Wilk GOF Test**		
186					10% Shapiro Wilk Critical Value	0.926				Detected Data Not Lognormal at 10% Significance Level		
187					Lilliefors Test Statistic	0.18				**Lilliefors GOF Test**		
188					10% Lilliefors Critical Value	0.169				Detected Data Not Lognormal at 10% Significance Level		
189					**Detected Data Not Lognormal at 10% Significance Level**							
190												
191					**Lognormal ROS Statistics Using Imputed Non-Detects**							
192					Mean in Original Scale	4.61				Mean in Log Scale		1.075
193					SD in Original Scale	6.266				SD in Log Scale		0.878
194					95% t UCL (assumes normality of ROS data)	6.709				95% Percentile Bootstrap UCL		6.802
195					95% BCA Bootstrap UCL	7.85				95% Bootstrap t UCL		9.324
196					95% H-UCL (Log ROS)	6.515						
197												
198					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
199					KM Mean (logged)	1.097				KM Geo Mean		2.996
200					KM SD (logged)	0.83				95% Critical H Value (KM-Log)		2.3
201					KM Standard Error of Mean (logged)	0.168				95% H-UCL (KM -Log)		6.196

202				KM SD (logged)	0.83			95% Critical H Value (KM-Log)			2.3
203				KM Standard Error of Mean (logged)	0.168						
204											
205	**DL/2 Statistics**										
206	**DL/2 Normal**					**DL/2 Log-Transformed**					
207				Mean in Original Scale	4.588			Mean in Log Scale			1.056
208				SD in Original Scale	6.279			SD in Log Scale			0.899
209				95% t UCL (Assumes normality)	6.691			95% H-Stat UCL			6.613
210	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
211											
212	**Nonparametric Distribution Free UCL Statistics**										
213	**Data do not follow a Discernible Distribution**										
214											
215	**Suggested UCL to Use**										
216				95% KM (t) UCL	6.737						
217											
218	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
219	**Please verify the data were collected from random locations.**										
220	**If the data were collected using judgmental or other non-random methods,**										
221	**then contact a statistician to correctly calculate UCLs.**										
222											
223	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
224	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
225	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
226											
227	**Cadmium**										
228											
229	**General Statistics**										
230				Total Number of Observations	26			Number of Distinct Observations			26
231								Number of Missing Observations			23
232				Number of Detects	18			Number of Non-Detects			8
233				Number of Distinct Detects	18			Number of Distinct Non-Detects			8
234				Minimum Detect	0.11			Minimum Non-Detect			0.299
235				Maximum Detect	2.38			Maximum Non-Detect			1.15
236				Variance Detects	0.274			Percent Non-Detects			30.77%
237				Mean Detects	0.582			SD Detects			0.524
238				Median Detects	0.479			CV Detects			0.899
239				Skewness Detects	2.565			Kurtosis Detects			8.285
240				Mean of Logged Detects	-0.831			SD of Logged Detects			0.779
241											
242	**Normal GOF Test on Detects Only**										
243				Shapiro Wilk Test Statistic	0.737	**Shapiro Wilk GOF Test**					
244				1% Shapiro Wilk Critical Value	0.858	Detected Data Not Normal at 1% Significance Level					
245				Lilliefors Test Statistic	0.196	**Lilliefors GOF Test**					
246				1% Lilliefors Critical Value	0.235	Detected Data appear Normal at 1% Significance Level					
247	**Detected Data appear Approximate Normal at 1% Significance Level**										
248											
249	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
250				KM Mean	0.473			KM Standard Error of Mean			0.0944
251				90KM SD	0.461			95% KM (BCA) UCL			0.653
252				95% KM (t) UCL	0.634			95% KM (Percentile Bootstrap) UCL			0.644
253				95% KM (z) UCL	0.628			95% KM Bootstrap t UCL			0.729
254				90% KM Chebyshev UCL	0.756			95% KM Chebyshev UCL			0.884
255				97.5% KM Chebyshev UCL	1.062			99% KM Chebyshev UCL			1.412
256											
257	**Gamma GOF Tests on Detected Observations Only**										
258				A-D Test Statistic	0.285	**Anderson-Darling GOF Test**					
259				5% A-D Critical Value	0.754	Detected data appear Gamma Distributed at 5% Significance Level					
260				K-S Test Statistic	0.102	**Kolmogorov-Smirnov GOF**					
261				5% K-S Critical Value	0.207	Detected data appear Gamma Distributed at 5% Significance Level					
262	**Detected data appear Gamma Distributed at 5% Significance Level**										
263											
264	**Gamma Statistics on Detected Data Only**										
265				k hat (MLE)	1.873			k star (bias corrected MLE)			1.598
266				Theta hat (MLE)	0.311			Theta star (bias corrected MLE)			0.364
267				nu hat (MLE)	67.44			nu star (bias corrected)			57.54
268				Mean (detects)	0.582						

269											
270	**Gamma ROS Statistics using Imputed Non-Detects**										
271	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
272	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
273	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
274	This is especially true when the sample size is small.										
275	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
276					Minimum	0.0661			Mean	0.443	
277					Maximum	2.38			Median	0.321	
278					SD	0.484			CV	1.091	
279					k hat (MLE)	1.27			k star (bias corrected MLE)	1.149	
280					Theta hat (MLE)	0.349			Theta star (bias corrected MLE)	0.386	
281					nu hat (MLE)	66.05			nu star (bias corrected)	59.76	
282					Adjusted Level of Significance (β)	0.0398					
283					Approximate Chi Square Value (59.76, α)	42.99			Adjusted Chi Square Value (59.76, β)	42.05	
284					95% Gamma Approximate UCL	0.616			95% Gamma Adjusted UCL	0.63	
285											
286	**Estimates of Gamma Parameters using KM Estimates**										
287					Mean (KM)	0.473			SD (KM)	0.461	
288					Variance (KM)	0.213			SE of Mean (KM)	0.0944	
289					k hat (KM)	1.051			k star (KM)	0.955	
290					nu hat (KM)	54.63			nu star (KM)	49.66	
291					theta hat (KM)	0.45			theta star (KM)	0.495	
292					80% gamma percentile (KM)	0.764			90% gamma percentile (KM)	1.101	
293					95% gamma percentile (KM)	1.44			99% gamma percentile (KM)	2.228	
294											
295	**Gamma Kaplan-Meier (KM) Statistics**										
296					Approximate Chi Square Value (49.66, α)	34.48			Adjusted Chi Square Value (49.66, β)	33.65	
297					95% KM Approximate Gamma UCL	0.681			95% KM Adjusted Gamma UCL	0.698	
298											
299	**Lognormal GOF Test on Detected Observations Only**										
300					Shapiro Wilk Test Statistic	0.978			**Shapiro Wilk GOF Test**		
301					10% Shapiro Wilk Critical Value	0.914			Detected Data appear Lognormal at 10% Significance Level		
302					Lilliefors Test Statistic	0.094			**Lilliefors GOF Test**		
303					10% Lilliefors Critical Value	0.185			Detected Data appear Lognormal at 10% Significance Level		
304	**Detected Data appear Lognormal at 10% Significance Level**										
305											
306	**Lognormal ROS Statistics Using Imputed Non-Detects**										
307					Mean in Original Scale	0.469			Mean in Log Scale	-1.059	
308					SD in Original Scale	0.466			SD in Log Scale	0.741	
309					95% t UCL (assumes normality of ROS data)	0.625			95% Percentile Bootstrap UCL	0.624	
310					95% BCA Bootstrap UCL	0.679			95% Bootstrap t UCL	0.73	
311					95% H-UCL (Log ROS)	0.632					
312											
313	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
314					KM Mean (logged)	-1.074			KM Geo Mean	0.342	
315					KM SD (logged)	0.775			95% Critical H Value (KM-Log)	2.236	
316					KM Standard Error of Mean (logged)	0.168			95% H-UCL (KM -Log)	0.653	
317					KM SD (logged)	0.775			95% Critical H Value (KM-Log)	2.236	
318					KM Standard Error of Mean (logged)	0.168					
319											
320	**DL/2 Statistics**										
321	**DL/2 Normal**								**DL/2 Log-Transformed**		
322					Mean in Original Scale	0.476			Mean in Log Scale	-1.056	
323					SD in Original Scale	0.468			SD in Log Scale	0.772	
324					95% t UCL (Assumes normality)	0.633			95% H-Stat UCL	0.662	
325	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
326											
327	**Nonparametric Distribution Free UCL Statistics**										
328	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**										
329											
330	**Suggested UCL to Use**										
331					95% KM (t) UCL	0.634					
332											
333	When a data set follows an approximate distribution passing only one of the GOF tests,										
334	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL										
335											

	A	B	C	D	E	F	G	H	I	J	K	L
336	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
337	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
338	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
339												
340												
341	**Chromium**											
342												
343	**General Statistics**											
344						Total Number of Observations	26				Number of Distinct Observations	26
345											Number of Missing Observations	23
346						Minimum	7.55				Mean	22.03
347						Maximum	108				Median	14.65
348						SD	21.35				Std. Error of Mean	4.187
349						Coefficient of Variation	0.969				Skewness	3.056
350												
351	**Normal GOF Test**											
352						Shapiro Wilk Test Statistic	0.626		**Shapiro Wilk GOF Test**			
353						1% Shapiro Wilk Critical Value	0.891		Data Not Normal at 1% Significance Level			
354						Lilliefors Test Statistic	0.274		**Lilliefors GOF Test**			
355						1% Lilliefors Critical Value	0.199		Data Not Normal at 1% Significance Level			
356	**Data Not Normal at 1% Significance Level**											
357												
358	**Assuming Normal Distribution**											
359					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**			
360						95% Student's-t UCL	29.18				95% Adjusted-CLT UCL (Chen-1995)	31.6
361											95% Modified-t UCL (Johnson-1978)	29.6
362												
363	**Gamma GOF Test**											
364						A-D Test Statistic	1.419		**Anderson-Darling Gamma GOF Test**			
365						5% A-D Critical Value	0.756		Data Not Gamma Distributed at 5% Significance Level			
366						K-S Test Statistic	0.202		**Kolmogorov-Smirnov Gamma GOF Test**			
367						5% K-S Critical Value	0.173		Data Not Gamma Distributed at 5% Significance Level			
368	**Data Not Gamma Distributed at 5% Significance Level**											
369												
370	**Gamma Statistics**											
371						k hat (MLE)	2.128				k star (bias corrected MLE)	1.908
372						Theta hat (MLE)	10.35				Theta star (bias corrected MLE)	11.55
373						nu hat (MLE)	110.6				nu star (bias corrected)	99.2
374						MLE Mean (bias corrected)	22.03				MLE Sd (bias corrected)	15.95
375											Approximate Chi Square Value (0.05)	77.22
376						Adjusted Level of Significance	0.0398				Adjusted Chi Square Value	75.94
377												
378	**Assuming Gamma Distribution**											
379						95% Approximate Gamma UCL	28.3				95% Adjusted Gamma UCL	28.77
380												
381	**Lognormal GOF Test**											
382						Shapiro Wilk Test Statistic	0.903		**Shapiro Wilk Lognormal GOF Test**			
383						10% Shapiro Wilk Critical Value	0.933		Data Not Lognormal at 10% Significance Level			
384						Lilliefors Test Statistic	0.144		**Lilliefors Lognormal GOF Test**			
385						10% Lilliefors Critical Value	0.156		Data appear Lognormal at 10% Significance Level			
386	**Data appear Approximate Lognormal at 10% Significance Level**											
387												
388	**Lognormal Statistics**											
389						Minimum of Logged Data	2.022				Mean of logged Data	2.839
390						Maximum of Logged Data	4.682				SD of logged Data	0.648
391												
392	**Assuming Lognormal Distribution**											
393						95% H-UCL	27.7				90% Chebyshev (MVUE) UCL	29.4
394						95% Chebyshev (MVUE) UCL	33.25				97.5% Chebyshev (MVUE) UCL	38.6
395						99% Chebyshev (MVUE) UCL	49.1					
396												
397	**Nonparametric Distribution Free UCL Statistics**											
398	**Data appear to follow a Discernible Distribution**											
399												
400	**Nonparametric Distribution Free UCLs**											
401						95% CLT UCL	28.91				95% BCA Bootstrap UCL	32.6
402						95% Standard Bootstrap UCL	28.84				95% Bootstrap-t UCL	36.82

403				95% Hall's Bootstrap UCL	59.94				95% Percentile Bootstrap UCL			29.42
404				90% Chebyshev(Mean, Sd) UCL	34.59				95% Chebyshev(Mean, Sd) UCL			40.28
405				97.5% Chebyshev(Mean, Sd) UCL	48.18				99% Chebyshev(Mean, Sd) UCL			63.69
406												
407					**Suggested UCL to Use**							
408				95% H-UCL	27.7							
409												
410					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
411					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
412					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
413												
414												
415	**Copper**											
416												
417					**General Statistics**							
418				Total Number of Observations	26				Number of Distinct Observations			26
419									Number of Missing Observations			23
420				Minimum	3.13				Mean			19.86
421				Maximum	47.4				Median			14.55
422				SD	13.6				Std. Error of Mean			2.668
423				Coefficient of Variation	0.685				Skewness			0.584
424												
425					**Normal GOF Test**							
426				Shapiro Wilk Test Statistic	0.904				**Shapiro Wilk GOF Test**			
427				1% Shapiro Wilk Critical Value	0.891				Data appear Normal at 1% Significance Level			
428				Lilliefors Test Statistic	0.178				**Lilliefors GOF Test**			
429				1% Lilliefors Critical Value	0.199				Data appear Normal at 1% Significance Level			
430					**Data appear Normal at 1% Significance Level**							
431												
432					**Assuming Normal Distribution**							
433				**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**			
434				95% Student's-t UCL	24.41				95% Adjusted-CLT UCL (Chen-1995)			24.57
435									95% Modified-t UCL (Johnson-1978)			24.46
436												
437					**Gamma GOF Test**							
438				A-D Test Statistic	0.458				**Anderson-Darling Gamma GOF Test**			
439				5% A-D Critical Value	0.757				Detected data appear Gamma Distributed at 5% Significance Level			
440				K-S Test Statistic	0.119				**Kolmogorov-Smirnov Gamma GOF Test**			
441				5% K-S Critical Value	0.173				Detected data appear Gamma Distributed at 5% Significance Level			
442					**Detected data appear Gamma Distributed at 5% Significance Level**							
443												
444					**Gamma Statistics**							
445				k hat (MLE)	2.02				k star (bias corrected MLE)			1.813
446				Theta hat (MLE)	9.827				Theta star (bias corrected MLE)			10.95
447				nu hat (MLE)	105.1				nu star (bias corrected)			94.28
448				MLE Mean (bias corrected)	19.86				MLE Sd (bias corrected)			14.75
449									Approximate Chi Square Value (0.05)			72.88
450				Adjusted Level of Significance	0.0398				Adjusted Chi Square Value			71.64
451												
452					**Assuming Gamma Distribution**							
453				95% Approximate Gamma UCL	25.68				95% Adjusted Gamma UCL			26.13
454												
455					**Lognormal GOF Test**							
456				Shapiro Wilk Test Statistic	0.947				**Shapiro Wilk Lognormal GOF Test**			
457				10% Shapiro Wilk Critical Value	0.933				Data appear Lognormal at 10% Significance Level			
458				Lilliefors Test Statistic	0.135				**Lilliefors Lognormal GOF Test**			
459				10% Lilliefors Critical Value	0.156				Data appear Lognormal at 10% Significance Level			
460					**Data appear Lognormal at 10% Significance Level**							
461												
462					**Lognormal Statistics**							
463				Minimum of Logged Data	1.141				Mean of logged Data			2.721
464				Maximum of Logged Data	3.859				SD of logged Data			0.791
465												
466					**Assuming Lognormal Distribution**							
467				95% H-UCL	29.66				90% Chebyshev (MVUE) UCL			30.87
468				95% Chebyshev (MVUE) UCL	35.59				97.5% Chebyshev (MVUE) UCL			42.14
469				99% Chebyshev (MVUE) UCL	55.01							

470												
471	**Nonparametric Distribution Free UCL Statistics**											
472	**Data appear to follow a Discernible Distribution**											
473												
474	**Nonparametric Distribution Free UCLs**											
475				95% CLT UCL	24.24			95% BCA Bootstrap UCL	24.24			
476				95% Standard Bootstrap UCL	24.1			95% Bootstrap-t UCL	24.92			
477				95% Hall's Bootstrap UCL	24.53			95% Percentile Bootstrap UCL	24.04			
478				90% Chebyshev(Mean, Sd) UCL	27.86			95% Chebyshev(Mean, Sd) UCL	31.48			
479				97.5% Chebyshev(Mean, Sd) UCL	36.51			99% Chebyshev(Mean, Sd) UCL	46.4			
480												
481	**Suggested UCL to Use**											
482				95% Student's-t UCL	24.41							
483												
484	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
485	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
486	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
487												
488												
489	**Lead**											
490												
491	**General Statistics**											
492				Total Number of Observations	31			Number of Distinct Observations	31			
493								Number of Missing Observations	18			
494				Minimum	4.7			Mean	183.2			
495				Maximum	1580			Median	39.6			
496				SD	309.3			Std. Error of Mean	55.55			
497				Coefficient of Variation	1.688			Skewness	3.366			
498												
499	**Normal GOF Test**											
500				Shapiro Wilk Test Statistic	0.593			**Shapiro Wilk GOF Test**				
501				1% Shapiro Wilk Critical Value	0.902			Data Not Normal at 1% Significance Level				
502				Lilliefors Test Statistic	0.282			**Lilliefors GOF Test**				
503				1% Lilliefors Critical Value	0.182			Data Not Normal at 1% Significance Level				
504	**Data Not Normal at 1% Significance Level**											
505												
506	**Assuming Normal Distribution**											
507	**95% Normal UCL**							**95% UCLs (Adjusted for Skewness)**				
508				95% Student's-t UCL	277.5			95% Adjusted-CLT UCL (Chen-1995)	310.5			
509								95% Modified-t UCL (Johnson-1978)	283.1			
510												
511	**Gamma GOF Test**											
512				A-D Test Statistic	1.367			**Anderson-Darling Gamma GOF Test**				
513				5% A-D Critical Value	0.801			Data Not Gamma Distributed at 5% Significance Level				
514				K-S Test Statistic	0.214			**Kolmogorov-Smirnov Gamma GOF Test**				
515				5% K-S Critical Value	0.166			Data Not Gamma Distributed at 5% Significance Level				
516	**Data Not Gamma Distributed at 5% Significance Level**											
517												
518	**Gamma Statistics**											
519				k hat (MLE)	0.6			k star (bias corrected MLE)	0.563			
520				Theta hat (MLE)	305.4			Theta star (bias corrected MLE)	325.2			
521				nu hat (MLE)	37.2			nu star (bias corrected)	34.93			
522				MLE Mean (bias corrected)	183.2			MLE Sd (bias corrected)	244.1			
523								Approximate Chi Square Value (0.05)	22.41			
524				Adjusted Level of Significance	0.0413			Adjusted Chi Square Value	21.85			
525												
526	**Assuming Gamma Distribution**											
527				95% Approximate Gamma UCL	285.6			95% Adjusted Gamma UCL	292.9			
528												
529	**Lognormal GOF Test**											
530				Shapiro Wilk Test Statistic	0.95			**Shapiro Wilk Lognormal GOF Test**				
531				10% Shapiro Wilk Critical Value	0.94			Data appear Lognormal at 10% Significance Level				
532				Lilliefors Test Statistic	0.15			**Lilliefors Lognormal GOF Test**				
533				10% Lilliefors Critical Value	0.143			Data Not Lognormal at 10% Significance Level				
534	**Data appear Approximate Lognormal at 10% Significance Level**											
535												
536	**Lognormal Statistics**											

537				Minimum of Logged Data	1.548					Mean of logged Data	4.181	
538				Maximum of Logged Data	7.365					SD of logged Data	1.474	
539												
540				**Assuming Lognormal Distribution**								
541				95% H-UCL	439.3					90% Chebyshev (MVUE) UCL	362.9	
542				95% Chebyshev (MVUE) UCL	445.2					97.5% Chebyshev (MVUE) UCL	559.3	
543				99% Chebyshev (MVUE) UCL	783.6							
544												
545				**Nonparametric Distribution Free UCL Statistics**								
546				**Data appear to follow a Discernible Distribution**								
547												
548				**Nonparametric Distribution Free UCLs**								
549				95% CLT UCL	274.6					95% BCA Bootstrap UCL	319.9	
550				95% Standard Bootstrap UCL	271.4					95% Bootstrap-t UCL	351.7	
551				95% Hall's Bootstrap UCL	634.5					95% Percentile Bootstrap UCL	282.7	
552				90% Chebyshev(Mean, Sd) UCL	349.9					95% Chebyshev(Mean, Sd) UCL	425.4	
553				97.5% Chebyshev(Mean, Sd) UCL	530.2					99% Chebyshev(Mean, Sd) UCL	736	
554												
555				**Suggested UCL to Use**								
556				95% H-UCL	439.3							
557												
558				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
559				**Please verify the data were collected from random locations.**								
560				**If the data were collected using judgmental or other non-random methods,**								
561				**then contact a statistician to correctly calculate UCLs.**								
562												
563				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
564				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
565				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
566												
567	**Mercury**											
568												
569				**General Statistics**								
570				Total Number of Observations	26					Number of Distinct Observations	26	
571										Number of Missing Observations	23	
572				Number of Detects	25					Number of Non-Detects	1	
573				Number of Distinct Detects	25					Number of Distinct Non-Detects	1	
574				Minimum Detect	0.0229					Minimum Non-Detect	0.00175	
575				Maximum Detect	4.14					Maximum Non-Detect	0.00175	
576				Variance Detects	0.816					Percent Non-Detects	3.846%	
577				Mean Detects	0.59					SD Detects	0.903	
578				Median Detects	0.2					CV Detects	1.53	
579				Skewness Detects	2.813					Kurtosis Detects	9.645	
580				Mean of Logged Detects	-1.496					SD of Logged Detects	1.473	
581												
582				**Normal GOF Test on Detects Only**								
583				Shapiro Wilk Test Statistic	0.648					**Shapiro Wilk GOF Test**		
584				1% Shapiro Wilk Critical Value	0.886					Detected Data Not Normal at 1% Significance Level		
585				Lilliefors Test Statistic	0.265					**Lilliefors GOF Test**		
586				1% Lilliefors Critical Value	0.201					Detected Data Not Normal at 1% Significance Level		
587				**Detected Data Not Normal at 1% Significance Level**								
588												
589				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
590				KM Mean	0.568					KM Standard Error of Mean	0.175	
591				90KM SD	0.875					95% KM (BCA) UCL	0.894	
592				95% KM (t) UCL	0.867					95% KM (Percentile Bootstrap) UCL	0.868	
593				95% KM (z) UCL	0.856					95% KM Bootstrap t UCL	1.103	
594				90% KM Chebyshev UCL	1.093					95% KM Chebyshev UCL	1.331	
595				97.5% KM Chebyshev UCL	1.662					99% KM Chebyshev UCL	2.311	
596												
597				**Gamma GOF Tests on Detected Observations Only**								
598				A-D Test Statistic	0.799					**Anderson-Darling GOF Test**		
599				5% A-D Critical Value	0.794					Detected Data Not Gamma Distributed at 5% Significance Level		
600				K-S Test Statistic	0.153					**Kolmogorov-Smirnov GOF**		
601				5% K-S Critical Value	0.183					Detected data appear Gamma Distributed at 5% Significance Level		
602				**Detected data follow Appr. Gamma Distribution at 5% Significance Level**								
603												

604	**Gamma Statistics on Detected Data Only**											
605					k hat (MLE)	0.633			k star (bias corrected MLE)	0.584		
606					Theta hat (MLE)	0.933			Theta star (bias corrected MLE)	1.011		
607					nu hat (MLE)	31.65			nu star (bias corrected)	29.18		
608					Mean (detects)	0.59						
609												
610	**Gamma ROS Statistics using Imputed Non-Detects**											
611	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
612	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
613	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
614	This is especially true when the sample size is small.											
615	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
616					Minimum	0.01			Mean	0.568		
617					Maximum	4.14			Median	0.174		
618					SD	0.892			CV	1.571		
619					k hat (MLE)	0.59			k star (bias corrected MLE)	0.548		
620					Theta hat (MLE)	0.962			Theta star (bias corrected MLE)	1.037		
621					nu hat (MLE)	30.69			nu star (bias corrected)	28.48		
622					Adjusted Level of Significance (β)	0.0398						
623					Approximate Chi Square Value (28.48, α)	17.3			Adjusted Chi Square Value (28.48, β)	16.73		
624					95% Gamma Approximate UCL	0.935			95% Gamma Adjusted UCL	0.967		
625												
626	**Estimates of Gamma Parameters using KM Estimates**											
627					Mean (KM)	0.568			SD (KM)	0.875		
628					Variance (KM)	0.766			SE of Mean (KM)	0.175		
629					k hat (KM)	0.421			k star (KM)	0.398		
630					nu hat (KM)	21.87			nu star (KM)	20.68		
631					theta hat (KM)	1.35			theta star (KM)	1.427		
632					80% gamma percentile (KM)	0.916			90% gamma percentile (KM)	1.605		
633					95% gamma percentile (KM)	2.363			99% gamma percentile (KM)	4.271		
634												
635	**Gamma Kaplan-Meier (KM) Statistics**											
636					Approximate Chi Square Value (20.68, α)	11.36			Adjusted Chi Square Value (20.68, β)	10.9		
637					95% KM Approximate Gamma UCL	1.034			95% KM Adjusted Gamma UCL	1.077		
638												
639	**Lognormal GOF Test on Detected Observations Only**											
640					Shapiro Wilk Test Statistic	0.957			**Shapiro Wilk GOF Test**			
641					10% Shapiro Wilk Critical Value	0.931			Detected Data appear Lognormal at 10% Significance Level			
642					Lilliefors Test Statistic	0.0958			**Lilliefors GOF Test**			
643					10% Lilliefors Critical Value	0.159			Detected Data appear Lognormal at 10% Significance Level			
644	**Detected Data appear Lognormal at 10% Significance Level**											
645												
646	**Lognormal ROS Statistics Using Imputed Non-Detects**											
647					Mean in Original Scale	0.568			Mean in Log Scale	-1.638		
648					SD in Original Scale	0.892			SD in Log Scale	1.614		
649					95% t UCL (assumes normality of ROS data)	0.867			95% Percentile Bootstrap UCL	0.874		
650					95% BCA Bootstrap UCL	0.98			95% Bootstrap t UCL	1.095		
651					95% H-UCL (Log ROS)	2.138						
652												
653	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
654					KM Mean (logged)	-1.682			KM Geo Mean	0.186		
655					KM SD (logged)	1.695			95% Critical H Value (KM-Log)	3.518		
656					KM Standard Error of Mean (logged)	0.339			95% H-UCL (KM -Log)	2.576		
657					KM SD (logged)	1.695			95% Critical H Value (KM-Log)	3.518		
658					KM Standard Error of Mean (logged)	0.339						
659												
660	**DL/2 Statistics**											
661	**DL/2 Normal**								**DL/2 Log-Transformed**			
662					Mean in Original Scale	0.568			Mean in Log Scale	-1.709		
663					SD in Original Scale	0.893			SD in Log Scale	1.807		
664					95% t UCL (Assumes normality)	0.867			95% H-Stat UCL	3.521		
665	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
666												
667	**Nonparametric Distribution Free UCL Statistics**											
668	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
669												
670	**Suggested UCL to Use**											

671				95% KM Adjusted Gamma UCL		1.077						
672												
673	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
674	**Please verify the data were collected from random locations.**											
675	**If the data were collected using judgmental or other non-random methods,**											
676	**then contact a statistician to correctly calculate UCLs.**											
677												
678	When a data set follows an approximate distribution passing only one of the GOF tests,											
679	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
680												
681	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
682	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
683	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
684												
685												
686	**Nickel**											
687												
688	**General Statistics**											
689					Total Number of Observations		26			Number of Distinct Observations		25
690										Number of Missing Observations		23
691					Minimum		1.8			Mean		8.433
692					Maximum		21.7			Median		6.82
693					SD		4.956			Std. Error of Mean		0.972
694					Coefficient of Variation		0.588			Skewness		1.066
695												
696	**Normal GOF Test**											
697					Shapiro Wilk Test Statistic		0.919			**Shapiro Wilk GOF Test**		
698					1% Shapiro Wilk Critical Value		0.891			Data appear Normal at 1% Significance Level		
699					Lilliefors Test Statistic		0.156			**Lilliefors GOF Test**		
700					1% Lilliefors Critical Value		0.199			Data appear Normal at 1% Significance Level		
701	**Data appear Normal at 1% Significance Level**											
702												
703	**Assuming Normal Distribution**											
704					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
705					95% Student's-t UCL		10.09			95% Adjusted-CLT UCL (Chen-1995)		10.25
706										95% Modified-t UCL (Johnson-1978)		10.13
707												
708	**Gamma GOF Test**											
709					A-D Test Statistic		0.149			**Anderson-Darling Gamma GOF Test**		
710					5% A-D Critical Value		0.75			Detected data appear Gamma Distributed at 5% Significance Level		
711					K-S Test Statistic		0.0939			**Kolmogorov-Smirnov Gamma GOF Test**		
712					5% K-S Critical Value		0.172			Detected data appear Gamma Distributed at 5% Significance Level		
713	**Detected data appear Gamma Distributed at 5% Significance Level**											
714												
715	**Gamma Statistics**											
716					k hat (MLE)		3.134			k star (bias corrected MLE)		2.798
717					Theta hat (MLE)		2.691			Theta star (bias corrected MLE)		3.014
718					nu hat (MLE)		163			nu star (bias corrected)		145.5
719					MLE Mean (bias corrected)		8.433			MLE Sd (bias corrected)		5.041
720										Approximate Chi Square Value (0.05)		118.6
721					Adjusted Level of Significance		0.0398			Adjusted Chi Square Value		117
722												
723	**Assuming Gamma Distribution**											
724					95% Approximate Gamma UCL		10.34			95% Adjusted Gamma UCL		10.49
725												
726	**Lognormal GOF Test**											
727					Shapiro Wilk Test Statistic		0.986			**Shapiro Wilk Lognormal GOF Test**		
728					10% Shapiro Wilk Critical Value		0.933			Data appear Lognormal at 10% Significance Level		
729					Lilliefors Test Statistic		0.0803			**Lilliefors Lognormal GOF Test**		
730					10% Lilliefors Critical Value		0.156			Data appear Lognormal at 10% Significance Level		
731	**Data appear Lognormal at 10% Significance Level**											
732												
733	**Lognormal Statistics**											
734					Minimum of Logged Data		0.588			Mean of logged Data		1.964
735					Maximum of Logged Data		3.077			SD of logged Data		0.609
736												
737	**Assuming Lognormal Distribution**											

738					95% H-UCL	11.04				90% Chebyshev (MVUE) UCL		11.75
739					95% Chebyshev (MVUE) UCL	13.22				97.5% Chebyshev (MVUE) UCL		15.25
740					99% Chebyshev (MVUE) UCL	19.25						
741												
742	**Nonparametric Distribution Free UCL Statistics**											
743	**Data appear to follow a Discernible Distribution**											
744												
745	**Nonparametric Distribution Free UCLs**											
746					95% CLT UCL	10.03				95% BCA Bootstrap UCL		10.24
747					95% Standard Bootstrap UCL	9.989				95% Bootstrap-t UCL		10.38
748					95% Hall's Bootstrap UCL	10.34				95% Percentile Bootstrap UCL		10.04
749					90% Chebyshev(Mean, Sd) UCL	11.35				95% Chebyshev(Mean, Sd) UCL		12.67
750					97.5% Chebyshev(Mean, Sd) UCL	14.5				99% Chebyshev(Mean, Sd) UCL		18.1
751												
752	**Suggested UCL to Use**											
753					95% Student's-t UCL	10.09						
754												
755	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
756	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
757	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
758												
759	**Silver**											
760												
761	**General Statistics**											
762					Total Number of Observations	26				Number of Distinct Observations		24
763										Number of Missing Observations		23
764					Number of Detects	2				Number of Non-Detects		24
765					Number of Distinct Detects	2				Number of Distinct Non-Detects		22
766					Minimum Detect	0.31				Minimum Non-Detect		0.115
767					Maximum Detect	3.9				Maximum Non-Detect		1.15
768					Variance Detects	6.444				Percent Non-Detects		92.31%
769					Mean Detects	2.105				SD Detects		2.539
770					Median Detects	2.105				CV Detects		1.206
771					Skewness Detects	N/A				Kurtosis Detects		N/A
772					Mean of Logged Detects	0.0949				SD of Logged Detects		1.791
773												
774	**Warning: Data set has only 2 Detected Values.**											
775	**This is not enough to compute meaningful or reliable statistics and estimates.**											
776												
777												
778	**Normal GOF Test on Detects Only**											
779	**Not Enough Data to Perform GOF Test**											
780												
781	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
782					KM Mean	0.323				KM Standard Error of Mean		0.211
783					90KM SD	0.721				95% KM (BCA) UCL		N/A
784					95% KM (t) UCL	0.684				95% KM (Percentile Bootstrap) UCL		N/A
785					95% KM (z) UCL	0.67				95% KM Bootstrap t UCL		N/A
786					90% KM Chebyshev UCL	0.956				95% KM Chebyshev UCL		1.243
787					97.5% KM Chebyshev UCL	1.642				99% KM Chebyshev UCL		2.424
788												
789	**Gamma GOF Tests on Detected Observations Only**											
790	**Not Enough Data to Perform GOF Test**											
791												
792	**Gamma Statistics on Detected Data Only**											
793					k hat (MLE)	0.9				k star (bias corrected MLE)		N/A
794					Theta hat (MLE)	2.338				Theta star (bias corrected MLE)		N/A
795					nu hat (MLE)	3.601				nu star (bias corrected)		N/A
796					Mean (detects)	2.105						
797												
798	**Estimates of Gamma Parameters using KM Estimates**											
799					Mean (KM)	0.323				SD (KM)		0.721
800					Variance (KM)	0.52				SE of Mean (KM)		0.211
801					k hat (KM)	0.201				k star (KM)		0.203
802					nu hat (KM)	10.44				nu star (KM)		10.57
803					theta hat (KM)	1.609				theta star (KM)		1.59
804					80% gamma percentile (KM)	0.429				90% gamma percentile (KM)		0.977

805				95% gamma percentile (KM)		1.658				99% gamma percentile (KM)		3.526
806												
807						**Gamma Kaplan-Meier (KM) Statistics**							
808										Adjusted Level of Significance (β)		0.0398
809				Approximate Chi Square Value (10.57, α)		4.3				Adjusted Chi Square Value (10.57, β)		4.038
810				95% KM Approximate Gamma UCL		0.794				95% KM Adjusted Gamma UCL		0.845
811												
812						**Lognormal GOF Test on Detected Observations Only**							
813						**Not Enough Data to Perform GOF Test**							
814												
815						**Lognormal ROS Statistics Using Imputed Non-Detects**							
816				Mean in Original Scale		0.208				Mean in Log Scale		-2.85
817				SD in Original Scale		0.755				SD in Log Scale		1.026
818				95% t UCL (assumes normality of ROS data)		0.461				95% Percentile Bootstrap UCL		0.501
819				95% BCA Bootstrap UCL		0.67				95% Bootstrap t UCL		6.154
820				95% H-UCL (Log ROS)		0.165						
821												
822						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
823				KM Mean (logged)		-1.709				KM Geo Mean		0.181
824				KM SD (logged)		0.766				95% Critical H Value (KM-Log)		2.226
825				KM Standard Error of Mean (logged)		0.405				95% H-UCL (KM -Log)		0.341
826				KM SD (logged)		0.766				95% Critical H Value (KM-Log)		2.226
827				KM Standard Error of Mean (logged)		0.405						
828						**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
829												
830						**DL/2 Statistics**							
831				**DL/2 Normal**						**DL/2 Log-Transformed**		
832				Mean in Original Scale		0.396				Mean in Log Scale		-1.354
833				SD in Original Scale		0.724				SD in Log Scale		0.723
834				95% t UCL (Assumes normality)		0.638				95% H-Stat UCL		0.459
835						**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
836												
837						**Nonparametric Distribution Free UCL Statistics**							
838						**Data do not follow a Discernible Distribution**							
839												
840						**Suggested UCL to Use**							
841				95% KM (t) UCL		0.684						
842												
843						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
844						**Please verify the data were collected from random locations.**							
845						**If the data were collected using judgmental or other non-random methods,**							
846						**then contact a statistician to correctly calculate UCLs.**							
847												
848						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
849						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
850						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
851												
852												
853	**Zinc**											
854												
855						**General Statistics**							
856				Total Number of Observations		26				Number of Distinct Observations		26
857										Number of Missing Observations		23
858				Minimum		27				Mean		94.37
859				Maximum		311				Median		65.4
860				SD		71.1				Std. Error of Mean		13.94
861				Coefficient of Variation		0.753				Skewness		1.577
862												
863						**Normal GOF Test**							
864				Shapiro Wilk Test Statistic		0.824				**Shapiro Wilk GOF Test**		
865				1% Shapiro Wilk Critical Value		0.891				Data Not Normal at 1% Significance Level		
866				Lilliefors Test Statistic		0.197				**Lilliefors GOF Test**		
867				1% Lilliefors Critical Value		0.199				Data appear Normal at 1% Significance Level		
868						**Data appear Approximate Normal at 1% Significance Level**							
869												
870						**Assuming Normal Distribution**							
871						**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**	

872				95% Student's-t UCL		118.2			95% Adjusted-CLT UCL (Chen-1995)			121.9
873									95% Modified-t UCL (Johnson-1978)			118.9
874												
875						**Gamma GOF Test**							
876				A-D Test Statistic		0.644			**Anderson-Darling Gamma GOF Test**			
877				5% A-D Critical Value		0.755			Detected data appear Gamma Distributed at 5% Significance Level			
878				K-S Test Statistic		0.168			**Kolmogorov-Smirnov Gamma GOF Test**			
879				5% K-S Critical Value		0.173			Detected data appear Gamma Distributed at 5% Significance Level			
880						**Detected data appear Gamma Distributed at 5% Significance Level**						
881												
882						**Gamma Statistics**						
883				k hat (MLE)		2.319			k star (bias corrected MLE)			2.077
884				Theta hat (MLE)		40.7			Theta star (bias corrected MLE)			45.44
885				nu hat (MLE)		120.6			nu star (bias corrected)			108
886				MLE Mean (bias corrected)		94.37			MLE Sd (bias corrected)			65.48
887									Approximate Chi Square Value (0.05)			85.01
888				Adjusted Level of Significance		0.0398			Adjusted Chi Square Value			83.66
889												
890						**Assuming Gamma Distribution**							
891				95% Approximate Gamma UCL		119.9			95% Adjusted Gamma UCL			121.8
892												
893						**Lognormal GOF Test**							
894				Shapiro Wilk Test Statistic		0.957			**Shapiro Wilk Lognormal GOF Test**			
895				10% Shapiro Wilk Critical Value		0.933			Data appear Lognormal at 10% Significance Level			
896				Lilliefors Test Statistic		0.138			**Lilliefors Lognormal GOF Test**			
897				10% Lilliefors Critical Value		0.156			Data appear Lognormal at 10% Significance Level			
898						**Data appear Lognormal at 10% Significance Level**							
899												
900						**Lognormal Statistics**							
901				Minimum of Logged Data		3.296			Mean of logged Data			4.316
902				Maximum of Logged Data		5.74			SD of logged Data			0.676
903												
904						**Assuming Lognormal Distribution**							
905				95% H-UCL		125.5			90% Chebyshev (MVUE) UCL			132.9
906				95% Chebyshev (MVUE) UCL		150.9			97.5% Chebyshev (MVUE) UCL			175.9
907				99% Chebyshev (MVUE) UCL		225						
908												
909						**Nonparametric Distribution Free UCL Statistics**							
910						**Data appear to follow a Discernible Distribution**							
911												
912						**Nonparametric Distribution Free UCLs**							
913				95% CLT UCL		117.3			95% BCA Bootstrap UCL			122.4
914				95% Standard Bootstrap UCL		116.8			95% Bootstrap-t UCL			124.7
915				95% Hall's Bootstrap UCL		124			95% Percentile Bootstrap UCL			117.9
916				90% Chebyshev(Mean, Sd) UCL		136.2			95% Chebyshev(Mean, Sd) UCL			155.1
917				97.5% Chebyshev(Mean, Sd) UCL		181.4			99% Chebyshev(Mean, Sd) UCL			233.1
918												
919						**Suggested UCL to Use**							
920				95% Student's-t UCL		118.2						
921												
922						When a data set follows an approximate distribution passing only one of the GOF tests,							
923						it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
924												
925						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
926						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
927						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
928												
929	**2,4-Dinitrotoluene**											
930												
931						**General Statistics**							
932				Total Number of Observations		4			Number of Distinct Observations			4
933									Number of Missing Observations			45
934				Number of Detects		0			Number of Non-Detects			4
935				Number of Distinct Detects		0			Number of Distinct Non-Detects			4
936												
937						**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**							
938						**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**							

939	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
940												
941	The data set for variable 2,4-Dinitrotoluene was not processed!											
942												
943												
944	Benzo[a]anthracene											
945												
946	General Statistics											
947						Total Number of Observations	4			Number of Distinct Observations	4	
948										Number of Missing Observations	45	
949						Number of Detects	2			Number of Non-Detects	2	
950						Number of Distinct Detects	2			Number of Distinct Non-Detects	2	
951						Minimum Detect	50			Minimum Non-Detect	23.5	
952						Maximum Detect	78			Maximum Non-Detect	225	
953						Variance Detects	392			Percent Non-Detects	50%	
954						Mean Detects	64			SD Detects	19.8	
955						Median Detects	64			CV Detects	0.309	
956						Skewness Detects	N/A			Kurtosis Detects	N/A	
957						Mean of Logged Detects	4.134			SD of Logged Detects	0.314	
958												
959	Warning: Data set has only 2 Detected Values.											
960	This is not enough to compute meaningful or reliable statistics and estimates.											
961												
962												
963	Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,											
964	refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,											
965	but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).											
966	The Chebyshev UCL often results in gross overestimates of the mean.											
967	Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.											
968												
969	Normal GOF Test on Detects Only											
970	Not Enough Data to Perform GOF Test											
971												
972	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
973						KM Mean	50.5			KM Standard Error of Mean	18.17	
974						90KM SD	22.25			95% KM (BCA) UCL	N/A	
975						95% KM (t) UCL	93.26			95% KM (Percentile Bootstrap) UCL	N/A	
976						95% KM (z) UCL	80.39			95% KM Bootstrap t UCL	N/A	
977						90% KM Chebyshev UCL	105			95% KM Chebyshev UCL	129.7	
978						97.5% KM Chebyshev UCL	164			99% KM Chebyshev UCL	231.3	
979												
980	Gamma GOF Tests on Detected Observations Only											
981	Not Enough Data to Perform GOF Test											
982												
983	Gamma Statistics on Detected Data Only											
984						k hat (MLE)	20.56			k star (bias corrected MLE)	N/A	
985						Theta hat (MLE)	3.113			Theta star (bias corrected MLE)	N/A	
986						nu hat (MLE)	82.24			nu star (bias corrected)	N/A	
987						Mean (detects)	64					
988												
989	Estimates of Gamma Parameters using KM Estimates											
990						Mean (KM)	50.5			SD (KM)	22.25	
991						Variance (KM)	495.2			SE of Mean (KM)	18.17	
992						k hat (KM)	5.15			k star (KM)	1.454	
993						nu hat (KM)	41.2			nu star (KM)	11.63	
994						theta hat (KM)	9.805			theta star (KM)	34.73	
995						80% gamma percentile (KM)	78.4			90% gamma percentile (KM)	106	
996						95% gamma percentile (KM)	132.9			99% gamma percentile (KM)	193.8	
997												
998	Gamma Kaplan-Meier (KM) Statistics											
999										Adjusted Level of Significance (β)	0.00498	
1000						Approximate Chi Square Value (11.63, α)	4.987			Adjusted Chi Square Value (11.63, β)	2.9	
1001						95% KM Approximate Gamma UCL	117.8			95% KM Adjusted Gamma UCL	202.6	
1002												
1003	Lognormal GOF Test on Detected Observations Only											
1004	Not Enough Data to Perform GOF Test											
1005												

1006	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1007					Mean in Original Scale	49				Mean in Log Scale	3.801	
1008					SD in Original Scale	22.7				SD in Log Scale	0.51	
1009					95% t UCL (assumes normality of ROS data)	75.71				95% Percentile Bootstrap UCL	N/A	
1010					95% BCA Bootstrap UCL	N/A				95% Bootstrap t UCL	N/A	
1011					95% H-UCL (Log ROS)	151.8						
1012												
1013	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1014					KM Mean (logged)	3.809				KM Geo Mean	45.09	
1015					KM SD (logged)	0.495				95% Critical H Value (KM-Log)	3.633	
1016					KM Standard Error of Mean (logged)	0.404				95% H-UCL (KM -Log)	144	
1017					KM SD (logged)	0.495				95% Critical H Value (KM-Log)	3.633	
1018					KM Standard Error of Mean (logged)	0.404						
1019												
1020	**DL/2 Statistics**											
1021	**DL/2 Normal**						**DL/2 Log-Transformed**					
1022					Mean in Original Scale	63.06				Mean in Log Scale	3.864	
1023					SD in Original Scale	42.7				SD in Log Scale	0.991	
1024					95% t UCL (Assumes normality)	113.3				95% H-Stat UCL	3408	
1025	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1026												
1027	**Nonparametric Distribution Free UCL Statistics**											
1028	**Data do not follow a Discernible Distribution**											
1029												
1030	**Suggested UCL to Use**											
1031					Recommendation cannot be provided							
1032												
1033	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1034	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1035	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1036												
1037	**Benzo[a]pyrene**											
1038												
1039	**General Statistics**											
1040					Total Number of Observations	4				Number of Distinct Observations	4	
1041										Number of Missing Observations	45	
1042					Number of Detects	2				Number of Non-Detects	2	
1043					Number of Distinct Detects	2				Number of Distinct Non-Detects	2	
1044					Minimum Detect	53				Minimum Non-Detect	23.5	
1045					Maximum Detect	91				Maximum Non-Detect	225	
1046					Variance Detects	722				Percent Non-Detects	50%	
1047					Mean Detects	72				SD Detects	26.87	
1048					Median Detects	72				CV Detects	0.373	
1049					Skewness Detects	N/A				Kurtosis Detects	N/A	
1050					Mean of Logged Detects	4.241				SD of Logged Detects	0.382	
1051												
1052	**Warning: Data set has only 2 Detected Values.**											
1053	**This is not enough to compute meaningful or reliable statistics and estimates.**											
1054												
1055												
1056	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1057	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1058	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1059	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1060	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1061												
1062	**Normal GOF Test on Detects Only**											
1063	**Not Enough Data to Perform GOF Test**											
1064												
1065	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1066					KM Mean	55.83				KM Standard Error of Mean	22.56	
1067					90KM SD	27.63				95% KM (BCA) UCL	N/A	
1068					95% KM (t) UCL	108.9				95% KM (Percentile Bootstrap) UCL	N/A	
1069					95% KM (z) UCL	92.94				95% KM Bootstrap t UCL	N/A	
1070					90% KM Chebyshev UCL	123.5				95% KM Chebyshev UCL	154.2	
1071					97.5% KM Chebyshev UCL	196.7				99% KM Chebyshev UCL	280.3	
1072												

1073	**Gamma GOF Tests on Detected Observations Only**											
1074	**Not Enough Data to Perform GOF Test**											
1075												
1076	**Gamma Statistics on Detected Data Only**											
1077						k hat (MLE)	14.02			k star (bias corrected MLE)	N/A	
1078						Theta hat (MLE)	5.136			Theta star (bias corrected MLE)	N/A	
1079						nu hat (MLE)	56.07			nu star (bias corrected)	N/A	
1080						Mean (detects)	72					
1081												
1082	**Estimates of Gamma Parameters using KM Estimates**											
1083						Mean (KM)	55.83			SD (KM)	27.63	
1084						Variance (KM)	763.4			SE of Mean (KM)	22.56	
1085						k hat (KM)	4.084			k star (KM)	1.188	
1086						nu hat (KM)	32.67			nu star (KM)	9.5	
1087						theta hat (KM)	13.67			theta star (KM)	47.02	
1088						80% gamma percentile (KM)	88.5			90% gamma percentile (KM)	123.2	
1089						95% gamma percentile (KM)	157.5			99% gamma percentile (KM)	236.1	
1090												
1091	**Gamma Kaplan-Meier (KM) Statistics**											
1092										Adjusted Level of Significance (β)	0.00498	
1093						Approximate Chi Square Value (9.50, α)	3.632			Adjusted Chi Square Value (9.50, β)	1.945	
1094						95% KM Approximate Gamma UCL	146			95% KM Adjusted Gamma UCL	272.7	
1095												
1096	**Lognormal GOF Test on Detected Observations Only**											
1097	**Not Enough Data to Perform GOF Test**											
1098												
1099	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1100						Mean in Original Scale	52.83			Mean in Log Scale	3.836	
1101						SD in Original Scale	29.14			SD in Log Scale	0.62	
1102						95% t UCL (assumes normality of ROS data)	87.11			95% Percentile Bootstrap UCL	N/A	
1103						95% BCA Bootstrap UCL	N/A			95% Bootstrap t UCL	N/A	
1104						95% H-UCL (Log ROS)	263.3					
1105												
1106	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1107						KM Mean (logged)	3.879			KM Geo Mean	48.39	
1108						KM SD (logged)	0.556			95% Critical H Value (KM-Log)	3.961	
1109						KM Standard Error of Mean (logged)	0.454			95% H-UCL (KM -Log)	201.7	
1110						KM SD (logged)	0.556			95% Critical H Value (KM-Log)	3.961	
1111						KM Standard Error of Mean (logged)	0.454					
1112												
1113	**DL/2 Statistics**											
1114	**DL/2 Normal**									**DL/2 Log-Transformed**		
1115						Mean in Original Scale	67.06			Mean in Log Scale	3.917	
1116						SD in Original Scale	44.33			SD in Log Scale	1.019	
1117						95% t UCL (Assumes normality)	119.2			95% H-Stat UCL	4595	
1118	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1119												
1120	**Nonparametric Distribution Free UCL Statistics**											
1121	**Data do not follow a Discernible Distribution**											
1122												
1123	**Suggested UCL to Use**											
1124						Recommendation cannot be provided						
1125												
1126	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1127	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1128	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1129												
1130	**Benzo[g,h,i]perylene**											
1131												
1132	**General Statistics**											
1133						Total Number of Observations	4			Number of Distinct Observations	4	
1134										Number of Missing Observations	45	
1135						Number of Detects	0			Number of Non-Detects	4	
1136						Number of Distinct Detects	0			Number of Distinct Non-Detects	4	
1137												
1138	**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**											
1139	**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**											

1140	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).											
1141												
1142	The data set for variable Benzo[g,h,i]perylene was not processed!											
1143												
1144												
1145	Phenanthrene											
1146												
1147	General Statistics											
1148					Total Number of Observations	4			Number of Distinct Observations	4		
1149									Number of Missing Observations	45		
1150					Number of Detects	1			Number of Non-Detects	3		
1151					Number of Distinct Detects	1			Number of Distinct Non-Detects	3		
1152												
1153	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
1154	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
1155												
1156	The data set for variable Phenanthrene was not processed!											
1157												
1158												
1159	Pyrene											
1160												
1161	General Statistics											
1162					Total Number of Observations	4			Number of Distinct Observations	4		
1163									Number of Missing Observations	45		
1164					Number of Detects	3			Number of Non-Detects	1		
1165					Number of Distinct Detects	3			Number of Distinct Non-Detects	1		
1166					Minimum Detect	92			Minimum Non-Detect	23.5		
1167					Maximum Detect	170			Maximum Non-Detect	23.5		
1168					Variance Detects	1641			Percent Non-Detects	25%		
1169					Mean Detects	137.3			SD Detects	40.51		
1170					Median Detects	150			CV Detects	0.295		
1171					Skewness Detects	-1.269			Kurtosis Detects	N/A		
1172					Mean of Logged Detects	4.889			SD of Logged Detects	0.324		
1173												
1174	Warning: Data set has only 3 Detected Values.											
1175	This is not enough to compute meaningful or reliable statistics and estimates.											
1176												
1177												
1178	Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,											
1179	refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,											
1180	but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).											
1181	The Chebyshev UCL often results in gross overestimates of the mean.											
1182	Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.											
1183												
1184	Normal GOF Test on Detects Only											
1185					Shapiro Wilk Test Statistic	0.927			Shapiro Wilk GOF Test			
1186					1% Shapiro Wilk Critical Value	0.753			Detected Data appear Normal at 1% Significance Level			
1187					Lilliefors Test Statistic	0.289			Lilliefors GOF Test			
1188					1% Lilliefors Critical Value	0.429			Detected Data appear Normal at 1% Significance Level			
1189	Detected Data appear Normal at 1% Significance Level											
1190	Note GOF tests may be unreliable for small sample sizes											
1191												
1192	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
1193					KM Mean	108.9			KM Standard Error of Mean	34.91		
1194					90KM SD	57.01			95% KM (BCA) UCL	N/A		
1195					95% KM (t) UCL	191			95% KM (Percentile Bootstrap) UCL	N/A		
1196					95% KM (z) UCL	166.3			95% KM Bootstrap t UCL	N/A		
1197					90% KM Chebyshev UCL	213.6			95% KM Chebyshev UCL	261.1		
1198					97.5% KM Chebyshev UCL	326.9			99% KM Chebyshev UCL	456.2		
1199												
1200	Gamma GOF Tests on Detected Observations Only											
1201					A-D Test Statistic	0.381			Anderson-Darling GOF Test			
1202					5% A-D Critical Value	0.635			Detected data appear Gamma Distributed at 5% Significance Level			
1203					K-S Test Statistic	0.335			Kolmogorov-Smirnov GOF			
1204					5% K-S Critical Value	0.432			Detected data appear Gamma Distributed at 5% Significance Level			
1205	Detected Data Not Gamma Distributed at 5% Significance Level											
1206												

1207	**Gamma Statistics on Detected Data Only**											
1208					k hat (MLE)	15.31			k star (bias corrected MLE)		N/A	
1209					Theta hat (MLE)	8.967			Theta star (bias corrected MLE)		N/A	
1210					nu hat (MLE)	91.89			nu star (bias corrected)		N/A	
1211					Mean (detects)	137.3						
1212												
1213	**Gamma ROS Statistics using Imputed Non-Detects**											
1214	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1215	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1216	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1217	This is especially true when the sample size is small.											
1218	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1219					Minimum	40.67			Mean		113.2	
1220					Maximum	170			Median		121	
1221					SD	58.57			CV		0.518	
1222					k hat (MLE)	3.85			k star (bias corrected MLE)		1.129	
1223					Theta hat (MLE)	29.39			Theta star (bias corrected MLE)		100.2	
1224					nu hat (MLE)	30.8			nu star (bias corrected)		9.034	
1225					Adjusted Level of Significance (β)	0.00498						
1226					Approximate Chi Square Value (9.03, α)	3.347			Adjusted Chi Square Value (9.03, β)		N/A	
1227					95% Gamma Approximate UCL	305.4			95% Gamma Adjusted UCL		N/A	
1228												
1229	**Estimates of Gamma Parameters using KM Estimates**											
1230					Mean (KM)	108.9			SD (KM)		57.01	
1231					Variance (KM)	3250			SE of Mean (KM)		34.91	
1232					k hat (KM)	3.647			k star (KM)		1.078	
1233					nu hat (KM)	29.18			nu star (KM)		8.627	
1234					theta hat (KM)	29.85			theta star (KM)		101	
1235					80% gamma percentile (KM)	174.1			90% gamma percentile (KM)		246.1	
1236					95% gamma percentile (KM)	317.6			99% gamma percentile (KM)		482.8	
1237												
1238	**Gamma Kaplan-Meier (KM) Statistics**											
1239					Approximate Chi Square Value (8.63, α)	3.103			Adjusted Chi Square Value (8.63, β)		1.59	
1240					95% KM Approximate Gamma UCL	302.7			95% KM Adjusted Gamma UCL		590.7	
1241												
1242	**Lognormal GOF Test on Detected Observations Only**											
1243					Shapiro Wilk Test Statistic	0.895			**Shapiro Wilk GOF Test**			
1244					10% Shapiro Wilk Critical Value	0.789			Detected Data appear Lognormal at 10% Significance Level			
1245					Lilliefors Test Statistic	0.312			**Lilliefors GOF Test**			
1246					10% Lilliefors Critical Value	0.389			Detected Data appear Lognormal at 10% Significance Level			
1247	**Detected Data appear Lognormal at 10% Significance Level**											
1248	**Note GOF tests may be unreliable for small sample sizes**											
1249												
1250	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1251					Mean in Original Scale	117			Mean in Log Scale		4.673	
1252					SD in Original Scale	52.42			SD in Log Scale		0.507	
1253					95% t UCL (assumes normality of ROS data)	178.7			95% Percentile Bootstrap UCL		N/A	
1254					95% BCA Bootstrap UCL	N/A			95% Bootstrap t UCL		N/A	
1255					95% H-UCL (Log ROS)	358.7						
1256												
1257	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1258					KM Mean (logged)	4.456			KM Geo Mean		86.17	
1259					KM SD (logged)	0.784			95% Critical H Value (KM-Log)		5.317	
1260					KM Standard Error of Mean (logged)	0.48			95% H-UCL (KM -Log)		1303	
1261					KM SD (logged)	0.784			95% Critical H Value (KM-Log)		5.317	
1262					KM Standard Error of Mean (logged)	0.48						
1263												
1264	**DL/2 Statistics**											
1265	**DL/2 Normal**								**DL/2 Log-Transformed**			
1266					Mean in Original Scale	105.9			Mean in Log Scale		4.283	
1267					SD in Original Scale	70.97			SD in Log Scale		1.241	
1268					95% t UCL (Assumes normality)	189.4			95% H-Stat UCL		56237	
1269	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1270												
1271	**Nonparametric Distribution Free UCL Statistics**											
1272	**Detected Data appear Normal Distributed at 1% Significance Level**											
1273												

	A	B	C	D	E	F	G	H	I	J	K	L
1274	**Suggested UCL to Use**											
1275					95% KM (t) UCL	191						
1276	**Warning: Recommended UCL exceeds the maximum observation**											
1277												
1278	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1279	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1280	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1281												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:46:54 AM
From File	sediment_development streams
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	15	Number of Distinct Observations	15
		Number of Missing Observations	5
Minimum	1.91	Mean	6.564
Maximum	31.6	Median	4.61
SD	7.105	Std. Error of Mean	1.834
Coefficient of Variation	1.082	Skewness	3.547

Normal GOF Test

Shapiro Wilk Test Statistic	0.494	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.835	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.381	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.255	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	9.795	95% Adjusted-CLT UCL (Chen-1995)	11.38
		95% Modified-t UCL (Johnson-1978)	10.08

Gamma GOF Test

A-D Test Statistic	1.497	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.746	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.268	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.224	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.167	k star (bias corrected MLE)	1.778
Theta hat (MLE)	3.029	Theta star (bias corrected MLE)	3.691
nu hat (MLE)	65.02	nu star (bias corrected)	53.35
MLE Mean (bias corrected)	6.564	MLE Sd (bias corrected)	4.922
		Approximate Chi Square Value (0.05)	37.57
Adjusted Level of Significance	0.0324	Adjusted Chi Square Value	35.94

Assuming Gamma Distribution

95% Approximate Gamma UCL	9.321	95% Adjusted Gamma UCL	9.743

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.839	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.901	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.202	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.202	Data Not Lognormal at 10% Significance Level

Data Not Lognormal at 10% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.647	Mean of logged Data	1.634
Maximum of Logged Data	3.453	SD of logged Data	0.618

Assuming Lognormal Distribution

95% H-UCL	8.917	90% Chebyshev (MVUE) UCL	9.159
95% Chebyshev (MVUE) UCL	10.54	97.5% Chebyshev (MVUE) UCL	12.46
99% Chebyshev (MVUE) UCL	16.23		

Nonparametric Distribution Free UCL Statistics

68	**Data do not follow a Discernible Distribution**											
69												
70	**Nonparametric Distribution Free UCLs**											
71				95% CLT UCL	9.581			95% BCA Bootstrap UCL	11.54			
72				95% Standard Bootstrap UCL	9.4			95% Bootstrap-t UCL	17.68			
73				95% Hall's Bootstrap UCL	21.58			95% Percentile Bootstrap UCL	9.881			
74				90% Chebyshev(Mean, Sd) UCL	12.07			95% Chebyshev(Mean, Sd) UCL	14.56			
75				97.5% Chebyshev(Mean, Sd) UCL	18.02			99% Chebyshev(Mean, Sd) UCL	24.82			
76												
77	**Suggested UCL to Use**											
78				95% Student's-t UCL	9.795							
79												
80	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
81	**Please verify the data were collected from random locations.**											
82	**If the data were collected using judgmental or other non-random methods,**											
83	**then contact a statistician to correctly calculate UCLs.**											
84												
85	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
86	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
87	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
88												
89	**Cadmium**											
90												
91	**General Statistics**											
92				Total Number of Observations	15			Number of Distinct Observations	15			
93								Number of Missing Observations	5			
94				Number of Detects	6			Number of Non-Detects	9			
95				Number of Distinct Detects	6			Number of Distinct Non-Detects	9			
96				Minimum Detect	0.256			Minimum Non-Detect	0.0345			
97				Maximum Detect	0.867			Maximum Non-Detect	1.895			
98				Variance Detects	0.074			Percent Non-Detects	60%			
99				Mean Detects	0.593			SD Detects	0.272			
100				Median Detects	0.598			CV Detects	0.459			
101				Skewness Detects	-0.11			Kurtosis Detects	-2.705			
102				Mean of Logged Detects	-0.626			SD of Logged Detects	0.514			
103												
104	**Normal GOF Test on Detects Only**											
105				Shapiro Wilk Test Statistic	0.845			**Shapiro Wilk GOF Test**				
106				1% Shapiro Wilk Critical Value	0.713			Detected Data appear Normal at 1% Significance Level				
107				Lilliefors Test Statistic	0.251			**Lilliefors GOF Test**				
108				1% Lilliefors Critical Value	0.373			Detected Data appear Normal at 1% Significance Level				
109	**Detected Data appear Normal at 1% Significance Level**											
110	**Note GOF tests may be unreliable for small sample sizes**											
111												
112	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
113				KM Mean	0.312			KM Standard Error of Mean	0.099			
114				90KM SD	0.316			95% KM (BCA) UCL	0.474			
115				95% KM (t) UCL	0.486			95% KM (Percentile Bootstrap) UCL	0.469			
116				95% KM (z) UCL	0.475			95% KM Bootstrap t UCL	0.449			
117				90% KM Chebyshev UCL	0.609			95% KM Chebyshev UCL	0.743			
118				97.5% KM Chebyshev UCL	0.93			99% KM Chebyshev UCL	1.297			
119												
120	**Gamma GOF Tests on Detected Observations Only**											
121				A-D Test Statistic	0.515			**Anderson-Darling GOF Test**				
122				5% A-D Critical Value	0.698			Detected data appear Gamma Distributed at 5% Significance Level				
123				K-S Test Statistic	0.283			**Kolmogorov-Smirnov GOF**				
124				5% K-S Critical Value	0.333			Detected data appear Gamma Distributed at 5% Significance Level				
125	**Detected data appear Gamma Distributed at 5% Significance Level**											
126	**Note GOF tests may be unreliable for small sample sizes**											
127												
128	**Gamma Statistics on Detected Data Only**											
129				k hat (MLE)	5.044			k star (bias corrected MLE)	2.633			
130				Theta hat (MLE)	0.117			Theta star (bias corrected MLE)	0.225			
131				nu hat (MLE)	60.53			nu star (bias corrected)	31.6			
132				Mean (detects)	0.593							
133												
134	**Gamma ROS Statistics using Imputed Non-Detects**											

135	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
136	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
137	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
138	This is especially true when the sample size is small.											
139	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
140						Minimum	0.01				Mean	0.291
141						Maximum	0.867				Median	0.244
142						SD	0.31				CV	1.064
143						k hat (MLE)	0.729				k star (bias corrected MLE)	0.628
144						Theta hat (MLE)	0.4				Theta star (bias corrected MLE)	0.464
145						nu hat (MLE)	21.87				nu star (bias corrected)	18.83
146						Adjusted Level of Significance (β)	0.0324					
147						Approximate Chi Square Value (18.83, α)	9.99				Adjusted Chi Square Value (18.83, β)	9.206
148						95% Gamma Approximate UCL	0.549				95% Gamma Adjusted UCL	0.596
149												
150	**Estimates of Gamma Parameters using KM Estimates**											
151						Mean (KM)	0.312				SD (KM)	0.316
152						Variance (KM)	0.1				SE of Mean (KM)	0.099
153						k hat (KM)	0.972				k star (KM)	0.822
154						nu hat (KM)	29.16				nu star (KM)	24.66
155						theta hat (KM)	0.321				theta star (KM)	0.379
156						80% gamma percentile (KM)	0.509				90% gamma percentile (KM)	0.753
157						95% gamma percentile (KM)	1.002				99% gamma percentile (KM)	1.587
158												
159	**Gamma Kaplan-Meier (KM) Statistics**											
160						Approximate Chi Square Value (24.66, α)	14.35				Adjusted Chi Square Value (24.66, β)	13.39
161						95% KM Approximate Gamma UCL	0.536				95% KM Adjusted Gamma UCL	0.574
162												
163	**Lognormal GOF Test on Detected Observations Only**											
164						Shapiro Wilk Test Statistic	0.865				**Shapiro Wilk GOF Test**	
165						10% Shapiro Wilk Critical Value	0.826				Detected Data appear Lognormal at 10% Significance Level	
166						Lilliefors Test Statistic	0.266				**Lilliefors GOF Test**	
167						10% Lilliefors Critical Value	0.298				Detected Data appear Lognormal at 10% Significance Level	
168	**Detected Data appear Lognormal at 10% Significance Level**											
169	**Note GOF tests may be unreliable for small sample sizes**											
170												
171	**Lognormal ROS Statistics Using Imputed Non-Detects**											
172						Mean in Original Scale	0.343				Mean in Log Scale	-1.31
173						SD in Original Scale	0.269				SD in Log Scale	0.685
174						95% t UCL (assumes normality of ROS data)	0.465				95% Percentile Bootstrap UCL	0.46
175						95% BCA Bootstrap UCL	0.476				95% Bootstrap t UCL	0.512
176						95% H-UCL (Log ROS)	0.518					
177												
178	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
179						KM Mean (logged)	-1.929				KM Geo Mean	0.145
180						KM SD (logged)	1.363				95% Critical H Value (KM-Log)	3.362
181						KM Standard Error of Mean (logged)	0.464				95% H-UCL (KM -Log)	1.251
182						KM SD (logged)	1.363				95% Critical H Value (KM-Log)	3.362
183						KM Standard Error of Mean (logged)	0.464					
184												
185	**DL/2 Statistics**											
186	**DL/2 Normal**										**DL/2 Log-Transformed**	
187						Mean in Original Scale	0.403				Mean in Log Scale	-1.529
188						SD in Original Scale	0.347				SD in Log Scale	1.417
189						95% t UCL (Assumes normality)	0.561				95% H-Stat UCL	2.195
190	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
191												
192	**Nonparametric Distribution Free UCL Statistics**											
193	**Detected Data appear Normal Distributed at 1% Significance Level**											
194												
195	**Suggested UCL to Use**											
196						95% KM (t) UCL	0.486					
197												
198	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
199	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
200	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
201												

Chromium

General Statistics			
Total Number of Observations	15	Number of Distinct Observations	14
		Number of Missing Observations	5
Minimum	5.09	Mean	15.29
Maximum	52.8	Median	11.4
SD	11.2	Std. Error of Mean	2.893
Coefficient of Variation	0.733	Skewness	2.958

Normal GOF Test		
Shapiro Wilk Test Statistic	0.646	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.835	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.321	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.255	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	20.38	95% Adjusted-CLT UCL (Chen-1995)	22.41
		95% Modified-t UCL (Johnson-1978)	20.75

Gamma GOF Test		
A-D Test Statistic	0.799	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.743	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.228	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.223	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics			
k hat (MLE)	3.322	k star (bias corrected MLE)	2.702
Theta hat (MLE)	4.602	Theta star (bias corrected MLE)	5.658
nu hat (MLE)	99.66	nu star (bias corrected)	81.06
MLE Mean (bias corrected)	15.29	MLE Sd (bias corrected)	9.3
		Approximate Chi Square Value (0.05)	61.32
Adjusted Level of Significance	0.0324	Adjusted Chi Square Value	59.21

Assuming Gamma Distribution

95% Approximate Gamma UCL	20.21	95% Adjusted Gamma UCL	20.93

Lognormal GOF Test		
Shapiro Wilk Test Statistic	0.916	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.901	Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.193	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.202	Data appear Lognormal at 10% Significance Level

Data appear Lognormal at 10% Significance Level

Lognormal Statistics			
Minimum of Logged Data	1.627	Mean of logged Data	2.569
Maximum of Logged Data	3.967	SD of logged Data	0.541

Assuming Lognormal Distribution

95% H-UCL	20.5	90% Chebyshev (MVUE) UCL	21.42
95% Chebyshev (MVUE) UCL	24.35	97.5% Chebyshev (MVUE) UCL	28.43
99% Chebyshev (MVUE) UCL	36.42		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	20.05	95% BCA Bootstrap UCL	22.28
95% Standard Bootstrap UCL	19.89	95% Bootstrap-t UCL	25.81
95% Hall's Bootstrap UCL	39.93	95% Percentile Bootstrap UCL	20.3
90% Chebyshev(Mean, Sd) UCL	23.97	95% Chebyshev(Mean, Sd) UCL	27.9
97.5% Chebyshev(Mean, Sd) UCL	33.35	99% Chebyshev(Mean, Sd) UCL	44.07

269	**Suggested UCL to Use**											
270				95% H-UCL	20.5							
271												
272	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
273	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
274	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
275												
276												
277	**Copper**											
278												
279	**General Statistics**											
280				Total Number of Observations	15			Number of Distinct Observations	15			
281								Number of Missing Observations	5			
282				Minimum	6.55			Mean	16.89			
283				Maximum	59.4			Median	13.1			
284				SD	13.26			Std. Error of Mean	3.424			
285				Coefficient of Variation	0.785			Skewness	2.585			
286												
287	**Normal GOF Test**											
288				Shapiro Wilk Test Statistic	0.701			**Shapiro Wilk GOF Test**				
289				1% Shapiro Wilk Critical Value	0.835			Data Not Normal at 1% Significance Level				
290				Lilliefors Test Statistic	0.218			**Lilliefors GOF Test**				
291				1% Lilliefors Critical Value	0.255			Data appear Normal at 1% Significance Level				
292	**Data appear Approximate Normal at 1% Significance Level**											
293												
294	**Assuming Normal Distribution**											
295				**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**				
296				95% Student's-t UCL	22.92			95% Adjusted-CLT UCL (Chen-1995)	24.97			
297								95% Modified-t UCL (Johnson-1978)	23.3			
298												
299	**Gamma GOF Test**											
300				A-D Test Statistic	0.625			**Anderson-Darling Gamma GOF Test**				
301				5% A-D Critical Value	0.745			Detected data appear Gamma Distributed at 5% Significance Level				
302				K-S Test Statistic	0.155			**Kolmogorov-Smirnov Gamma GOF Test**				
303				5% K-S Critical Value	0.224			Detected data appear Gamma Distributed at 5% Significance Level				
304	**Detected data appear Gamma Distributed at 5% Significance Level**											
305												
306	**Gamma Statistics**											
307				k hat (MLE)	2.74			k star (bias corrected MLE)	2.236			
308				Theta hat (MLE)	6.166			Theta star (bias corrected MLE)	7.554			
309				nu hat (MLE)	82.19			nu star (bias corrected)	67.08			
310				MLE Mean (bias corrected)	16.89			MLE Sd (bias corrected)	11.3			
311								Approximate Chi Square Value (0.05)	49.23			
312				Adjusted Level of Significance	0.0324			Adjusted Chi Square Value	47.35			
313												
314	**Assuming Gamma Distribution**											
315				95% Approximate Gamma UCL	23.02			95% Adjusted Gamma UCL	23.93			
316												
317	**Lognormal GOF Test**											
318				Shapiro Wilk Test Statistic	0.92			**Shapiro Wilk Lognormal GOF Test**				
319				10% Shapiro Wilk Critical Value	0.901			Data appear Lognormal at 10% Significance Level				
320				Lilliefors Test Statistic	0.151			**Lilliefors Lognormal GOF Test**				
321				10% Lilliefors Critical Value	0.202			Data appear Lognormal at 10% Significance Level				
322	**Data appear Lognormal at 10% Significance Level**											
323												
324	**Lognormal Statistics**											
325				Minimum of Logged Data	1.879			Mean of logged Data	2.633			
326				Maximum of Logged Data	4.084			SD of logged Data	0.6			
327												
328	**Assuming Lognormal Distribution**											
329				95% H-UCL	23.65			90% Chebyshev (MVUE) UCL	24.4			
330				95% Chebyshev (MVUE) UCL	28.01			97.5% Chebyshev (MVUE) UCL	33.01			
331				99% Chebyshev (MVUE) UCL	42.84							
332												
333	**Nonparametric Distribution Free UCL Statistics**											
334	**Data appear to follow a Discernible Distribution**											
335												

336	**Nonparametric Distribution Free UCLs**											
337					95% CLT UCL	22.52			95% BCA Bootstrap UCL	24.99		
338					95% Standard Bootstrap UCL	22.21			95% Bootstrap-t UCL	28.09		
339					95% Hall's Bootstrap UCL	45.4			95% Percentile Bootstrap UCL	22.89		
340					90% Chebyshev(Mean, Sd) UCL	27.16			95% Chebyshev(Mean, Sd) UCL	31.82		
341					97.5% Chebyshev(Mean, Sd) UCL	38.28			99% Chebyshev(Mean, Sd) UCL	50.96		
342												
343	**Suggested UCL to Use**											
344					95% Student's-t UCL	22.92						
345												
346	When a data set follows an approximate distribution passing only one of the GOF tests,											
347	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
348												
349	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
350	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
351	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
352												
353												
354	**Lead**											
355												
356	**General Statistics**											
357					Total Number of Observations	15			Number of Distinct Observations	15		
358									Number of Missing Observations	5		
359					Minimum	7.75			Mean	35.22		
360					Maximum	77.6			Median	26.9		
361					SD	25.43			Std. Error of Mean	6.566		
362					Coefficient of Variation	0.722			Skewness	0.674		
363												
364	**Normal GOF Test**											
365					Shapiro Wilk Test Statistic	0.859			**Shapiro Wilk GOF Test**			
366					1% Shapiro Wilk Critical Value	0.835			Data appear Normal at 1% Significance Level			
367					Lilliefors Test Statistic	0.206			**Lilliefors GOF Test**			
368					1% Lilliefors Critical Value	0.255			Data appear Normal at 1% Significance Level			
369	**Data appear Normal at 1% Significance Level**											
370												
371	**Assuming Normal Distribution**											
372	**95% Normal UCL**								**95% UCLs (Adjusted for Skewness)**			
373					95% Student's-t UCL	46.78			95% Adjusted-CLT UCL (Chen-1995)	47.24		
374									95% Modified-t UCL (Johnson-1978)	46.97		
375												
376	**Gamma GOF Test**											
377					A-D Test Statistic	0.477			**Anderson-Darling Gamma GOF Test**			
378					5% A-D Critical Value	0.747			Detected data appear Gamma Distributed at 5% Significance Level			
379					K-S Test Statistic	0.153			**Kolmogorov-Smirnov Gamma GOF Test**			
380					5% K-S Critical Value	0.224			Detected data appear Gamma Distributed at 5% Significance Level			
381	**Detected data appear Gamma Distributed at 5% Significance Level**											
382												
383	**Gamma Statistics**											
384					k hat (MLE)	1.986			k star (bias corrected MLE)	1.633		
385					Theta hat (MLE)	17.73			Theta star (bias corrected MLE)	21.56		
386					nu hat (MLE)	59.59			nu star (bias corrected)	49		
387					MLE Mean (bias corrected)	35.22			MLE Sd (bias corrected)	27.56		
388									Approximate Chi Square Value (0.05)	33.93		
389					Adjusted Level of Significance	0.0324			Adjusted Chi Square Value	32.39		
390												
391	**Assuming Gamma Distribution**											
392					95% Approximate Gamma UCL	50.86			95% Adjusted Gamma UCL	53.28		
393												
394	**Lognormal GOF Test**											
395					Shapiro Wilk Test Statistic	0.927			**Shapiro Wilk Lognormal GOF Test**			
396					10% Shapiro Wilk Critical Value	0.901			Data appear Lognormal at 10% Significance Level			
397					Lilliefors Test Statistic	0.138			**Lilliefors Lognormal GOF Test**			
398					10% Lilliefors Critical Value	0.202			Data appear Lognormal at 10% Significance Level			
399	**Data appear Lognormal at 10% Significance Level**											
400												
401	**Lognormal Statistics**											
402					Minimum of Logged Data	2.048			Mean of logged Data	3.289		

403				Maximum of Logged Data	4.352					SD of logged Data	0.792	
404												
405					**Assuming Lognormal Distribution**							
406				95% H-UCL	61.42					90% Chebyshev (MVUE) UCL	59.15	
407				95% Chebyshev (MVUE) UCL	69.74					97.5% Chebyshev (MVUE) UCL	84.45	
408				99% Chebyshev (MVUE) UCL	113.3							
409												
410					**Nonparametric Distribution Free UCL Statistics**							
411					**Data appear to follow a Discernible Distribution**							
412												
413					**Nonparametric Distribution Free UCLs**							
414				95% CLT UCL	46.02					95% BCA Bootstrap UCL	46.26	
415				95% Standard Bootstrap UCL	45.48					95% Bootstrap-t UCL	48.86	
416				95% Hall's Bootstrap UCL	45.9					95% Percentile Bootstrap UCL	45.48	
417				90% Chebyshev(Mean, Sd) UCL	54.92					95% Chebyshev(Mean, Sd) UCL	63.84	
418				97.5% Chebyshev(Mean, Sd) UCL	76.22					99% Chebyshev(Mean, Sd) UCL	100.5	
419												
420					**Suggested UCL to Use**							
421				95% Student's-t UCL	46.78							
422												
423					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
424					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
425					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
426												
427	**Mercury**											
428												
429					**General Statistics**							
430				Total Number of Observations	15					Number of Distinct Observations	15	
431										Number of Missing Observations	5	
432				Number of Detects	11					Number of Non-Detects	4	
433				Number of Distinct Detects	11					Number of Distinct Non-Detects	4	
434				Minimum Detect	0.011					Minimum Non-Detect	0.0565	
435				Maximum Detect	0.704					Maximum Non-Detect	0.066	
436				Variance Detects	0.049					Percent Non-Detects	26.67%	
437				Mean Detects	0.157					SD Detects	0.221	
438				Median Detects	0.0501					CV Detects	1.408	
439				Skewness Detects	1.862					Kurtosis Detects	3.036	
440				Mean of Logged Detects	-2.67					SD of Logged Detects	1.313	
441												
442					**Normal GOF Test on Detects Only**							
443				Shapiro Wilk Test Statistic	0.686					**Shapiro Wilk GOF Test**		
444				1% Shapiro Wilk Critical Value	0.792					Detected Data Not Normal at 1% Significance Level		
445				Lilliefors Test Statistic	0.388					**Lilliefors GOF Test**		
446				1% Lilliefors Critical Value	0.291					Detected Data Not Normal at 1% Significance Level		
447					**Detected Data Not Normal at 1% Significance Level**							
448												
449					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
450				KM Mean	0.124					KM Standard Error of Mean	0.0512	
451				90KM SD	0.189					95% KM (BCA) UCL	0.226	
452				95% KM (t) UCL	0.215					95% KM (Percentile Bootstrap) UCL	0.214	
453				95% KM (z) UCL	0.209					95% KM Bootstrap t UCL	0.293	
454				90% KM Chebyshev UCL	0.278					95% KM Chebyshev UCL	0.348	
455				97.5% KM Chebyshev UCL	0.444					99% KM Chebyshev UCL	0.634	
456												
457					**Gamma GOF Tests on Detected Observations Only**							
458				A-D Test Statistic	0.89					**Anderson-Darling GOF Test**		
459				5% A-D Critical Value	0.764					Detected Data Not Gamma Distributed at 5% Significance Level		
460				K-S Test Statistic	0.324					**Kolmogorov-Smirnov GOF**		
461				5% K-S Critical Value	0.265					Detected Data Not Gamma Distributed at 5% Significance Level		
462					**Detected Data Not Gamma Distributed at 5% Significance Level**							
463												
464					**Gamma Statistics on Detected Data Only**							
465				k hat (MLE)	0.733					k star (bias corrected MLE)	0.594	
466				Theta hat (MLE)	0.214					Theta star (bias corrected MLE)	0.265	
467				nu hat (MLE)	16.12					nu star (bias corrected)	13.06	
468				Mean (detects)	0.157							
469												

	A	B	C	D	E	F	G	H	I	J	K	L
470	**Gamma ROS Statistics using Imputed Non-Detects**											
471	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
472	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
473	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
474	This is especially true when the sample size is small.											
475	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
476					Minimum	0.01				Mean		0.119
477					Maximum	0.704				Median		0.0404
478					SD	0.198				CV		1.674
479					k hat (MLE)	0.611				k star (bias corrected MLE)		0.533
480					Theta hat (MLE)	0.194				Theta star (bias corrected MLE)		0.222
481					nu hat (MLE)	18.33				nu star (bias corrected)		16
482					Adjusted Level of Significance (β)	0.0324						
483					Approximate Chi Square Value (16.00, α)	7.959				Adjusted Chi Square Value (16.00, β)		7.27
484					95% Gamma Approximate UCL	0.238				95% Gamma Adjusted UCL		0.261
485												
486	**Estimates of Gamma Parameters using KM Estimates**											
487					Mean (KM)	0.124				SD (KM)		0.189
488					Variance (KM)	0.0357				SE of Mean (KM)		0.0512
489					k hat (KM)	0.434				k star (KM)		0.391
490					nu hat (KM)	13.01				nu star (KM)		11.74
491					theta hat (KM)	0.287				theta star (KM)		0.318
492					80% gamma percentile (KM)	0.2				90% gamma percentile (KM)		0.353
493					95% gamma percentile (KM)	0.521				99% gamma percentile (KM)		0.944
494												
495	**Gamma Kaplan-Meier (KM) Statistics**											
496					Approximate Chi Square Value (11.74, α)	5.056				Adjusted Chi Square Value (11.74, β)		4.527
497					95% KM Approximate Gamma UCL	0.289				95% KM Adjusted Gamma UCL		0.323
498												
499	**Lognormal GOF Test on Detected Observations Only**											
500					Shapiro Wilk Test Statistic	0.912				**Shapiro Wilk GOF Test**		
501					10% Shapiro Wilk Critical Value	0.876				Detected Data appear Lognormal at 10% Significance Level		
502					Lilliefors Test Statistic	0.246				**Lilliefors GOF Test**		
503					10% Lilliefors Critical Value	0.231				Detected Data Not Lognormal at 10% Significance Level		
504	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
505												
506	**Lognormal ROS Statistics Using Imputed Non-Detects**											
507					Mean in Original Scale	0.124				Mean in Log Scale		-2.872
508					SD in Original Scale	0.196				SD in Log Scale		1.164
509					95% t UCL (assumes normality of ROS data)	0.213				95% Percentile Bootstrap UCL		0.211
510					95% BCA Bootstrap UCL	0.252				95% Bootstrap t UCL		0.296
511					95% H-UCL (Log ROS)	0.285						
512												
513	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
514					KM Mean (logged)	-2.893				KM Geo Mean		0.0554
515					KM SD (logged)	1.169				95% Critical H Value (KM-Log)		3.023
516					KM Standard Error of Mean (logged)	0.331				95% H-UCL (KM -Log)		0.282
517					KM SD (logged)	1.169				95% Critical H Value (KM-Log)		3.023
518					KM Standard Error of Mean (logged)	0.331						
519												
520	**DL/2 Statistics**											
521	**DL/2 Normal**									**DL/2 Log-Transformed**		
522					Mean in Original Scale	0.123				Mean in Log Scale		-2.889
523					SD in Original Scale	0.196				SD in Log Scale		1.172
524					95% t UCL (Assumes normality)	0.212				95% H-Stat UCL		0.285
525	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
526												
527	**Nonparametric Distribution Free UCL Statistics**											
528	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
529												
530	**Suggested UCL to Use**											
531					KM H-UCL	0.282						
532												
533	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
534	**Please verify the data were collected from random locations.**											
535	**If the data were collected using judgmental or other non-random methods,**											
536	**then contact a statistician to correctly calculate UCLs.**											

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Silver

General Statistics

Total Number of Observations	15	Number of Distinct Observations	14
		Number of Missing Observations	5
Number of Detects	1	Number of Non-Detects	14
Number of Distinct Detects	1	Number of Distinct Non-Detects	13

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Silver was not processed!

Zinc

General Statistics

Total Number of Observations	15	Number of Distinct Observations	14
		Number of Missing Observations	5
Minimum	71	Mean	154.5
Maximum	237	Median	167
SD	49.99	Std. Error of Mean	12.91
Coefficient of Variation	0.323	Skewness	-0.121

Normal GOF Test

Shapiro Wilk Test Statistic	0.955	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.835	Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.132	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.255	Data appear Normal at 1% Significance Level

Data appear Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	177.3	95% Adjusted-CLT UCL (Chen-1995)	175.3
		95% Modified-t UCL (Johnson-1978)	177.2

Gamma GOF Test

A-D Test Statistic	0.452	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.738	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.169	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.222	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	9.099	k star (bias corrected MLE)	7.324
Theta hat (MLE)	16.98	Theta star (bias corrected MLE)	21.1
nu hat (MLE)	273	nu star (bias corrected)	219.7
MLE Mean (bias corrected)	154.5	MLE Sd (bias corrected)	57.11
		Approximate Chi Square Value (0.05)	186.4
Adjusted Level of Significance	0.0324	Adjusted Chi Square Value	182.6

Assuming Gamma Distribution

95% Approximate Gamma UCL	182.2	95% Adjusted Gamma UCL	185.9

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.926	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.901	Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.178	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.202	Data appear Lognormal at 10% Significance Level

Data appear Lognormal at 10% Significance Level

604	**Lognormal Statistics**											
605					Minimum of Logged Data	4.263			Mean of logged Data	4.985		
606					Maximum of Logged Data	5.468			SD of logged Data	0.36		
607												
608	**Assuming Lognormal Distribution**											
609					95% H-UCL	187.8			90% Chebyshev (MVUE) UCL	199.2		
610					95% Chebyshev (MVUE) UCL	219.1			97.5% Chebyshev (MVUE) UCL	246.8		
611					99% Chebyshev (MVUE) UCL	301.1						
612												
613	**Nonparametric Distribution Free UCL Statistics**											
614	**Data appear to follow a Discernible Distribution**											
615												
616	**Nonparametric Distribution Free UCLs**											
617					95% CLT UCL	175.8			95% BCA Bootstrap UCL	174.2		
618					95% Standard Bootstrap UCL	175.2			95% Bootstrap-t UCL	177.7		
619					95% Hall's Bootstrap UCL	176.3			95% Percentile Bootstrap UCL	175		
620					90% Chebyshev(Mean, Sd) UCL	193.3			95% Chebyshev(Mean, Sd) UCL	210.8		
621					97.5% Chebyshev(Mean, Sd) UCL	235.1			99% Chebyshev(Mean, Sd) UCL	283		
622												
623	**Suggested UCL to Use**											
624					95% Student's-t UCL	177.3						
625												
626	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
627	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
628	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
629												
630	**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**											
631	**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**											
632												
633	**Benzo[a]anthracene**											
634												
635	**General Statistics**											
636					Total Number of Observations	3			Number of Distinct Observations	3		
637									Number of Missing Observations	4		
638					Number of Detects	1			Number of Non-Detects	2		
639					Number of Distinct Detects	1			Number of Distinct Non-Detects	2		
640												
641	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
642	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
643												
644	**The data set for variable Benzo[a]anthracene was not processed!**											
645												
646												
647	**Pyrene**											
648												
649	**General Statistics**											
650					Total Number of Observations	3			Number of Distinct Observations	3		
651									Number of Missing Observations	4		
652					Number of Detects	2			Number of Non-Detects	1		
653					Number of Distinct Detects	2			Number of Distinct Non-Detects	1		
654					Minimum Detect	74			Minimum Non-Detect	21		
655					Maximum Detect	240			Maximum Non-Detect	21		
656					Variance Detects	13778			Percent Non-Detects	33.33%		
657					Mean Detects	157			SD Detects	117.4		
658					Median Detects	157			CV Detects	0.748		
659					Skewness Detects	N/A			Kurtosis Detects	N/A		
660					Mean of Logged Detects	4.892			SD of Logged Detects	0.832		
661												
662	**Warning: Data set has only 2 Detected Values.**											
663	**This is not enough to compute meaningful or reliable statistics and estimates.**											
664												
665												
666	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
667	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
668	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
669	**The Chebyshev UCL often results in gross overestimates of the mean.**											
670	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											

671												
672	**Normal GOF Test on Detects Only**											
673	**Not Enough Data to Perform GOF Test**											
674												
675	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
676				KM Mean	111.7			KM Standard Error of Mean	76.17			
677				90KM SD	93.29			95% KM (BCA) UCL	N/A			
678				95% KM (t) UCL	334.1			95% KM (Percentile Bootstrap) UCL	N/A			
679				95% KM (z) UCL	237			95% KM Bootstrap t UCL	N/A			
680				90% KM Chebyshev UCL	340.2			95% KM Chebyshev UCL	443.7			
681				97.5% KM Chebyshev UCL	587.4			99% KM Chebyshev UCL	869.6			
682												
683	**Gamma GOF Tests on Detected Observations Only**											
684	**Not Enough Data to Perform GOF Test**											
685												
686	**Gamma Statistics on Detected Data Only**											
687				k hat (MLE)	3.208			k star (bias corrected MLE)	N/A			
688				Theta hat (MLE)	48.94			Theta star (bias corrected MLE)	N/A			
689				nu hat (MLE)	12.83			nu star (bias corrected)	N/A			
690				Mean (detects)	157							
691												
692	**Estimates of Gamma Parameters using KM Estimates**											
693				Mean (KM)	111.7			SD (KM)	93.29			
694				Variance (KM)	8703			SE of Mean (KM)	76.17			
695				k hat (KM)	1.433			k star (KM)	N/A			
696				nu hat (KM)	8.597			nu star (KM)	N/A			
697				theta hat (KM)	77.94			theta star (KM)	N/A			
698				80% gamma percentile (KM)	N/A			90% gamma percentile (KM)	N/A			
699				95% gamma percentile (KM)	N/A			99% gamma percentile (KM)	N/A			
700												
701	**Gamma Kaplan-Meier (KM) Statistics**											
702								Adjusted Level of Significance (β)	0.00136			
703				Approximate Chi Square Value (N/A, α)	N/A			Adjusted Chi Square Value (N/A, β)	N/A			
704				95% KM Approximate Gamma UCL	N/A			95% KM Adjusted Gamma UCL	N/A			
705												
706	**Lognormal GOF Test on Detected Observations Only**											
707	**Not Enough Data to Perform GOF Test**											
708												
709	**Lognormal ROS Statistics Using Imputed Non-Detects**											
710				Mean in Original Scale	107.7			Mean in Log Scale	4.002			
711				SD in Original Scale	119			SD in Log Scale	1.651			
712				95% t UCL (assumes normality of ROS data)	308.4			95% Percentile Bootstrap UCL	N/A			
713				95% BCA Bootstrap UCL	N/A			95% Bootstrap t UCL	N/A			
714				95% H-UCL (Log ROS)	1.874E+13							
715												
716	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
717				KM Mean (logged)	4.276			KM Geo Mean	71.98			
718				KM SD (logged)	0.995			95% Critical H Value (KM-Log)	12.98			
719				KM Standard Error of Mean (logged)	0.812			95% H-UCL (KM -Log)	1090076			
720				KM SD (logged)	0.995			95% Critical H Value (KM-Log)	12.98			
721				KM Standard Error of Mean (logged)	0.812							
722												
723	**DL/2 Statistics**											
724	**DL/2 Normal**							**DL/2 Log-Transformed**				
725				Mean in Original Scale	108.2			Mean in Log Scale	4.045			
726				SD in Original Scale	118.5			SD in Log Scale	1.581			
727				95% t UCL (Assumes normality)	307.9			95% H-Stat UCL	2.112E+12			
728	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
729												
730	**Nonparametric Distribution Free UCL Statistics**											
731	**Data do not follow a Discernible Distribution**											
732												
733	**Suggested UCL to Use**											
734				Recommendation cannot be provided								
735												
736	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
737	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											

	A	B	C	D	E	F	G	H	I	J	K	L
738	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
739												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:55:56 AM
From File	sediment_maintenance ng area
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

RDX (Cyclonite)

General Statistics

Total Number of Observations	22	Number of Distinct Observations	19
		Number of Missing Observations	19
Number of Detects	0	Number of Non-Detects	22
Number of Distinct Detects	0	Number of Distinct Non-Detects	19

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable RDX (Cyclonite) was not processed!

Aluminum

General Statistics

Total Number of Observations	2	Number of Distinct Observations	2
		Number of Missing Observations	12
Minimum	5250	Mean	11625
Maximum	18000	Median	11625

Warning: This data set only has 2 observations!
Data set is too small to compute reliable and meaningful statistics and estimates!
The data set for variable Aluminum was not processed!

It is suggested to collect at least 8 to 10 observations before using these statistical methods!
If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Antimony

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	11
Number of Detects	0	Number of Non-Detects	3
Number of Distinct Detects	0	Number of Distinct Non-Detects	3

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony was not processed!

Arsenic

General Statistics

Total Number of Observations	22	Number of Distinct Observations	22
		Number of Missing Observations	19
Number of Detects	21	Number of Non-Detects	1
Number of Distinct Detects	21	Number of Distinct Non-Detects	1
Minimum Detect	2.05	Minimum Non-Detect	45.65
Maximum Detect	61.3	Maximum Non-Detect	45.65
Variance Detects	290.6	Percent Non-Detects	4.545%
Mean Detects	14.52	SD Detects	17.05

68					Median Detects	7.18					CV Detects	1.174
69					Skewness Detects	1.709					Kurtosis Detects	1.885
70					Mean of Logged Detects	2.145					SD of Logged Detects	1.005
71												
72					**Normal GOF Test on Detects Only**							
73					Shapiro Wilk Test Statistic	0.708	**Shapiro Wilk GOF Test**					
74					1% Shapiro Wilk Critical Value	0.873	Detected Data Not Normal at 1% Significance Level					
75					Lilliefors Test Statistic	0.297	**Lilliefors GOF Test**					
76					1% Lilliefors Critical Value	0.219	Detected Data Not Normal at 1% Significance Level					
77					**Detected Data Not Normal at 1% Significance Level**							
78												
79					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
80					KM Mean	14.41	KM Standard Error of Mean	3.661				
81					90KM SD	16.5	95% KM (BCA) UCL	20.79				
82					95% KM (t) UCL	20.71	95% KM (Percentile Bootstrap) UCL	20.52				
83					95% KM (z) UCL	20.44	95% KM Bootstrap t UCL	24.26				
84					90% KM Chebyshev UCL	25.4	95% KM Chebyshev UCL	30.37				
85					97.5% KM Chebyshev UCL	37.28	99% KM Chebyshev UCL	50.84				
86												
87					**Gamma GOF Tests on Detected Observations Only**							
88					A-D Test Statistic	1.298	**Anderson-Darling GOF Test**					
89					5% A-D Critical Value	0.768	Detected Data Not Gamma Distributed at 5% Significance Level					
90					K-S Test Statistic	0.197	**Kolmogorov-Smirnov GOF**					
91					5% K-S Critical Value	0.195	Detected Data Not Gamma Distributed at 5% Significance Level					
92					**Detected Data Not Gamma Distributed at 5% Significance Level**							
93												
94					**Gamma Statistics on Detected Data Only**							
95					k hat (MLE)	1.079	k star (bias corrected MLE)	0.957				
96					Theta hat (MLE)	13.46	Theta star (bias corrected MLE)	15.18				
97					nu hat (MLE)	45.32	nu star (bias corrected)	40.18				
98					Mean (detects)	14.52						
99												
100					**Gamma ROS Statistics using Imputed Non-Detects**							
101					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
102					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
103					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
104					This is especially true when the sample size is small.							
105					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
106					Minimum	2.05	Mean	14.27				
107					Maximum	61.3	Median	7.52				
108					SD	16.68	CV	1.168				
109					k hat (MLE)	1.117	k star (bias corrected MLE)	0.995				
110					Theta hat (MLE)	12.78	Theta star (bias corrected MLE)	14.35				
111					nu hat (MLE)	49.14	nu star (bias corrected)	43.77				
112					Adjusted Level of Significance (β)	0.0386						
113					Approximate Chi Square Value (43.77, α)	29.6	Adjusted Chi Square Value (43.77, β)	28.73				
114					95% Gamma Approximate UCL	21.11	95% Gamma Adjusted UCL	21.75				
115												
116					**Estimates of Gamma Parameters using KM Estimates**							
117					Mean (KM)	14.41	SD (KM)	16.5				
118					Variance (KM)	272.4	SE of Mean (KM)	3.661				
119					k hat (KM)	0.763	k star (KM)	0.689				
120					nu hat (KM)	33.56	nu star (KM)	30.32				
121					theta hat (KM)	18.9	theta star (KM)	20.92				
122					80% gamma percentile (KM)	23.71	90% gamma percentile (KM)	36.32				
123					95% gamma percentile (KM)	49.34	99% gamma percentile (KM)	80.48				
124												
125					**Gamma Kaplan-Meier (KM) Statistics**							
126					Approximate Chi Square Value (30.32, α)	18.75	Adjusted Chi Square Value (30.32, β)	18.07				
127					95% KM Approximate Gamma UCL	23.32	95% KM Adjusted Gamma UCL	24.19				
128												
129					**Lognormal GOF Test on Detected Observations Only**							
130					Shapiro Wilk Test Statistic	0.917	**Shapiro Wilk GOF Test**					
131					10% Shapiro Wilk Critical Value	0.923	Detected Data Not Lognormal at 10% Significance Level					
132					Lilliefors Test Statistic	0.158	**Lilliefors GOF Test**					
133					10% Lilliefors Critical Value	0.173	Detected Data appear Lognormal at 10% Significance Level					
134					**Detected Data appear Approximate Lognormal at 10% Significance Level**							

135											
136	**Lognormal ROS Statistics Using Imputed Non-Detects**										
137				Mean in Original Scale	14.22			Mean in Log Scale	2.142		
138				SD in Original Scale	16.69			SD in Log Scale	0.981		
139				95% t UCL (assumes normality of ROS data)	20.35			95% Percentile Bootstrap UCL	20.11		
140				95% BCA Bootstrap UCL	21.17			95% Bootstrap t UCL	23.27		
141				95% H-UCL (Log ROS)	23.81						
142											
143	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
144				KM Mean (logged)	2.141			KM Geo Mean	8.506		
145				KM SD (logged)	0.977			95% Critical H Value (KM-Log)	2.552		
146				KM Standard Error of Mean (logged)	0.218			95% H-UCL (KM -Log)	23.64		
147				KM SD (logged)	0.977			95% Critical H Value (KM-Log)	2.552		
148				KM Standard Error of Mean (logged)	0.218						
149											
150	**DL/2 Statistics**										
151	**DL/2 Normal**							**DL/2 Log-Transformed**			
152				Mean in Original Scale	14.9			Mean in Log Scale	2.19		
153				SD in Original Scale	16.73			SD in Log Scale	1.003		
154				95% t UCL (Assumes normality)	21.04			95% H-Stat UCL	26.02		
155	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
156											
157	**Nonparametric Distribution Free UCL Statistics**										
158	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**										
159											
160	**Suggested UCL to Use**										
161				KM H-UCL	23.64						
162											
163	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
164	**Please verify the data were collected from random locations.**										
165	**If the data were collected using judgmental or other non-random methods,**										
166	**then contact a statistician to correctly calculate UCLs.**										
167											
168	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
169	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
170	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
171											
172	**Cadmium**										
173											
174	**General Statistics**										
175				Total Number of Observations	22			Number of Distinct Observations	22		
176								Number of Missing Observations	19		
177				Number of Detects	14			Number of Non-Detects	8		
178				Number of Distinct Detects	14			Number of Distinct Non-Detects	8		
179				Minimum Detect	0.256			Minimum Non-Detect	0.0495		
180				Maximum Detect	3.8			Maximum Non-Detect	11.4		
181				Variance Detects	0.947			Percent Non-Detects	36.36%		
182				Mean Detects	1.106			SD Detects	0.973		
183				Median Detects	0.894			CV Detects	0.88		
184				Skewness Detects	2.08			Kurtosis Detects	4.228		
185				Mean of Logged Detects	-0.164			SD of Logged Detects	0.72		
186											
187	**Normal GOF Test on Detects Only**										
188				Shapiro Wilk Test Statistic	0.737			**Shapiro Wilk GOF Test**			
189				1% Shapiro Wilk Critical Value	0.825			Detected Data Not Normal at 1% Significance Level			
190				Lilliefors Test Statistic	0.286			**Lilliefors GOF Test**			
191				1% Lilliefors Critical Value	0.263			Detected Data Not Normal at 1% Significance Level			
192	**Detected Data Not Normal at 1% Significance Level**										
193											
194	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
195				KM Mean	0.874			KM Standard Error of Mean	0.2		
196				90KM SD	0.86			95% KM (BCA) UCL	1.286		
197				95% KM (t) UCL	1.218			95% KM (Percentile Bootstrap) UCL	1.228		
198				95% KM (z) UCL	1.203			95% KM Bootstrap t UCL	1.447		
199				90% KM Chebyshev UCL	1.473			95% KM Chebyshev UCL	1.744		
200				97.5% KM Chebyshev UCL	2.121			99% KM Chebyshev UCL	2.86		
201											

202	**Gamma GOF Tests on Detected Observations Only**											
203					A-D Test Statistic	0.609	**Anderson-Darling GOF Test**					
204					5% A-D Critical Value	0.746	Detected data appear Gamma Distributed at 5% Significance Level					
205					K-S Test Statistic	0.216	**Kolmogorov-Smirnov GOF**					
206					5% K-S Critical Value	0.232	Detected data appear Gamma Distributed at 5% Significance Level					
207	**Detected data appear Gamma Distributed at 5% Significance Level**											
208												
209	**Gamma Statistics on Detected Data Only**											
210					k hat (MLE)	2.039	k star (bias corrected MLE)					1.65
211					Theta hat (MLE)	0.542	Theta star (bias corrected MLE)					0.67
212					nu hat (MLE)	57.09	nu star (bias corrected)					46.19
213					Mean (detects)	1.106						
214												
215	**Gamma ROS Statistics using Imputed Non-Detects**											
216	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
217	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
218	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
219	This is especially true when the sample size is small.											
220	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
221					Minimum	0.01	Mean					0.826
222					Maximum	3.8	Median					0.552
223					SD	0.869	CV					1.052
224					k hat (MLE)	0.858	k star (bias corrected MLE)					0.771
225					Theta hat (MLE)	0.963	Theta star (bias corrected MLE)					1.071
226					nu hat (MLE)	37.74	nu star (bias corrected)					33.93
227					Adjusted Level of Significance (β)	0.0386						
228					Approximate Chi Square Value (33.93, α)	21.6	Adjusted Chi Square Value (33.93, β)					20.87
229					95% Gamma Approximate UCL	1.297	95% Gamma Adjusted UCL					1.343
230												
231	**Estimates of Gamma Parameters using KM Estimates**											
232					Mean (KM)	0.874	SD (KM)					0.86
233					Variance (KM)	0.74	SE of Mean (KM)					0.2
234					k hat (KM)	1.032	k star (KM)					0.922
235					nu hat (KM)	45.42	nu star (KM)					40.56
236					theta hat (KM)	0.847	theta star (KM)					0.948
237					80% gamma percentile (KM)	1.416	90% gamma percentile (KM)					2.054
238					95% gamma percentile (KM)	2.696	99% gamma percentile (KM)					4.195
239												
240	**Gamma Kaplan-Meier (KM) Statistics**											
241					Approximate Chi Square Value (40.56, α)	26.97	Adjusted Chi Square Value (40.56, β)					26.14
242					95% KM Approximate Gamma UCL	1.315	95% KM Adjusted Gamma UCL					1.357
243												
244	**Lognormal GOF Test on Detected Observations Only**											
245					Shapiro Wilk Test Statistic	0.959	**Shapiro Wilk GOF Test**					
246					10% Shapiro Wilk Critical Value	0.895	Detected Data appear Lognormal at 10% Significance Level					
247					Lilliefors Test Statistic	0.164	**Lilliefors GOF Test**					
248					10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level					
249	**Detected Data appear Lognormal at 10% Significance Level**											
250												
251	**Lognormal ROS Statistics Using Imputed Non-Detects**											
252					Mean in Original Scale	0.862	Mean in Log Scale					-0.45
253					SD in Original Scale	0.841	SD in Log Scale					0.755
254					95% t UCL (assumes normality of ROS data)	1.17	95% Percentile Bootstrap UCL					1.182
255					95% BCA Bootstrap UCL	1.266	95% Bootstrap t UCL					1.578
256					95% H-UCL (Log ROS)	1.233						
257												
258	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
259					KM Mean (logged)	-0.598	KM Geo Mean					0.55
260					KM SD (logged)	1.084	95% Critical H Value (KM-Log)					2.701
261					KM Standard Error of Mean (logged)	0.286	95% H-UCL (KM -Log)					1.874
262					KM SD (logged)	1.084	95% Critical H Value (KM-Log)					2.701
263					KM Standard Error of Mean (logged)	0.286						
264												
265	**DL/2 Statistics**											
266	**DL/2 Normal**						**DL/2 Log-Transformed**					
267					Mean in Original Scale	1.153	Mean in Log Scale					-0.354
268					SD in Original Scale	1.317	SD in Log Scale					1.119

269				95% t UCL (Assumes normality)		1.636					95% H-Stat UCL	2.571
270	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
271												
272	**Nonparametric Distribution Free UCL Statistics**											
273	**Detected Data appear Gamma Distributed at 5% Significance Level**											
274												
275	**Suggested UCL to Use**											
276				95% KM Adjusted Gamma UCL		1.357					95% GROS Adjusted Gamma UCL	1.343
277												
278	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
279	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
280	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
281												
282												
283	**Chromium**											
284												
285	**General Statistics**											
286				Total Number of Observations		22					Number of Distinct Observations	21
287											Number of Missing Observations	19
288				Minimum		7.8					Mean	15.65
289				Maximum		29.7					Median	14.55
290				SD		5.562					Std. Error of Mean	1.186
291				Coefficient of Variation		0.355					Skewness	1.207
292												
293	**Normal GOF Test**											
294				Shapiro Wilk Test Statistic		0.898					**Shapiro Wilk GOF Test**	
295				1% Shapiro Wilk Critical Value		0.878					Data appear Normal at 1% Significance Level	
296				Lilliefors Test Statistic		0.2					**Lilliefors GOF Test**	
297				1% Lilliefors Critical Value		0.214					Data appear Normal at 1% Significance Level	
298	**Data appear Normal at 1% Significance Level**											
299												
300	**Assuming Normal Distribution**											
301				**95% Normal UCL**							**95% UCLs (Adjusted for Skewness)**	
302				95% Student's-t UCL		17.69					95% Adjusted-CLT UCL (Chen-1995)	17.93
303											95% Modified-t UCL (Johnson-1978)	17.74
304												
305	**Gamma GOF Test**											
306				A-D Test Statistic		0.363					**Anderson-Darling Gamma GOF Test**	
307				5% A-D Critical Value		0.744					Detected data appear Gamma Distributed at 5% Significance Level	
308				K-S Test Statistic		0.158					**Kolmogorov-Smirnov Gamma GOF Test**	
309				5% K-S Critical Value		0.185					Detected data appear Gamma Distributed at 5% Significance Level	
310	**Detected data appear Gamma Distributed at 5% Significance Level**											
311												
312	**Gamma Statistics**											
313				k hat (MLE)		9.36					k star (bias corrected MLE)	8.114
314				Theta hat (MLE)		1.672					Theta star (bias corrected MLE)	1.929
315				nu hat (MLE)		411.8					nu star (bias corrected)	357
316				MLE Mean (bias corrected)		15.65					MLE Sd (bias corrected)	5.495
317											Approximate Chi Square Value (0.05)	314.2
318				Adjusted Level of Significance		0.0386					Adjusted Chi Square Value	311.2
319												
320	**Assuming Gamma Distribution**											
321				95% Approximate Gamma UCL		17.78					95% Adjusted Gamma UCL	17.95
322												
323	**Lognormal GOF Test**											
324				Shapiro Wilk Test Statistic		0.976					**Shapiro Wilk Lognormal GOF Test**	
325				10% Shapiro Wilk Critical Value		0.926					Data appear Lognormal at 10% Significance Level	
326				Lilliefors Test Statistic		0.136					**Lilliefors Lognormal GOF Test**	
327				10% Lilliefors Critical Value		0.169					Data appear Lognormal at 10% Significance Level	
328	**Data appear Lognormal at 10% Significance Level**											
329												
330	**Lognormal Statistics**											
331				Minimum of Logged Data		2.054					Mean of logged Data	2.696
332				Maximum of Logged Data		3.391					SD of logged Data	0.332
333												
334	**Assuming Lognormal Distribution**											
335				95% H-UCL		17.93					90% Chebyshev (MVUE) UCL	19

336				95% Chebyshev (MVUE) UCL		20.53			97.5% Chebyshev (MVUE) UCL			22.66
337				99% Chebyshev (MVUE) UCL		26.83						
338												
339						**Nonparametric Distribution Free UCL Statistics**							
340						**Data appear to follow a Discernible Distribution**							
341												
342						**Nonparametric Distribution Free UCLs**							
343				95% CLT UCL		17.6			95% BCA Bootstrap UCL			17.85
344				95% Standard Bootstrap UCL		17.51			95% Bootstrap-t UCL			18.23
345				95% Hall's Bootstrap UCL		18.48			95% Percentile Bootstrap UCL			17.62
346				90% Chebyshev(Mean, Sd) UCL		19.21			95% Chebyshev(Mean, Sd) UCL			20.82
347				97.5% Chebyshev(Mean, Sd) UCL		23.06			99% Chebyshev(Mean, Sd) UCL			27.45
348												
349						**Suggested UCL to Use**							
350				95% Student's-t UCL		17.69						
351												
352						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
353						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
354						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
355												
356												
357	**Copper**											
358												
359						**General Statistics**							
360				Total Number of Observations		25			Number of Distinct Observations			25
361									Number of Missing Observations			16
362				Minimum		13.7			Mean			105
363				Maximum		979			Median			53.3
364				SD		193.2			Std. Error of Mean			38.64
365				Coefficient of Variation		1.839			Skewness			4.211
366												
367						**Normal GOF Test**							
368				Shapiro Wilk Test Statistic		0.442			**Shapiro Wilk GOF Test**			
369				1% Shapiro Wilk Critical Value		0.886			Data Not Normal at 1% Significance Level			
370				Lilliefors Test Statistic		0.33			**Lilliefors GOF Test**			
371				1% Lilliefors Critical Value		0.201			Data Not Normal at 1% Significance Level			
372						**Data Not Normal at 1% Significance Level**							
373												
374						**Assuming Normal Distribution**							
375				**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**			
376				95% Student's-t UCL		171.1			95% Adjusted-CLT UCL (Chen-1995)			203.3
377									95% Modified-t UCL (Johnson-1978)			176.5
378												
379						**Gamma GOF Test**							
380				A-D Test Statistic		1.785			**Anderson-Darling Gamma GOF Test**			
381				5% A-D Critical Value		0.776			Data Not Gamma Distributed at 5% Significance Level			
382				K-S Test Statistic		0.234			**Kolmogorov-Smirnov Gamma GOF Test**			
383				5% K-S Critical Value		0.18			Data Not Gamma Distributed at 5% Significance Level			
384						**Data Not Gamma Distributed at 5% Significance Level**							
385												
386						**Gamma Statistics**							
387				k hat (MLE)		0.938			k star (bias corrected MLE)			0.853
388				Theta hat (MLE)		111.9			Theta star (bias corrected MLE)			123.2
389				nu hat (MLE)		46.92			nu star (bias corrected)			42.63
390				MLE Mean (bias corrected)		105			MLE Sd (bias corrected)			113.7
391									Approximate Chi Square Value (0.05)			28.66
392				Adjusted Level of Significance		0.0395			Adjusted Chi Square Value			27.88
393												
394						**Assuming Gamma Distribution**							
395				95% Approximate Gamma UCL		156.2			95% Adjusted Gamma UCL			160.6
396												
397						**Lognormal GOF Test**							
398				Shapiro Wilk Test Statistic		0.929			**Shapiro Wilk Lognormal GOF Test**			
399				10% Shapiro Wilk Critical Value		0.931			Data Not Lognormal at 10% Significance Level			
400				Lilliefors Test Statistic		0.144			**Lilliefors Lognormal GOF Test**			
401				10% Lilliefors Critical Value		0.159			Data appear Lognormal at 10% Significance Level			
402						**Data appear Approximate Lognormal at 10% Significance Level**							

403											
404	**Lognormal Statistics**										
405					Minimum of Logged Data	2.617			Mean of logged Data	4.034	
406					Maximum of Logged Data	6.887			SD of logged Data	0.963	
407											
408	**Assuming Lognormal Distribution**										
409					95% H-UCL	145.5			90% Chebyshev (MVUE) UCL	144.7	
410					95% Chebyshev (MVUE) UCL	170.6			97.5% Chebyshev (MVUE) UCL	206.5	
411					99% Chebyshev (MVUE) UCL	277.1					
412											
413	**Nonparametric Distribution Free UCL Statistics**										
414	**Data appear to follow a Discernible Distribution**										
415											
416	**Nonparametric Distribution Free UCLs**										
417					95% CLT UCL	168.6			95% BCA Bootstrap UCL	223.5	
418					95% Standard Bootstrap UCL	168.3			95% Bootstrap-t UCL	341.8	
419					95% Hall's Bootstrap UCL	400.5			95% Percentile Bootstrap UCL	176.7	
420					90% Chebyshev(Mean, Sd) UCL	220.9			95% Chebyshev(Mean, Sd) UCL	273.4	
421					97.5% Chebyshev(Mean, Sd) UCL	346.3			99% Chebyshev(Mean, Sd) UCL	489.4	
422											
423	**Suggested UCL to Use**										
424					95% H-UCL	145.5					
425											
426	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
427	**Please verify the data were collected from random locations.**										
428	**If the data were collected using judgmental or other non-random methods,**										
429	**then contact a statistician to correctly calculate UCLs.**										
430											
431	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
432	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
433	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
434											
435											
436	**Lead**										
437											
438	**General Statistics**										
439					Total Number of Observations	25			Number of Distinct Observations	25	
440									Number of Missing Observations	16	
441					Minimum	27.9			Mean	801	
442					Maximum	12500			Median	149	
443					SD	2494			Std. Error of Mean	498.7	
444					Coefficient of Variation	3.113			Skewness	4.674	
445											
446	**Normal GOF Test**										
447					Shapiro Wilk Test Statistic	0.32			**Shapiro Wilk GOF Test**		
448					1% Shapiro Wilk Critical Value	0.886			Data Not Normal at 1% Significance Level		
449					Lilliefors Test Statistic	0.433			**Lilliefors GOF Test**		
450					1% Lilliefors Critical Value	0.201			Data Not Normal at 1% Significance Level		
451	**Data Not Normal at 1% Significance Level**										
452											
453	**Assuming Normal Distribution**										
454	**95% Normal UCL**								**95% UCLs (Adjusted for Skewness)**		
455					95% Student's-t UCL	1654			95% Adjusted-CLT UCL (Chen-1995)	2119	
456									95% Modified-t UCL (Johnson-1978)	1732	
457											
458	**Gamma GOF Test**										
459					A-D Test Statistic	2.945			**Anderson-Darling Gamma GOF Test**		
460					5% A-D Critical Value	0.821			Data Not Gamma Distributed at 5% Significance Level		
461					K-S Test Statistic	0.303			**Kolmogorov-Smirnov Gamma GOF Test**		
462					5% K-S Critical Value	0.186			Data Not Gamma Distributed at 5% Significance Level		
463	**Data Not Gamma Distributed at 5% Significance Level**										
464											
465	**Gamma Statistics**										
466					k hat (MLE)	0.438			k star (bias corrected MLE)	0.412	
467					Theta hat (MLE)	1827			Theta star (bias corrected MLE)	1942	
468					nu hat (MLE)	21.92			nu star (bias corrected)	20.62	
469					MLE Mean (bias corrected)	801			MLE Sd (bias corrected)	1247	

470											Approximate Chi Square Value (0.05)	11.31
471					Adjusted Level of Significance	0.0395					Adjusted Chi Square Value	10.84
472												
473						**Assuming Gamma Distribution**						
474					95% Approximate Gamma UCL	1460					95% Adjusted Gamma UCL	1524
475												
476						**Lognormal GOF Test**						
477					Shapiro Wilk Test Statistic	0.909			**Shapiro Wilk Lognormal GOF Test**			
478					10% Shapiro Wilk Critical Value	0.931			Data Not Lognormal at 10% Significance Level			
479					Lilliefors Test Statistic	0.132			**Lilliefors Lognormal GOF Test**			
480					10% Lilliefors Critical Value	0.159			Data appear Lognormal at 10% Significance Level			
481						**Data appear Approximate Lognormal at 10% Significance Level**						
482												
483						**Lognormal Statistics**						
484					Minimum of Logged Data	3.329					Mean of logged Data	5.207
485					Maximum of Logged Data	9.433					SD of logged Data	1.413
486												
487						**Assuming Lognormal Distribution**						
488					95% H-UCL	1200					90% Chebyshev (MVUE) UCL	937
489					95% Chebyshev (MVUE) UCL	1153					97.5% Chebyshev (MVUE) UCL	1452
490					99% Chebyshev (MVUE) UCL	2040						
491												
492						**Nonparametric Distribution Free UCL Statistics**						
493						**Data appear to follow a Discernible Distribution**						
494												
495						**Nonparametric Distribution Free UCLs**						
496					95% CLT UCL	1621					95% BCA Bootstrap UCL	2289
497					95% Standard Bootstrap UCL	1612					95% Bootstrap-t UCL	7015
498					95% Hall's Bootstrap UCL	5308					95% Percentile Bootstrap UCL	1766
499					90% Chebyshev(Mean, Sd) UCL	2297					95% Chebyshev(Mean, Sd) UCL	2975
500					97.5% Chebyshev(Mean, Sd) UCL	3915					99% Chebyshev(Mean, Sd) UCL	5763
501												
502						**Suggested UCL to Use**						
503					95% H-UCL	1200						
504												
505						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
506						**Please verify the data were collected from random locations.**						
507						**If the data were collected using judgmental or other non-random methods,**						
508						**then contact a statistician to correctly calculate UCLs.**						
509												
510						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
511						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
512						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
513												
514												
515	**Manganese**											
516												
517						**General Statistics**						
518					Total Number of Observations	2					Number of Distinct Observations	2
519											Number of Missing Observations	12
520					Minimum	309					Mean	834.5
521					Maximum	1360					Median	834.5
522												
523						**Warning: This data set only has 2 observations!**						
524						**Data set is too small to compute reliable and meaningful statistics and estimates!**						
525						**The data set for variable Manganese was not processed!**						
526												
527						**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**						
528						**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**						
529												
530												
531												
532	**Mercury**											
533												
534						**General Statistics**						
535					Total Number of Observations	25					Number of Distinct Observations	25
536											Number of Missing Observations	16

537				Minimum	0.0692					Mean	1.644	
538				Maximum	27					Median	0.397	
539				SD	5.355					Std. Error of Mean	1.071	
540				Coefficient of Variation	3.256					Skewness	4.801	
541												
542					**Normal GOF Test**							
543				Shapiro Wilk Test Statistic	0.293				**Shapiro Wilk GOF Test**			
544				1% Shapiro Wilk Critical Value	0.886				Data Not Normal at 1% Significance Level			
545				Lilliefors Test Statistic	0.434				**Lilliefors GOF Test**			
546				1% Lilliefors Critical Value	0.201				Data Not Normal at 1% Significance Level			
547					**Data Not Normal at 1% Significance Level**							
548												
549					**Assuming Normal Distribution**							
550				**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**			
551				95% Student's-t UCL	3.477				95% Adjusted-CLT UCL (Chen-1995)		4.505	
552									95% Modified-t UCL (Johnson-1978)		3.648	
553												
554					**Gamma GOF Test**							
555				A-D Test Statistic	3.397				**Anderson-Darling Gamma GOF Test**			
556				5% A-D Critical Value	0.815				Data Not Gamma Distributed at 5% Significance Level			
557				K-S Test Statistic	0.34				**Kolmogorov-Smirnov Gamma GOF Test**			
558				5% K-S Critical Value	0.185				Data Not Gamma Distributed at 5% Significance Level			
559					**Data Not Gamma Distributed at 5% Significance Level**							
560												
561					**Gamma Statistics**							
562				k hat (MLE)	0.464				k star (bias corrected MLE)		0.435	
563				Theta hat (MLE)	3.545				Theta star (bias corrected MLE)		3.781	
564				nu hat (MLE)	23.2				nu star (bias corrected)		21.75	
565				MLE Mean (bias corrected)	1.644				MLE Sd (bias corrected)		2.494	
566									Approximate Chi Square Value (0.05)		12.15	
567				Adjusted Level of Significance	0.0395				Adjusted Chi Square Value		11.66	
568												
569					**Assuming Gamma Distribution**							
570				95% Approximate Gamma UCL	2.944				95% Adjusted Gamma UCL		3.067	
571												
572					**Lognormal GOF Test**							
573				Shapiro Wilk Test Statistic	0.887				**Shapiro Wilk Lognormal GOF Test**			
574				10% Shapiro Wilk Critical Value	0.931				Data Not Lognormal at 10% Significance Level			
575				Lilliefors Test Statistic	0.181				**Lilliefors Lognormal GOF Test**			
576				10% Lilliefors Critical Value	0.159				Data Not Lognormal at 10% Significance Level			
577					**Data Not Lognormal at 10% Significance Level**							
578												
579					**Lognormal Statistics**							
580				Minimum of Logged Data	-2.671				Mean of logged Data		-0.888	
581				Maximum of Logged Data	3.296				SD of logged Data		1.293	
582												
583					**Assuming Lognormal Distribution**							
584				95% H-UCL	2.036				90% Chebyshev (MVUE) UCL		1.73	
585				95% Chebyshev (MVUE) UCL	2.107				97.5% Chebyshev (MVUE) UCL		2.63	
586				99% Chebyshev (MVUE) UCL	3.658							
587												
588					**Nonparametric Distribution Free UCL Statistics**							
589					**Data do not follow a Discernible Distribution**							
590												
591					**Nonparametric Distribution Free UCLs**							
592				95% CLT UCL	3.406				95% BCA Bootstrap UCL		5.205	
593				95% Standard Bootstrap UCL	3.398				95% Bootstrap-t UCL		23.77	
594				95% Hall's Bootstrap UCL	11.51				95% Percentile Bootstrap UCL		3.711	
595				90% Chebyshev(Mean, Sd) UCL	4.857				95% Chebyshev(Mean, Sd) UCL		6.313	
596				97.5% Chebyshev(Mean, Sd) UCL	8.332				99% Chebyshev(Mean, Sd) UCL		12.3	
597												
598					**Suggested UCL to Use**							
599				95% Student's-t UCL	3.477							
600												
601					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
602					**Please verify the data were collected from random locations.**							
603					**If the data were collected using judgmental or other non-random methods,**							

	A	B	C	D	E	F	G	H	I	J	K	L
604	then contact a statistician to correctly calculate UCLs.											
605												
606	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
607	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
608	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
609												
610												
611	**Nickel**											
612												
613	**General Statistics**											
614						Total Number of Observations	22			Number of Distinct Observations	22	
615										Number of Missing Observations	19	
616						Minimum	5.1			Mean	15.21	
617						Maximum	81.9			Median	9.53	
618						SD	16.38			Std. Error of Mean	3.492	
619						Coefficient of Variation	1.077			Skewness	3.534	
620												
621	**Normal GOF Test**											
622						Shapiro Wilk Test Statistic	0.556			**Shapiro Wilk GOF Test**		
623						1% Shapiro Wilk Critical Value	0.878			Data Not Normal at 1% Significance Level		
624						Lilliefors Test Statistic	0.269			**Lilliefors GOF Test**		
625						1% Lilliefors Critical Value	0.214			Data Not Normal at 1% Significance Level		
626	**Data Not Normal at 1% Significance Level**											
627												
628	**Assuming Normal Distribution**											
629					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
630						95% Student's-t UCL	21.22			95% Adjusted-CLT UCL (Chen-1995)	23.77	
631										95% Modified-t UCL (Johnson-1978)	21.66	
632												
633	**Gamma GOF Test**											
634						A-D Test Statistic	1.461			**Anderson-Darling Gamma GOF Test**		
635						5% A-D Critical Value	0.756			Data Not Gamma Distributed at 5% Significance Level		
636						K-S Test Statistic	0.199			**Kolmogorov-Smirnov Gamma GOF Test**		
637						5% K-S Critical Value	0.188			Data Not Gamma Distributed at 5% Significance Level		
638	**Data Not Gamma Distributed at 5% Significance Level**											
639												
640	**Gamma Statistics**											
641						k hat (MLE)	2.001			k star (bias corrected MLE)	1.758	
642						Theta hat (MLE)	7.602			Theta star (bias corrected MLE)	8.65	
643						nu hat (MLE)	88.04			nu star (bias corrected)	77.36	
644						MLE Mean (bias corrected)	15.21			MLE Sd (bias corrected)	11.47	
645										Approximate Chi Square Value (0.05)	58.1	
646						Adjusted Level of Significance	0.0386			Adjusted Chi Square Value	56.86	
647												
648	**Assuming Gamma Distribution**											
649						95% Approximate Gamma UCL	20.25			95% Adjusted Gamma UCL	20.7	
650												
651	**Lognormal GOF Test**											
652						Shapiro Wilk Test Statistic	0.883			**Shapiro Wilk Lognormal GOF Test**		
653						10% Shapiro Wilk Critical Value	0.926			Data Not Lognormal at 10% Significance Level		
654						Lilliefors Test Statistic	0.164			**Lilliefors Lognormal GOF Test**		
655						10% Lilliefors Critical Value	0.169			Data appear Lognormal at 10% Significance Level		
656	**Data appear Approximate Lognormal at 10% Significance Level**											
657												
658	**Lognormal Statistics**											
659						Minimum of Logged Data	1.629			Mean of logged Data	2.452	
660						Maximum of Logged Data	4.405			SD of logged Data	0.653	
661												
662	**Assuming Lognormal Distribution**											
663						95% H-UCL	19.52			90% Chebyshev (MVUE) UCL	20.51	
664						95% Chebyshev (MVUE) UCL	23.36			97.5% Chebyshev (MVUE) UCL	27.33	
665						99% Chebyshev (MVUE) UCL	35.11					
666												
667	**Nonparametric Distribution Free UCL Statistics**											
668	**Data appear to follow a Discernible Distribution**											
669												
670	**Nonparametric Distribution Free UCLs**											

671				95% CLT UCL	20.95				95% BCA Bootstrap UCL	25.3		
672				95% Standard Bootstrap UCL	20.78				95% Bootstrap-t UCL	30.15		
673				95% Hall's Bootstrap UCL	43.21				95% Percentile Bootstrap UCL	21.2		
674				90% Chebyshev(Mean, Sd) UCL	25.69				95% Chebyshev(Mean, Sd) UCL	30.43		
675				97.5% Chebyshev(Mean, Sd) UCL	37.02				99% Chebyshev(Mean, Sd) UCL	49.96		
676												
677				**Suggested UCL to Use**								
678				95% H-UCL	19.52							
679												
680				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
681				**Please verify the data were collected from random locations.**								
682				**If the data were collected using judgmental or other non-random methods,**								
683				**then contact a statistician to correctly calculate UCLs.**								
684												
685				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
686				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
687				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
688												
689	**Silver**											
690												
691				**General Statistics**								
692				Total Number of Observations	22				Number of Distinct Observations	21		
693									Number of Missing Observations	19		
694				Number of Detects	5				Number of Non-Detects	17		
695				Number of Distinct Detects	5				Number of Distinct Non-Detects	16		
696				Minimum Detect	0.294				Minimum Non-Detect	0.125		
697				Maximum Detect	8.68				Maximum Non-Detect	2.415		
698				Variance Detects	13.95				Percent Non-Detects	77.27%		
699				Mean Detects	1.998				SD Detects	3.736		
700				Median Detects	0.338				CV Detects	1.87		
701				Skewness Detects	2.236				Kurtosis Detects	4.999		
702				Mean of Logged Detects	-0.463				SD of Logged Detects	1.468		
703												
704				**Normal GOF Test on Detects Only**								
705				Shapiro Wilk Test Statistic	0.558				**Shapiro Wilk GOF Test**			
706				1% Shapiro Wilk Critical Value	0.686				Detected Data Not Normal at 1% Significance Level			
707				Lilliefors Test Statistic	0.471				**Lilliefors GOF Test**			
708				1% Lilliefors Critical Value	0.396				Detected Data Not Normal at 1% Significance Level			
709				**Detected Data Not Normal at 1% Significance Level**								
710												
711				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
712				KM Mean	0.646				KM Standard Error of Mean	0.42		
713				90KM SD	1.755				95% KM (BCA) UCL	1.464		
714				95% KM (t) UCL	1.369				95% KM (Percentile Bootstrap) UCL	1.428		
715				95% KM (z) UCL	1.337				95% KM Bootstrap t UCL	17.81		
716				90% KM Chebyshev UCL	1.907				95% KM Chebyshev UCL	2.478		
717				97.5% KM Chebyshev UCL	3.271				99% KM Chebyshev UCL	4.828		
718												
719				**Gamma GOF Tests on Detected Observations Only**								
720				A-D Test Statistic	1.254				**Anderson-Darling GOF Test**			
721				5% A-D Critical Value	0.709				Detected Data Not Gamma Distributed at 5% Significance Level			
722				K-S Test Statistic	0.497				**Kolmogorov-Smirnov GOF**			
723				5% K-S Critical Value	0.371				Detected Data Not Gamma Distributed at 5% Significance Level			
724				**Detected Data Not Gamma Distributed at 5% Significance Level**								
725												
726				**Gamma Statistics on Detected Data Only**								
727				k hat (MLE)	0.543				k star (bias corrected MLE)	0.351		
728				Theta hat (MLE)	3.679				Theta star (bias corrected MLE)	5.699		
729				nu hat (MLE)	5.43				nu star (bias corrected)	3.505		
730				Mean (detects)	1.998							
731												
732				**Gamma ROS Statistics using Imputed Non-Detects**								
733				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
734				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
735				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
736				This is especially true when the sample size is small.								
737				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								

738					Minimum	0.01				Mean		0.462
739					Maximum	8.68				Median		0.01
740					SD	1.84				CV		3.984
741					k hat (MLE)	0.246				k star (bias corrected MLE)		0.243
742					Theta hat (MLE)	1.875				Theta star (bias corrected MLE)		1.9
743					nu hat (MLE)	10.84				nu star (bias corrected)		10.69
744					Adjusted Level of Significance (β)	0.0386						
745					Approximate Chi Square Value (10.69, α)	4.379				Adjusted Chi Square Value (10.69, β)		4.08
746					95% Gamma Approximate UCL	1.128				95% Gamma Adjusted UCL		1.21
747												
748					**Estimates of Gamma Parameters using KM Estimates**							
749					Mean (KM)	0.646				SD (KM)		1.755
750					Variance (KM)	3.082				SE of Mean (KM)		0.42
751					k hat (KM)	0.135				k star (KM)		0.147
752					nu hat (KM)	5.95				nu star (KM)		6.472
753					theta hat (KM)	4.774				theta star (KM)		4.389
754					80% gamma percentile (KM)	0.691				90% gamma percentile (KM)		1.909
755					95% gamma percentile (KM)	3.566				99% gamma percentile (KM)		8.396
756												
757					**Gamma Kaplan-Meier (KM) Statistics**							
758					Approximate Chi Square Value (6.47, α)	1.886				Adjusted Chi Square Value (6.47, β)		1.707
759					95% KM Approximate Gamma UCL	2.216				95% KM Adjusted Gamma UCL		2.447
760												
761					**Lognormal GOF Test on Detected Observations Only**							
762					Shapiro Wilk Test Statistic	0.595				**Shapiro Wilk GOF Test**		
763					10% Shapiro Wilk Critical Value	0.806				Detected Data Not Lognormal at 10% Significance Level		
764					Lilliefors Test Statistic	0.456				**Lilliefors GOF Test**		
765					10% Lilliefors Critical Value	0.319				Detected Data Not Lognormal at 10% Significance Level		
766					**Detected Data Not Lognormal at 10% Significance Level**							
767												
768					**Lognormal ROS Statistics Using Imputed Non-Detects**							
769					Mean in Original Scale	0.583				Mean in Log Scale		-1.555
770					SD in Original Scale	1.811				SD in Log Scale		0.967
771					95% t UCL (assumes normality of ROS data)	1.247				95% Percentile Bootstrap UCL		1.347
772					95% BCA Bootstrap UCL	1.743				95% Bootstrap t UCL		10.72
773					95% H-UCL (Log ROS)	0.576						
774												
775					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
776					KM Mean (logged)	-1.253				KM Geo Mean		0.286
777					KM SD (logged)	0.855				95% Critical H Value (KM-Log)		2.39
778					KM Standard Error of Mean (logged)	0.282				95% H-UCL (KM -Log)		0.643
779					KM SD (logged)	0.855				95% Critical H Value (KM-Log)		2.39
780					KM Standard Error of Mean (logged)	0.282						
781					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
782												
783					**DL/2 Statistics**							
784					**DL/2 Normal**					**DL/2 Log-Transformed**		
785					Mean in Original Scale	0.676				Mean in Log Scale		-1.245
786					SD in Original Scale	1.803				SD in Log Scale		0.946
787					95% t UCL (Assumes normality)	1.337				95% H-Stat UCL		0.757
788					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
789												
790					**Nonparametric Distribution Free UCL Statistics**							
791					**Data do not follow a Discernible Distribution**							
792												
793					**Suggested UCL to Use**							
794					95% KM (t) UCL	1.369						
795												
796					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
797					**Please verify the data were collected from random locations.**							
798					**If the data were collected using judgmental or other non-random methods,**							
799					**then contact a statistician to correctly calculate UCLs.**							
800												
801					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
802					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
803					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
804												

805											
806	**Zinc**										
807											
808	**General Statistics**										
809					Total Number of Observations	22			Number of Distinct Observations	21	
810									Number of Missing Observations	19	
811					Minimum	31.7			Mean	252.4	
812					Maximum	1550			Median	119	
813					SD	328.6			Std. Error of Mean	70.05	
814					Coefficient of Variation	1.302			Skewness	3.229	
815											
816	**Normal GOF Test**										
817					Shapiro Wilk Test Statistic	0.604			**Shapiro Wilk GOF Test**		
818					1% Shapiro Wilk Critical Value	0.878			Data Not Normal at 1% Significance Level		
819					Lilliefors Test Statistic	0.264			**Lilliefors GOF Test**		
820					1% Lilliefors Critical Value	0.214			Data Not Normal at 1% Significance Level		
821	**Data Not Normal at 1% Significance Level**										
822											
823	**Assuming Normal Distribution**										
824					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**		
825					95% Student's-t UCL	373			95% Adjusted-CLT UCL (Chen-1995)	419.2	
826									95% Modified-t UCL (Johnson-1978)	381	
827											
828	**Gamma GOF Test**										
829					A-D Test Statistic	0.945			**Anderson-Darling Gamma GOF Test**		
830					5% A-D Critical Value	0.766			Data Not Gamma Distributed at 5% Significance Level		
831					K-S Test Statistic	0.187			**Kolmogorov-Smirnov Gamma GOF Test**		
832					5% K-S Critical Value	0.19			Detected data appear Gamma Distributed at 5% Significance Level		
833	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**										
834											
835	**Gamma Statistics**										
836					k hat (MLE)	1.205			k star (bias corrected MLE)	1.071	
837					Theta hat (MLE)	209.4			Theta star (bias corrected MLE)	235.6	
838					nu hat (MLE)	53.04			nu star (bias corrected)	47.14	
839					MLE Mean (bias corrected)	252.4			MLE Sd (bias corrected)	243.9	
840									Approximate Chi Square Value (0.05)	32.38	
841					Adjusted Level of Significance	0.0386			Adjusted Chi Square Value	31.47	
842											
843	**Assuming Gamma Distribution**										
844					95% Approximate Gamma UCL	367.4			95% Adjusted Gamma UCL	378.1	
845											
846	**Lognormal GOF Test**										
847					Shapiro Wilk Test Statistic	0.96			**Shapiro Wilk Lognormal GOF Test**		
848					10% Shapiro Wilk Critical Value	0.926			Data appear Lognormal at 10% Significance Level		
849					Lilliefors Test Statistic	0.146			**Lilliefors Lognormal GOF Test**		
850					10% Lilliefors Critical Value	0.169			Data appear Lognormal at 10% Significance Level		
851	**Data appear Lognormal at 10% Significance Level**										
852											
853	**Lognormal Statistics**										
854					Minimum of Logged Data	3.456			Mean of logged Data	5.062	
855					Maximum of Logged Data	7.346			SD of logged Data	0.92	
856											
857	**Assuming Lognormal Distribution**										
858					95% H-UCL	396.5			90% Chebyshev (MVUE) UCL	388.7	
859					95% Chebyshev (MVUE) UCL	458.3			97.5% Chebyshev (MVUE) UCL	555	
860					99% Chebyshev (MVUE) UCL	744.8					
861											
862	**Nonparametric Distribution Free UCL Statistics**										
863	**Data appear to follow a Discernible Distribution**										
864											
865	**Nonparametric Distribution Free UCLs**										
866					95% CLT UCL	367.6			95% BCA Bootstrap UCL	436.2	
867					95% Standard Bootstrap UCL	364.3			95% Bootstrap-t UCL	523.3	
868					95% Hall's Bootstrap UCL	822.6			95% Percentile Bootstrap UCL	372.5	
869					90% Chebyshev(Mean, Sd) UCL	462.6			95% Chebyshev(Mean, Sd) UCL	557.8	
870					97.5% Chebyshev(Mean, Sd) UCL	689.9			99% Chebyshev(Mean, Sd) UCL	949.4	
871											

872	**Suggested UCL to Use**											
873				95% Adjusted Gamma UCL		378.1						
874												
875	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
876	**Please verify the data were collected from random locations.**											
877	**If the data were collected using judgmental or other non-random methods,**											
878	**then contact a statistician to correctly calculate UCLs.**											
879												
880	When a data set follows an approximate distribution passing only one of the GOF tests,											
881	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
882												
883	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
884	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
885	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
886												
887	**2,4-Dinitrotoluene**											
888												
889	**General Statistics**											
890				Total Number of Observations		5			Number of Distinct Observations			5
891									Number of Missing Observations			25
892				Number of Detects		1			Number of Non-Detects			4
893				Number of Distinct Detects		1			Number of Distinct Non-Detects			4
894												
895	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
896	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
897												
898	**The data set for variable 2,4-Dinitrotoluene was not processed!**											
899												
900												
901	**2-Methylnaphthalene**											
902												
903	**General Statistics**											
904				Total Number of Observations		2			Number of Distinct Observations			2
905									Number of Missing Observations			12
906				Number of Detects		1			Number of Non-Detects			1
907				Number of Distinct Detects		1			Number of Distinct Non-Detects			1
908												
909	**Warning: This data set only has 2 observations!**											
910	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
911	**The data set for variable 2-Methylnaphthalene was not processed!**											
912												
913	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
914	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
915												
916												
917	**Acenaphthene**											
918												
919	**General Statistics**											
920				Total Number of Observations		7			Number of Distinct Observations			7
921									Number of Missing Observations			23
922				Number of Detects		1			Number of Non-Detects			6
923				Number of Distinct Detects		1			Number of Distinct Non-Detects			6
924												
925	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
926	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
927												
928	**The data set for variable Acenaphthene was not processed!**											
929												
930												
931	**Acenaphthylene**											
932												
933	**General Statistics**											
934				Total Number of Observations		7			Number of Distinct Observations			6
935									Number of Missing Observations			23
936				Number of Detects		1			Number of Non-Detects			6
937				Number of Distinct Detects		1			Number of Distinct Non-Detects			5
938												

939	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
940	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
941												
942	**The data set for variable Acenaphthylene was not processed!**											
943												
944												
945	**Anthracene**											
946												
947	**General Statistics**											
948						Total Number of Observations	7			Number of Distinct Observations	7	
949										Number of Missing Observations	23	
950						Number of Detects	3			Number of Non-Detects	4	
951						Number of Distinct Detects	3			Number of Distinct Non-Detects	4	
952						Minimum Detect	150			Minimum Non-Detect	115	
953						Maximum Detect	520			Maximum Non-Detect	390	
954						Variance Detects	43300			Percent Non-Detects	57.14%	
955						Mean Detects	280			SD Detects	208.1	
956						Median Detects	170			CV Detects	0.743	
957						Skewness Detects	1.714			Kurtosis Detects	N/A	
958						Mean of Logged Detects	5.467			SD of Logged Detects	0.684	
959												
960	**Warning: Data set has only 3 Detected Values.**											
961	**This is not enough to compute meaningful or reliable statistics and estimates.**											
962												
963												
964	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
965	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
966	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
967	**The Chebyshev UCL often results in gross overestimates of the mean.**											
968	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
969												
970	**Normal GOF Test on Detects Only**											
971						Shapiro Wilk Test Statistic	0.79			**Shapiro Wilk GOF Test**		
972						1% Shapiro Wilk Critical Value	0.753			Detected Data appear Normal at 1% Significance Level		
973						Lilliefors Test Statistic	0.368			**Lilliefors GOF Test**		
974						1% Lilliefors Critical Value	0.429			Detected Data appear Normal at 1% Significance Level		
975	**Detected Data appear Normal at 1% Significance Level**											
976	**Note GOF tests may be unreliable for small sample sizes**											
977												
978	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
979						KM Mean	188.3			KM Standard Error of Mean	63.61	
980						90KM SD	137.1			95% KM (BCA) UCL	N/A	
981						95% KM (t) UCL	311.9			95% KM (Percentile Bootstrap) UCL	N/A	
982						95% KM (z) UCL	292.9			95% KM Bootstrap t UCL	N/A	
983						90% KM Chebyshev UCL	379.1			95% KM Chebyshev UCL	465.5	
984						97.5% KM Chebyshev UCL	585.5			99% KM Chebyshev UCL	821.2	
985												
986	**Gamma GOF Tests on Detected Observations Only**											
987						A-D Test Statistic	0.522			**Anderson-Darling GOF Test**		
988						5% A-D Critical Value	0.636			Detected data appear Gamma Distributed at 5% Significance Level		
989						K-S Test Statistic	0.399			**Kolmogorov-Smirnov GOF**		
990						5% K-S Critical Value	0.434			Detected data appear Gamma Distributed at 5% Significance Level		
991	**Detected Data Not Gamma Distributed at 5% Significance Level**											
992												
993	**Gamma Statistics on Detected Data Only**											
994						k hat (MLE)	3.132			k star (bias corrected MLE)	N/A	
995						Theta hat (MLE)	89.39			Theta star (bias corrected MLE)	N/A	
996						nu hat (MLE)	18.79			nu star (bias corrected)	N/A	
997						Mean (detects)	280					
998												
999	**Gamma ROS Statistics using Imputed Non-Detects**											
1000	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1001	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1002	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1003	This is especially true when the sample size is small.											
1004	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1005						Minimum	0.01			Mean	120	

1006					Maximum	520				Median		0.01
1007					SD	191.9				CV		1.599
1008					k hat (MLE)	0.151				k star (bias corrected MLE)		0.182
1009					Theta hat (MLE)	793.5				Theta star (bias corrected MLE)		660.6
1010					nu hat (MLE)	2.117				nu star (bias corrected)		2.543
1011					Adjusted Level of Significance (β)	0.0158						
1012					Approximate Chi Square Value (2.54, α)	0.251				Adjusted Chi Square Value (2.54, β)		0.132
1013					95% Gamma Approximate UCL	1216				95% Gamma Adjusted UCL		N/A
1014												
1015					**Estimates of Gamma Parameters using KM Estimates**							
1016					Mean (KM)	188.3				SD (KM)		137.1
1017					Variance (KM)	18790				SE of Mean (KM)		63.61
1018					k hat (KM)	1.887				k star (KM)		1.173
1019					nu hat (KM)	26.41				nu star (KM)		16.43
1020					theta hat (KM)	99.79				theta star (KM)		160.5
1021					80% gamma percentile (KM)	298.8				90% gamma percentile (KM)		416.8
1022					95% gamma percentile (KM)	533.3				99% gamma percentile (KM)		800.9
1023												
1024					**Gamma Kaplan-Meier (KM) Statistics**							
1025					Approximate Chi Square Value (16.43, α)	8.264				Adjusted Chi Square Value (16.43, β)		6.594
1026					95% KM Approximate Gamma UCL	374.3				95% KM Adjusted Gamma UCL		469.1
1027												
1028					**Lognormal GOF Test on Detected Observations Only**							
1029					Shapiro Wilk Test Statistic	0.825				**Shapiro Wilk GOF Test**		
1030					10% Shapiro Wilk Critical Value	0.789				Detected Data appear Lognormal at 10% Significance Level		
1031					Lilliefors Test Statistic	0.352				**Lilliefors GOF Test**		
1032					10% Lilliefors Critical Value	0.389				Detected Data appear Lognormal at 10% Significance Level		
1033					**Detected Data appear Lognormal at 10% Significance Level**							
1034					**Note GOF tests may be unreliable for small sample sizes**							
1035												
1036					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1037					Mean in Original Scale	149.6				Mean in Log Scale		4.582
1038					SD in Original Scale	171.6				SD in Log Scale		0.937
1039					95% t UCL (assumes normality of ROS data)	275.6				95% Percentile Bootstrap UCL		264.3
1040					95% BCA Bootstrap UCL	296.3				95% Bootstrap t UCL		507.6
1041					95% H-UCL (Log ROS)	582.9						
1042												
1043					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1044					KM Mean (logged)	5.073				KM Geo Mean		159.7
1045					KM SD (logged)	0.506				95% Critical H Value (KM-Log)		2.476
1046					KM Standard Error of Mean (logged)	0.236				95% H-UCL (KM -Log)		302.6
1047					KM SD (logged)	0.506				95% Critical H Value (KM-Log)		2.476
1048					KM Standard Error of Mean (logged)	0.236						
1049												
1050					**DL/2 Statistics**							
1051					**DL/2 Normal**					**DL/2 Log-Transformed**		
1052					Mean in Original Scale	175				Mean in Log Scale		4.873
1053					SD in Original Scale	162				SD in Log Scale		0.791
1054					95% t UCL (Assumes normality)	294				95% H-Stat UCL		491.3
1055					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1056												
1057					**Nonparametric Distribution Free UCL Statistics**							
1058					**Detected Data appear Normal Distributed at 1% Significance Level**							
1059												
1060					**Suggested UCL to Use**							
1061					95% KM (t) UCL	311.9						
1062												
1063					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1064					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1065					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1066												
1067	**Benzo[a]anthracene**											
1068												
1069					**General Statistics**							
1070					Total Number of Observations	7				Number of Distinct Observations		7
1071										Number of Missing Observations		23
1072					Number of Detects	5				Number of Non-Detects		2

1073				Number of Distinct Detects	5				Number of Distinct Non-Detects		2	
1074				Minimum Detect	150				Minimum Non-Detect		115	
1075				Maximum Detect	2800				Maximum Non-Detect		135	
1076				Variance Detects	1316270				Percent Non-Detects		28.57%	
1077				Mean Detects	758				SD Detects		1147	
1078				Median Detects	230				CV Detects		1.514	
1079				Skewness Detects	2.182				Kurtosis Detects		4.792	
1080				Mean of Logged Detects	5.922				SD of Logged Detects		1.201	
1081												
1082				**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**								
1083				**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**								
1084				**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**								
1085				**The Chebyshev UCL often results in gross overestimates of the mean.**								
1086				**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**								
1087												
1088				**Normal GOF Test on Detects Only**								
1089				Shapiro Wilk Test Statistic	0.634				**Shapiro Wilk GOF Test**			
1090				1% Shapiro Wilk Critical Value	0.686				Detected Data Not Normal at 1% Significance Level			
1091				Lilliefors Test Statistic	0.409				**Lilliefors GOF Test**			
1092				1% Lilliefors Critical Value	0.396				Detected Data Not Normal at 1% Significance Level			
1093				**Detected Data Not Normal at 1% Significance Level**								
1094												
1095				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
1096				KM Mean	574.3				KM Standard Error of Mean		386.5	
1097				90KM SD	914.6				95% KM (BCA) UCL		1287	
1098				95% KM (t) UCL	1325				95% KM (Percentile Bootstrap) UCL		1291	
1099				95% KM (z) UCL	1210				95% KM Bootstrap t UCL		9899	
1100				90% KM Chebyshev UCL	1734				95% KM Chebyshev UCL		2259	
1101				97.5% KM Chebyshev UCL	2988				99% KM Chebyshev UCL		4420	
1102												
1103				**Gamma GOF Tests on Detected Observations Only**								
1104				A-D Test Statistic	0.727				**Anderson-Darling GOF Test**			
1105				5% A-D Critical Value	0.696				Detected Data Not Gamma Distributed at 5% Significance Level			
1106				K-S Test Statistic	0.329				**Kolmogorov-Smirnov GOF**			
1107				5% K-S Critical Value	0.366				Detected data appear Gamma Distributed at 5% Significance Level			
1108				**Detected data follow Appr. Gamma Distribution at 5% Significance Level**								
1109				**Note GOF tests may be unreliable for small sample sizes**								
1110												
1111				**Gamma Statistics on Detected Data Only**								
1112				k hat (MLE)	0.833				k star (bias corrected MLE)		0.466	
1113				Theta hat (MLE)	910.2				Theta star (bias corrected MLE)		1625	
1114				nu hat (MLE)	8.328				nu star (bias corrected)		4.664	
1115				Mean (detects)	758							
1116												
1117				**Gamma ROS Statistics using Imputed Non-Detects**								
1118				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
1119				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
1120				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
1121				This is especially true when the sample size is small.								
1122				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
1123				Minimum	0.01				Mean		541.4	
1124				Maximum	2800				Median		170	
1125				SD	1007				CV		1.86	
1126				k hat (MLE)	0.215				k star (bias corrected MLE)		0.218	
1127				Theta hat (MLE)	2516				Theta star (bias corrected MLE)		2481	
1128				nu hat (MLE)	3.013				nu star (bias corrected)		3.055	
1129				Adjusted Level of Significance (β)	0.0158							
1130				Approximate Chi Square Value (3.06, α)	0.389				Adjusted Chi Square Value (3.06, β)		0.2	
1131				95% Gamma Approximate UCL	4253				95% Gamma Adjusted UCL		8251	
1132												
1133				**Estimates of Gamma Parameters using KM Estimates**								
1134				Mean (KM)	574.3				SD (KM)		914.6	
1135				Variance (KM)	836532				SE of Mean (KM)		386.5	
1136				k hat (KM)	0.394				k star (KM)		0.321	
1137				nu hat (KM)	5.52				nu star (KM)		4.487	
1138				theta hat (KM)	1457				theta star (KM)		1792	
1139				80% gamma percentile (KM)	894.2				90% gamma percentile (KM)		1680	

1140				95% gamma percentile (KM)	2571				99% gamma percentile (KM)			4870
1141												
1142				**Gamma Kaplan-Meier (KM) Statistics**								
1143				Approximate Chi Square Value (4.49, α)	0.923				Adjusted Chi Square Value (4.49, β)			0.532
1144				95% KM Approximate Gamma UCL	2792				95% KM Adjusted Gamma UCL			4840
1145												
1146				**Lognormal GOF Test on Detected Observations Only**								
1147				Shapiro Wilk Test Statistic	0.819				**Shapiro Wilk GOF Test**			
1148				10% Shapiro Wilk Critical Value	0.806				Detected Data appear Lognormal at 10% Significance Level			
1149				Lilliefors Test Statistic	0.256				**Lilliefors GOF Test**			
1150				10% Lilliefors Critical Value	0.319				Detected Data appear Lognormal at 10% Significance Level			
1151				**Detected Data appear Lognormal at 10% Significance Level**								
1152				**Note GOF tests may be unreliable for small sample sizes**								
1153												
1154				**Lognormal ROS Statistics Using Imputed Non-Detects**								
1155				Mean in Original Scale	546.7				Mean in Log Scale			5.065
1156				SD in Original Scale	1004				SD in Log Scale			1.761
1157				95% t UCL (assumes normality of ROS data)	1284				95% Percentile Bootstrap UCL			1278
1158				95% BCA Bootstrap UCL	1391				95% Bootstrap t UCL			5565
1159				95% H-UCL (Log ROS)	55624							
1160												
1161				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
1162				KM Mean (logged)	5.586				KM Geo Mean			266.5
1163				KM SD (logged)	1.052				95% Critical H Value (KM-Log)			3.846
1164				KM Standard Error of Mean (logged)	0.445				95% H-UCL (KM -Log)			2419
1165				KM SD (logged)	1.052				95% Critical H Value (KM-Log)			3.846
1166				KM Standard Error of Mean (logged)	0.445							
1167												
1168				**DL/2 Statistics**								
1169				**DL/2 Normal**					**DL/2 Log-Transformed**			
1170				Mean in Original Scale	559.3				Mean in Log Scale			5.41
1171				SD in Original Scale	996.3				SD in Log Scale			1.314
1172				95% t UCL (Assumes normality)	1291				95% H-Stat UCL			6316
1173				**DL/2 is not a recommended method, provided for comparisons and historical reasons**								
1174												
1175				**Nonparametric Distribution Free UCL Statistics**								
1176				**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**								
1177												
1178				**Suggested UCL to Use**								
1179				95% KM Bootstrap t UCL	9899				95% Hall's Bootstrap			2419
1180												
1181				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
1182				**Please verify the data were collected from random locations.**								
1183				**If the data were collected using judgmental or other non-random methods,**								
1184				**then contact a statistician to correctly calculate UCLs.**								
1185												
1186				When a data set follows an approximate distribution passing only one of the GOF tests,								
1187				it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL								
1188												
1189				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
1190				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
1191				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
1192												
1193	**Benzo[a]pyrene**											
1194												
1195				**General Statistics**								
1196				Total Number of Observations	7				Number of Distinct Observations			7
1197									Number of Missing Observations			23
1198				Number of Detects	5				Number of Non-Detects			2
1199				Number of Distinct Detects	5				Number of Distinct Non-Detects			2
1200				Minimum Detect	160				Minimum Non-Detect			115
1201				Maximum Detect	2400				Maximum Non-Detect			135
1202				Variance Detects	931420				Percent Non-Detects			28.57%
1203				Mean Detects	682				SD Detects			965.1
1204				Median Detects	240				CV Detects			1.415
1205				Skewness Detects	2.183				Kurtosis Detects			4.8
1206				Mean of Logged Detects	5.931				SD of Logged Detects			1.092

	A	B	C	D	E	F	G	H	I	J	K	L
1207												
1208	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1209	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1210	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1211	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1212	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1213												
1214	**Normal GOF Test on Detects Only**											
1215					Shapiro Wilk Test Statistic	0.636	**Shapiro Wilk GOF Test**					
1216					1% Shapiro Wilk Critical Value	0.686	Detected Data Not Normal at 1% Significance Level					
1217					Lilliefors Test Statistic	0.411	**Lilliefors GOF Test**					
1218					1% Lilliefors Critical Value	0.396	Detected Data Not Normal at 1% Significance Level					
1219	**Detected Data Not Normal at 1% Significance Level**											
1220												
1221	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1222					KM Mean	520	KM Standard Error of Mean	326.7				
1223					90KM SD	773.2	95% KM (BCA) UCL	1130				
1224					95% KM (t) UCL	1155	95% KM (Percentile Bootstrap) UCL	1122				
1225					95% KM (z) UCL	1057	95% KM Bootstrap t UCL	6175				
1226					90% KM Chebyshev UCL	1500	95% KM Chebyshev UCL	1944				
1227					97.5% KM Chebyshev UCL	2560	99% KM Chebyshev UCL	3771				
1228												
1229	**Gamma GOF Tests on Detected Observations Only**											
1230					A-D Test Statistic	0.746	**Anderson-Darling GOF Test**					
1231					5% A-D Critical Value	0.692	Detected Data Not Gamma Distributed at 5% Significance Level					
1232					K-S Test Statistic	0.344	**Kolmogorov-Smirnov GOF**					
1233					5% K-S Critical Value	0.365	Detected data appear Gamma Distributed at 5% Significance Level					
1234	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
1235	**Note GOF tests may be unreliable for small sample sizes**											
1236												
1237	**Gamma Statistics on Detected Data Only**											
1238					k hat (MLE)	0.974	k star (bias corrected MLE)	0.523				
1239					Theta hat (MLE)	700.1	Theta star (bias corrected MLE)	1304				
1240					nu hat (MLE)	9.742	nu star (bias corrected)	5.23				
1241					Mean (detects)	682						
1242												
1243	**Gamma ROS Statistics using Imputed Non-Detects**											
1244	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1245	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1246	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1247	This is especially true when the sample size is small.											
1248	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1249					Minimum	0.01	Mean	487.1				
1250					Maximum	2400	Median	200				
1251					SD	855.4	CV	1.756				
1252					k hat (MLE)	0.222	k star (bias corrected MLE)	0.222				
1253					Theta hat (MLE)	2199	Theta star (bias corrected MLE)	2196				
1254					nu hat (MLE)	3.102	nu star (bias corrected)	3.106				
1255					Adjusted Level of Significance (β)	0.0158						
1256					Approximate Chi Square Value (3.11, α)	0.404	Adjusted Chi Square Value (3.11, β)	0.209				
1257					95% Gamma Approximate UCL	3741	95% Gamma Adjusted UCL	7244				
1258												
1259	**Estimates of Gamma Parameters using KM Estimates**											
1260					Mean (KM)	520	SD (KM)	773.2				
1261					Variance (KM)	597850	SE of Mean (KM)	326.7				
1262					k hat (KM)	0.452	k star (KM)	0.354				
1263					nu hat (KM)	6.332	nu star (KM)	4.952				
1264					theta hat (KM)	1150	theta star (KM)	1470				
1265					80% gamma percentile (KM)	824.8	90% gamma percentile (KM)	1499				
1266					95% gamma percentile (KM)	2253	99% gamma percentile (KM)	4175				
1267												
1268	**Gamma Kaplan-Meier (KM) Statistics**											
1269					Approximate Chi Square Value (4.95, α)	1.13	Adjusted Chi Square Value (4.95, β)	0.675				
1270					95% KM Approximate Gamma UCL	2279	95% KM Adjusted Gamma UCL	3813				
1271												
1272	**Lognormal GOF Test on Detected Observations Only**											
1273					Shapiro Wilk Test Statistic	0.815	**Shapiro Wilk GOF Test**					

1274	10% Shapiro Wilk Critical Value					0.806	Detected Data appear Lognormal at 10% Significance Level					
1275	Lilliefors Test Statistic					0.269	**Lilliefors GOF Test**					
1276	10% Lilliefors Critical Value					0.319	Detected Data appear Lognormal at 10% Significance Level					
1277	**Detected Data appear Lognormal at 10% Significance Level**											
1278	**Note GOF tests may be unreliable for small sample sizes**											
1279												
1280	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1281	Mean in Original Scale					494.3	Mean in Log Scale					5.157
1282	SD in Original Scale					850.7	SD in Log Scale					1.594
1283	95% t UCL (assumes normality of ROS data)					1119	95% Percentile Bootstrap UCL					1112
1284	95% BCA Bootstrap UCL					1208	95% Bootstrap t UCL					3954
1285	95% H-UCL (Log ROS)					21812						
1286												
1287	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1288	KM Mean (logged)					5.592	KM Geo Mean					268.2
1289	KM SD (logged)					0.984	95% Critical H Value (KM-Log)					3.654
1290	KM Standard Error of Mean (logged)					0.416	95% H-UCL (KM -Log)					1890
1291	KM SD (logged)					0.984	95% Critical H Value (KM-Log)					3.654
1292	KM Standard Error of Mean (logged)					0.416						
1293												
1294	**DL/2 Statistics**											
1295	**DL/2 Normal**						**DL/2 Log-Transformed**					
1296	Mean in Original Scale					505	Mean in Log Scale					5.417
1297	SD in Original Scale					844	SD in Log Scale					1.252
1298	95% t UCL (Assumes normality)					1125	95% H-Stat UCL					4755
1299	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1300												
1301	**Nonparametric Distribution Free UCL Statistics**											
1302	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
1303												
1304	**Suggested UCL to Use**											
1305	95% KM Bootstrap t UCL					6175	95% Hall's Bootstrap					1890
1306												
1307	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1308	**Please verify the data were collected from random locations.**											
1309	**If the data were collected using judgmental or other non-random methods,**											
1310	**then contact a statistician to correctly calculate UCLs.**											
1311												
1312	When a data set follows an approximate distribution passing only one of the GOF tests,											
1313	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
1314												
1315	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1316	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1317	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1318												
1319	**Benzo[g,h,i]perylene**											
1320												
1321	**General Statistics**											
1322	Total Number of Observations					7	Number of Distinct Observations					7
1323							Number of Missing Observations					23
1324	Number of Detects					5	Number of Non-Detects					2
1325	Number of Distinct Detects					5	Number of Distinct Non-Detects					2
1326	Minimum Detect					130	Minimum Non-Detect					115
1327	Maximum Detect					1400	Maximum Non-Detect					135
1328	Variance Detects					292120	Percent Non-Detects					28.57%
1329	Mean Detects					438	SD Detects					540.5
1330	Median Detects					200	CV Detects					1.234
1331	Skewness Detects					2.181	Kurtosis Detects					4.798
1332	Mean of Logged Detects					5.648	SD of Logged Detects					0.934
1333												
1334	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1335	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1336	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1337	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1338	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1339												
1340	**Normal GOF Test on Detects Only**											

	A	B	C	D	E	F	G	H	I	J	K	L
1341				Shapiro Wilk Test Statistic		0.645	**Shapiro Wilk GOF Test**					
1342				1% Shapiro Wilk Critical Value		0.686	Detected Data Not Normal at 1% Significance Level					
1343				Lilliefors Test Statistic		0.415	**Lilliefors GOF Test**					
1344				1% Lilliefors Critical Value		0.396	Detected Data Not Normal at 1% Significance Level					
1345				**Detected Data Not Normal at 1% Significance Level**								
1346												
1347				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
1348				KM Mean		346.8	KM Standard Error of Mean				183.1	
1349				90KM SD		433.3	95% KM (BCA) UCL				691.4	
1350				95% KM (t) UCL		702.6	95% KM (Percentile Bootstrap) UCL				684.3	
1351				95% KM (z) UCL		648	95% KM Bootstrap t UCL				2764	
1352				90% KM Chebyshev UCL		896.1	95% KM Chebyshev UCL				1145	
1353				97.5% KM Chebyshev UCL		1490	99% KM Chebyshev UCL				2169	
1354												
1355				**Gamma GOF Tests on Detected Observations Only**								
1356				A-D Test Statistic		0.754	**Anderson-Darling GOF Test**					
1357				5% A-D Critical Value		0.688	Detected Data Not Gamma Distributed at 5% Significance Level					
1358				K-S Test Statistic		0.367	**Kolmogorov-Smirnov GOF**					
1359				5% K-S Critical Value		0.363	Detected Data Not Gamma Distributed at 5% Significance Level					
1360				**Detected Data Not Gamma Distributed at 5% Significance Level**								
1361												
1362				**Gamma Statistics on Detected Data Only**								
1363				k hat (MLE)		1.292	k star (bias corrected MLE)				0.65	
1364				Theta hat (MLE)		339.1	Theta star (bias corrected MLE)				673.9	
1365				nu hat (MLE)		12.92	nu star (bias corrected)				6.5	
1366				Mean (detects)		438						
1367												
1368				**Gamma ROS Statistics using Imputed Non-Detects**								
1369				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
1370				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
1371				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
1372				This is especially true when the sample size is small.								
1373				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
1374				Minimum		0.01	Mean				312.9	
1375				Maximum		1400	Median				180	
1376				SD		490.3	CV				1.567	
1377				k hat (MLE)		0.237	k star (bias corrected MLE)				0.23	
1378				Theta hat (MLE)		1322	Theta star (bias corrected MLE)				1357	
1379				nu hat (MLE)		3.314	nu star (bias corrected)				3.227	
1380				Adjusted Level of Significance (β)		0.0158						
1381				Approximate Chi Square Value (3.23, α)		0.443	Adjusted Chi Square Value (3.23, β)				0.23	
1382				95% Gamma Approximate UCL		2281	95% Gamma Adjusted UCL				4389	
1383												
1384				**Estimates of Gamma Parameters using KM Estimates**								
1385				Mean (KM)		346.8	SD (KM)				433.3	
1386				Variance (KM)		187738	SE of Mean (KM)				183.1	
1387				k hat (KM)		0.641	k star (KM)				0.461	
1388				nu hat (KM)		8.968	nu star (KM)				6.458	
1389				theta hat (KM)		541.4	theta star (KM)				751.8	
1390				80% gamma percentile (KM)		567	90% gamma percentile (KM)				953.7	
1391				95% gamma percentile (KM)		1371	99% gamma percentile (KM)				2405	
1392												
1393				**Gamma Kaplan-Meier (KM) Statistics**								
1394				Approximate Chi Square Value (6.46, α)		1.878	Adjusted Chi Square Value (6.46, β)				1.226	
1395				95% KM Approximate Gamma UCL		1192	95% KM Adjusted Gamma UCL				1826	
1396												
1397				**Lognormal GOF Test on Detected Observations Only**								
1398				Shapiro Wilk Test Statistic		0.815	**Shapiro Wilk GOF Test**					
1399				10% Shapiro Wilk Critical Value		0.806	Detected Data appear Lognormal at 10% Significance Level					
1400				Lilliefors Test Statistic		0.305	**Lilliefors GOF Test**					
1401				10% Lilliefors Critical Value		0.319	Detected Data appear Lognormal at 10% Significance Level					
1402				**Detected Data appear Lognormal at 10% Significance Level**								
1403				**Note GOF tests may be unreliable for small sample sizes**								
1404												
1405				**Lognormal ROS Statistics Using Imputed Non-Detects**								
1406				Mean in Original Scale		326.2	Mean in Log Scale				5.119	
1407				SD in Original Scale		480.9	SD in Log Scale				1.193	

1408				95% t UCL (assumes normality of ROS data)		679.4				95% Percentile Bootstrap UCL		668.5
1409				95% BCA Bootstrap UCL		734.3				95% Bootstrap t UCL		1848
1410				95% H-UCL (Log ROS)		2712						
1411												
1412	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1413				KM Mean (logged)		5.398				KM Geo Mean		221.1
1414				KM SD (logged)		0.809				95% Critical H Value (KM-Log)		3.178
1415				KM Standard Error of Mean (logged)		0.342				95% H-UCL (KM -Log)		875.3
1416				KM SD (logged)		0.809				95% Critical H Value (KM-Log)		3.178
1417				KM Standard Error of Mean (logged)		0.342						
1418												
1419	**DL/2 Statistics**											
1420	**DL/2 Normal**						**DL/2 Log-Transformed**					
1421				Mean in Original Scale		330.7				Mean in Log Scale		5.215
1422				SD in Original Scale		477.8				SD in Log Scale		1.063
1423				95% t UCL (Assumes normality)		681.7				95% H-Stat UCL		1741
1424	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1425												
1426	**Nonparametric Distribution Free UCL Statistics**											
1427	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
1428												
1429	**Suggested UCL to Use**											
1430				KM H-UCL		875.3						
1431												
1432	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1433	**Please verify the data were collected from random locations.**											
1434	**If the data were collected using judgmental or other non-random methods,**											
1435	**then contact a statistician to correctly calculate UCLs.**											
1436												
1437	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1438	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1439	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1440												
1441	**Benzo[k]fluoranthene**											
1442												
1443	**General Statistics**											
1444				Total Number of Observations		7				Number of Distinct Observations		6
1445										Number of Missing Observations		23
1446				Number of Detects		6				Number of Non-Detects		1
1447				Number of Distinct Detects		5				Number of Distinct Non-Detects		1
1448				Minimum Detect		99				Minimum Non-Detect		135
1449				Maximum Detect		1500				Maximum Non-Detect		135
1450				Variance Detects		296588				Percent Non-Detects		14.29%
1451				Mean Detects		394.8				SD Detects		544.6
1452				Median Detects		165				CV Detects		1.379
1453				Skewness Detects		2.387				Kurtosis Detects		5.752
1454				Mean of Logged Detects		5.472				SD of Logged Detects		0.961
1455												
1456	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1457	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1458	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1459	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1460	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1461												
1462	**Normal GOF Test on Detects Only**											
1463				Shapiro Wilk Test Statistic		0.59	**Shapiro Wilk GOF Test**					
1464				1% Shapiro Wilk Critical Value		0.713	Detected Data Not Normal at 1% Significance Level					
1465				Lilliefors Test Statistic		0.417	**Lilliefors GOF Test**					
1466				1% Lilliefors Critical Value		0.373	Detected Data Not Normal at 1% Significance Level					
1467	**Detected Data Not Normal at 1% Significance Level**											
1468												
1469	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1470				KM Mean		352.6				KM Standard Error of Mean		195.3
1471				90KM SD		471.8				95% KM (BCA) UCL		735.4
1472				95% KM (t) UCL		732.1				95% KM (Percentile Bootstrap) UCL		725.6
1473				95% KM (z) UCL		673.9				95% KM Bootstrap t UCL		3786
1474				90% KM Chebyshev UCL		938.6				95% KM Chebyshev UCL		1204

1475				97.5% KM Chebyshev UCL		1572				99% KM Chebyshev UCL		2296
1476												
1477						**Gamma GOF Tests on Detected Observations Only**							
1478				A-D Test Statistic		0.962				**Anderson-Darling GOF Test**		
1479				5% A-D Critical Value		0.713				Detected Data Not Gamma Distributed at 5% Significance Level		
1480				K-S Test Statistic		0.341				**Kolmogorov-Smirnov GOF**		
1481				5% K-S Critical Value		0.34				Detected Data Not Gamma Distributed at 5% Significance Level		
1482						**Detected Data Not Gamma Distributed at 5% Significance Level**						
1483												
1484						**Gamma Statistics on Detected Data Only**							
1485				k hat (MLE)		1.124				k star (bias corrected MLE)		0.673
1486				Theta hat (MLE)		351.4				Theta star (bias corrected MLE)		586.7
1487				nu hat (MLE)		13.48				nu star (bias corrected)		8.076
1488				Mean (detects)		394.8						
1489												
1490						**Gamma ROS Statistics using Imputed Non-Detects**							
1491						GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1492						GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1493						For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1494						This is especially true when the sample size is small.							
1495						For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1496				Minimum		0.01				Mean		338.4
1497				Maximum		1500				Median		160
1498				SD		519.1				CV		1.534
1499				k hat (MLE)		0.372				k star (bias corrected MLE)		0.308
1500				Theta hat (MLE)		910.9				Theta star (bias corrected MLE)		1100
1501				nu hat (MLE)		5.202				nu star (bias corrected)		4.306
1502				Adjusted Level of Significance (β)		0.0158						
1503				Approximate Chi Square Value (4.31, α)		0.846				Adjusted Chi Square Value (4.31, β)		0.481
1504				95% Gamma Approximate UCL		1722				95% Gamma Adjusted UCL		3032
1505												
1506						**Estimates of Gamma Parameters using KM Estimates**							
1507				Mean (KM)		352.6				SD (KM)		471.8
1508				Variance (KM)		222565				SE of Mean (KM)		195.3
1509				k hat (KM)		0.559				k star (KM)		0.414
1510				nu hat (KM)		7.819				nu star (KM)		5.801
1511				theta hat (KM)		631.3				theta star (KM)		850.8
1512				80% gamma percentile (KM)		571.2				90% gamma percentile (KM)		989.6
1513				95% gamma percentile (KM)		1447				99% gamma percentile (KM)		2593
1514												
1515						**Gamma Kaplan-Meier (KM) Statistics**							
1516				Approximate Chi Square Value (5.80, α)		1.539				Adjusted Chi Square Value (5.80, β)		0.972
1517				95% KM Approximate Gamma UCL		1329				95% KM Adjusted Gamma UCL		2105
1518												
1519						**Lognormal GOF Test on Detected Observations Only**							
1520				Shapiro Wilk Test Statistic		0.791				**Shapiro Wilk GOF Test**		
1521				10% Shapiro Wilk Critical Value		0.826				Detected Data Not Lognormal at 10% Significance Level		
1522				Lilliefors Test Statistic		0.303				**Lilliefors GOF Test**		
1523				10% Lilliefors Critical Value		0.298				Detected Data Not Lognormal at 10% Significance Level		
1524						**Detected Data Not Lognormal at 10% Significance Level**						
1525												
1526						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1527				Mean in Original Scale		347.9				Mean in Log Scale		5.289
1528				SD in Original Scale		512.4				SD in Log Scale		1.001
1529				95% t UCL (assumes normality of ROS data)		724.2				95% Percentile Bootstrap UCL		722.3
1530				95% BCA Bootstrap UCL		777				95% Bootstrap t UCL		3014
1531				95% H-UCL (Log ROS)		1486						
1532												
1533						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1534				KM Mean (logged)		5.346				KM Geo Mean		209.8
1535				KM SD (logged)		0.868				95% Critical H Value (KM-Log)		3.333
1536				KM Standard Error of Mean (logged)		0.359				95% H-UCL (KM -Log)		996.1
1537				KM SD (logged)		0.868				95% Critical H Value (KM-Log)		3.333
1538				KM Standard Error of Mean (logged)		0.359						
1539												
1540						**DL/2 Statistics**							
1541				**DL/2 Normal**						**DL/2 Log-Transformed**		

1542				Mean in Original Scale	348.1					Mean in Log Scale	5.292	
1543				SD in Original Scale	512.3					SD in Log Scale	0.998	
1544				95% t UCL (Assumes normality)	724.3					95% H-Stat UCL	1470	
1545	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1546												
1547	**Nonparametric Distribution Free UCL Statistics**											
1548	**Data do not follow a Discernible Distribution**											
1549												
1550	**Suggested UCL to Use**											
1551				Recommendation cannot be provided								
1552												
1553	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1554	**Please verify the data were collected from random locations.**											
1555	**If the data were collected using judgmental or other non-random methods,**											
1556	**then contact a statistician to correctly calculate UCLs.**											
1557												
1558	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1559	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1560	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1561												
1562												
1563	**Bis(2-Ethylhexyl)phthalate**											
1564												
1565	**General Statistics**											
1566				Total Number of Observations	1					Number of Distinct Observations	1	
1567										Number of Missing Observations	2	
1568				Minimum	130					Mean	130	
1569				Maximum	130					Median	130	
1570												
1571	**Warning: This data set only has 1 observations!**											
1572	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
1573	**The data set for variable Bis(2-Ethylhexyl)phthalate was not processed!**											
1574												
1575	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
1576	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
1577												
1578												
1579	**Chrysene**											
1580												
1581	**General Statistics**											
1582				Total Number of Observations	7					Number of Distinct Observations	7	
1583										Number of Missing Observations	23	
1584				Number of Detects	5					Number of Non-Detects	2	
1585				Number of Distinct Detects	5					Number of Distinct Non-Detects	2	
1586				Minimum Detect	180					Minimum Non-Detect	115	
1587				Maximum Detect	2600					Maximum Non-Detect	135	
1588				Variance Detects	1031980					Percent Non-Detects	28.57%	
1589				Mean Detects	814					SD Detects	1016	
1590				Median Detects	400					CV Detects	1.248	
1591				Skewness Detects	2.054					Kurtosis Detects	4.304	
1592				Mean of Logged Detects	6.196					SD of Logged Detects	1.059	
1593												
1594	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1595	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1596	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1597	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1598	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1599												
1600	**Normal GOF Test on Detects Only**											
1601				Shapiro Wilk Test Statistic	0.71					**Shapiro Wilk GOF Test**		
1602				1% Shapiro Wilk Critical Value	0.686					Detected Data appear Normal at 1% Significance Level		
1603				Lilliefors Test Statistic	0.36					**Lilliefors GOF Test**		
1604				1% Lilliefors Critical Value	0.396					Detected Data appear Normal at 1% Significance Level		
1605	**Detected Data appear Normal at 1% Significance Level**											
1606	**Note GOF tests may be unreliable for small sample sizes**											
1607												
1608	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											

1609	KM Mean				614.3	KM Standard Error of Mean						350.9
1610	90KM SD				830.3	95% KM (BCA) UCL						1230
1611	95% KM (t) UCL				1296	95% KM (Percentile Bootstrap) UCL						1230
1612	95% KM (z) UCL				1191	95% KM Bootstrap t UCL						3425
1613	90% KM Chebyshev UCL				1667	95% KM Chebyshev UCL						2144
1614	97.5% KM Chebyshev UCL				2805	99% KM Chebyshev UCL						4105
1615												
1616	**Gamma GOF Tests on Detected Observations Only**											
1617	A-D Test Statistic				0.468	**Anderson-Darling GOF Test**						
1618	5% A-D Critical Value				0.69	Detected data appear Gamma Distributed at 5% Significance Level						
1619	K-S Test Statistic				0.257	**Kolmogorov-Smirnov GOF**						
1620	5% K-S Critical Value				0.364	Detected data appear Gamma Distributed at 5% Significance Level						
1621	**Detected data appear Gamma Distributed at 5% Significance Level**											
1622	**Note GOF tests may be unreliable for small sample sizes**											
1623												
1624	**Gamma Statistics on Detected Data Only**											
1625	k hat (MLE)				1.125	k star (bias corrected MLE)						0.583
1626	Theta hat (MLE)				723.7	Theta star (bias corrected MLE)						1396
1627	nu hat (MLE)				11.25	nu star (bias corrected)						5.833
1628	Mean (detects)				814							
1629												
1630	**Gamma ROS Statistics using Imputed Non-Detects**											
1631	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1632	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1633	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1634	This is especially true when the sample size is small.											
1635	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1636	Minimum				0.01	Mean						581.4
1637	Maximum				2600	Median						230
1638	SD				919.6	CV						1.582
1639	k hat (MLE)				0.222	k star (bias corrected MLE)						0.222
1640	Theta hat (MLE)				2616	Theta star (bias corrected MLE)						2616
1641	nu hat (MLE)				3.112	nu star (bias corrected)						3.112
1642	Adjusted Level of Significance (β)				0.0158							
1643	Approximate Chi Square Value (3.11, α)				0.406	Adjusted Chi Square Value (3.11, β)						0.21
1644	95% Gamma Approximate UCL				4453	95% Gamma Adjusted UCL						8622
1645												
1646	**Estimates of Gamma Parameters using KM Estimates**											
1647	Mean (KM)				614.3	SD (KM)						830.3
1648	Variance (KM)				689417	SE of Mean (KM)						350.9
1649	k hat (KM)				0.547	k star (KM)						0.408
1650	nu hat (KM)				7.663	nu star (KM)						5.712
1651	theta hat (KM)				1122	theta star (KM)						1506
1652	80% gamma percentile (KM)				993.6	90% gamma percentile (KM)						1729
1653	95% gamma percentile (KM)				2535	99% gamma percentile (KM)						4557
1654												
1655	**Gamma Kaplan-Meier (KM) Statistics**											
1656	Approximate Chi Square Value (5.71, α)				1.495	Adjusted Chi Square Value (5.71, β)						0.938
1657	95% KM Approximate Gamma UCL				2348	95% KM Adjusted Gamma UCL						3739
1658												
1659	**Lognormal GOF Test on Detected Observations Only**											
1660	Shapiro Wilk Test Statistic				0.917	**Shapiro Wilk GOF Test**						
1661	10% Shapiro Wilk Critical Value				0.806	Detected Data appear Lognormal at 10% Significance Level						
1662	Lilliefors Test Statistic				0.19	**Lilliefors GOF Test**						
1663	10% Lilliefors Critical Value				0.319	Detected Data appear Lognormal at 10% Significance Level						
1664	**Detected Data appear Lognormal at 10% Significance Level**											
1665	**Note GOF tests may be unreliable for small sample sizes**											
1666												
1667	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1668	Mean in Original Scale				590.2	Mean in Log Scale						5.405
1669	SD in Original Scale				913.3	SD in Log Scale						1.604
1670	95% t UCL (assumes normality of ROS data)				1261	95% Percentile Bootstrap UCL						1227
1671	95% BCA Bootstrap UCL				1402	95% Bootstrap t UCL						3382
1672	95% H-UCL (Log ROS)				29616							
1673												
1674	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1675	KM Mean (logged)				5.781	KM Geo Mean						324.1

1676				KM SD (logged)	1.035				95% Critical H Value (KM-Log)		3.797	
1677			KM Standard Error of Mean (logged)		0.437				95% H-UCL (KM -Log)		2753	
1678				KM SD (logged)	1.035				95% Critical H Value (KM-Log)		3.797	
1679			KM Standard Error of Mean (logged)		0.437							
1680												
1681					DL/2 Statistics							
1682				DL/2 Normal					DL/2 Log-Transformed			
1683				Mean in Original Scale	599.3				Mean in Log Scale		5.606	
1684				SD in Original Scale	906.9				SD in Log Scale		1.328	
1685				95% t UCL (Assumes normality)	1265				95% H-Stat UCL		8228	
1686				DL/2 is not a recommended method, provided for comparisons and historical reasons								
1687												
1688					Nonparametric Distribution Free UCL Statistics							
1689					Detected Data appear Normal Distributed at 1% Significance Level							
1690												
1691					Suggested UCL to Use							
1692				95% KM (t) UCL	1296							
1693												
1694					The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.							
1695					Please verify the data were collected from random locations.							
1696					If the data were collected using judgmental or other non-random methods,							
1697					then contact a statistician to correctly calculate UCLs.							
1698												
1699					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1700					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1701					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1702												
1703	Dibenzo[a,h]anthracene											
1704												
1705					General Statistics							
1706				Total Number of Observations	7				Number of Distinct Observations		7	
1707									Number of Missing Observations		23	
1708				Number of Detects	2				Number of Non-Detects		5	
1709				Number of Distinct Detects	2				Number of Distinct Non-Detects		5	
1710				Minimum Detect	110				Minimum Non-Detect		30	
1711				Maximum Detect	470				Maximum Non-Detect		390	
1712				Variance Detects	64800				Percent Non-Detects		71.43%	
1713				Mean Detects	290				SD Detects		254.6	
1714				Median Detects	290				CV Detects		0.878	
1715				Skewness Detects	N/A				Kurtosis Detects		N/A	
1716				Mean of Logged Detects	5.427				SD of Logged Detects		1.027	
1717												
1718					Warning: Data set has only 2 Detected Values.							
1719					This is not enough to compute meaningful or reliable statistics and estimates.							
1720												
1721												
1722					Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,							
1723					refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,							
1724					but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).							
1725					The Chebyshev UCL often results in gross overestimates of the mean.							
1726					Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.							
1727												
1728					Normal GOF Test on Detects Only							
1729					Not Enough Data to Perform GOF Test							
1730												
1731					Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
1732				KM Mean	127.1				KM Standard Error of Mean		82.3	
1733				90KM SD	144.8				95% KM (BCA) UCL		N/A	
1734				95% KM (t) UCL	287.1				95% KM (Percentile Bootstrap) UCL		N/A	
1735				95% KM (z) UCL	262.5				95% KM Bootstrap t UCL		N/A	
1736				90% KM Chebyshev UCL	374				95% KM Chebyshev UCL		485.9	
1737				97.5% KM Chebyshev UCL	641.1				99% KM Chebyshev UCL		946	
1738												
1739					Gamma GOF Tests on Detected Observations Only							
1740					Not Enough Data to Perform GOF Test							
1741												
1742					Gamma Statistics on Detected Data Only							

1743					k hat (MLE)	2.208			k star (bias corrected MLE)			N/A
1744					Theta hat (MLE)	131.4			Theta star (bias corrected MLE)			N/A
1745					nu hat (MLE)	8.83			nu star (bias corrected)			N/A
1746					Mean (detects)	290						
1747												
1748					**Estimates of Gamma Parameters using KM Estimates**							
1749					Mean (KM)	127.1			SD (KM)			144.8
1750					Variance (KM)	20963			SE of Mean (KM)			82.3
1751					k hat (KM)	0.771			k star (KM)			0.536
1752					nu hat (KM)	10.8			nu star (KM)			7.502
1753					theta hat (KM)	164.9			theta star (KM)			237.3
1754					80% gamma percentile (KM)	209.3			90% gamma percentile (KM)			339
1755					95% gamma percentile (KM)	476.5			99% gamma percentile (KM)			812.4
1756												
1757					**Gamma Kaplan-Meier (KM) Statistics**							
1758									Adjusted Level of Significance (β)			0.0158
1759					Approximate Chi Square Value (7.50, α)	2.45			Adjusted Chi Square Value (7.50, β)			1.671
1760					95% KM Approximate Gamma UCL	389.3			95% KM Adjusted Gamma UCL			571
1761												
1762					**Lognormal GOF Test on Detected Observations Only**							
1763					**Not Enough Data to Perform GOF Test**							
1764												
1765					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1766					Mean in Original Scale	116.8			Mean in Log Scale			4.277
1767					SD in Original Scale	157.8			SD in Log Scale			0.938
1768					95% t UCL (assumes normality of ROS data)	232.7			95% Percentile Bootstrap UCL			N/A
1769					95% BCA Bootstrap UCL	N/A			95% Bootstrap t UCL			N/A
1770					95% H-UCL (Log ROS)	430.9						
1771												
1772					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1773					KM Mean (logged)	4.351			KM Geo Mean			77.56
1774					KM SD (logged)	0.95			95% Critical H Value (KM-Log)			3.558
1775					KM Standard Error of Mean (logged)	0.682			95% H-UCL (KM -Log)			484.2
1776					KM SD (logged)	0.95			95% Critical H Value (KM-Log)			3.558
1777					KM Standard Error of Mean (logged)	0.682						
1778												
1779					**DL/2 Statistics**							
1780					**DL/2 Normal**				**DL/2 Log-Transformed**			
1781					Mean in Original Scale	140			Mean in Log Scale			4.468
1782					SD in Original Scale	156.1			SD in Log Scale			1.077
1783					95% t UCL (Assumes normality)	254.6			95% H-Stat UCL			872
1784					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1785												
1786					**Nonparametric Distribution Free UCL Statistics**							
1787					**Data do not follow a Discernible Distribution**							
1788												
1789					**Suggested UCL to Use**							
1790					Recommendation cannot be provided							
1791												
1792					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1793					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1794					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1795												
1796	**Diethylphthalate**											
1797												
1798					**General Statistics**							
1799					Total Number of Observations	1			Number of Distinct Observations			1
1800									Number of Missing Observations			2
1801					Number of Detects	0			Number of Non-Detects			1
1802					Number of Distinct Detects	0			Number of Distinct Non-Detects			1
1803												
1804					**Warning: This data set only has 1 observations!**							
1805					**Data set is too small to compute reliable and meaningful statistics and estimates!**							
1806					**The data set for variable Diethylphthalate was not processed!**							
1807												
1808					**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**							
1809					**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**							

1810											
1811											
1812											
1813	**Di-n-butylphthalate**										
1814											
1815					**General Statistics**						
1816				Total Number of Observations	1			Number of Distinct Observations	1		
1817								Number of Missing Observations	2		
1818				Minimum	850			Mean	850		
1819				Maximum	850			Median	850		
1820											
1821					**Warning: This data set only has 1 observations!**						
1822					**Data set is too small to compute reliable and meaningful statistics and estimates!**						
1823					**The data set for variable Di-n-butylphthalate was not processed!**						
1824											
1825					**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**						
1826					**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**						
1827											
1828											
1829	**Fluoranthene**										
1830											
1831					**General Statistics**						
1832				Total Number of Observations	7			Number of Distinct Observations	7		
1833								Number of Missing Observations	23		
1834				Number of Detects	5			Number of Non-Detects	2		
1835				Number of Distinct Detects	5			Number of Distinct Non-Detects	2		
1836				Minimum Detect	220			Minimum Non-Detect	115		
1837				Maximum Detect	4600			Maximum Non-Detect	135		
1838				Variance Detects	3424920			Percent Non-Detects	28.57%		
1839				Mean Detects	1302			SD Detects	1851		
1840				Median Detects	540			CV Detects	1.421		
1841				Skewness Detects	2.193			Kurtosis Detects	4.853		
1842				Mean of Logged Detects	6.561			SD of Logged Detects	1.127		
1843											
1844					**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**						
1845					**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**						
1846					**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**						
1847					**The Chebyshev UCL often results in gross overestimates of the mean.**						
1848					**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**						
1849											
1850					**Normal GOF Test on Detects Only**						
1851				Shapiro Wilk Test Statistic	0.636			**Shapiro Wilk GOF Test**			
1852				1% Shapiro Wilk Critical Value	0.686			Detected Data Not Normal at 1% Significance Level			
1853				Lilliefors Test Statistic	0.436			**Lilliefors GOF Test**			
1854				1% Lilliefors Critical Value	0.396			Detected Data Not Normal at 1% Significance Level			
1855					**Detected Data Not Normal at 1% Significance Level**						
1856											
1857					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**						
1858				KM Mean	962.9			KM Standard Error of Mean	633.1		
1859				90KM SD	1498			95% KM (BCA) UCL	2169		
1860				95% KM (t) UCL	2193			95% KM (Percentile Bootstrap) UCL	2130		
1861				95% KM (z) UCL	2004			95% KM Bootstrap t UCL	6406		
1862				90% KM Chebyshev UCL	2862			95% KM Chebyshev UCL	3723		
1863				97.5% KM Chebyshev UCL	4917			99% KM Chebyshev UCL	7262		
1864											
1865					**Gamma GOF Tests on Detected Observations Only**						
1866				A-D Test Statistic	0.713			**Anderson-Darling GOF Test**			
1867				5% A-D Critical Value	0.693			Detected Data Not Gamma Distributed at 5% Significance Level			
1868				K-S Test Statistic	0.393			**Kolmogorov-Smirnov GOF**			
1869				5% K-S Critical Value	0.365			Detected Data Not Gamma Distributed at 5% Significance Level			
1870					**Detected Data Not Gamma Distributed at 5% Significance Level**						
1871											
1872					**Gamma Statistics on Detected Data Only**						
1873				k hat (MLE)	0.951			k star (bias corrected MLE)	0.514		
1874				Theta hat (MLE)	1369			Theta star (bias corrected MLE)	2534		
1875				nu hat (MLE)	9.511			nu star (bias corrected)	5.138		
1876				Mean (detects)	1302						

1877												
1878	**Gamma ROS Statistics using Imputed Non-Detects**											
1879	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1880	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1881	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1882	This is especially true when the sample size is small.											
1883	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1884						Minimum	0.01			Mean	930	
1885						Maximum	4600			Median	490	
1886						SD	1639			CV	1.763	
1887						k hat (MLE)	0.211			k star (bias corrected MLE)	0.216	
1888						Theta hat (MLE)	4414			Theta star (bias corrected MLE)	4313	
1889						nu hat (MLE)	2.95			nu star (bias corrected)	3.019	
1890						Adjusted Level of Significance (β)	0.0158					
1891						Approximate Chi Square Value (3.02, α)	0.378			Adjusted Chi Square Value (3.02, β)	0.195	
1892						95% Gamma Approximate UCL	7427			95% Gamma Adjusted UCL	14424	
1893												
1894	**Estimates of Gamma Parameters using KM Estimates**											
1895						Mean (KM)	962.9			SD (KM)	1498	
1896						Variance (KM)	2244642			SE of Mean (KM)	633.1	
1897						k hat (KM)	0.413			k star (KM)	0.331	
1898						nu hat (KM)	5.782			nu star (KM)	4.638	
1899						theta hat (KM)	2331			theta star (KM)	2907	
1900						80% gamma percentile (KM)	1509			90% gamma percentile (KM)	2803	
1901						95% gamma percentile (KM)	4265			99% gamma percentile (KM)	8017	
1902												
1903	**Gamma Kaplan-Meier (KM) Statistics**											
1904						Approximate Chi Square Value (4.64, α)	0.989			Adjusted Chi Square Value (4.64, β)	0.577	
1905						95% KM Approximate Gamma UCL	4517			95% KM Adjusted Gamma UCL	7739	
1906												
1907	**Lognormal GOF Test on Detected Observations Only**											
1908						Shapiro Wilk Test Statistic	0.861			**Shapiro Wilk GOF Test**		
1909						10% Shapiro Wilk Critical Value	0.806			Detected Data appear Lognormal at 10% Significance Level		
1910						Lilliefors Test Statistic	0.324			**Lilliefors GOF Test**		
1911						10% Lilliefors Critical Value	0.319			Detected Data Not Lognormal at 10% Significance Level		
1912	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
1913	**Note GOF tests may be unreliable for small sample sizes**											
1914												
1915	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1916						Mean in Original Scale	942.4			Mean in Log Scale	5.763	
1917						SD in Original Scale	1631			SD in Log Scale	1.645	
1918						95% t UCL (assumes normality of ROS data)	2140			95% Percentile Bootstrap UCL	2124	
1919						95% BCA Bootstrap UCL	2307			95% Bootstrap t UCL	6211	
1920						95% H-UCL (Log ROS)	53932					
1921												
1922	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1923						KM Mean (logged)	6.042			KM Geo Mean	420.8	
1924						KM SD (logged)	1.183			95% Critical H Value (KM-Log)	4.226	
1925						KM Standard Error of Mean (logged)	0.5			95% H-UCL (KM -Log)	6519	
1926						KM SD (logged)	1.183			95% Critical H Value (KM-Log)	4.226	
1927						KM Standard Error of Mean (logged)	0.5					
1928												
1929	**DL/2 Statistics**											
1930	**DL/2 Normal**									**DL/2 Log-Transformed**		
1931						Mean in Original Scale	947.9			Mean in Log Scale	5.867	
1932						SD in Original Scale	1628			SD in Log Scale	1.501	
1933						95% t UCL (Assumes normality)	2143			95% H-Stat UCL	26216	
1934	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1935												
1936	**Nonparametric Distribution Free UCL Statistics**											
1937	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
1938												
1939	**Suggested UCL to Use**											
1940						KM H-UCL	6519					
1941	**Warning: Recommended UCL exceeds the maximum observation**											
1942												
1943	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											

1944	**Please verify the data were collected from random locations.**											
1945	**If the data were collected using judgmental or other non-random methods,**											
1946	**then contact a statistician to correctly calculate UCLs.**											
1947												
1948	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1949	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1950	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1951												
1952	**Fluorene**											
1953												
1954	**General Statistics**											
1955				Total Number of Observations	7			Number of Distinct Observations	7			
1956								Number of Missing Observations	23			
1957				Number of Detects	1			Number of Non-Detects	6			
1958				Number of Distinct Detects	1			Number of Distinct Non-Detects	6			
1959												
1960	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
1961	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
1962												
1963	**The data set for variable Fluorene was not processed!**											
1964												
1965												
1966												
1967	**Indeno[1,2,3-cd]pyrene**											
1968												
1969	**General Statistics**											
1970				Total Number of Observations	3			Number of Distinct Observations	3			
1971								Number of Missing Observations	11			
1972				Minimum	170			Mean	206.7			
1973				Maximum	260			Median	190			
1974				SD	47.26			Std. Error of Mean	27.28			
1975				Coefficient of Variation	0.229			Skewness	1.39			
1976												
1977	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
1978	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
1979	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
1980	**The Chebyshev UCL often results in gross overestimates of the mean.**											
1981	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
1982												
1983	**Normal GOF Test**											
1984				Shapiro Wilk Test Statistic	0.907			**Shapiro Wilk GOF Test**				
1985				1% Shapiro Wilk Critical Value	0.753			Data appear Normal at 1% Significance Level				
1986				Lilliefors Test Statistic	0.304			**Lilliefors GOF Test**				
1987				1% Lilliefors Critical Value	0.429			Data appear Normal at 1% Significance Level				
1988	**Data appear Normal at 1% Significance Level**											
1989	**Note GOF tests may be unreliable for small sample sizes**											
1990												
1991	**Assuming Normal Distribution**											
1992	**95% Normal UCL**							**95% UCLs (Adjusted for Skewness)**				
1993				95% Student's-t UCL	286.3			95% Adjusted-CLT UCL (Chen-1995)	274.9			
1994								95% Modified-t UCL (Johnson-1978)	290			
1995												
1996	**Gamma GOF Test**											
1997				A-D Test Statistic	0.357			**Anderson-Darling Gamma GOF Test**				
1998				5% A-D Critical Value	0.635			Detected data appear Gamma Distributed at 5% Significance Level				
1999				K-S Test Statistic	0.32			**Kolmogorov-Smirnov Gamma GOF Test**				
2000				5% K-S Critical Value	0.431			Detected data appear Gamma Distributed at 5% Significance Level				
2001	**Data Not Gamma Distributed at 5% Significance Level**											
2002												
2003	**Gamma Statistics**											
2004				k hat (MLE)	30.28			k star (bias corrected MLE)	N/A			
2005				Theta hat (MLE)	6.826			Theta star (bias corrected MLE)	N/A			
2006				nu hat (MLE)	181.7			nu star (bias corrected)	N/A			
2007				MLE Mean (bias corrected)	N/A			MLE Sd (bias corrected)	N/A			
2008								Approximate Chi Square Value (0.05)	N/A			
2009				Adjusted Level of Significance	N/A			Adjusted Chi Square Value	N/A			
2010												

2011	**Assuming Gamma Distribution**											
2012			95% Approximate Gamma UCL		N/A			95% Adjusted Gamma UCL			N/A	
2013												
2014	**Lognormal GOF Test**											
2015			Shapiro Wilk Test Statistic		0.93			**Shapiro Wilk Lognormal GOF Test**				
2016			10% Shapiro Wilk Critical Value		0.789			Data appear Lognormal at 10% Significance Level				
2017			Lilliefors Test Statistic		0.287			**Lilliefors Lognormal GOF Test**				
2018			10% Lilliefors Critical Value		0.389			Data appear Lognormal at 10% Significance Level				
2019	**Data appear Lognormal at 10% Significance Level**											
2020	**Note GOF tests may be unreliable for small sample sizes**											
2021												
2022	**Lognormal Statistics**											
2023			Minimum of Logged Data		5.136			Mean of logged Data			5.315	
2024			Maximum of Logged Data		5.561			SD of logged Data			0.22	
2025												
2026	**Assuming Lognormal Distribution**											
2027			95% H-UCL		355.9			90% Chebyshev (MVUE) UCL			284.9	
2028			95% Chebyshev (MVUE) UCL		320.4			97.5% Chebyshev (MVUE) UCL			369.7	
2029			99% Chebyshev (MVUE) UCL		466.4							
2030												
2031	**Nonparametric Distribution Free UCL Statistics**											
2032	**Data appear to follow a Discernible Distribution**											
2033												
2034	**Nonparametric Distribution Free UCLs**											
2035			95% CLT UCL		251.5			95% BCA Bootstrap UCL			N/A	
2036			95% Standard Bootstrap UCL		N/A			95% Bootstrap-t UCL			N/A	
2037			95% Hall's Bootstrap UCL		N/A			95% Percentile Bootstrap UCL			N/A	
2038			90% Chebyshev(Mean, Sd) UCL		288.5			95% Chebyshev(Mean, Sd) UCL			325.6	
2039			97.5% Chebyshev(Mean, Sd) UCL		377.1			99% Chebyshev(Mean, Sd) UCL			478.1	
2040												
2041	**Suggested UCL to Use**											
2042			95% Student's-t UCL		286.3							
2043	**Recommended UCL exceeds the maximum observation**											
2044												
2045	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2046	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2047	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2048												
2049	**Naphthalene**											
2050												
2051	**General Statistics**											
2052			Total Number of Observations		7			Number of Distinct Observations			6	
2053								Number of Missing Observations			23	
2054			Number of Detects		1			Number of Non-Detects			6	
2055			Number of Distinct Detects		1			Number of Distinct Non-Detects			5	
2056												
2057	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
2058	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
2059												
2060	**The data set for variable Naphthalene was not processed!**											
2061												
2062												
2063	**Phenanthrene**											
2064												
2065	**General Statistics**											
2066			Total Number of Observations		7			Number of Distinct Observations			7	
2067								Number of Missing Observations			23	
2068			Number of Detects		5			Number of Non-Detects			2	
2069			Number of Distinct Detects		5			Number of Distinct Non-Detects			2	
2070			Minimum Detect		80			Minimum Non-Detect			115	
2071			Maximum Detect		1700			Maximum Non-Detect			135	
2072			Variance Detects		417480			Percent Non-Detects			28.57%	
2073			Mean Detects		564			SD Detects			646.1	
2074			Median Detects		360			CV Detects			1.146	
2075			Skewness Detects		2.038			Kurtosis Detects			4.393	
2076			Mean of Logged Detects		5.87			SD of Logged Detects			1.085	
2077												

2078	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**										
2079	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**										
2080	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**										
2081	**The Chebyshev UCL often results in gross overestimates of the mean.**										
2082	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**										
2083											
2084	**Normal GOF Test on Detects Only**										
2085				Shapiro Wilk Test Statistic	0.719	**Shapiro Wilk GOF Test**					
2086				1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level					
2087				Lilliefors Test Statistic	0.412	**Lilliefors GOF Test**					
2088				1% Lilliefors Critical Value	0.396	Detected Data Not Normal at 1% Significance Level					
2089	**Detected Data appear Approximate Normal at 1% Significance Level**										
2090	**Note GOF tests may be unreliable for small sample sizes**										
2091											
2092	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
2093				KM Mean	425.7	KM Standard Error of Mean	226.1				
2094				90KM SD	535.1	95% KM (BCA) UCL	858.6				
2095				95% KM (t) UCL	865.1	95% KM (Percentile Bootstrap) UCL	829.3				
2096				95% KM (z) UCL	797.7	95% KM Bootstrap t UCL	1473				
2097				90% KM Chebyshev UCL	1104	95% KM Chebyshev UCL	1411				
2098				97.5% KM Chebyshev UCL	1838	99% KM Chebyshev UCL	2676				
2099											
2100	**Gamma GOF Tests on Detected Observations Only**										
2101				A-D Test Statistic	0.471	**Anderson-Darling GOF Test**					
2102				5% A-D Critical Value	0.689	Detected data appear Gamma Distributed at 5% Significance Level					
2103				K-S Test Statistic	0.338	**Kolmogorov-Smirnov GOF**					
2104				5% K-S Critical Value	0.363	Detected data appear Gamma Distributed at 5% Significance Level					
2105	**Detected data appear Gamma Distributed at 5% Significance Level**										
2106	**Note GOF tests may be unreliable for small sample sizes**										
2107											
2108	**Gamma Statistics on Detected Data Only**										
2109				k hat (MLE)	1.215	k star (bias corrected MLE)	0.619				
2110				Theta hat (MLE)	464.2	Theta star (bias corrected MLE)	910.7				
2111				nu hat (MLE)	12.15	nu star (bias corrected)	6.193				
2112				Mean (detects)	564						
2113											
2114	**Gamma ROS Statistics using Imputed Non-Detects**										
2115	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
2116	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
2117	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
2118	This is especially true when the sample size is small.										
2119	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
2120				Minimum	0.01	Mean	402.9				
2121				Maximum	1700	Median	300				
2122				SD	595	CV	1.477				
2123				k hat (MLE)	0.231	k star (bias corrected MLE)	0.227				
2124				Theta hat (MLE)	1748	Theta star (bias corrected MLE)	1775				
2125				nu hat (MLE)	3.227	nu star (bias corrected)	3.178				
2126				Adjusted Level of Significance (β)	0.0158						
2127				Approximate Chi Square Value (3.18, α)	0.427	Adjusted Chi Square Value (3.18, β)	0.221				
2128				95% Gamma Approximate UCL	2999	95% Gamma Adjusted UCL	5787				
2129											
2130	**Estimates of Gamma Parameters using KM Estimates**										
2131				Mean (KM)	425.7	SD (KM)	535.1				
2132				Variance (KM)	286367	SE of Mean (KM)	226.1				
2133				k hat (KM)	0.633	k star (KM)	0.457				
2134				nu hat (KM)	8.86	nu star (KM)	6.396				
2135				theta hat (KM)	672.7	theta star (KM)	931.8				
2136				80% gamma percentile (KM)	695.6	90% gamma percentile (KM)	1173				
2137				95% gamma percentile (KM)	1689	99% gamma percentile (KM)	2967				
2138											
2139	**Gamma Kaplan-Meier (KM) Statistics**										
2140				Approximate Chi Square Value (6.40, α)	1.846	Adjusted Chi Square Value (6.40, β)	1.202				
2141				95% KM Approximate Gamma UCL	1475	95% KM Adjusted Gamma UCL	2266				
2142											
2143	**Lognormal GOF Test on Detected Observations Only**										
2144				Shapiro Wilk Test Statistic	0.927	**Shapiro Wilk GOF Test**					

2145				10% Shapiro Wilk Critical Value		0.806		Detected Data appear Lognormal at 10% Significance Level				
2146				Lilliefors Test Statistic		0.274		**Lilliefors GOF Test**				
2147				10% Lilliefors Critical Value		0.319		Detected Data appear Lognormal at 10% Significance Level				
2148						**Detected Data appear Lognormal at 10% Significance Level**						
2149						**Note GOF tests may be unreliable for small sample sizes**						
2150												
2151						**Lognormal ROS Statistics Using Imputed Non-Detects**						
2152				Mean in Original Scale		424.2		Mean in Log Scale				5.426
2153				SD in Original Scale		579.1		SD in Log Scale				1.166
2154				95% t UCL (assumes normality of ROS data)		849.5		95% Percentile Bootstrap UCL				815.7
2155				95% BCA Bootstrap UCL		917.1		95% Bootstrap t UCL				1634
2156				95% H-UCL (Log ROS)		3278						
2157												
2158						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
2159				KM Mean (logged)		5.445		KM Geo Mean				231.6
2160				KM SD (logged)		1.06		95% Critical H Value (KM-Log)				3.869
2161				KM Standard Error of Mean (logged)		0.448		95% H-UCL (KM -Log)				2169
2162				KM SD (logged)		1.06		95% Critical H Value (KM-Log)				3.869
2163				KM Standard Error of Mean (logged)		0.448						
2164												
2165						**DL/2 Statistics**						
2166				**DL/2 Normal**				**DL/2 Log-Transformed**				
2167				Mean in Original Scale		420.7		Mean in Log Scale				5.373
2168				SD in Original Scale		581.6		SD in Log Scale				1.227
2169				95% t UCL (Assumes normality)		847.8		95% H-Stat UCL				4062
2170						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2171												
2172						**Nonparametric Distribution Free UCL Statistics**						
2173						**Detected Data appear Approximate Normal Distributed at 1% Significance Level**						
2174												
2175						**Suggested UCL to Use**						
2176				95% KM (t) UCL		865.1						
2177												
2178						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
2179						**Please verify the data were collected from random locations.**						
2180						**If the data were collected using judgmental or other non-random methods,**						
2181						**then contact a statistician to correctly calculate UCLs.**						
2182												
2183						When a data set follows an approximate distribution passing only one of the GOF tests,						
2184						it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL						
2185												
2186						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2187						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2188						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2189												
2190	**Pyrene**											
2191												
2192						**General Statistics**						
2193				Total Number of Observations		7		Number of Distinct Observations				7
2194								Number of Missing Observations				23
2195				Number of Detects		6		Number of Non-Detects				1
2196				Number of Distinct Detects		6		Number of Distinct Non-Detects				1
2197				Minimum Detect		61		Minimum Non-Detect				135
2198				Maximum Detect		4900		Maximum Non-Detect				135
2199				Variance Detects		3458228		Percent Non-Detects				14.29%
2200				Mean Detects		1132		SD Detects				1860
2201				Median Detects		465		CV Detects				1.643
2202				Skewness Detects		2.369		Kurtosis Detects				5.697
2203				Mean of Logged Detects		6.123		SD of Logged Detects				1.453
2204												
2205						**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**						
2206						**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**						
2207						**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**						
2208						**The Chebyshev UCL often results in gross overestimates of the mean.**						
2209						**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**						
2210												
2211						**Normal GOF Test on Detects Only**						

2212				Shapiro Wilk Test Statistic		0.613	**Shapiro Wilk GOF Test**					
2213				1% Shapiro Wilk Critical Value		0.713	Detected Data Not Normal at 1% Significance Level					
2214				Lilliefors Test Statistic		0.425	**Lilliefors GOF Test**					
2215				1% Lilliefors Critical Value		0.373	Detected Data Not Normal at 1% Significance Level					
2216	**Detected Data Not Normal at 1% Significance Level**											
2217												
2218	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2219				KM Mean		978.9	KM Standard Error of Mean					669
2220				90KM SD		1616	95% KM (BCA) UCL					2287
2221				95% KM (t) UCL		2279	95% KM (Percentile Bootstrap) UCL					2243
2222				95% KM (z) UCL		2079	95% KM Bootstrap t UCL					7883
2223				90% KM Chebyshev UCL		2986	95% KM Chebyshev UCL					3895
2224				97.5% KM Chebyshev UCL		5157	99% KM Chebyshev UCL					7635
2225												
2226	**Gamma GOF Tests on Detected Observations Only**											
2227				A-D Test Statistic		0.517	**Anderson-Darling GOF Test**					
2228				5% A-D Critical Value		0.726	Detected data appear Gamma Distributed at 5% Significance Level					
2229				K-S Test Statistic		0.31	**Kolmogorov-Smirnov GOF**					
2230				5% K-S Critical Value		0.345	Detected data appear Gamma Distributed at 5% Significance Level					
2231	**Detected data appear Gamma Distributed at 5% Significance Level**											
2232	**Note GOF tests may be unreliable for small sample sizes**											
2233												
2234	**Gamma Statistics on Detected Data Only**											
2235				k hat (MLE)		0.669	k star (bias corrected MLE)					0.446
2236				Theta hat (MLE)		1691	Theta star (bias corrected MLE)					2539
2237				nu hat (MLE)		8.033	nu star (bias corrected)					5.35
2238				Mean (detects)		1132						
2239												
2240	**Gamma ROS Statistics using Imputed Non-Detects**											
2241	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2242	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2243	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2244	This is especially true when the sample size is small.											
2245	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2246				Minimum		0.01	Mean					970.1
2247				Maximum		4900	Median					440
2248				SD		1751	CV					1.805
2249				k hat (MLE)		0.301	k star (bias corrected MLE)					0.267
2250				Theta hat (MLE)		3220	Theta star (bias corrected MLE)					3628
2251				nu hat (MLE)		4.218	nu star (bias corrected)					3.744
2252				Adjusted Level of Significance (β)		0.0158						
2253				Approximate Chi Square Value (3.74, α)		0.623	Adjusted Chi Square Value (3.74, β)					0.337
2254				95% Gamma Approximate UCL		5828	95% Gamma Adjusted UCL					10776
2255												
2256	**Estimates of Gamma Parameters using KM Estimates**											
2257				Mean (KM)		978.9	SD (KM)					1616
2258				Variance (KM)		2610573	SE of Mean (KM)					669
2259				k hat (KM)		0.367	k star (KM)					0.305
2260				nu hat (KM)		5.138	nu star (KM)					4.27
2261				theta hat (KM)		2667	theta star (KM)					3210
2262				80% gamma percentile (KM)		1507	90% gamma percentile (KM)					2881
2263				95% gamma percentile (KM)		4454	99% gamma percentile (KM)					8534
2264												
2265	**Gamma Kaplan-Meier (KM) Statistics**											
2266				Approximate Chi Square Value (4.27, α)		0.831	Adjusted Chi Square Value (4.27, β)					0.471
2267				95% KM Approximate Gamma UCL		5029	95% KM Adjusted Gamma UCL					8880
2268												
2269	**Lognormal GOF Test on Detected Observations Only**											
2270				Shapiro Wilk Test Statistic		0.959	**Shapiro Wilk GOF Test**					
2271				10% Shapiro Wilk Critical Value		0.826	Detected Data appear Lognormal at 10% Significance Level					
2272				Lilliefors Test Statistic		0.217	**Lilliefors GOF Test**					
2273				10% Lilliefors Critical Value		0.298	Detected Data appear Lognormal at 10% Significance Level					
2274	**Detected Data appear Lognormal at 10% Significance Level**											
2275	**Note GOF tests may be unreliable for small sample sizes**											
2276												
2277	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2278				Mean in Original Scale		977.3	Mean in Log Scale					5.808

2279					SD in Original Scale	1746				SD in Log Scale		1.567
2280				95% t UCL (assumes normality of ROS data)		2260				95% Percentile Bootstrap UCL		2246
2281					95% BCA Bootstrap UCL	2433				95% Bootstrap t UCL		7601
2282					95% H-UCL (Log ROS)	35732						
2283												
2284	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2285					KM Mean (logged)	5.836				KM Geo Mean		342.3
2286					KM SD (logged)	1.415				95% Critical H Value (KM-Log)		4.924
2287				KM Standard Error of Mean (logged)		0.586				95% H-UCL (KM -Log)		16042
2288					KM SD (logged)	1.415				95% Critical H Value (KM-Log)		4.924
2289				KM Standard Error of Mean (logged)		0.586						
2290												
2291	**DL/2 Statistics**											
2292	**DL/2 Normal**						**DL/2 Log-Transformed**					
2293					Mean in Original Scale	979.8				Mean in Log Scale		5.85
2294					SD in Original Scale	1745				SD in Log Scale		1.51
2295				95% t UCL (Assumes normality)		2261				95% H-Stat UCL		27062
2296	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2297												
2298	**Nonparametric Distribution Free UCL Statistics**											
2299	**Detected Data appear Gamma Distributed at 5% Significance Level**											
2300												
2301	**Suggested UCL to Use**											
2302					95% KM Bootstrap t UCL	7883				95% Hall's Bootstrap		16042
2303												
2304	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2305	**Please verify the data were collected from random locations.**											
2306	**If the data were collected using judgmental or other non-random methods,**											
2307	**then contact a statistician to correctly calculate UCLs.**											
2308												
2309	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2310	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2311	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2312												

1	**UCL Statistics for Data Sets with Non-Detects**										
2											
3	User Selected Options										
4	Date/Time of Computation	ProUCL 5.2 7/28/2025 11:56:41 AM									
5	From File	sediment_maintenance dynamite east									
6	Full Precision	OFF									
7	Confidence Coefficient	95%									
8	Number of Bootstrap Operations	2000									
9											
10	**Nitrobenzene**										
11											
12	**General Statistics**										
13	Total Number of Observations	50				Number of Distinct Observations	30				
14						Number of Missing Observations	22				
15	Number of Detects	1				Number of Non-Detects	49				
16	Number of Distinct Detects	1				Number of Distinct Non-Detects	29				
17											
18	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**										
19	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**										
20											
21	**The data set for variable Nitrobenzene was not processed!**										
22											
23											
24											
25	**Aluminum**										
26											
27	**General Statistics**										
28	Total Number of Observations	6				Number of Distinct Observations	6				
29						Number of Missing Observations	20				
30	Minimum	6210				Mean	14293				
31	Maximum	21700				Median	16100				
32	SD	6182				Std. Error of Mean	2524				
33	Coefficient of Variation	0.432				Skewness	-0.483				
34											
35	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**										
36	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**										
37	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**										
38	**The Chebyshev UCL often results in gross overestimates of the mean.**										
39	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**										
40											
41	**Normal GOF Test**										
42	Shapiro Wilk Test Statistic	0.894				**Shapiro Wilk GOF Test**					
43	1% Shapiro Wilk Critical Value	0.713				Data appear Normal at 1% Significance Level					
44	Lilliefors Test Statistic	0.269				**Lilliefors GOF Test**					
45	1% Lilliefors Critical Value	0.373				Data appear Normal at 1% Significance Level					
46	**Data appear Normal at 1% Significance Level**										
47	**Note GOF tests may be unreliable for small sample sizes**										
48											
49	**Assuming Normal Distribution**										
50	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**					
51	95% Student's-t UCL	19379				95% Adjusted-CLT UCL (Chen-1995)	17913				
52						95% Modified-t UCL (Johnson-1978)	19296				
53											
54	**Gamma GOF Test**										
55	A-D Test Statistic	0.548				**Anderson-Darling Gamma GOF Test**					
56	5% A-D Critical Value	0.698				Detected data appear Gamma Distributed at 5% Significance Level					
57	K-S Test Statistic	0.319				**Kolmogorov-Smirnov Gamma GOF Test**					
58	5% K-S Critical Value	0.333				Detected data appear Gamma Distributed at 5% Significance Level					
59	**Detected data appear Gamma Distributed at 5% Significance Level**										
60	**Note GOF tests may be unreliable for small sample sizes**										
61											
62	**Gamma Statistics**										
63	k hat (MLE)	5.193				k star (bias corrected MLE)	2.707				
64	Theta hat (MLE)	2753				Theta star (bias corrected MLE)	5279				
65	nu hat (MLE)	62.31				nu star (bias corrected)	32.49				
66	MLE Mean (bias corrected)	14293				MLE Sd (bias corrected)	8687				
67						Approximate Chi Square Value (0.05)	20.46				

68				Adjusted Level of Significance	0.0122					Adjusted Chi Square Value	17.1	
69												
70					**Assuming Gamma Distribution**							
71				95% Approximate Gamma UCL	22696					95% Adjusted Gamma UCL	27151	
72												
73					**Lognormal GOF Test**							
74				Shapiro Wilk Test Statistic	0.842			**Shapiro Wilk Lognormal GOF Test**				
75				10% Shapiro Wilk Critical Value	0.826			Data appear Lognormal at 10% Significance Level				
76				Lilliefors Test Statistic	0.321			**Lilliefors Lognormal GOF Test**				
77				10% Lilliefors Critical Value	0.298			Data Not Lognormal at 10% Significance Level				
78					**Data appear Approximate Lognormal at 10% Significance Level**							
79					**Note GOF tests may be unreliable for small sample sizes**							
80												
81					**Lognormal Statistics**							
82				Minimum of Logged Data	8.734					Mean of logged Data	9.468	
83				Maximum of Logged Data	9.985					SD of logged Data	0.518	
84												
85					**Assuming Lognormal Distribution**							
86				95% H-UCL	27548					90% Chebyshev (MVUE) UCL	23601	
87				95% Chebyshev (MVUE) UCL	27747					97.5% Chebyshev (MVUE) UCL	33501	
88				99% Chebyshev (MVUE) UCL	44805							
89												
90					**Nonparametric Distribution Free UCL Statistics**							
91					**Data appear to follow a Discernible Distribution**							
92												
93					**Nonparametric Distribution Free UCLs**							
94				95% CLT UCL	18444					95% BCA Bootstrap UCL	17800	
95				95% Standard Bootstrap UCL	18090					95% Bootstrap-t UCL	18861	
96				95% Hall's Bootstrap UCL	17317					95% Percentile Bootstrap UCL	18067	
97				90% Chebyshev(Mean, Sd) UCL	21864					95% Chebyshev(Mean, Sd) UCL	25294	
98				97.5% Chebyshev(Mean, Sd) UCL	30054					99% Chebyshev(Mean, Sd) UCL	39404	
99												
100					**Suggested UCL to Use**							
101				95% Student's-t UCL	19379							
102												
103					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
104					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
105					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
106												
107					**Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be**							
108					**reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.**							
109												
110	**Antimony**											
111												
112					**General Statistics**							
113				Total Number of Observations	13					Number of Distinct Observations	11	
114										Number of Missing Observations	13	
115				Number of Detects	2					Number of Non-Detects	11	
116				Number of Distinct Detects	1					Number of Distinct Non-Detects	10	
117												
118					**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**							
119					**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**							
120												
121					**The data set for variable Antimony was not processed!**							
122												
123												
124	**Arsenic**											
125												
126					**General Statistics**							
127				Total Number of Observations	43					Number of Distinct Observations	40	
128										Number of Missing Observations	29	
129				Number of Detects	40					Number of Non-Detects	3	
130				Number of Distinct Detects	37					Number of Distinct Non-Detects	3	
131				Minimum Detect	1.1					Minimum Non-Detect	1.31	
132				Maximum Detect	28.9					Maximum Non-Detect	75.5	
133				Variance Detects	38.48					Percent Non-Detects	6.977%	
134				Mean Detects	7.57					SD Detects	6.203	

135					Median Detects	5.555				CV Detects		0.819
136					Skewness Detects	1.865				Kurtosis Detects		3.479
137					Mean of Logged Detects	1.755				SD of Logged Detects		0.737
138												
139					**Normal GOF Test on Detects Only**							
140					Shapiro Wilk Test Statistic	0.795			**Shapiro Wilk GOF Test**			
141					1% Shapiro Wilk Critical Value	0.919			Detected Data Not Normal at 1% Significance Level			
142					Lilliefors Test Statistic	0.222			**Lilliefors GOF Test**			
143					1% Lilliefors Critical Value	0.162			Detected Data Not Normal at 1% Significance Level			
144					**Detected Data Not Normal at 1% Significance Level**							
145												
146					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
147					KM Mean	7.412				KM Standard Error of Mean		0.97
148					90KM SD	6.132				95% KM (BCA) UCL		9.101
149					95% KM (t) UCL	9.043				95% KM (Percentile Bootstrap) UCL		9.093
150					95% KM (z) UCL	9.007				95% KM Bootstrap t UCL		9.424
151					90% KM Chebyshev UCL	10.32				95% KM Chebyshev UCL		11.64
152					97.5% KM Chebyshev UCL	13.47				99% KM Chebyshev UCL		17.06
153												
154					**Gamma GOF Tests on Detected Observations Only**							
155					A-D Test Statistic	0.679			**Anderson-Darling GOF Test**			
156					5% A-D Critical Value	0.759			Detected data appear Gamma Distributed at 5% Significance Level			
157					K-S Test Statistic	0.151			**Kolmogorov-Smirnov GOF**			
158					5% K-S Critical Value	0.141			Detected Data Not Gamma Distributed at 5% Significance Level			
159					**Detected data follow Appr. Gamma Distribution at 5% Significance Level**							
160												
161					**Gamma Statistics on Detected Data Only**							
162					k hat (MLE)	2.011				k star (bias corrected MLE)		1.877
163					Theta hat (MLE)	3.765				Theta star (bias corrected MLE)		4.034
164					nu hat (MLE)	160.9				nu star (bias corrected)		150.1
165					Mean (detects)	7.57						
166												
167					**Gamma ROS Statistics using Imputed Non-Detects**							
168					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
169					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
170					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
171					This is especially true when the sample size is small.							
172					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
173					Minimum	0.01				Mean		7.324
174					Maximum	28.9				Median		5.64
175					SD	6.094				CV		0.832
176					k hat (MLE)	1.455				k star (bias corrected MLE)		1.369
177					Theta hat (MLE)	5.035				Theta star (bias corrected MLE)		5.351
178					nu hat (MLE)	125.1				nu star (bias corrected)		117.7
179					Adjusted Level of Significance (β)	0.0444						
180					Approximate Chi Square Value (117.71, α)	93.66				Adjusted Chi Square Value (117.71, β)		92.91
181					95% Gamma Approximate UCL	9.205				95% Gamma Adjusted UCL		9.279
182												
183					**Estimates of Gamma Parameters using KM Estimates**							
184					Mean (KM)	7.412				SD (KM)		6.132
185					Variance (KM)	37.6				SE of Mean (KM)		0.97
186					k hat (KM)	1.461				k star (KM)		1.375
187					nu hat (KM)	125.7				nu star (KM)		118.2
188					theta hat (KM)	5.073				theta star (KM)		5.392
189					80% gamma percentile (KM)	11.58				90% gamma percentile (KM)		15.78
190					95% gamma percentile (KM)	19.88				99% gamma percentile (KM)		29.21
191												
192					**Gamma Kaplan-Meier (KM) Statistics**							
193					Approximate Chi Square Value (118.22, α)	94.11				Adjusted Chi Square Value (118.22, β)		93.37
194					95% KM Approximate Gamma UCL	9.31				95% KM Adjusted Gamma UCL		9.385
195												
196					**Lognormal GOF Test on Detected Observations Only**							
197					Shapiro Wilk Test Statistic	0.983			**Shapiro Wilk GOF Test**			
198					10% Shapiro Wilk Critical Value	0.949			Detected Data appear Lognormal at 10% Significance Level			
199					Lilliefors Test Statistic	0.101			**Lilliefors GOF Test**			
200					10% Lilliefors Critical Value	0.128			Detected Data appear Lognormal at 10% Significance Level			
201					**Detected Data appear Lognormal at 10% Significance Level**							

202											
203	**Lognormal ROS Statistics Using Imputed Non-Detects**										
204					Mean in Original Scale	7.328			Mean in Log Scale	1.716	
205					SD in Original Scale	6.07			SD in Log Scale	0.753	
206					95% t UCL (assumes normality of ROS data)	8.885			95% Percentile Bootstrap UCL	8.934	
207					95% BCA Bootstrap UCL	9.134			95% Bootstrap t UCL	9.309	
208					95% H-UCL (Log ROS)	9.435					
209											
210	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
211					KM Mean (logged)	1.715			KM Geo Mean	5.556	
212					KM SD (logged)	0.763			95% Critical H Value (KM-Log)	2.121	
213					KM Standard Error of Mean (logged)	0.121			95% H-UCL (KM -Log)	9.546	
214					KM SD (logged)	0.763			95% Critical H Value (KM-Log)	2.121	
215					KM Standard Error of Mean (logged)	0.121					
216											
217	**DL/2 Statistics**										
218	**DL/2 Normal**								**DL/2 Log-Transformed**		
219					Mean in Original Scale	8.522			Mean in Log Scale	1.783	
220					SD in Original Scale	8.067			SD in Log Scale	0.868	
221					95% t UCL (Assumes normality)	10.59			95% H-Stat UCL	11.66	
222	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
223											
224	**Nonparametric Distribution Free UCL Statistics**										
225	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**										
226											
227	**Suggested UCL to Use**										
228					95% KM Adjusted Gamma UCL	9.385			95% GROS Adjusted Gamma UCL	9.279	
229											
230	When a data set follows an approximate distribution passing only one of the GOF tests,										
231	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL										
232											
233	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
234	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
235	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
236											
237	**Cadmium**										
238											
239	**General Statistics**										
240					Total Number of Observations	43			Number of Distinct Observations	42	
241									Number of Missing Observations	29	
242					Number of Detects	11			Number of Non-Detects	32	
243					Number of Distinct Detects	11			Number of Distinct Non-Detects	31	
244					Minimum Detect	0.11			Minimum Non-Detect	0.0365	
245					Maximum Detect	3.3			Maximum Non-Detect	18.9	
246					Variance Detects	0.87			Percent Non-Detects	74.42%	
247					Mean Detects	0.831			SD Detects	0.933	
248					Median Detects	0.352			CV Detects	1.122	
249					Skewness Detects	2.142			Kurtosis Detects	5.075	
250					Mean of Logged Detects	-0.655			SD of Logged Detects	1.003	
251											
252	**Normal GOF Test on Detects Only**										
253					Shapiro Wilk Test Statistic	0.74			**Shapiro Wilk GOF Test**		
254					1% Shapiro Wilk Critical Value	0.792			Detected Data Not Normal at 1% Significance Level		
255					Lilliefors Test Statistic	0.242			**Lilliefors GOF Test**		
256					1% Lilliefors Critical Value	0.291			Detected Data appear Normal at 1% Significance Level		
257	**Detected Data appear Approximate Normal at 1% Significance Level**										
258											
259	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
260					KM Mean	0.316			KM Standard Error of Mean	0.0981	
261					90KM SD	0.572			95% KM (BCA) UCL	0.482	
262					95% KM (t) UCL	0.481			95% KM (Percentile Bootstrap) UCL	0.477	
263					95% KM (z) UCL	0.477			95% KM Bootstrap t UCL	0.6	
264					90% KM Chebyshev UCL	0.61			95% KM Chebyshev UCL	0.743	
265					97.5% KM Chebyshev UCL	0.928			99% KM Chebyshev UCL	1.292	
266	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
267											
268	**Gamma GOF Tests on Detected Observations Only**										

269					A-D Test Statistic	0.431	**Anderson-Darling GOF Test**					
270					5% A-D Critical Value	0.748	Detected data appear Gamma Distributed at 5% Significance Level					
271					K-S Test Statistic	0.238	**Kolmogorov-Smirnov GOF**					
272					5% K-S Critical Value	0.261	Detected data appear Gamma Distributed at 5% Significance Level					
273	**Detected data appear Gamma Distributed at 5% Significance Level**											
274												
275	**Gamma Statistics on Detected Data Only**											
276					k hat (MLE)	1.204	k star (bias corrected MLE)					0.936
277					Theta hat (MLE)	0.69	Theta star (bias corrected MLE)					0.888
278					nu hat (MLE)	26.49	nu star (bias corrected)					20.6
279					Mean (detects)	0.831						
280												
281	**Gamma ROS Statistics using Imputed Non-Detects**											
282	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
283	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
284	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
285	This is especially true when the sample size is small.											
286	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
287					Minimum	0.01	Mean					0.22
288					Maximum	3.3	Median					0.01
289					SD	0.582	CV					2.644
290					k hat (MLE)	0.327	k star (bias corrected MLE)					0.32
291					Theta hat (MLE)	0.673	Theta star (bias corrected MLE)					0.688
292					nu hat (MLE)	28.11	nu star (bias corrected)					27.48
293					Adjusted Level of Significance (β)	0.0444						
294					Approximate Chi Square Value (27.48, α)	16.52	Adjusted Chi Square Value (27.48, β)					16.23
295					95% Gamma Approximate UCL	0.366	95% Gamma Adjusted UCL					0.373
296												
297	**Estimates of Gamma Parameters using KM Estimates**											
298					Mean (KM)	0.316	SD (KM)					0.572
299					Variance (KM)	0.327	SE of Mean (KM)					0.0981
300					k hat (KM)	0.305	k star (KM)					0.299
301					nu hat (KM)	26.2	nu star (KM)					25.71
302					theta hat (KM)	1.037	theta star (KM)					1.057
303					80% gamma percentile (KM)	0.484	90% gamma percentile (KM)					0.932
304					95% gamma percentile (KM)	1.446	99% gamma percentile (KM)					2.784
305												
306	**Gamma Kaplan-Meier (KM) Statistics**											
307					Approximate Chi Square Value (25.71, α)	15.16	Adjusted Chi Square Value (25.71, β)					14.87
308					95% KM Approximate Gamma UCL	0.536	95% KM Adjusted Gamma UCL					0.546
309	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
310												
311	**Lognormal GOF Test on Detected Observations Only**											
312					Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**					
313					10% Shapiro Wilk Critical Value	0.876	Detected Data appear Lognormal at 10% Significance Level					
314					Lilliefors Test Statistic	0.197	**Lilliefors GOF Test**					
315					10% Lilliefors Critical Value	0.231	Detected Data appear Lognormal at 10% Significance Level					
316	**Detected Data appear Lognormal at 10% Significance Level**											
317												
318	**Lognormal ROS Statistics Using Imputed Non-Detects**											
319					Mean in Original Scale	0.279	Mean in Log Scale					-1.999
320					SD in Original Scale	0.561	SD in Log Scale					0.985
321					95% t UCL (assumes normality of ROS data)	0.423	95% Percentile Bootstrap UCL					0.433
322					95% BCA Bootstrap UCL	0.502	95% Bootstrap t UCL					0.599
323					95% H-UCL (Log ROS)	0.314						
324												
325	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
326					KM Mean (logged)	-2.058	KM Geo Mean					0.128
327					KM SD (logged)	1.277	95% Critical H Value (KM-Log)					2.687
328					KM Standard Error of Mean (logged)	0.299	95% H-UCL (KM -Log)					0.49
329					KM SD (logged)	1.277	95% Critical H Value (KM-Log)					2.687
330					KM Standard Error of Mean (logged)	0.299						
331	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
332												
333	**DL/2 Statistics**											
334	**DL/2 Normal**						**DL/2 Log-Transformed**					
335					Mean in Original Scale	0.762	Mean in Log Scale					-1.326

336				SD in Original Scale	1.717					SD in Log Scale	1.385	
337				95% t UCL (Assumes normality)	1.202					95% H-Stat UCL	1.266	
338	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
339												
340	**Nonparametric Distribution Free UCL Statistics**											
341	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
342												
343	**Suggested UCL to Use**											
344				95% KM (t) UCL	0.481							
345												
346	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
347	**Please verify the data were collected from random locations.**											
348	**If the data were collected using judgmental or other non-random methods,**											
349	**then contact a statistician to correctly calculate UCLs.**											
350												
351	When a data set follows an approximate distribution passing only one of the GOF tests,											
352	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
353												
354	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
355	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
356	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
357												
358												
359	**Chromium**											
360												
361	**General Statistics**											
362				Total Number of Observations	46					Number of Distinct Observations	45	
363										Number of Missing Observations	26	
364				Minimum	7.41					Mean	42	
365				Maximum	246					Median	22.95	
366				SD	47.82					Std. Error of Mean	7.051	
367				Coefficient of Variation	1.139					Skewness	2.795	
368												
369	**Normal GOF Test**											
370				Shapiro Wilk Test Statistic	0.658					**Shapiro Wilk GOF Test**		
371				1% Shapiro Wilk Critical Value	0.927					Data Not Normal at 1% Significance Level		
372				Lilliefors Test Statistic	0.24					**Lilliefors GOF Test**		
373				1% Lilliefors Critical Value	0.151					Data Not Normal at 1% Significance Level		
374	**Data Not Normal at 1% Significance Level**											
375												
376	**Assuming Normal Distribution**											
377				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
378				95% Student's-t UCL	53.84					95% Adjusted-CLT UCL (Chen-1995)	56.7	
379										95% Modified-t UCL (Johnson-1978)	54.33	
380												
381	**Gamma GOF Test**											
382				A-D Test Statistic	1.86					**Anderson-Darling Gamma GOF Test**		
383				5% A-D Critical Value	0.77					Data Not Gamma Distributed at 5% Significance Level		
384				K-S Test Statistic	0.183					**Kolmogorov-Smirnov Gamma GOF Test**		
385				5% K-S Critical Value	0.133					Data Not Gamma Distributed at 5% Significance Level		
386	**Data Not Gamma Distributed at 5% Significance Level**											
387												
388	**Gamma Statistics**											
389				k hat (MLE)	1.404					k star (bias corrected MLE)	1.327	
390				Theta hat (MLE)	29.91					Theta star (bias corrected MLE)	31.64	
391				nu hat (MLE)	129.2					nu star (bias corrected)	122.1	
392				MLE Mean (bias corrected)	42					MLE Sd (bias corrected)	36.46	
393										Approximate Chi Square Value (0.05)	97.6	
394				Adjusted Level of Significance	0.0448					Adjusted Chi Square Value	96.89	
395												
396	**Assuming Gamma Distribution**											
397				95% Approximate Gamma UCL	52.55					95% Adjusted Gamma UCL	52.94	
398												
399	**Lognormal GOF Test**											
400				Shapiro Wilk Test Statistic	0.941					**Shapiro Wilk Lognormal GOF Test**		
401				10% Shapiro Wilk Critical Value	0.953					Data Not Lognormal at 10% Significance Level		
402				Lilliefors Test Statistic	0.135					**Lilliefors Lognormal GOF Test**		

	A	B	C	D	E	F	G	H	I	J	K	L
403				10% Lilliefors Critical Value		0.119	Data Not Lognormal at 10% Significance Level					
404	**Data Not Lognormal at 10% Significance Level**											
405												
406	**Lognormal Statistics**											
407				Minimum of Logged Data		2.003				Mean of logged Data		3.341
408				Maximum of Logged Data		5.505				SD of logged Data		0.837
409												
410	**Assuming Lognormal Distribution**											
411				95% H-UCL		52.56				90% Chebyshev (MVUE) UCL		56.3
412				95% Chebyshev (MVUE) UCL		63.82				97.5% Chebyshev (MVUE) UCL		74.25
413				99% Chebyshev (MVUE) UCL		94.73						
414												
415	**Nonparametric Distribution Free UCL Statistics**											
416	**Data do not follow a Discernible Distribution**											
417												
418	**Nonparametric Distribution Free UCLs**											
419				95% CLT UCL		53.6				95% BCA Bootstrap UCL		56.45
420				95% Standard Bootstrap UCL		53.5				95% Bootstrap-t UCL		60.72
421				95% Hall's Bootstrap UCL		65.54				95% Percentile Bootstrap UCL		53.71
422				90% Chebyshev(Mean, Sd) UCL		63.16				95% Chebyshev(Mean, Sd) UCL		72.74
423				97.5% Chebyshev(Mean, Sd) UCL		86.04				99% Chebyshev(Mean, Sd) UCL		112.2
424												
425	**Suggested UCL to Use**											
426				95% Student's-t UCL		53.84						
427												
428	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
429	**Please verify the data were collected from random locations.**											
430	**If the data were collected using judgmental or other non-random methods,**											
431	**then contact a statistician to correctly calculate UCLs.**											
432												
433	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
434	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
435	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
436												
437												
438	**Copper**											
439												
440	**General Statistics**											
441				Total Number of Observations		43				Number of Distinct Observations		43
442										Number of Missing Observations		29
443				Minimum		3.73				Mean		26.43
444				Maximum		92.5				Median		18.5
445				SD		22.75				Std. Error of Mean		3.47
446				Coefficient of Variation		0.861				Skewness		1.453
447												
448	**Normal GOF Test**											
449				Shapiro Wilk Test Statistic		0.823	**Shapiro Wilk GOF Test**					
450				1% Shapiro Wilk Critical Value		0.923	Data Not Normal at 1% Significance Level					
451				Lilliefors Test Statistic		0.202	**Lilliefors GOF Test**					
452				1% Lilliefors Critical Value		0.156	Data Not Normal at 1% Significance Level					
453	**Data Not Normal at 1% Significance Level**											
454												
455	**Assuming Normal Distribution**											
456	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
457				95% Student's-t UCL		32.27				95% Adjusted-CLT UCL (Chen-1995)		32.96
458										95% Modified-t UCL (Johnson-1978)		32.4
459												
460	**Gamma GOF Test**											
461				A-D Test Statistic		0.589	**Anderson-Darling Gamma GOF Test**					
462				5% A-D Critical Value		0.765	Detected data appear Gamma Distributed at 5% Significance Level					
463				K-S Test Statistic		0.114	**Kolmogorov-Smirnov Gamma GOF Test**					
464				5% K-S Critical Value		0.137	Detected data appear Gamma Distributed at 5% Significance Level					
465	**Detected data appear Gamma Distributed at 5% Significance Level**											
466												
467	**Gamma Statistics**											
468				k hat (MLE)		1.622				k star (bias corrected MLE)		1.524
469				Theta hat (MLE)		16.3				Theta star (bias corrected MLE)		17.35

470					nu hat (MLE)	139.5				nu star (bias corrected)		131.1
471					MLE Mean (bias corrected)	26.43				MLE Sd (bias corrected)		21.41
472										Approximate Chi Square Value (0.05)		105.6
473					Adjusted Level of Significance	0.0444				Adjusted Chi Square Value		104.8
474												
475					**Assuming Gamma Distribution**							
476					95% Approximate Gamma UCL	32.8				95% Adjusted Gamma UCL		33.05
477												
478					**Lognormal GOF Test**							
479					Shapiro Wilk Test Statistic	0.97				**Shapiro Wilk Lognormal GOF Test**		
480					10% Shapiro Wilk Critical Value	0.951				Data appear Lognormal at 10% Significance Level		
481					Lilliefors Test Statistic	0.0666				**Lilliefors Lognormal GOF Test**		
482					10% Lilliefors Critical Value	0.123				Data appear Lognormal at 10% Significance Level		
483					**Data appear Lognormal at 10% Significance Level**							
484												
485					**Lognormal Statistics**							
486					Minimum of Logged Data	1.316				Mean of logged Data		2.936
487					Maximum of Logged Data	4.527				SD of logged Data		0.847
488												
489					**Assuming Lognormal Distribution**							
490					95% H-UCL	35.93				90% Chebyshev (MVUE) UCL		38.3
491					95% Chebyshev (MVUE) UCL	43.57				97.5% Chebyshev (MVUE) UCL		50.9
492					99% Chebyshev (MVUE) UCL	65.28						
493												
494					**Nonparametric Distribution Free UCL Statistics**							
495					**Data appear to follow a Discernible Distribution**							
496												
497					**Nonparametric Distribution Free UCLs**							
498					95% CLT UCL	32.14				95% BCA Bootstrap UCL		32.76
499					95% Standard Bootstrap UCL	32.06				95% Bootstrap-t UCL		33.48
500					95% Hall's Bootstrap UCL	33.18				95% Percentile Bootstrap UCL		32.32
501					90% Chebyshev(Mean, Sd) UCL	36.84				95% Chebyshev(Mean, Sd) UCL		41.56
502					97.5% Chebyshev(Mean, Sd) UCL	48.1				99% Chebyshev(Mean, Sd) UCL		60.96
503												
504					**Suggested UCL to Use**							
505					95% Adjusted Gamma UCL	33.05						
506												
507					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
508					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
509					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
510												
511												
512	**Lead**											
513												
514					**General Statistics**							
515					Total Number of Observations	43				Number of Distinct Observations		41
516										Number of Missing Observations		29
517					Minimum	5.25				Mean		183.7
518					Maximum	1990				Median		44.5
519					SD	376.3				Std. Error of Mean		57.38
520					Coefficient of Variation	2.048				Skewness		3.431
521												
522					**Normal GOF Test**							
523					Shapiro Wilk Test Statistic	0.516				**Shapiro Wilk GOF Test**		
524					1% Shapiro Wilk Critical Value	0.923				Data Not Normal at 1% Significance Level		
525					Lilliefors Test Statistic	0.359				**Lilliefors GOF Test**		
526					1% Lilliefors Critical Value	0.156				Data Not Normal at 1% Significance Level		
527					**Data Not Normal at 1% Significance Level**							
528												
529					**Assuming Normal Distribution**							
530					**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
531					95% Student's-t UCL	280.3				95% Adjusted-CLT UCL (Chen-1995)		310.2
532										95% Modified-t UCL (Johnson-1978)		285.3
533												
534					**Gamma GOF Test**							
535					A-D Test Statistic	2.689				**Anderson-Darling Gamma GOF Test**		
536					5% A-D Critical Value	0.811				Data Not Gamma Distributed at 5% Significance Level		

537				K-S Test Statistic	0.216	**Kolmogorov-Smirnov Gamma GOF Test**						
538				5% K-S Critical Value	0.142	Data Not Gamma Distributed at 5% Significance Level						
539	**Data Not Gamma Distributed at 5% Significance Level**											
540												
541	**Gamma Statistics**											
542				k hat (MLE)	0.525	k star (bias corrected MLE)	0.503					
543				Theta hat (MLE)	350.3	Theta star (bias corrected MLE)	365					
544				nu hat (MLE)	45.11	nu star (bias corrected)	43.3					
545				MLE Mean (bias corrected)	183.7	MLE Sd (bias corrected)	259					
546						Approximate Chi Square Value (0.05)	29.21					
547				Adjusted Level of Significance	0.0444	Adjusted Chi Square Value	28.81					
548												
549	**Assuming Gamma Distribution**											
550				95% Approximate Gamma UCL	272.4	95% Adjusted Gamma UCL	276.2					
551												
552	**Lognormal GOF Test**											
553				Shapiro Wilk Test Statistic	0.949	**Shapiro Wilk Lognormal GOF Test**						
554				10% Shapiro Wilk Critical Value	0.951	Data Not Lognormal at 10% Significance Level						
555				Lilliefors Test Statistic	0.0997	**Lilliefors Lognormal GOF Test**						
556				10% Lilliefors Critical Value	0.123	Data appear Lognormal at 10% Significance Level						
557	**Data appear Approximate Lognormal at 10% Significance Level**											
558												
559	**Lognormal Statistics**											
560				Minimum of Logged Data	1.658	Mean of logged Data	4.012					
561				Maximum of Logged Data	7.596	SD of logged Data	1.488					
562												
563	**Assuming Lognormal Distribution**											
564				95% H-UCL	329.4	90% Chebyshev (MVUE) UCL	300.1					
565				95% Chebyshev (MVUE) UCL	364.1	97.5% Chebyshev (MVUE) UCL	452.9					
566				99% Chebyshev (MVUE) UCL	627.4							
567												
568	**Nonparametric Distribution Free UCL Statistics**											
569	**Data appear to follow a Discernible Distribution**											
570												
571	**Nonparametric Distribution Free UCLs**											
572				95% CLT UCL	278.1	95% BCA Bootstrap UCL	316.2					
573				95% Standard Bootstrap UCL	275	95% Bootstrap-t UCL	355.6					
574				95% Hall's Bootstrap UCL	342.9	95% Percentile Bootstrap UCL	280.1					
575				90% Chebyshev(Mean, Sd) UCL	355.9	95% Chebyshev(Mean, Sd) UCL	433.9					
576				97.5% Chebyshev(Mean, Sd) UCL	542.1	99% Chebyshev(Mean, Sd) UCL	754.7					
577												
578	**Suggested UCL to Use**											
579				95% H-UCL	329.4							
580												
581	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
582	**Please verify the data were collected from random locations.**											
583	**If the data were collected using judgmental or other non-random methods,**											
584	**then contact a statistician to correctly calculate UCLs.**											
585												
586	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
587	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
588	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
589												
590												
591	**Manganese**											
592												
593	**General Statistics**											
594				Total Number of Observations	6	Number of Distinct Observations	6					
595						Number of Missing Observations	20					
596				Minimum	66.7	Mean	1403					
597				Maximum	7280	Median	244.5					
598				SD	2884	Std. Error of Mean	1178					
599				Coefficient of Variation	2.056	Skewness	2.429					
600												
601	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
602	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
603	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											

604	**The Chebyshev UCL often results in gross overestimates of the mean.**											
605	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
606												
607	**Normal GOF Test**											
608				Shapiro Wilk Test Statistic		0.549	**Shapiro Wilk GOF Test**					
609				1% Shapiro Wilk Critical Value		0.713	Data Not Normal at 1% Significance Level					
610				Lilliefors Test Statistic		0.456	**Lilliefors GOF Test**					
611				1% Lilliefors Critical Value		0.373	Data Not Normal at 1% Significance Level					
612	**Data Not Normal at 1% Significance Level**											
613												
614	**Assuming Normal Distribution**											
615				**95% Normal UCL**			**95% UCLs (Adjusted for Skewness)**					
616				95% Student's-t UCL		3776	95% Adjusted-CLT UCL (Chen-1995)					4588
617							95% Modified-t UCL (Johnson-1978)					3971
618												
619	**Gamma GOF Test**											
620				A-D Test Statistic		0.81	**Anderson-Darling Gamma GOF Test**					
621				5% A-D Critical Value		0.747	Data Not Gamma Distributed at 5% Significance Level					
622				K-S Test Statistic		0.351	**Kolmogorov-Smirnov Gamma GOF Test**					
623				5% K-S Critical Value		0.351	Detected data appear Gamma Distributed at 5% Significance Level					
624	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
625	**Note GOF tests may be unreliable for small sample sizes**											
626												
627	**Gamma Statistics**											
628				k hat (MLE)		0.43	k star (bias corrected MLE)					0.326
629				Theta hat (MLE)		3264	Theta star (bias corrected MLE)					4303
630				nu hat (MLE)		5.159	nu star (bias corrected)					3.913
631				MLE Mean (bias corrected)		1403	MLE Sd (bias corrected)					2457
632							Approximate Chi Square Value (0.05)					0.688
633				Adjusted Level of Significance		0.0122	Adjusted Chi Square Value					0.332
634												
635	**Assuming Gamma Distribution**											
636				95% Approximate Gamma UCL		7985	95% Adjusted Gamma UCL					16526
637												
638	**Lognormal GOF Test**											
639				Shapiro Wilk Test Statistic		0.86	**Shapiro Wilk Lognormal GOF Test**					
640				10% Shapiro Wilk Critical Value		0.826	Data appear Lognormal at 10% Significance Level					
641				Lilliefors Test Statistic		0.225	**Lilliefors Lognormal GOF Test**					
642				10% Lilliefors Critical Value		0.298	Data appear Lognormal at 10% Significance Level					
643	**Data appear Lognormal at 10% Significance Level**											
644	**Note GOF tests may be unreliable for small sample sizes**											
645												
646	**Lognormal Statistics**											
647				Minimum of Logged Data		4.2	Mean of logged Data					5.733
648				Maximum of Logged Data		8.893	SD of logged Data					1.749
649												
650	**Assuming Lognormal Distribution**											
651				95% H-UCL		287000	90% Chebyshev (MVUE) UCL					2749
652				95% Chebyshev (MVUE) UCL		3572	97.5% Chebyshev (MVUE) UCL					4714
653				99% Chebyshev (MVUE) UCL		6959						
654												
655	**Nonparametric Distribution Free UCL Statistics**											
656	**Data appear to follow a Discernible Distribution**											
657												
658	**Nonparametric Distribution Free UCLs**											
659				95% CLT UCL		3340	95% BCA Bootstrap UCL					3821
660				95% Standard Bootstrap UCL		3201	95% Bootstrap-t UCL					31652
661				95% Hall's Bootstrap UCL		30553	95% Percentile Bootstrap UCL					3733
662				90% Chebyshev(Mean, Sd) UCL		4936	95% Chebyshev(Mean, Sd) UCL					6536
663				97.5% Chebyshev(Mean, Sd) UCL		8757	99% Chebyshev(Mean, Sd) UCL					13120
664												
665	**Suggested UCL to Use**											
666				Recommendation cannot be provided								
667	**Recommendations are not available due to the sample size and skew of the input data.**											
668	**Consult with a statistician to evaluate the adequacy of your data to support your objectives or explore alternative estimation methods.**											
669												
670												

671	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
672	**Please verify the data were collected from random locations.**											
673	**If the data were collected using judgmental or other non-random methods,**											
674	**then contact a statistician to correctly calculate UCLs.**											
675												
676	When a data set follows an approximate distribution passing only one of the GOF tests,											
677	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
678												
679	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
680	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
681	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
682												
683												
684	**Mercury**											
685												
686	**General Statistics**											
687						Total Number of Observations	43			Number of Distinct Observations	40	
688										Number of Missing Observations	29	
689						Minimum	0.0169			Mean	1.039	
690						Maximum	11			Median	0.456	
691						SD	1.878			Std. Error of Mean	0.286	
692						Coefficient of Variation	1.808			Skewness	3.984	
693												
694	**Normal GOF Test**											
695						Shapiro Wilk Test Statistic	0.533			**Shapiro Wilk GOF Test**		
696						1% Shapiro Wilk Critical Value	0.923			Data Not Normal at 1% Significance Level		
697						Lilliefors Test Statistic	0.322			**Lilliefors GOF Test**		
698						1% Lilliefors Critical Value	0.156			Data Not Normal at 1% Significance Level		
699	**Data Not Normal at 1% Significance Level**											
700												
701	**Assuming Normal Distribution**											
702	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
703						95% Student's-t UCL	1.52			95% Adjusted-CLT UCL (Chen-1995)	1.696	
704										95% Modified-t UCL (Johnson-1978)	1.549	
705												
706	**Gamma GOF Test**											
707						A-D Test Statistic	1.193			**Anderson-Darling Gamma GOF Test**		
708						5% A-D Critical Value	0.8			Data Not Gamma Distributed at 5% Significance Level		
709						K-S Test Statistic	0.155			**Kolmogorov-Smirnov Gamma GOF Test**		
710						5% K-S Critical Value	0.141			Data Not Gamma Distributed at 5% Significance Level		
711	**Data Not Gamma Distributed at 5% Significance Level**											
712												
713	**Gamma Statistics**											
714						k hat (MLE)	0.639			k star (bias corrected MLE)	0.61	
715						Theta hat (MLE)	1.625			Theta star (bias corrected MLE)	1.702	
716						nu hat (MLE)	54.97			nu star (bias corrected)	52.47	
717						MLE Mean (bias corrected)	1.039			MLE Sd (bias corrected)	1.33	
718										Approximate Chi Square Value (0.05)	36.83	
719						Adjusted Level of Significance	0.0444			Adjusted Chi Square Value	36.38	
720												
721	**Assuming Gamma Distribution**											
722						95% Approximate Gamma UCL	1.48			95% Adjusted Gamma UCL	1.498	
723												
724	**Lognormal GOF Test**											
725						Shapiro Wilk Test Statistic	0.976			**Shapiro Wilk Lognormal GOF Test**		
726						10% Shapiro Wilk Critical Value	0.951			Data appear Lognormal at 10% Significance Level		
727						Lilliefors Test Statistic	0.113			**Lilliefors Lognormal GOF Test**		
728						10% Lilliefors Critical Value	0.123			Data appear Lognormal at 10% Significance Level		
729	**Data appear Lognormal at 10% Significance Level**											
730												
731	**Lognormal Statistics**											
732						Minimum of Logged Data	-4.08			Mean of logged Data	-0.92	
733						Maximum of Logged Data	2.398			SD of logged Data	1.456	
734												
735	**Assuming Lognormal Distribution**											
736						95% H-UCL	2.214			90% Chebyshev (MVUE) UCL	2.045	
737						95% Chebyshev (MVUE) UCL	2.475			97.5% Chebyshev (MVUE) UCL	3.071	

738				99% Chebyshev (MVUE) UCL		4.243						
739												
740						**Nonparametric Distribution Free UCL Statistics**							
741						**Data appear to follow a Discernible Distribution**							
742												
743						**Nonparametric Distribution Free UCLs**							
744				95% CLT UCL		1.51				95% BCA Bootstrap UCL		1.769
745				95% Standard Bootstrap UCL		1.516				95% Bootstrap-t UCL		2.009
746				95% Hall's Bootstrap UCL		3.283				95% Percentile Bootstrap UCL		1.574
747				90% Chebyshev(Mean, Sd) UCL		1.898				95% Chebyshev(Mean, Sd) UCL		2.287
748				97.5% Chebyshev(Mean, Sd) UCL		2.827				99% Chebyshev(Mean, Sd) UCL		3.889
749												
750						**Suggested UCL to Use**							
751				95% H-UCL		2.214						
752												
753						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
754						**Please verify the data were collected from random locations.**							
755						**If the data were collected using judgmental or other non-random methods,**							
756						**then contact a statistician to correctly calculate UCLs.**							
757												
758						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
759						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
760						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
761												
762												
763	**Nickel**											
764												
765						**General Statistics**							
766				Total Number of Observations		43				Number of Distinct Observations		41
767										Number of Missing Observations		29
768				Minimum		2.06				Mean		9.563
769				Maximum		28				Median		7.55
770				SD		6.227				Std. Error of Mean		0.95
771				Coefficient of Variation		0.651				Skewness		1.177
772												
773						**Normal GOF Test**							
774				Shapiro Wilk Test Statistic		0.884				**Shapiro Wilk GOF Test**		
775				1% Shapiro Wilk Critical Value		0.923				Data Not Normal at 1% Significance Level		
776				Lilliefors Test Statistic		0.162				**Lilliefors GOF Test**		
777				1% Lilliefors Critical Value		0.156				Data Not Normal at 1% Significance Level		
778						**Data Not Normal at 1% Significance Level**							
779												
780						**Assuming Normal Distribution**							
781				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
782				95% Student's-t UCL		11.16				95% Adjusted-CLT UCL (Chen-1995)		11.31
783										95% Modified-t UCL (Johnson-1978)		11.19
784												
785						**Gamma GOF Test**							
786				A-D Test Statistic		0.426				**Anderson-Darling Gamma GOF Test**		
787				5% A-D Critical Value		0.757				Detected data appear Gamma Distributed at 5% Significance Level		
788				K-S Test Statistic		0.0902				**Kolmogorov-Smirnov Gamma GOF Test**		
789				5% K-S Critical Value		0.136				Detected data appear Gamma Distributed at 5% Significance Level		
790						**Detected data appear Gamma Distributed at 5% Significance Level**							
791												
792						**Gamma Statistics**							
793				k hat (MLE)		2.686				k star (bias corrected MLE)		2.514
794				Theta hat (MLE)		3.56				Theta star (bias corrected MLE)		3.804
795				nu hat (MLE)		231				nu star (bias corrected)		216.2
796				MLE Mean (bias corrected)		9.563				MLE Sd (bias corrected)		6.031
797										Approximate Chi Square Value (0.05)		183.2
798				Adjusted Level of Significance		0.0444				Adjusted Chi Square Value		182.1
799												
800						**Assuming Gamma Distribution**							
801				95% Approximate Gamma UCL		11.29				95% Adjusted Gamma UCL		11.35
802												
803						**Lognormal GOF Test**							
804				Shapiro Wilk Test Statistic		0.98				**Shapiro Wilk Lognormal GOF Test**		

805			10% Shapiro Wilk Critical Value			0.951		Data appear Lognormal at 10% Significance Level				
806			Lilliefors Test Statistic			0.0689		**Lilliefors Lognormal GOF Test**				
807			10% Lilliefors Critical Value			0.123		Data appear Lognormal at 10% Significance Level				
808	**Data appear Lognormal at 10% Significance Level**											
809												
810	**Lognormal Statistics**											
811			Minimum of Logged Data			0.723		Mean of logged Data				2.06
812			Maximum of Logged Data			3.332		SD of logged Data				0.643
813												
814	**Assuming Lognormal Distribution**											
815			95% H-UCL			11.78		90% Chebyshev (MVUE) UCL				12.64
816			95% Chebyshev (MVUE) UCL			14.01		97.5% Chebyshev (MVUE) UCL				15.92
817			99% Chebyshev (MVUE) UCL			19.68						
818												
819	**Nonparametric Distribution Free UCL Statistics**											
820	**Data appear to follow a Discernible Distribution**											
821												
822	**Nonparametric Distribution Free UCLs**											
823			95% CLT UCL			11.12		95% BCA Bootstrap UCL				11.34
824			95% Standard Bootstrap UCL			11.11		95% Bootstrap-t UCL				11.45
825			95% Hall's Bootstrap UCL			11.37		95% Percentile Bootstrap UCL				11.21
826			90% Chebyshev(Mean, Sd) UCL			12.41		95% Chebyshev(Mean, Sd) UCL				13.7
827			97.5% Chebyshev(Mean, Sd) UCL			15.49		99% Chebyshev(Mean, Sd) UCL				19.01
828												
829	**Suggested UCL to Use**											
830			95% Adjusted Gamma UCL			11.35						
831												
832	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
833	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
834	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
835												
836	**Silver**											
837												
838	**General Statistics**											
839			Total Number of Observations			43		Number of Distinct Observations				40
840								Number of Missing Observations				29
841			Number of Detects			19		Number of Non-Detects				24
842			Number of Distinct Detects			19		Number of Distinct Non-Detects				21
843			Minimum Detect			0.225		Minimum Non-Detect				0.095
844			Maximum Detect			13.4		Maximum Non-Detect				0.785
845			Variance Detects			13.95		Percent Non-Detects				55.81%
846			Mean Detects			2.113		SD Detects				3.735
847			Median Detects			0.537		CV Detects				1.768
848			Skewness Detects			2.504		Kurtosis Detects				5.554
849			Mean of Logged Detects			-0.242		SD of Logged Detects				1.308
850												
851	**Normal GOF Test on Detects Only**											
852			Shapiro Wilk Test Statistic			0.56		**Shapiro Wilk GOF Test**				
853			1% Shapiro Wilk Critical Value			0.863		Detected Data Not Normal at 1% Significance Level				
854			Lilliefors Test Statistic			0.331		**Lilliefors GOF Test**				
855			1% Lilliefors Critical Value			0.229		Detected Data Not Normal at 1% Significance Level				
856	**Detected Data Not Normal at 1% Significance Level**											
857												
858	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
859			KM Mean			1.026		KM Standard Error of Mean				0.408
860			90KM SD			2.604		95% KM (BCA) UCL				1.816
861			95% KM (t) UCL			1.713		95% KM (Percentile Bootstrap) UCL				1.759
862			95% KM (z) UCL			1.697		95% KM Bootstrap t UCL				3.204
863			90% KM Chebyshev UCL			2.25		95% KM Chebyshev UCL				2.805
864			97.5% KM Chebyshev UCL			3.575		99% KM Chebyshev UCL				5.087
865												
866	**Gamma GOF Tests on Detected Observations Only**											
867			A-D Test Statistic			1.875		**Anderson-Darling GOF Test**				
868			5% A-D Critical Value			0.791		Detected Data Not Gamma Distributed at 5% Significance Level				
869			K-S Test Statistic			0.256		**Kolmogorov-Smirnov GOF**				
870			5% K-S Critical Value			0.208		Detected Data Not Gamma Distributed at 5% Significance Level				
871	**Detected Data Not Gamma Distributed at 5% Significance Level**											

872											
873	**Gamma Statistics on Detected Data Only**										
874					k hat (MLE)	0.621			k star (bias corrected MLE)		0.558
875					Theta hat (MLE)	3.403			Theta star (bias corrected MLE)		3.787
876					nu hat (MLE)	23.59			nu star (bias corrected)		21.2
877					Mean (detects)	2.113					
878											
879	**Gamma ROS Statistics using Imputed Non-Detects**										
880	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
881	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
882	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
883	This is especially true when the sample size is small.										
884	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
885					Minimum	0.01			Mean		0.939
886					Maximum	13.4			Median		0.01
887					SD	2.664			CV		2.836
888					k hat (MLE)	0.269			k star (bias corrected MLE)		0.265
889					Theta hat (MLE)	3.497			Theta star (bias corrected MLE)		3.539
890					nu hat (MLE)	23.09			nu star (bias corrected)		22.82
891					Adjusted Level of Significance (β)	0.0444					
892					Approximate Chi Square Value (22.82, α)	12.95			Adjusted Chi Square Value (22.82, β)		12.69
893					95% Gamma Approximate UCL	1.654			95% Gamma Adjusted UCL		1.688
894											
895	**Estimates of Gamma Parameters using KM Estimates**										
896					Mean (KM)	1.026			SD (KM)		2.604
897					Variance (KM)	6.779			SE of Mean (KM)		0.408
898					k hat (KM)	0.155			k star (KM)		0.16
899					nu hat (KM)	13.36			nu star (KM)		13.76
900					theta hat (KM)	6.607			theta star (KM)		6.414
901					80% gamma percentile (KM)	1.175			90% gamma percentile (KM)		3.066
902					95% gamma percentile (KM)	5.574			99% gamma percentile (KM)		12.76
903											
904	**Gamma Kaplan-Meier (KM) Statistics**										
905					Approximate Chi Square Value (13.76, α)	6.405			Adjusted Chi Square Value (13.76, β)		6.231
906					95% KM Approximate Gamma UCL	2.204			95% KM Adjusted Gamma UCL		2.265
907											
908	**Lognormal GOF Test on Detected Observations Only**										
909					Shapiro Wilk Test Statistic	0.842			**Shapiro Wilk GOF Test**		
910					10% Shapiro Wilk Critical Value	0.917			Detected Data Not Lognormal at 10% Significance Level		
911					Lilliefors Test Statistic	0.19			**Lilliefors GOF Test**		
912					10% Lilliefors Critical Value	0.18			Detected Data Not Lognormal at 10% Significance Level		
913	**Detected Data Not Lognormal at 10% Significance Level**										
914											
915	**Lognormal ROS Statistics Using Imputed Non-Detects**										
916					Mean in Original Scale	0.982			Mean in Log Scale		-1.539
917					SD in Original Scale	2.649			SD in Log Scale		1.513
918					95% t UCL (assumes normality of ROS data)	1.661			95% Percentile Bootstrap UCL		1.66
919					95% BCA Bootstrap UCL	1.867			95% Bootstrap t UCL		3.097
920					95% H-UCL (Log ROS)	1.356					
921											
922	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
923					KM Mean (logged)	-1.187			KM Geo Mean		0.305
924					KM SD (logged)	1.253			95% Critical H Value (KM-Log)		2.658
925					KM Standard Error of Mean (logged)	0.211			95% H-UCL (KM -Log)		1.118
926					KM SD (logged)	1.253			95% Critical H Value (KM-Log)		2.658
927					KM Standard Error of Mean (logged)	0.211					
928											
929	**DL/2 Statistics**										
930	**DL/2 Normal**								**DL/2 Log-Transformed**		
931					Mean in Original Scale	1.022			Mean in Log Scale		-1.226
932					SD in Original Scale	2.636			SD in Log Scale		1.318
933					95% t UCL (Assumes normality)	1.698			95% H-Stat UCL		1.222
934	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
935											
936	**Nonparametric Distribution Free UCL Statistics**										
937	**Data do not follow a Discernible Distribution**										
938											

939	**Suggested UCL to Use**											
940					95% KM (t) UCL	1.713						
941												
942	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
943	**Please verify the data were collected from random locations.**											
944	**If the data were collected using judgmental or other non-random methods,**											
945	**then contact a statistician to correctly calculate UCLs.**											
946												
947	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
948	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
949	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
950												
951												
952	**Zinc**											
953												
954	**General Statistics**											
955					Total Number of Observations	43			Number of Distinct Observations	42		
956									Number of Missing Observations	29		
957					Minimum	26.8			Mean	141.1		
958					Maximum	1100			Median	83.9		
959					SD	180.1			Std. Error of Mean	27.47		
960					Coefficient of Variation	1.277			Skewness	3.98		
961												
962	**Normal GOF Test**											
963					Shapiro Wilk Test Statistic	0.562			**Shapiro Wilk GOF Test**			
964					1% Shapiro Wilk Critical Value	0.923			Data Not Normal at 1% Significance Level			
965					Lilliefors Test Statistic	0.293			**Lilliefors GOF Test**			
966					1% Lilliefors Critical Value	0.156			Data Not Normal at 1% Significance Level			
967	**Data Not Normal at 1% Significance Level**											
968												
969	**Assuming Normal Distribution**											
970					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**			
971					95% Student's-t UCL	187.3			95% Adjusted-CLT UCL (Chen-1995)	204.1		
972									95% Modified-t UCL (Johnson-1978)	190.1		
973												
974	**Gamma GOF Test**											
975					A-D Test Statistic	2.127			**Anderson-Darling Gamma GOF Test**			
976					5% A-D Critical Value	0.768			Data Not Gamma Distributed at 5% Significance Level			
977					K-S Test Statistic	0.195			**Kolmogorov-Smirnov Gamma GOF Test**			
978					5% K-S Critical Value	0.137			Data Not Gamma Distributed at 5% Significance Level			
979	**Data Not Gamma Distributed at 5% Significance Level**											
980												
981	**Gamma Statistics**											
982					k hat (MLE)	1.454			k star (bias corrected MLE)	1.368		
983					Theta hat (MLE)	97			Theta star (bias corrected MLE)	103.1		
984					nu hat (MLE)	125.1			nu star (bias corrected)	117.7		
985					MLE Mean (bias corrected)	141.1			MLE Sd (bias corrected)	120.6		
986									Approximate Chi Square Value (0.05)	93.64		
987					Adjusted Level of Significance	0.0444			Adjusted Chi Square Value	92.89		
988												
989	**Assuming Gamma Distribution**											
990					95% Approximate Gamma UCL	177.3			95% Adjusted Gamma UCL	178.7		
991												
992	**Lognormal GOF Test**											
993					Shapiro Wilk Test Statistic	0.943			**Shapiro Wilk Lognormal GOF Test**			
994					10% Shapiro Wilk Critical Value	0.951			Data Not Lognormal at 10% Significance Level			
995					Lilliefors Test Statistic	0.119			**Lilliefors Lognormal GOF Test**			
996					10% Lilliefors Critical Value	0.123			Data appear Lognormal at 10% Significance Level			
997	**Data appear Approximate Lognormal at 10% Significance Level**											
998												
999	**Lognormal Statistics**											
1000					Minimum of Logged Data	3.288			Mean of logged Data	4.568		
1001					Maximum of Logged Data	7.003			SD of logged Data	0.787		
1002												
1003	**Assuming Lognormal Distribution**											
1004					95% H-UCL	170.3			90% Chebyshev (MVUE) UCL	182.2		
1005					95% Chebyshev (MVUE) UCL	205.8			97.5% Chebyshev (MVUE) UCL	238.6		

1006				99% Chebyshev (MVUE) UCL		303						
1007												
1008						**Nonparametric Distribution Free UCL Statistics**							
1009						**Data appear to follow a Discernible Distribution**							
1010												
1011						**Nonparametric Distribution Free UCLs**							
1012				95% CLT UCL		186.3				95% BCA Bootstrap UCL		213.5
1013				95% Standard Bootstrap UCL		186.4				95% Bootstrap-t UCL		228.7
1014				95% Hall's Bootstrap UCL		366.4				95% Percentile Bootstrap UCL		191.4
1015				90% Chebyshev(Mean, Sd) UCL		223.5				95% Chebyshev(Mean, Sd) UCL		260.8
1016				97.5% Chebyshev(Mean, Sd) UCL		312.6				99% Chebyshev(Mean, Sd) UCL		414.4
1017												
1018						**Suggested UCL to Use**							
1019				95% H-UCL		170.3						
1020												
1021						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1022						**Please verify the data were collected from random locations.**							
1023						**If the data were collected using judgmental or other non-random methods,**							
1024						**then contact a statistician to correctly calculate UCLs.**							
1025												
1026						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1027						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1028						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1029												
1030	**2-Methylnaphthalene**											
1031												
1032						**General Statistics**							
1033				Total Number of Observations		6				Number of Distinct Observations		6
1034										Number of Missing Observations		20
1035				Number of Detects		2				Number of Non-Detects		4
1036				Number of Distinct Detects		2				Number of Distinct Non-Detects		4
1037				Minimum Detect		180				Minimum Non-Detect		85
1038				Maximum Detect		780				Maximum Non-Detect		1950
1039				Variance Detects		180000				Percent Non-Detects		66.67%
1040				Mean Detects		480				SD Detects		424.3
1041				Median Detects		480				CV Detects		0.884
1042				Skewness Detects		N/A				Kurtosis Detects		N/A
1043				Mean of Logged Detects		5.926				SD of Logged Detects		1.037
1044												
1045						**Warning: Data set has only 2 Detected Values.**							
1046						**This is not enough to compute meaningful or reliable statistics and estimates.**							
1047												
1048												
1049						**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**							
1050						**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**							
1051						**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**							
1052						**The Chebyshev UCL often results in gross overestimates of the mean.**							
1053						**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**							
1054												
1055						**Normal GOF Test on Detects Only**							
1056						**Not Enough Data to Perform GOF Test**							
1057												
1058						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1059				KM Mean		262				KM Standard Error of Mean		168.2
1060				90KM SD		262.5				95% KM (BCA) UCL		N/A
1061				95% KM (t) UCL		600.8				95% KM (Percentile Bootstrap) UCL		N/A
1062				95% KM (z) UCL		538.6				95% KM Bootstrap t UCL		N/A
1063				90% KM Chebyshev UCL		766.5				95% KM Chebyshev UCL		995
1064				97.5% KM Chebyshev UCL		1312				99% KM Chebyshev UCL		1935
1065												
1066						**Gamma GOF Tests on Detected Observations Only**							
1067						**Not Enough Data to Perform GOF Test**							
1068												
1069						**Gamma Statistics on Detected Data Only**							
1070				k hat (MLE)		2.171				k star (bias corrected MLE)		N/A
1071				Theta hat (MLE)		221.1				Theta star (bias corrected MLE)		N/A
1072				nu hat (MLE)		8.684				nu star (bias corrected)		N/A

1073					Mean (detects)	480						
1074												
1075	**Estimates of Gamma Parameters using KM Estimates**											
1076					Mean (KM)	262				SD (KM)	262.5	
1077					Variance (KM)	68886				SE of Mean (KM)	168.2	
1078					k hat (KM)	0.996				k star (KM)	0.609	
1079					nu hat (KM)	11.96				nu star (KM)	7.312	
1080					theta hat (KM)	262.9				theta star (KM)	430	
1081					80% gamma percentile (KM)	431.8				90% gamma percentile (KM)	679	
1082					95% gamma percentile (KM)	937.5				99% gamma percentile (KM)	1562	
1083												
1084	**Gamma Kaplan-Meier (KM) Statistics**											
1085										Adjusted Level of Significance (β)	0.0122	
1086					Approximate Chi Square Value (7.31, α)	2.344				Adjusted Chi Square Value (7.31, β)	1.459	
1087					95% KM Approximate Gamma UCL	817.5				95% KM Adjusted Gamma UCL	1313	
1088												
1089	**Lognormal GOF Test on Detected Observations Only**											
1090	**Not Enough Data to Perform GOF Test**											
1091												
1092	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1093					Mean in Original Scale	216.3				Mean in Log Scale	4.876	
1094					SD in Original Scale	280.2				SD in Log Scale	1.016	
1095					95% t UCL (assumes normality of ROS data)	446.8				95% Percentile Bootstrap UCL	433.7	
1096					95% BCA Bootstrap UCL	455.5				95% Bootstrap t UCL	1366	
1097					95% H-UCL (Log ROS)	1470						
1098												
1099	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1100					KM Mean (logged)	5.186				KM Geo Mean	178.8	
1101					KM SD (logged)	0.809				95% Critical H Value (KM-Log)	3.505	
1102					KM Standard Error of Mean (logged)	0.554				95% H-UCL (KM -Log)	882.2	
1103					KM SD (logged)	0.809				95% Critical H Value (KM-Log)	3.505	
1104					KM Standard Error of Mean (logged)	0.554						
1105												
1106	**DL/2 Statistics**											
1107	**DL/2 Normal**									**DL/2 Log-Transformed**		
1108					Mean in Original Scale	370				Mean in Log Scale	5.346	
1109					SD in Original Scale	400.3				SD in Log Scale	1.205	
1110					95% t UCL (Assumes normality)	699.3				95% H-Stat UCL	5886	
1111	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1112												
1113	**Nonparametric Distribution Free UCL Statistics**											
1114	**Data do not follow a Discernible Distribution**											
1115												
1116	**Suggested UCL to Use**											
1117					Recommendation cannot be provided							
1118												
1119	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1120	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1121	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1122												
1123	**Acenaphthene**											
1124												
1125	**General Statistics**											
1126					Total Number of Observations	33				Number of Distinct Observations	27	
1127										Number of Missing Observations	27	
1128					Number of Detects	7				Number of Non-Detects	26	
1129					Number of Distinct Detects	7				Number of Distinct Non-Detects	21	
1130					Minimum Detect	0.9				Minimum Non-Detect	22.5	
1131					Maximum Detect	480				Maximum Non-Detect	1950	
1132					Variance Detects	27516				Percent Non-Detects	78.79%	
1133					Mean Detects	113.1				SD Detects	165.9	
1134					Median Detects	79				CV Detects	1.466	
1135					Skewness Detects	2.373				Kurtosis Detects	5.954	
1136					Mean of Logged Detects	3.603				SD of Logged Detects	2.054	
1137												
1138	**Normal GOF Test on Detects Only**											
1139					Shapiro Wilk Test Statistic	0.658				**Shapiro Wilk GOF Test**		

1140				1% Shapiro Wilk Critical Value		0.73		Detected Data Not Normal at 1% Significance Level				
1141				Lilliefors Test Statistic		0.408		**Lilliefors GOF Test**				
1142				1% Lilliefors Critical Value		0.35		Detected Data Not Normal at 1% Significance Level				
1143				**Detected Data Not Normal at 1% Significance Level**								
1144												
1145				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
1146				KM Mean		42.73		KM Standard Error of Mean				18.56
1147				90KM SD		85.9		95% KM (BCA) UCL				80.32
1148				95% KM (t) UCL		74.18		95% KM (Percentile Bootstrap) UCL				74.65
1149				95% KM (z) UCL		73.27		95% KM Bootstrap t UCL				88.14
1150				90% KM Chebyshev UCL		98.42		95% KM Chebyshev UCL				123.6
1151				97.5% KM Chebyshev UCL		158.7		99% KM Chebyshev UCL				227.4
1152				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
1153												
1154				**Gamma GOF Tests on Detected Observations Only**								
1155				A-D Test Statistic		0.355		**Anderson-Darling GOF Test**				
1156				5% A-D Critical Value		0.748		Detected data appear Gamma Distributed at 5% Significance Level				
1157				K-S Test Statistic		0.236		**Kolmogorov-Smirnov GOF**				
1158				5% K-S Critical Value		0.326		Detected data appear Gamma Distributed at 5% Significance Level				
1159				**Detected data appear Gamma Distributed at 5% Significance Level**								
1160				**Note GOF tests may be unreliable for small sample sizes**								
1161												
1162				**Gamma Statistics on Detected Data Only**								
1163				k hat (MLE)		0.555		k star (bias corrected MLE)				0.413
1164				Theta hat (MLE)		203.7		Theta star (bias corrected MLE)				274.2
1165				nu hat (MLE)		7.773		nu star (bias corrected)				5.775
1166				Mean (detects)		113.1						
1167												
1168				**Gamma ROS Statistics using Imputed Non-Detects**								
1169				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
1170				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
1171				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
1172				This is especially true when the sample size is small.								
1173				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
1174				Minimum		0.01		Mean				28.11
1175				Maximum		480		Median				0.01
1176				SD		85.73		CV				3.049
1177				k hat (MLE)		0.142		k star (bias corrected MLE)				0.15
1178				Theta hat (MLE)		197.5		Theta star (bias corrected MLE)				187.9
1179				nu hat (MLE)		9.396		nu star (bias corrected)				9.875
1180				Adjusted Level of Significance (β)		0.0419						
1181				Approximate Chi Square Value (9.88, α)		3.864		Adjusted Chi Square Value (9.88, β)				3.672
1182				95% Gamma Approximate UCL		71.85		95% Gamma Adjusted UCL				75.62
1183												
1184				**Estimates of Gamma Parameters using KM Estimates**								
1185				Mean (KM)		42.73		SD (KM)				85.9
1186				Variance (KM)		7379		SE of Mean (KM)				18.56
1187				k hat (KM)		0.247		k star (KM)				0.245
1188				nu hat (KM)		16.33		nu star (KM)				16.18
1189				theta hat (KM)		172.7		theta star (KM)				174.3
1190				80% gamma percentile (KM)		61.63		90% gamma percentile (KM)				128.4
1191				95% gamma percentile (KM)		208.1		99% gamma percentile (KM)				420.6
1192												
1193				**Gamma Kaplan-Meier (KM) Statistics**								
1194				Approximate Chi Square Value (16.18, α)		8.091		Adjusted Chi Square Value (16.18, β)				7.796
1195				95% KM Approximate Gamma UCL		85.47		95% KM Adjusted Gamma UCL				88.7
1196				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
1197												
1198				**Lognormal GOF Test on Detected Observations Only**								
1199				Shapiro Wilk Test Statistic		0.901		**Shapiro Wilk GOF Test**				
1200				10% Shapiro Wilk Critical Value		0.838		Detected Data appear Lognormal at 10% Significance Level				
1201				Lilliefors Test Statistic		0.266		**Lilliefors GOF Test**				
1202				10% Lilliefors Critical Value		0.28		Detected Data appear Lognormal at 10% Significance Level				
1203				**Detected Data appear Lognormal at 10% Significance Level**								
1204				**Note GOF tests may be unreliable for small sample sizes**								
1205												
1206				**Lognormal ROS Statistics Using Imputed Non-Detects**								

1207				Mean in Original Scale	31.04					Mean in Log Scale	2.311	
1208				SD in Original Scale	84.09					SD in Log Scale	1.264	
1209			95% t UCL (assumes normality of ROS data)		55.84					95% Percentile Bootstrap UCL	58.94	
1210				95% BCA Bootstrap UCL	73.35					95% Bootstrap t UCL	121.3	
1211				95% H-UCL (Log ROS)	41.66							
1212												
1213				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
1214				KM Mean (logged)	2.217					KM Geo Mean	9.182	
1215				KM SD (logged)	1.919					95% Critical H Value (KM-Log)	3.725	
1216				KM Standard Error of Mean (logged)	0.717					95% H-UCL (KM -Log)	204.7	
1217				KM SD (logged)	1.919					95% Critical H Value (KM-Log)	3.725	
1218				KM Standard Error of Mean (logged)	0.717							
1219												
1220				**DL/2 Statistics**								
1221				**DL/2 Normal**						**DL/2 Log-Transformed**		
1222				Mean in Original Scale	97.5					Mean in Log Scale	3.89	
1223				SD in Original Scale	177					SD in Log Scale	1.224	
1224				95% t UCL (Assumes normality)	149.7					95% H-Stat UCL	186.7	
1225				**DL/2 is not a recommended method, provided for comparisons and historical reasons**								
1226												
1227				**Nonparametric Distribution Free UCL Statistics**								
1228				**Detected Data appear Gamma Distributed at 5% Significance Level**								
1229												
1230				**Suggested UCL to Use**								
1231				95% KM Adjusted Gamma UCL	88.7							
1232												
1233				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
1234				**Please verify the data were collected from random locations.**								
1235				**If the data were collected using judgmental or other non-random methods,**								
1236				**then contact a statistician to correctly calculate UCLs.**								
1237												
1238				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
1239				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
1240				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
1241												
1242	**Acenaphthylene**											
1243												
1244				**General Statistics**								
1245				Total Number of Observations	33					Number of Distinct Observations	28	
1246										Number of Missing Observations	27	
1247				Number of Detects	14					Number of Non-Detects	19	
1248				Number of Distinct Detects	14					Number of Distinct Non-Detects	15	
1249				Minimum Detect	9.5					Minimum Non-Detect	22.5	
1250				Maximum Detect	2400					Maximum Non-Detect	1950	
1251				Variance Detects	373410					Percent Non-Detects	57.58%	
1252				Mean Detects	347.8					SD Detects	611.1	
1253				Median Detects	160					CV Detects	1.757	
1254				Skewness Detects	3.342					Kurtosis Detects	11.77	
1255				Mean of Logged Detects	5.041					SD of Logged Detects	1.31	
1256												
1257				**Normal GOF Test on Detects Only**								
1258				Shapiro Wilk Test Statistic	0.515					**Shapiro Wilk GOF Test**		
1259				1% Shapiro Wilk Critical Value	0.825					Detected Data Not Normal at 1% Significance Level		
1260				Lilliefors Test Statistic	0.343					**Lilliefors GOF Test**		
1261				1% Lilliefors Critical Value	0.263					Detected Data Not Normal at 1% Significance Level		
1262				**Detected Data Not Normal at 1% Significance Level**								
1263												
1264				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
1265				KM Mean	167					KM Standard Error of Mean	75.37	
1266				90KM SD	415.2					95% KM (BCA) UCL	321	
1267				95% KM (t) UCL	294.6					95% KM (Percentile Bootstrap) UCL	303.6	
1268				95% KM (z) UCL	290.9					95% KM Bootstrap t UCL	550	
1269				90% KM Chebyshev UCL	393.1					95% KM Chebyshev UCL	495.5	
1270				97.5% KM Chebyshev UCL	637.6					99% KM Chebyshev UCL	916.9	
1271												
1272				**Gamma GOF Tests on Detected Observations Only**								
1273				A-D Test Statistic	0.681					**Anderson-Darling GOF Test**		

1274	5% A-D Critical Value				0.772	Detected data appear Gamma Distributed at 5% Significance Level						
1275	K-S Test Statistic				0.222	**Kolmogorov-Smirnov GOF**						
1276	5% K-S Critical Value				0.238	Detected data appear Gamma Distributed at 5% Significance Level						
1277	**Detected data appear Gamma Distributed at 5% Significance Level**											
1278												
1279	**Gamma Statistics on Detected Data Only**											
1280	k hat (MLE)				0.74	k star (bias corrected MLE)						0.629
1281	Theta hat (MLE)				470	Theta star (bias corrected MLE)						552.9
1282	nu hat (MLE)				20.72	nu star (bias corrected)						17.61
1283	Mean (detects)				347.8							
1284												
1285	**Gamma ROS Statistics using Imputed Non-Detects**											
1286	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1287	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1288	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1289	This is especially true when the sample size is small.											
1290	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1291	Minimum				0.01	Mean						147.5
1292	Maximum				2400	Median						0.01
1293	SD				426.8	CV						2.893
1294	k hat (MLE)				0.141	k star (bias corrected MLE)						0.148
1295	Theta hat (MLE)				1048	Theta star (bias corrected MLE)						995.3
1296	nu hat (MLE)				9.295	nu star (bias corrected)						9.784
1297	Adjusted Level of Significance (β)				0.0419							
1298	Approximate Chi Square Value (9.78, α)				3.807	Adjusted Chi Square Value (9.78, β)						3.616
1299	95% Gamma Approximate UCL				379.2	95% Gamma Adjusted UCL						399.1
1300												
1301	**Estimates of Gamma Parameters using KM Estimates**											
1302	Mean (KM)				167	SD (KM)						415.2
1303	Variance (KM)				172354	SE of Mean (KM)						75.37
1304	k hat (KM)				0.162	k star (KM)						0.167
1305	nu hat (KM)				10.68	nu star (KM)						11.04
1306	theta hat (KM)				1032	theta star (KM)						998.3
1307	80% gamma percentile (KM)				197.4	90% gamma percentile (KM)						501.1
1308	95% gamma percentile (KM)				898.4	99% gamma percentile (KM)						2027
1309												
1310	**Gamma Kaplan-Meier (KM) Statistics**											
1311	Approximate Chi Square Value (11.04, α)				4.601	Adjusted Chi Square Value (11.04, β)						4.388
1312	95% KM Approximate Gamma UCL				400.6	95% KM Adjusted Gamma UCL						420.1
1313												
1314	**Lognormal GOF Test on Detected Observations Only**											
1315	Shapiro Wilk Test Statistic				0.972	**Shapiro Wilk GOF Test**						
1316	10% Shapiro Wilk Critical Value				0.895	Detected Data appear Lognormal at 10% Significance Level						
1317	Lilliefors Test Statistic				0.132	**Lilliefors GOF Test**						
1318	10% Lilliefors Critical Value				0.208	Detected Data appear Lognormal at 10% Significance Level						
1319	**Detected Data appear Lognormal at 10% Significance Level**											
1320												
1321	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1322	Mean in Original Scale				161.2	Mean in Log Scale						3.881
1323	SD in Original Scale				422.2	SD in Log Scale						1.375
1324	95% t UCL (assumes normality of ROS data)				285.7	95% Percentile Bootstrap UCL						290
1325	95% BCA Bootstrap UCL				381	95% Bootstrap t UCL						573.3
1326	95% H-UCL (Log ROS)				254.5							
1327												
1328	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1329	KM Mean (logged)				3.846	KM Geo Mean						46.82
1330	KM SD (logged)				1.512	95% Critical H Value (KM-Log)						3.121
1331	KM Standard Error of Mean (logged)				0.335	95% H-UCL (KM -Log)						337.9
1332	KM SD (logged)				1.512	95% Critical H Value (KM-Log)						3.121
1333	KM Standard Error of Mean (logged)				0.335							
1334												
1335	**DL/2 Statistics**											
1336	**DL/2 Normal**					**DL/2 Log-Transformed**						
1337	Mean in Original Scale				203.5	Mean in Log Scale						4.377
1338	SD in Original Scale				439.5	SD in Log Scale						1.25
1339	95% t UCL (Assumes normality)				333.1	95% H-Stat UCL						319.9
1340	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

	A	B	C	D	E	F	G	H	I	J	K	L
1341												
1342	**Nonparametric Distribution Free UCL Statistics**											
1343	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1344												
1345	**Suggested UCL to Use**											
1346	95% KM Adjusted Gamma UCL					420.1						
1347												
1348	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1349	**Please verify the data were collected from random locations.**											
1350	**If the data were collected using judgmental or other non-random methods,**											
1351	**then contact a statistician to correctly calculate UCLs.**											
1352												
1353	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1354	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1355	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1356												
1357	**Anthracene**											
1358												
1359	**General Statistics**											
1360	Total Number of Observations					33				Number of Distinct Observations		28
1361										Number of Missing Observations		27
1362	Number of Detects					14				Number of Non-Detects		19
1363	Number of Distinct Detects					13				Number of Distinct Non-Detects		15
1364	Minimum Detect					12				Minimum Non-Detect		22.5
1365	Maximum Detect					2100				Maximum Non-Detect		1950
1366	Variance Detects					278709				Percent Non-Detects		57.58%
1367	Mean Detects					388.6				SD Detects		527.9
1368	Median Detects					250				CV Detects		1.358
1369	Skewness Detects					2.948				Kurtosis Detects		9.772
1370	Mean of Logged Detects					5.305				SD of Logged Detects		1.278
1371												
1372	**Normal GOF Test on Detects Only**											
1373	Shapiro Wilk Test Statistic					0.627				**Shapiro Wilk GOF Test**		
1374	1% Shapiro Wilk Critical Value					0.825				Detected Data Not Normal at 1% Significance Level		
1375	Lilliefors Test Statistic					0.294				**Lilliefors GOF Test**		
1376	1% Lilliefors Critical Value					0.263				Detected Data Not Normal at 1% Significance Level		
1377	**Detected Data Not Normal at 1% Significance Level**											
1378												
1379	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1380	KM Mean					187.1				KM Standard Error of Mean		68.4
1381	90KM SD					375.9				95% KM (BCA) UCL		312.8
1382	95% KM (t) UCL					303				95% KM (Percentile Bootstrap) UCL		304.5
1383	95% KM (z) UCL					299.6				95% KM Bootstrap t UCL		436.7
1384	90% KM Chebyshev UCL					392.3				95% KM Chebyshev UCL		485.3
1385	97.5% KM Chebyshev UCL					614.3				99% KM Chebyshev UCL		867.7
1386												
1387	**Gamma GOF Tests on Detected Observations Only**											
1388	A-D Test Statistic					0.377				**Anderson-Darling GOF Test**		
1389	5% A-D Critical Value					0.765				Detected data appear Gamma Distributed at 5% Significance Level		
1390	K-S Test Statistic					0.16				**Kolmogorov-Smirnov GOF**		
1391	5% K-S Critical Value					0.236				Detected data appear Gamma Distributed at 5% Significance Level		
1392	**Detected data appear Gamma Distributed at 5% Significance Level**											
1393												
1394	**Gamma Statistics on Detected Data Only**											
1395	k hat (MLE)					0.89				k star (bias corrected MLE)		0.747
1396	Theta hat (MLE)					436.7				Theta star (bias corrected MLE)		520.3
1397	nu hat (MLE)					24.92				nu star (bias corrected)		20.91
1398	Mean (detects)					388.6						
1399												
1400	**Gamma ROS Statistics using Imputed Non-Detects**											
1401	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1402	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1403	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1404	This is especially true when the sample size is small.											
1405	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1406	Minimum					0.01				Mean		164.9
1407	Maximum					2100				Median		0.01

	A	B	C	D	E	F	G	H	I	J	K	L
1408					SD	388.9				CV		2.359
1409					k hat (MLE)	0.141				k star (bias corrected MLE)		0.148
1410					Theta hat (MLE)	1171				Theta star (bias corrected MLE)		1112
1411					nu hat (MLE)	9.296				nu star (bias corrected)		9.785
1412					Adjusted Level of Significance (β)	0.0419						
1413					Approximate Chi Square Value (9.78, α)	3.808				Adjusted Chi Square Value (9.78, β)		3.617
1414					95% Gamma Approximate UCL	423.7				95% Gamma Adjusted UCL		446
1415												
1416					**Estimates of Gamma Parameters using KM Estimates**							
1417					Mean (KM)	187.1				SD (KM)		375.9
1418					Variance (KM)	141321				SE of Mean (KM)		68.4
1419					k hat (KM)	0.248				k star (KM)		0.245
1420					nu hat (KM)	16.35				nu star (KM)		16.2
1421					theta hat (KM)	755.3				theta star (KM)		762.4
1422					80% gamma percentile (KM)	269.9				90% gamma percentile (KM)		562.3
1423					95% gamma percentile (KM)	910.7				99% gamma percentile (KM)		1840
1424												
1425					**Gamma Kaplan-Meier (KM) Statistics**							
1426					Approximate Chi Square Value (16.20, α)	8.102				Adjusted Chi Square Value (16.20, β)		7.807
1427					95% KM Approximate Gamma UCL	374.1				95% KM Adjusted Gamma UCL		388.2
1428												
1429					**Lognormal GOF Test on Detected Observations Only**							
1430					Shapiro Wilk Test Statistic	0.959				**Shapiro Wilk GOF Test**		
1431					10% Shapiro Wilk Critical Value	0.895				Detected Data appear Lognormal at 10% Significance Level		
1432					Lilliefors Test Statistic	0.156				**Lilliefors GOF Test**		
1433					10% Lilliefors Critical Value	0.208				Detected Data appear Lognormal at 10% Significance Level		
1434					**Detected Data appear Lognormal at 10% Significance Level**							
1435												
1436					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1437					Mean in Original Scale	183				Mean in Log Scale		4.159
1438					SD in Original Scale	381.5				SD in Log Scale		1.351
1439					95% t UCL (assumes normality of ROS data)	295.5				95% Percentile Bootstrap UCL		297.5
1440					95% BCA Bootstrap UCL	354.2				95% Bootstrap t UCL		439.7
1441					95% H-UCL (Log ROS)	318.5						
1442												
1443					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1444					KM Mean (logged)	4.069				KM Geo Mean		58.49
1445					KM SD (logged)	1.503				95% Critical H Value (KM-Log)		3.109
1446					KM Standard Error of Mean (logged)	0.327				95% H-UCL (KM -Log)		413.6
1447					KM SD (logged)	1.503				95% Critical H Value (KM-Log)		3.109
1448					KM Standard Error of Mean (logged)	0.327						
1449												
1450					**DL/2 Statistics**							
1451					**DL/2 Normal**					**DL/2 Log-Transformed**		
1452					Mean in Original Scale	221.3				Mean in Log Scale		4.494
1453					SD in Original Scale	400.2				SD in Log Scale		1.303
1454					95% t UCL (Assumes normality)	339.3				95% H-Stat UCL		401.8
1455					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1456												
1457					**Nonparametric Distribution Free UCL Statistics**							
1458					**Detected Data appear Gamma Distributed at 5% Significance Level**							
1459												
1460					**Suggested UCL to Use**							
1461					95% KM Adjusted Gamma UCL	388.2						
1462												
1463					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1464					**Please verify the data were collected from random locations.**							
1465					**If the data were collected using judgmental or other non-random methods,**							
1466					**then contact a statistician to correctly calculate UCLs.**							
1467												
1468					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1469					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1470					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1471												
1472	**Benzo[a]anthracene**											
1473												
1474					**General Statistics**							

1475	Total Number of Observations				33	Number of Distinct Observations					27	
1476						Number of Missing Observations					27	
1477	Number of Detects				23	Number of Non-Detects					10	
1478	Number of Distinct Detects				20	Number of Distinct Non-Detects					7	
1479	Minimum Detect				33	Minimum Non-Detect					90	
1480	Maximum Detect				4300	Maximum Non-Detect					1950	
1481	Variance Detects				856448	Percent Non-Detects					30.3%	
1482	Mean Detects				631.1	SD Detects					925.4	
1483	Median Detects				250	CV Detects					1.466	
1484	Skewness Detects				3.111	Kurtosis Detects					11.49	
1485	Mean of Logged Detects				5.723	SD of Logged Detects					1.231	
1486												
1487	**Normal GOF Test on Detects Only**											
1488	Shapiro Wilk Test Statistic				0.62	**Shapiro Wilk GOF Test**						
1489	1% Shapiro Wilk Critical Value				0.881	Detected Data Not Normal at 1% Significance Level						
1490	Lilliefors Test Statistic				0.259	**Lilliefors GOF Test**						
1491	1% Lilliefors Critical Value				0.209	Detected Data Not Normal at 1% Significance Level						
1492	**Detected Data Not Normal at 1% Significance Level**											
1493												
1494	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1495	KM Mean				465.9	KM Standard Error of Mean					143.3	
1496	90KM SD				801.2	95% KM (BCA) UCL					730.8	
1497	95% KM (t) UCL				708.6	95% KM (Percentile Bootstrap) UCL					707	
1498	95% KM (z) UCL				701.6	95% KM Bootstrap t UCL					932.7	
1499	90% KM Chebyshev UCL				895.8	95% KM Chebyshev UCL					1090	
1500	97.5% KM Chebyshev UCL				1361	99% KM Chebyshev UCL					1892	
1501												
1502	**Gamma GOF Tests on Detected Observations Only**											
1503	A-D Test Statistic				0.681	**Anderson-Darling GOF Test**						
1504	5% A-D Critical Value				0.779	Detected data appear Gamma Distributed at 5% Significance Level						
1505	K-S Test Statistic				0.167	**Kolmogorov-Smirnov GOF**						
1506	5% K-S Critical Value				0.188	Detected data appear Gamma Distributed at 5% Significance Level						
1507	**Detected data appear Gamma Distributed at 5% Significance Level**											
1508												
1509	**Gamma Statistics on Detected Data Only**											
1510	k hat (MLE)				0.817	k star (bias corrected MLE)					0.739	
1511	Theta hat (MLE)				773	Theta star (bias corrected MLE)					854	
1512	nu hat (MLE)				37.56	nu star (bias corrected)					33.99	
1513	Mean (detects)				631.1							
1514												
1515	**Gamma ROS Statistics using Imputed Non-Detects**											
1516	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1517	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1518	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1519	This is especially true when the sample size is small.											
1520	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1521	Minimum				0.01	Mean					442.1	
1522	Maximum				4300	Median					160	
1523	SD				820.8	CV					1.856	
1524	k hat (MLE)				0.224	k star (bias corrected MLE)					0.224	
1525	Theta hat (MLE)				1975	Theta star (bias corrected MLE)					1976	
1526	nu hat (MLE)				14.78	nu star (bias corrected)					14.77	
1527	Adjusted Level of Significance (β)				0.0419							
1528	Approximate Chi Square Value (14.77, α)				7.101	Adjusted Chi Square Value (14.77, β)					6.827	
1529	95% Gamma Approximate UCL				919.6	95% Gamma Adjusted UCL					956.4	
1530												
1531	**Estimates of Gamma Parameters using KM Estimates**											
1532	Mean (KM)				465.9	SD (KM)					801.2	
1533	Variance (KM)				641855	SE of Mean (KM)					143.3	
1534	k hat (KM)				0.338	k star (KM)					0.328	
1535	nu hat (KM)				22.32	nu star (KM)					21.63	
1536	theta hat (KM)				1378	theta star (KM)					1422	
1537	80% gamma percentile (KM)				728.7	90% gamma percentile (KM)					1358	
1538	95% gamma percentile (KM)				2071	99% gamma percentile (KM)					3903	
1539												
1540	**Gamma Kaplan-Meier (KM) Statistics**											
1541	Approximate Chi Square Value (21.63, α)				12.06	Adjusted Chi Square Value (21.63, β)					11.69	

1542				95% KM Approximate Gamma UCL		835.6				95% KM Adjusted Gamma UCL		861.9
1543												
1544						**Lognormal GOF Test on Detected Observations Only**							
1545				Shapiro Wilk Test Statistic		0.98				**Shapiro Wilk GOF Test**		
1546				10% Shapiro Wilk Critical Value		0.928				Detected Data appear Lognormal at 10% Significance Level		
1547				Lilliefors Test Statistic		0.0936				**Lilliefors GOF Test**		
1548				10% Lilliefors Critical Value		0.165				Detected Data appear Lognormal at 10% Significance Level		
1549						**Detected Data appear Lognormal at 10% Significance Level**						
1550												
1551						**Lognormal ROS Statistics Using Imputed Non-Detects**						
1552				Mean in Original Scale		459				Mean in Log Scale		5.206
1553				SD in Original Scale		812.1				SD in Log Scale		1.322
1554				95% t UCL (assumes normality of ROS data)		698.5				95% Percentile Bootstrap UCL		700.2
1555				95% BCA Bootstrap UCL		793.9				95% Bootstrap t UCL		918.5
1556				95% H-UCL (Log ROS)		851.6						
1557												
1558						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
1559				KM Mean (logged)		5.228				KM Geo Mean		186.5
1560				KM SD (logged)		1.3				95% Critical H Value (KM-Log)		2.825
1561				KM Standard Error of Mean (logged)		0.241				95% H-UCL (KM -Log)		830.3
1562				KM SD (logged)		1.3				95% Critical H Value (KM-Log)		2.825
1563				KM Standard Error of Mean (logged)		0.241						
1564												
1565						**DL/2 Statistics**						
1566				**DL/2 Normal**						**DL/2 Log-Transformed**		
1567				Mean in Original Scale		484.3				Mean in Log Scale		5.285
1568				SD in Original Scale		814.7				SD in Log Scale		1.319
1569				95% t UCL (Assumes normality)		724.5				95% H-Stat UCL		914.6
1570						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
1571												
1572						**Nonparametric Distribution Free UCL Statistics**						
1573						**Detected Data appear Gamma Distributed at 5% Significance Level**						
1574												
1575						**Suggested UCL to Use**						
1576				95% KM Adjusted Gamma UCL		861.9						
1577												
1578						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
1579						**Please verify the data were collected from random locations.**						
1580						**If the data were collected using judgmental or other non-random methods,**						
1581						**then contact a statistician to correctly calculate UCLs.**						
1582												
1583						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1584						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1585						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1586												
1587	**Benzo[a]pyrene**											
1588												
1589						**General Statistics**						
1590				Total Number of Observations		33				Number of Distinct Observations		26
1591										Number of Missing Observations		27
1592				Number of Detects		23				Number of Non-Detects		10
1593				Number of Distinct Detects		21				Number of Distinct Non-Detects		7
1594				Minimum Detect		28				Minimum Non-Detect		90
1595				Maximum Detect		4200				Maximum Non-Detect		1950
1596				Variance Detects		833171				Percent Non-Detects		30.3%
1597				Mean Detects		651.3				SD Detects		912.8
1598				Median Detects		280				CV Detects		1.402
1599				Skewness Detects		2.958				Kurtosis Detects		10.45
1600				Mean of Logged Detects		5.781				SD of Logged Detects		1.228
1601												
1602						**Normal GOF Test on Detects Only**						
1603				Shapiro Wilk Test Statistic		0.647				**Shapiro Wilk GOF Test**		
1604				1% Shapiro Wilk Critical Value		0.881				Detected Data Not Normal at 1% Significance Level		
1605				Lilliefors Test Statistic		0.247				**Lilliefors GOF Test**		
1606				1% Lilliefors Critical Value		0.209				Detected Data Not Normal at 1% Significance Level		
1607						**Detected Data Not Normal at 1% Significance Level**						
1608												

	A	B	C	D	E	F	G	H	I	J	K	L
1609	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1610					KM Mean	478.9			KM Standard Error of Mean			142.3
1611					90KM SD	795.4			95% KM (BCA) UCL			735.6
1612					95% KM (t) UCL	720			95% KM (Percentile Bootstrap) UCL			719
1613					95% KM (z) UCL	713			95% KM Bootstrap t UCL			925.9
1614					90% KM Chebyshev UCL	905.9			95% KM Chebyshev UCL			1099
1615					97.5% KM Chebyshev UCL	1368			99% KM Chebyshev UCL			1895
1616												
1617	**Gamma GOF Tests on Detected Observations Only**											
1618					A-D Test Statistic	0.564	**Anderson-Darling GOF Test**					
1619					5% A-D Critical Value	0.777	Detected data appear Gamma Distributed at 5% Significance Level					
1620					K-S Test Statistic	0.18	**Kolmogorov-Smirnov GOF**					
1621					5% K-S Critical Value	0.188	Detected data appear Gamma Distributed at 5% Significance Level					
1622	**Detected data appear Gamma Distributed at 5% Significance Level**											
1623												
1624	**Gamma Statistics on Detected Data Only**											
1625					k hat (MLE)	0.845			k star (bias corrected MLE)			0.763
1626					Theta hat (MLE)	771.1			Theta star (bias corrected MLE)			853.1
1627					nu hat (MLE)	38.85			nu star (bias corrected)			35.12
1628					Mean (detects)	651.3						
1629												
1630	**Gamma ROS Statistics using Imputed Non-Detects**											
1631	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1632	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1633	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1634	This is especially true when the sample size is small.											
1635	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1636					Minimum	0.01			Mean			456.6
1637					Maximum	4200			Median			160
1638					SD	814.2			CV			1.783
1639					k hat (MLE)	0.225			k star (bias corrected MLE)			0.225
1640					Theta hat (MLE)	2031			Theta star (bias corrected MLE)			2034
1641					nu hat (MLE)	14.83			nu star (bias corrected)			14.82
1642					Adjusted Level of Significance (β)	0.0419						
1643					Approximate Chi Square Value (14.82, α)	7.136			Adjusted Chi Square Value (14.82, β)			6.861
1644					95% Gamma Approximate UCL	948.2			95% Gamma Adjusted UCL			986.1
1645												
1646	**Estimates of Gamma Parameters using KM Estimates**											
1647					Mean (KM)	478.9			SD (KM)			795.4
1648					Variance (KM)	632740			SE of Mean (KM)			142.3
1649					k hat (KM)	0.363			k star (KM)			0.35
1650					nu hat (KM)	23.93			nu star (KM)			23.08
1651					theta hat (KM)	1321			theta star (KM)			1369
1652					80% gamma percentile (KM)	758.2			90% gamma percentile (KM)			1383
1653					95% gamma percentile (KM)	2083			99% gamma percentile (KM)			3869
1654												
1655	**Gamma Kaplan-Meier (KM) Statistics**											
1656					Approximate Chi Square Value (23.08, α)	13.15			Adjusted Chi Square Value (23.08, β)			12.77
1657					95% KM Approximate Gamma UCL	840.5			95% KM Adjusted Gamma UCL			865.9
1658												
1659	**Lognormal GOF Test on Detected Observations Only**											
1660					Shapiro Wilk Test Statistic	0.986	**Shapiro Wilk GOF Test**					
1661					10% Shapiro Wilk Critical Value	0.928	Detected Data appear Lognormal at 10% Significance Level					
1662					Lilliefors Test Statistic	0.103	**Lilliefors GOF Test**					
1663					10% Lilliefors Critical Value	0.165	Detected Data appear Lognormal at 10% Significance Level					
1664	**Detected Data appear Lognormal at 10% Significance Level**											
1665												
1666	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1667					Mean in Original Scale	472.1			Mean in Log Scale			5.226
1668					SD in Original Scale	805.9			SD in Log Scale			1.358
1669					95% t UCL (assumes normality of ROS data)	709.7			95% Percentile Bootstrap UCL			707.7
1670					95% BCA Bootstrap UCL	795.1			95% Bootstrap t UCL			914.1
1671					95% H-UCL (Log ROS)	940.6						
1672												
1673	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1674					KM Mean (logged)	5.241			KM Geo Mean			188.8
1675					KM SD (logged)	1.345			95% Critical H Value (KM-Log)			2.887

1676			KM Standard Error of Mean (logged)			0.252				95% H-UCL (KM -Log)		927
1677			KM SD (logged)			1.345				95% Critical H Value (KM-Log)		2.887
1678			KM Standard Error of Mean (logged)			0.252						
1679												
1680						DL/2 Statistics						
1681			DL/2 Normal							DL/2 Log-Transformed		
1682			Mean in Original Scale			498.3				Mean in Log Scale		5.325
1683			SD in Original Scale			807.6				SD in Log Scale		1.331
1684			95% t UCL (Assumes normality)			736.4				95% H-Stat UCL		977.6
1685			DL/2 is not a recommended method, provided for comparisons and historical reasons									
1686												
1687						Nonparametric Distribution Free UCL Statistics						
1688						Detected Data appear Gamma Distributed at 5% Significance Level						
1689												
1690						Suggested UCL to Use						
1691			95% KM Adjusted Gamma UCL			865.9						
1692												
1693						The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.						
1694						Please verify the data were collected from random locations.						
1695						If the data were collected using judgmental or other non-random methods,						
1696						then contact a statistician to correctly calculate UCLs.						
1697												
1698						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1699						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1700						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1701												
1702	Benzo[g,h,i]perylene											
1703												
1704						General Statistics						
1705			Total Number of Observations			33				Number of Distinct Observations		25
1706										Number of Missing Observations		27
1707			Number of Detects			22				Number of Non-Detects		11
1708			Number of Distinct Detects			18				Number of Distinct Non-Detects		8
1709			Minimum Detect			16				Minimum Non-Detect		90
1710			Maximum Detect			2700				Maximum Non-Detect		1950
1711			Variance Detects			372489				Percent Non-Detects		33.33%
1712			Mean Detects			490.3				SD Detects		610.3
1713			Median Detects			235				CV Detects		1.245
1714			Skewness Detects			2.536				Kurtosis Detects		7.796
1715			Mean of Logged Detects			5.569				SD of Logged Detects		1.205
1716												
1717						Normal GOF Test on Detects Only						
1718			Shapiro Wilk Test Statistic			0.706				Shapiro Wilk GOF Test		
1719			1% Shapiro Wilk Critical Value			0.878				Detected Data Not Normal at 1% Significance Level		
1720			Lilliefors Test Statistic			0.25				Lilliefors GOF Test		
1721			1% Lilliefors Critical Value			0.214				Detected Data Not Normal at 1% Significance Level		
1722						Detected Data Not Normal at 1% Significance Level						
1723												
1724						Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs						
1725			KM Mean			351.8				KM Standard Error of Mean		95.11
1726			90KM SD			529.6				95% KM (BCA) UCL		524.6
1727			95% KM (t) UCL			512.9				95% KM (Percentile Bootstrap) UCL		511.4
1728			95% KM (z) UCL			508.3				95% KM Bootstrap t UCL		628.4
1729			90% KM Chebyshev UCL			637.2				95% KM Chebyshev UCL		766.4
1730			97.5% KM Chebyshev UCL			945.8				99% KM Chebyshev UCL		1298
1731												
1732						Gamma GOF Tests on Detected Observations Only						
1733			A-D Test Statistic			0.463				Anderson-Darling GOF Test		
1734			5% A-D Critical Value			0.774				Detected data appear Gamma Distributed at 5% Significance Level		
1735			K-S Test Statistic			0.19				Kolmogorov-Smirnov GOF		
1736			5% K-S Critical Value			0.191				Detected data appear Gamma Distributed at 5% Significance Level		
1737						Detected data appear Gamma Distributed at 5% Significance Level						
1738												
1739						Gamma Statistics on Detected Data Only						
1740			k hat (MLE)			0.93				k star (bias corrected MLE)		0.834
1741			Theta hat (MLE)			527				Theta star (bias corrected MLE)		588
1742			nu hat (MLE)			40.94				nu star (bias corrected)		36.69

1743					Mean (detects)	490.3						
1744												
1745					**Gamma ROS Statistics using Imputed Non-Detects**							
1746					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1747					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1748					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1749					This is especially true when the sample size is small.							
1750					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1751					Minimum	0.01				Mean	329.7	
1752					Maximum	2700				Median	110	
1753					SD	545.8				CV	1.655	
1754					k hat (MLE)	0.217				k star (bias corrected MLE)	0.218	
1755					Theta hat (MLE)	1517				Theta star (bias corrected MLE)	1514	
1756					nu hat (MLE)	14.34				nu star (bias corrected)	14.37	
1757					Adjusted Level of Significance (β)	0.0419						
1758					Approximate Chi Square Value (14.37, α)	6.825				Adjusted Chi Square Value (14.37, β)	6.558	
1759					95% Gamma Approximate UCL	694.1				95% Gamma Adjusted UCL	722.5	
1760												
1761					**Estimates of Gamma Parameters using KM Estimates**							
1762					Mean (KM)	351.8				SD (KM)	529.6	
1763					Variance (KM)	280450				SE of Mean (KM)	95.11	
1764					k hat (KM)	0.441				k star (KM)	0.421	
1765					nu hat (KM)	29.13				nu star (KM)	27.82	
1766					theta hat (KM)	797.1				theta star (KM)	834.8	
1767					80% gamma percentile (KM)	571				90% gamma percentile (KM)	984.4	
1768					95% gamma percentile (KM)	1436				99% gamma percentile (KM)	2564	
1769												
1770					**Gamma Kaplan-Meier (KM) Statistics**							
1771					Approximate Chi Square Value (27.82, α)	16.78				Adjusted Chi Square Value (27.82, β)	16.34	
1772					95% KM Approximate Gamma UCL	583.1				95% KM Adjusted Gamma UCL	598.8	
1773												
1774					**Lognormal GOF Test on Detected Observations Only**							
1775					Shapiro Wilk Test Statistic	0.979				**Shapiro Wilk GOF Test**		
1776					10% Shapiro Wilk Critical Value	0.926				Detected Data appear Lognormal at 10% Significance Level		
1777					Lilliefors Test Statistic	0.12				**Lilliefors GOF Test**		
1778					10% Lilliefors Critical Value	0.169				Detected Data appear Lognormal at 10% Significance Level		
1779					**Detected Data appear Lognormal at 10% Significance Level**							
1780												
1781					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1782					Mean in Original Scale	344.5				Mean in Log Scale	4.997	
1783					SD in Original Scale	537.2				SD in Log Scale	1.305	
1784					95% t UCL (assumes normality of ROS data)	502.9				95% Percentile Bootstrap UCL	503	
1785					95% BCA Bootstrap UCL	543.8				95% Bootstrap t UCL	609.1	
1786					95% H-UCL (Log ROS)	667						
1787												
1788					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1789					KM Mean (logged)	5.006				KM Geo Mean	149.3	
1790					KM SD (logged)	1.341				95% Critical H Value (KM-Log)	2.882	
1791					KM Standard Error of Mean (logged)	0.278				95% H-UCL (KM -Log)	726.7	
1792					KM SD (logged)	1.341				95% Critical H Value (KM-Log)	2.882	
1793					KM Standard Error of Mean (logged)	0.278						
1794												
1795					**DL/2 Statistics**							
1796					**DL/2 Normal**					**DL/2 Log-Transformed**		
1797					Mean in Original Scale	373.3				Mean in Log Scale	5.136	
1798					SD in Original Scale	544.7				SD in Log Scale	1.257	
1799					95% t UCL (Assumes normality)	533.9				95% H-Stat UCL	693	
1800					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1801												
1802					**Nonparametric Distribution Free UCL Statistics**							
1803					**Detected Data appear Gamma Distributed at 5% Significance Level**							
1804												
1805					**Suggested UCL to Use**							
1806					95% KM Adjusted Gamma UCL	598.8						
1807												
1808					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1809					**Please verify the data were collected from random locations.**							

	A	B	C	D	E	F	G	H	I	J	K	L
1810	**If the data were collected using judgmental or other non-random methods,**											
1811	**then contact a statistician to correctly calculate UCLs.**											
1812												
1813	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1814	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1815	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1816												
1817	**Benzo[k]fluoranthene**											
1818												
1819	**General Statistics**											
1820	Total Number of Observations					33	Number of Distinct Observations					24
1821							Number of Missing Observations					27
1822	Number of Detects					20	Number of Non-Detects					13
1823	Number of Distinct Detects					18	Number of Distinct Non-Detects					9
1824	Minimum Detect					28	Minimum Non-Detect					90
1825	Maximum Detect					2100	Maximum Non-Detect					1950
1826	Variance Detects					239691	Percent Non-Detects					39.39%
1827	Mean Detects					433	SD Detects					489.6
1828	Median Detects					250	CV Detects					1.131
1829	Skewness Detects					2.289	Kurtosis Detects					6.504
1830	Mean of Logged Detects					5.536	SD of Logged Detects					1.096
1831												
1832	**Normal GOF Test on Detects Only**											
1833	Shapiro Wilk Test Statistic					0.743	**Shapiro Wilk GOF Test**					
1834	1% Shapiro Wilk Critical Value					0.868	Detected Data Not Normal at 1% Significance Level					
1835	Lilliefors Test Statistic					0.241	**Lilliefors GOF Test**					
1836	1% Lilliefors Critical Value					0.223	Detected Data Not Normal at 1% Significance Level					
1837	**Detected Data Not Normal at 1% Significance Level**											
1838												
1839	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1840	KM Mean					295.5	KM Standard Error of Mean					74.36
1841	90KM SD					412.7	95% KM (BCA) UCL					425.4
1842	95% KM (t) UCL					421.4	95% KM (Percentile Bootstrap) UCL					420.6
1843	95% KM (z) UCL					417.8	95% KM Bootstrap t UCL					503.6
1844	90% KM Chebyshev UCL					518.6	95% KM Chebyshev UCL					619.6
1845	97.5% KM Chebyshev UCL					759.9	99% KM Chebyshev UCL					1035
1846												
1847	**Gamma GOF Tests on Detected Observations Only**											
1848	A-D Test Statistic					0.433	**Anderson-Darling GOF Test**					
1849	5% A-D Critical Value					0.766	Detected data appear Gamma Distributed at 5% Significance Level					
1850	K-S Test Statistic					0.143	**Kolmogorov-Smirnov GOF**					
1851	5% K-S Critical Value					0.199	Detected data appear Gamma Distributed at 5% Significance Level					
1852	**Detected data appear Gamma Distributed at 5% Significance Level**											
1853												
1854	**Gamma Statistics on Detected Data Only**											
1855	k hat (MLE)					1.071	k star (bias corrected MLE)					0.944
1856	Theta hat (MLE)					404.3	Theta star (bias corrected MLE)					458.8
1857	nu hat (MLE)					42.84	nu star (bias corrected)					37.74
1858	Mean (detects)					433						
1859												
1860	**Gamma ROS Statistics using Imputed Non-Detects**											
1861	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1862	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1863	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1864	This is especially true when the sample size is small.											
1865	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1866	Minimum					0.01	Mean					265.6
1867	Maximum					2100	Median					95.98
1868	SD					432.5	CV					1.628
1869	k hat (MLE)					0.206	k star (bias corrected MLE)					0.207
1870	Theta hat (MLE)					1290	Theta star (bias corrected MLE)					1281
1871	nu hat (MLE)					13.59	nu star (bias corrected)					13.69
1872	Adjusted Level of Significance (β)					0.0419						
1873	Approximate Chi Square Value (13.69, α)					6.357	Adjusted Chi Square Value (13.69, β)					6.101
1874	95% Gamma Approximate UCL					571.7	95% Gamma Adjusted UCL					595.8
1875												
1876	**Estimates of Gamma Parameters using KM Estimates**											

1877					Mean (KM)	295.5				SD (KM)		412.7
1878					Variance (KM)	170322				SE of Mean (KM)		74.36
1879					k hat (KM)	0.513				k star (KM)		0.486
1880					nu hat (KM)	33.83				nu star (KM)		32.09
1881					theta hat (KM)	576.5				theta star (KM)		607.8
1882					80% gamma percentile (KM)	484.6				90% gamma percentile (KM)		804
1883					95% gamma percentile (KM)	1146				99% gamma percentile (KM)		1991
1884												
1885					**Gamma Kaplan-Meier (KM) Statistics**							
1886					Approximate Chi Square Value (32.09, α)	20.14				Adjusted Chi Square Value (32.09, β)		19.65
1887					95% KM Approximate Gamma UCL	470.7				95% KM Adjusted Gamma UCL		482.4
1888												
1889					**Lognormal GOF Test on Detected Observations Only**							
1890					Shapiro Wilk Test Statistic	0.976				**Shapiro Wilk GOF Test**		
1891					10% Shapiro Wilk Critical Value	0.92				Detected Data appear Lognormal at 10% Significance Level		
1892					Lilliefors Test Statistic	0.127				**Lilliefors GOF Test**		
1893					10% Lilliefors Critical Value	0.176				Detected Data appear Lognormal at 10% Significance Level		
1894					**Detected Data appear Lognormal at 10% Significance Level**							
1895												
1896					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1897					Mean in Original Scale	289.6				Mean in Log Scale		4.993
1898					SD in Original Scale	418.6				SD in Log Scale		1.115
1899					95% t UCL (assumes normality of ROS data)	413				95% Percentile Bootstrap UCL		413.6
1900					95% BCA Bootstrap UCL	441.7				95% Bootstrap t UCL		491
1901					95% H-UCL (Log ROS)	456.7						
1902												
1903					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1904					KM Mean (logged)	5.017				KM Geo Mean		151
1905					KM SD (logged)	1.114				95% Critical H Value (KM-Log)		2.579
1906					KM Standard Error of Mean (logged)	0.224				95% H-UCL (KM -Log)		466.7
1907					KM SD (logged)	1.114				95% Critical H Value (KM-Log)		2.579
1908					KM Standard Error of Mean (logged)	0.224						
1909												
1910					**DL/2 Statistics**							
1911					**DL/2 Normal**					**DL/2 Log-Transformed**		
1912					Mean in Original Scale	314.1				Mean in Log Scale		5.045
1913					SD in Original Scale	434.7				SD in Log Scale		1.161
1914					95% t UCL (Assumes normality)	442.2				95% H-Stat UCL		523
1915					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1916												
1917					**Nonparametric Distribution Free UCL Statistics**							
1918					**Detected Data appear Gamma Distributed at 5% Significance Level**							
1919												
1920					**Suggested UCL to Use**							
1921					95% KM Adjusted Gamma UCL	482.4						
1922												
1923					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1924					**Please verify the data were collected from random locations.**							
1925					**If the data were collected using judgmental or other non-random methods,**							
1926					**then contact a statistician to correctly calculate UCLs.**							
1927												
1928					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1929					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1930					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1931												
1932	**Bis(2-Ethylhexyl)phthalate**											
1933												
1934					**General Statistics**							
1935					Total Number of Observations	7				Number of Distinct Observations		6
1936										Number of Missing Observations		11
1937					Number of Detects	1				Number of Non-Detects		6
1938					Number of Distinct Detects	1				Number of Distinct Non-Detects		5
1939												
1940					**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**							
1941					**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**							
1942												
1943					**The data set for variable Bis(2-Ethylhexyl)phthalate was not processed!**							

	A	B	C	D	E	F	G	H	I	J	K	L
1944												
1945												
1946	**Chrysene**											
1947												
1948	**General Statistics**											
1949					Total Number of Observations	33			Number of Distinct Observations	28		
1950									Number of Missing Observations	27		
1951					Number of Detects	23			Number of Non-Detects	10		
1952					Number of Distinct Detects	21			Number of Distinct Non-Detects	7		
1953					Minimum Detect	39			Minimum Non-Detect	90		
1954					Maximum Detect	6600			Maximum Non-Detect	1950		
1955					Variance Detects	1897437			Percent Non-Detects	30.3%		
1956					Mean Detects	881.7			SD Detects	1377		
1957					Median Detects	390			CV Detects	1.562		
1958					Skewness Detects	3.547			Kurtosis Detects	14.41		
1959					Mean of Logged Detects	6.061			SD of Logged Detects	1.226		
1960												
1961	**Normal GOF Test on Detects Only**											
1962					Shapiro Wilk Test Statistic	0.566			**Shapiro Wilk GOF Test**			
1963					1% Shapiro Wilk Critical Value	0.881			Detected Data Not Normal at 1% Significance Level			
1964					Lilliefors Test Statistic	0.27			**Lilliefors GOF Test**			
1965					1% Lilliefors Critical Value	0.209			Detected Data Not Normal at 1% Significance Level			
1966	**Detected Data Not Normal at 1% Significance Level**											
1967												
1968	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1969					KM Mean	644			KM Standard Error of Mean	211.4		
1970					90KM SD	1185			95% KM (BCA) UCL	1043		
1971					95% KM (t) UCL	1002			95% KM (Percentile Bootstrap) UCL	1010		
1972					95% KM (z) UCL	991.7			95% KM Bootstrap t UCL	1432		
1973					90% KM Chebyshev UCL	1278			95% KM Chebyshev UCL	1566		
1974					97.5% KM Chebyshev UCL	1964			99% KM Chebyshev UCL	2748		
1975												
1976	**Gamma GOF Tests on Detected Observations Only**											
1977					A-D Test Statistic	0.579			**Anderson-Darling GOF Test**			
1978					5% A-D Critical Value	0.779			Detected data appear Gamma Distributed at 5% Significance Level			
1979					K-S Test Statistic	0.132			**Kolmogorov-Smirnov GOF**			
1980					5% K-S Critical Value	0.188			Detected data appear Gamma Distributed at 5% Significance Level			
1981	**Detected data appear Gamma Distributed at 5% Significance Level**											
1982												
1983	**Gamma Statistics on Detected Data Only**											
1984					k hat (MLE)	0.821			k star (bias corrected MLE)	0.743		
1985					Theta hat (MLE)	1074			Theta star (bias corrected MLE)	1187		
1986					nu hat (MLE)	37.75			nu star (bias corrected)	34.16		
1987					Mean (detects)	881.7						
1988												
1989	**Gamma ROS Statistics using Imputed Non-Detects**											
1990	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1991	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1992	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1993	This is especially true when the sample size is small.											
1994	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1995					Minimum	0.01			Mean	615.9		
1996					Maximum	6600			Median	210		
1997					SD	1213			CV	1.97		
1998					k hat (MLE)	0.217			k star (bias corrected MLE)	0.218		
1999					Theta hat (MLE)	2832			Theta star (bias corrected MLE)	2826		
2000					nu hat (MLE)	14.35			nu star (bias corrected)	14.38		
2001					Adjusted Level of Significance (β)	0.0419						
2002					Approximate Chi Square Value (14.38, α)	6.834			Adjusted Chi Square Value (14.38, β)	6.566		
2003					95% Gamma Approximate UCL	1296			95% Gamma Adjusted UCL	1349		
2004												
2005	**Estimates of Gamma Parameters using KM Estimates**											
2006					Mean (KM)	644			SD (KM)	1185		
2007					Variance (KM)	1404210			SE of Mean (KM)	211.4		
2008					k hat (KM)	0.295			k star (KM)	0.289		
2009					nu hat (KM)	19.49			nu star (KM)	19.05		
2010					theta hat (KM)	2181			theta star (KM)	2231		

2011				80% gamma percentile (KM)		977.9				90% gamma percentile (KM)		1908
2012				95% gamma percentile (KM)		2982				99% gamma percentile (KM)		5788
2013												
2014						**Gamma Kaplan-Meier (KM) Statistics**							
2015				Approximate Chi Square Value (19.05, α)		10.16				Adjusted Chi Square Value (19.05, β)		9.821
2016				95% KM Approximate Gamma UCL		1208				95% KM Adjusted Gamma UCL		1249
2017												
2018						**Lognormal GOF Test on Detected Observations Only**							
2019				Shapiro Wilk Test Statistic		0.988				**Shapiro Wilk GOF Test**		
2020				10% Shapiro Wilk Critical Value		0.928				Detected Data appear Lognormal at 10% Significance Level		
2021				Lilliefors Test Statistic		0.104				**Lilliefors GOF Test**		
2022				10% Lilliefors Critical Value		0.165				Detected Data appear Lognormal at 10% Significance Level		
2023						**Detected Data appear Lognormal at 10% Significance Level**						
2024												
2025						**Lognormal ROS Statistics Using Imputed Non-Detects**						
2026				Mean in Original Scale		637.8				Mean in Log Scale		5.5
2027				SD in Original Scale		1203				SD in Log Scale		1.361
2028				95% t UCL (assumes normality of ROS data)		992.4				95% Percentile Bootstrap UCL		991
2029				95% BCA Bootstrap UCL		1138				95% Bootstrap t UCL		1448
2030				95% H-UCL (Log ROS)		1244						
2031												
2032						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2033				KM Mean (logged)		5.506				KM Geo Mean		246.1
2034				KM SD (logged)		1.35				95% Critical H Value (KM-Log)		2.894
2035				KM Standard Error of Mean (logged)		0.25				95% H-UCL (KM -Log)		1221
2036				KM SD (logged)		1.35				95% Critical H Value (KM-Log)		2.894
2037				KM Standard Error of Mean (logged)		0.25						
2038												
2039						**DL/2 Statistics**						
2040				**DL/2 Normal**						**DL/2 Log-Transformed**		
2041				Mean in Original Scale		658.9				Mean in Log Scale		5.52
2042				SD in Original Scale		1203				SD in Log Scale		1.403
2043				95% t UCL (Assumes normality)		1013				95% H-Stat UCL		1394
2044						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2045												
2046						**Nonparametric Distribution Free UCL Statistics**						
2047						**Detected Data appear Gamma Distributed at 5% Significance Level**						
2048												
2049						**Suggested UCL to Use**						
2050				95% KM Adjusted Gamma UCL		1249						
2051												
2052						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
2053						**Please verify the data were collected from random locations.**						
2054						**If the data were collected using judgmental or other non-random methods,**						
2055						**then contact a statistician to correctly calculate UCLs.**						
2056												
2057						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2058						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2059						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2060												
2061	**Dibenzo[a,h]anthracene**											
2062												
2063						**General Statistics**						
2064				Total Number of Observations		33				Number of Distinct Observations		24
2065										Number of Missing Observations		27
2066				Number of Detects		13				Number of Non-Detects		20
2067				Number of Distinct Detects		12				Number of Distinct Non-Detects		15
2068				Minimum Detect		3.9				Minimum Non-Detect		22.5
2069				Maximum Detect		560				Maximum Non-Detect		1950
2070				Variance Detects		19666				Percent Non-Detects		60.61%
2071				Mean Detects		186.8				SD Detects		140.2
2072				Median Detects		160				CV Detects		0.751
2073				Skewness Detects		1.481				Kurtosis Detects		3.668
2074				Mean of Logged Detects		4.823				SD of Logged Detects		1.228
2075												
2076						**Normal GOF Test on Detects Only**							
2077				Shapiro Wilk Test Statistic		0.873				**Shapiro Wilk GOF Test**		

	A	B	C	D	E	F	G	H	I	J	K	L
2078				1% Shapiro Wilk Critical Value		0.814	Detected Data appear Normal at 1% Significance Level					
2079				Lilliefors Test Statistic		0.224	**Lilliefors GOF Test**					
2080				1% Lilliefors Critical Value		0.271	Detected Data appear Normal at 1% Significance Level					
2081	**Detected Data appear Normal at 1% Significance Level**											
2082												
2083	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2084				KM Mean		86.38	KM Standard Error of Mean					22.94
2085				90KM SD		121.2	95% KM (BCA) UCL					133.2
2086				95% KM (t) UCL		125.2	95% KM (Percentile Bootstrap) UCL					125.7
2087				95% KM (z) UCL		124.1	95% KM Bootstrap t UCL					133.9
2088				90% KM Chebyshev UCL		155.2	95% KM Chebyshev UCL					186.4
2089				97.5% KM Chebyshev UCL		229.7	99% KM Chebyshev UCL					314.7
2090	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2091												
2092	**Gamma GOF Tests on Detected Observations Only**											
2093				A-D Test Statistic		0.511	**Anderson-Darling GOF Test**					
2094				5% A-D Critical Value		0.752	Detected data appear Gamma Distributed at 5% Significance Level					
2095				K-S Test Statistic		0.181	**Kolmogorov-Smirnov GOF**					
2096				5% K-S Critical Value		0.241	Detected data appear Gamma Distributed at 5% Significance Level					
2097	**Detected data appear Gamma Distributed at 5% Significance Level**											
2098												
2099	**Gamma Statistics on Detected Data Only**											
2100				k hat (MLE)		1.371	k star (bias corrected MLE)					1.106
2101				Theta hat (MLE)		136.2	Theta star (bias corrected MLE)					168.8
2102				nu hat (MLE)		35.65	nu star (bias corrected)					28.76
2103				Mean (detects)		186.8						
2104												
2105	**Gamma ROS Statistics using Imputed Non-Detects**											
2106	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2107	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2108	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2109	This is especially true when the sample size is small.											
2110	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2111				Minimum		0.01	Mean					77.47
2112				Maximum		560	Median					3.9
2113				SD		124.4	CV					1.606
2114				k hat (MLE)		0.181	k star (bias corrected MLE)					0.185
2115				Theta hat (MLE)		427.3	Theta star (bias corrected MLE)					418.7
2116				nu hat (MLE)		11.97	nu star (bias corrected)					12.21
2117				Adjusted Level of Significance (β)		0.0419						
2118				Approximate Chi Square Value (12.21, α)		5.366	Adjusted Chi Square Value (12.21, β)					5.133
2119				95% Gamma Approximate UCL		176.3	95% Gamma Adjusted UCL					184.3
2120												
2121	**Estimates of Gamma Parameters using KM Estimates**											
2122				Mean (KM)		86.38	SD (KM)					121.2
2123				Variance (KM)		14685	SE of Mean (KM)					22.94
2124				k hat (KM)		0.508	k star (KM)					0.482
2125				nu hat (KM)		33.54	nu star (KM)					31.82
2126				theta hat (KM)		170	theta star (KM)					179.2
2127				80% gamma percentile (KM)		141.6	90% gamma percentile (KM)					235.5
2128				95% gamma percentile (KM)		336.2	99% gamma percentile (KM)					584.6
2129												
2130	**Gamma Kaplan-Meier (KM) Statistics**											
2131				Approximate Chi Square Value (31.82, α)		19.93	Adjusted Chi Square Value (31.82, β)					19.44
2132				95% KM Approximate Gamma UCL		137.9	95% KM Adjusted Gamma UCL					141.4
2133	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
2134												
2135	**Lognormal GOF Test on Detected Observations Only**											
2136				Shapiro Wilk Test Statistic		0.798	**Shapiro Wilk GOF Test**					
2137				10% Shapiro Wilk Critical Value		0.889	Detected Data Not Lognormal at 10% Significance Level					
2138				Lilliefors Test Statistic		0.231	**Lilliefors GOF Test**					
2139				10% Lilliefors Critical Value		0.215	Detected Data Not Lognormal at 10% Significance Level					
2140	**Detected Data Not Lognormal at 10% Significance Level**											
2141												
2142	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2143				Mean in Original Scale		83.78	Mean in Log Scale					3.54
2144				SD in Original Scale		120.5	SD in Log Scale					1.348

2145			95% t UCL (assumes normality of ROS data)			119.3			95% Percentile Bootstrap UCL			121.1
2146			95% BCA Bootstrap UCL			128.7			95% Bootstrap t UCL			134.8
2147			95% H-UCL (Log ROS)			170.4						
2148												
2149	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2150			KM Mean (logged)			3.161			KM Geo Mean			23.59
2151			KM SD (logged)			1.806			95% Critical H Value (KM-Log)			3.554
2152			KM Standard Error of Mean (logged)			0.424			95% H-UCL (KM -Log)			374.8
2153			KM SD (logged)			1.806			95% Critical H Value (KM-Log)			3.554
2154			KM Standard Error of Mean (logged)			0.424						
2155												
2156	**DL/2 Statistics**											
2157			**DL/2 Normal**						**DL/2 Log-Transformed**			
2158			Mean in Original Scale			131.3			Mean in Log Scale			4.261
2159			SD in Original Scale			187.5			SD in Log Scale			1.143
2160			95% t UCL (Assumes normality)			186.6			95% H-Stat UCL			231.3
2161	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2162												
2163	**Nonparametric Distribution Free UCL Statistics**											
2164	**Detected Data appear Normal Distributed at 1% Significance Level**											
2165												
2166	**Suggested UCL to Use**											
2167			95% KM (t) UCL			125.2						
2168												
2169	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2170	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2171	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2172												
2173	**Fluoranthene**											
2174												
2175	**General Statistics**											
2176			Total Number of Observations			33			Number of Distinct Observations			29
2177									Number of Missing Observations			27
2178			Number of Detects			27			Number of Non-Detects			6
2179			Number of Distinct Detects			23			Number of Distinct Non-Detects			6
2180			Minimum Detect			47			Minimum Non-Detect			90
2181			Maximum Detect			11000			Maximum Non-Detect			150
2182			Variance Detects			4964665			Percent Non-Detects			18.18%
2183			Mean Detects			1326			SD Detects			2228
2184			Median Detects			430			CV Detects			1.681
2185			Skewness Detects			3.447			Kurtosis Detects			14.04
2186			Mean of Logged Detects			6.227			SD of Logged Detects			1.464
2187												
2188	**Normal GOF Test on Detects Only**											
2189			Shapiro Wilk Test Statistic			0.58			**Shapiro Wilk GOF Test**			
2190			1% Shapiro Wilk Critical Value			0.894			Detected Data Not Normal at 1% Significance Level			
2191			Lilliefors Test Statistic			0.283			**Lilliefors GOF Test**			
2192			1% Lilliefors Critical Value			0.194			Detected Data Not Normal at 1% Significance Level			
2193	**Detected Data Not Normal at 1% Significance Level**											
2194												
2195	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2196			KM Mean			1095			KM Standard Error of Mean			361.5
2197			90KM SD			2038			95% KM (BCA) UCL			1755
2198			95% KM (t) UCL			1707			95% KM (Percentile Bootstrap) UCL			1712
2199			95% KM (z) UCL			1689			95% KM Bootstrap t UCL			2325
2200			90% KM Chebyshev UCL			2179			95% KM Chebyshev UCL			2670
2201			97.5% KM Chebyshev UCL			3352			99% KM Chebyshev UCL			4691
2202												
2203	**Gamma GOF Tests on Detected Observations Only**											
2204			A-D Test Statistic			0.662			**Anderson-Darling GOF Test**			
2205			5% A-D Critical Value			0.795			Detected data appear Gamma Distributed at 5% Significance Level			
2206			K-S Test Statistic			0.156			**Kolmogorov-Smirnov GOF**			
2207			5% K-S Critical Value			0.176			Detected data appear Gamma Distributed at 5% Significance Level			
2208	**Detected data appear Gamma Distributed at 5% Significance Level**											
2209												
2210	**Gamma Statistics on Detected Data Only**											
2211			k hat (MLE)			0.636			k star (bias corrected MLE)			0.59

2212					Theta hat (MLE)	2084				Theta star (bias corrected MLE)		2246
2213					nu hat (MLE)	34.35				nu star (bias corrected)		31.87
2214					Mean (detects)	1326						
2215												
2216						**Gamma ROS Statistics using Imputed Non-Detects**							
2217						GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs						
2218						GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)						
2219						For such situations, GROS method may yield incorrect values of UCLs and BTVs						
2220						This is especially true when the sample size is small.						
2221						For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates						
2222					Minimum	0.01				Mean		1085
2223					Maximum	11000				Median		350
2224					SD	2074				CV		1.913
2225					k hat (MLE)	0.259				k star (bias corrected MLE)		0.255
2226					Theta hat (MLE)	4194				Theta star (bias corrected MLE)		4248
2227					nu hat (MLE)	17.07				nu star (bias corrected)		16.85
2228					Adjusted Level of Significance (β)	0.0419						
2229					Approximate Chi Square Value (16.85, α)	8.564				Adjusted Chi Square Value (16.85, β)		8.26
2230					95% Gamma Approximate UCL	2134				95% Gamma Adjusted UCL		2212
2231												
2232						**Estimates of Gamma Parameters using KM Estimates**							
2233					Mean (KM)	1095				SD (KM)		2038
2234					Variance (KM)	4151775				SE of Mean (KM)		361.5
2235					k hat (KM)	0.289				k star (KM)		0.283
2236					nu hat (KM)	19.05				nu star (KM)		18.65
2237					theta hat (KM)	3793				theta star (KM)		3874
2238					80% gamma percentile (KM)	1652				90% gamma percentile (KM)		3250
2239					95% gamma percentile (KM)	5103				99% gamma percentile (KM)		9956
2240												
2241						**Gamma Kaplan-Meier (KM) Statistics**							
2242					Approximate Chi Square Value (18.65, α)	9.86				Adjusted Chi Square Value (18.65, β)		9.531
2243					95% KM Approximate Gamma UCL	2070				95% KM Adjusted Gamma UCL		2142
2244												
2245						**Lognormal GOF Test on Detected Observations Only**							
2246					Shapiro Wilk Test Statistic	0.971				**Shapiro Wilk GOF Test**		
2247					10% Shapiro Wilk Critical Value	0.935				Detected Data appear Lognormal at 10% Significance Level		
2248					Lilliefors Test Statistic	0.0686				**Lilliefors GOF Test**		
2249					10% Lilliefors Critical Value	0.153				Detected Data appear Lognormal at 10% Significance Level		
2250						**Detected Data appear Lognormal at 10% Significance Level**						
2251												
2252						**Lognormal ROS Statistics Using Imputed Non-Detects**						
2253					Mean in Original Scale	1095				Mean in Log Scale		5.827
2254					SD in Original Scale	2069				SD in Log Scale		1.577
2255					95% t UCL (assumes normality of ROS data)	1705				95% Percentile Bootstrap UCL		1693
2256					95% BCA Bootstrap UCL	1932				95% Bootstrap t UCL		2306
2257					95% H-UCL (Log ROS)	2880						
2258												
2259						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
2260					KM Mean (logged)	5.818				KM Geo Mean		336.5
2261					KM SD (logged)	1.564				95% Critical H Value (KM-Log)		3.196
2262					KM Standard Error of Mean (logged)	0.278				95% H-UCL (KM -Log)		2767
2263					KM SD (logged)	1.564				95% Critical H Value (KM-Log)		3.196
2264					KM Standard Error of Mean (logged)	0.278						
2265												
2266						**DL/2 Statistics**						
2267					**DL/2 Normal**					**DL/2 Log-Transformed**		
2268					Mean in Original Scale	1095				Mean in Log Scale		5.823
2269					SD in Original Scale	2069				SD in Log Scale		1.581
2270					95% t UCL (Assumes normality)	1705				95% H-Stat UCL		2906
2271						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2272												
2273						**Nonparametric Distribution Free UCL Statistics**						
2274						**Detected Data appear Gamma Distributed at 5% Significance Level**						
2275												
2276						**Suggested UCL to Use**						
2277					95% KM Adjusted Gamma UCL	2142						
2278												

2279	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2280	**Please verify the data were collected from random locations.**											
2281	**If the data were collected using judgmental or other non-random methods,**											
2282	**then contact a statistician to correctly calculate UCLs.**											
2283												
2284	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2285	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2286	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2287												
2288	**Fluorene**											
2289												
2290	**General Statistics**											
2291						Total Number of Observations	33			Number of Distinct Observations	25	
2292										Number of Missing Observations	27	
2293						Number of Detects	10			Number of Non-Detects	23	
2294						Number of Distinct Detects	8			Number of Distinct Non-Detects	18	
2295						Minimum Detect	1.2			Minimum Non-Detect	22.5	
2296						Maximum Detect	1500			Maximum Non-Detect	1950	
2297						Variance Detects	194392			Percent Non-Detects	69.7%	
2298						Mean Detects	290.9			SD Detects	440.9	
2299						Median Detects	170			CV Detects	1.516	
2300						Skewness Detects	2.749			Kurtosis Detects	8.111	
2301						Mean of Logged Detects	4.566			SD of Logged Detects	2.036	
2302												
2303	**Normal GOF Test on Detects Only**											
2304						Shapiro Wilk Test Statistic	0.615			**Shapiro Wilk GOF Test**		
2305						1% Shapiro Wilk Critical Value	0.781			Detected Data Not Normal at 1% Significance Level		
2306						Lilliefors Test Statistic	0.383			**Lilliefors GOF Test**		
2307						1% Lilliefors Critical Value	0.304			Detected Data Not Normal at 1% Significance Level		
2308	**Detected Data Not Normal at 1% Significance Level**											
2309												
2310	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2311						KM Mean	102			KM Standard Error of Mean	50.22	
2312						90KM SD	267.3			95% KM (BCA) UCL	204.2	
2313						95% KM (t) UCL	187			95% KM (Percentile Bootstrap) UCL	190.1	
2314						95% KM (z) UCL	184.6			95% KM Bootstrap t UCL	312.1	
2315						90% KM Chebyshev UCL	252.6			95% KM Chebyshev UCL	320.8	
2316						97.5% KM Chebyshev UCL	415.6			99% KM Chebyshev UCL	601.6	
2317												
2318	**Gamma GOF Tests on Detected Observations Only**											
2319						A-D Test Statistic	0.353			**Anderson-Darling GOF Test**		
2320						5% A-D Critical Value	0.772			Detected data appear Gamma Distributed at 5% Significance Level		
2321						K-S Test Statistic	0.21			**Kolmogorov-Smirnov GOF**		
2322						5% K-S Critical Value	0.28			Detected data appear Gamma Distributed at 5% Significance Level		
2323	**Detected data appear Gamma Distributed at 5% Significance Level**											
2324												
2325	**Gamma Statistics on Detected Data Only**											
2326						k hat (MLE)	0.563			k star (bias corrected MLE)	0.461	
2327						Theta hat (MLE)	516.4			Theta star (bias corrected MLE)	631	
2328						nu hat (MLE)	11.27			nu star (bias corrected)	9.22	
2329						Mean (detects)	290.9					
2330												
2331	**Gamma ROS Statistics using Imputed Non-Detects**											
2332	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2333	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2334	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2335	This is especially true when the sample size is small.											
2336	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2337						Minimum	0.01			Mean	88.16	
2338						Maximum	1500			Median	0.01	
2339						SD	270.4			CV	3.067	
2340						k hat (MLE)	0.125			k star (bias corrected MLE)	0.134	
2341						Theta hat (MLE)	704.9			Theta star (bias corrected MLE)	658.4	
2342						nu hat (MLE)	8.254			nu star (bias corrected)	8.837	
2343						Adjusted Level of Significance (β)	0.0419					
2344						Approximate Chi Square Value (8.84, α)	3.229			Adjusted Chi Square Value (8.84, β)	3.056	
2345						95% Gamma Approximate UCL	241.3			95% Gamma Adjusted UCL	254.9	

2346												
2347	**Estimates of Gamma Parameters using KM Estimates**											
2348					Mean (KM)	102				SD (KM)	267.3	
2349					Variance (KM)	71446				SE of Mean (KM)	50.22	
2350					k hat (KM)	0.146				k star (KM)	0.152	
2351					nu hat (KM)	9.604				nu star (KM)	10.06	
2352					theta hat (KM)	700.7				theta star (KM)	668.7	
2353					80% gamma percentile (KM)	112.5				90% gamma percentile (KM)	303	
2354					95% gamma percentile (KM)	559.4				99% gamma percentile (KM)	1301	
2355												
2356	**Gamma Kaplan-Meier (KM) Statistics**											
2357					Approximate Chi Square Value (10.06, α)	3.982				Adjusted Chi Square Value (10.06, β)	3.786	
2358					95% KM Approximate Gamma UCL	257.7				95% KM Adjusted Gamma UCL	271	
2359												
2360	**Lognormal GOF Test on Detected Observations Only**											
2361					Shapiro Wilk Test Statistic	0.889				**Shapiro Wilk GOF Test**		
2362					10% Shapiro Wilk Critical Value	0.869				Detected Data appear Lognormal at 10% Significance Level		
2363					Lilliefors Test Statistic	0.226				**Lilliefors GOF Test**		
2364					10% Lilliefors Critical Value	0.241				Detected Data appear Lognormal at 10% Significance Level		
2365	**Detected Data appear Lognormal at 10% Significance Level**											
2366												
2367	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2368					Mean in Original Scale	93.34				Mean in Log Scale	2.648	
2369					SD in Original Scale	268.7				SD in Log Scale	1.765	
2370					95% t UCL (assumes normality of ROS data)	172.6				95% Percentile Bootstrap UCL	181.6	
2371					95% BCA Bootstrap UCL	229.2				95% Bootstrap t UCL	324	
2372					95% H-UCL (Log ROS)	199.2						
2373												
2374	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2375					KM Mean (logged)	2.571				KM Geo Mean	13.08	
2376					KM SD (logged)	2.105				95% Critical H Value (KM-Log)	4.013	
2377					KM Standard Error of Mean (logged)	0.662				95% H-UCL (KM -Log)	533.9	
2378					KM SD (logged)	2.105				95% Critical H Value (KM-Log)	4.013	
2379					KM Standard Error of Mean (logged)	0.662						
2380												
2381	**DL/2 Statistics**											
2382	**DL/2 Normal**									**DL/2 Log-Transformed**		
2383					Mean in Original Scale	153.6				Mean in Log Scale	4.141	
2384					SD in Original Scale	298.2				SD in Log Scale	1.347	
2385					95% t UCL (Assumes normality)	241.5				95% H-Stat UCL	309.7	
2386	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2387												
2388	**Nonparametric Distribution Free UCL Statistics**											
2389	**Detected Data appear Gamma Distributed at 5% Significance Level**											
2390												
2391	**Suggested UCL to Use**											
2392					95% KM Adjusted Gamma UCL	271						
2393												
2394	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2395	**Please verify the data were collected from random locations.**											
2396	**If the data were collected using judgmental or other non-random methods,**											
2397	**then contact a statistician to correctly calculate UCLs.**											
2398												
2399	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2400	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2401	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2402												
2403	**Indeno[1,2,3-cd]pyrene**											
2404												
2405	**General Statistics**											
2406					Total Number of Observations	16				Number of Distinct Observations	15	
2407										Number of Missing Observations	10	
2408					Number of Detects	15				Number of Non-Detects	1	
2409					Number of Distinct Detects	14				Number of Distinct Non-Detects	1	
2410					Minimum Detect	19				Minimum Non-Detect	1950	
2411					Maximum Detect	2200				Maximum Non-Detect	1950	
2412					Variance Detects	307592				Percent Non-Detects	6.25%	

2413					Mean Detects	518.1					SD Detects	554.6
2414					Median Detects	420					CV Detects	1.071
2415					Skewness Detects	2.131					Kurtosis Detects	5.797
2416					Mean of Logged Detects	5.69					SD of Logged Detects	1.22
2417												
2418					**Normal GOF Test on Detects Only**							
2419					Shapiro Wilk Test Statistic	0.77					**Shapiro Wilk GOF Test**	
2420					1% Shapiro Wilk Critical Value	0.835					Detected Data Not Normal at 1% Significance Level	
2421					Lilliefors Test Statistic	0.185					**Lilliefors GOF Test**	
2422					1% Lilliefors Critical Value	0.255					Detected Data appear Normal at 1% Significance Level	
2423					**Detected Data appear Approximate Normal at 1% Significance Level**							
2424												
2425					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
2426					KM Mean	510.6					KM Standard Error of Mean	137.4
2427					90KM SD	525.1					95% KM (BCA) UCL	775.8
2428					95% KM (t) UCL	751.4					95% KM (Percentile Bootstrap) UCL	741.4
2429					95% KM (z) UCL	736.5					95% KM Bootstrap t UCL	877.4
2430					90% KM Chebyshev UCL	922.7					95% KM Chebyshev UCL	1109
2431					97.5% KM Chebyshev UCL	1368					99% KM Chebyshev UCL	1877
2432												
2433					**Gamma GOF Tests on Detected Observations Only**							
2434					A-D Test Statistic	0.296					**Anderson-Darling GOF Test**	
2435					5% A-D Critical Value	0.763					Detected data appear Gamma Distributed at 5% Significance Level	
2436					K-S Test Statistic	0.139					**Kolmogorov-Smirnov GOF**	
2437					5% K-S Critical Value	0.228					Detected data appear Gamma Distributed at 5% Significance Level	
2438					**Detected data appear Gamma Distributed at 5% Significance Level**							
2439												
2440					**Gamma Statistics on Detected Data Only**							
2441					k hat (MLE)	1.028					k star (bias corrected MLE)	0.867
2442					Theta hat (MLE)	504.2					Theta star (bias corrected MLE)	597.9
2443					nu hat (MLE)	30.83					nu star (bias corrected)	26
2444					Mean (detects)	518.1						
2445												
2446					**Gamma ROS Statistics using Imputed Non-Detects**							
2447					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2448					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2449					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2450					This is especially true when the sample size is small.							
2451					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2452					Minimum	19					Mean	506
2453					Maximum	2200					Median	372.2
2454					SD	538					CV	1.063
2455					k hat (MLE)	1.079					k star (bias corrected MLE)	0.918
2456					Theta hat (MLE)	469.1					Theta star (bias corrected MLE)	551.2
2457					nu hat (MLE)	34.51					nu star (bias corrected)	29.38
2458					Adjusted Level of Significance (β)	0.0335						
2459					Approximate Chi Square Value (29.38, α)	18					Adjusted Chi Square Value (29.38, β)	16.99
2460					95% Gamma Approximate UCL	825.6					95% Gamma Adjusted UCL	874.6
2461												
2462					**Estimates of Gamma Parameters using KM Estimates**							
2463					Mean (KM)	510.6					SD (KM)	525.1
2464					Variance (KM)	275682					SE of Mean (KM)	137.4
2465					k hat (KM)	0.946					k star (KM)	0.81
2466					nu hat (KM)	30.26					nu star (KM)	25.92
2467					theta hat (KM)	540					theta star (KM)	630.4
2468					80% gamma percentile (KM)	833.8					90% gamma percentile (KM)	1238
2469					95% gamma percentile (KM)	1649					99% gamma percentile (KM)	2619
2470												
2471					**Gamma Kaplan-Meier (KM) Statistics**							
2472					Approximate Chi Square Value (25.92, α)	15.32					Adjusted Chi Square Value (25.92, β)	14.39
2473					95% KM Approximate Gamma UCL	864					95% KM Adjusted Gamma UCL	919.4
2474												
2475					**Lognormal GOF Test on Detected Observations Only**							
2476					Shapiro Wilk Test Statistic	0.955					**Shapiro Wilk GOF Test**	
2477					10% Shapiro Wilk Critical Value	0.901					Detected Data appear Lognormal at 10% Significance Level	
2478					Lilliefors Test Statistic	0.146					**Lilliefors GOF Test**	
2479					10% Lilliefors Critical Value	0.202					Detected Data appear Lognormal at 10% Significance Level	

2480	**Detected Data appear Lognormal at 10% Significance Level**											
2481												
2482	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2483					Mean in Original Scale	501.9				Mean in Log Scale	5.682	
2484					SD in Original Scale	539.7				SD in Log Scale	1.179	
2485				95% t UCL (assumes normality of ROS data)		738.5				95% Percentile Bootstrap UCL	723.2	
2486					95% BCA Bootstrap UCL	814.9				95% Bootstrap t UCL	887.2	
2487					95% H-UCL (Log ROS)	1460						
2488												
2489	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2490					KM Mean (logged)	5.681				KM Geo Mean	293.3	
2491					KM SD (logged)	1.173				95% Critical H Value (KM-Log)	2.98	
2492					KM Standard Error of Mean (logged)	0.312				95% H-UCL (KM -Log)	1440	
2493					KM SD (logged)	1.173				95% Critical H Value (KM-Log)	2.98	
2494					KM Standard Error of Mean (logged)	0.312						
2495												
2496	**DL/2 Statistics**											
2497	**DL/2 Normal**									**DL/2 Log-Transformed**		
2498					Mean in Original Scale	546.6				Mean in Log Scale	5.765	
2499					SD in Original Scale	547.8				SD in Log Scale	1.215	
2500					95% t UCL (Assumes normality)	786.7				95% H-Stat UCL	1738	
2501	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2502												
2503	**Nonparametric Distribution Free UCL Statistics**											
2504	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
2505												
2506	**Suggested UCL to Use**											
2507					95% KM (t) UCL	751.4						
2508												
2509	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2510	**Please verify the data were collected from random locations.**											
2511	**If the data were collected using judgmental or other non-random methods,**											
2512	**then contact a statistician to correctly calculate UCLs.**											
2513												
2514	When a data set follows an approximate distribution passing only one of the GOF tests,											
2515	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
2516												
2517	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2518	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2519	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2520												
2521	**Naphthalene**											
2522												
2523	**General Statistics**											
2524					Total Number of Observations	33				Number of Distinct Observations	26	
2525										Number of Missing Observations	27	
2526					Number of Detects	7				Number of Non-Detects	26	
2527					Number of Distinct Detects	7				Number of Distinct Non-Detects	20	
2528					Minimum Detect	3				Minimum Non-Detect	22	
2529					Maximum Detect	770				Maximum Non-Detect	1950	
2530					Variance Detects	71652				Percent Non-Detects	78.79%	
2531					Mean Detects	233.1				SD Detects	267.7	
2532					Median Detects	170				CV Detects	1.148	
2533					Skewness Detects	1.635				Kurtosis Detects	2.632	
2534					Mean of Logged Detects	4.584				SD of Logged Detects	1.824	
2535												
2536	**Normal GOF Test on Detects Only**											
2537					Shapiro Wilk Test Statistic	0.829				**Shapiro Wilk GOF Test**		
2538					1% Shapiro Wilk Critical Value	0.73				Detected Data appear Normal at 1% Significance Level		
2539					Lilliefors Test Statistic	0.278				**Lilliefors GOF Test**		
2540					1% Lilliefors Critical Value	0.35				Detected Data appear Normal at 1% Significance Level		
2541	**Detected Data appear Normal at 1% Significance Level**											
2542	**Note GOF tests may be unreliable for small sample sizes**											
2543												
2544	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2545					KM Mean	60.24				KM Standard Error of Mean	29.15	
2546					90KM SD	149.2				95% KM (BCA) UCL	123.8	

2547				95% KM (t) UCL	109.6			95% KM (Percentile Bootstrap) UCL			112.5	
2548				95% KM (z) UCL	108.2			95% KM Bootstrap t UCL			143.5	
2549				90% KM Chebyshev UCL	147.7			95% KM Chebyshev UCL			187.3	
2550				97.5% KM Chebyshev UCL	242.3			99% KM Chebyshev UCL			350.3	
2551				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
2552												
2553				**Gamma GOF Tests on Detected Observations Only**								
2554				A-D Test Statistic	0.154			**Anderson-Darling GOF Test**				
2555				5% A-D Critical Value	0.739			Detected data appear Gamma Distributed at 5% Significance Level				
2556				K-S Test Statistic	0.135			**Kolmogorov-Smirnov GOF**				
2557				5% K-S Critical Value	0.324			Detected data appear Gamma Distributed at 5% Significance Level				
2558				**Detected data appear Gamma Distributed at 5% Significance Level**								
2559				**Note GOF tests may be unreliable for small sample sizes**								
2560												
2561				**Gamma Statistics on Detected Data Only**								
2562				k hat (MLE)	0.697			k star (bias corrected MLE)			0.493	
2563				Theta hat (MLE)	334.6			Theta star (bias corrected MLE)			472.6	
2564				nu hat (MLE)	9.754			nu star (bias corrected)			6.907	
2565				Mean (detects)	233.1							
2566												
2567				**Gamma ROS Statistics using Imputed Non-Detects**								
2568				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
2569				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
2570				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
2571				This is especially true when the sample size is small.								
2572				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
2573				Minimum	0.01			Mean			49.46	
2574				Maximum	770			Median			0.01	
2575				SD	151			CV			3.053	
2576				k hat (MLE)	0.121			k star (bias corrected MLE)			0.13	
2577				Theta hat (MLE)	409.4			Theta star (bias corrected MLE)			380.4	
2578				nu hat (MLE)	7.975			nu star (bias corrected)			8.583	
2579				Adjusted Level of Significance (β)	0.0419							
2580				Approximate Chi Square Value (8.58, α)	3.077			Adjusted Chi Square Value (8.58, β)			2.909	
2581				95% Gamma Approximate UCL	138			95% Gamma Adjusted UCL			145.9	
2582												
2583				**Estimates of Gamma Parameters using KM Estimates**								
2584				Mean (KM)	60.24			SD (KM)			149.2	
2585				Variance (KM)	22259			SE of Mean (KM)			29.15	
2586				k hat (KM)	0.163			k star (KM)			0.168	
2587				nu hat (KM)	10.76			nu star (KM)			11.12	
2588				theta hat (KM)	369.5			theta star (KM)			357.7	
2589				80% gamma percentile (KM)	71.56			90% gamma percentile (KM)			180.9	
2590				95% gamma percentile (KM)	323.6			99% gamma percentile (KM)			728.5	
2591												
2592				**Gamma Kaplan-Meier (KM) Statistics**								
2593				Approximate Chi Square Value (11.12, α)	4.651			Adjusted Chi Square Value (11.12, β)			4.436	
2594				95% KM Approximate Gamma UCL	144			95% KM Adjusted Gamma UCL			151	
2595				**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**								
2596												
2597				**Lognormal GOF Test on Detected Observations Only**								
2598				Shapiro Wilk Test Statistic	0.918			**Shapiro Wilk GOF Test**				
2599				10% Shapiro Wilk Critical Value	0.838			Detected Data appear Lognormal at 10% Significance Level				
2600				Lilliefors Test Statistic	0.19			**Lilliefors GOF Test**				
2601				10% Lilliefors Critical Value	0.28			Detected Data appear Lognormal at 10% Significance Level				
2602				**Detected Data appear Lognormal at 10% Significance Level**								
2603				**Note GOF tests may be unreliable for small sample sizes**								
2604												
2605				**Lognormal ROS Statistics Using Imputed Non-Detects**								
2606				Mean in Original Scale	54.4			Mean in Log Scale			2.245	
2607				SD in Original Scale	149.4			SD in Log Scale			1.581	
2608				95% t UCL (assumes normality of ROS data)	98.46			95% Percentile Bootstrap UCL			100.8	
2609				95% BCA Bootstrap UCL	123.6			95% Bootstrap t UCL			180.8	
2610				95% H-UCL (Log ROS)	81.07							
2611												
2612				**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**								
2613				KM Mean (logged)	2.2			KM Geo Mean			9.026	

2614				KM SD (logged)	1.757				95% Critical H Value (KM-Log)		3.481	
2615			KM Standard Error of Mean (logged)		0.439				95% H-UCL (KM -Log)		124.6	
2616				KM SD (logged)	1.757				95% Critical H Value (KM-Log)		3.481	
2617			KM Standard Error of Mean (logged)		0.439							
2618												
2619					DL/2 Statistics							
2620				DL/2 Normal					DL/2 Log-Transformed			
2621				Mean in Original Scale	115.9				Mean in Log Scale		3.951	
2622				SD in Original Scale	208.9				SD in Log Scale		1.222	
2623				95% t UCL (Assumes normality)	177.5				95% H-Stat UCL		197.4	
2624				DL/2 is not a recommended method, provided for comparisons and historical reasons								
2625												
2626					Nonparametric Distribution Free UCL Statistics							
2627					Detected Data appear Normal Distributed at 1% Significance Level							
2628												
2629					Suggested UCL to Use							
2630				95% KM (t) UCL	109.6							
2631												
2632					The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.							
2633					Please verify the data were collected from random locations.							
2634					If the data were collected using judgmental or other non-random methods,							
2635					then contact a statistician to correctly calculate UCLs.							
2636												
2637					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2638					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2639					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2640												
2641	N-Nitrosodiphenylamine											
2642												
2643					General Statistics							
2644				Total Number of Observations	7				Number of Distinct Observations		7	
2645									Number of Missing Observations		11	
2646				Number of Detects	6				Number of Non-Detects		1	
2647				Number of Distinct Detects	6				Number of Distinct Non-Detects		1	
2648				Minimum Detect	87				Minimum Non-Detect		28.5	
2649				Maximum Detect	1300				Maximum Non-Detect		28.5	
2650				Variance Detects	189120				Percent Non-Detects		14.29%	
2651				Mean Detects	441.2				SD Detects		434.9	
2652				Median Detects	300				CV Detects		0.986	
2653				Skewness Detects	2.096				Kurtosis Detects		4.758	
2654				Mean of Logged Detects	5.759				SD of Logged Detects		0.877	
2655												
2656					Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,							
2657					refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,							
2658					but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).							
2659					The Chebyshev UCL often results in gross overestimates of the mean.							
2660					Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.							
2661												
2662					Normal GOF Test on Detects Only							
2663				Shapiro Wilk Test Statistic	0.739				Shapiro Wilk GOF Test			
2664				1% Shapiro Wilk Critical Value	0.713				Detected Data appear Normal at 1% Significance Level			
2665				Lilliefors Test Statistic	0.353				Lilliefors GOF Test			
2666				1% Lilliefors Critical Value	0.373				Detected Data appear Normal at 1% Significance Level			
2667					Detected Data appear Normal at 1% Significance Level							
2668					Note GOF tests may be unreliable for small sample sizes							
2669												
2670					Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs							
2671				KM Mean	382.2				KM Standard Error of Mean		163.5	
2672				90KM SD	394.9				95% KM (BCA) UCL		689.6	
2673				95% KM (t) UCL	699.9				95% KM (Percentile Bootstrap) UCL		659.6	
2674				95% KM (z) UCL	651.1				95% KM Bootstrap t UCL		1081	
2675				90% KM Chebyshev UCL	872.7				95% KM Chebyshev UCL		1095	
2676				97.5% KM Chebyshev UCL	1403				99% KM Chebyshev UCL		2009	
2677												
2678					Gamma GOF Tests on Detected Observations Only							
2679				A-D Test Statistic	0.415				Anderson-Darling GOF Test			
2680				5% A-D Critical Value	0.707				Detected data appear Gamma Distributed at 5% Significance Level			

	A	B	C	D	E	F	G	H	I	J	K	L
2681					K-S Test Statistic	0.254	**Kolmogorov-Smirnov GOF**					
2682					5% K-S Critical Value	0.337	Detected data appear Gamma Distributed at 5% Significance Level					
2683	**Detected data appear Gamma Distributed at 5% Significance Level**											
2684	**Note GOF tests may be unreliable for small sample sizes**											
2685												
2686	**Gamma Statistics on Detected Data Only**											
2687					k hat (MLE)	1.661				k star (bias corrected MLE)		0.941
2688					Theta hat (MLE)	265.7				Theta star (bias corrected MLE)		468.6
2689					nu hat (MLE)	19.93				nu star (bias corrected)		11.3
2690					Mean (detects)	441.2						
2691												
2692	**Gamma ROS Statistics using Imputed Non-Detects**											
2693	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2694	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2695	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2696	This is especially true when the sample size is small.											
2697	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2698					Minimum	0.01				Mean		378.1
2699					Maximum	1300				Median		270
2700					SD	430.6				CV		1.139
2701					k hat (MLE)	0.398				k star (bias corrected MLE)		0.322
2702					Theta hat (MLE)	951.2				Theta star (bias corrected MLE)		1173
2703					nu hat (MLE)	5.566				nu star (bias corrected)		4.514
2704					Adjusted Level of Significance (β)	0.0158						
2705					Approximate Chi Square Value (4.51, α)	0.935				Adjusted Chi Square Value (4.51, β)		0.54
2706					95% Gamma Approximate UCL	1826				95% Gamma Adjusted UCL		3160
2707												
2708	**Estimates of Gamma Parameters using KM Estimates**											
2709					Mean (KM)	382.2				SD (KM)		394.9
2710					Variance (KM)	155938				SE of Mean (KM)		163.5
2711					k hat (KM)	0.937				k star (KM)		0.631
2712					nu hat (KM)	13.12				nu star (KM)		8.828
2713					theta hat (KM)	408				theta star (KM)		606.1
2714					80% gamma percentile (KM)	629.8				90% gamma percentile (KM)		982.9
2715					95% gamma percentile (KM)	1351				99% gamma percentile (KM)		2237
2716												
2717	**Gamma Kaplan-Meier (KM) Statistics**											
2718					Approximate Chi Square Value (8.83, α)	3.223				Adjusted Chi Square Value (8.83, β)		2.29
2719					95% KM Approximate Gamma UCL	1047				95% KM Adjusted Gamma UCL		1473
2720												
2721	**Lognormal GOF Test on Detected Observations Only**											
2722					Shapiro Wilk Test Statistic	0.952	**Shapiro Wilk GOF Test**					
2723					10% Shapiro Wilk Critical Value	0.826	Detected Data appear Lognormal at 10% Significance Level					
2724					Lilliefors Test Statistic	0.209	**Lilliefors GOF Test**					
2725					10% Lilliefors Critical Value	0.298	Detected Data appear Lognormal at 10% Significance Level					
2726	**Detected Data appear Lognormal at 10% Significance Level**											
2727	**Note GOF tests may be unreliable for small sample sizes**											
2728												
2729	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2730					Mean in Original Scale	383.4				Mean in Log Scale		5.451
2731					SD in Original Scale	425.4				SD in Log Scale		1.142
2732					95% t UCL (assumes normality of ROS data)	695.8				95% Percentile Bootstrap UCL		669.5
2733					95% BCA Bootstrap UCL	745.7				95% Bootstrap t UCL		1103
2734					95% H-UCL (Log ROS)	3038						
2735												
2736	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2737					KM Mean (logged)	5.415				KM Geo Mean		224.7
2738					KM SD (logged)	1.123				95% Critical H Value (KM-Log)		4.049
2739					KM Standard Error of Mean (logged)	0.465				95% H-UCL (KM -Log)		2700
2740					KM SD (logged)	1.123				95% Critical H Value (KM-Log)		4.049
2741					KM Standard Error of Mean (logged)	0.465						
2742												
2743	**DL/2 Statistics**											
2744	**DL/2 Normal**						**DL/2 Log-Transformed**					
2745					Mean in Original Scale	380.2				Mean in Log Scale		5.316
2746					SD in Original Scale	428.5				SD in Log Scale		1.42
2747					95% t UCL (Assumes normality)	694.9				95% H-Stat UCL		9763

	A	B	C	D	E	F	G	H	I	J	K	L
2748	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2749												
2750	**Nonparametric Distribution Free UCL Statistics**											
2751	**Detected Data appear Normal Distributed at 1% Significance Level**											
2752												
2753	**Suggested UCL to Use**											
2754	95% KM (t) UCL	699.9										
2755												
2756	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2757	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2758	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2759												
2760	**Phenanthrene**											
2761												
2762	**General Statistics**											
2763	Total Number of Observations	33					Number of Distinct Observations	27				
2764							Number of Missing Observations	27				
2765	Number of Detects	22					Number of Non-Detects	11				
2766	Number of Distinct Detects	21					Number of Distinct Non-Detects	8				
2767	Minimum Detect	41					Minimum Non-Detect	90				
2768	Maximum Detect	9700					Maximum Non-Detect	1950				
2769	Variance Detects	4332375					Percent Non-Detects	33.33%				
2770	Mean Detects	1139					SD Detects	2081				
2771	Median Detects	345					CV Detects	1.827				
2772	Skewness Detects	3.619					Kurtosis Detects	14.74				
2773	Mean of Logged Detects	6.069					SD of Logged Detects	1.389				
2774												
2775	**Normal GOF Test on Detects Only**											
2776	Shapiro Wilk Test Statistic	0.528					**Shapiro Wilk GOF Test**					
2777	1% Shapiro Wilk Critical Value	0.878					Detected Data Not Normal at 1% Significance Level					
2778	Lilliefors Test Statistic	0.299					**Lilliefors GOF Test**					
2779	1% Lilliefors Critical Value	0.214					Detected Data Not Normal at 1% Significance Level					
2780	**Detected Data Not Normal at 1% Significance Level**											
2781												
2782	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2783	KM Mean	788.2					KM Standard Error of Mean	309.5				
2784	90KM SD	1735					95% KM (BCA) UCL	1355				
2785	95% KM (t) UCL	1312					95% KM (Percentile Bootstrap) UCL	1319				
2786	95% KM (z) UCL	1297					95% KM Bootstrap t UCL	2031				
2787	90% KM Chebyshev UCL	1717					95% KM Chebyshev UCL	2137				
2788	97.5% KM Chebyshev UCL	2721					99% KM Chebyshev UCL	3868				
2789												
2790	**Gamma GOF Tests on Detected Observations Only**											
2791	A-D Test Statistic	0.935					**Anderson-Darling GOF Test**					
2792	5% A-D Critical Value	0.793					Detected Data Not Gamma Distributed at 5% Significance Level					
2793	K-S Test Statistic	0.19					**Kolmogorov-Smirnov GOF**					
2794	5% K-S Critical Value	0.194					Detected data appear Gamma Distributed at 5% Significance Level					
2795	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
2796												
2797	**Gamma Statistics on Detected Data Only**											
2798	k hat (MLE)	0.633					k star (bias corrected MLE)	0.577				
2799	Theta hat (MLE)	1799					Theta star (bias corrected MLE)	1974				
2800	nu hat (MLE)	27.85					nu star (bias corrected)	25.39				
2801	Mean (detects)	1139										
2802												
2803	**Gamma ROS Statistics using Imputed Non-Detects**											
2804	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2805	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2806	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2807	This is especially true when the sample size is small.											
2808	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2809	Minimum	0.01					Mean	759.3				
2810	Maximum	9700					Median	170				
2811	SD	1772					CV	2.334				
2812	k hat (MLE)	0.181					k star (bias corrected MLE)	0.185				
2813	Theta hat (MLE)	4188					Theta star (bias corrected MLE)	4104				
2814	nu hat (MLE)	11.97					nu star (bias corrected)	12.21				

2815				Adjusted Level of Significance (β)		0.0419						
2816				Approximate Chi Square Value (12.21, α)		5.367				Adjusted Chi Square Value (12.21, β)		5.134
2817				95% Gamma Approximate UCL		1728				95% Gamma Adjusted UCL		1806
2818												
2819						**Estimates of Gamma Parameters using KM Estimates**							
2820				Mean (KM)		788.2				SD (KM)		1735
2821				Variance (KM)		3010516				SE of Mean (KM)		309.5
2822				k hat (KM)		0.206				k star (KM)		0.208
2823				nu hat (KM)		13.62				nu star (KM)		13.72
2824				theta hat (KM)		3819				theta star (KM)		3793
2825				80% gamma percentile (KM)		1059				90% gamma percentile (KM)		2384
2826				95% gamma percentile (KM)		4021				99% gamma percentile (KM)		8499
2827												
2828						**Gamma Kaplan-Meier (KM) Statistics**							
2829				Approximate Chi Square Value (13.72, α)		6.378				Adjusted Chi Square Value (13.72, β)		6.12
2830				95% KM Approximate Gamma UCL		1695				95% KM Adjusted Gamma UCL		1767
2831												
2832						**Lognormal GOF Test on Detected Observations Only**							
2833				Shapiro Wilk Test Statistic		0.969				**Shapiro Wilk GOF Test**		
2834				10% Shapiro Wilk Critical Value		0.926				Detected Data appear Lognormal at 10% Significance Level		
2835				Lilliefors Test Statistic		0.123				**Lilliefors GOF Test**		
2836				10% Lilliefors Critical Value		0.169				Detected Data appear Lognormal at 10% Significance Level		
2837						**Detected Data appear Lognormal at 10% Significance Level**						
2838												
2839						**Lognormal ROS Statistics Using Imputed Non-Detects**						
2840				Mean in Original Scale		777.2				Mean in Log Scale		5.325
2841				SD in Original Scale		1765				SD in Log Scale		1.582
2842				95% t UCL (assumes normality of ROS data)		1297				95% Percentile Bootstrap UCL		1293
2843				95% BCA Bootstrap UCL		1583				95% Bootstrap t UCL		2056
2844				95% H-UCL (Log ROS)		1767						
2845												
2846						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
2847				KM Mean (logged)		5.442				KM Geo Mean		230.9
2848				KM SD (logged)		1.455				95% Critical H Value (KM-Log)		3.04
2849				KM Standard Error of Mean (logged)		0.271				95% H-UCL (KM -Log)		1453
2850				KM SD (logged)		1.455				95% Critical H Value (KM-Log)		3.04
2851				KM Standard Error of Mean (logged)		0.271						
2852												
2853						**DL/2 Statistics**						
2854				**DL/2 Normal**						**DL/2 Log-Transformed**		
2855				Mean in Original Scale		805.7				Mean in Log Scale		5.47
2856				SD in Original Scale		1760				SD in Log Scale		1.499
2857				95% t UCL (Assumes normality)		1325				95% H-Stat UCL		1663
2858						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2859												
2860						**Nonparametric Distribution Free UCL Statistics**						
2861						**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**						
2862												
2863						**Suggested UCL to Use**						
2864				95% KM Adjusted Gamma UCL		1767						
2865												
2866						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
2867						**Please verify the data were collected from random locations.**						
2868						**If the data were collected using judgmental or other non-random methods,**						
2869						**then contact a statistician to correctly calculate UCLs.**						
2870												
2871						When a data set follows an approximate distribution passing only one of the GOF tests,						
2872						it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL						
2873												
2874						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2875						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2876						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2877												
2878	**Pyrene**											
2879												
2880						**General Statistics**						
2881				Total Number of Observations		33				Number of Distinct Observations		31

2882											Number of Missing Observations	27
2883					Number of Detects	28					Number of Non-Detects	5
2884					Number of Distinct Detects	27					Number of Distinct Non-Detects	5
2885					Minimum Detect	47					Minimum Non-Detect	90
2886					Maximum Detect	13000					Maximum Non-Detect	115
2887					Variance Detects	6426425					Percent Non-Detects	15.15%
2888					Mean Detects	1343					SD Detects	2535
2889					Median Detects	395					CV Detects	1.887
2890					Skewness Detects	3.908					Kurtosis Detects	17.46
2891					Mean of Logged Detects	6.156					SD of Logged Detects	1.492
2892												
2893						**Normal GOF Test on Detects Only**							
2894					Shapiro Wilk Test Statistic	0.521					**Shapiro Wilk GOF Test**	
2895					1% Shapiro Wilk Critical Value	0.896					Detected Data Not Normal at 1% Significance Level	
2896					Lilliefors Test Statistic	0.305					**Lilliefors GOF Test**	
2897					1% Lilliefors Critical Value	0.191					Detected Data Not Normal at 1% Significance Level	
2898						**Detected Data Not Normal at 1% Significance Level**							
2899												
2900						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
2901					KM Mean	1149					KM Standard Error of Mean	414.6
2902					90KM SD	2339					95% KM (BCA) UCL	1925
2903					95% KM (t) UCL	1851					95% KM (Percentile Bootstrap) UCL	1876
2904					95% KM (z) UCL	1831					95% KM Bootstrap t UCL	2776
2905					90% KM Chebyshev UCL	2393					95% KM Chebyshev UCL	2956
2906					97.5% KM Chebyshev UCL	3738					99% KM Chebyshev UCL	5274
2907												
2908						**Gamma GOF Tests on Detected Observations Only**							
2909					A-D Test Statistic	0.817					**Anderson-Darling GOF Test**	
2910					5% A-D Critical Value	0.801					Detected Data Not Gamma Distributed at 5% Significance Level	
2911					K-S Test Statistic	0.154					**Kolmogorov-Smirnov GOF**	
2912					5% K-S Critical Value	0.174					Detected data appear Gamma Distributed at 5% Significance Level	
2913						**Detected data follow Appr. Gamma Distribution at 5% Significance Level**						
2914												
2915						**Gamma Statistics on Detected Data Only**							
2916					k hat (MLE)	0.591					k star (bias corrected MLE)	0.552
2917					Theta hat (MLE)	2272					Theta star (bias corrected MLE)	2435
2918					nu hat (MLE)	33.11					nu star (bias corrected)	30.9
2919					Mean (detects)	1343						
2920												
2921						**Gamma ROS Statistics using Imputed Non-Detects**							
2922						GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2923						GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2924						For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2925						This is especially true when the sample size is small.							
2926						For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2927					Minimum	0.01					Mean	1140
2928					Maximum	13000					Median	370
2929					SD	2379					CV	2.088
2930					k hat (MLE)	0.278					k star (bias corrected MLE)	0.273
2931					Theta hat (MLE)	4103					Theta star (bias corrected MLE)	4179
2932					nu hat (MLE)	18.34					nu star (bias corrected)	18
2933					Adjusted Level of Significance (β)	0.0419						
2934					Approximate Chi Square Value (18.00, α)	9.392					Adjusted Chi Square Value (18.00, β)	9.072
2935					95% Gamma Approximate UCL	2185					95% Gamma Adjusted UCL	2262
2936												
2937						**Estimates of Gamma Parameters using KM Estimates**							
2938					Mean (KM)	1149					SD (KM)	2339
2939					Variance (KM)	5469172					SE of Mean (KM)	414.6
2940					k hat (KM)	0.241					k star (KM)	0.24
2941					nu hat (KM)	15.94					nu star (KM)	15.82
2942					theta hat (KM)	4759					theta star (KM)	4794
2943					80% gamma percentile (KM)	1643					90% gamma percentile (KM)	3459
2944					95% gamma percentile (KM)	5632					99% gamma percentile (KM)	11451
2945												
2946						**Gamma Kaplan-Meier (KM) Statistics**							
2947					Approximate Chi Square Value (15.82, α)	7.835					Adjusted Chi Square Value (15.82, β)	7.546
2948					95% KM Approximate Gamma UCL	2320					95% KM Adjusted Gamma UCL	2409

2949												
2950	**Lognormal GOF Test on Detected Observations Only**											
2951					Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**					
2952					10% Shapiro Wilk Critical Value	0.936	Detected Data appear Lognormal at 10% Significance Level					
2953					Lilliefors Test Statistic	0.0797	**Lilliefors GOF Test**					
2954					10% Lilliefors Critical Value	0.151	Detected Data appear Lognormal at 10% Significance Level					
2955	**Detected Data appear Lognormal at 10% Significance Level**											
2956												
2957	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2958					Mean in Original Scale	1149			Mean in Log Scale	5.848		
2959					SD in Original Scale	2375			SD in Log Scale	1.557		
2960				95% t UCL (assumes normality of ROS data)		1849			95% Percentile Bootstrap UCL	1839		
2961					95% BCA Bootstrap UCL	2160			95% Bootstrap t UCL	2738		
2962					95% H-UCL (Log ROS)	2802						
2963												
2964	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2965					KM Mean (logged)	5.845			KM Geo Mean	345.4		
2966					KM SD (logged)	1.539			95% Critical H Value (KM-Log)	3.16		
2967					KM Standard Error of Mean (logged)	0.273			95% H-UCL (KM -Log)	2664		
2968					KM SD (logged)	1.539			95% Critical H Value (KM-Log)	3.16		
2969					KM Standard Error of Mean (logged)	0.273						
2970												
2971	**DL/2 Statistics**											
2972				**DL/2 Normal**					**DL/2 Log-Transformed**			
2973					Mean in Original Scale	1148			Mean in Log Scale	5.821		
2974					SD in Original Scale	2376			SD in Log Scale	1.589		
2975					95% t UCL (Assumes normality)	1848			95% H-Stat UCL	2955		
2976	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2977												
2978	**Nonparametric Distribution Free UCL Statistics**											
2979	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
2980												
2981	**Suggested UCL to Use**											
2982					95% KM Adjusted Gamma UCL	2409						
2983												
2984	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2985	**Please verify the data were collected from random locations.**											
2986	**If the data were collected using judgmental or other non-random methods,**											
2987	**then contact a statistician to correctly calculate UCLs.**											
2988												
2989	When a data set follows an approximate distribution passing only one of the GOF tests,											
2990	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
2991												
2992	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2993	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2994	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2995												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:47:46 AM
From File	sediment_maintenance dynamite west
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	37	Number of Distinct Observations	37
		Number of Missing Observations	35
Number of Detects	34	Number of Non-Detects	3
Number of Distinct Detects	34	Number of Distinct Non-Detects	3
Minimum Detect	1.12	Minimum Non-Detect	1.945
Maximum Detect	72.4	Maximum Non-Detect	12.65
Variance Detects	253.6	Percent Non-Detects	8.108%
Mean Detects	12.85	SD Detects	15.92
Median Detects	8.28	CV Detects	1.239
Skewness Detects	2.791	Kurtosis Detects	8.147
Mean of Logged Detects	2.028	SD of Logged Detects	1.05

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.645	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.908	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.26	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.175	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	12.12	KM Standard Error of Mean	2.55
90KM SD	15.26	95% KM (BCA) UCL	16.76
95% KM (t) UCL	16.42	95% KM (Percentile Bootstrap) UCL	16.57
95% KM (z) UCL	16.31	95% KM Bootstrap t UCL	20.42
90% KM Chebyshev UCL	19.77	95% KM Chebyshev UCL	23.23
97.5% KM Chebyshev UCL	28.04	99% KM Chebyshev UCL	37.49

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.699	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.774	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.128	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.155	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.088	k star (bias corrected MLE)	1.012
Theta hat (MLE)	11.81	Theta star (bias corrected MLE)	12.7
nu hat (MLE)	74.01	nu star (bias corrected)	68.81
Mean (detects)	12.85		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	11.96
Maximum	72.4	Median	7.53
SD	15.55	CV	1.301
k hat (MLE)	0.854	k star (bias corrected MLE)	0.803
Theta hat (MLE)	14	Theta star (bias corrected MLE)	14.9
nu hat (MLE)	63.18	nu star (bias corrected)	59.39
Adjusted Level of Significance (β)	0.0431		
Approximate Chi Square Value (59.39, α)	42.67	Adjusted Chi Square Value (59.39, β)	42.05
95% Gamma Approximate UCL	16.64	95% Gamma Adjusted UCL	16.88

68											
69	**Estimates of Gamma Parameters using KM Estimates**										
70					Mean (KM)	12.12			SD (KM)	15.26	
71					Variance (KM)	233			SE of Mean (KM)	2.55	
72					k hat (KM)	0.63			k star (KM)	0.597	
73					nu hat (KM)	46.64			nu star (KM)	44.19	
74					theta hat (KM)	19.23			theta star (KM)	20.29	
75					80% gamma percentile (KM)	19.97			90% gamma percentile (KM)	31.55	
76					95% gamma percentile (KM)	43.68			99% gamma percentile (KM)	73.03	
77											
78	**Gamma Kaplan-Meier (KM) Statistics**										
79					Approximate Chi Square Value (44.19, α)	29.95			Adjusted Chi Square Value (44.19, β)	29.44	
80					95% KM Approximate Gamma UCL	17.88			95% KM Adjusted Gamma UCL	18.19	
81											
82	**Lognormal GOF Test on Detected Observations Only**										
83					Shapiro Wilk Test Statistic	0.962			**Shapiro Wilk GOF Test**		
84					10% Shapiro Wilk Critical Value	0.943			Detected Data appear Lognormal at 10% Significance Level		
85					Lilliefors Test Statistic	0.101			**Lilliefors GOF Test**		
86					10% Lilliefors Critical Value	0.137			Detected Data appear Lognormal at 10% Significance Level		
87	**Detected Data appear Lognormal at 10% Significance Level**										
88											
89	**Lognormal ROS Statistics Using Imputed Non-Detects**										
90					Mean in Original Scale	12.08			Mean in Log Scale	1.957	
91					SD in Original Scale	15.47			SD in Log Scale	1.041	
92					95% t UCL (assumes normality of ROS data)	16.38			95% Percentile Bootstrap UCL	16.38	
93					95% BCA Bootstrap UCL	17.65			95% Bootstrap t UCL	20.39	
94					95% H-UCL (Log ROS)	18.57					
95											
96	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
97					KM Mean (logged)	1.948			KM Geo Mean	7.015	
98					KM SD (logged)	1.05			95% Critical H Value (KM-Log)	2.447	
99					KM Standard Error of Mean (logged)	0.178			95% H-UCL (KM -Log)	18.68	
100					KM SD (logged)	1.05			95% Critical H Value (KM-Log)	2.447	
101					KM Standard Error of Mean (logged)	0.178					
102											
103	**DL/2 Statistics**										
104	**DL/2 Normal**								**DL/2 Log-Transformed**		
105					Mean in Original Scale	12.13			Mean in Log Scale	1.955	
106					SD in Original Scale	15.45			SD in Log Scale	1.062	
107					95% t UCL (Assumes normality)	16.42			95% H-Stat UCL	19.21	
108	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
109											
110	**Nonparametric Distribution Free UCL Statistics**										
111	**Detected Data appear Gamma Distributed at 5% Significance Level**										
112											
113	**Suggested UCL to Use**										
114					95% KM Adjusted Gamma UCL	18.19			95% GROS Adjusted Gamma UCL	16.88	
115											
116	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
117	**Please verify the data were collected from random locations.**										
118	**If the data were collected using judgmental or other non-random methods,**										
119	**then contact a statistician to correctly calculate UCLs.**										
120											
121	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
122	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
123	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
124											
125	**Cadmium**										
126											
127	**General Statistics**										
128					Total Number of Observations	37			Number of Distinct Observations	37	
129									Number of Missing Observations	35	
130					Number of Detects	31			Number of Non-Detects	6	
131					Number of Distinct Detects	31			Number of Distinct Non-Detects	6	
132					Minimum Detect	0.199			Minimum Non-Detect	0.316	
133					Maximum Detect	1.43			Maximum Non-Detect	3.165	
134					Variance Detects	0.0947			Percent Non-Detects	16.22%	

135				Mean Detects	0.674				SD Detects	0.308		
136				Median Detects	0.653				CV Detects	0.457		
137				Skewness Detects	0.829				Kurtosis Detects	0.315		
138				Mean of Logged Detects	-0.497				SD of Logged Detects	0.473		
139												
140				**Normal GOF Test on Detects Only**								
141				Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk GOF Test**						
142				1% Shapiro Wilk Critical Value	0.902	Detected Data appear Normal at 1% Significance Level						
143				Lilliefors Test Statistic	0.162	**Lilliefors GOF Test**						
144				1% Lilliefors Critical Value	0.182	Detected Data appear Normal at 1% Significance Level						
145				**Detected Data appear Normal at 1% Significance Level**								
146												
147				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
148				KM Mean	0.635	KM Standard Error of Mean	0.0551					
149				90KM SD	0.316	95% KM (BCA) UCL	0.734					
150				95% KM (t) UCL	0.728	95% KM (Percentile Bootstrap) UCL	0.731					
151				95% KM (z) UCL	0.725	95% KM Bootstrap t UCL	0.738					
152				90% KM Chebyshev UCL	0.8	95% KM Chebyshev UCL	0.875					
153				97.5% KM Chebyshev UCL	0.979	99% KM Chebyshev UCL	1.183					
154												
155				**Gamma GOF Tests on Detected Observations Only**								
156				A-D Test Statistic	0.332	**Anderson-Darling GOF Test**						
157				5% A-D Critical Value	0.747	Detected data appear Gamma Distributed at 5% Significance Level						
158				K-S Test Statistic	0.106	**Kolmogorov-Smirnov GOF**						
159				5% K-S Critical Value	0.158	Detected data appear Gamma Distributed at 5% Significance Level						
160				**Detected data appear Gamma Distributed at 5% Significance Level**								
161												
162				**Gamma Statistics on Detected Data Only**								
163				k hat (MLE)	5.021	k star (bias corrected MLE)	4.557					
164				Theta hat (MLE)	0.134	Theta star (bias corrected MLE)	0.148					
165				nu hat (MLE)	311.3	nu star (bias corrected)	282.5					
166				Mean (detects)	0.674							
167												
168				**Gamma ROS Statistics using Imputed Non-Detects**								
169				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
170				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
171				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
172				This is especially true when the sample size is small.								
173				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
174				Minimum	0.199	Mean	0.63					
175				Maximum	1.43	Median	0.623					
176				SD	0.309	CV	0.491					
177				k hat (MLE)	4.205	k star (bias corrected MLE)	3.882					
178				Theta hat (MLE)	0.15	Theta star (bias corrected MLE)	0.162					
179				nu hat (MLE)	311.2	nu star (bias corrected)	287.3					
180				Adjusted Level of Significance (β)	0.0431							
181				Approximate Chi Square Value (287.29, α)	249	Adjusted Chi Square Value (287.29, β)	247.5					
182				95% Gamma Approximate UCL	0.726	95% Gamma Adjusted UCL	0.731					
183												
184				**Estimates of Gamma Parameters using KM Estimates**								
185				Mean (KM)	0.635	SD (KM)	0.316					
186				Variance (KM)	0.0998	SE of Mean (KM)	0.0551					
187				k hat (KM)	4.033	k star (KM)	3.724					
188				nu hat (KM)	298.5	nu star (KM)	275.6					
189				theta hat (KM)	0.157	theta star (KM)	0.17					
190				80% gamma percentile (KM)	0.882	90% gamma percentile (KM)	1.075					
191				95% gamma percentile (KM)	1.254	99% gamma percentile (KM)	1.636					
192												
193				**Gamma Kaplan-Meier (KM) Statistics**								
194				Approximate Chi Square Value (275.60, α)	238.2	Adjusted Chi Square Value (275.60, β)	236.6					
195				95% KM Approximate Gamma UCL	0.734	95% KM Adjusted Gamma UCL	0.739					
196												
197				**Lognormal GOF Test on Detected Observations Only**								
198				Shapiro Wilk Test Statistic	0.969	**Shapiro Wilk GOF Test**						
199				10% Shapiro Wilk Critical Value	0.94	Detected Data appear Lognormal at 10% Significance Level						
200				Lilliefors Test Statistic	0.133	**Lilliefors GOF Test**						
201				10% Lilliefors Critical Value	0.143	Detected Data appear Lognormal at 10% Significance Level						

202	**Detected Data appear Lognormal at 10% Significance Level**											
203												
204	**Lognormal ROS Statistics Using Imputed Non-Detects**											
205					Mean in Original Scale	0.631				Mean in Log Scale	-0.573	
206					SD in Original Scale	0.304				SD in Log Scale	0.493	
207				95% t UCL (assumes normality of ROS data)		0.716				95% Percentile Bootstrap UCL	0.716	
208					95% BCA Bootstrap UCL	0.72				95% Bootstrap t UCL	0.729	
209					95% H-UCL (Log ROS)	0.744						
210												
211	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
212					KM Mean (logged)	-0.586				KM Geo Mean	0.557	
213					KM SD (logged)	0.529				95% Critical H Value (KM-Log)	1.934	
214					KM Standard Error of Mean (logged)	0.0926				95% H-UCL (KM -Log)	0.759	
215					KM SD (logged)	0.529				95% Critical H Value (KM-Log)	1.934	
216					KM Standard Error of Mean (logged)	0.0926						
217												
218	**DL/2 Statistics**											
219	**DL/2 Normal**									**DL/2 Log-Transformed**		
220					Mean in Original Scale	0.683				Mean in Log Scale	-0.54	
221					SD in Original Scale	0.368				SD in Log Scale	0.606	
222					95% t UCL (Assumes normality)	0.785				95% H-Stat UCL	0.856	
223	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
224												
225	**Nonparametric Distribution Free UCL Statistics**											
226	**Detected Data appear Normal Distributed at 1% Significance Level**											
227												
228	**Suggested UCL to Use**											
229					95% KM (t) UCL	0.728						
230												
231	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
232	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
233	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
234												
235												
236	**Chromium**											
237												
238	**General Statistics**											
239					Total Number of Observations	37				Number of Distinct Observations	31	
240										Number of Missing Observations	35	
241					Minimum	6.65				Mean	15.88	
242					Maximum	43.8				Median	13.8	
243					SD	7.613				Std. Error of Mean	1.252	
244					Coefficient of Variation	0.479				Skewness	1.866	
245												
246	**Normal GOF Test**											
247					Shapiro Wilk Test Statistic	0.839				**Shapiro Wilk GOF Test**		
248					1% Shapiro Wilk Critical Value	0.814				Data appear Normal at 1% Significance Level		
249					Lilliefors Test Statistic	0.147				**Lilliefors GOF Test**		
250					1% Lilliefors Critical Value	0.168				Data appear Normal at 1% Significance Level		
251	**Data appear Normal at 1% Significance Level**											
252												
253	**Assuming Normal Distribution**											
254	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
255					95% Student's-t UCL	17.99				95% Adjusted-CLT UCL (Chen-1995)	18.35	
256										95% Modified-t UCL (Johnson-1978)	18.06	
257												
258	**Gamma GOF Test**											
259					A-D Test Statistic	0.577				**Anderson-Darling Gamma GOF Test**		
260					5% A-D Critical Value	0.75				Detected data appear Gamma Distributed at 5% Significance Level		
261					K-S Test Statistic	0.118				**Kolmogorov-Smirnov Gamma GOF Test**		
262					5% K-S Critical Value	0.145				Detected data appear Gamma Distributed at 5% Significance Level		
263	**Detected data appear Gamma Distributed at 5% Significance Level**											
264												
265	**Gamma Statistics**											
266					k hat (MLE)	5.739				k star (bias corrected MLE)	5.292	
267					Theta hat (MLE)	2.767				Theta star (bias corrected MLE)	3.001	
268					nu hat (MLE)	424.7				nu star (bias corrected)	391.6	

269				MLE Mean (bias corrected)		15.88				MLE Sd (bias corrected)		6.903
270										Approximate Chi Square Value (0.05)		346.8
271				Adjusted Level of Significance		0.0431				Adjusted Chi Square Value		344.9
272												
273						**Assuming Gamma Distribution**							
274				95% Approximate Gamma UCL		17.93				95% Adjusted Gamma UCL		18.03
275												
276						**Lognormal GOF Test**						
277				Shapiro Wilk Test Statistic		0.975				**Shapiro Wilk Lognormal GOF Test**		
278				10% Shapiro Wilk Critical Value		0.946				Data appear Lognormal at 10% Significance Level		
279				Lilliefors Test Statistic		0.101				**Lilliefors Lognormal GOF Test**		
280				10% Lilliefors Critical Value		0.132				Data appear Lognormal at 10% Significance Level		
281						**Data appear Lognormal at 10% Significance Level**							
282												
283						**Lognormal Statistics**						
284				Minimum of Logged Data		1.895				Mean of logged Data		2.675
285				Maximum of Logged Data		3.78				SD of logged Data		0.414
286												
287						**Assuming Lognormal Distribution**							
288				95% H-UCL		17.97				90% Chebyshev (MVUE) UCL		19.1
289				95% Chebyshev (MVUE) UCL		20.61				97.5% Chebyshev (MVUE) UCL		22.7
290				99% Chebyshev (MVUE) UCL		26.81						
291												
292						**Nonparametric Distribution Free UCL Statistics**							
293						**Data appear to follow a Discernible Distribution**							
294												
295						**Nonparametric Distribution Free UCLs**							
296				95% CLT UCL		17.94				95% BCA Bootstrap UCL		18.43
297				95% Standard Bootstrap UCL		17.89				95% Bootstrap-t UCL		18.75
298				95% Hall's Bootstrap UCL		19.08				95% Percentile Bootstrap UCL		17.96
299				90% Chebyshev(Mean, Sd) UCL		19.63				95% Chebyshev(Mean, Sd) UCL		21.33
300				97.5% Chebyshev(Mean, Sd) UCL		23.7				99% Chebyshev(Mean, Sd) UCL		28.33
301												
302						**Suggested UCL to Use**							
303				95% Student's-t UCL		17.99						
304												
305						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
306						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
307						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
308												
309												
310	**Copper**											
311												
312						**General Statistics**							
313				Total Number of Observations		37				Number of Distinct Observations		37
314										Number of Missing Observations		35
315				Minimum		3.3				Mean		25.55
316				Maximum		195				Median		20.3
317				SD		31.28				Std. Error of Mean		5.143
318				Coefficient of Variation		1.224				Skewness		4.658
319												
320						**Normal GOF Test**						
321				Shapiro Wilk Test Statistic		0.517				**Shapiro Wilk GOF Test**		
322				1% Shapiro Wilk Critical Value		0.814				Data Not Normal at 1% Significance Level		
323				Lilliefors Test Statistic		0.291				**Lilliefors GOF Test**		
324				1% Lilliefors Critical Value		0.168				Data Not Normal at 1% Significance Level		
325						**Data Not Normal at 1% Significance Level**							
326												
327						**Assuming Normal Distribution**							
328				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
329				95% Student's-t UCL		34.23				95% Adjusted-CLT UCL (Chen-1995)		38.22
330										95% Modified-t UCL (Johnson-1978)		34.89
331												
332						**Gamma GOF Test**							
333				A-D Test Statistic		0.928				**Anderson-Darling Gamma GOF Test**		
334				5% A-D Critical Value		0.765				Data Not Gamma Distributed at 5% Significance Level		
335				K-S Test Statistic		0.158				**Kolmogorov-Smirnov Gamma GOF Test**		

336				5% K-S Critical Value		0.148	Data Not Gamma Distributed at 5% Significance Level					
337	**Data Not Gamma Distributed at 5% Significance Level**											
338												
339	**Gamma Statistics**											
340				k hat (MLE)		1.579	k star (bias corrected MLE)					1.469
341				Theta hat (MLE)		16.18	Theta star (bias corrected MLE)					17.4
342				nu hat (MLE)		116.8	nu star (bias corrected)					108.7
343				MLE Mean (bias corrected)		25.55	MLE Sd (bias corrected)					21.08
344							Approximate Chi Square Value (0.05)					85.63
345				Adjusted Level of Significance		0.0431	Adjusted Chi Square Value					84.74
346												
347	**Assuming Gamma Distribution**											
348				95% Approximate Gamma UCL		32.43	95% Adjusted Gamma UCL					32.77
349												
350	**Lognormal GOF Test**											
351				Shapiro Wilk Test Statistic		0.959	**Shapiro Wilk Lognormal GOF Test**					
352				10% Shapiro Wilk Critical Value		0.946	Data appear Lognormal at 10% Significance Level					
353				Lilliefors Test Statistic		0.117	**Lilliefors Lognormal GOF Test**					
354				10% Lilliefors Critical Value		0.132	Data appear Lognormal at 10% Significance Level					
355	**Data appear Lognormal at 10% Significance Level**											
356												
357	**Lognormal Statistics**											
358				Minimum of Logged Data		1.194	Mean of logged Data					2.892
359				Maximum of Logged Data		5.273	SD of logged Data					0.81
360												
361	**Assuming Lognormal Distribution**											
362				95% H-UCL		33.6	90% Chebyshev (MVUE) UCL					35.73
363				95% Chebyshev (MVUE) UCL		40.71	97.5% Chebyshev (MVUE) UCL					47.62
364				99% Chebyshev (MVUE) UCL		61.2						
365												
366	**Nonparametric Distribution Free UCL Statistics**											
367	**Data appear to follow a Discernible Distribution**											
368												
369	**Nonparametric Distribution Free UCLs**											
370				95% CLT UCL		34.01	95% BCA Bootstrap UCL					40.96
371				95% Standard Bootstrap UCL		33.95	95% Bootstrap-t UCL					45.41
372				95% Hall's Bootstrap UCL		70.3	95% Percentile Bootstrap UCL					34.81
373				90% Chebyshev(Mean, Sd) UCL		40.98	95% Chebyshev(Mean, Sd) UCL					47.97
374				97.5% Chebyshev(Mean, Sd) UCL		57.67	99% Chebyshev(Mean, Sd) UCL					76.72
375												
376	**Suggested UCL to Use**											
377				95% H-UCL		33.6						
378												
379	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
380	**Please verify the data were collected from random locations.**											
381	**If the data were collected using judgmental or other non-random methods,**											
382	**then contact a statistician to correctly calculate UCLs.**											
383												
384	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
385	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
386	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
387												
388												
389	**Lead**											
390												
391	**General Statistics**											
392				Total Number of Observations		37	Number of Distinct Observations					35
393							Number of Missing Observations					35
394				Minimum		6.42	Mean					173
395				Maximum		1060	Median					50.1
396				SD		258.8	Std. Error of Mean					42.54
397				Coefficient of Variation		1.495	Skewness					2.256
398												
399	**Normal GOF Test**											
400				Shapiro Wilk Test Statistic		0.651	**Shapiro Wilk GOF Test**					
401				1% Shapiro Wilk Critical Value		0.814	Data Not Normal at 1% Significance Level					
402				Lilliefors Test Statistic		0.285	**Lilliefors GOF Test**					

403				1% Lilliefors Critical Value		0.168		Data Not Normal at 1% Significance Level				
404	**Data Not Normal at 1% Significance Level**											
405												
406	**Assuming Normal Distribution**											
407	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
408				95% Student's-t UCL		244.9		95% Adjusted-CLT UCL (Chen-1995)				259.9
409								95% Modified-t UCL (Johnson-1978)				247.5
410												
411	**Gamma GOF Test**											
412				A-D Test Statistic		1.346		**Anderson-Darling Gamma GOF Test**				
413				5% A-D Critical Value		0.794		Data Not Gamma Distributed at 5% Significance Level				
414				K-S Test Statistic		0.177		**Kolmogorov-Smirnov Gamma GOF Test**				
415				5% K-S Critical Value		0.151		Data Not Gamma Distributed at 5% Significance Level				
416	**Data Not Gamma Distributed at 5% Significance Level**											
417												
418	**Gamma Statistics**											
419				k hat (MLE)		0.686		k star (bias corrected MLE)				0.648
420				Theta hat (MLE)		252.3		Theta star (bias corrected MLE)				266.9
421				nu hat (MLE)		50.75		nu star (bias corrected)				47.97
422				MLE Mean (bias corrected)		173		MLE Sd (bias corrected)				214.9
423								Approximate Chi Square Value (0.05)				33.07
424				Adjusted Level of Significance		0.0431		Adjusted Chi Square Value				32.54
425												
426	**Assuming Gamma Distribution**											
427				95% Approximate Gamma UCL		251		95% Adjusted Gamma UCL				255.1
428												
429	**Lognormal GOF Test**											
430				Shapiro Wilk Test Statistic		0.963		**Shapiro Wilk Lognormal GOF Test**				
431				10% Shapiro Wilk Critical Value		0.946		Data appear Lognormal at 10% Significance Level				
432				Lilliefors Test Statistic		0.126		**Lilliefors Lognormal GOF Test**				
433				10% Lilliefors Critical Value		0.132		Data appear Lognormal at 10% Significance Level				
434	**Data appear Lognormal at 10% Significance Level**											
435												
436	**Lognormal Statistics**											
437				Minimum of Logged Data		1.859		Mean of logged Data				4.27
438				Maximum of Logged Data		6.966		SD of logged Data				1.36
439												
440	**Assuming Lognormal Distribution**											
441				95% H-UCL		342.2		90% Chebyshev (MVUE) UCL				317.3
442				95% Chebyshev (MVUE) UCL		383.1		97.5% Chebyshev (MVUE) UCL				474.3
443				99% Chebyshev (MVUE) UCL		653.4						
444												
445	**Nonparametric Distribution Free UCL Statistics**											
446	**Data appear to follow a Discernible Distribution**											
447												
448	**Nonparametric Distribution Free UCLs**											
449				95% CLT UCL		243		95% BCA Bootstrap UCL				269.9
450				95% Standard Bootstrap UCL		243.4		95% Bootstrap-t UCL				282.9
451				95% Hall's Bootstrap UCL		256.4		95% Percentile Bootstrap UCL				247.3
452				90% Chebyshev(Mean, Sd) UCL		300.7		95% Chebyshev(Mean, Sd) UCL				358.5
453				97.5% Chebyshev(Mean, Sd) UCL		438.7		99% Chebyshev(Mean, Sd) UCL				596.3
454												
455	**Suggested UCL to Use**											
456				95% H-UCL		342.2						
457												
458	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
459	**Please verify the data were collected from random locations.**											
460	**If the data were collected using judgmental or other non-random methods,**											
461	**then contact a statistician to correctly calculate UCLs.**											
462												
463	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
464	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
465	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
466												
467	**Mercury**											
468												
469	**General Statistics**											

470				Total Number of Observations	39				Number of Distinct Observations			39
471									Number of Missing Observations			33
472				Number of Detects	38				Number of Non-Detects			1
473				Number of Distinct Detects	38				Number of Distinct Non-Detects			1
474				Minimum Detect	0.0052				Minimum Non-Detect			0.0715
475				Maximum Detect	14.7				Maximum Non-Detect			0.0715
476				Variance Detects	7.016				Percent Non-Detects			2.564%
477				Mean Detects	1.081				SD Detects			2.649
478				Median Detects	0.251				CV Detects			2.451
479				Skewness Detects	4.267				Kurtosis Detects			20.03
480				Mean of Logged Detects	-1.425				SD of Logged Detects			1.805
481												
482				**Normal GOF Test on Detects Only**								
483				Shapiro Wilk Test Statistic	0.432				**Shapiro Wilk GOF Test**			
484				1% Shapiro Wilk Critical Value	0.916				Detected Data Not Normal at 1% Significance Level			
485				Lilliefors Test Statistic	0.366				**Lilliefors GOF Test**			
486				1% Lilliefors Critical Value	0.165				Detected Data Not Normal at 1% Significance Level			
487				**Detected Data Not Normal at 1% Significance Level**								
488												
489				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
490				KM Mean	1.054				KM Standard Error of Mean			0.42
491				90KM SD	2.585				95% KM (BCA) UCL			1.915
492				95% KM (t) UCL	1.761				95% KM (Percentile Bootstrap) UCL			1.786
493				95% KM (z) UCL	1.744				95% KM Bootstrap t UCL			3.096
494				90% KM Chebyshev UCL	2.312				95% KM Chebyshev UCL			2.882
495				97.5% KM Chebyshev UCL	3.674				99% KM Chebyshev UCL			5.228
496												
497				**Gamma GOF Tests on Detected Observations Only**								
498				A-D Test Statistic	1.727				**Anderson-Darling GOF Test**			
499				5% A-D Critical Value	0.828				Detected Data Not Gamma Distributed at 5% Significance Level			
500				K-S Test Statistic	0.203				**Kolmogorov-Smirnov GOF**			
501				5% K-S Critical Value	0.153				Detected Data Not Gamma Distributed at 5% Significance Level			
502				**Detected Data Not Gamma Distributed at 5% Significance Level**								
503												
504				**Gamma Statistics on Detected Data Only**								
505				k hat (MLE)	0.432				k star (bias corrected MLE)			0.416
506				Theta hat (MLE)	2.499				Theta star (bias corrected MLE)			2.598
507				nu hat (MLE)	32.87				nu star (bias corrected)			31.61
508				Mean (detects)	1.081							
509												
510				**Gamma ROS Statistics using Imputed Non-Detects**								
511				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
512				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
513				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
514				This is especially true when the sample size is small.								
515				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
516				Minimum	0.0052				Mean			1.053
517				Maximum	14.7				Median			0.247
518				SD	2.619				CV			2.487
519				k hat (MLE)	0.419				k star (bias corrected MLE)			0.404
520				Theta hat (MLE)	2.513				Theta star (bias corrected MLE)			2.607
521				nu hat (MLE)	32.69				nu star (bias corrected)			31.51
522				Adjusted Level of Significance (β)	0.0437							
523				Approximate Chi Square Value (31.51, α)	19.68				Adjusted Chi Square Value (31.51, β)			19.31
524				95% Gamma Approximate UCL	1.686				95% Gamma Adjusted UCL			1.718
525												
526				**Estimates of Gamma Parameters using KM Estimates**								
527				Mean (KM)	1.054				SD (KM)			2.585
528				Variance (KM)	6.684				SE of Mean (KM)			0.42
529				k hat (KM)	0.166				k star (KM)			0.17
530				nu hat (KM)	12.95				nu star (KM)			13.29
531				theta hat (KM)	6.344				theta star (KM)			6.183
532				80% gamma percentile (KM)	1.261				90% gamma percentile (KM)			3.166
533				95% gamma percentile (KM)	5.645				99% gamma percentile (KM)			12.66
534												
535				**Gamma Kaplan-Meier (KM) Statistics**								
536				Approximate Chi Square Value (13.29, α)	6.088				Adjusted Chi Square Value (13.29, β)			5.896

537				95% KM Approximate Gamma UCL		2.3				95% KM Adjusted Gamma UCL		2.375
538												
539						**Lognormal GOF Test on Detected Observations Only**							
540				Shapiro Wilk Test Statistic		0.979				**Shapiro Wilk GOF Test**		
541				10% Shapiro Wilk Critical Value		0.947				Detected Data appear Lognormal at 10% Significance Level		
542				Lilliefors Test Statistic		0.0951				**Lilliefors GOF Test**		
543				10% Lilliefors Critical Value		0.13				Detected Data appear Lognormal at 10% Significance Level		
544						**Detected Data appear Lognormal at 10% Significance Level**						
545												
546						**Lognormal ROS Statistics Using Imputed Non-Detects**						
547				Mean in Original Scale		1.053				Mean in Log Scale		-1.489
548				SD in Original Scale		2.619				SD in Log Scale		1.825
549				95% t UCL (assumes normality of ROS data)		1.76				95% Percentile Bootstrap UCL		1.804
550				95% BCA Bootstrap UCL		2.092				95% Bootstrap t UCL		3.184
551				95% H-UCL (Log ROS)		3.365						
552												
553						**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
554				KM Mean (logged)		-1.493				KM Geo Mean		0.225
555				KM SD (logged)		1.813				95% Critical H Value (KM-Log)		3.484
556				KM Standard Error of Mean (logged)		0.295				95% H-UCL (KM -Log)		3.239
557				KM SD (logged)		1.813				95% Critical H Value (KM-Log)		3.484
558				KM Standard Error of Mean (logged)		0.295						
559												
560						**DL/2 Statistics**						
561				**DL/2 Normal**						**DL/2 Log-Transformed**		
562				Mean in Original Scale		1.054				Mean in Log Scale		-1.474
563				SD in Original Scale		2.619				SD in Log Scale		1.807
564				95% t UCL (Assumes normality)		1.761				95% H-Stat UCL		3.244
565						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
566												
567						**Nonparametric Distribution Free UCL Statistics**						
568						**Detected Data appear Lognormal Distributed at 10% Significance Level**						
569												
570						**Suggested UCL to Use**						
571				KM H-UCL		3.239						
572												
573						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
574						**Please verify the data were collected from random locations.**						
575						**If the data were collected using judgmental or other non-random methods,**						
576						**then contact a statistician to correctly calculate UCLs.**						
577												
578						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
579						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
580						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
581												
582												
583	**Nickel**											
584												
585						**General Statistics**						
586				Total Number of Observations		37				Number of Distinct Observations		35
587										Number of Missing Observations		35
588				Minimum		3.77				Mean		9.388
589				Maximum		29.4				Median		7.81
590				SD		5.779				Std. Error of Mean		0.95
591				Coefficient of Variation		0.616				Skewness		2.057
592												
593						**Normal GOF Test**						
594				Shapiro Wilk Test Statistic		0.781				**Shapiro Wilk GOF Test**		
595				1% Shapiro Wilk Critical Value		0.814				Data Not Normal at 1% Significance Level		
596				Lilliefors Test Statistic		0.211				**Lilliefors GOF Test**		
597				1% Lilliefors Critical Value		0.168				Data Not Normal at 1% Significance Level		
598						**Data Not Normal at 1% Significance Level**						
599												
600						**Assuming Normal Distribution**						
601				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
602				95% Student's-t UCL		10.99				95% Adjusted-CLT UCL (Chen-1995)		11.29
603										95% Modified-t UCL (Johnson-1978)		11.05

604												
605	**Gamma GOF Test**											
606					A-D Test Statistic	0.914	**Anderson-Darling Gamma GOF Test**					
607					5% A-D Critical Value	0.753	Data Not Gamma Distributed at 5% Significance Level					
608					K-S Test Statistic	0.14	**Kolmogorov-Smirnov Gamma GOF Test**					
609					5% K-S Critical Value	0.146	Detected data appear Gamma Distributed at 5% Significance Level					
610	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
611												
612	**Gamma Statistics**											
613					k hat (MLE)	3.8	k star (bias corrected MLE)	3.51				
614					Theta hat (MLE)	2.471	Theta star (bias corrected MLE)	2.675				
615					nu hat (MLE)	281.2	nu star (bias corrected)	259.7				
616					MLE Mean (bias corrected)	9.388	MLE Sd (bias corrected)	5.011				
617							Approximate Chi Square Value (0.05)	223.4				
618					Adjusted Level of Significance	0.0431	Adjusted Chi Square Value	222				
619												
620	**Assuming Gamma Distribution**											
621					95% Approximate Gamma UCL	10.91	95% Adjusted Gamma UCL	10.99				
622												
623	**Lognormal GOF Test**											
624					Shapiro Wilk Test Statistic	0.95	**Shapiro Wilk Lognormal GOF Test**					
625					10% Shapiro Wilk Critical Value	0.946	Data appear Lognormal at 10% Significance Level					
626					Lilliefors Test Statistic	0.101	**Lilliefors Lognormal GOF Test**					
627					10% Lilliefors Critical Value	0.132	Data appear Lognormal at 10% Significance Level					
628	**Data appear Lognormal at 10% Significance Level**											
629												
630	**Lognormal Statistics**											
631					Minimum of Logged Data	1.327	Mean of logged Data	2.102				
632					Maximum of Logged Data	3.381	SD of logged Data	0.504				
633												
634	**Assuming Lognormal Distribution**											
635					95% H-UCL	10.92	90% Chebyshev (MVUE) UCL	11.67				
636					95% Chebyshev (MVUE) UCL	12.76	97.5% Chebyshev (MVUE) UCL	14.28				
637					99% Chebyshev (MVUE) UCL	17.26						
638												
639	**Nonparametric Distribution Free UCL Statistics**											
640	**Data appear to follow a Discernible Distribution**											
641												
642	**Nonparametric Distribution Free UCLs**											
643					95% CLT UCL	10.95	95% BCA Bootstrap UCL	11.22				
644					95% Standard Bootstrap UCL	10.92	95% Bootstrap-t UCL	11.48				
645					95% Hall's Bootstrap UCL	11.7	95% Percentile Bootstrap UCL	11.03				
646					90% Chebyshev(Mean, Sd) UCL	12.24	95% Chebyshev(Mean, Sd) UCL	13.53				
647					97.5% Chebyshev(Mean, Sd) UCL	15.32	99% Chebyshev(Mean, Sd) UCL	18.84				
648												
649	**Suggested UCL to Use**											
650					95% Adjusted Gamma UCL	10.99						
651												
652	When a data set follows an approximate distribution passing only one of the GOF tests,											
653	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
654												
655	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
656	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
657	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
658												
659	**Silver**											
660												
661	**General Statistics**											
662					Total Number of Observations	37	Number of Distinct Observations	37				
663							Number of Missing Observations	35				
664					Number of Detects	4	Number of Non-Detects	33				
665					Number of Distinct Detects	4	Number of Distinct Non-Detects	33				
666					Minimum Detect	0.504	Minimum Non-Detect	0.316				
667					Maximum Detect	1.45	Maximum Non-Detect	3.165				
668					Variance Detects	0.149	Percent Non-Detects	89.19%				
669					Mean Detects	0.964	SD Detects	0.387				
670					Median Detects	0.952	CV Detects	0.401				

671				Skewness Detects		0.197				Kurtosis Detects		1.512
672				Mean of Logged Detects		-0.103				SD of Logged Detects		0.436
673												
674						**Normal GOF Test on Detects Only**							
675				Shapiro Wilk Test Statistic		0.951				**Shapiro Wilk GOF Test**		
676				1% Shapiro Wilk Critical Value		0.687				Detected Data appear Normal at 1% Significance Level		
677				Lilliefors Test Statistic		0.254				**Lilliefors GOF Test**		
678				1% Lilliefors Critical Value		0.413				Detected Data appear Normal at 1% Significance Level		
679						**Detected Data appear Normal at 1% Significance Level**							
680						**Note GOF tests may be unreliable for small sample sizes**							
681												
682						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
683				KM Mean		0.401				KM Standard Error of Mean		0.0516
684				90KM SD		0.248				95% KM (BCA) UCL		N/A
685				95% KM (t) UCL		0.488				95% KM (Percentile Bootstrap) UCL		N/A
686				95% KM (z) UCL		0.486				95% KM Bootstrap t UCL		N/A
687				90% KM Chebyshev UCL		0.556				95% KM Chebyshev UCL		0.626
688				97.5% KM Chebyshev UCL		0.723				99% KM Chebyshev UCL		0.915
689												
690						**Gamma GOF Tests on Detected Observations Only**							
691				A-D Test Statistic		0.324				**Anderson-Darling GOF Test**		
692				5% A-D Critical Value		0.658				Detected data appear Gamma Distributed at 5% Significance Level		
693				K-S Test Statistic		0.274				**Kolmogorov-Smirnov GOF**		
694				5% K-S Critical Value		0.395				Detected data appear Gamma Distributed at 5% Significance Level		
695						**Detected data appear Gamma Distributed at 5% Significance Level**						
696						**Note GOF tests may be unreliable for small sample sizes**							
697												
698						**Gamma Statistics on Detected Data Only**							
699				k hat (MLE)		7.639				k star (bias corrected MLE)		2.076
700				Theta hat (MLE)		0.126				Theta star (bias corrected MLE)		0.464
701				nu hat (MLE)		61.11				nu star (bias corrected)		16.61
702				Mean (detects)		0.964						
703												
704						**Gamma ROS Statistics using Imputed Non-Detects**							
705						GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
706						GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
707						For such situations, GROS method may yield incorrect values of UCLs and BTVs							
708						This is especially true when the sample size is small.							
709						For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
710				Minimum		0.01				Mean		0.113
711				Maximum		1.45				Median		0.01
712				SD		0.32				CV		2.832
713				k hat (MLE)		0.347				k star (bias corrected MLE)		0.337
714				Theta hat (MLE)		0.326				Theta star (bias corrected MLE)		0.336
715				nu hat (MLE)		25.69				nu star (bias corrected)		24.94
716				Adjusted Level of Significance (β)		0.0431						
717				Approximate Chi Square Value (24.94, α)		14.57				Adjusted Chi Square Value (24.94, β)		14.22
718				95% Gamma Approximate UCL		0.194				95% Gamma Adjusted UCL		N/A
719												
720						**Estimates of Gamma Parameters using KM Estimates**							
721				Mean (KM)		0.401				SD (KM)		0.248
722				Variance (KM)		0.0617				SE of Mean (KM)		0.0516
723				k hat (KM)		2.605				k star (KM)		2.412
724				nu hat (KM)		192.8				nu star (KM)		178.5
725				theta hat (KM)		0.154				theta star (KM)		0.166
726				80% gamma percentile (KM)		0.587				90% gamma percentile (KM)		0.747
727				95% gamma percentile (KM)		0.897				99% gamma percentile (KM)		1.228
728												
729						**Gamma Kaplan-Meier (KM) Statistics**							
730				Approximate Chi Square Value (178.49, α)		148.6				Adjusted Chi Square Value (178.49, β)		147.4
731				95% KM Approximate Gamma UCL		0.482				95% KM Adjusted Gamma UCL		0.486
732												
733						**Lognormal GOF Test on Detected Observations Only**							
734				Shapiro Wilk Test Statistic		0.933				**Shapiro Wilk GOF Test**		
735				10% Shapiro Wilk Critical Value		0.792				Detected Data appear Lognormal at 10% Significance Level		
736				Lilliefors Test Statistic		0.291				**Lilliefors GOF Test**		
737				10% Lilliefors Critical Value		0.346				Detected Data appear Lognormal at 10% Significance Level		

738	**Detected Data appear Lognormal at 10% Significance Level**											
739	**Note GOF tests may be unreliable for small sample sizes**											
740												
741	**Lognormal ROS Statistics Using Imputed Non-Detects**											
742					Mean in Original Scale	0.198				Mean in Log Scale	-2.021	
743					SD in Original Scale	0.293				SD in Log Scale	0.693	
744				95% t UCL (assumes normality of ROS data)		0.279				95% Percentile Bootstrap UCL	0.283	
745					95% BCA Bootstrap UCL	0.315				95% Bootstrap t UCL	0.347	
746					95% H-UCL (Log ROS)	0.214						
747												
748	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
749					KM Mean (logged)	-1.013				KM Geo Mean	0.363	
750					KM SD (logged)	0.378				95% Critical H Value (KM-Log)	1.829	
751					KM Standard Error of Mean (logged)	0.0788				95% H-UCL (KM -Log)	0.437	
752					KM SD (logged)	0.378				95% Critical H Value (KM-Log)	1.829	
753					KM Standard Error of Mean (logged)	0.0788						
754	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
755												
756	**DL/2 Statistics**											
757	**DL/2 Normal**									**DL/2 Log-Transformed**		
758					Mean in Original Scale	0.441				Mean in Log Scale	-1.135	
759					SD in Original Scale	0.405				SD in Log Scale	0.75	
760					95% t UCL (Assumes normality)	0.554				95% H-Stat UCL	0.556	
761	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
762												
763	**Nonparametric Distribution Free UCL Statistics**											
764	**Detected Data appear Normal Distributed at 1% Significance Level**											
765												
766	**Suggested UCL to Use**											
767					95% KM (t) UCL	0.488						
768												
769	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
770	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
771	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
772												
773												
774	**Zinc**											
775												
776	**General Statistics**											
777					Total Number of Observations	37				Number of Distinct Observations	37	
778										Number of Missing Observations	35	
779					Minimum	27.6				Mean	101.7	
780					Maximum	294				Median	71.3	
781					SD	78.63				Std. Error of Mean	12.93	
782					Coefficient of Variation	0.773				Skewness	1.093	
783												
784	**Normal GOF Test**											
785					Shapiro Wilk Test Statistic	0.828				**Shapiro Wilk GOF Test**		
786					1% Shapiro Wilk Critical Value	0.814				Data appear Normal at 1% Significance Level		
787					Lilliefors Test Statistic	0.219				**Lilliefors GOF Test**		
788					1% Lilliefors Critical Value	0.168				Data Not Normal at 1% Significance Level		
789	**Data appear Approximate Normal at 1% Significance Level**											
790												
791	**Assuming Normal Distribution**											
792	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
793					95% Student's-t UCL	123.6				95% Adjusted-CLT UCL (Chen-1995)	125.5	
794										95% Modified-t UCL (Johnson-1978)	123.9	
795												
796	**Gamma GOF Test**											
797					A-D Test Statistic	1.203				**Anderson-Darling Gamma GOF Test**		
798					5% A-D Critical Value	0.76				Data Not Gamma Distributed at 5% Significance Level		
799					K-S Test Statistic	0.146				**Kolmogorov-Smirnov Gamma GOF Test**		
800					5% K-S Critical Value	0.147				Detected data appear Gamma Distributed at 5% Significance Level		
801	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
802												
803	**Gamma Statistics**											
804					k hat (MLE)	1.967				k star (bias corrected MLE)	1.826	

805					Theta hat (MLE)	51.72				Theta star (bias corrected MLE)		55.72
806					nu hat (MLE)	145.6				nu star (bias corrected)		135.1
807					MLE Mean (bias corrected)	101.7				MLE Sd (bias corrected)		75.29
808										Approximate Chi Square Value (0.05)		109.2
809					Adjusted Level of Significance	0.0431				Adjusted Chi Square Value		108.2
810												
811					**Assuming Gamma Distribution**							
812					95% Approximate Gamma UCL	125.8				95% Adjusted Gamma UCL		127
813												
814					**Lognormal GOF Test**							
815					Shapiro Wilk Test Statistic	0.918				**Shapiro Wilk Lognormal GOF Test**		
816					10% Shapiro Wilk Critical Value	0.946				Data Not Lognormal at 10% Significance Level		
817					Lilliefors Test Statistic	0.127				**Lilliefors Lognormal GOF Test**		
818					10% Lilliefors Critical Value	0.132				Data appear Lognormal at 10% Significance Level		
819					**Data appear Approximate Lognormal at 10% Significance Level**							
820												
821					**Lognormal Statistics**							
822					Minimum of Logged Data	3.318				Mean of logged Data		4.347
823					Maximum of Logged Data	5.684				SD of logged Data		0.747
824												
825					**Assuming Lognormal Distribution**							
826					95% H-UCL	133				90% Chebyshev (MVUE) UCL		142.1
827					95% Chebyshev (MVUE) UCL	160.6				97.5% Chebyshev (MVUE) UCL		186.3
828					99% Chebyshev (MVUE) UCL	236.9						
829												
830					**Nonparametric Distribution Free UCL Statistics**							
831					**Data appear to follow a Discernible Distribution**							
832												
833					**Nonparametric Distribution Free UCLs**							
834					95% CLT UCL	123				95% BCA Bootstrap UCL		127.7
835					95% Standard Bootstrap UCL	123.2				95% Bootstrap-t UCL		127.6
836					95% Hall's Bootstrap UCL	125.7				95% Percentile Bootstrap UCL		124.7
837					90% Chebyshev(Mean, Sd) UCL	140.5				95% Chebyshev(Mean, Sd) UCL		158.1
838					97.5% Chebyshev(Mean, Sd) UCL	182.5				99% Chebyshev(Mean, Sd) UCL		230.3
839												
840					**Suggested UCL to Use**							
841					95% Student's-t UCL	123.6						
842												
843					When a data set follows an approximate distribution passing only one of the GOF tests,							
844					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
845												
846					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
847					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
848					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
849												
850	**Acenaphthene**											
851												
852					**General Statistics**							
853					Total Number of Observations	21				Number of Distinct Observations		16
854										Number of Missing Observations		41
855					Number of Detects	3				Number of Non-Detects		18
856					Number of Distinct Detects	3				Number of Distinct Non-Detects		13
857					Minimum Detect	5.2				Minimum Non-Detect		110
858					Maximum Detect	320				Maximum Non-Detect		650
859					Variance Detects	27104				Percent Non-Detects		85.71%
860					Mean Detects	134.7				SD Detects		164.6
861					Median Detects	79				CV Detects		1.222
862					Skewness Detects	1.349				Kurtosis Detects		N/A
863					Mean of Logged Detects	3.929				SD of Logged Detects		2.095
864												
865					**Warning: Data set has only 3 Detected Values.**							
866					**This is not enough to compute meaningful or reliable statistics and estimates.**							
867												
868												
869					**Normal GOF Test on Detects Only**							
870					Shapiro Wilk Test Statistic	0.914				**Shapiro Wilk GOF Test**		
871					1% Shapiro Wilk Critical Value	0.753				Detected Data appear Normal at 1% Significance Level		

872				Lilliefors Test Statistic	0.299	**Lilliefors GOF Test**						
873				1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level						
874	**Detected Data appear Normal at 1% Significance Level**											
875	**Note GOF tests may be unreliable for small sample sizes**											
876												
877	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
878				KM Mean	56.73	KM Standard Error of Mean	34.94					
879				90KM SD	71.7	95% KM (BCA) UCL	N/A					
880				95% KM (t) UCL	117	95% KM (Percentile Bootstrap) UCL	N/A					
881				95% KM (z) UCL	114.2	95% KM Bootstrap t UCL	N/A					
882				90% KM Chebyshev UCL	161.5	95% KM Chebyshev UCL	209					
883				97.5% KM Chebyshev UCL	274.9	99% KM Chebyshev UCL	404.3					
884												
885	**Gamma GOF Tests on Detected Observations Only**											
886				A-D Test Statistic	0.246	**Anderson-Darling GOF Test**						
887				5% A-D Critical Value	0.646	Detected data appear Gamma Distributed at 5% Significance Level						
888				K-S Test Statistic	0.227	**Kolmogorov-Smirnov GOF**						
889				5% K-S Critical Value	0.446	Detected data appear Gamma Distributed at 5% Significance Level						
890	**Detected Data Not Gamma Distributed at 5% Significance Level**											
891												
892	**Gamma Statistics on Detected Data Only**											
893				k hat (MLE)	0.63	k star (bias corrected MLE)	N/A					
894				Theta hat (MLE)	214	Theta star (bias corrected MLE)	N/A					
895				nu hat (MLE)	3.778	nu star (bias corrected)	N/A					
896				Mean (detects)	134.7							
897												
898	**Gamma ROS Statistics using Imputed Non-Detects**											
899	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
900	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
901	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
902	This is especially true when the sample size is small.											
903	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
904				Minimum	5.2	Mean	53.17					
905				Maximum	320	Median	35.8					
906				SD	65.07	CV	1.224					
907				k hat (MLE)	1.484	k star (bias corrected MLE)	1.304					
908				Theta hat (MLE)	35.82	Theta star (bias corrected MLE)	40.78					
909				nu hat (MLE)	62.33	nu star (bias corrected)	54.76					
910				Adjusted Level of Significance (β)	0.0383							
911				Approximate Chi Square Value (54.76, α)	38.76	Adjusted Chi Square Value (54.76, β)	37.72					
912				95% Gamma Approximate UCL	75.12	95% Gamma Adjusted UCL	N/A					
913												
914	**Estimates of Gamma Parameters using KM Estimates**											
915				Mean (KM)	56.73	SD (KM)	71.7					
916				Variance (KM)	5141	SE of Mean (KM)	34.94					
917				k hat (KM)	0.626	k star (KM)	0.568					
918				nu hat (KM)	26.29	nu star (KM)	23.87					
919				theta hat (KM)	90.62	theta star (KM)	99.82					
920				80% gamma percentile (KM)	93.48	90% gamma percentile (KM)	149.3					
921				95% gamma percentile (KM)	208.1	99% gamma percentile (KM)	351.1					
922												
923	**Gamma Kaplan-Meier (KM) Statistics**											
924				Approximate Chi Square Value (23.87, α)	13.75	Adjusted Chi Square Value (23.87, β)	13.16					
925				95% KM Approximate Gamma UCL	98.48	95% KM Adjusted Gamma UCL	102.9					
926												
927	**Lognormal GOF Test on Detected Observations Only**											
928				Shapiro Wilk Test Statistic	0.967	**Shapiro Wilk GOF Test**						
929				10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level						
930				Lilliefors Test Statistic	0.25	**Lilliefors GOF Test**						
931				10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level						
932	**Detected Data appear Lognormal at 10% Significance Level**											
933	**Note GOF tests may be unreliable for small sample sizes**											
934												
935	**Lognormal ROS Statistics Using Imputed Non-Detects**											
936				Mean in Original Scale	36.7	Mean in Log Scale	3.029					
937				SD in Original Scale	67.11	SD in Log Scale	0.91					
938				95% t UCL (assumes normality of ROS data)	61.96	95% Percentile Bootstrap UCL	64.47					

939				95% BCA Bootstrap UCL		79.04				95% Bootstrap t UCL		151.4
940				95% H-UCL (Log ROS)		51.43						
941												
942	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
943				KM Mean (logged)		3.154				KM Geo Mean		23.44
944				KM SD (logged)		1.46				95% Critical H Value (KM-Log)		3.248
945				KM Standard Error of Mean (logged)		1.129				95% H-UCL (KM -Log)		196.6
946				KM SD (logged)		1.46				95% Critical H Value (KM-Log)		3.248
947				KM Standard Error of Mean (logged)		1.129						
948												
949	**DL/2 Statistics**											
950				**DL/2 Normal**						**DL/2 Log-Transformed**		
951				Mean in Original Scale		108.3				Mean in Log Scale		4.395
952				SD in Original Scale		88.84				SD in Log Scale		0.853
953				95% t UCL (Assumes normality)		141.7				95% H-Stat UCL		183.2
954	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
955												
956	**Nonparametric Distribution Free UCL Statistics**											
957	**Detected Data appear Normal Distributed at 1% Significance Level**											
958												
959	**Suggested UCL to Use**											
960				95% KM (t) UCL		117						
961												
962	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
963	**Please verify the data were collected from random locations.**											
964	**If the data were collected using judgmental or other non-random methods,**											
965	**then contact a statistician to correctly calculate UCLs.**											
966												
967	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
968	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
969	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
970												
971	**Acenaphthylene**											
972												
973	**General Statistics**											
974				Total Number of Observations		21				Number of Distinct Observations		18
975										Number of Missing Observations		41
976				Number of Detects		7				Number of Non-Detects		14
977				Number of Distinct Detects		7				Number of Distinct Non-Detects		11
978				Minimum Detect		8				Minimum Non-Detect		110
979				Maximum Detect		660				Maximum Non-Detect		650
980				Variance Detects		71719				Percent Non-Detects		66.67%
981				Mean Detects		252				SD Detects		267.8
982				Median Detects		180				CV Detects		1.063
983				Skewness Detects		0.977				Kurtosis Detects		-0.973
984				Mean of Logged Detects		4.796				SD of Logged Detects		1.546
985												
986	**Normal GOF Test on Detects Only**											
987				Shapiro Wilk Test Statistic		0.813				**Shapiro Wilk GOF Test**		
988				1% Shapiro Wilk Critical Value		0.73				Detected Data appear Normal at 1% Significance Level		
989				Lilliefors Test Statistic		0.291				**Lilliefors GOF Test**		
990				1% Lilliefors Critical Value		0.35				Detected Data appear Normal at 1% Significance Level		
991	**Detected Data appear Normal at 1% Significance Level**											
992	**Note GOF tests may be unreliable for small sample sizes**											
993												
994	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
995				KM Mean		119.4				KM Standard Error of Mean		44.16
996				90KM SD		176.9				95% KM (BCA) UCL		203.7
997				95% KM (t) UCL		195.6				95% KM (Percentile Bootstrap) UCL		195.6
998				95% KM (z) UCL		192.1				95% KM Bootstrap t UCL		253.7
999				90% KM Chebyshev UCL		251.9				95% KM Chebyshev UCL		311.9
1000				97.5% KM Chebyshev UCL		395.2				99% KM Chebyshev UCL		558.8
1001												
1002	**Gamma GOF Tests on Detected Observations Only**											
1003				A-D Test Statistic		0.279				**Anderson-Darling GOF Test**		
1004				5% A-D Critical Value		0.734				Detected data appear Gamma Distributed at 5% Significance Level		
1005				K-S Test Statistic		0.182				**Kolmogorov-Smirnov GOF**		

	A	B	C	D	E	F	G	H	I	J	K	L
1006					5% K-S Critical Value	0.322	Detected data appear Gamma Distributed at 5% Significance Level					
1007	**Detected data appear Gamma Distributed at 5% Significance Level**											
1008	**Note GOF tests may be unreliable for small sample sizes**											
1009												
1010	**Gamma Statistics on Detected Data Only**											
1011					k hat (MLE)	0.808				k star (bias corrected MLE)		0.557
1012					Theta hat (MLE)	311.8				Theta star (bias corrected MLE)		452.3
1013					nu hat (MLE)	11.32				nu star (bias corrected)		7.8
1014					Mean (detects)	252						
1015												
1016	**Gamma ROS Statistics using Imputed Non-Detects**											
1017	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1018	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1019	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1020	This is especially true when the sample size is small.											
1021	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1022					Minimum	0.01				Mean		106.5
1023					Maximum	660				Median		40.14
1024					SD	181.7				CV		1.707
1025					k hat (MLE)	0.438				k star (bias corrected MLE)		0.407
1026					Theta hat (MLE)	243				Theta star (bias corrected MLE)		261.4
1027					nu hat (MLE)	18.4				nu star (bias corrected)		17.11
1028					Adjusted Level of Significance (β)	0.0383						
1029					Approximate Chi Square Value (17.11, α)	8.749				Adjusted Chi Square Value (17.11, β)		8.291
1030					95% Gamma Approximate UCL	208.2				95% Gamma Adjusted UCL		219.6
1031												
1032	**Estimates of Gamma Parameters using KM Estimates**											
1033					Mean (KM)	119.4				SD (KM)		176.9
1034					Variance (KM)	31290				SE of Mean (KM)		44.16
1035					k hat (KM)	0.456				k star (KM)		0.422
1036					nu hat (KM)	19.15				nu star (KM)		17.74
1037					theta hat (KM)	262				theta star (KM)		282.7
1038					80% gamma percentile (KM)	193.9				90% gamma percentile (KM)		334
1039					95% gamma percentile (KM)	486.9				99% gamma percentile (KM)		869.1
1040												
1041	**Gamma Kaplan-Meier (KM) Statistics**											
1042					Approximate Chi Square Value (17.74, α)	9.207				Adjusted Chi Square Value (17.74, β)		8.736
1043					95% KM Approximate Gamma UCL	230.2				95% KM Adjusted Gamma UCL		242.6
1044												
1045	**Lognormal GOF Test on Detected Observations Only**											
1046					Shapiro Wilk Test Statistic	0.928	**Shapiro Wilk GOF Test**					
1047					10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level					
1048					Lilliefors Test Statistic	0.173	**Lilliefors GOF Test**					
1049					10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level					
1050	**Detected Data appear Lognormal at 10% Significance Level**											
1051	**Note GOF tests may be unreliable for small sample sizes**											
1052												
1053	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1054					Mean in Original Scale	108.1				Mean in Log Scale		3.946
1055					SD in Original Scale	180.3				SD in Log Scale		1.096
1056					95% t UCL (assumes normality of ROS data)	175.9				95% Percentile Bootstrap UCL		174.1
1057					95% BCA Bootstrap UCL	196.5				95% Bootstrap t UCL		331.2
1058					95% H-UCL (Log ROS)	182.6						
1059												
1060	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1061					KM Mean (logged)	3.952				KM Geo Mean		52.03
1062					KM SD (logged)	1.32				95% Critical H Value (KM-Log)		3.028
1063					KM Standard Error of Mean (logged)	0.519				95% H-UCL (KM -Log)		303.7
1064					KM SD (logged)	1.32				95% Critical H Value (KM-Log)		3.028
1065					KM Standard Error of Mean (logged)	0.519						
1066												
1067	**DL/2 Statistics**											
1068	**DL/2 Normal**						**DL/2 Log-Transformed**					
1069					Mean in Original Scale	160.7				Mean in Log Scale		4.638
1070					SD in Original Scale	174.8				SD in Log Scale		0.977
1071					95% t UCL (Assumes normality)	226.5				95% H-Stat UCL		289.6
1072	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

	A	B	C	D	E	F	G	H	I	J	K	L
1073												
1074	**Nonparametric Distribution Free UCL Statistics**											
1075	**Detected Data appear Normal Distributed at 1% Significance Level**											
1076												
1077	**Suggested UCL to Use**											
1078	95% KM (t) UCL	195.6										
1079												
1080	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1081	**Please verify the data were collected from random locations.**											
1082	**If the data were collected using judgmental or other non-random methods,**											
1083	**then contact a statistician to correctly calculate UCLs.**											
1084												
1085	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1086	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1087	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1088												
1089	**Anthracene**											
1090												
1091	**General Statistics**											
1092	Total Number of Observations	21					Number of Distinct Observations	17				
1093							Number of Missing Observations	41				
1094	Number of Detects	5					Number of Non-Detects	16				
1095	Number of Distinct Detects	5					Number of Distinct Non-Detects	12				
1096	Minimum Detect	14					Minimum Non-Detect	110				
1097	Maximum Detect	1600					Maximum Non-Detect	650				
1098	Variance Detects	395129					Percent Non-Detects	76.19%				
1099	Mean Detects	532.8					SD Detects	628.6				
1100	Median Detects	350					CV Detects	1.18				
1101	Skewness Detects	1.708					Kurtosis Detects	3.129				
1102	Mean of Logged Detects	5.448					SD of Logged Detects	1.777				
1103												
1104	**Normal GOF Test on Detects Only**											
1105	Shapiro Wilk Test Statistic	0.831					**Shapiro Wilk GOF Test**					
1106	1% Shapiro Wilk Critical Value	0.686					Detected Data appear Normal at 1% Significance Level					
1107	Lilliefors Test Statistic	0.295					**Lilliefors GOF Test**					
1108	1% Lilliefors Critical Value	0.396					Detected Data appear Normal at 1% Significance Level					
1109	**Detected Data appear Normal at 1% Significance Level**											
1110	**Note GOF tests may be unreliable for small sample sizes**											
1111												
1112	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1113	KM Mean	145.4					KM Standard Error of Mean	87.02				
1114	90KM SD	353					95% KM (BCA) UCL	388.4				
1115	95% KM (t) UCL	295.5					95% KM (Percentile Bootstrap) UCL	334.2				
1116	95% KM (z) UCL	288.6					95% KM Bootstrap t UCL	378.9				
1117	90% KM Chebyshev UCL	406.5					95% KM Chebyshev UCL	524.8				
1118	97.5% KM Chebyshev UCL	688.9					99% KM Chebyshev UCL	1011				
1119												
1120	**Gamma GOF Tests on Detected Observations Only**											
1121	A-D Test Statistic	0.184					**Anderson-Darling GOF Test**					
1122	5% A-D Critical Value	0.7					Detected data appear Gamma Distributed at 5% Significance Level					
1123	K-S Test Statistic	0.142					**Kolmogorov-Smirnov GOF**					
1124	5% K-S Critical Value	0.367					Detected data appear Gamma Distributed at 5% Significance Level					
1125	**Detected data appear Gamma Distributed at 5% Significance Level**											
1126	**Note GOF tests may be unreliable for small sample sizes**											
1127												
1128	**Gamma Statistics on Detected Data Only**											
1129	k hat (MLE)	0.725					k star (bias corrected MLE)	0.423				
1130	Theta hat (MLE)	735.1					Theta star (bias corrected MLE)	1259				
1131	nu hat (MLE)	7.248					nu star (bias corrected)	4.232				
1132	Mean (detects)	532.8										
1133												
1134	**Gamma ROS Statistics using Imputed Non-Detects**											
1135	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1136	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1137	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1138	This is especially true when the sample size is small.											
1139	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											

1140					Minimum	0.01				Mean		126.9
1141					Maximum	1600				Median		0.01
1142					SD	364.8				CV		2.876
1143					k hat (MLE)	0.113				k star (bias corrected MLE)		0.129
1144					Theta hat (MLE)	1120				Theta star (bias corrected MLE)		984.6
1145					nu hat (MLE)	4.758				nu star (bias corrected)		5.411
1146				Adjusted Level of Significance (β)		0.0383						
1147				Approximate Chi Square Value (5.41, α)		1.347				Adjusted Chi Square Value (5.41, β)		1.199
1148				95% Gamma Approximate UCL		509.7				95% Gamma Adjusted UCL		572.5
1149												
1150					**Estimates of Gamma Parameters using KM Estimates**							
1151					Mean (KM)	145.4				SD (KM)		353
1152					Variance (KM)	124622				SE of Mean (KM)		87.02
1153					k hat (KM)	0.17				k star (KM)		0.177
1154					nu hat (KM)	7.128				nu star (KM)		7.443
1155					theta hat (KM)	856.9				theta star (KM)		820.6
1156				80% gamma percentile (KM)		178.7				90% gamma percentile (KM)		438.2
1157				95% gamma percentile (KM)		772.2				99% gamma percentile (KM)		1711
1158												
1159					**Gamma Kaplan-Meier (KM) Statistics**							
1160				Approximate Chi Square Value (7.44, α)		2.417				Adjusted Chi Square Value (7.44, β)		2.203
1161				95% KM Approximate Gamma UCL		447.9				95% KM Adjusted Gamma UCL		491.5
1162												
1163					**Lognormal GOF Test on Detected Observations Only**							
1164				Shapiro Wilk Test Statistic		0.938				**Shapiro Wilk GOF Test**		
1165				10% Shapiro Wilk Critical Value		0.806				Detected Data appear Lognormal at 10% Significance Level		
1166				Lilliefors Test Statistic		0.217				**Lilliefors GOF Test**		
1167				10% Lilliefors Critical Value		0.319				Detected Data appear Lognormal at 10% Significance Level		
1168					**Detected Data appear Lognormal at 10% Significance Level**							
1169					**Note GOF tests may be unreliable for small sample sizes**							
1170												
1171					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1172					Mean in Original Scale	140.7				Mean in Log Scale		3.39
1173					SD in Original Scale	359.9				SD in Log Scale		1.519
1174				95% t UCL (assumes normality of ROS data)		276.2				95% Percentile Bootstrap UCL		282.4
1175					95% BCA Bootstrap UCL	390				95% Bootstrap t UCL		665.8
1176					95% H-UCL (Log ROS)	292						
1177												
1178					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1179					KM Mean (logged)	3.4				KM Geo Mean		29.97
1180					KM SD (logged)	1.471				95% Critical H Value (KM-Log)		3.264
1181					KM Standard Error of Mean (logged)	0.382				95% H-UCL (KM -Log)		258.5
1182					KM SD (logged)	1.471				95% Critical H Value (KM-Log)		3.264
1183					KM Standard Error of Mean (logged)	0.382						
1184												
1185					**DL/2 Statistics**							
1186					**DL/2 Normal**					**DL/2 Log-Transformed**		
1187					Mean in Original Scale	210.3				Mean in Log Scale		4.743
1188					SD in Original Scale	343.5				SD in Log Scale		1.013
1189					95% t UCL (Assumes normality)	339.6				95% H-Stat UCL		344.4
1190					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1191												
1192					**Nonparametric Distribution Free UCL Statistics**							
1193					**Detected Data appear Normal Distributed at 1% Significance Level**							
1194												
1195					**Suggested UCL to Use**							
1196					95% KM (t) UCL	295.5						
1197												
1198					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
1199					**Please verify the data were collected from random locations.**							
1200					**If the data were collected using judgmental or other non-random methods,**							
1201					**then contact a statistician to correctly calculate UCLs.**							
1202												
1203					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1204					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1205					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1206												

1207	**Benzo[a]anthracene**										
1208											
1209	**General Statistics**										
1210	Total Number of Observations			21		Number of Distinct Observations				18	
1211						Number of Missing Observations				41	
1212	Number of Detects			14		Number of Non-Detects				7	
1213	Number of Distinct Detects			13		Number of Distinct Non-Detects				6	
1214	Minimum Detect			38		Minimum Non-Detect				110	
1215	Maximum Detect			6100		Maximum Non-Detect				550	
1216	Variance Detects			2483962		Percent Non-Detects				33.33%	
1217	Mean Detects			807.1		SD Detects				1576	
1218	Median Detects			280		CV Detects				1.953	
1219	Skewness Detects			3.346		Kurtosis Detects				11.76	
1220	Mean of Logged Detects			5.732		SD of Logged Detects				1.329	
1221											
1222	**Normal GOF Test on Detects Only**										
1223	Shapiro Wilk Test Statistic			0.497		**Shapiro Wilk GOF Test**					
1224	1% Shapiro Wilk Critical Value			0.825		Detected Data Not Normal at 1% Significance Level					
1225	Lilliefors Test Statistic			0.336		**Lilliefors GOF Test**					
1226	1% Lilliefors Critical Value			0.263		Detected Data Not Normal at 1% Significance Level					
1227	**Detected Data Not Normal at 1% Significance Level**										
1228											
1229	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
1230	KM Mean			564.7		KM Standard Error of Mean				291.5	
1231	90KM SD			1287		95% KM (BCA) UCL				1138	
1232	95% KM (t) UCL			1067		95% KM (Percentile Bootstrap) UCL				1111	
1233	95% KM (z) UCL			1044		95% KM Bootstrap t UCL				2434	
1234	90% KM Chebyshev UCL			1439		95% KM Chebyshev UCL				1835	
1235	97.5% KM Chebyshev UCL			2385		99% KM Chebyshev UCL				3465	
1236											
1237	**Gamma GOF Tests on Detected Observations Only**										
1238	A-D Test Statistic			0.953		**Anderson-Darling GOF Test**					
1239	5% A-D Critical Value			0.781		Detected Data Not Gamma Distributed at 5% Significance Level					
1240	K-S Test Statistic			0.293		**Kolmogorov-Smirnov GOF**					
1241	5% K-S Critical Value			0.239		Detected Data Not Gamma Distributed at 5% Significance Level					
1242	**Detected Data Not Gamma Distributed at 5% Significance Level**										
1243											
1244	**Gamma Statistics on Detected Data Only**										
1245	k hat (MLE)			0.637		k star (bias corrected MLE)				0.548	
1246	Theta hat (MLE)			1267		Theta star (bias corrected MLE)				1472	
1247	nu hat (MLE)			17.84		nu star (bias corrected)				15.35	
1248	Mean (detects)			807.1							
1249											
1250	**Gamma ROS Statistics using Imputed Non-Detects**										
1251	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1252	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1253	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1254	This is especially true when the sample size is small.										
1255	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
1256	Minimum			0.01		Mean				538.1	
1257	Maximum			6100		Median				130	
1258	SD			1329		CV				2.47	
1259	k hat (MLE)			0.186		k star (bias corrected MLE)				0.191	
1260	Theta hat (MLE)			2893		Theta star (bias corrected MLE)				2815	
1261	nu hat (MLE)			7.812		nu star (bias corrected)				8.029	
1262	Adjusted Level of Significance (β)			0.0383							
1263	Approximate Chi Square Value (8.03, α)			2.752		Adjusted Chi Square Value (8.03, β)				2.52	
1264	95% Gamma Approximate UCL			1570		95% Gamma Adjusted UCL				1715	
1265											
1266	**Estimates of Gamma Parameters using KM Estimates**										
1267	Mean (KM)			564.7		SD (KM)				1287	
1268	Variance (KM)			1656085		SE of Mean (KM)				291.5	
1269	k hat (KM)			0.193		k star (KM)				0.197	
1270	nu hat (KM)			8.087		nu star (KM)				8.265	
1271	theta hat (KM)			2933		theta star (KM)				2870	
1272	80% gamma percentile (KM)			737.7		90% gamma percentile (KM)				1708	
1273	95% gamma percentile (KM)			2922		99% gamma percentile (KM)				6274	

1274												
1275	**Gamma Kaplan-Meier (KM) Statistics**											
1276				Approximate Chi Square Value (8.27, α)		2.889			Adjusted Chi Square Value (8.27, β)			2.65
1277				95% KM Approximate Gamma UCL		1615			95% KM Adjusted Gamma UCL			1761
1278												
1279	**Lognormal GOF Test on Detected Observations Only**											
1280				Shapiro Wilk Test Statistic		0.958			**Shapiro Wilk GOF Test**			
1281				10% Shapiro Wilk Critical Value		0.895			Detected Data appear Lognormal at 10% Significance Level			
1282				Lilliefors Test Statistic		0.203			**Lilliefors GOF Test**			
1283				10% Lilliefors Critical Value		0.208			Detected Data appear Lognormal at 10% Significance Level			
1284	**Detected Data appear Lognormal at 10% Significance Level**											
1285												
1286	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1287				Mean in Original Scale		559.7			Mean in Log Scale			5.191
1288				SD in Original Scale		1320			SD in Log Scale			1.344
1289				95% t UCL (assumes normality of ROS data)		1057			95% Percentile Bootstrap UCL			1101
1290				95% BCA Bootstrap UCL		1459			95% Bootstrap t UCL			2321
1291				95% H-UCL (Log ROS)		1114						
1292												
1293	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1294				KM Mean (logged)		5.237			KM Geo Mean			188
1295				KM SD (logged)		1.29			95% Critical H Value (KM-Log)			2.983
1296				KM Standard Error of Mean (logged)		0.305			95% H-UCL (KM -Log)			1022
1297				KM SD (logged)		1.29			95% Critical H Value (KM-Log)			2.983
1298				KM Standard Error of Mean (logged)		0.305						
1299												
1300	**DL/2 Statistics**											
1301	**DL/2 Normal**								**DL/2 Log-Transformed**			
1302				Mean in Original Scale		570.9			Mean in Log Scale			5.29
1303				SD in Original Scale		1317			SD in Log Scale			1.289
1304				95% t UCL (Assumes normality)		1066			95% H-Stat UCL			1075
1305	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1306												
1307	**Nonparametric Distribution Free UCL Statistics**											
1308	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
1309												
1310	**Suggested UCL to Use**											
1311				KM H-UCL		1022						
1312												
1313	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1314	**Please verify the data were collected from random locations.**											
1315	**If the data were collected using judgmental or other non-random methods,**											
1316	**then contact a statistician to correctly calculate UCLs.**											
1317												
1318	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1319	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1320	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1321												
1322	**Benzo[a]pyrene**											
1323												
1324	**General Statistics**											
1325				Total Number of Observations		21			Number of Distinct Observations			19
1326									Number of Missing Observations			41
1327				Number of Detects		12			Number of Non-Detects			9
1328				Number of Distinct Detects		12			Number of Distinct Non-Detects			7
1329				Minimum Detect		77			Minimum Non-Detect			110
1330				Maximum Detect		2500			Maximum Non-Detect			650
1331				Variance Detects		499226			Percent Non-Detects			42.86%
1332				Mean Detects		595.9			SD Detects			706.6
1333				Median Detects		300			CV Detects			1.186
1334				Skewness Detects		2.084			Kurtosis Detects			4.592
1335				Mean of Logged Detects		5.847			SD of Logged Detects			1.083
1336												
1337	**Normal GOF Test on Detects Only**											
1338				Shapiro Wilk Test Statistic		0.731			**Shapiro Wilk GOF Test**			
1339				1% Shapiro Wilk Critical Value		0.805			Detected Data Not Normal at 1% Significance Level			
1340				Lilliefors Test Statistic		0.313			**Lilliefors GOF Test**			

1341				1% Lilliefors Critical Value		0.281	Detected Data Not Normal at 1% Significance Level					
1342	**Detected Data Not Normal at 1% Significance Level**											
1343												
1344	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1345				KM Mean		383.8	KM Standard Error of Mean					129.7
1346				90KM SD		568.1	95% KM (BCA) UCL					629.5
1347				95% KM (t) UCL		607.5	95% KM (Percentile Bootstrap) UCL					606.9
1348				95% KM (z) UCL		597.2	95% KM Bootstrap t UCL					880.8
1349				90% KM Chebyshev UCL		772.9	95% KM Chebyshev UCL					949.2
1350				97.5% KM Chebyshev UCL		1194	99% KM Chebyshev UCL					1674
1351												
1352	**Gamma GOF Tests on Detected Observations Only**											
1353				A-D Test Statistic		0.488	**Anderson-Darling GOF Test**					
1354				5% A-D Critical Value		0.755	Detected data appear Gamma Distributed at 5% Significance Level					
1355				K-S Test Statistic		0.251	**Kolmogorov-Smirnov GOF**					
1356				5% K-S Critical Value		0.252	Detected data appear Gamma Distributed at 5% Significance Level					
1357	**Detected data appear Gamma Distributed at 5% Significance Level**											
1358												
1359	**Gamma Statistics on Detected Data Only**											
1360				k hat (MLE)		1.056	k star (bias corrected MLE)					0.847
1361				Theta hat (MLE)		564.4	Theta star (bias corrected MLE)					703.2
1362				nu hat (MLE)		25.34	nu star (bias corrected)					20.34
1363				Mean (detects)		595.9						
1364												
1365	**Gamma ROS Statistics using Imputed Non-Detects**											
1366	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1367	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1368	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1369	This is especially true when the sample size is small.											
1370	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1371				Minimum		0.01	Mean					340.5
1372				Maximum		2500	Median					84
1373				SD		604.9	CV					1.776
1374				k hat (MLE)		0.169	k star (bias corrected MLE)					0.177
1375				Theta hat (MLE)		2013	Theta star (bias corrected MLE)					1927
1376				nu hat (MLE)		7.105	nu star (bias corrected)					7.424
1377				Adjusted Level of Significance (β)		0.0383						
1378				Approximate Chi Square Value (7.42, α)		2.406	Adjusted Chi Square Value (7.42, β)					2.192
1379				95% Gamma Approximate UCL		1051	95% Gamma Adjusted UCL					1153
1380												
1381	**Estimates of Gamma Parameters using KM Estimates**											
1382				Mean (KM)		383.8	SD (KM)					568.1
1383				Variance (KM)		322740	SE of Mean (KM)					129.7
1384				k hat (KM)		0.456	k star (KM)					0.423
1385				nu hat (KM)		19.17	nu star (KM)					17.76
1386				theta hat (KM)		840.9	theta star (KM)					907.4
1387				80% gamma percentile (KM)		623.1	90% gamma percentile (KM)					1073
1388				95% gamma percentile (KM)		1564	99% gamma percentile (KM)					2791
1389												
1390	**Gamma Kaplan-Meier (KM) Statistics**											
1391				Approximate Chi Square Value (17.76, α)		9.221	Adjusted Chi Square Value (17.76, β)					8.749
1392				95% KM Approximate Gamma UCL		739.4	95% KM Adjusted Gamma UCL					779.3
1393												
1394	**Lognormal GOF Test on Detected Observations Only**											
1395				Shapiro Wilk Test Statistic		0.952	**Shapiro Wilk GOF Test**					
1396				10% Shapiro Wilk Critical Value		0.883	Detected Data appear Lognormal at 10% Significance Level					
1397				Lilliefors Test Statistic		0.184	**Lilliefors GOF Test**					
1398				10% Lilliefors Critical Value		0.223	Detected Data appear Lognormal at 10% Significance Level					
1399	**Detected Data appear Lognormal at 10% Significance Level**											
1400												
1401	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1402				Mean in Original Scale		379.2	Mean in Log Scale					5.245
1403				SD in Original Scale		583.7	SD in Log Scale					1.098
1404				95% t UCL (assumes normality of ROS data)		598.9	95% Percentile Bootstrap UCL					601.1
1405				95% BCA Bootstrap UCL		702.6	95% Bootstrap t UCL					822.1
1406				95% H-UCL (Log ROS)		672						
1407												

	A	B	C	D	E	F	G	H	I	J	K	L
1408	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1409					KM Mean (logged)	5.285				KM Geo Mean		197.4
1410					KM SD (logged)	1.042				95% Critical H Value (KM-Log)		2.621
1411					KM Standard Error of Mean (logged)	0.243				95% H-UCL (KM -Log)		625.5
1412					KM SD (logged)	1.042				95% Critical H Value (KM-Log)		2.621
1413					KM Standard Error of Mean (logged)	0.243						
1414												
1415	**DL/2 Statistics**											
1416	**DL/2 Normal**						**DL/2 Log-Transformed**					
1417					Mean in Original Scale	392				Mean in Log Scale		5.284
1418					SD in Original Scale	580.7				SD in Log Scale		1.132
1419					95% t UCL (Assumes normality)	610.5				95% H-Stat UCL		750
1420	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1421												
1422	**Nonparametric Distribution Free UCL Statistics**											
1423	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1424												
1425	**Suggested UCL to Use**											
1426					95% KM Adjusted Gamma UCL	779.3						
1427												
1428	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1429	**Please verify the data were collected from random locations.**											
1430	**If the data were collected using judgmental or other non-random methods,**											
1431	**then contact a statistician to correctly calculate UCLs.**											
1432												
1433	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1434	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1435	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1436												
1437	**Benzo[g,h,i]perylene**											
1438												
1439	**General Statistics**											
1440					Total Number of Observations	21				Number of Distinct Observations		18
1441										Number of Missing Observations		41
1442					Number of Detects	11				Number of Non-Detects		10
1443					Number of Distinct Detects	10				Number of Distinct Non-Detects		8
1444					Minimum Detect	24				Minimum Non-Detect		110
1445					Maximum Detect	1200				Maximum Non-Detect		650
1446					Variance Detects	161272				Percent Non-Detects		47.62%
1447					Mean Detects	383.5				SD Detects		401.6
1448					Median Detects	210				CV Detects		1.047
1449					Skewness Detects	1.5				Kurtosis Detects		1.07
1450					Mean of Logged Detects	5.435				SD of Logged Detects		1.143
1451												
1452	**Normal GOF Test on Detects Only**											
1453					Shapiro Wilk Test Statistic	0.764	**Shapiro Wilk GOF Test**					
1454					1% Shapiro Wilk Critical Value	0.792	Detected Data Not Normal at 1% Significance Level					
1455					Lilliefors Test Statistic	0.304	**Lilliefors GOF Test**					
1456					1% Lilliefors Critical Value	0.291	Detected Data Not Normal at 1% Significance Level					
1457	**Detected Data Not Normal at 1% Significance Level**											
1458												
1459	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1460					KM Mean	236.5				KM Standard Error of Mean		74.84
1461					90KM SD	321.8				95% KM (BCA) UCL		382.9
1462					95% KM (t) UCL	365.6				95% KM (Percentile Bootstrap) UCL		366.9
1463					95% KM (z) UCL	359.6				95% KM Bootstrap t UCL		508.2
1464					90% KM Chebyshev UCL	461				95% KM Chebyshev UCL		562.7
1465					97.5% KM Chebyshev UCL	703.9				99% KM Chebyshev UCL		981.2
1466												
1467	**Gamma GOF Tests on Detected Observations Only**											
1468					A-D Test Statistic	0.419	**Anderson-Darling GOF Test**					
1469					5% A-D Critical Value	0.75	Detected data appear Gamma Distributed at 5% Significance Level					
1470					K-S Test Statistic	0.233	**Kolmogorov-Smirnov GOF**					
1471					5% K-S Critical Value	0.262	Detected data appear Gamma Distributed at 5% Significance Level					
1472	**Detected data appear Gamma Distributed at 5% Significance Level**											
1473												
1474	**Gamma Statistics on Detected Data Only**											

1475					k hat (MLE)	1.108				k star (bias corrected MLE)		0.866
1476					Theta hat (MLE)	346.2				Theta star (bias corrected MLE)		442.7
1477					nu hat (MLE)	24.37				nu star (bias corrected)		19.06
1478					Mean (detects)	383.5						
1479												
1480					**Gamma ROS Statistics using Imputed Non-Detects**							
1481					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1482					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1483					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1484					This is especially true when the sample size is small.							
1485					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1486					Minimum	0.01				Mean		208.4
1487					Maximum	1200				Median		57.76
1488					SD	341.1				CV		1.637
1489					k hat (MLE)	0.23				k star (bias corrected MLE)		0.229
1490					Theta hat (MLE)	907.1				Theta star (bias corrected MLE)		911.3
1491					nu hat (MLE)	9.648				nu star (bias corrected)		9.603
1492					Adjusted Level of Significance (β)	0.0383						
1493					Approximate Chi Square Value (9.60, α)	3.695				Adjusted Chi Square Value (9.60, β)		3.418
1494					95% Gamma Approximate UCL	541.5				95% Gamma Adjusted UCL		585.5
1495												
1496					**Estimates of Gamma Parameters using KM Estimates**							
1497					Mean (KM)	236.5				SD (KM)		321.8
1498					Variance (KM)	103580				SE of Mean (KM)		74.84
1499					k hat (KM)	0.54				k star (KM)		0.495
1500					nu hat (KM)	22.68				nu star (KM)		20.77
1501					theta hat (KM)	438				theta star (KM)		478.2
1502					80% gamma percentile (KM)	388.2				90% gamma percentile (KM)		641.3
1503					95% gamma percentile (KM)	912				99% gamma percentile (KM)		1578
1504												
1505					**Gamma Kaplan-Meier (KM) Statistics**							
1506					Approximate Chi Square Value (20.77, α)	11.42				Adjusted Chi Square Value (20.77, β)		10.89
1507					95% KM Approximate Gamma UCL	430.1				95% KM Adjusted Gamma UCL		451.1
1508												
1509					**Lognormal GOF Test on Detected Observations Only**							
1510					Shapiro Wilk Test Statistic	0.947				**Shapiro Wilk GOF Test**		
1511					10% Shapiro Wilk Critical Value	0.876				Detected Data appear Lognormal at 10% Significance Level		
1512					Lilliefors Test Statistic	0.174				**Lilliefors GOF Test**		
1513					10% Lilliefors Critical Value	0.231				Detected Data appear Lognormal at 10% Significance Level		
1514					**Detected Data appear Lognormal at 10% Significance Level**							
1515												
1516					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1517					Mean in Original Scale	229.5				Mean in Log Scale		4.757
1518					SD in Original Scale	329.1				SD in Log Scale		1.128
1519					95% t UCL (assumes normality of ROS data)	353.4				95% Percentile Bootstrap UCL		352.4
1520					95% BCA Bootstrap UCL	396.7				95% Bootstrap t UCL		530.1
1521					95% H-UCL (Log ROS)	439						
1522												
1523					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1524					KM Mean (logged)	4.731				KM Geo Mean		113.4
1525					KM SD (logged)	1.208				95% Critical H Value (KM-Log)		2.86
1526					KM Standard Error of Mean (logged)	0.335				95% H-UCL (KM -Log)		509.6
1527					KM SD (logged)	1.208				95% Critical H Value (KM-Log)		2.86
1528					KM Standard Error of Mean (logged)	0.335						
1529												
1530					**DL/2 Statistics**							
1531					**DL/2 Normal**					**DL/2 Log-Transformed**		
1532					Mean in Original Scale	257.9				Mean in Log Scale		5.017
1533					SD in Original Scale	321.3				SD in Log Scale		1.025
1534					95% t UCL (Assumes normality)	378.8				95% H-Stat UCL		462.7
1535					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1536												
1537					**Nonparametric Distribution Free UCL Statistics**							
1538					**Detected Data appear Gamma Distributed at 5% Significance Level**							
1539												
1540					**Suggested UCL to Use**							
1541					95% KM Adjusted Gamma UCL	451.1						

	A	B	C	D	E	F	G	H	I	J	K	L
1542												
1543	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1544	**Please verify the data were collected from random locations.**											
1545	**If the data were collected using judgmental or other non-random methods,**											
1546	**then contact a statistician to correctly calculate UCLs.**											
1547												
1548	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1549	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1550	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1551												
1552	**Benzo[k]fluoranthene**											
1553												
1554	**General Statistics**											
1555	Total Number of Observations					21	Number of Distinct Observations					18
1556							Number of Missing Observations					41
1557	Number of Detects					11	Number of Non-Detects					10
1558	Number of Distinct Detects					10	Number of Distinct Non-Detects					8
1559	Minimum Detect					31	Minimum Non-Detect					110
1560	Maximum Detect					2600	Maximum Non-Detect					650
1561	Variance Detects					588973	Percent Non-Detects					47.62%
1562	Mean Detects					526.1	SD Detects					767.4
1563	Median Detects					200	CV Detects					1.459
1564	Skewness Detects					2.369	Kurtosis Detects					5.823
1565	Mean of Logged Detects					5.498	SD of Logged Detects					1.285
1566												
1567	**Normal GOF Test on Detects Only**											
1568	Shapiro Wilk Test Statistic					0.664	**Shapiro Wilk GOF Test**					
1569	1% Shapiro Wilk Critical Value					0.792	Detected Data Not Normal at 1% Significance Level					
1570	Lilliefors Test Statistic					0.291	**Lilliefors GOF Test**					
1571	1% Lilliefors Critical Value					0.291	Detected Data Not Normal at 1% Significance Level					
1572	**Detected Data Not Normal at 1% Significance Level**											
1573												
1574	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1575	KM Mean					314.1	KM Standard Error of Mean					132.6
1576	90KM SD					576.7	95% KM (BCA) UCL					567.4
1577	95% KM (t) UCL					542.9	95% KM (Percentile Bootstrap) UCL					550.5
1578	95% KM (z) UCL					532.3	95% KM Bootstrap t UCL					1043
1579	90% KM Chebyshev UCL					712	95% KM Chebyshev UCL					892.2
1580	97.5% KM Chebyshev UCL					1142	99% KM Chebyshev UCL					1634
1581												
1582	**Gamma GOF Tests on Detected Observations Only**											
1583	A-D Test Statistic					0.528	**Anderson-Darling GOF Test**					
1584	5% A-D Critical Value					0.761	Detected data appear Gamma Distributed at 5% Significance Level					
1585	K-S Test Statistic					0.243	**Kolmogorov-Smirnov GOF**					
1586	5% K-S Critical Value					0.265	Detected data appear Gamma Distributed at 5% Significance Level					
1587	**Detected data appear Gamma Distributed at 5% Significance Level**											
1588												
1589	**Gamma Statistics on Detected Data Only**											
1590	k hat (MLE)					0.776	k star (bias corrected MLE)					0.625
1591	Theta hat (MLE)					677.6	Theta star (bias corrected MLE)					841.4
1592	nu hat (MLE)					17.08	nu star (bias corrected)					13.76
1593	Mean (detects)					526.1						
1594												
1595	**Gamma ROS Statistics using Imputed Non-Detects**											
1596	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1597	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1598	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1599	This is especially true when the sample size is small.											
1600	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1601	Minimum					0.01	Mean					275.6
1602	Maximum					2600	Median					31
1603	SD					605.8	CV					2.198
1604	k hat (MLE)					0.155	k star (bias corrected MLE)					0.165
1605	Theta hat (MLE)					1777	Theta star (bias corrected MLE)					1673
1606	nu hat (MLE)					6.513	nu star (bias corrected)					6.916
1607	Adjusted Level of Significance (β)					0.0383						
1608	Approximate Chi Square Value (6.92, α)					2.125	Adjusted Chi Square Value (6.92, β)					1.927

1609	95% Gamma Approximate UCL				897	95% Gamma Adjusted UCL					989.2	
1610												
1611	**Estimates of Gamma Parameters using KM Estimates**											
1612	Mean (KM)				314.1	SD (KM)					576.7	
1613	Variance (KM)				332585	SE of Mean (KM)					132.6	
1614	k hat (KM)				0.297	k star (KM)					0.286	
1615	nu hat (KM)				12.46	nu star (KM)					12.01	
1616	theta hat (KM)				1059	theta star (KM)					1098	
1617	80% gamma percentile (KM)				475.8	90% gamma percentile (KM)					931.5	
1618	95% gamma percentile (KM)				1459	99% gamma percentile (KM)					2838	
1619												
1620	**Gamma Kaplan-Meier (KM) Statistics**											
1621	Approximate Chi Square Value (12.01, α)				5.236	Adjusted Chi Square Value (12.01, β)					4.895	
1622	95% KM Approximate Gamma UCL				720.7	95% KM Adjusted Gamma UCL					770.9	
1623												
1624	**Lognormal GOF Test on Detected Observations Only**											
1625	Shapiro Wilk Test Statistic				0.974	**Shapiro Wilk GOF Test**						
1626	10% Shapiro Wilk Critical Value				0.876	Detected Data appear Lognormal at 10% Significance Level						
1627	Lilliefors Test Statistic				0.169	**Lilliefors GOF Test**						
1628	10% Lilliefors Critical Value				0.231	Detected Data appear Lognormal at 10% Significance Level						
1629	**Detected Data appear Lognormal at 10% Significance Level**											
1630												
1631	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1632	Mean in Original Scale				304.5	Mean in Log Scale					4.794	
1633	SD in Original Scale				592.8	SD in Log Scale					1.222	
1634	95% t UCL (assumes normality of ROS data)				527.6	95% Percentile Bootstrap UCL					533.8	
1635	95% BCA Bootstrap UCL				689.3	95% Bootstrap t UCL					1022	
1636	95% H-UCL (Log ROS)				559.9							
1637												
1638	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1639	KM Mean (logged)				4.852	KM Geo Mean					128	
1640	KM SD (logged)				1.206	95% Critical H Value (KM-Log)					2.857	
1641	KM Standard Error of Mean (logged)				0.315	95% H-UCL (KM -Log)					572.4	
1642	KM SD (logged)				1.206	95% Critical H Value (KM-Log)					2.857	
1643	KM Standard Error of Mean (logged)				0.315							
1644												
1645	**DL/2 Statistics**											
1646	**DL/2 Normal**					**DL/2 Log-Transformed**						
1647	Mean in Original Scale				332.6	Mean in Log Scale					5.05	
1648	SD in Original Scale				584.9	SD in Log Scale					1.119	
1649	95% t UCL (Assumes normality)				552.7	95% H-Stat UCL					578.2	
1650	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1651												
1652	**Nonparametric Distribution Free UCL Statistics**											
1653	**Detected Data appear Gamma Distributed at 5% Significance Level**											
1654												
1655	**Suggested UCL to Use**											
1656	95% KM Adjusted Gamma UCL				770.9							
1657												
1658	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1659	**Please verify the data were collected from random locations.**											
1660	**If the data were collected using judgmental or other non-random methods,**											
1661	**then contact a statistician to correctly calculate UCLs.**											
1662												
1663	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1664	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1665	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1666												
1667	**Chrysene**											
1668												
1669	**General Statistics**											
1670	Total Number of Observations				21	Number of Distinct Observations					17	
1671						Number of Missing Observations					41	
1672	Number of Detects				14	Number of Non-Detects					7	
1673	Number of Distinct Detects				12	Number of Distinct Non-Detects					6	
1674	Minimum Detect				45	Minimum Non-Detect					110	
1675	Maximum Detect				6100	Maximum Non-Detect					550	

1676					Variance Detects	2491598				Percent Non-Detects		33.33%
1677					Mean Detects	896.8				SD Detects		1578
1678					Median Detects	350				CV Detects		1.76
1679					Skewness Detects	3.17				Kurtosis Detects		10.67
1680					Mean of Logged Detects	5.971				SD of Logged Detects		1.255
1681												
1682					**Normal GOF Test on Detects Only**							
1683					Shapiro Wilk Test Statistic	0.537	**Shapiro Wilk GOF Test**					
1684					1% Shapiro Wilk Critical Value	0.825	Detected Data Not Normal at 1% Significance Level					
1685					Lilliefors Test Statistic	0.321	**Lilliefors GOF Test**					
1686					1% Lilliefors Critical Value	0.263	Detected Data Not Normal at 1% Significance Level					
1687					**Detected Data Not Normal at 1% Significance Level**							
1688												
1689					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1690					KM Mean	628	KM Standard Error of Mean					294.4
1691					90KM SD	1299	95% KM (BCA) UCL					1201
1692					95% KM (t) UCL	1136	95% KM (Percentile Bootstrap) UCL					1179
1693					95% KM (z) UCL	1112	95% KM Bootstrap t UCL					2588
1694					90% KM Chebyshev UCL	1511	95% KM Chebyshev UCL					1911
1695					97.5% KM Chebyshev UCL	2467	99% KM Chebyshev UCL					3557
1696												
1697					**Gamma GOF Tests on Detected Observations Only**							
1698					A-D Test Statistic	0.849	**Anderson-Darling GOF Test**					
1699					5% A-D Critical Value	0.773	Detected Data Not Gamma Distributed at 5% Significance Level					
1700					K-S Test Statistic	0.249	**Kolmogorov-Smirnov GOF**					
1701					5% K-S Critical Value	0.238	Detected Data Not Gamma Distributed at 5% Significance Level					
1702					**Detected Data Not Gamma Distributed at 5% Significance Level**							
1703												
1704					**Gamma Statistics on Detected Data Only**							
1705					k hat (MLE)	0.727	k star (bias corrected MLE)					0.618
1706					Theta hat (MLE)	1234	Theta star (bias corrected MLE)					1450
1707					nu hat (MLE)	20.34	nu star (bias corrected)					17.32
1708					Mean (detects)	896.8						
1709												
1710					**Gamma ROS Statistics using Imputed Non-Detects**							
1711					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1712					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1713					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1714					This is especially true when the sample size is small.							
1715					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1716					Minimum	0.01	Mean					597.9
1717					Maximum	6100	Median					190
1718					SD	1344	CV					2.249
1719					k hat (MLE)	0.188	k star (bias corrected MLE)					0.193
1720					Theta hat (MLE)	3177	Theta star (bias corrected MLE)					3097
1721					nu hat (MLE)	7.904	nu star (bias corrected)					8.108
1722					Adjusted Level of Significance (β)	0.0383						
1723					Approximate Chi Square Value (8.11, α)	2.798	Adjusted Chi Square Value (8.11, β)					2.563
1724					95% Gamma Approximate UCL	1733	95% Gamma Adjusted UCL					1891
1725												
1726					**Estimates of Gamma Parameters using KM Estimates**							
1727					Mean (KM)	628	SD (KM)					1299
1728					Variance (KM)	1688692	SE of Mean (KM)					294.4
1729					k hat (KM)	0.234	k star (KM)					0.232
1730					nu hat (KM)	9.809	nu star (KM)					9.741
1731					theta hat (KM)	2689	theta star (KM)					2708
1732					80% gamma percentile (KM)	886.4	90% gamma percentile (KM)					1893
1733					95% gamma percentile (KM)	3107	99% gamma percentile (KM)					6373
1734												
1735					**Gamma Kaplan-Meier (KM) Statistics**							
1736					Approximate Chi Square Value (9.74, α)	3.781	Adjusted Chi Square Value (9.74, β)					3.499
1737					95% KM Approximate Gamma UCL	1618	95% KM Adjusted Gamma UCL					1748
1738												
1739					**Lognormal GOF Test on Detected Observations Only**							
1740					Shapiro Wilk Test Statistic	0.967	**Shapiro Wilk GOF Test**					
1741					10% Shapiro Wilk Critical Value	0.895	Detected Data appear Lognormal at 10% Significance Level					
1742					Lilliefors Test Statistic	0.17	**Lilliefors GOF Test**					

1743					10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level					
1744	**Detected Data appear Lognormal at 10% Significance Level**											
1745												
1746	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1747					Mean in Original Scale	622.6	Mean in Log Scale	5.383				
1748					SD in Original Scale	1333	SD in Log Scale	1.349				
1749				95% t UCL (assumes normality of ROS data)		1124	95% Percentile Bootstrap UCL	1155				
1750					95% BCA Bootstrap UCL	1506	95% Bootstrap t UCL	2367				
1751					95% H-UCL (Log ROS)	1369						
1752												
1753	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1754					KM Mean (logged)	5.414	KM Geo Mean	224.6				
1755					KM SD (logged)	1.308	95% Critical H Value (KM-Log)	3.01				
1756				KM Standard Error of Mean (logged)		0.31	95% H-UCL (KM -Log)	1274				
1757					KM SD (logged)	1.308	95% Critical H Value (KM-Log)	3.01				
1758				KM Standard Error of Mean (logged)		0.31						
1759												
1760	**DL/2 Statistics**											
1761	**DL/2 Normal**						**DL/2 Log-Transformed**					
1762					Mean in Original Scale	630.7	Mean in Log Scale	5.45				
1763					SD in Original Scale	1330	SD in Log Scale	1.303				
1764					95% t UCL (Assumes normality)	1131	95% H-Stat UCL	1304				
1765	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1766												
1767	**Nonparametric Distribution Free UCL Statistics**											
1768	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
1769												
1770	**Suggested UCL to Use**											
1771					KM H-UCL	1274						
1772												
1773	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
1774	**Please verify the data were collected from random locations.**											
1775	**If the data were collected using judgmental or other non-random methods,**											
1776	**then contact a statistician to correctly calculate UCLs.**											
1777												
1778	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1779	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1780	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1781												
1782	**Dibenzo[a,h]anthracene**											
1783												
1784	**General Statistics**											
1785					Total Number of Observations	21	Number of Distinct Observations	16				
1786							Number of Missing Observations	41				
1787					Number of Detects	7	Number of Non-Detects	14				
1788					Number of Distinct Detects	7	Number of Distinct Non-Detects	10				
1789					Minimum Detect	7.1	Minimum Non-Detect	110				
1790					Maximum Detect	540	Maximum Non-Detect	650				
1791					Variance Detects	37086	Percent Non-Detects	66.67%				
1792					Mean Detects	195.6	SD Detects	192.6				
1793					Median Detects	130	CV Detects	0.985				
1794					Skewness Detects	1.138	Kurtosis Detects	0.315				
1795					Mean of Logged Detects	4.665	SD of Logged Detects	1.435				
1796												
1797	**Normal GOF Test on Detects Only**											
1798					Shapiro Wilk Test Statistic	0.879	**Shapiro Wilk GOF Test**					
1799					1% Shapiro Wilk Critical Value	0.73	Detected Data appear Normal at 1% Significance Level					
1800					Lilliefors Test Statistic	0.226	**Lilliefors GOF Test**					
1801					1% Lilliefors Critical Value	0.35	Detected Data appear Normal at 1% Significance Level					
1802	**Detected Data appear Normal at 1% Significance Level**											
1803	**Note GOF tests may be unreliable for small sample sizes**											
1804												
1805	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1806					KM Mean	105	KM Standard Error of Mean	35.16				
1807					90KM SD	131.9	95% KM (BCA) UCL	175				
1808					95% KM (t) UCL	165.7	95% KM (Percentile Bootstrap) UCL	168.5				
1809					95% KM (z) UCL	162.9	95% KM Bootstrap t UCL	199				

	A	B	C	D	E	F	G	H	I	J	K	L
1810					90% KM Chebyshev UCL	210.5				95% KM Chebyshev UCL		258.3
1811					97.5% KM Chebyshev UCL	324.6				99% KM Chebyshev UCL		454.9
1812												
1813					**Gamma GOF Tests on Detected Observations Only**							
1814					A-D Test Statistic	0.183	**Anderson-Darling GOF Test**					
1815					5% A-D Critical Value	0.729	Detected data appear Gamma Distributed at 5% Significance Level					
1816					K-S Test Statistic	0.14	**Kolmogorov-Smirnov GOF**					
1817					5% K-S Critical Value	0.32	Detected data appear Gamma Distributed at 5% Significance Level					
1818					**Detected data appear Gamma Distributed at 5% Significance Level**							
1819					**Note GOF tests may be unreliable for small sample sizes**							
1820												
1821					**Gamma Statistics on Detected Data Only**							
1822					k hat (MLE)	0.951	k star (bias corrected MLE)					0.638
1823					Theta hat (MLE)	205.8	Theta star (bias corrected MLE)					306.4
1824					nu hat (MLE)	13.31	nu star (bias corrected)					8.937
1825					Mean (detects)	195.6						
1826												
1827					**Gamma ROS Statistics using Imputed Non-Detects**							
1828					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1829					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1830					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1831					This is especially true when the sample size is small.							
1832					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1833					Minimum	0.01	Mean					87.94
1834					Maximum	540	Median					36.83
1835					SD	132.6	CV					1.508
1836					k hat (MLE)	0.481	k star (bias corrected MLE)					0.444
1837					Theta hat (MLE)	182.9	Theta star (bias corrected MLE)					198.2
1838					nu hat (MLE)	20.19	nu star (bias corrected)					18.64
1839					Adjusted Level of Significance (β)	0.0383						
1840					Approximate Chi Square Value (18.64, α)	9.854	Adjusted Chi Square Value (18.64, β)					9.365
1841					95% Gamma Approximate UCL	166.3	95% Gamma Adjusted UCL					175
1842												
1843					**Estimates of Gamma Parameters using KM Estimates**							
1844					Mean (KM)	105	SD (KM)					131.9
1845					Variance (KM)	17390	SE of Mean (KM)					35.16
1846					k hat (KM)	0.634	k star (KM)					0.575
1847					nu hat (KM)	26.64	nu star (KM)					24.17
1848					theta hat (KM)	165.6	theta star (KM)					182.5
1849					80% gamma percentile (KM)	173.1	90% gamma percentile (KM)					275.7
1850					95% gamma percentile (KM)	383.6	99% gamma percentile (KM)					645.7
1851												
1852					**Gamma Kaplan-Meier (KM) Statistics**							
1853					Approximate Chi Square Value (24.17, α)	13.98	Adjusted Chi Square Value (24.17, β)					13.38
1854					95% KM Approximate Gamma UCL	181.6	95% KM Adjusted Gamma UCL					189.7
1855												
1856					**Lognormal GOF Test on Detected Observations Only**							
1857					Shapiro Wilk Test Statistic	0.925	**Shapiro Wilk GOF Test**					
1858					10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level					
1859					Lilliefors Test Statistic	0.211	**Lilliefors GOF Test**					
1860					10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level					
1861					**Detected Data appear Lognormal at 10% Significance Level**							
1862					**Note GOF tests may be unreliable for small sample sizes**							
1863												
1864					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1865					Mean in Original Scale	89.29	Mean in Log Scale					3.892
1866					SD in Original Scale	131.1	SD in Log Scale					1.032
1867					95% t UCL (assumes normality of ROS data)	138.6	95% Percentile Bootstrap UCL					138.4
1868					95% BCA Bootstrap UCL	156.2	95% Bootstrap t UCL					224.2
1869					95% H-UCL (Log ROS)	152.4						
1870												
1871					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1872					KM Mean (logged)	3.947	KM Geo Mean					51.77
1873					KM SD (logged)	1.302	95% Critical H Value (KM-Log)					3.001
1874					KM Standard Error of Mean (logged)	0.552	95% H-UCL (KM -Log)					289.4
1875					KM SD (logged)	1.302	95% Critical H Value (KM-Log)					3.001
1876					KM Standard Error of Mean (logged)	0.552						

1877											
1878	**DL/2 Statistics**										
1879	**DL/2 Normal**					**DL/2 Log-Transformed**					
1880	Mean in Original Scale			141.6		Mean in Log Scale				4.591	
1881	SD in Original Scale			131.7		SD in Log Scale				0.921	
1882	95% t UCL (Assumes normality)			191.2		95% H-Stat UCL				249.9	
1883	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
1884											
1885	**Nonparametric Distribution Free UCL Statistics**										
1886	**Detected Data appear Normal Distributed at 1% Significance Level**										
1887											
1888	**Suggested UCL to Use**										
1889	95% KM (t) UCL			165.7							
1890											
1891	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
1892	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.										
1893	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
1894											
1895	**Fluoranthene**										
1896											
1897	**General Statistics**										
1898	Total Number of Observations			21		Number of Distinct Observations				18	
1899						Number of Missing Observations				41	
1900	Number of Detects			15		Number of Non-Detects				6	
1901	Number of Distinct Detects			14		Number of Distinct Non-Detects				5	
1902	Minimum Detect			64		Minimum Non-Detect				110	
1903	Maximum Detect			7800		Maximum Non-Detect				550	
1904	Variance Detects			3705889		Percent Non-Detects				28.57%	
1905	Mean Detects			1018		SD Detects				1925	
1906	Median Detects			450		CV Detects				1.892	
1907	Skewness Detects			3.556		Kurtosis Detects				13.19	
1908	Mean of Logged Detects			6.135		SD of Logged Detects				1.177	
1909											
1910	**Normal GOF Test on Detects Only**										
1911	Shapiro Wilk Test Statistic			0.471		**Shapiro Wilk GOF Test**					
1912	1% Shapiro Wilk Critical Value			0.835		Detected Data Not Normal at 1% Significance Level					
1913	Lilliefors Test Statistic			0.355		**Lilliefors GOF Test**					
1914	1% Lilliefors Critical Value			0.255		Detected Data Not Normal at 1% Significance Level					
1915	**Detected Data Not Normal at 1% Significance Level**										
1916											
1917	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
1918	KM Mean			755.8		KM Standard Error of Mean				367.4	
1919	90KM SD			1626		95% KM (BCA) UCL				1510	
1920	95% KM (t) UCL			1389		95% KM (Percentile Bootstrap) UCL				1449	
1921	95% KM (z) UCL			1360		95% KM Bootstrap t UCL				3183	
1922	90% KM Chebyshev UCL			1858		95% KM Chebyshev UCL				2357	
1923	97.5% KM Chebyshev UCL			3050		99% KM Chebyshev UCL				4411	
1924											
1925	**Gamma GOF Tests on Detected Observations Only**										
1926	A-D Test Statistic			1.022		**Anderson-Darling GOF Test**					
1927	5% A-D Critical Value			0.775		Detected Data Not Gamma Distributed at 5% Significance Level					
1928	K-S Test Statistic			0.262		**Kolmogorov-Smirnov GOF**					
1929	5% K-S Critical Value			0.23		Detected Data Not Gamma Distributed at 5% Significance Level					
1930	**Detected Data Not Gamma Distributed at 5% Significance Level**										
1931											
1932	**Gamma Statistics on Detected Data Only**										
1933	k hat (MLE)			0.756		k star (bias corrected MLE)				0.649	
1934	Theta hat (MLE)			1346		Theta star (bias corrected MLE)				1567	
1935	nu hat (MLE)			22.69		nu star (bias corrected)				19.48	
1936	Mean (detects)			1018							
1937											
1938	**Gamma ROS Statistics using Imputed Non-Detects**										
1939	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
1940	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
1941	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
1942	This is especially true when the sample size is small.										
1943	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										

1944					Minimum	0.01				Mean		726.9
1945					Maximum	7800				Median		300
1946					SD	1678				CV		2.309
1947					k hat (MLE)	0.208				k star (bias corrected MLE)		0.21
1948					Theta hat (MLE)	3500				Theta star (bias corrected MLE)		3465
1949					nu hat (MLE)	8.723				nu star (bias corrected)		8.81
1950					Adjusted Level of Significance (β)	0.0383						
1951					Approximate Chi Square Value (8.81, α)	3.213				Adjusted Chi Square Value (8.81, β)		2.957
1952					95% Gamma Approximate UCL	1993				95% Gamma Adjusted UCL		2165
1953												
1954					**Estimates of Gamma Parameters using KM Estimates**							
1955					Mean (KM)	755.8				SD (KM)		1626
1956					Variance (KM)	2644239				SE of Mean (KM)		367.4
1957					k hat (KM)	0.216				k star (KM)		0.217
1958					nu hat (KM)	9.072				nu star (KM)		9.11
1959					theta hat (KM)	3499				theta star (KM)		3484
1960					80% gamma percentile (KM)	1036				90% gamma percentile (KM)		2284
1961					95% gamma percentile (KM)	3810				99% gamma percentile (KM)		7959
1962												
1963					**Gamma Kaplan-Meier (KM) Statistics**							
1964					Approximate Chi Square Value (9.11, α)	3.393				Adjusted Chi Square Value (9.11, β)		3.13
1965					95% KM Approximate Gamma UCL	2029				95% KM Adjusted Gamma UCL		2200
1966												
1967					**Lognormal GOF Test on Detected Observations Only**							
1968					Shapiro Wilk Test Statistic	0.957				**Shapiro Wilk GOF Test**		
1969					10% Shapiro Wilk Critical Value	0.901				Detected Data appear Lognormal at 10% Significance Level		
1970					Lilliefors Test Statistic	0.168				**Lilliefors GOF Test**		
1971					10% Lilliefors Critical Value	0.202				Detected Data appear Lognormal at 10% Significance Level		
1972					**Detected Data appear Lognormal at 10% Significance Level**							
1973												
1974					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1975					Mean in Original Scale	750.4				Mean in Log Scale		5.612
1976					SD in Original Scale	1668				SD in Log Scale		1.322
1977					95% t UCL (assumes normality of ROS data)	1378				95% Percentile Bootstrap UCL		1425
1978					95% BCA Bootstrap UCL	1879				95% Bootstrap t UCL		3072
1979					95% H-UCL (Log ROS)	1605						
1980												
1981					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1982					KM Mean (logged)	5.65				KM Geo Mean		284.3
1983					KM SD (logged)	1.258				95% Critical H Value (KM-Log)		2.934
1984					KM Standard Error of Mean (logged)	0.29				95% H-UCL (KM -Log)		1431
1985					KM SD (logged)	1.258				95% Critical H Value (KM-Log)		2.934
1986					KM Standard Error of Mean (logged)	0.29						
1987												
1988					**DL/2 Statistics**							
1989					**DL/2 Normal**					**DL/2 Log-Transformed**		
1990					Mean in Original Scale	754.4				Mean in Log Scale		5.626
1991					SD in Original Scale	1667				SD in Log Scale		1.322
1992					95% t UCL (Assumes normality)	1382				95% H-Stat UCL		1628
1993					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1994												
1995					**Nonparametric Distribution Free UCL Statistics**							
1996					**Detected Data appear Lognormal Distributed at 10% Significance Level**							
1997												
1998					**Suggested UCL to Use**							
1999					KM H-UCL	1431						
2000												
2001					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2002					**Please verify the data were collected from random locations.**							
2003					**If the data were collected using judgmental or other non-random methods,**							
2004					**then contact a statistician to correctly calculate UCLs.**							
2005												
2006					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2007					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2008					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2009												
2010	**Fluorene**											

2011											
2012	**General Statistics**										
2013				Total Number of Observations	21			Number of Distinct Observations		16	
2014								Number of Missing Observations		41	
2015				Number of Detects	3			Number of Non-Detects		18	
2016				Number of Distinct Detects	3			Number of Distinct Non-Detects		13	
2017				Minimum Detect	66			Minimum Non-Detect		1.55	
2018				Maximum Detect	300			Maximum Non-Detect		650	
2019				Variance Detects	13745			Percent Non-Detects		85.71%	
2020				Mean Detects	178.7			SD Detects		117.2	
2021				Median Detects	170			CV Detects		0.656	
2022				Skewness Detects	0.331			Kurtosis Detects		N/A	
2023				Mean of Logged Detects	5.01			SD of Logged Detects		0.765	
2024											
2025	**Warning: Data set has only 3 Detected Values.**										
2026	**This is not enough to compute meaningful or reliable statistics and estimates.**										
2027											
2028											
2029	**Normal GOF Test on Detects Only**										
2030				Shapiro Wilk Test Statistic	0.996			**Shapiro Wilk GOF Test**			
2031				1% Shapiro Wilk Critical Value	0.753			Detected Data appear Normal at 1% Significance Level			
2032				Lilliefors Test Statistic	0.196			**Lilliefors GOF Test**			
2033				1% Lilliefors Critical Value	0.429			Detected Data appear Normal at 1% Significance Level			
2034	**Detected Data appear Normal at 1% Significance Level**										
2035	**Note GOF tests may be unreliable for small sample sizes**										
2036											
2037	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
2038				KM Mean	57.01			KM Standard Error of Mean		31.31	
2039				90KM SD	73.21			95% KM (BCA) UCL		N/A	
2040				95% KM (t) UCL	111			95% KM (Percentile Bootstrap) UCL		N/A	
2041				95% KM (z) UCL	108.5			95% KM Bootstrap t UCL		N/A	
2042				90% KM Chebyshev UCL	150.9			95% KM Chebyshev UCL		193.5	
2043				97.5% KM Chebyshev UCL	252.5			99% KM Chebyshev UCL		368.5	
2044											
2045	**Gamma GOF Tests on Detected Observations Only**										
2046				A-D Test Statistic	0.254			**Anderson-Darling GOF Test**			
2047				5% A-D Critical Value	0.636			Detected data appear Gamma Distributed at 5% Significance Level			
2048				K-S Test Statistic	0.232			**Kolmogorov-Smirnov GOF**			
2049				5% K-S Critical Value	0.434			Detected data appear Gamma Distributed at 5% Significance Level			
2050	**Detected Data Not Gamma Distributed at 5% Significance Level**										
2051											
2052	**Gamma Statistics on Detected Data Only**										
2053				k hat (MLE)	3.001			k star (bias corrected MLE)		N/A	
2054				Theta hat (MLE)	59.54			Theta star (bias corrected MLE)		N/A	
2055				nu hat (MLE)	18			nu star (bias corrected)		N/A	
2056				Mean (detects)	178.7						
2057											
2058	**Gamma ROS Statistics using Imputed Non-Detects**										
2059	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
2060	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
2061	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
2062	This is especially true when the sample size is small.										
2063	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
2064				Minimum	0.01			Mean		35.28	
2065				Maximum	300			Median		6.728	
2066				SD	72.67			CV		2.06	
2067				k hat (MLE)	0.201			k star (bias corrected MLE)		0.204	
2068				Theta hat (MLE)	175.4			Theta star (bias corrected MLE)		172.8	
2069				nu hat (MLE)	8.448			nu star (bias corrected)		8.574	
2070				Adjusted Level of Significance (β)	0.0383						
2071				Approximate Chi Square Value (8.57, α)	3.072			Adjusted Chi Square Value (8.57, β)		2.824	
2072				95% Gamma Approximate UCL	98.47			95% Gamma Adjusted UCL		N/A	
2073											
2074	**Estimates of Gamma Parameters using KM Estimates**										
2075				Mean (KM)	57.01			SD (KM)		73.21	
2076				Variance (KM)	5360			SE of Mean (KM)		31.31	
2077				k hat (KM)	0.606			k star (KM)		0.551	

2078					nu hat (KM)	25.46				nu star (KM)	23.16
2079					theta hat (KM)	94.03				theta star (KM)	103.4
2080					80% gamma percentile (KM)	93.9				90% gamma percentile (KM)	151.1
2081					95% gamma percentile (KM)	211.5				99% gamma percentile (KM)	358.6
2082											
2083					**Gamma Kaplan-Meier (KM) Statistics**						
2084					Approximate Chi Square Value (23.16, α)	13.21				Adjusted Chi Square Value (23.16, β)	12.63
2085					95% KM Approximate Gamma UCL	99.93				95% KM Adjusted Gamma UCL	104.5
2086											
2087					**Lognormal GOF Test on Detected Observations Only**						
2088					Shapiro Wilk Test Statistic	0.98				**Shapiro Wilk GOF Test**	
2089					10% Shapiro Wilk Critical Value	0.789				Detected Data appear Lognormal at 10% Significance Level	
2090					Lilliefors Test Statistic	0.232				**Lilliefors GOF Test**	
2091					10% Lilliefors Critical Value	0.389				Detected Data appear Lognormal at 10% Significance Level	
2092					**Detected Data appear Lognormal at 10% Significance Level**						
2093					**Note GOF tests may be unreliable for small sample sizes**						
2094											
2095					**Lognormal ROS Statistics Using Imputed Non-Detects**						
2096					Mean in Original Scale	59.54				Mean in Log Scale	3.823
2097					SD in Original Scale	63.3				SD in Log Scale	0.641
2098					95% t UCL (assumes normality of ROS data)	83.36				95% Percentile Bootstrap UCL	84.67
2099					95% BCA Bootstrap UCL	94.93				95% Bootstrap t UCL	149.9
2100					95% H-UCL (Log ROS)	76.21					
2101											
2102					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**						
2103					KM Mean (logged)	2.683				KM Geo Mean	14.63
2104					KM SD (logged)	2.025				95% Critical H Value (KM-Log)	4.184
2105					KM Standard Error of Mean (logged)	1.46				95% H-UCL (KM -Log)	757.1
2106					KM SD (logged)	2.025				95% Critical H Value (KM-Log)	4.184
2107					KM Standard Error of Mean (logged)	1.46					
2108											
2109					**DL/2 Statistics**						
2110					**DL/2 Normal**					**DL/2 Log-Transformed**	
2111					Mean in Original Scale	111.8				Mean in Log Scale	4.342
2112					SD in Original Scale	87.43				SD in Log Scale	1.202
2113					95% t UCL (Assumes normality)	144.7				95% H-Stat UCL	340.5
2114					**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
2115											
2116					**Nonparametric Distribution Free UCL Statistics**						
2117					**Detected Data appear Normal Distributed at 1% Significance Level**						
2118											
2119					**Suggested UCL to Use**						
2120					95% KM (t) UCL	111					
2121											
2122					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
2123					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
2124					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
2125											
2126	**Naphthalene**										
2127											
2128					**General Statistics**						
2129					Total Number of Observations	21				Number of Distinct Observations	15
2130										Number of Missing Observations	41
2131					Number of Detects	2				Number of Non-Detects	19
2132					Number of Distinct Detects	2				Number of Distinct Non-Detects	14
2133					Minimum Detect	14				Minimum Non-Detect	110
2134					Maximum Detect	130				Maximum Non-Detect	650
2135					Variance Detects	6728				Percent Non-Detects	90.48%
2136					Mean Detects	72				SD Detects	82.02
2137					Median Detects	72				CV Detects	1.139
2138					Skewness Detects	N/A				Kurtosis Detects	N/A
2139					Mean of Logged Detects	3.753				SD of Logged Detects	1.576
2140											
2141					**Warning: Data set has only 2 Detected Values.**						
2142					**This is not enough to compute meaningful or reliable statistics and estimates.**						
2143											
2144											

2145	**Normal GOF Test on Detects Only**										
2146	**Not Enough Data to Perform GOF Test**										
2147											
2148	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**										
2149				KM Mean	23.67			KM Standard Error of Mean	13.09		
2150				90KM SD	32.06			95% KM (BCA) UCL	N/A		
2151				95% KM (t) UCL	46.24			95% KM (Percentile Bootstrap) UCL	N/A		
2152				95% KM (z) UCL	45.2			95% KM Bootstrap t UCL	N/A		
2153				90% KM Chebyshev UCL	62.93			95% KM Chebyshev UCL	80.72		
2154				97.5% KM Chebyshev UCL	105.4			99% KM Chebyshev UCL	153.9		
2155											
2156	**Gamma GOF Tests on Detected Observations Only**										
2157	**Not Enough Data to Perform GOF Test**										
2158											
2159	**Gamma Statistics on Detected Data Only**										
2160				k hat (MLE)	1.092			k star (bias corrected MLE)	N/A		
2161				Theta hat (MLE)	65.94			Theta star (bias corrected MLE)	N/A		
2162				nu hat (MLE)	4.367			nu star (bias corrected)	N/A		
2163				Mean (detects)	72						
2164											
2165	**Estimates of Gamma Parameters using KM Estimates**										
2166				Mean (KM)	23.67			SD (KM)	32.06		
2167				Variance (KM)	1028			SE of Mean (KM)	13.09		
2168				k hat (KM)	0.545			k star (KM)	0.499		
2169				nu hat (KM)	22.89			nu star (KM)	20.95		
2170				theta hat (KM)	43.43			theta star (KM)	47.45		
2171				80% gamma percentile (KM)	38.87			90% gamma percentile (KM)	64.06		
2172				95% gamma percentile (KM)	90.99			99% gamma percentile (KM)	157.2		
2173											
2174	**Gamma Kaplan-Meier (KM) Statistics**										
2175								Adjusted Level of Significance (β)	0.0383		
2176				Approximate Chi Square Value (20.95, α)	11.55			Adjusted Chi Square Value (20.95, β)	11.02		
2177				95% KM Approximate Gamma UCL	42.91			95% KM Adjusted Gamma UCL	44.99		
2178											
2179	**Lognormal GOF Test on Detected Observations Only**										
2180	**Not Enough Data to Perform GOF Test**										
2181											
2182	**Lognormal ROS Statistics Using Imputed Non-Detects**										
2183				Mean in Original Scale	21.17			Mean in Log Scale	2.794		
2184				SD in Original Scale	25.55			SD in Log Scale	0.604		
2185				95% t UCL (assumes normality of ROS data)	30.78			95% Percentile Bootstrap UCL	32.03		
2186				95% BCA Bootstrap UCL	39.33			95% Bootstrap t UCL	59.55		
2187				95% H-UCL (Log ROS)	26.01						
2188											
2189	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
2190				KM Mean (logged)	2.825			KM Geo Mean	16.86		
2191				KM SD (logged)	0.616			95% Critical H Value (KM-Log)	2.101		
2192				KM Standard Error of Mean (logged)	0.251			95% H-UCL (KM -Log)	27.22		
2193				KM SD (logged)	0.616			95% Critical H Value (KM-Log)	2.101		
2194				KM Standard Error of Mean (logged)	0.251						
2195	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
2196											
2197	**DL/2 Statistics**										
2198	**DL/2 Normal**							**DL/2 Log-Transformed**			
2199				Mean in Original Scale	99.12			Mean in Log Scale	4.392		
2200				SD in Original Scale	74.43			SD in Log Scale	0.65		
2201				95% t UCL (Assumes normality)	127.1			95% H-Stat UCL	136.1		
2202	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
2203											
2204	**Nonparametric Distribution Free UCL Statistics**										
2205	**Data do not follow a Discernible Distribution**										
2206											
2207	**Suggested UCL to Use**										
2208				95% KM (t) UCL	46.24						
2209											
2210	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**										
2211	**Please verify the data were collected from random locations.**										

2212	**If the data were collected using judgmental or other non-random methods,**											
2213	**then contact a statistician to correctly calculate UCLs.**											
2214												
2215	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2216	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2217	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2218												
2219	**Phenanthrene**											
2220												
2221	**General Statistics**											
2222						Total Number of Observations	21			Number of Distinct Observations	19	
2223										Number of Missing Observations	41	
2224						Number of Detects	14			Number of Non-Detects	7	
2225						Number of Distinct Detects	13			Number of Distinct Non-Detects	6	
2226						Minimum Detect	27			Minimum Non-Detect	110	
2227						Maximum Detect	1700			Maximum Non-Detect	550	
2228						Variance Detects	245634			Percent Non-Detects	33.33%	
2229						Mean Detects	372.2			SD Detects	495.6	
2230						Median Detects	165			CV Detects	1.332	
2231						Skewness Detects	2.052			Kurtosis Detects	3.539	
2232						Mean of Logged Detects	5.288			SD of Logged Detects	1.127	
2233												
2234	**Normal GOF Test on Detects Only**											
2235						Shapiro Wilk Test Statistic	0.664			**Shapiro Wilk GOF Test**		
2236						1% Shapiro Wilk Critical Value	0.825			Detected Data Not Normal at 1% Significance Level		
2237						Lilliefors Test Statistic	0.352			**Lilliefors GOF Test**		
2238						1% Lilliefors Critical Value	0.263			Detected Data Not Normal at 1% Significance Level		
2239	**Detected Data Not Normal at 1% Significance Level**											
2240												
2241	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2242						KM Mean	273.2			KM Standard Error of Mean	94.27	
2243						90KM SD	415.3			95% KM (BCA) UCL	455.1	
2244						95% KM (t) UCL	435.8			95% KM (Percentile Bootstrap) UCL	442.9	
2245						95% KM (z) UCL	428.3			95% KM Bootstrap t UCL	670.2	
2246						90% KM Chebyshev UCL	556			95% KM Chebyshev UCL	684.1	
2247						97.5% KM Chebyshev UCL	861.9			99% KM Chebyshev UCL	1211	
2248												
2249	**Gamma GOF Tests on Detected Observations Only**											
2250						A-D Test Statistic	0.952			**Anderson-Darling GOF Test**		
2251						5% A-D Critical Value	0.763			Detected Data Not Gamma Distributed at 5% Significance Level		
2252						K-S Test Statistic	0.269			**Kolmogorov-Smirnov GOF**		
2253						5% K-S Critical Value	0.236			Detected Data Not Gamma Distributed at 5% Significance Level		
2254	**Detected Data Not Gamma Distributed at 5% Significance Level**											
2255												
2256	**Gamma Statistics on Detected Data Only**											
2257						k hat (MLE)	0.923			k star (bias corrected MLE)	0.773	
2258						Theta hat (MLE)	403.3			Theta star (bias corrected MLE)	481.6	
2259						nu hat (MLE)	25.84			nu star (bias corrected)	21.64	
2260						Mean (detects)	372.2					
2261												
2262	**Gamma ROS Statistics using Imputed Non-Detects**											
2263	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2264	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2265	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2266	This is especially true when the sample size is small.											
2267	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2268						Minimum	0.01			Mean	250.2	
2269						Maximum	1700			Median	120	
2270						SD	437			CV	1.747	
2271						k hat (MLE)	0.252			k star (bias corrected MLE)	0.248	
2272						Theta hat (MLE)	992.2			Theta star (bias corrected MLE)	1009	
2273						nu hat (MLE)	10.59			nu star (bias corrected)	10.41	
2274						Adjusted Level of Significance (β)	0.0383					
2275						Approximate Chi Square Value (10.41, α)	4.201			Adjusted Chi Square Value (10.41, β)	3.901	
2276						95% Gamma Approximate UCL	620.1			95% Gamma Adjusted UCL	667.7	
2277												
2278	**Estimates of Gamma Parameters using KM Estimates**											

2279					Mean (KM)	273.2					SD (KM)	415.3
2280					Variance (KM)	172435					SE of Mean (KM)	94.27
2281					k hat (KM)	0.433					k star (KM)	0.403
2282					nu hat (KM)	18.18					nu star (KM)	16.91
2283					theta hat (KM)	631.2					theta star (KM)	678.3
2284					80% gamma percentile (KM)	441.3					90% gamma percentile (KM)	770.7
2285					95% gamma percentile (KM)	1132					99% gamma percentile (KM)	2041
2286												
2287					**Gamma Kaplan-Meier (KM) Statistics**							
2288					Approximate Chi Square Value (16.91, α)	8.611					Adjusted Chi Square Value (16.91, β)	8.158
2289					95% KM Approximate Gamma UCL	536.6					95% KM Adjusted Gamma UCL	566.4
2290												
2291					**Lognormal GOF Test on Detected Observations Only**							
2292					Shapiro Wilk Test Statistic	0.942					**Shapiro Wilk GOF Test**	
2293					10% Shapiro Wilk Critical Value	0.895					Detected Data appear Lognormal at 10% Significance Level	
2294					Lilliefors Test Statistic	0.193					**Lilliefors GOF Test**	
2295					10% Lilliefors Critical Value	0.208					Detected Data appear Lognormal at 10% Significance Level	
2296					**Detected Data appear Lognormal at 10% Significance Level**							
2297												
2298					**Lognormal ROS Statistics Using Imputed Non-Detects**							
2299					Mean in Original Scale	269.2					Mean in Log Scale	4.885
2300					SD in Original Scale	426.8					SD in Log Scale	1.102
2301					95% t UCL (assumes normality of ROS data)	429.8					95% Percentile Bootstrap UCL	424.3
2302					95% BCA Bootstrap UCL	500.3					95% Bootstrap t UCL	651.9
2303					95% H-UCL (Log ROS)	472.8						
2304												
2305					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
2306					KM Mean (logged)	4.905					KM Geo Mean	135
2307					KM SD (logged)	1.096					95% Critical H Value (KM-Log)	2.697
2308					KM Standard Error of Mean (logged)	0.269					95% H-UCL (KM -Log)	476.3
2309					KM SD (logged)	1.096					95% Critical H Value (KM-Log)	2.697
2310					KM Standard Error of Mean (logged)	0.269						
2311												
2312					**DL/2 Statistics**							
2313					**DL/2 Normal**						**DL/2 Log-Transformed**	
2314					Mean in Original Scale	281.2					Mean in Log Scale	4.996
2315					SD in Original Scale	423.1					SD in Log Scale	1.053
2316					95% t UCL (Assumes normality)	440.5					95% H-Stat UCL	478.9
2317					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
2318												
2319					**Nonparametric Distribution Free UCL Statistics**							
2320					**Detected Data appear Lognormal Distributed at 10% Significance Level**							
2321												
2322					**Suggested UCL to Use**							
2323					KM H-UCL	476.3						
2324												
2325					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
2326					**Please verify the data were collected from random locations.**							
2327					**If the data were collected using judgmental or other non-random methods,**							
2328					**then contact a statistician to correctly calculate UCLs.**							
2329												
2330					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
2331					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
2332					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
2333												
2334	**Pyrene**											
2335												
2336					**General Statistics**							
2337					Total Number of Observations	21					Number of Distinct Observations	20
2338											Number of Missing Observations	41
2339					Number of Detects	18					Number of Non-Detects	3
2340					Number of Distinct Detects	17					Number of Distinct Non-Detects	3
2341					Minimum Detect	54					Minimum Non-Detect	110
2342					Maximum Detect	16000					Maximum Non-Detect	550
2343					Variance Detects	14025108					Percent Non-Detects	14.29%
2344					Mean Detects	1586					SD Detects	3745
2345					Median Detects	440					CV Detects	2.361

2346					Skewness Detects	3.755				Kurtosis Detects		14.82
2347					Mean of Logged Detects	6.075				SD of Logged Detects		1.508
2348												
2349					**Normal GOF Test on Detects Only**							
2350					Shapiro Wilk Test Statistic	0.435				**Shapiro Wilk GOF Test**		
2351					1% Shapiro Wilk Critical Value	0.858				Detected Data Not Normal at 1% Significance Level		
2352					Lilliefors Test Statistic	0.381				**Lilliefors GOF Test**		
2353					1% Lilliefors Critical Value	0.235				Detected Data Not Normal at 1% Significance Level		
2354					**Detected Data Not Normal at 1% Significance Level**							
2355												
2356					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
2357					KM Mean	1377				KM Standard Error of Mean		765.4
2358					90KM SD	3408				95% KM (BCA) UCL		2904
2359					95% KM (t) UCL	2697				95% KM (Percentile Bootstrap) UCL		2805
2360					95% KM (z) UCL	2636				95% KM Bootstrap t UCL		7741
2361					90% KM Chebyshev UCL	3674				95% KM Chebyshev UCL		4714
2362					97.5% KM Chebyshev UCL	6157				99% KM Chebyshev UCL		8993
2363												
2364					**Gamma GOF Tests on Detected Observations Only**							
2365					A-D Test Statistic	1.444				**Anderson-Darling GOF Test**		
2366					5% A-D Critical Value	0.802				Detected Data Not Gamma Distributed at 5% Significance Level		
2367					K-S Test Statistic	0.31				**Kolmogorov-Smirnov GOF**		
2368					5% K-S Critical Value	0.215				Detected Data Not Gamma Distributed at 5% Significance Level		
2369					**Detected Data Not Gamma Distributed at 5% Significance Level**							
2370												
2371					**Gamma Statistics on Detected Data Only**							
2372					k hat (MLE)	0.492				k star (bias corrected MLE)		0.447
2373					Theta hat (MLE)	3223				Theta star (bias corrected MLE)		3548
2374					nu hat (MLE)	17.72				nu star (bias corrected)		16.1
2375					Mean (detects)	1586						
2376												
2377					**Gamma ROS Statistics using Imputed Non-Detects**							
2378					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
2379					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
2380					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
2381					This is especially true when the sample size is small.							
2382					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
2383					Minimum	0.01				Mean		1360
2384					Maximum	16000				Median		360
2385					SD	3499				CV		2.574
2386					k hat (MLE)	0.264				k star (bias corrected MLE)		0.258
2387					Theta hat (MLE)	5148				Theta star (bias corrected MLE)		5267
2388					nu hat (MLE)	11.09				nu star (bias corrected)		10.84
2389					Adjusted Level of Significance (β)	0.0383						
2390					Approximate Chi Square Value (10.84, α)	4.474				Adjusted Chi Square Value (10.84, β)		4.163
2391					95% Gamma Approximate UCL	3294				95% Gamma Adjusted UCL		3540
2392												
2393					**Estimates of Gamma Parameters using KM Estimates**							
2394					Mean (KM)	1377				SD (KM)		3408
2395					Variance (KM)	11617738				SE of Mean (KM)		765.4
2396					k hat (KM)	0.163				k star (KM)		0.172
2397					nu hat (KM)	6.859				nu star (KM)		7.212
2398					theta hat (KM)	8435				theta star (KM)		8021
2399					80% gamma percentile (KM)	1658				90% gamma percentile (KM)		4142
2400					95% gamma percentile (KM)	7367				99% gamma percentile (KM)		16483
2401												
2402					**Gamma Kaplan-Meier (KM) Statistics**							
2403					Approximate Chi Square Value (7.21, α)	2.288				Adjusted Chi Square Value (7.21, β)		2.08
2404					95% KM Approximate Gamma UCL	4342				95% KM Adjusted Gamma UCL		4775
2405												
2406					**Lognormal GOF Test on Detected Observations Only**							
2407					Shapiro Wilk Test Statistic	0.938				**Shapiro Wilk GOF Test**		
2408					10% Shapiro Wilk Critical Value	0.914				Detected Data appear Lognormal at 10% Significance Level		
2409					Lilliefors Test Statistic	0.189				**Lilliefors GOF Test**		
2410					10% Lilliefors Critical Value	0.185				Detected Data Not Lognormal at 10% Significance Level		
2411					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
2412												

	A	B	C	D	E	F	G	H	I	J	K	L
2413	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2414					Mean in Original Scale	1375				Mean in Log Scale		5.854
2415					SD in Original Scale	3493				SD in Log Scale		1.51
2416				95% t UCL (assumes normality of ROS data)		2690				95% Percentile Bootstrap UCL		2790
2417					95% BCA Bootstrap UCL	3764				95% Bootstrap t UCL		6970
2418					95% H-UCL (Log ROS)	3349						
2419												
2420	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2421					KM Mean (logged)	5.853				KM Geo Mean		348.1
2422					KM SD (logged)	1.484				95% Critical H Value (KM-Log)		3.285
2423				KM Standard Error of Mean (logged)		0.336				95% H-UCL (KM -Log)		3115
2424					KM SD (logged)	1.484				95% Critical H Value (KM-Log)		3.285
2425				KM Standard Error of Mean (logged)		0.336						
2426												
2427	**DL/2 Statistics**											
2428	**DL/2 Normal**						**DL/2 Log-Transformed**					
2429					Mean in Original Scale	1378				Mean in Log Scale		5.862
2430					SD in Original Scale	3492				SD in Log Scale		1.516
2431					95% t UCL (Assumes normality)	2693				95% H-Stat UCL		3438
2432	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2433												
2434	**Nonparametric Distribution Free UCL Statistics**											
2435	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
2436												
2437	**Suggested UCL to Use**											
2438					KM (t) UCL	2697						
2439												
2440	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
2441	**Please verify the data were collected from random locations.**											
2442	**If the data were collected using judgmental or other non-random methods,**											
2443	**then contact a statistician to correctly calculate UCLs.**											
2444												
2445	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2446	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2447	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2448												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 7/28/2025 11:49:12 AM
From File	sediment_tpnd
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

2,4,6-Trinitrotoluene

General Statistics

Total Number of Observations	22	Number of Distinct Observations	17
		Number of Missing Observations	8
Number of Detects	3	Number of Non-Detects	19
Number of Distinct Detects	3	Number of Distinct Non-Detects	14
Minimum Detect	840	Minimum Non-Detect	49
Maximum Detect	1400	Maximum Non-Detect	1150
Variance Detects	89200	Percent Non-Detects	86.36%
Mean Detects	1060	SD Detects	298.7
Median Detects	940	CV Detects	0.282
Skewness Detects	1.516	Kurtosis Detects	N/A
Mean of Logged Detects	6.941	SD of Logged Detects	0.268

Warning: Data set has only 3 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.879	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.323	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	190.7	KM Standard Error of Mean	95.47
90KM SD	361.4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	355	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	347.7	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	477.1	95% KM Chebyshev UCL	606.8
97.5% KM Chebyshev UCL	786.9	99% KM Chebyshev UCL	1141

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.394	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.635	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.342	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.431	Detected data appear Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	20.28	k star (bias corrected MLE)	N/A
Theta hat (MLE)	52.26	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	121.7	nu star (bias corrected)	N/A
Mean (detects)	1060		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	174.3
Maximum	1400	Median	0.01
SD	377.8	CV	2.167
k hat (MLE)	0.123	k star (bias corrected MLE)	0.136

68					Theta hat (MLE)	1419				Theta star (bias corrected MLE)		1278
69					nu hat (MLE)	5.406				nu star (bias corrected)		6.002
70					Adjusted Level of Significance (β)	0.0386						
71					Approximate Chi Square Value (6.00, α)	1.641				Adjusted Chi Square Value (6.00, β)		1.477
72					95% Gamma Approximate UCL	637.7				95% Gamma Adjusted UCL		N/A
73												
74					**Estimates of Gamma Parameters using KM Estimates**							
75					Mean (KM)	190.7				SD (KM)		361.4
76					Variance (KM)	130640				SE of Mean (KM)		95.47
77					k hat (KM)	0.278				k star (KM)		0.271
78					nu hat (KM)	12.25				nu star (KM)		11.91
79					theta hat (KM)	685.1				theta star (KM)		704.5
80					80% gamma percentile (KM)	284.3				90% gamma percentile (KM)		568.6
81					95% gamma percentile (KM)	901				99% gamma percentile (KM)		1776
82												
83					**Gamma Kaplan-Meier (KM) Statistics**							
84					Approximate Chi Square Value (11.91, α)	5.168				Adjusted Chi Square Value (11.91, β)		4.839
85					95% KM Approximate Gamma UCL	439.5				95% KM Adjusted Gamma UCL		469.3
86												
87					**Lognormal GOF Test on Detected Observations Only**							
88					Shapiro Wilk Test Statistic	0.905				**Shapiro Wilk GOF Test**		
89					10% Shapiro Wilk Critical Value	0.789				Detected Data appear Lognormal at 10% Significance Level		
90					Lilliefors Test Statistic	0.305				**Lilliefors GOF Test**		
91					10% Lilliefors Critical Value	0.389				Detected Data appear Lognormal at 10% Significance Level		
92					**Detected Data appear Lognormal at 10% Significance Level**							
93					**Note GOF tests may be unreliable for small sample sizes**							
94												
95					**Lognormal ROS Statistics Using Imputed Non-Detects**							
96					Mean in Original Scale	429.5				Mean in Log Scale		5.939
97					SD in Original Scale	278.8				SD in Log Scale		0.453
98					95% t UCL (assumes normality of ROS data)	531.8				95% Percentile Bootstrap UCL		529.5
99					95% BCA Bootstrap UCL	558.7				95% Bootstrap t UCL		625.5
100					95% H-UCL (Log ROS)	510.6						
101												
102					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
103					KM Mean (logged)	4.321				KM Geo Mean		75.25
104					KM SD (logged)	1.062				95% Critical H Value (KM-Log)		2.67
105					KM Standard Error of Mean (logged)	0.282				95% H-UCL (KM -Log)		245.7
106					KM SD (logged)	1.062				95% Critical H Value (KM-Log)		2.67
107					KM Standard Error of Mean (logged)	0.282						
108					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
109												
110					**DL/2 Statistics**							
111					**DL/2 Normal**					**DL/2 Log-Transformed**		
112					Mean in Original Scale	275.1				Mean in Log Scale		5.116
113					SD in Original Scale	349.7				SD in Log Scale		0.939
114					95% t UCL (Assumes normality)	403.4				95% H-Stat UCL		432.7
115					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
116												
117					**Nonparametric Distribution Free UCL Statistics**							
118					**Detected Data appear Normal Distributed at 1% Significance Level**							
119												
120					**Suggested UCL to Use**							
121					95% KM (t) UCL	355						
122												
123					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
124					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
125					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
126												
127	**Nitrobenzene**											
128												
129					**General Statistics**							
130					Total Number of Observations	22				Number of Distinct Observations		17
131										Number of Missing Observations		8
132					Number of Detects	4				Number of Non-Detects		18
133					Number of Distinct Detects	4				Number of Distinct Non-Detects		13
134					Minimum Detect	250				Minimum Non-Detect		49

135				Maximum Detect	610				Maximum Non-Detect	1150		
136				Variance Detects	24300				Percent Non-Detects	81.82%		
137				Mean Detects	415				SD Detects	155.9		
138				Median Detects	400				CV Detects	0.376		
139				Skewness Detects	0.456				Kurtosis Detects	-0.952		
140				Mean of Logged Detects	5.974				SD of Logged Detects	0.385		
141												
142				**Normal GOF Test on Detects Only**								
143				Shapiro Wilk Test Statistic	0.982				**Shapiro Wilk GOF Test**			
144				1% Shapiro Wilk Critical Value	0.687				Detected Data appear Normal at 1% Significance Level			
145				Lilliefors Test Statistic	0.185				**Lilliefors GOF Test**			
146				1% Lilliefors Critical Value	0.413				Detected Data appear Normal at 1% Significance Level			
147				**Detected Data appear Normal at 1% Significance Level**								
148				**Note GOF tests may be unreliable for small sample sizes**								
149												
150				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
151				KM Mean	131.8				KM Standard Error of Mean	43.43		
152				90KM SD	159.8				95% KM (BCA) UCL	N/A		
153				95% KM (t) UCL	206.5				95% KM (Percentile Bootstrap) UCL	N/A		
154				95% KM (z) UCL	203.2				95% KM Bootstrap t UCL	N/A		
155				90% KM Chebyshev UCL	262.1				95% KM Chebyshev UCL	321.1		
156				97.5% KM Chebyshev UCL	403				99% KM Chebyshev UCL	563.9		
157												
158				**Gamma GOF Tests on Detected Observations Only**								
159				A-D Test Statistic	0.203				**Anderson-Darling GOF Test**			
160				5% A-D Critical Value	0.657				Detected data appear Gamma Distributed at 5% Significance Level			
161				K-S Test Statistic	0.184				**Kolmogorov-Smirnov GOF**			
162				5% K-S Critical Value	0.395				Detected data appear Gamma Distributed at 5% Significance Level			
163				**Detected data appear Gamma Distributed at 5% Significance Level**								
164				**Note GOF tests may be unreliable for small sample sizes**								
165												
166				**Gamma Statistics on Detected Data Only**								
167				k hat (MLE)	9.337				k star (bias corrected MLE)	2.501		
168				Theta hat (MLE)	44.45				Theta star (bias corrected MLE)	165.9		
169				nu hat (MLE)	74.7				nu star (bias corrected)	20.01		
170				Mean (detects)	415							
171												
172				**Gamma ROS Statistics using Imputed Non-Detects**								
173				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
174				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
175				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
176				This is especially true when the sample size is small.								
177				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
178				Minimum	0.01				Mean	93.81		
179				Maximum	610				Median	12.42		
180				SD	168.8				CV	1.799		
181				k hat (MLE)	0.178				k star (bias corrected MLE)	0.184		
182				Theta hat (MLE)	527.7				Theta star (bias corrected MLE)	510.3		
183				nu hat (MLE)	7.823				nu star (bias corrected)	8.089		
184				Adjusted Level of Significance (β)	0.0386							
185				Approximate Chi Square Value (8.09, α)	2.787				Adjusted Chi Square Value (8.09, β)	2.559		
186				95% Gamma Approximate UCL	272.3				95% Gamma Adjusted UCL	N/A		
187												
188				**Estimates of Gamma Parameters using KM Estimates**								
189				Mean (KM)	131.8				SD (KM)	159.8		
190				Variance (KM)	25541				SE of Mean (KM)	43.43		
191				k hat (KM)	0.68				k star (KM)	0.618		
192				nu hat (KM)	29.92				nu star (KM)	27.17		
193				theta hat (KM)	193.8				theta star (KM)	213.4		
194				80% gamma percentile (KM)	217.2				90% gamma percentile (KM)	340.5		
195				95% gamma percentile (KM)	469.3				99% gamma percentile (KM)	780		
196												
197				**Gamma Kaplan-Meier (KM) Statistics**								
198				Approximate Chi Square Value (27.17, α)	16.29				Adjusted Chi Square Value (27.17, β)	15.66		
199				95% KM Approximate Gamma UCL	219.9				95% KM Adjusted Gamma UCL	228.7		
200												
201				**Lognormal GOF Test on Detected Observations Only**								

202				Shapiro Wilk Test Statistic	0.993	**Shapiro Wilk GOF Test**						
203				10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level						
204				Lilliefors Test Statistic	0.159	**Lilliefors GOF Test**						
205				10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level						
206	**Detected Data appear Lognormal at 10% Significance Level**											
207	**Note GOF tests may be unreliable for small sample sizes**											
208												
209	**Lognormal ROS Statistics Using Imputed Non-Detects**											
210				Mean in Original Scale	173.3	Mean in Log Scale	4.98					
211				SD in Original Scale	132.9	SD in Log Scale	0.542					
212				95% t UCL (assumes normality of ROS data)	222.1	95% Percentile Bootstrap UCL	224					
213				95% BCA Bootstrap UCL	235.9	95% Bootstrap t UCL	270.2					
214				95% H-UCL (Log ROS)	214.4							
215												
216	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
217				KM Mean (logged)	4.383	KM Geo Mean	80.11					
218				KM SD (logged)	0.88	95% Critical H Value (KM-Log)	2.422					
219				KM Standard Error of Mean (logged)	0.251	95% H-UCL (KM -Log)	187.9					
220				KM SD (logged)	0.88	95% Critical H Value (KM-Log)	2.422					
221				KM Standard Error of Mean (logged)	0.251							
222	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**											
223												
224	**DL/2 Statistics**											
225	**DL/2 Normal**					**DL/2 Log-Transformed**						
226				Mean in Original Scale	209.1	Mean in Log Scale	5.083					
227				SD in Original Scale	161.4	SD in Log Scale	0.751					
228				95% t UCL (Assumes normality)	268.3	95% H-Stat UCL	309.6					
229	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
230												
231	**Nonparametric Distribution Free UCL Statistics**											
232	**Detected Data appear Normal Distributed at 1% Significance Level**											
233												
234	**Suggested UCL to Use**											
235				95% KM (t) UCL	206.5							
236												
237	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
238	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
239	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
240												
241	**Arsenic**											
242												
243	**General Statistics**											
244				Total Number of Observations	24	Number of Distinct Observations	24					
245						Number of Missing Observations	6					
246				Number of Detects	22	Number of Non-Detects	2					
247				Number of Distinct Detects	22	Number of Distinct Non-Detects	2					
248				Minimum Detect	1.67	Minimum Non-Detect	1.175					
249				Maximum Detect	192	Maximum Non-Detect	1.285					
250				Variance Detects	1898	Percent Non-Detects	8.333%					
251				Mean Detects	26.46	SD Detects	43.57					
252				Median Detects	9.16	CV Detects	1.646					
253				Skewness Detects	2.996	Kurtosis Detects	10.11					
254				Mean of Logged Detects	2.399	SD of Logged Detects	1.309					
255												
256	**Normal GOF Test on Detects Only**											
257				Shapiro Wilk Test Statistic	0.595	**Shapiro Wilk GOF Test**						
258				1% Shapiro Wilk Critical Value	0.878	Detected Data Not Normal at 1% Significance Level						
259				Lilliefors Test Statistic	0.295	**Lilliefors GOF Test**						
260				1% Lilliefors Critical Value	0.214	Detected Data Not Normal at 1% Significance Level						
261	**Detected Data Not Normal at 1% Significance Level**											
262												
263	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
264				KM Mean	24.36	KM Standard Error of Mean	8.64					
265				90KM SD	41.35	95% KM (BCA) UCL	40.25					
266				95% KM (t) UCL	39.16	95% KM (Percentile Bootstrap) UCL	39.57					
267				95% KM (z) UCL	38.57	95% KM Bootstrap t UCL	55.02					
268				90% KM Chebyshev UCL	50.28	95% KM Chebyshev UCL	62.02					

269				97.5% KM Chebyshev UCL		78.31				99% KM Chebyshev UCL		110.3
270												
271	**Gamma GOF Tests on Detected Observations Only**											
272				A-D Test Statistic		0.961	**Anderson-Darling GOF Test**					
273				5% A-D Critical Value		0.788	Detected Data Not Gamma Distributed at 5% Significance Level					
274				K-S Test Statistic		0.166	**Kolmogorov-Smirnov GOF**					
275				5% K-S Critical Value		0.193	Detected data appear Gamma Distributed at 5% Significance Level					
276	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
277												
278	**Gamma Statistics on Detected Data Only**											
279				k hat (MLE)		0.69				k star (bias corrected MLE)		0.626
280				Theta hat (MLE)		38.34				Theta star (bias corrected MLE)		42.24
281				nu hat (MLE)		30.37				nu star (bias corrected)		27.56
282				Mean (detects)		26.46						
283												
284	**Gamma ROS Statistics using Imputed Non-Detects**											
285	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
286	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
287	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
288	This is especially true when the sample size is small.											
289	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
290				Minimum		0.01				Mean		24.26
291				Maximum		192				Median		7.96
292				SD		42.3				CV		1.744
293				k hat (MLE)		0.467				k star (bias corrected MLE)		0.437
294				Theta hat (MLE)		51.92				Theta star (bias corrected MLE)		55.56
295				nu hat (MLE)		22.43				nu star (bias corrected)		20.96
296				Adjusted Level of Significance (β)		0.0392						
297				Approximate Chi Square Value (20.96, α)		11.56				Adjusted Chi Square Value (20.96, β)		11.07
298				95% Gamma Approximate UCL		43.98				95% Gamma Adjusted UCL		45.93
299												
300	**Estimates of Gamma Parameters using KM Estimates**											
301				Mean (KM)		24.36				SD (KM)		41.35
302				Variance (KM)		1710				SE of Mean (KM)		8.64
303				k hat (KM)		0.347				k star (KM)		0.331
304				nu hat (KM)		16.65				nu star (KM)		15.9
305				theta hat (KM)		70.21				theta star (KM)		73.51
306				80% gamma percentile (KM)		38.18				90% gamma percentile (KM)		70.91
307				95% gamma percentile (KM)		107.9				99% gamma percentile (KM)		202.8
308												
309	**Gamma Kaplan-Meier (KM) Statistics**											
310				Approximate Chi Square Value (15.90, α)		7.895				Adjusted Chi Square Value (15.90, β)		7.499
311				95% KM Approximate Gamma UCL		49.07				95% KM Adjusted Gamma UCL		51.66
312												
313	**Lognormal GOF Test on Detected Observations Only**											
314				Shapiro Wilk Test Statistic		0.96	**Shapiro Wilk GOF Test**					
315				10% Shapiro Wilk Critical Value		0.926	Detected Data appear Lognormal at 10% Significance Level					
316				Lilliefors Test Statistic		0.0862	**Lilliefors GOF Test**					
317				10% Lilliefors Critical Value		0.169	Detected Data appear Lognormal at 10% Significance Level					
318	**Detected Data appear Lognormal at 10% Significance Level**											
319												
320	**Lognormal ROS Statistics Using Imputed Non-Detects**											
321				Mean in Original Scale		24.3				Mean in Log Scale		2.141
322				SD in Original Scale		42.27				SD in Log Scale		1.524
323				95% t UCL (assumes normality of ROS data)		39.09				95% Percentile Bootstrap UCL		39.24
324				95% BCA Bootstrap UCL		45.36				95% Bootstrap t UCL		54.52
325				95% H-UCL (Log ROS)		77.93						
326												
327	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
328				KM Mean (logged)		2.212				KM Geo Mean		9.135
329				KM SD (logged)		1.371				95% Critical H Value (KM-Log)		3.076
330				KM Standard Error of Mean (logged)		0.287				95% H-UCL (KM -Log)		56.37
331				KM SD (logged)		1.371				95% Critical H Value (KM-Log)		3.076
332				KM Standard Error of Mean (logged)		0.287						
333												
334	**DL/2 Statistics**											
335	**DL/2 Normal**						**DL/2 Log-Transformed**					

336				Mean in Original Scale	24.31					Mean in Log Scale	2.158	
337				SD in Original Scale	42.27					SD in Log Scale	1.492	
338				95% t UCL (Assumes normality)	39.1					95% H-Stat UCL	72.76	
339	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
340												
341	**Nonparametric Distribution Free UCL Statistics**											
342	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
343												
344	**Suggested UCL to Use**											
345				95% KM Adjusted Gamma UCL	51.66							
346												
347	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
348	**Please verify the data were collected from random locations.**											
349	**If the data were collected using judgmental or other non-random methods,**											
350	**then contact a statistician to correctly calculate UCLs.**											
351												
352	When a data set follows an approximate distribution passing only one of the GOF tests,											
353	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
354												
355	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
356	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
357	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
358												
359	**Cadmium**											
360												
361	**General Statistics**											
362				Total Number of Observations	22					Number of Distinct Observations	22	
363										Number of Missing Observations	8	
364				Number of Detects	7					Number of Non-Detects	15	
365				Number of Distinct Detects	7					Number of Distinct Non-Detects	15	
366				Minimum Detect	0.245					Minimum Non-Detect	0.036	
367				Maximum Detect	3.33					Maximum Non-Detect	4.78	
368				Variance Detects	1.568					Percent Non-Detects	68.18%	
369				Mean Detects	1.088					SD Detects	1.252	
370				Median Detects	0.421					CV Detects	1.151	
371				Skewness Detects	1.391					Kurtosis Detects	0.272	
372				Mean of Logged Detects	-0.432					SD of Logged Detects	1.041	
373												
374	**Normal GOF Test on Detects Only**											
375				Shapiro Wilk Test Statistic	0.712					**Shapiro Wilk GOF Test**		
376				1% Shapiro Wilk Critical Value	0.73					Detected Data Not Normal at 1% Significance Level		
377				Lilliefors Test Statistic	0.385					**Lilliefors GOF Test**		
378				1% Lilliefors Critical Value	0.35					Detected Data Not Normal at 1% Significance Level		
379	**Detected Data Not Normal at 1% Significance Level**											
380												
381	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
382				KM Mean	0.509					KM Standard Error of Mean	0.193	
383				90KM SD	0.793					95% KM (BCA) UCL	0.856	
384				95% KM (t) UCL	0.84					95% KM (Percentile Bootstrap) UCL	0.849	
385				95% KM (z) UCL	0.826					95% KM Bootstrap t UCL	1.484	
386				90% KM Chebyshev UCL	1.087					95% KM Chebyshev UCL	1.348	
387				97.5% KM Chebyshev UCL	1.712					99% KM Chebyshev UCL	2.425	
388												
389	**Gamma GOF Tests on Detected Observations Only**											
390				A-D Test Statistic	0.853					**Anderson-Darling GOF Test**		
391				5% A-D Critical Value	0.726					Detected Data Not Gamma Distributed at 5% Significance Level		
392				K-S Test Statistic	0.344					**Kolmogorov-Smirnov GOF**		
393				5% K-S Critical Value	0.319					Detected Data Not Gamma Distributed at 5% Significance Level		
394	**Detected Data Not Gamma Distributed at 5% Significance Level**											
395												
396	**Gamma Statistics on Detected Data Only**											
397				k hat (MLE)	1.105					k star (bias corrected MLE)	0.727	
398				Theta hat (MLE)	0.984					Theta star (bias corrected MLE)	1.496	
399				nu hat (MLE)	15.47					nu star (bias corrected)	10.18	
400				Mean (detects)	1.088							
401												
402	**Gamma ROS Statistics using Imputed Non-Detects**											

	A	B	C	D	E	F	G	H	I	J	K	L
403	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
404	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
405	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
406	This is especially true when the sample size is small.											
407	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
408					Minimum	0.01				Mean	0.353	
409					Maximum	3.33				Median	0.01	
410					SD	0.844				CV	2.39	
411					k hat (MLE)	0.308				k star (bias corrected MLE)	0.296	
412					Theta hat (MLE)	1.147				Theta star (bias corrected MLE)	1.192	
413					nu hat (MLE)	13.55				nu star (bias corrected)	13.03	
414					Adjusted Level of Significance (β)	0.0386						
415					Approximate Chi Square Value (13.03, α)	5.914				Adjusted Chi Square Value (13.03, β)	5.559	
416					95% Gamma Approximate UCL	0.778				95% Gamma Adjusted UCL	0.828	
417												
418	**Estimates of Gamma Parameters using KM Estimates**											
419					Mean (KM)	0.509				SD (KM)	0.793	
420					Variance (KM)	0.629				SE of Mean (KM)	0.193	
421					k hat (KM)	0.412				k star (KM)	0.386	
422					nu hat (KM)	18.12				nu star (KM)	16.98	
423					theta hat (KM)	1.236				theta star (KM)	1.319	
424					80% gamma percentile (KM)	0.818				90% gamma percentile (KM)	1.447	
425					95% gamma percentile (KM)	2.142				99% gamma percentile (KM)	3.895	
426												
427	**Gamma Kaplan-Meier (KM) Statistics**											
428					Approximate Chi Square Value (16.98, α)	8.661				Adjusted Chi Square Value (16.98, β)	8.219	
429					95% KM Approximate Gamma UCL	0.998				95% KM Adjusted Gamma UCL	1.052	
430												
431	**Lognormal GOF Test on Detected Observations Only**											
432					Shapiro Wilk Test Statistic	0.821				**Shapiro Wilk GOF Test**		
433					10% Shapiro Wilk Critical Value	0.838				Detected Data Not Lognormal at 10% Significance Level		
434					Lilliefors Test Statistic	0.287				**Lilliefors GOF Test**		
435					10% Lilliefors Critical Value	0.28				Detected Data Not Lognormal at 10% Significance Level		
436	**Detected Data Not Lognormal at 10% Significance Level**											
437												
438	**Lognormal ROS Statistics Using Imputed Non-Detects**											
439					Mean in Original Scale	0.478				Mean in Log Scale	-1.292	
440					SD in Original Scale	0.795				SD in Log Scale	0.872	
441					95% t UCL (assumes normality of ROS data)	0.769				95% Percentile Bootstrap UCL	0.781	
442					95% BCA Bootstrap UCL	0.878				95% Bootstrap t UCL	2.593	
443					95% H-UCL (Log ROS)	0.636						
444												
445	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
446					KM Mean (logged)	-1.416				KM Geo Mean	0.243	
447					KM SD (logged)	1.224				95% Critical H Value (KM-Log)	2.909	
448					KM Standard Error of Mean (logged)	0.457				95% H-UCL (KM -Log)	1.116	
449					KM SD (logged)	1.224				95% Critical H Value (KM-Log)	2.909	
450					KM Standard Error of Mean (logged)	0.457						
451												
452	**DL/2 Statistics**											
453				**DL/2 Normal**						**DL/2 Log-Transformed**		
454					Mean in Original Scale	0.706				Mean in Log Scale	-0.915	
455					SD in Original Scale	0.865				SD in Log Scale	1.131	
456					95% t UCL (Assumes normality)	1.024				95% H-Stat UCL	1.504	
457	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
458												
459	**Nonparametric Distribution Free UCL Statistics**											
460	**Data do not follow a Discernible Distribution**											
461												
462	**Suggested UCL to Use**											
463					95% KM (t) UCL	0.84						
464												
465	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
466	**Please verify the data were collected from random locations.**											
467	**If the data were collected using judgmental or other non-random methods,**											
468	**then contact a statistician to correctly calculate UCLs.**											
469												

	A	B	C	D	E	F	G	H	I	J	K	L
470	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
471	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
472	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
473												
474												
475	**Chromium**											
476												
477	**General Statistics**											
478						Total Number of Observations	22				Number of Distinct Observations	21	
479											Number of Missing Observations	8	
480						Minimum	8				Mean	18.07	
481						Maximum	43.1				Median	16.1	
482						SD	8.716				Std. Error of Mean	1.858	
483						Coefficient of Variation	0.482				Skewness	1.33	
484													
485	**Normal GOF Test**											
486						Shapiro Wilk Test Statistic	0.885				**Shapiro Wilk GOF Test**		
487						1% Shapiro Wilk Critical Value	0.878				Data appear Normal at 1% Significance Level		
488						Lilliefors Test Statistic	0.167				**Lilliefors GOF Test**		
489						1% Lilliefors Critical Value	0.214				Data appear Normal at 1% Significance Level		
490	**Data appear Normal at 1% Significance Level**											
491													
492	**Assuming Normal Distribution**											
493						**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**		
494						95% Student's-t UCL	21.26				95% Adjusted-CLT UCL (Chen-1995)	21.69	
495											95% Modified-t UCL (Johnson-1978)	21.35	
496													
497	**Gamma GOF Test**											
498						A-D Test Statistic	0.341				**Anderson-Darling Gamma GOF Test**		
499						5% A-D Critical Value	0.746				Detected data appear Gamma Distributed at 5% Significance Level		
500						K-S Test Statistic	0.119				**Kolmogorov-Smirnov Gamma GOF Test**		
501						5% K-S Critical Value	0.186				Detected data appear Gamma Distributed at 5% Significance Level		
502	**Detected data appear Gamma Distributed at 5% Significance Level**											
503													
504	**Gamma Statistics**											
505						k hat (MLE)	5.267				k star (bias corrected MLE)	4.579	
506						Theta hat (MLE)	3.43				Theta star (bias corrected MLE)	3.946	
507						nu hat (MLE)	231.7				nu star (bias corrected)	201.5	
508						MLE Mean (bias corrected)	18.07				MLE Sd (bias corrected)	8.443	
509											Approximate Chi Square Value (0.05)	169.6	
510						Adjusted Level of Significance	0.0386				Adjusted Chi Square Value	167.5	
511													
512	**Assuming Gamma Distribution**											
513						95% Approximate Gamma UCL	21.46				95% Adjusted Gamma UCL	21.74	
514													
515	**Lognormal GOF Test**											
516						Shapiro Wilk Test Statistic	0.975				**Shapiro Wilk Lognormal GOF Test**		
517						10% Shapiro Wilk Critical Value	0.926				Data appear Lognormal at 10% Significance Level		
518						Lilliefors Test Statistic	0.0899				**Lilliefors Lognormal GOF Test**		
519						10% Lilliefors Critical Value	0.169				Data appear Lognormal at 10% Significance Level		
520	**Data appear Lognormal at 10% Significance Level**											
521													
522	**Lognormal Statistics**											
523						Minimum of Logged Data	2.079				Mean of logged Data	2.796	
524						Maximum of Logged Data	3.764				SD of logged Data	0.444	
525													
526	**Assuming Lognormal Distribution**											
527						95% H-UCL	21.84				90% Chebyshev (MVUE) UCL	23.26	
528						95% Chebyshev (MVUE) UCL	25.65				97.5% Chebyshev (MVUE) UCL	28.96	
529						99% Chebyshev (MVUE) UCL	35.47						
530													
531	**Nonparametric Distribution Free UCL Statistics**											
532	**Data appear to follow a Discernible Distribution**											
533													
534	**Nonparametric Distribution Free UCLs**											
535						95% CLT UCL	21.12				95% BCA Bootstrap UCL	21.94	
536						95% Standard Bootstrap UCL	21.14				95% Bootstrap-t UCL	22.2	

537				95% Hall's Bootstrap UCL		22.32				95% Percentile Bootstrap UCL		21.29
538				90% Chebyshev(Mean, Sd) UCL		23.64				95% Chebyshev(Mean, Sd) UCL		26.17
539				97.5% Chebyshev(Mean, Sd) UCL		29.67				99% Chebyshev(Mean, Sd) UCL		36.56
540												
541						**Suggested UCL to Use**							
542				95% Student's-t UCL		21.26						
543												
544						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
545						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
546						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
547												
548												
549	**Copper**											
550												
551						**General Statistics**						
552				Total Number of Observations		22				Number of Distinct Observations		21
553										Number of Missing Observations		8
554				Minimum		8.37				Mean		23.04
555				Maximum		57.2				Median		18.65
556				SD		13.62				Std. Error of Mean		2.904
557				Coefficient of Variation		0.591				Skewness		1.322
558												
559						**Normal GOF Test**						
560				Shapiro Wilk Test Statistic		0.85				**Shapiro Wilk GOF Test**		
561				1% Shapiro Wilk Critical Value		0.878				Data Not Normal at 1% Significance Level		
562				Lilliefors Test Statistic		0.215				**Lilliefors GOF Test**		
563				1% Lilliefors Critical Value		0.214				Data Not Normal at 1% Significance Level		
564						**Data Not Normal at 1% Significance Level**						
565												
566						**Assuming Normal Distribution**						
567				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
568				95% Student's-t UCL		28.04				95% Adjusted-CLT UCL (Chen-1995)		28.7
569										95% Modified-t UCL (Johnson-1978)		28.18
570												
571						**Gamma GOF Test**						
572				A-D Test Statistic		0.54				**Anderson-Darling Gamma GOF Test**		
573				5% A-D Critical Value		0.748				Detected data appear Gamma Distributed at 5% Significance Level		
574				K-S Test Statistic		0.156				**Kolmogorov-Smirnov Gamma GOF Test**		
575				5% K-S Critical Value		0.186				Detected data appear Gamma Distributed at 5% Significance Level		
576						**Detected data appear Gamma Distributed at 5% Significance Level**						
577												
578						**Gamma Statistics**						
579				k hat (MLE)		3.629				k star (bias corrected MLE)		3.164
580				Theta hat (MLE)		6.351				Theta star (bias corrected MLE)		7.283
581				nu hat (MLE)		159.7				nu star (bias corrected)		139.2
582				MLE Mean (bias corrected)		23.04				MLE Sd (bias corrected)		12.95
583										Approximate Chi Square Value (0.05)		113
584				Adjusted Level of Significance		0.0386				Adjusted Chi Square Value		111.2
585												
586						**Assuming Gamma Distribution**							
587				95% Approximate Gamma UCL		28.4				95% Adjusted Gamma UCL		28.85
588												
589						**Lognormal GOF Test**						
590				Shapiro Wilk Test Statistic		0.963				**Shapiro Wilk Lognormal GOF Test**		
591				10% Shapiro Wilk Critical Value		0.926				Data appear Lognormal at 10% Significance Level		
592				Lilliefors Test Statistic		0.13				**Lilliefors Lognormal GOF Test**		
593				10% Lilliefors Critical Value		0.169				Data appear Lognormal at 10% Significance Level		
594						**Data appear Lognormal at 10% Significance Level**							
595												
596						**Lognormal Statistics**						
597				Minimum of Logged Data		2.125				Mean of logged Data		2.993
598				Maximum of Logged Data		4.047				SD of logged Data		0.536
599												
600						**Assuming Lognormal Distribution**							
601				95% H-UCL		29.2				90% Chebyshev (MVUE) UCL		31.04
602				95% Chebyshev (MVUE) UCL		34.74				97.5% Chebyshev (MVUE) UCL		39.89
603				99% Chebyshev (MVUE) UCL		49.99						

Nonparametric Distribution Free UCL Statistics		
Data appear to follow a Discernible Distribution		
Nonparametric Distribution Free UCLs		
95% CLT UCL	27.82	95% BCA Bootstrap UCL 28.32
95% Standard Bootstrap UCL	27.71	95% Bootstrap-t UCL 29.86
95% Hall's Bootstrap UCL	29.25	95% Percentile Bootstrap UCL 27.75
90% Chebyshev(Mean, Sd) UCL	31.76	95% Chebyshev(Mean, Sd) UCL 35.7
97.5% Chebyshev(Mean, Sd) UCL	41.18	99% Chebyshev(Mean, Sd) UCL 51.94
Suggested UCL to Use		
95% Adjusted Gamma UCL	28.85	
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.		
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.		
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.		
Lead		
General Statistics		
Total Number of Observations	24	Number of Distinct Observations 24
		Number of Missing Observations 6
Minimum	7.28	Mean 631.8
Maximum	2690	Median 462
SD	657.7	Std. Error of Mean 134.3
Coefficient of Variation	1.041	Skewness 1.574
Normal GOF Test		
Shapiro Wilk Test Statistic	0.846	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.884	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.182	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.205	Data appear Normal at 1% Significance Level
Data appear Approximate Normal at 1% Significance Level		
Assuming Normal Distribution		
95% Normal UCL		**95% UCLs (Adjusted for Skewness)**
95% Student's-t UCL	861.9	95% Adjusted-CLT UCL (Chen-1995) 898.7
		95% Modified-t UCL (Johnson-1978) 869.1
Gamma GOF Test		
A-D Test Statistic	0.703	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.792	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.184	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.186	Detected data appear Gamma Distributed at 5% Significance Level
Detected data appear Gamma Distributed at 5% Significance Level		
Gamma Statistics		
k hat (MLE)	0.646	k star (bias corrected MLE) 0.593
Theta hat (MLE)	977.7	Theta star (bias corrected MLE) 1065
nu hat (MLE)	31.02	nu star (bias corrected) 28.47
MLE Mean (bias corrected)	631.8	MLE Sd (bias corrected) 820.3
		Approximate Chi Square Value (0.05) 17.3
Adjusted Level of Significance	0.0392	Adjusted Chi Square Value 16.69
Assuming Gamma Distribution		
95% Approximate Gamma UCL	1040	95% Adjusted Gamma UCL 1078
Lognormal GOF Test		
Shapiro Wilk Test Statistic	0.855	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.93	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.264	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.162	Data Not Lognormal at 10% Significance Level
Data Not Lognormal at 10% Significance Level		
Lognormal Statistics		

671				Minimum of Logged Data	1.985				Mean of logged Data		5.503	
672				Maximum of Logged Data	7.897				SD of logged Data		1.854	
673												
674				**Assuming Lognormal Distribution**								
675				95% H-UCL	6055				90% Chebyshev (MVUE) UCL		2836	
676				95% Chebyshev (MVUE) UCL	3595				97.5% Chebyshev (MVUE) UCL		4649	
677				99% Chebyshev (MVUE) UCL	6719							
678												
679				**Nonparametric Distribution Free UCL Statistics**								
680				**Data appear to follow a Discernible Distribution**								
681												
682				**Nonparametric Distribution Free UCLs**								
683				95% CLT UCL	852.6				95% BCA Bootstrap UCL		905.1	
684				95% Standard Bootstrap UCL	846.4				95% Bootstrap-t UCL		928.9	
685				95% Hall's Bootstrap UCL	981.4				95% Percentile Bootstrap UCL		853.5	
686				90% Chebyshev(Mean, Sd) UCL	1035				95% Chebyshev(Mean, Sd) UCL		1217	
687				97.5% Chebyshev(Mean, Sd) UCL	1470				99% Chebyshev(Mean, Sd) UCL		1968	
688												
689				**Suggested UCL to Use**								
690				95% Student's-t UCL	861.9							
691												
692				**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**								
693				**Please verify the data were collected from random locations.**								
694				**If the data were collected using judgmental or other non-random methods,**								
695				**then contact a statistician to correctly calculate UCLs.**								
696												
697				When a data set follows an approximate distribution passing only one of the GOF tests,								
698				it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL								
699												
700				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.								
701				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.								
702				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.								
703												
704	**Mercury**											
705												
706				**General Statistics**								
707				Total Number of Observations	24				Number of Distinct Observations		24	
708									Number of Missing Observations		6	
709				Number of Detects	21				Number of Non-Detects		3	
710				Number of Distinct Detects	21				Number of Distinct Non-Detects		3	
711				Minimum Detect	0.014				Minimum Non-Detect		0.0575	
712				Maximum Detect	7.51				Maximum Non-Detect		0.063	
713				Variance Detects	2.589				Percent Non-Detects		12.5%	
714				Mean Detects	0.731				SD Detects		1.609	
715				Median Detects	0.305				CV Detects		2.202	
716				Skewness Detects	4.123				Kurtosis Detects		17.81	
717				Mean of Logged Detects	-1.356				SD of Logged Detects		1.485	
718												
719				**Normal GOF Test on Detects Only**								
720				Shapiro Wilk Test Statistic	0.411				**Shapiro Wilk GOF Test**			
721				1% Shapiro Wilk Critical Value	0.873				Detected Data Not Normal at 1% Significance Level			
722				Lilliefors Test Statistic	0.398				**Lilliefors GOF Test**			
723				1% Lilliefors Critical Value	0.219				Detected Data Not Normal at 1% Significance Level			
724				**Detected Data Not Normal at 1% Significance Level**								
725												
726				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
727				KM Mean	0.643				KM Standard Error of Mean		0.311	
728				90KM SD	1.487				95% KM (BCA) UCL		1.276	
729				95% KM (t) UCL	1.176				95% KM (Percentile Bootstrap) UCL		1.209	
730				95% KM (z) UCL	1.154				95% KM Bootstrap t UCL		3.32	
731				90% KM Chebyshev UCL	1.576				95% KM Chebyshev UCL		1.999	
732				97.5% KM Chebyshev UCL	2.585				99% KM Chebyshev UCL		3.738	
733												
734				**Gamma GOF Tests on Detected Observations Only**								
735				A-D Test Statistic	1.165				**Anderson-Darling GOF Test**			
736				5% A-D Critical Value	0.797				Detected Data Not Gamma Distributed at 5% Significance Level			
737				K-S Test Statistic	0.225				**Kolmogorov-Smirnov GOF**			

	A	B	C	D	E	F	G	H	I	J	K	L
738					5% K-S Critical Value	0.199	Detected Data Not Gamma Distributed at 5% Significance Level					
739	**Detected Data Not Gamma Distributed at 5% Significance Level**											
740												
741	**Gamma Statistics on Detected Data Only**											
742					k hat (MLE)	0.594			k star (bias corrected MLE)			0.541
743					Theta hat (MLE)	1.231			Theta star (bias corrected MLE)			1.352
744					nu hat (MLE)	24.93			nu star (bias corrected)			22.7
745					Mean (detects)	0.731						
746												
747	**Gamma ROS Statistics using Imputed Non-Detects**											
748	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
749	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
750	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
751	This is especially true when the sample size is small.											
752	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
753					Minimum	0.01			Mean			0.641
754					Maximum	7.51			Median			0.263
755					SD	1.52			CV			2.373
756					k hat (MLE)	0.485			k star (bias corrected MLE)			0.452
757					Theta hat (MLE)	1.322			Theta star (bias corrected MLE)			1.418
758					nu hat (MLE)	23.26			nu star (bias corrected)			21.69
759					Adjusted Level of Significance (β)	0.0392						
760					Approximate Chi Square Value (21.69, α)	12.1			Adjusted Chi Square Value (21.69, β)			11.6
761					95% Gamma Approximate UCL	1.148			95% Gamma Adjusted UCL			1.198
762												
763	**Estimates of Gamma Parameters using KM Estimates**											
764					Mean (KM)	0.643			SD (KM)			1.487
765					Variance (KM)	2.212			SE of Mean (KM)			0.311
766					k hat (KM)	0.187			k star (KM)			0.191
767					nu hat (KM)	8.96			nu star (KM)			9.174
768					theta hat (KM)	3.443			theta star (KM)			3.362
769					80% gamma percentile (KM)	0.826			90% gamma percentile (KM)			1.942
770					95% gamma percentile (KM)	3.35			99% gamma percentile (KM)			7.255
771												
772	**Gamma Kaplan-Meier (KM) Statistics**											
773					Approximate Chi Square Value (9.17, α)	3.432			Adjusted Chi Square Value (9.17, β)			3.189
774					95% KM Approximate Gamma UCL	1.718			95% KM Adjusted Gamma UCL			1.849
775												
776	**Lognormal GOF Test on Detected Observations Only**											
777					Shapiro Wilk Test Statistic	0.936	**Shapiro Wilk GOF Test**					
778					10% Shapiro Wilk Critical Value	0.923	Detected Data appear Lognormal at 10% Significance Level					
779					Lilliefors Test Statistic	0.187	**Lilliefors GOF Test**					
780					10% Lilliefors Critical Value	0.173	Detected Data Not Lognormal at 10% Significance Level					
781	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
782												
783	**Lognormal ROS Statistics Using Imputed Non-Detects**											
784					Mean in Original Scale	0.644			Mean in Log Scale			-1.611
785					SD in Original Scale	1.519			SD in Log Scale			1.547
786					95% t UCL (assumes normality of ROS data)	1.175			95% Percentile Bootstrap UCL			1.203
787					95% BCA Bootstrap UCL	1.609			95% Bootstrap t UCL			3.193
788					95% H-UCL (Log ROS)	1.944						
789												
790	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
791					KM Mean (logged)	-1.657			KM Geo Mean			0.191
792					KM SD (logged)	1.579			95% Critical H Value (KM-Log)			3.399
793					KM Standard Error of Mean (logged)	0.333			95% H-UCL (KM -Log)			2.03
794					KM SD (logged)	1.579			95% Critical H Value (KM-Log)			3.399
795					KM Standard Error of Mean (logged)	0.333						
796												
797	**DL/2 Statistics**											
798	**DL/2 Normal**						**DL/2 Log-Transformed**					
799					Mean in Original Scale	0.643			Mean in Log Scale			-1.626
800					SD in Original Scale	1.519			SD in Log Scale			1.565
801					95% t UCL (Assumes normality)	1.175			95% H-Stat UCL			2.015
802	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
803												
804	**Nonparametric Distribution Free UCL Statistics**											

	A	B	C	D	E	F	G	H	I	J	K	L
805	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
806												
807	**Suggested UCL to Use**											
808	KM H-UCL					2.03						
809												
810	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
811	**Please verify the data were collected from random locations.**											
812	**If the data were collected using judgmental or other non-random methods,**											
813	**then contact a statistician to correctly calculate UCLs.**											
814												
815	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
816	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
817	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
818												
819												
820	**Nickel**											
821												
822	**General Statistics**											
823	Total Number of Observations					22	Number of Distinct Observations					22
824							Number of Missing Observations					8
825	Minimum					2.66	Mean					11.18
826	Maximum					29.2	Median					9.55
827	SD					6.73	Std. Error of Mean					1.435
828	Coefficient of Variation					0.602	Skewness					1.422
829												
830	**Normal GOF Test**											
831	Shapiro Wilk Test Statistic					0.871	**Shapiro Wilk GOF Test**					
832	1% Shapiro Wilk Critical Value					0.878	Data Not Normal at 1% Significance Level					
833	Lilliefors Test Statistic					0.167	**Lilliefors GOF Test**					
834	1% Lilliefors Critical Value					0.214	Data appear Normal at 1% Significance Level					
835	**Data appear Approximate Normal at 1% Significance Level**											
836												
837	**Assuming Normal Distribution**											
838	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
839	95% Student's-t UCL					13.65	95% Adjusted-CLT UCL (Chen-1995)					14
840							95% Modified-t UCL (Johnson-1978)					13.72
841												
842	**Gamma GOF Test**											
843	A-D Test Statistic					0.237	**Anderson-Darling Gamma GOF Test**					
844	5% A-D Critical Value					0.749	Detected data appear Gamma Distributed at 5% Significance Level					
845	K-S Test Statistic					0.0924	**Kolmogorov-Smirnov Gamma GOF Test**					
846	5% K-S Critical Value					0.187	Detected data appear Gamma Distributed at 5% Significance Level					
847	**Detected data appear Gamma Distributed at 5% Significance Level**											
848												
849	**Gamma Statistics**											
850	k hat (MLE)					3.281	k star (bias corrected MLE)					2.864
851	Theta hat (MLE)					3.406	Theta star (bias corrected MLE)					3.903
852	nu hat (MLE)					144.4	nu star (bias corrected)					126
853	MLE Mean (bias corrected)					11.18	MLE Sd (bias corrected)					6.604
854							Approximate Chi Square Value (0.05)					101.1
855	Adjusted Level of Significance					0.0386	Adjusted Chi Square Value					99.42
856												
857	**Assuming Gamma Distribution**											
858	95% Approximate Gamma UCL					13.93	95% Adjusted Gamma UCL					14.17
859												
860	**Lognormal GOF Test**											
861	Shapiro Wilk Test Statistic					0.984	**Shapiro Wilk Lognormal GOF Test**					
862	10% Shapiro Wilk Critical Value					0.926	Data appear Lognormal at 10% Significance Level					
863	Lilliefors Test Statistic					0.0938	**Lilliefors Lognormal GOF Test**					
864	10% Lilliefors Critical Value					0.169	Data appear Lognormal at 10% Significance Level					
865	**Data appear Lognormal at 10% Significance Level**											
866												
867	**Lognormal Statistics**											
868	Minimum of Logged Data					0.978	Mean of logged Data					2.254
869	Maximum of Logged Data					3.374	SD of logged Data					0.586
870												
871	**Assuming Lognormal Distribution**											

872					95% H-UCL	14.75				90% Chebyshev (MVUE) UCL		15.62
873					95% Chebyshev (MVUE) UCL	17.62				97.5% Chebyshev (MVUE) UCL		20.4
874					99% Chebyshev (MVUE) UCL	25.86						
875												
876					**Nonparametric Distribution Free UCL Statistics**							
877					**Data appear to follow a Discernible Distribution**							
878												
879					**Nonparametric Distribution Free UCLs**							
880					95% CLT UCL	13.54				95% BCA Bootstrap UCL		14.18
881					95% Standard Bootstrap UCL	13.46				95% Bootstrap-t UCL		14.52
882					95% Hall's Bootstrap UCL	15.35				95% Percentile Bootstrap UCL		13.55
883					90% Chebyshev(Mean, Sd) UCL	15.48				95% Chebyshev(Mean, Sd) UCL		17.43
884					97.5% Chebyshev(Mean, Sd) UCL	20.14				99% Chebyshev(Mean, Sd) UCL		25.45
885												
886					**Suggested UCL to Use**							
887					95% Student's-t UCL	13.65						
888												
889					When a data set follows an approximate distribution passing only one of the GOF tests,							
890					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
891												
892					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
893					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
894					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
895												
896	**Silver**											
897												
898					**General Statistics**							
899					Total Number of Observations	22				Number of Distinct Observations		22
900										Number of Missing Observations		8
901					Number of Detects	12				Number of Non-Detects		10
902					Number of Distinct Detects	12				Number of Distinct Non-Detects		10
903					Minimum Detect	0.223				Minimum Non-Detect		0.09
904					Maximum Detect	0.461				Maximum Non-Detect		4.78
905					Variance Detects	0.0055				Percent Non-Detects		45.45%
906					Mean Detects	0.315				SD Detects		0.0742
907					Median Detects	0.302				CV Detects		0.236
908					Skewness Detects	0.894				Kurtosis Detects		0.0751
909					Mean of Logged Detects	-1.18				SD of Logged Detects		0.225
910												
911					**Normal GOF Test on Detects Only**							
912					Shapiro Wilk Test Statistic	0.903				**Shapiro Wilk GOF Test**		
913					1% Shapiro Wilk Critical Value	0.805				Detected Data appear Normal at 1% Significance Level		
914					Lilliefors Test Statistic	0.264				**Lilliefors GOF Test**		
915					1% Lilliefors Critical Value	0.281				Detected Data appear Normal at 1% Significance Level		
916					**Detected Data appear Normal at 1% Significance Level**							
917												
918					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
919					KM Mean	0.292				KM Standard Error of Mean		0.0248
920					90KM SD	0.0881				95% KM (BCA) UCL		0.333
921					95% KM (t) UCL	0.335				95% KM (Percentile Bootstrap) UCL		0.331
922					95% KM (z) UCL	0.333				95% KM Bootstrap t UCL		0.331
923					90% KM Chebyshev UCL	0.367				95% KM Chebyshev UCL		0.4
924					97.5% KM Chebyshev UCL	0.447				99% KM Chebyshev UCL		0.539
925					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							
926												
927					**Gamma GOF Tests on Detected Observations Only**							
928					A-D Test Statistic	0.424				**Anderson-Darling GOF Test**		
929					5% A-D Critical Value	0.732				Detected data appear Gamma Distributed at 5% Significance Level		
930					K-S Test Statistic	0.237				**Kolmogorov-Smirnov GOF**		
931					5% K-S Critical Value	0.245				Detected data appear Gamma Distributed at 5% Significance Level		
932					**Detected data appear Gamma Distributed at 5% Significance Level**							
933												
934					**Gamma Statistics on Detected Data Only**							
935					k hat (MLE)	21.1				k star (bias corrected MLE)		15.88
936					Theta hat (MLE)	0.0149				Theta star (bias corrected MLE)		0.0198
937					nu hat (MLE)	506.3				nu star (bias corrected)		381.1
938					Mean (detects)	0.315						

939											
940	**Gamma ROS Statistics using Imputed Non-Detects**										
941	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs										
942	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
943	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
944	This is especially true when the sample size is small.										
945	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
946					Minimum	0.172			Mean	0.298	
947					Maximum	0.461			Median	0.294	
948					SD	0.062			CV	0.208	
949					k hat (MLE)	25.31			k star (bias corrected MLE)	21.89	
950					Theta hat (MLE)	0.0118			Theta star (bias corrected MLE)	0.0136	
951					nu hat (MLE)	1114			nu star (bias corrected)	963.2	
952					Adjusted Level of Significance (β)	0.0386					
953					Approximate Chi Square Value (963.16, α)	892.1			Adjusted Chi Square Value (963.16, β)	887	
954					95% Gamma Approximate UCL	0.322			95% Gamma Adjusted UCL	0.323	
955											
956	**Estimates of Gamma Parameters using KM Estimates**										
957					Mean (KM)	0.292			SD (KM)	0.0881	
958					Variance (KM)	0.00777			SE of Mean (KM)	0.0248	
959					k hat (KM)	11.01			k star (KM)	9.535	
960					nu hat (KM)	484.2			nu star (KM)	419.5	
961					theta hat (KM)	0.0266			theta star (KM)	0.0307	
962					80% gamma percentile (KM)	0.368			90% gamma percentile (KM)	0.418	
963					95% gamma percentile (KM)	0.464			99% gamma percentile (KM)	0.556	
964											
965	**Gamma Kaplan-Meier (KM) Statistics**										
966					Approximate Chi Square Value (419.54, α)	373.1			Adjusted Chi Square Value (419.54, β)	369.8	
967					95% KM Approximate Gamma UCL	0.329			95% KM Adjusted Gamma UCL	0.332	
968	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
969											
970	**Lognormal GOF Test on Detected Observations Only**										
971					Shapiro Wilk Test Statistic	0.94			**Shapiro Wilk GOF Test**		
972					10% Shapiro Wilk Critical Value	0.883			Detected Data appear Lognormal at 10% Significance Level		
973					Lilliefors Test Statistic	0.223			**Lilliefors GOF Test**		
974					10% Lilliefors Critical Value	0.223			Detected Data appear Lognormal at 10% Significance Level		
975	**Detected Data appear Lognormal at 10% Significance Level**										
976											
977	**Lognormal ROS Statistics Using Imputed Non-Detects**										
978					Mean in Original Scale	0.298			Mean in Log Scale	-1.231	
979					SD in Original Scale	0.0609			SD in Log Scale	0.195	
980					95% t UCL (assumes normality of ROS data)	0.32			95% Percentile Bootstrap UCL	0.32	
981					95% BCA Bootstrap UCL	0.323			95% Bootstrap t UCL	0.328	
982					95% H-UCL (Log ROS)	0.321					
983											
984	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**										
985					KM Mean (logged)	-1.29			KM Geo Mean	0.275	
986					KM SD (logged)	0.384			95% Critical H Value (KM-Log)	1.899	
987					KM Standard Error of Mean (logged)	0.111			95% H-UCL (KM -Log)	0.347	
988					KM SD (logged)	0.384			95% Critical H Value (KM-Log)	1.899	
989					KM Standard Error of Mean (logged)	0.111					
990	**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**										
991											
992	**DL/2 Statistics**										
993	**DL/2 Normal**								**DL/2 Log-Transformed**		
994					Mean in Original Scale	0.417			Mean in Log Scale	-1.159	
995					SD in Original Scale	0.472			SD in Log Scale	0.707	
996					95% t UCL (Assumes normality)	0.591			95% H-Stat UCL	0.566	
997	**DL/2 is not a recommended method, provided for comparisons and historical reasons**										
998											
999	**Nonparametric Distribution Free UCL Statistics**										
1000	**Detected Data appear Normal Distributed at 1% Significance Level**										
1001											
1002	**Suggested UCL to Use**										
1003					95% KM (t) UCL	0.335					
1004											
1005	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										

1006	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1007	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1008												
1009												
1010	**Zinc**											
1011												
1012	**General Statistics**											
1013					Total Number of Observations	22			Number of Distinct Observations	22		
1014									Number of Missing Observations	8		
1015					Minimum	25.2			Mean	111		
1016					Maximum	549			Median	87.15		
1017					SD	108.7			Std. Error of Mean	23.17		
1018					Coefficient of Variation	0.98			Skewness	3.347		
1019												
1020	**Normal GOF Test**											
1021					Shapiro Wilk Test Statistic	0.626			**Shapiro Wilk GOF Test**			
1022					1% Shapiro Wilk Critical Value	0.878			Data Not Normal at 1% Significance Level			
1023					Lilliefors Test Statistic	0.22			**Lilliefors GOF Test**			
1024					1% Lilliefors Critical Value	0.214			Data Not Normal at 1% Significance Level			
1025	**Data Not Normal at 1% Significance Level**											
1026												
1027	**Assuming Normal Distribution**											
1028					**95% Normal UCL**				**95% UCLs (Adjusted for Skewness)**			
1029					95% Student's-t UCL	150.8			95% Adjusted-CLT UCL (Chen-1995)	166.7		
1030									95% Modified-t UCL (Johnson-1978)	153.6		
1031												
1032	**Gamma GOF Test**											
1033					A-D Test Statistic	0.551			**Anderson-Darling Gamma GOF Test**			
1034					5% A-D Critical Value	0.756			Detected data appear Gamma Distributed at 5% Significance Level			
1035					K-S Test Statistic	0.123			**Kolmogorov-Smirnov Gamma GOF Test**			
1036					5% K-S Critical Value	0.188			Detected data appear Gamma Distributed at 5% Significance Level			
1037	**Detected data appear Gamma Distributed at 5% Significance Level**											
1038												
1039	**Gamma Statistics**											
1040					k hat (MLE)	1.992			k star (bias corrected MLE)	1.751		
1041					Theta hat (MLE)	55.71			Theta star (bias corrected MLE)	63.39		
1042					nu hat (MLE)	87.64			nu star (bias corrected)	77.02		
1043					MLE Mean (bias corrected)	111			MLE Sd (bias corrected)	83.86		
1044									Approximate Chi Square Value (0.05)	57.81		
1045					Adjusted Level of Significance	0.0386			Adjusted Chi Square Value	56.56		
1046												
1047	**Assuming Gamma Distribution**											
1048					95% Approximate Gamma UCL	147.8			95% Adjusted Gamma UCL	151.1		
1049												
1050	**Lognormal GOF Test**											
1051					Shapiro Wilk Test Statistic	0.965			**Shapiro Wilk Lognormal GOF Test**			
1052					10% Shapiro Wilk Critical Value	0.926			Data appear Lognormal at 10% Significance Level			
1053					Lilliefors Test Statistic	0.0877			**Lilliefors Lognormal GOF Test**			
1054					10% Lilliefors Critical Value	0.169			Data appear Lognormal at 10% Significance Level			
1055	**Data appear Lognormal at 10% Significance Level**											
1056												
1057	**Lognormal Statistics**											
1058					Minimum of Logged Data	3.227			Mean of logged Data	4.438		
1059					Maximum of Logged Data	6.308			SD of logged Data	0.709		
1060												
1061	**Assuming Lognormal Distribution**											
1062					95% H-UCL	153.1			90% Chebyshev (MVUE) UCL	159.4		
1063					95% Chebyshev (MVUE) UCL	183			97.5% Chebyshev (MVUE) UCL	215.8		
1064					99% Chebyshev (MVUE) UCL	280.2						
1065												
1066	**Nonparametric Distribution Free UCL Statistics**											
1067	**Data appear to follow a Discernible Distribution**											
1068												
1069	**Nonparametric Distribution Free UCLs**											
1070					95% CLT UCL	149.1			95% BCA Bootstrap UCL	172.6		
1071					95% Standard Bootstrap UCL	147.6			95% Bootstrap-t UCL	193.1		
1072					95% Hall's Bootstrap UCL	307.9			95% Percentile Bootstrap UCL	152		

1073				90% Chebyshev(Mean, Sd) UCL		180.5				95% Chebyshev(Mean, Sd) UCL		212
1074				97.5% Chebyshev(Mean, Sd) UCL		255.7				99% Chebyshev(Mean, Sd) UCL		341.5
1075												
1076						**Suggested UCL to Use**							
1077				95% Adjusted Gamma UCL		151.1						
1078												
1079						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1080						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1081						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1082												
1083	**2,4-Dinitrotoluene**											
1084												
1085						**General Statistics**						
1086				Total Number of Observations		9				Number of Distinct Observations		8
1087										Number of Missing Observations		19
1088				Number of Detects		2				Number of Non-Detects		7
1089				Number of Distinct Detects		2				Number of Distinct Non-Detects		6
1090				Minimum Detect		280				Minimum Non-Detect		33.5
1091				Maximum Detect		410				Maximum Non-Detect		650
1092				Variance Detects		8450				Percent Non-Detects		77.78%
1093				Mean Detects		345				SD Detects		91.92
1094				Median Detects		345				CV Detects		0.266
1095				Skewness Detects		N/A				Kurtosis Detects		N/A
1096				Mean of Logged Detects		5.825				SD of Logged Detects		0.27
1097												
1098						**Warning: Data set has only 2 Detected Values.**							
1099						**This is not enough to compute meaningful or reliable statistics and estimates.**						
1100												
1101												
1102						**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**						
1103						**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**						
1104						**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**						
1105						**The Chebyshev UCL often results in gross overestimates of the mean.**						
1106						**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**						
1107												
1108						**Normal GOF Test on Detects Only**							
1109						**Not Enough Data to Perform GOF Test**							
1110												
1111						**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**						
1112				KM Mean		116.5				KM Standard Error of Mean		72.32
1113				90KM SD		140.3				95% KM (BCA) UCL		N/A
1114				95% KM (t) UCL		251				95% KM (Percentile Bootstrap) UCL		N/A
1115				95% KM (z) UCL		235.5				95% KM Bootstrap t UCL		N/A
1116				90% KM Chebyshev UCL		333.5				95% KM Chebyshev UCL		431.7
1117				97.5% KM Chebyshev UCL		568.1				99% KM Chebyshev UCL		836.1
1118												
1119						**Gamma GOF Tests on Detected Observations Only**							
1120						**Not Enough Data to Perform GOF Test**							
1121												
1122						**Gamma Statistics on Detected Data Only**							
1123				k hat (MLE)		27.83				k star (bias corrected MLE)		N/A
1124				Theta hat (MLE)		12.39				Theta star (bias corrected MLE)		N/A
1125				nu hat (MLE)		111.3				nu star (bias corrected)		N/A
1126				Mean (detects)		345						
1127												
1128						**Estimates of Gamma Parameters using KM Estimates**							
1129				Mean (KM)		116.5				SD (KM)		140.3
1130				Variance (KM)		19689				SE of Mean (KM)		72.32
1131				k hat (KM)		0.689				k star (KM)		0.534
1132				nu hat (KM)		12.41				nu star (KM)		9.607
1133				theta hat (KM)		169				theta star (KM)		218.3
1134				80% gamma percentile (KM)		191.8				90% gamma percentile (KM)		310.9
1135				95% gamma percentile (KM)		437.3				99% gamma percentile (KM)		746.1
1136												
1137						**Gamma Kaplan-Meier (KM) Statistics**							
1138										Adjusted Level of Significance (β)		0.0231
1139				Approximate Chi Square Value (9.61, α)		3.697				Adjusted Chi Square Value (9.61, β)		2.966

1140				95% KM Approximate Gamma UCL		302.7				95% KM Adjusted Gamma UCL		377.4
1141												
1142						Lognormal GOF Test on Detected Observations Only							
1143						Not Enough Data to Perform GOF Test							
1144												
1145						Lognormal ROS Statistics Using Imputed Non-Detects							
1146				Mean in Original Scale		194				Mean in Log Scale		5.19
1147				SD in Original Scale		93.1				SD in Log Scale		0.39
1148				95% t UCL (assumes normality of ROS data)		251.7				95% Percentile Bootstrap UCL		245.5
1149				95% BCA Bootstrap UCL		267.4				95% Bootstrap t UCL		409.4
1150				95% H-UCL (Log ROS)		259.4						
1151												
1152						Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution							
1153				KM Mean (logged)		4.134				KM Geo Mean		62.44
1154				KM SD (logged)		1.027				95% Critical H Value (KM-Log)		3.298
1155				KM Standard Error of Mean (logged)		0.535				95% H-UCL (KM -Log)		350.1
1156				KM SD (logged)		1.027				95% Critical H Value (KM-Log)		3.298
1157				KM Standard Error of Mean (logged)		0.535						
1158												
1159						DL/2 Statistics						
1160				DL/2 Normal						DL/2 Log-Transformed		
1161				Mean in Original Scale		163.5				Mean in Log Scale		4.698
1162				SD in Original Scale		140.3				SD in Log Scale		1.024
1163				95% t UCL (Assumes normality)		250.5				95% H-Stat UCL		609.6
1164						DL/2 is not a recommended method, provided for comparisons and historical reasons						
1165												
1166						Nonparametric Distribution Free UCL Statistics						
1167						Data do not follow a Discernible Distribution						
1168												
1169						Suggested UCL to Use						
1170				95% KM (t) UCL		251						
1171												
1172						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
1173						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
1174						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
1175												
1176	2,6-Dinitrotoluene											
1177												
1178						General Statistics						
1179				Total Number of Observations		9				Number of Distinct Observations		8
1180										Number of Missing Observations		19
1181				Number of Detects		1				Number of Non-Detects		8
1182				Number of Distinct Detects		1				Number of Distinct Non-Detects		7
1183												
1184						Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!						
1185						It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).						
1186												
1187						The data set for variable 2,6-Dinitrotoluene was not processed!						
1188												
1189												
1190	Acenaphthene											
1191												
1192						General Statistics						
1193				Total Number of Observations		10				Number of Distinct Observations		9
1194										Number of Missing Observations		18
1195				Number of Detects		1				Number of Non-Detects		9
1196				Number of Distinct Detects		1				Number of Distinct Non-Detects		8
1197												
1198						Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!						
1199						It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).						
1200												
1201						The data set for variable Acenaphthene was not processed!						
1202												
1203												
1204	Acenaphthylene											
1205												
1206						General Statistics						

1207				Total Number of Observations		10			Number of Distinct Observations			8
1208									Number of Missing Observations			18
1209				Number of Detects		1			Number of Non-Detects			9
1210				Number of Distinct Detects		1			Number of Distinct Non-Detects			7
1211												
1212	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
1213	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
1214												
1215	**The data set for variable Acenaphthylene was not processed!**											
1216												
1217												
1218	**Anthracene**											
1219												
1220	**General Statistics**											
1221				Total Number of Observations		10			Number of Distinct Observations			10
1222									Number of Missing Observations			18
1223				Number of Detects		5			Number of Non-Detects			5
1224				Number of Distinct Detects		5			Number of Distinct Non-Detects			5
1225				Minimum Detect		57			Minimum Non-Detect			125
1226				Maximum Detect		180			Maximum Non-Detect			650
1227				Variance Detects		2581			Percent Non-Detects			50%
1228				Mean Detects		110.2			SD Detects			50.81
1229				Median Detects		120			CV Detects			0.461
1230				Skewness Detects		0.316			Kurtosis Detects			-1.158
1231				Mean of Logged Detects		4.61			SD of Logged Detects			0.491
1232												
1233	**Normal GOF Test on Detects Only**											
1234				Shapiro Wilk Test Statistic		0.924			**Shapiro Wilk GOF Test**			
1235				1% Shapiro Wilk Critical Value		0.686			Detected Data appear Normal at 1% Significance Level			
1236				Lilliefors Test Statistic		0.218			**Lilliefors GOF Test**			
1237				1% Lilliefors Critical Value		0.396			Detected Data appear Normal at 1% Significance Level			
1238	**Detected Data appear Normal at 1% Significance Level**											
1239	**Note GOF tests may be unreliable for small sample sizes**											
1240												
1241	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1242				KM Mean		101.5			KM Standard Error of Mean			19.38
1243				90KM SD		42.22			95% KM (BCA) UCL			132
1244				95% KM (t) UCL		137			95% KM (Percentile Bootstrap) UCL			134.4
1245				95% KM (z) UCL		133.4			95% KM Bootstrap t UCL			139
1246				90% KM Chebyshev UCL		159.6			95% KM Chebyshev UCL			185.9
1247				97.5% KM Chebyshev UCL		222.5			99% KM Chebyshev UCL			294.3
1248												
1249	**Gamma GOF Tests on Detected Observations Only**											
1250				A-D Test Statistic		0.351			**Anderson-Darling GOF Test**			
1251				5% A-D Critical Value		0.68			Detected data appear Gamma Distributed at 5% Significance Level			
1252				K-S Test Statistic		0.248			**Kolmogorov-Smirnov GOF**			
1253				5% K-S Critical Value		0.358			Detected data appear Gamma Distributed at 5% Significance Level			
1254	**Detected data appear Gamma Distributed at 5% Significance Level**											
1255	**Note GOF tests may be unreliable for small sample sizes**											
1256												
1257	**Gamma Statistics on Detected Data Only**											
1258				k hat (MLE)		5.578			k star (bias corrected MLE)			2.364
1259				Theta hat (MLE)		19.76			Theta star (bias corrected MLE)			46.61
1260				nu hat (MLE)		55.78			nu star (bias corrected)			23.64
1261				Mean (detects)		110.2						
1262												
1263	**Gamma ROS Statistics using Imputed Non-Detects**											
1264	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1265	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1266	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1267	This is especially true when the sample size is small.											
1268	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1269				Minimum		57			Mean			99.51
1270				Maximum		180			Median			91.44
1271				SD		35.98			CV			0.362
1272				k hat (MLE)		9.566			k star (bias corrected MLE)			6.763
1273				Theta hat (MLE)		10.4			Theta star (bias corrected MLE)			14.71

1274					nu hat (MLE)	191.3				nu star (bias corrected)		135.3
1275					Adjusted Level of Significance (β)	0.0267						
1276					Approximate Chi Square Value (135.26, α)	109.4				Adjusted Chi Square Value (135.26, β)		105.4
1277					95% Gamma Approximate UCL	123				95% Gamma Adjusted UCL		127.8
1278												
1279					**Estimates of Gamma Parameters using KM Estimates**							
1280					Mean (KM)	101.5				SD (KM)		42.22
1281					Variance (KM)	1782				SE of Mean (KM)		19.38
1282					k hat (KM)	5.778				k star (KM)		4.111
1283					nu hat (KM)	115.6				nu star (KM)		82.22
1284					theta hat (KM)	17.56				theta star (KM)		24.68
1285					80% gamma percentile (KM)	139.5				90% gamma percentile (KM)		168.6
1286					95% gamma percentile (KM)	195.3				99% gamma percentile (KM)		252.3
1287												
1288					**Gamma Kaplan-Meier (KM) Statistics**							
1289					Approximate Chi Square Value (82.22, α)	62.33				Adjusted Chi Square Value (82.22, β)		59.32
1290					95% KM Approximate Gamma UCL	133.9				95% KM Adjusted Gamma UCL		140.7
1291												
1292					**Lognormal GOF Test on Detected Observations Only**							
1293					Shapiro Wilk Test Statistic	0.909				**Shapiro Wilk GOF Test**		
1294					10% Shapiro Wilk Critical Value	0.806				Detected Data appear Lognormal at 10% Significance Level		
1295					Lilliefors Test Statistic	0.241				**Lilliefors GOF Test**		
1296					10% Lilliefors Critical Value	0.319				Detected Data appear Lognormal at 10% Significance Level		
1297					**Detected Data appear Lognormal at 10% Significance Level**							
1298					**Note GOF tests may be unreliable for small sample sizes**							
1299												
1300					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1301					Mean in Original Scale	97.58				Mean in Log Scale		4.525
1302					SD in Original Scale	36.63				SD in Log Scale		0.343
1303					95% t UCL (assumes normality of ROS data)	118.8				95% Percentile Bootstrap UCL		116.8
1304					95% BCA Bootstrap UCL	121				95% Bootstrap t UCL		128.8
1305					95% H-UCL (Log ROS)	123.3						
1306												
1307					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1308					KM Mean (logged)	4.532				KM Geo Mean		92.93
1309					KM SD (logged)	0.422				95% Critical H Value (KM-Log)		2.116
1310					KM Standard Error of Mean (logged)	0.201				95% H-UCL (KM -Log)		136.7
1311					KM SD (logged)	0.422				95% Critical H Value (KM-Log)		2.116
1312					KM Standard Error of Mean (logged)	0.201						
1313												
1314					**DL/2 Statistics**							
1315					**DL/2 Normal**					**DL/2 Log-Transformed**		
1316					Mean in Original Scale	124.6				Mean in Log Scale		4.663
1317					SD in Original Scale	83.17				SD in Log Scale		0.576
1318					95% t UCL (Assumes normality)	172.8				95% H-Stat UCL		195.6
1319					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1320												
1321					**Nonparametric Distribution Free UCL Statistics**							
1322					**Detected Data appear Normal Distributed at 1% Significance Level**							
1323												
1324					**Suggested UCL to Use**							
1325					95% KM (t) UCL	137						
1326												
1327					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1328					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1329					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1330												
1331	**Benzo[a]anthracene**											
1332												
1333					**General Statistics**							
1334					Total Number of Observations	10				Number of Distinct Observations		10
1335										Number of Missing Observations		18
1336					Number of Detects	8				Number of Non-Detects		2
1337					Number of Distinct Detects	8				Number of Distinct Non-Detects		2
1338					Minimum Detect	120				Minimum Non-Detect		125
1339					Maximum Detect	710				Maximum Non-Detect		650
1340					Variance Detects	32086				Percent Non-Detects		20%

1341					Mean Detects	355				SD Detects	179.1	
1342					Median Detects	355				CV Detects	0.505	
1343					Skewness Detects	0.931				Kurtosis Detects	1.652	
1344					Mean of Logged Detects	5.754				SD of Logged Detects	0.539	
1345												
1346					**Normal GOF Test on Detects Only**							
1347					Shapiro Wilk Test Statistic	0.94	**Shapiro Wilk GOF Test**					
1348					1% Shapiro Wilk Critical Value	0.749	Detected Data appear Normal at 1% Significance Level					
1349					Lilliefors Test Statistic	0.173	**Lilliefors GOF Test**					
1350					1% Lilliefors Critical Value	0.333	Detected Data appear Normal at 1% Significance Level					
1351					**Detected Data appear Normal at 1% Significance Level**							
1352					**Note GOF tests may be unreliable for small sample sizes**							
1353												
1354					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1355					KM Mean	324.1	KM Standard Error of Mean	59.04				
1356					90KM SD	170.2	95% KM (BCA) UCL	411.3				
1357					95% KM (t) UCL	432.4	95% KM (Percentile Bootstrap) UCL	415				
1358					95% KM (z) UCL	421.2	95% KM Bootstrap t UCL	454.2				
1359					90% KM Chebyshev UCL	501.3	95% KM Chebyshev UCL	581.5				
1360					97.5% KM Chebyshev UCL	692.8	99% KM Chebyshev UCL	911.6				
1361												
1362					**Gamma GOF Tests on Detected Observations Only**							
1363					A-D Test Statistic	0.206	**Anderson-Darling GOF Test**					
1364					5% A-D Critical Value	0.719	Detected data appear Gamma Distributed at 5% Significance Level					
1365					K-S Test Statistic	0.177	**Kolmogorov-Smirnov GOF**					
1366					5% K-S Critical Value	0.295	Detected data appear Gamma Distributed at 5% Significance Level					
1367					**Detected data appear Gamma Distributed at 5% Significance Level**							
1368					**Note GOF tests may be unreliable for small sample sizes**							
1369												
1370					**Gamma Statistics on Detected Data Only**							
1371					k hat (MLE)	4.389	k star (bias corrected MLE)	2.827				
1372					Theta hat (MLE)	80.88	Theta star (bias corrected MLE)	125.6				
1373					nu hat (MLE)	70.23	nu star (bias corrected)	45.23				
1374					Mean (detects)	355						
1375												
1376					**Gamma ROS Statistics using Imputed Non-Detects**							
1377					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1378					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1379					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1380					This is especially true when the sample size is small.							
1381					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1382					Minimum	115.7	Mean	323.2				
1383					Maximum	710	Median	313				
1384					SD	175.7	CV	0.544				
1385					k hat (MLE)	3.784	k star (bias corrected MLE)	2.716				
1386					Theta hat (MLE)	85.4	Theta star (bias corrected MLE)	119				
1387					nu hat (MLE)	75.68	nu star (bias corrected)	54.31				
1388					Adjusted Level of Significance (β)	0.0267						
1389					Approximate Chi Square Value (54.31, α)	38.38	Adjusted Chi Square Value (54.31, β)	36.06				
1390					95% Gamma Approximate UCL	457.3	95% Gamma Adjusted UCL	486.7				
1391												
1392					**Estimates of Gamma Parameters using KM Estimates**							
1393					Mean (KM)	324.1	SD (KM)	170.2				
1394					Variance (KM)	28952	SE of Mean (KM)	59.04				
1395					k hat (KM)	3.629	k star (KM)	2.607				
1396					nu hat (KM)	72.57	nu star (KM)	52.14				
1397					theta hat (KM)	89.32	theta star (KM)	124.3				
1398					80% gamma percentile (KM)	470.2	90% gamma percentile (KM)	593.1				
1399					95% gamma percentile (KM)	708.7	99% gamma percentile (KM)	961.2				
1400												
1401					**Gamma Kaplan-Meier (KM) Statistics**							
1402					Approximate Chi Square Value (52.14, α)	36.55	Adjusted Chi Square Value (52.14, β)	34.29				
1403					95% KM Approximate Gamma UCL	462.3	95% KM Adjusted Gamma UCL	492.7				
1404												
1405					**Lognormal GOF Test on Detected Observations Only**							
1406					Shapiro Wilk Test Statistic	0.969	**Shapiro Wilk GOF Test**					
1407					10% Shapiro Wilk Critical Value	0.851	Detected Data appear Lognormal at 10% Significance Level					

1408					Lilliefors Test Statistic	0.201	**Lilliefors GOF Test**					
1409					10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level					
1410	**Detected Data appear Lognormal at 10% Significance Level**											
1411	**Note GOF tests may be unreliable for small sample sizes**											
1412												
1413	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1414					Mean in Original Scale	323.5				Mean in Log Scale	5.65	
1415					SD in Original Scale	173.9				SD in Log Scale	0.547	
1416					95% t UCL (assumes normality of ROS data)	424.3				95% Percentile Bootstrap UCL	415	
1417					95% BCA Bootstrap UCL	430.4				95% Bootstrap t UCL	456.3	
1418					95% H-UCL (Log ROS)	500.8						
1419												
1420	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1421					KM Mean (logged)	5.635				KM Geo Mean	280.1	
1422					KM SD (logged)	0.558				95% Critical H Value (KM-Log)	2.304	
1423					KM Standard Error of Mean (logged)	0.197				95% H-UCL (KM -Log)	502.7	
1424					KM SD (logged)	0.558				95% Critical H Value (KM-Log)	2.304	
1425					KM Standard Error of Mean (logged)	0.197						
1426												
1427	**DL/2 Statistics**											
1428	**DL/2 Normal**						**DL/2 Log-Transformed**					
1429					Mean in Original Scale	322.8				Mean in Log Scale	5.595	
1430					SD in Original Scale	182.8				SD in Log Scale	0.7	
1431					95% t UCL (Assumes normality)	428.7				95% H-Stat UCL	620.3	
1432	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1433												
1434	**Nonparametric Distribution Free UCL Statistics**											
1435	**Detected Data appear Normal Distributed at 1% Significance Level**											
1436												
1437	**Suggested UCL to Use**											
1438					95% KM (t) UCL	432.4						
1439												
1440	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1441	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1442	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1443												
1444	**Benzo[a]pyrene**											
1445												
1446	**General Statistics**											
1447					Total Number of Observations	10				Number of Distinct Observations	9	
1448										Number of Missing Observations	18	
1449					Number of Detects	8				Number of Non-Detects	2	
1450					Number of Distinct Detects	7				Number of Distinct Non-Detects	2	
1451					Minimum Detect	130				Minimum Non-Detect	125	
1452					Maximum Detect	840				Maximum Non-Detect	650	
1453					Variance Detects	49114				Percent Non-Detects	20%	
1454					Mean Detects	350				SD Detects	221.6	
1455					Median Detects	295				CV Detects	0.633	
1456					Skewness Detects	1.773				Kurtosis Detects	3.746	
1457					Mean of Logged Detects	5.711				SD of Logged Detects	0.565	
1458												
1459	**Normal GOF Test on Detects Only**											
1460					Shapiro Wilk Test Statistic	0.82	**Shapiro Wilk GOF Test**					
1461					1% Shapiro Wilk Critical Value	0.749	Detected Data appear Normal at 1% Significance Level					
1462					Lilliefors Test Statistic	0.234	**Lilliefors GOF Test**					
1463					1% Lilliefors Critical Value	0.333	Detected Data appear Normal at 1% Significance Level					
1464	**Detected Data appear Normal at 1% Significance Level**											
1465	**Note GOF tests may be unreliable for small sample sizes**											
1466												
1467	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1468					KM Mean	318.6				KM Standard Error of Mean	69	
1469					90KM SD	201				95% KM (BCA) UCL	426.5	
1470					95% KM (t) UCL	445				95% KM (Percentile Bootstrap) UCL	430	
1471					95% KM (z) UCL	432.1				95% KM Bootstrap t UCL	536.2	
1472					90% KM Chebyshev UCL	525.6				95% KM Chebyshev UCL	619.3	
1473					97.5% KM Chebyshev UCL	749.4				99% KM Chebyshev UCL	1005	
1474												

	A	B	C	D	E	F	G	H	I	J	K	L
1475	**Gamma GOF Tests on Detected Observations Only**											
1476					A-D Test Statistic	0.358	**Anderson-Darling GOF Test**					
1477					5% A-D Critical Value	0.72	Detected data appear Gamma Distributed at 5% Significance Level					
1478					K-S Test Statistic	0.211	**Kolmogorov-Smirnov GOF**					
1479					5% K-S Critical Value	0.296	Detected data appear Gamma Distributed at 5% Significance Level					
1480	**Detected data appear Gamma Distributed at 5% Significance Level**											
1481	**Note GOF tests may be unreliable for small sample sizes**											
1482												
1483	**Gamma Statistics on Detected Data Only**											
1484					k hat (MLE)	3.56			k star (bias corrected MLE)	2.308		
1485					Theta hat (MLE)	98.32			Theta star (bias corrected MLE)	151.6		
1486					nu hat (MLE)	56.96			nu star (bias corrected)	36.93		
1487					Mean (detects)	350						
1488												
1489	**Gamma ROS Statistics using Imputed Non-Detects**											
1490	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1491	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1492	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1493	This is especially true when the sample size is small.											
1494	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1495					Minimum	0.01			Mean	304.3		
1496					Maximum	840			Median	236.3		
1497					SD	225.3			CV	0.741		
1498					k hat (MLE)	0.585			k star (bias corrected MLE)	0.476		
1499					Theta hat (MLE)	520.2			Theta star (bias corrected MLE)	639.1		
1500					nu hat (MLE)	11.7			nu star (bias corrected)	9.521		
1501					Adjusted Level of Significance (β)	0.0267						
1502					Approximate Chi Square Value (9.52, α)	3.645			Adjusted Chi Square Value (9.52, β)	3.04		
1503					95% Gamma Approximate UCL	794.8			95% Gamma Adjusted UCL	952.8		
1504												
1505	**Estimates of Gamma Parameters using KM Estimates**											
1506					Mean (KM)	318.6			SD (KM)	201		
1507					Variance (KM)	40383			SE of Mean (KM)	69		
1508					k hat (KM)	2.513			k star (KM)	1.826		
1509					nu hat (KM)	50.26			nu star (KM)	36.51		
1510					theta hat (KM)	126.8			theta star (KM)	174.5		
1511					80% gamma percentile (KM)	482.1			90% gamma percentile (KM)	633.1		
1512					95% gamma percentile (KM)	777.9			99% gamma percentile (KM)	1101		
1513												
1514	**Gamma Kaplan-Meier (KM) Statistics**											
1515					Approximate Chi Square Value (36.51, α)	23.68			Adjusted Chi Square Value (36.51, β)	21.9		
1516					95% KM Approximate Gamma UCL	491.2			95% KM Adjusted Gamma UCL	531.1		
1517												
1518	**Lognormal GOF Test on Detected Observations Only**											
1519					Shapiro Wilk Test Statistic	0.959	**Shapiro Wilk GOF Test**					
1520					10% Shapiro Wilk Critical Value	0.851	Detected Data appear Lognormal at 10% Significance Level					
1521					Lilliefors Test Statistic	0.185	**Lilliefors GOF Test**					
1522					10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level					
1523	**Detected Data appear Lognormal at 10% Significance Level**											
1524	**Note GOF tests may be unreliable for small sample sizes**											
1525												
1526	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1527					Mean in Original Scale	312.1			Mean in Log Scale	5.559		
1528					SD in Original Scale	214.2			SD in Log Scale	0.64		
1529					95% t UCL (assumes normality of ROS data)	436.3			95% Percentile Bootstrap UCL	429.4		
1530					95% BCA Bootstrap UCL	458.4			95% Bootstrap t UCL	524.1		
1531					95% H-UCL (Log ROS)	535.3						
1532												
1533	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1534					KM Mean (logged)	5.599			KM Geo Mean	270.1		
1535					KM SD (logged)	0.56			95% Critical H Value (KM-Log)	2.306		
1536					KM Standard Error of Mean (logged)	0.196			95% H-UCL (KM -Log)	485.9		
1537					KM SD (logged)	0.56			95% Critical H Value (KM-Log)	2.306		
1538					KM Standard Error of Mean (logged)	0.196						
1539												
1540	**DL/2 Statistics**											
1541	**DL/2 Normal**						**DL/2 Log-Transformed**					

1542				Mean in Original Scale	318.8					Mean in Log Scale	5.561	
1543				SD in Original Scale	215.3					SD in Log Scale	0.707	
1544				95% t UCL (Assumes normality)	443.6					95% H-Stat UCL	607.8	
1545	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1546												
1547	**Nonparametric Distribution Free UCL Statistics**											
1548	**Detected Data appear Normal Distributed at 1% Significance Level**											
1549												
1550	**Suggested UCL to Use**											
1551				95% KM (t) UCL	445							
1552												
1553	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1554	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1555	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1556												
1557	**Benzo[g,h,i]perylene**											
1558												
1559	**General Statistics**											
1560				Total Number of Observations	10					Number of Distinct Observations	8	
1561										Number of Missing Observations	18	
1562				Number of Detects	8					Number of Non-Detects	2	
1563				Number of Distinct Detects	6					Number of Distinct Non-Detects	2	
1564				Minimum Detect	130					Minimum Non-Detect	125	
1565				Maximum Detect	610					Maximum Non-Detect	650	
1566				Variance Detects	23670					Percent Non-Detects	20%	
1567				Mean Detects	268.8					SD Detects	153.8	
1568				Median Detects	235					CV Detects	0.572	
1569				Skewness Detects	1.806					Kurtosis Detects	3.782	
1570				Mean of Logged Detects	5.478					SD of Logged Detects	0.493	
1571												
1572	**Normal GOF Test on Detects Only**											
1573				Shapiro Wilk Test Statistic	0.79					**Shapiro Wilk GOF Test**		
1574				1% Shapiro Wilk Critical Value	0.749					Detected Data appear Normal at 1% Significance Level		
1575				Lilliefors Test Statistic	0.269					**Lilliefors GOF Test**		
1576				1% Lilliefors Critical Value	0.333					Detected Data appear Normal at 1% Significance Level		
1577	**Detected Data appear Normal at 1% Significance Level**											
1578	**Note GOF tests may be unreliable for small sample sizes**											
1579												
1580	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1581				KM Mean	252.8					KM Standard Error of Mean	50.96	
1582				90KM SD	143					95% KM (BCA) UCL	336.5	
1583				95% KM (t) UCL	346.2					95% KM (Percentile Bootstrap) UCL	336.5	
1584				95% KM (z) UCL	336.6					95% KM Bootstrap t UCL	430.7	
1585				90% KM Chebyshev UCL	405.7					95% KM Chebyshev UCL	474.9	
1586				97.5% KM Chebyshev UCL	571					99% KM Chebyshev UCL	759.8	
1587												
1588	**Gamma GOF Tests on Detected Observations Only**											
1589				A-D Test Statistic	0.512					**Anderson-Darling GOF Test**		
1590				5% A-D Critical Value	0.719					Detected data appear Gamma Distributed at 5% Significance Level		
1591				K-S Test Statistic	0.236					**Kolmogorov-Smirnov GOF**		
1592				5% K-S Critical Value	0.295					Detected data appear Gamma Distributed at 5% Significance Level		
1593	**Detected data appear Gamma Distributed at 5% Significance Level**											
1594	**Note GOF tests may be unreliable for small sample sizes**											
1595												
1596	**Gamma Statistics on Detected Data Only**											
1597				k hat (MLE)	4.469					k star (bias corrected MLE)	2.876	
1598				Theta hat (MLE)	60.14					Theta star (bias corrected MLE)	93.44	
1599				nu hat (MLE)	71.5					nu star (bias corrected)	46.02	
1600				Mean (detects)	268.8							
1601												
1602	**Gamma ROS Statistics using Imputed Non-Detects**											
1603	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1604	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1605	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1606	This is especially true when the sample size is small.											
1607	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1608				Minimum	0.01					Mean	237.1	

1609					Maximum	610				Median		200.7
1610					SD	159.9				CV		0.674
1611					k hat (MLE)	0.612				k star (bias corrected MLE)		0.495
1612					Theta hat (MLE)	387.6				Theta star (bias corrected MLE)		479.1
1613					nu hat (MLE)	12.24				nu star (bias corrected)		9.899
1614					Adjusted Level of Significance (β)	0.0267						
1615					Approximate Chi Square Value (9.90, α)	3.879				Adjusted Chi Square Value (9.90, β)		3.251
1616					95% Gamma Approximate UCL	605.2				95% Gamma Adjusted UCL		722.1
1617												
1618					**Estimates of Gamma Parameters using KM Estimates**							
1619					Mean (KM)	252.8				SD (KM)		143
1620					Variance (KM)	20451				SE of Mean (KM)		50.96
1621					k hat (KM)	3.124				k star (KM)		2.254
1622					nu hat (KM)	62.49				nu star (KM)		45.08
1623					theta hat (KM)	80.9				theta star (KM)		112.2
1624					80% gamma percentile (KM)	373.1				90% gamma percentile (KM)		478.1
1625					95% gamma percentile (KM)	577.6				99% gamma percentile (KM)		796.7
1626												
1627					**Gamma Kaplan-Meier (KM) Statistics**							
1628					Approximate Chi Square Value (45.08, α)	30.67				Adjusted Chi Square Value (45.08, β)		28.62
1629					95% KM Approximate Gamma UCL	371.4				95% KM Adjusted Gamma UCL		398.1
1630												
1631					**Lognormal GOF Test on Detected Observations Only**							
1632					Shapiro Wilk Test Statistic	0.911				**Shapiro Wilk GOF Test**		
1633					10% Shapiro Wilk Critical Value	0.851				Detected Data appear Lognormal at 10% Significance Level		
1634					Lilliefors Test Statistic	0.218				**Lilliefors GOF Test**		
1635					10% Lilliefors Critical Value	0.265				Detected Data appear Lognormal at 10% Significance Level		
1636					**Detected Data appear Lognormal at 10% Significance Level**							
1637					**Note GOF tests may be unreliable for small sample sizes**							
1638												
1639					**Lognormal ROS Statistics Using Imputed Non-Detects**							
1640					Mean in Original Scale	243.5				Mean in Log Scale		5.347
1641					SD in Original Scale	149.4				SD in Log Scale		0.574
1642					95% t UCL (assumes normality of ROS data)	330.1				95% Percentile Bootstrap UCL		322.3
1643					95% BCA Bootstrap UCL	336.2				95% Bootstrap t UCL		385.5
1644					95% H-UCL (Log ROS)	386.4						
1645												
1646					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
1647					KM Mean (logged)	5.406				KM Geo Mean		222.6
1648					KM SD (logged)	0.481				95% Critical H Value (KM-Log)		2.193
1649					KM Standard Error of Mean (logged)	0.171				95% H-UCL (KM -Log)		355.1
1650					KM SD (logged)	0.481				95% Critical H Value (KM-Log)		2.193
1651					KM Standard Error of Mean (logged)	0.171						
1652												
1653					**DL/2 Statistics**							
1654					**DL/2 Normal**					**DL/2 Log-Transformed**		
1655					Mean in Original Scale	253.8				Mean in Log Scale		5.374
1656					SD in Original Scale	152.4				SD in Log Scale		0.623
1657					95% t UCL (Assumes normality)	342.1				95% H-Stat UCL		431.5
1658					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
1659												
1660					**Nonparametric Distribution Free UCL Statistics**							
1661					**Detected Data appear Normal Distributed at 1% Significance Level**							
1662												
1663					**Suggested UCL to Use**							
1664					95% KM (t) UCL	346.2						
1665												
1666					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1667					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
1668					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
1669												
1670	**Benzo[k]fluoranthene**											
1671												
1672					**General Statistics**							
1673					Total Number of Observations	10				Number of Distinct Observations		7
1674										Number of Missing Observations		18
1675					Number of Detects	8				Number of Non-Detects		2

1676	Number of Distinct Detects				5	Number of Distinct Non-Detects					2
1677	Minimum Detect				84	Minimum Non-Detect					125
1678	Maximum Detect				250	Maximum Non-Detect					650
1679	Variance Detects				2786	Percent Non-Detects					20%
1680	Mean Detects				188	SD Detects					52.79
1681	Median Detects				190	CV Detects					0.281
1682	Skewness Detects				-0.851	Kurtosis Detects					1.583
1683	Mean of Logged Detects				5.192	SD of Logged Detects					0.343
1684												
1685	**Normal GOF Test on Detects Only**											
1686	Shapiro Wilk Test Statistic				0.895	**Shapiro Wilk GOF Test**					
1687	1% Shapiro Wilk Critical Value				0.749	Detected Data appear Normal at 1% Significance Level					
1688	Lilliefors Test Statistic				0.242	**Lilliefors GOF Test**					
1689	1% Lilliefors Critical Value				0.333	Detected Data appear Normal at 1% Significance Level					
1690	**Detected Data appear Normal at 1% Significance Level**											
1691	**Note GOF tests may be unreliable for small sample sizes**											
1692												
1693	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1694	KM Mean				176.4	KM Standard Error of Mean					20.27
1695	90KM SD				56.88	95% KM (BCA) UCL					208.8
1696	95% KM (t) UCL				213.6	95% KM (Percentile Bootstrap) UCL					207.1
1697	95% KM (z) UCL				209.8	95% KM Bootstrap t UCL					209.9
1698	90% KM Chebyshev UCL				237.3	95% KM Chebyshev UCL					264.8
1699	97.5% KM Chebyshev UCL				303	99% KM Chebyshev UCL					378.1
1700												
1701	**Gamma GOF Tests on Detected Observations Only**											
1702	A-D Test Statistic				0.586	**Anderson-Darling GOF Test**					
1703	5% A-D Critical Value				0.715	Detected data appear Gamma Distributed at 5% Significance Level					
1704	K-S Test Statistic				0.282	**Kolmogorov-Smirnov GOF**					
1705	5% K-S Critical Value				0.294	Detected data appear Gamma Distributed at 5% Significance Level					
1706	**Detected data appear Gamma Distributed at 5% Significance Level**											
1707	**Note GOF tests may be unreliable for small sample sizes**											
1708												
1709	**Gamma Statistics on Detected Data Only**											
1710	k hat (MLE)				11.38	k star (bias corrected MLE)					7.196
1711	Theta hat (MLE)				16.52	Theta star (bias corrected MLE)					26.12
1712	nu hat (MLE)				182.1	nu star (bias corrected)					115.1
1713	Mean (detects)				188						
1714												
1715	**Gamma ROS Statistics using Imputed Non-Detects**											
1716	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1717	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1718	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1719	This is especially true when the sample size is small.											
1720	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1721	Minimum				84	Mean					178.8
1722	Maximum				250	Median					177.8
1723	SD				52.81	CV					0.295
1724	k hat (MLE)				10.75	k star (bias corrected MLE)					7.59
1725	Theta hat (MLE)				16.64	Theta star (bias corrected MLE)					23.56
1726	nu hat (MLE)				214.9	nu star (bias corrected)					151.8
1727	Adjusted Level of Significance (β)				0.0267						
1728	Approximate Chi Square Value (151.79, α)				124.3	Adjusted Chi Square Value (151.79, β)					120
1729	95% Gamma Approximate UCL				218.4	95% Gamma Adjusted UCL					226.2
1730												
1731	**Estimates of Gamma Parameters using KM Estimates**											
1732	Mean (KM)				176.4	SD (KM)					56.88
1733	Variance (KM)				3235	SE of Mean (KM)					20.27
1734	k hat (KM)				9.623	k star (KM)					6.803
1735	nu hat (KM)				192.5	nu star (KM)					136.1
1736	theta hat (KM)				18.34	theta star (KM)					25.94
1737	80% gamma percentile (KM)				229.4	90% gamma percentile (KM)					266.8
1738	95% gamma percentile (KM)				300.4	99% gamma percentile (KM)					370.5
1739												
1740	**Gamma Kaplan-Meier (KM) Statistics**											
1741	Approximate Chi Square Value (136.05, α)				110.1	Adjusted Chi Square Value (136.05, β)					106
1742	95% KM Approximate Gamma UCL				218	95% KM Adjusted Gamma UCL					226.4

1743												
1744	**Lognormal GOF Test on Detected Observations Only**											
1745				Shapiro Wilk Test Statistic	0.807	**Shapiro Wilk GOF Test**						
1746				10% Shapiro Wilk Critical Value	0.851	Detected Data Not Lognormal at 10% Significance Level						
1747				Lilliefors Test Statistic	0.31	**Lilliefors GOF Test**						
1748				10% Lilliefors Critical Value	0.265	Detected Data Not Lognormal at 10% Significance Level						
1749	**Detected Data Not Lognormal at 10% Significance Level**											
1750												
1751	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1752				Mean in Original Scale	177.8	Mean in Log Scale	5.132					
1753				SD in Original Scale	53.57	SD in Log Scale	0.348					
1754				95% t UCL (assumes normality of ROS data)	208.9	95% Percentile Bootstrap UCL	204					
1755				95% BCA Bootstrap UCL	202	95% Bootstrap t UCL	206.7					
1756				95% H-UCL (Log ROS)	227.6							
1757												
1758	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1759				KM Mean (logged)	5.107	KM Geo Mean	165.2					
1760				KM SD (logged)	0.386	95% Critical H Value (KM-Log)	2.072					
1761				KM Standard Error of Mean (logged)	0.138	95% H-UCL (KM -Log)	232.4					
1762				KM SD (logged)	0.386	95% Critical H Value (KM-Log)	2.072					
1763				KM Standard Error of Mean (logged)	0.138							
1764												
1765	**DL/2 Statistics**											
1766				**DL/2 Normal**		**DL/2 Log-Transformed**						
1767				Mean in Original Scale	189.2	Mean in Log Scale	5.145					
1768				SD in Original Scale	77.47	SD in Log Scale	0.502					
1769				95% t UCL (Assumes normality)	234.1	95% H-Stat UCL	282.5					
1770	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1771												
1772	**Nonparametric Distribution Free UCL Statistics**											
1773	**Detected Data appear Normal Distributed at 1% Significance Level**											
1774												
1775	**Suggested UCL to Use**											
1776				95% KM (t) UCL	213.6							
1777												
1778	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1779	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1780	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1781												
1782												
1783	**Bis(2-Ethylhexyl)phthalate**											
1784												
1785	**General Statistics**											
1786				Total Number of Observations	1	Number of Distinct Observations	1					
1787						Number of Missing Observations	0					
1788				Minimum	540	Mean	540					
1789				Maximum	540	Median	540					
1790												
1791	**Warning: This data set only has 1 observations!**											
1792	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
1793	**The data set for variable Bis(2-Ethylhexyl)phthalate was not processed!**											
1794												
1795	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
1796	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
1797												
1798												
1799	**Chrysene**											
1800												
1801	**General Statistics**											
1802				Total Number of Observations	10	Number of Distinct Observations	8					
1803						Number of Missing Observations	18					
1804				Number of Detects	8	Number of Non-Detects	2					
1805				Number of Distinct Detects	7	Number of Distinct Non-Detects	2					
1806				Minimum Detect	200	Minimum Non-Detect	125					
1807				Maximum Detect	650	Maximum Non-Detect	650					
1808				Variance Detects	23555	Percent Non-Detects	20%					
1809				Mean Detects	391.3	SD Detects	153.5					

1810					Median Detects	385					CV Detects	0.392
1811					Skewness Detects	0.44					Kurtosis Detects	-0.738
1812					Mean of Logged Detects	5.899					SD of Logged Detects	0.405
1813												
1814					**Normal GOF Test on Detects Only**							
1815					Shapiro Wilk Test Statistic	0.952					**Shapiro Wilk GOF Test**	
1816					1% Shapiro Wilk Critical Value	0.749					Detected Data appear Normal at 1% Significance Level	
1817					Lilliefors Test Statistic	0.179					**Lilliefors GOF Test**	
1818					1% Lilliefors Critical Value	0.333					Detected Data appear Normal at 1% Significance Level	
1819					**Detected Data appear Normal at 1% Significance Level**							
1820					**Note GOF tests may be unreliable for small sample sizes**							
1821												
1822					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
1823					KM Mean	358.1					KM Standard Error of Mean	55.01
1824					90KM SD	156.8					95% KM (BCA) UCL	438.6
1825					95% KM (t) UCL	458.9					95% KM (Percentile Bootstrap) UCL	443
1826					95% KM (z) UCL	448.5					95% KM Bootstrap t UCL	472.6
1827					90% KM Chebyshev UCL	523.1					95% KM Chebyshev UCL	597.8
1828					97.5% KM Chebyshev UCL	701.6					99% KM Chebyshev UCL	905.4
1829												
1830					**Gamma GOF Tests on Detected Observations Only**							
1831					A-D Test Statistic	0.242					**Anderson-Darling GOF Test**	
1832					5% A-D Critical Value	0.717					Detected data appear Gamma Distributed at 5% Significance Level	
1833					K-S Test Statistic	0.193					**Kolmogorov-Smirnov GOF**	
1834					5% K-S Critical Value	0.295					Detected data appear Gamma Distributed at 5% Significance Level	
1835					**Detected data appear Gamma Distributed at 5% Significance Level**							
1836					**Note GOF tests may be unreliable for small sample sizes**							
1837												
1838					**Gamma Statistics on Detected Data Only**							
1839					k hat (MLE)	7.32					k star (bias corrected MLE)	4.659
1840					Theta hat (MLE)	53.45					Theta star (bias corrected MLE)	83.98
1841					nu hat (MLE)	117.1					nu star (bias corrected)	74.54
1842					Mean (detects)	391.3						
1843												
1844					**Gamma ROS Statistics using Imputed Non-Detects**							
1845					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
1846					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
1847					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
1848					This is especially true when the sample size is small.							
1849					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
1850					Minimum	119					Mean	356.8
1851					Maximum	650					Median	329.4
1852					SD	160.7					CV	0.45
1853					k hat (MLE)	5.009					k star (bias corrected MLE)	3.573
1854					Theta hat (MLE)	71.23					Theta star (bias corrected MLE)	99.86
1855					nu hat (MLE)	100.2					nu star (bias corrected)	71.45
1856					Adjusted Level of Significance (β)	0.0267						
1857					Approximate Chi Square Value (71.45, α)	52.99					Adjusted Chi Square Value (71.45, β)	50.24
1858					95% Gamma Approximate UCL	481.1					95% Gamma Adjusted UCL	507.5
1859												
1860					**Estimates of Gamma Parameters using KM Estimates**							
1861					Mean (KM)	358.1					SD (KM)	156.8
1862					Variance (KM)	24587					SE of Mean (KM)	55.01
1863					k hat (KM)	5.215					k star (KM)	3.717
1864					nu hat (KM)	104.3					nu star (KM)	74.34
1865					theta hat (KM)	68.67					theta star (KM)	96.33
1866					80% gamma percentile (KM)	497.9					90% gamma percentile (KM)	607.1
1867					95% gamma percentile (KM)	707.8					99% gamma percentile (KM)	923.9
1868												
1869					**Gamma Kaplan-Meier (KM) Statistics**							
1870					Approximate Chi Square Value (74.34, α)	55.48					Adjusted Chi Square Value (74.34, β)	52.66
1871					95% KM Approximate Gamma UCL	479.8					95% KM Adjusted Gamma UCL	505.5
1872												
1873					**Lognormal GOF Test on Detected Observations Only**							
1874					Shapiro Wilk Test Statistic	0.96					**Shapiro Wilk GOF Test**	
1875					10% Shapiro Wilk Critical Value	0.851					Detected Data appear Lognormal at 10% Significance Level	
1876					Lilliefors Test Statistic	0.174					**Lilliefors GOF Test**	

1877				10% Lilliefors Critical Value		0.265	Detected Data appear Lognormal at 10% Significance Level					
1878	**Detected Data appear Lognormal at 10% Significance Level**											
1879	**Note GOF tests may be unreliable for small sample sizes**											
1880												
1881	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1882				Mean in Original Scale		358.5				Mean in Log Scale		5.792
1883				SD in Original Scale		156.5				SD in Log Scale		0.456
1884			95% t UCL (assumes normality of ROS data)			449.2				95% Percentile Bootstrap UCL		440.1
1885				95% BCA Bootstrap UCL		444.6				95% Bootstrap t UCL		464.7
1886				95% H-UCL (Log ROS)		505						
1887												
1888	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1889				KM Mean (logged)		5.772				KM Geo Mean		321.1
1890				KM SD (logged)		0.487				95% Critical H Value (KM-Log)		2.202
1891			KM Standard Error of Mean (logged)			0.172				95% H-UCL (KM -Log)		517.2
1892				KM SD (logged)		0.487				95% Critical H Value (KM-Log)		2.202
1893			KM Standard Error of Mean (logged)			0.172						
1894												
1895	**DL/2 Statistics**											
1896	**DL/2 Normal**						**DL/2 Log-Transformed**					
1897				Mean in Original Scale		351.8				Mean in Log Scale		5.711
1898				SD in Original Scale		170.5				SD in Log Scale		0.66
1899				95% t UCL (Assumes normality)		450.6				95% H-Stat UCL		646.3
1900	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
1901												
1902	**Nonparametric Distribution Free UCL Statistics**											
1903	**Detected Data appear Normal Distributed at 1% Significance Level**											
1904												
1905	**Suggested UCL to Use**											
1906				95% KM (t) UCL		458.9						
1907												
1908	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1909	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
1910	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
1911												
1912	**Dibenzo[a,h]anthracene**											
1913												
1914	**General Statistics**											
1915				Total Number of Observations		10				Number of Distinct Observations		10
1916										Number of Missing Observations		18
1917				Number of Detects		5				Number of Non-Detects		5
1918				Number of Distinct Detects		5				Number of Distinct Non-Detects		5
1919				Minimum Detect		63				Minimum Non-Detect		125
1920				Maximum Detect		290				Maximum Non-Detect		650
1921				Variance Detects		8894				Percent Non-Detects		50%
1922				Mean Detects		122.8				SD Detects		94.31
1923				Median Detects		87				CV Detects		0.768
1924				Skewness Detects		2.137				Kurtosis Detects		4.654
1925				Mean of Logged Detects		4.639				SD of Logged Detects		0.598
1926												
1927	**Normal GOF Test on Detects Only**											
1928				Shapiro Wilk Test Statistic		0.681	**Shapiro Wilk GOF Test**					
1929				1% Shapiro Wilk Critical Value		0.686	Detected Data Not Normal at 1% Significance Level					
1930				Lilliefors Test Statistic		0.408	**Lilliefors GOF Test**					
1931				1% Lilliefors Critical Value		0.396	Detected Data Not Normal at 1% Significance Level					
1932	**Detected Data Not Normal at 1% Significance Level**											
1933												
1934	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
1935				KM Mean		107.1				KM Standard Error of Mean		28.01
1936				90KM SD		70.11				95% KM (BCA) UCL		156.9
1937				95% KM (t) UCL		158.5				95% KM (Percentile Bootstrap) UCL		154.7
1938				95% KM (z) UCL		153.2				95% KM Bootstrap t UCL		291.5
1939				90% KM Chebyshev UCL		191.1				95% KM Chebyshev UCL		229.2
1940				97.5% KM Chebyshev UCL		282				99% KM Chebyshev UCL		385.8
1941												
1942	**Gamma GOF Tests on Detected Observations Only**											
1943				A-D Test Statistic		0.735	**Anderson-Darling GOF Test**					

1944				5% A-D Critical Value	0.683	Detected Data Not Gamma Distributed at 5% Significance Level						
1945				K-S Test Statistic	0.381	**Kolmogorov-Smirnov GOF**						
1946				5% K-S Critical Value	0.359	Detected Data Not Gamma Distributed at 5% Significance Level						
1947	**Detected Data Not Gamma Distributed at 5% Significance Level**											
1948												
1949	**Gamma Statistics on Detected Data Only**											
1950				k hat (MLE)	3.079	k star (bias corrected MLE)	1.365					
1951				Theta hat (MLE)	39.88	Theta star (bias corrected MLE)	89.96					
1952				nu hat (MLE)	30.79	nu star (bias corrected)	13.65					
1953				Mean (detects)	122.8							
1954												
1955	**Gamma ROS Statistics using Imputed Non-Detects**											
1956	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
1957	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
1958	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
1959	This is especially true when the sample size is small.											
1960	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
1961				Minimum	63	Mean	106.3					
1962				Maximum	290	Median	85.96					
1963				SD	65.38	CV	0.615					
1964				k hat (MLE)	5.223	k star (bias corrected MLE)	3.722					
1965				Theta hat (MLE)	20.36	Theta star (bias corrected MLE)	28.57					
1966				nu hat (MLE)	104.5	nu star (bias corrected)	74.45					
1967				Adjusted Level of Significance (β)	0.0267							
1968				Approximate Chi Square Value (74.45, α)	55.58	Adjusted Chi Square Value (74.45, β)	52.75					
1969				95% Gamma Approximate UCL	142.5	95% Gamma Adjusted UCL	150.1					
1970												
1971	**Estimates of Gamma Parameters using KM Estimates**											
1972				Mean (KM)	107.1	SD (KM)	70.11					
1973				Variance (KM)	4916	SE of Mean (KM)	28.01					
1974				k hat (KM)	2.334	k star (KM)	1.701					
1975				nu hat (KM)	46.69	nu star (KM)	34.02					
1976				theta hat (KM)	45.89	theta star (KM)	62.99					
1977				80% gamma percentile (KM)	163.4	90% gamma percentile (KM)	216.5					
1978				95% gamma percentile (KM)	267.7	99% gamma percentile (KM)	382.3					
1979												
1980	**Gamma Kaplan-Meier (KM) Statistics**											
1981				Approximate Chi Square Value (34.02, α)	21.68	Adjusted Chi Square Value (34.02, β)	19.98					
1982				95% KM Approximate Gamma UCL	168.1	95% KM Adjusted Gamma UCL	182.4					
1983												
1984	**Lognormal GOF Test on Detected Observations Only**											
1985				Shapiro Wilk Test Statistic	0.801	**Shapiro Wilk GOF Test**						
1986				10% Shapiro Wilk Critical Value	0.806	Detected Data Not Lognormal at 10% Significance Level						
1987				Lilliefors Test Statistic	0.343	**Lilliefors GOF Test**						
1988				10% Lilliefors Critical Value	0.319	Detected Data Not Lognormal at 10% Significance Level						
1989	**Detected Data Not Lognormal at 10% Significance Level**											
1990												
1991	**Lognormal ROS Statistics Using Imputed Non-Detects**											
1992				Mean in Original Scale	105.9	Mean in Log Scale	4.563					
1993				SD in Original Scale	65.43	SD in Log Scale	0.408					
1994				95% t UCL (assumes normality of ROS data)	143.8	95% Percentile Bootstrap UCL	146.6					
1995				95% BCA Bootstrap UCL	166.4	95% Bootstrap t UCL	299.9					
1996				95% H-UCL (Log ROS)	138.6							
1997												
1998	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
1999				KM Mean (logged)	4.543	KM Geo Mean	93.96					
2000				KM SD (logged)	0.452	95% Critical H Value (KM-Log)	2.154					
2001				KM Standard Error of Mean (logged)	0.186	95% H-UCL (KM -Log)	143.9					
2002				KM SD (logged)	0.452	95% Critical H Value (KM-Log)	2.154					
2003				KM Standard Error of Mean (logged)	0.186							
2004												
2005	**DL/2 Statistics**											
2006	**DL/2 Normal**					**DL/2 Log-Transformed**						
2007				Mean in Original Scale	130.7	Mean in Log Scale	4.674					
2008				SD in Original Scale	97.98	SD in Log Scale	0.621					
2009				95% t UCL (Assumes normality)	187.4	95% H-Stat UCL	213.5					
2010	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											

	A	B	C	D	E	F	G	H	I	J	K	L
2011												
2012	**Nonparametric Distribution Free UCL Statistics**											
2013	**Data do not follow a Discernible Distribution**											
2014												
2015	**Suggested UCL to Use**											
2016					95% KM (t) UCL	158.5						
2017												
2018	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2019	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2020	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2021												
2022												
2023	**Di-n-butylphthalate**											
2024												
2025	**General Statistics**											
2026					Total Number of Observations	1			Number of Distinct Observations	1		
2027									Number of Missing Observations	0		
2028					Minimum	180			Mean	180		
2029					Maximum	180			Median	180		
2030												
2031	**Warning: This data set only has 1 observations!**											
2032	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
2033	**The data set for variable Di-n-butylphthalate was not processed!**											
2034												
2035	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
2036	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
2037												
2038												
2039												
2040	**Di-n-octylphthalate**											
2041												
2042	**General Statistics**											
2043					Total Number of Observations	1			Number of Distinct Observations	1		
2044									Number of Missing Observations	0		
2045					Minimum	86			Mean	86		
2046					Maximum	86			Median	86		
2047												
2048	**Warning: This data set only has 1 observations!**											
2049	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
2050	**The data set for variable Di-n-octylphthalate was not processed!**											
2051												
2052	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
2053	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
2054												
2055												
2056	**Fluoranthene**											
2057												
2058	**General Statistics**											
2059					Total Number of Observations	10			Number of Distinct Observations	10		
2060									Number of Missing Observations	18		
2061					Number of Detects	9			Number of Non-Detects	1		
2062					Number of Distinct Detects	9			Number of Distinct Non-Detects	1		
2063					Minimum Detect	230			Minimum Non-Detect	125		
2064					Maximum Detect	980			Maximum Non-Detect	125		
2065					Variance Detects	80719			Percent Non-Detects	10%		
2066					Mean Detects	522.2			SD Detects	284.1		
2067					Median Detects	450			CV Detects	0.544		
2068					Skewness Detects	0.495			Kurtosis Detects	-1.478		
2069					Mean of Logged Detects	6.12			SD of Logged Detects	0.563		
2070												
2071	**Normal GOF Test on Detects Only**											
2072					Shapiro Wilk Test Statistic	0.882			**Shapiro Wilk GOF Test**			
2073					1% Shapiro Wilk Critical Value	0.764			Detected Data appear Normal at 1% Significance Level			
2074					Lilliefors Test Statistic	0.227			**Lilliefors GOF Test**			
2075					1% Lilliefors Critical Value	0.316			Detected Data appear Normal at 1% Significance Level			
2076	**Detected Data appear Normal at 1% Significance Level**											
2077	**Note GOF tests may be unreliable for small sample sizes**											

2078												
2079	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
2080					KM Mean	482.5			KM Standard Error of Mean	94.14		
2081					90KM SD	280.7			95% KM (BCA) UCL	632.5		
2082					95% KM (t) UCL	655.1			95% KM (Percentile Bootstrap) UCL	638		
2083					95% KM (z) UCL	637.3			95% KM Bootstrap t UCL	695.2		
2084					90% KM Chebyshev UCL	764.9			95% KM Chebyshev UCL	892.8		
2085					97.5% KM Chebyshev UCL	1070			99% KM Chebyshev UCL	1419		
2086												
2087	**Gamma GOF Tests on Detected Observations Only**											
2088					A-D Test Statistic	0.494			**Anderson-Darling GOF Test**			
2089					5% A-D Critical Value	0.725			Detected data appear Gamma Distributed at 5% Significance Level			
2090					K-S Test Statistic	0.235			**Kolmogorov-Smirnov GOF**			
2091					5% K-S Critical Value	0.281			Detected data appear Gamma Distributed at 5% Significance Level			
2092	**Detected data appear Gamma Distributed at 5% Significance Level**											
2093	**Note GOF tests may be unreliable for small sample sizes**											
2094												
2095	**Gamma Statistics on Detected Data Only**											
2096					k hat (MLE)	3.777			k star (bias corrected MLE)	2.592		
2097					Theta hat (MLE)	138.3			Theta star (bias corrected MLE)	201.5		
2098					nu hat (MLE)	67.98			nu star (bias corrected)	46.65		
2099					Mean (detects)	522.2						
2100												
2101	**Gamma ROS Statistics using Imputed Non-Detects**											
2102	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
2103	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
2104	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
2105	This is especially true when the sample size is small.											
2106	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
2107					Minimum	11.39			Mean	471.1		
2108					Maximum	980			Median	375		
2109					SD	312.8			CV	0.664		
2110					k hat (MLE)	1.381			k star (bias corrected MLE)	1.033		
2111					Theta hat (MLE)	341.3			Theta star (bias corrected MLE)	456.1		
2112					nu hat (MLE)	27.61			nu star (bias corrected)	20.66		
2113					Adjusted Level of Significance (β)	0.0267						
2114					Approximate Chi Square Value (20.66, α)	11.34			Adjusted Chi Square Value (20.66, β)	10.16		
2115					95% Gamma Approximate UCL	858.4			95% Gamma Adjusted UCL	958.1		
2116												
2117	**Estimates of Gamma Parameters using KM Estimates**											
2118					Mean (KM)	482.5			SD (KM)	280.7		
2119					Variance (KM)	78776			SE of Mean (KM)	94.14		
2120					k hat (KM)	2.955			k star (KM)	2.135		
2121					nu hat (KM)	59.11			nu star (KM)	42.71		
2122					theta hat (KM)	163.3			theta star (KM)	226		
2123					80% gamma percentile (KM)	716.8			90% gamma percentile (KM)	924.1		
2124					95% gamma percentile (KM)	1121			99% gamma percentile (KM)	1556		
2125												
2126	**Gamma Kaplan-Meier (KM) Statistics**											
2127					Approximate Chi Square Value (42.71, α)	28.72			Adjusted Chi Square Value (42.71, β)	26.74		
2128					95% KM Approximate Gamma UCL	717.4			95% KM Adjusted Gamma UCL	770.5		
2129												
2130	**Lognormal GOF Test on Detected Observations Only**											
2131					Shapiro Wilk Test Statistic	0.892			**Shapiro Wilk GOF Test**			
2132					10% Shapiro Wilk Critical Value	0.859			Detected Data appear Lognormal at 10% Significance Level			
2133					Lilliefors Test Statistic	0.214			**Lilliefors GOF Test**			
2134					10% Lilliefors Critical Value	0.252			Detected Data appear Lognormal at 10% Significance Level			
2135	**Detected Data appear Lognormal at 10% Significance Level**											
2136	**Note GOF tests may be unreliable for small sample sizes**											
2137												
2138	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2139					Mean in Original Scale	481.6			Mean in Log Scale	5.983		
2140					SD in Original Scale	297.1			SD in Log Scale	0.685		
2141					95% t UCL (assumes normality of ROS data)	653.8			95% Percentile Bootstrap UCL	633		
2142					95% BCA Bootstrap UCL	639.6			95% Bootstrap t UCL	681.5		
2143					95% H-UCL (Log ROS)	889.2						
2144												

2145	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2146					KM Mean (logged)	5.991				KM Geo Mean	399.7	
2147					KM SD (logged)	0.636				95% Critical H Value (KM-Log)	2.424	
2148					KM Standard Error of Mean (logged)	0.213				95% H-UCL (KM -Log)	817.5	
2149					KM SD (logged)	0.636				95% Critical H Value (KM-Log)	2.424	
2150					KM Standard Error of Mean (logged)	0.213						
2151												
2152	**DL/2 Statistics**											
2153				**DL/2 Normal**					**DL/2 Log-Transformed**			
2154					Mean in Original Scale	476.3				Mean in Log Scale	5.921	
2155					SD in Original Scale	304.8				SD in Log Scale	0.822	
2156					95% t UCL (Assumes normality)	652.9				95% H-Stat UCL	1111	
2157	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2158												
2159	**Nonparametric Distribution Free UCL Statistics**											
2160	**Detected Data appear Normal Distributed at 1% Significance Level**											
2161												
2162	**Suggested UCL to Use**											
2163					95% KM (t) UCL	655.1						
2164												
2165	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2166	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2167	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2168												
2169	**Fluorene**											
2170												
2171	**General Statistics**											
2172					Total Number of Observations	10				Number of Distinct Observations	9	
2173										Number of Missing Observations	18	
2174					Number of Detects	1				Number of Non-Detects	9	
2175					Number of Distinct Detects	1				Number of Distinct Non-Detects	8	
2176												
2177	**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**											
2178	**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**											
2179												
2180	**The data set for variable Fluorene was not processed!**											
2181												
2182												
2183												
2184	**Indeno[1,2,3-cd]pyrene**											
2185												
2186	**General Statistics**											
2187					Total Number of Observations	2				Number of Distinct Observations	2	
2188										Number of Missing Observations	7	
2189					Minimum	93				Mean	211.5	
2190					Maximum	330				Median	211.5	
2191												
2192	**Warning: This data set only has 2 observations!**											
2193	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
2194	**The data set for variable Indeno[1,2,3-cd]pyrene was not processed!**											
2195												
2196	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
2197	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
2198												
2199												
2200	**Phenanthrene**											
2201												
2202	**General Statistics**											
2203					Total Number of Observations	10				Number of Distinct Observations	8	
2204										Number of Missing Observations	18	
2205					Number of Detects	9				Number of Non-Detects	1	
2206					Number of Distinct Detects	7				Number of Distinct Non-Detects	1	
2207					Minimum Detect	140				Minimum Non-Detect	125	
2208					Maximum Detect	880				Maximum Non-Detect	125	
2209					Variance Detects	55900				Percent Non-Detects	10%	
2210					Mean Detects	336.7				SD Detects	236.4	
2211					Median Detects	280				CV Detects	0.702	

2212				Skewness Detects		1.677				Kurtosis Detects		3.292
2213				Mean of Logged Detects		5.632				SD of Logged Detects		0.632
2214												
2215				**Normal GOF Test on Detects Only**								
2216				Shapiro Wilk Test Statistic		0.806				**Shapiro Wilk GOF Test**		
2217				1% Shapiro Wilk Critical Value		0.764				Detected Data appear Normal at 1% Significance Level		
2218				Lilliefors Test Statistic		0.22				**Lilliefors GOF Test**		
2219				1% Lilliefors Critical Value		0.316				Detected Data appear Normal at 1% Significance Level		
2220				**Detected Data appear Normal at 1% Significance Level**								
2221				**Note GOF tests may be unreliable for small sample sizes**								
2222												
2223				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
2224				KM Mean		315.5				KM Standard Error of Mean		74.06
2225				90KM SD		220.8				95% KM (BCA) UCL		434
2226				95% KM (t) UCL		451.3				95% KM (Percentile Bootstrap) UCL		436
2227				95% KM (z) UCL		437.3				95% KM Bootstrap t UCL		548.6
2228				90% KM Chebyshev UCL		537.7				95% KM Chebyshev UCL		638.3
2229				97.5% KM Chebyshev UCL		778				99% KM Chebyshev UCL		1052
2230												
2231				**Gamma GOF Tests on Detected Observations Only**								
2232				A-D Test Statistic		0.444				**Anderson-Darling GOF Test**		
2233				5% A-D Critical Value		0.727				Detected data appear Gamma Distributed at 5% Significance Level		
2234				K-S Test Statistic		0.193				**Kolmogorov-Smirnov GOF**		
2235				5% K-S Critical Value		0.282				Detected data appear Gamma Distributed at 5% Significance Level		
2236				**Detected data appear Gamma Distributed at 5% Significance Level**								
2237				**Note GOF tests may be unreliable for small sample sizes**								
2238												
2239				**Gamma Statistics on Detected Data Only**								
2240				k hat (MLE)		2.831				k star (bias corrected MLE)		1.961
2241				Theta hat (MLE)		118.9				Theta star (bias corrected MLE)		171.6
2242				nu hat (MLE)		50.96				nu star (bias corrected)		35.31
2243				Mean (detects)		336.7						
2244												
2245				**Gamma ROS Statistics using Imputed Non-Detects**								
2246				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
2247				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
2248				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
2249				This is especially true when the sample size is small.								
2250				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
2251				Minimum		0.01				Mean		303
2252				Maximum		880				Median		235
2253				SD		247				CV		0.815
2254				k hat (MLE)		0.564				k star (bias corrected MLE)		0.462
2255				Theta hat (MLE)		537.1				Theta star (bias corrected MLE)		656.4
2256				nu hat (MLE)		11.28				nu star (bias corrected)		9.232
2257				Adjusted Level of Significance (β)		0.0267						
2258				Approximate Chi Square Value (9.23, α)		3.468				Adjusted Chi Square Value (9.23, β)		2.882
2259				95% Gamma Approximate UCL		806.7				95% Gamma Adjusted UCL		970.8
2260												
2261				**Estimates of Gamma Parameters using KM Estimates**								
2262				Mean (KM)		315.5				SD (KM)		220.8
2263				Variance (KM)		48752				SE of Mean (KM)		74.06
2264				k hat (KM)		2.042				k star (KM)		1.496
2265				nu hat (KM)		40.84				nu star (KM)		29.92
2266				theta hat (KM)		154.5				theta star (KM)		210.9
2267				80% gamma percentile (KM)		488.3				90% gamma percentile (KM)		657.9
2268				95% gamma percentile (KM)		822.6				99% gamma percentile (KM)		1195
2269												
2270				**Gamma Kaplan-Meier (KM) Statistics**								
2271				Approximate Chi Square Value (29.92, α)		18.43				Adjusted Chi Square Value (29.92, β)		16.88
2272				95% KM Approximate Gamma UCL		512.2				95% KM Adjusted Gamma UCL		559.3
2273												
2274				**Lognormal GOF Test on Detected Observations Only**								
2275				Shapiro Wilk Test Statistic		0.91				**Shapiro Wilk GOF Test**		
2276				10% Shapiro Wilk Critical Value		0.859				Detected Data appear Lognormal at 10% Significance Level		
2277				Lilliefors Test Statistic		0.173				**Lilliefors GOF Test**		
2278				10% Lilliefors Critical Value		0.252				Detected Data appear Lognormal at 10% Significance Level		

2279	**Detected Data appear Lognormal at 10% Significance Level**											
2280	**Note GOF tests may be unreliable for small sample sizes**											
2281												
2282	**Lognormal ROS Statistics Using Imputed Non-Detects**											
2283					Mean in Original Scale	309				Mean in Log Scale	5.478	
2284					SD in Original Scale	239.5				SD in Log Scale	0.77	
2285				95% t UCL (assumes normality of ROS data)		447.8				95% Percentile Bootstrap UCL	438	
2286					95% BCA Bootstrap UCL	470				95% Bootstrap t UCL	520.8	
2287					95% H-UCL (Log ROS)	635.9						
2288												
2289	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
2290					KM Mean (logged)	5.552				KM Geo Mean	257.7	
2291					KM SD (logged)	0.614				95% Critical H Value (KM-Log)	2.391	
2292					KM Standard Error of Mean (logged)	0.206				95% H-UCL (KM -Log)	507.9	
2293					KM SD (logged)	0.614				95% Critical H Value (KM-Log)	2.391	
2294					KM Standard Error of Mean (logged)	0.206						
2295												
2296	**DL/2 Statistics**											
2297	**DL/2 Normal**									**DL/2 Log-Transformed**		
2298					Mean in Original Scale	309.3				Mean in Log Scale	5.483	
2299					SD in Original Scale	239.2				SD in Log Scale	0.761	
2300					95% t UCL (Assumes normality)	447.9				95% H-Stat UCL	627.3	
2301	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
2302												
2303	**Nonparametric Distribution Free UCL Statistics**											
2304	**Detected Data appear Normal Distributed at 1% Significance Level**											
2305												
2306	**Suggested UCL to Use**											
2307					95% KM (t) UCL	451.3						
2308												
2309	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2310	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2311	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2312												
2313												
2314	**Pyrene**											
2315												
2316	**General Statistics**											
2317					Total Number of Observations	10				Number of Distinct Observations	10	
2318										Number of Missing Observations	18	
2319					Minimum	64				Mean	638.4	
2320					Maximum	1300				Median	680	
2321					SD	347.8				Std. Error of Mean	110	
2322					Coefficient of Variation	0.545				Skewness	0.159	
2323												
2324	**Normal GOF Test**											
2325					Shapiro Wilk Test Statistic	0.969				**Shapiro Wilk GOF Test**		
2326					1% Shapiro Wilk Critical Value	0.781				Data appear Normal at 1% Significance Level		
2327					Lilliefors Test Statistic	0.153				**Lilliefors GOF Test**		
2328					1% Lilliefors Critical Value	0.304				Data appear Normal at 1% Significance Level		
2329	**Data appear Normal at 1% Significance Level**											
2330												
2331	**Assuming Normal Distribution**											
2332	**95% Normal UCL**									**95% UCLs (Adjusted for Skewness)**		
2333					95% Student's-t UCL	840				95% Adjusted-CLT UCL (Chen-1995)	825.2	
2334										95% Modified-t UCL (Johnson-1978)	840.9	
2335												
2336	**Gamma GOF Test**											
2337					A-D Test Statistic	0.512				**Anderson-Darling Gamma GOF Test**		
2338					5% A-D Critical Value	0.734				Detected data appear Gamma Distributed at 5% Significance Level		
2339					K-S Test Statistic	0.24				**Kolmogorov-Smirnov Gamma GOF Test**		
2340					5% K-S Critical Value	0.269				Detected data appear Gamma Distributed at 5% Significance Level		
2341	**Detected data appear Gamma Distributed at 5% Significance Level**											
2342												
2343	**Gamma Statistics**											
2344					k hat (MLE)	2.368				k star (bias corrected MLE)	1.724	
2345					Theta hat (MLE)	269.6				Theta star (bias corrected MLE)	370.3	

2346					nu hat (MLE)	47.36				nu star (bias corrected)		34.48
2347					MLE Mean (bias corrected)	638.4				MLE Sd (bias corrected)		486.2
2348										Approximate Chi Square Value (0.05)		22.05
2349					Adjusted Level of Significance	0.0267				Adjusted Chi Square Value		20.34
2350												
2351					**Assuming Gamma Distribution**							
2352					95% Approximate Gamma UCL	998.3				95% Adjusted Gamma UCL		1082
2353												
2354					**Lognormal GOF Test**							
2355					Shapiro Wilk Test Statistic	0.822				**Shapiro Wilk Lognormal GOF Test**		
2356					10% Shapiro Wilk Critical Value	0.869				Data Not Lognormal at 10% Significance Level		
2357					Lilliefors Test Statistic	0.268				**Lilliefors Lognormal GOF Test**		
2358					10% Lilliefors Critical Value	0.241				Data Not Lognormal at 10% Significance Level		
2359					**Data Not Lognormal at 10% Significance Level**							
2360												
2361					**Lognormal Statistics**							
2362					Minimum of Logged Data	4.159				Mean of logged Data		6.233
2363					Maximum of Logged Data	7.17				SD of logged Data		0.854
2364												
2365					**Assuming Lognormal Distribution**							
2366					95% H-UCL	1633				90% Chebyshev (MVUE) UCL		1291
2367					95% Chebyshev (MVUE) UCL	1559				97.5% Chebyshev (MVUE) UCL		1930
2368					99% Chebyshev (MVUE) UCL	2660						
2369												
2370					**Nonparametric Distribution Free UCL Statistics**							
2371					**Data appear to follow a Discernible Distribution**							
2372												
2373					**Nonparametric Distribution Free UCLs**							
2374					95% CLT UCL	819.3				95% BCA Bootstrap UCL		820
2375					95% Standard Bootstrap UCL	812.2				95% Bootstrap-t UCL		854
2376					95% Hall's Bootstrap UCL	865.3				95% Percentile Bootstrap UCL		806
2377					90% Chebyshev(Mean, Sd) UCL	968.4				95% Chebyshev(Mean, Sd) UCL		1118
2378					97.5% Chebyshev(Mean, Sd) UCL	1325				99% Chebyshev(Mean, Sd) UCL		1733
2379												
2380					**Suggested UCL to Use**							
2381					95% Student's-t UCL	840						
2382												
2383	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
2384	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
2385	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
2386												

1	**UCL Statistics for Data Sets with Non-Detects**											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.2 8/7/2025 1:16:30 PM								
5	From File			SW Eastern Tributary								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	**Lead**											
11												
12	**General Statistics**											
13	Total Number of Observations				16			Number of Distinct Observations			12	
14								Number of Missing Observations			7	
15	Number of Detects				10			Number of Non-Detects			6	
16	Number of Distinct Detects				10			Number of Distinct Non-Detects			2	
17	Minimum Detect				0.54			Minimum Non-Detect			4.4	
18	Maximum Detect				35.6			Maximum Non-Detect			10	
19	Variance Detects				145.2			Percent Non-Detects			37.5%	
20	Mean Detects				12.73			SD Detects			12.05	
21	Median Detects				10.6			CV Detects			0.946	
22	Skewness Detects				0.73			Kurtosis Detects			-0.473	
23	Mean of Logged Detects				1.849			SD of Logged Detects			1.469	
24												
25	**Normal GOF Test on Detects Only**											
26	Shapiro Wilk Test Statistic				0.899			**Shapiro Wilk GOF Test**				
27	1% Shapiro Wilk Critical Value				0.781			Detected Data appear Normal at 1% Significance Level				
28	Lilliefors Test Statistic				0.202			**Lilliefors GOF Test**				
29	1% Lilliefors Critical Value				0.304			Detected Data appear Normal at 1% Significance Level				
30	**Detected Data appear Normal at 1% Significance Level**											
31												
32	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
33	KM Mean				8.525			KM Standard Error of Mean			2.788	
34	90KM SD				10.56			95% KM (BCA) UCL			13.61	
35	95% KM (t) UCL				13.41			95% KM (Percentile Bootstrap) UCL			13.29	
36	95% KM (z) UCL				13.11			95% KM Bootstrap t UCL			15.67	
37	90% KM Chebyshev UCL				16.89			95% KM Chebyshev UCL			20.68	
38	97.5% KM Chebyshev UCL				25.94			99% KM Chebyshev UCL			36.27	
39												
40	**Gamma GOF Tests on Detected Observations Only**											
41	A-D Test Statistic				0.363			**Anderson-Darling GOF Test**				
42	5% A-D Critical Value				0.754			Detected data appear Gamma Distributed at 5% Significance Level				
43	K-S Test Statistic				0.185			**Kolmogorov-Smirnov GOF**				
44	5% K-S Critical Value				0.275			Detected data appear Gamma Distributed at 5% Significance Level				
45	**Detected data appear Gamma Distributed at 5% Significance Level**											
46												
47	**Gamma Statistics on Detected Data Only**											
48	k hat (MLE)				0.847			k star (bias corrected MLE)			0.66	
49	Theta hat (MLE)				15.03			Theta star (bias corrected MLE)			19.3	
50	nu hat (MLE)				16.95			nu star (bias corrected)			13.2	
51	Mean (detects)				12.73							
52												
53	**Gamma ROS Statistics using Imputed Non-Detects**											
54	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
55	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
56	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
57	This is especially true when the sample size is small.											
58	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
59	Minimum				0.01			Mean			8.646	
60	Maximum				35.6			Median			2.814	
61	SD				10.88			CV			1.259	
62	k hat (MLE)				0.464			k star (bias corrected MLE)			0.419	
63	Theta hat (MLE)				18.63			Theta star (bias corrected MLE)			20.65	
64	nu hat (MLE)				14.85			nu star (bias corrected)			13.4	
65	Adjusted Level of Significance (β)				0.0335							
66	Approximate Chi Square Value (13.40, α)				6.163			Adjusted Chi Square Value (13.40, β)			5.612	
67	95% Gamma Approximate UCL				18.8			95% Gamma Adjusted UCL			20.64	

Estimates of Gamma Parameters using KM Estimates		
Mean (KM)	8.525	SD (KM) 10.56
Variance (KM)	111.4	SE of Mean (KM) 2.788
k hat (KM)	0.652	k star (KM) 0.572
nu hat (KM)	20.87	nu star (KM) 18.29
theta hat (KM)	13.07	theta star (KM) 14.92
80% gamma percentile (KM)	14.05	90% gamma percentile (KM) 22.41
95% gamma percentile (KM)	31.22	99% gamma percentile (KM) 52.6
Gamma Kaplan-Meier (KM) Statistics		
Approximate Chi Square Value (18.29, α)	9.601	Adjusted Chi Square Value (18.29, β) 8.89
95% KM Approximate Gamma UCL	16.24	95% KM Adjusted Gamma UCL 17.54
Lognormal GOF Test on Detected Observations Only		
Shapiro Wilk Test Statistic	0.909	**Shapiro Wilk GOF Test**
10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.226	**Lilliefors GOF Test**
10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level
Detected Data appear Lognormal at 10% Significance Level		
Lognormal ROS Statistics Using Imputed Non-Detects		
Mean in Original Scale	8.635	Mean in Log Scale 1.297
SD in Original Scale	10.84	SD in Log Scale 1.424
95% t UCL (assumes normality of ROS data)	13.39	95% Percentile Bootstrap UCL 13.13
95% BCA Bootstrap UCL	13.9	95% Bootstrap t UCL 15.62
95% H-UCL (Log ROS)	35.33	
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution		
KM Mean (logged)	1.253	KM Geo Mean 3.501
KM SD (logged)	1.391	95% Critical H Value (KM-Log) 3.35
KM Standard Error of Mean (logged)	0.396	95% H-UCL (KM -Log) 30.67
KM SD (logged)	1.391	95% Critical H Value (KM-Log) 3.35
KM Standard Error of Mean (logged)	0.396	
DL/2 Statistics		
DL/2 Normal		**DL/2 Log-Transformed**
Mean in Original Scale	8.959	Mean in Log Scale 1.503
SD in Original Scale	10.63	SD in Log Scale 1.243
95% t UCL (Assumes normality)	13.62	95% H-Stat UCL 26.29
DL/2 is not a recommended method, provided for comparisons and historical reasons		
Nonparametric Distribution Free UCL Statistics		
Detected Data appear Normal Distributed at 1% Significance Level		
Suggested UCL to Use		
95% KM (t) UCL	13.41	

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Zinc

General Statistics		
Total Number of Observations	16	Number of Distinct Observations 15
		Number of Missing Observations 7
Number of Detects	14	Number of Non-Detects 2
Number of Distinct Detects	14	Number of Distinct Non-Detects 1
Minimum Detect	2.1	Minimum Non-Detect 10
Maximum Detect	419	Maximum Non-Detect 10
Variance Detects	11007	Percent Non-Detects 12.5%
Mean Detects	68.31	SD Detects 104.9
Median Detects	37.9	CV Detects 1.536
Skewness Detects	3.294	Kurtosis Detects 11.49
Mean of Logged Detects	3.524	SD of Logged Detects 1.337

135	**Normal GOF Test on Detects Only**											
136					Shapiro Wilk Test Statistic	0.528	**Shapiro Wilk GOF Test**					
137					1% Shapiro Wilk Critical Value	0.825	Detected Data Not Normal at 1% Significance Level					
138					Lilliefors Test Statistic	0.36	**Lilliefors GOF Test**					
139					1% Lilliefors Critical Value	0.263	Detected Data Not Normal at 1% Significance Level					
140	**Detected Data Not Normal at 1% Significance Level**											
141												
142	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
143					KM Mean	60.06	KM Standard Error of Mean	25.18				
144					90KM SD	97.05	95% KM (BCA) UCL	107.2				
145					95% KM (t) UCL	104.2	95% KM (Percentile Bootstrap) UCL	106.4				
146					95% KM (z) UCL	101.5	95% KM Bootstrap t UCL	214.5				
147					90% KM Chebyshev UCL	135.6	95% KM Chebyshev UCL	169.8				
148					97.5% KM Chebyshev UCL	217.3	99% KM Chebyshev UCL	310.6				
149												
150	**Gamma GOF Tests on Detected Observations Only**											
151					A-D Test Statistic	1.019	**Anderson-Darling GOF Test**					
152					5% A-D Critical Value	0.767	Detected Data Not Gamma Distributed at 5% Significance Level					
153					K-S Test Statistic	0.234	**Kolmogorov-Smirnov GOF**					
154					5% K-S Critical Value	0.237	Detected data appear Gamma Distributed at 5% Significance Level					
155	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
156												
157	**Gamma Statistics on Detected Data Only**											
158					k hat (MLE)	0.842	k star (bias corrected MLE)	0.709				
159					Theta hat (MLE)	81.11	Theta star (bias corrected MLE)	96.3				
160					nu hat (MLE)	23.58	nu star (bias corrected)	19.86				
161					Mean (detects)	68.31						
162												
163	**Gamma ROS Statistics using Imputed Non-Detects**											
164	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
165	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
166	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
167	This is especially true when the sample size is small.											
168	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
169					Minimum	0.01	Mean	59.77				
170					Maximum	419	Median	34.25				
171					SD	100.4	CV	1.68				
172					k hat (MLE)	0.414	k star (bias corrected MLE)	0.378				
173					Theta hat (MLE)	144.5	Theta star (bias corrected MLE)	158.3				
174					nu hat (MLE)	13.23	nu star (bias corrected)	12.09				
175					Adjusted Level of Significance (β)	0.0335						
176					Approximate Chi Square Value (12.09, α)	5.284	Adjusted Chi Square Value (12.09, β)	4.78				
177					95% Gamma Approximate UCL	136.7	95% Gamma Adjusted UCL	151.1				
178												
179	**Estimates of Gamma Parameters using KM Estimates**											
180					Mean (KM)	60.06	SD (KM)	97.05				
181					Variance (KM)	9419	SE of Mean (KM)	25.18				
182					k hat (KM)	0.383	k star (KM)	0.353				
183					nu hat (KM)	12.26	nu star (KM)	11.29				
184					theta hat (KM)	156.8	theta star (KM)	170.2				
185					80% gamma percentile (KM)	95.23	90% gamma percentile (KM)	173.2				
186					95% gamma percentile (KM)	260.5	99% gamma percentile (KM)	482.9				
187												
188	**Gamma Kaplan-Meier (KM) Statistics**											
189					Approximate Chi Square Value (11.29, α)	4.764	Adjusted Chi Square Value (11.29, β)	4.291				
190					95% KM Approximate Gamma UCL	142.4	95% KM Adjusted Gamma UCL	158.1				
191												
192	**Lognormal GOF Test on Detected Observations Only**											
193					Shapiro Wilk Test Statistic	0.85	**Shapiro Wilk GOF Test**					
194					10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level					
195					Lilliefors Test Statistic	0.306	**Lilliefors GOF Test**					
196					10% Lilliefors Critical Value	0.208	Detected Data Not Lognormal at 10% Significance Level					
197	**Detected Data Not Lognormal at 10% Significance Level**											
198												
199	**Lognormal ROS Statistics Using Imputed Non-Detects**											
200					Mean in Original Scale	60.35	Mean in Log Scale	3.27				
201					SD in Original Scale	100.1	SD in Log Scale	1.429				

202	95% t UCL (assumes normality of ROS data)					104.2	95% Percentile Bootstrap UCL					104.7
203	95% BCA Bootstrap UCL					132.8	95% Bootstrap t UCL					214.8
204	95% H-UCL (Log ROS)					258.1						
205												
206	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
207	KM Mean (logged)					3.19	KM Geo Mean					24.28
208	KM SD (logged)					1.495	95% Critical H Value (KM-Log)					3.536
209	KM Standard Error of Mean (logged)					0.388	95% H-UCL (KM -Log)					290.9
210	KM SD (logged)					1.495	95% Critical H Value (KM-Log)					3.536
211	KM Standard Error of Mean (logged)					0.388						
212												
213	**DL/2 Statistics**											
214	**DL/2 Normal**						**DL/2 Log-Transformed**					
215	Mean in Original Scale					60.39	Mean in Log Scale					3.285
216	SD in Original Scale					100	SD in Log Scale					1.406
217	95% t UCL (Assumes normality)					104.2	95% H-Stat UCL					244.4
218	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
219												
220	**Nonparametric Distribution Free UCL Statistics**											
221	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
222												
223	**Suggested UCL to Use**											
224	95% KM Adjusted Gamma UCL					158.1						
225												
226	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
227	**Please verify the data were collected from random locations.**											
228	**If the data were collected using judgmental or other non-random methods,**											
229	**then contact a statistician to correctly calculate UCLs.**											
230												
231	When a data set follows an approximate distribution passing only one of the GOF tests,											
232	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
233												
234	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
235	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
236	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
237												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:17:00 PM
From File	SW Maintenance Dynamite East
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Copper

General Statistics

Total Number of Observations	26	Number of Distinct Observations	13
		Number of Missing Observations	24
Number of Detects	11	Number of Non-Detects	15
Number of Distinct Detects	11	Number of Distinct Non-Detects	2
Minimum Detect	2.1	Minimum Non-Detect	1.2
Maximum Detect	297	Maximum Non-Detect	5
Variance Detects	10960	Percent Non-Detects	57.69%
Mean Detects	78.74	SD Detects	104.7
Median Detects	12.5	CV Detects	1.33
Skewness Detects	1.17	Kurtosis Detects	0.138
Mean of Logged Detects	3.046	SD of Logged Detects	1.909

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.766	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.792	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.316	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.291	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	34.07	KM Standard Error of Mean	15.5
90KM SD	75.36	95% KM (BCA) UCL	58.59
95% KM (t) UCL	60.54	95% KM (Percentile Bootstrap) UCL	58.69
95% KM (z) UCL	59.56	95% KM Bootstrap t UCL	78.43
90% KM Chebyshev UCL	80.57	95% KM Chebyshev UCL	101.6
97.5% KM Chebyshev UCL	130.9	99% KM Chebyshev UCL	188.3

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.718	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.784	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.227	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.27	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.484	k star (bias corrected MLE)	0.412
Theta hat (MLE)	162.8	Theta star (bias corrected MLE)	190.9
nu hat (MLE)	10.64	nu star (bias corrected)	9.072
Mean (detects)	78.74		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	33.32
Maximum	297	Median	0.01
SD	77.18	CV	2.317
k hat (MLE)	0.157	k star (bias corrected MLE)	0.164
Theta hat (MLE)	212.6	Theta star (bias corrected MLE)	202.9
nu hat (MLE)	8.147	nu star (bias corrected)	8.541
Adjusted Level of Significance (β)	0.0398		
Approximate Chi Square Value (8.54, α)	3.052	Adjusted Chi Square Value (8.54, β)	2.839
95% Gamma Approximate UCL	93.24	95% Gamma Adjusted UCL	100.2

Estimates of Gamma Parameters using KM Estimates		
Mean (KM)	34.07	SD (KM) 75.36
Variance (KM)	5679	SE of Mean (KM) 15.5
k hat (KM)	0.204	k star (KM) 0.206
nu hat (KM)	10.63	nu star (KM) 10.73
theta hat (KM)	166.7	theta star (KM) 165
80% gamma percentile (KM)	45.62	90% gamma percentile (KM) 103
95% gamma percentile (KM)	174.1	99% gamma percentile (KM) 368.7
Gamma Kaplan-Meier (KM) Statistics		
Approximate Chi Square Value (10.73, α)	4.405	Adjusted Chi Square Value (10.73, β) 4.14
95% KM Approximate Gamma UCL	83	95% KM Adjusted Gamma UCL 88.33
Lognormal GOF Test on Detected Observations Only		
Shapiro Wilk Test Statistic	0.88	**Shapiro Wilk GOF Test**
10% Shapiro Wilk Critical Value	0.876	Detected Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.201	**Lilliefors GOF Test**
10% Lilliefors Critical Value	0.231	Detected Data appear Lognormal at 10% Significance Level
Detected Data appear Lognormal at 10% Significance Level		
Lognormal ROS Statistics Using Imputed Non-Detects		
Mean in Original Scale	33.5	Mean in Log Scale -0.0297
SD in Original Scale	77.1	SD in Log Scale 3.261
95% t UCL (assumes normality of ROS data)	59.33	95% Percentile Bootstrap UCL 59.8
95% BCA Bootstrap UCL	66.15	95% Bootstrap t UCL 77.51
95% H-UCL (Log ROS)	10908	
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution		
KM Mean (logged)	1.428	KM Geo Mean 4.169
KM SD (logged)	1.829	95% Critical H Value (KM-Log) 3.731
KM Standard Error of Mean (logged)	0.378	95% H-UCL (KM -Log) 87.02
KM SD (logged)	1.829	95% Critical H Value (KM-Log) 3.731
KM Standard Error of Mean (logged)	0.378	
DL/2 Statistics		
DL/2 Normal		**DL/2 Log-Transformed**
Mean in Original Scale	34.02	Mean in Log Scale 1.268
SD in Original Scale	76.87	SD in Log Scale 2.034
95% t UCL (Assumes normality)	59.78	95% H-Stat UCL 147.1
DL/2 is not a recommended method, provided for comparisons and historical reasons		
Nonparametric Distribution Free UCL Statistics		
Detected Data appear Gamma Distributed at 5% Significance Level		
Suggested UCL to Use		
95% KM Adjusted Gamma UCL	88.33	
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.		
Please verify the data were collected from random locations.		
If the data were collected using judgmental or other non-random methods,		
then contact a statistician to correctly calculate UCLs.		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.		
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.		
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.		
Lead		
General Statistics		
Total Number of Observations	26	Number of Distinct Observations 18
		Number of Missing Observations 24
Number of Detects	15	Number of Non-Detects 11
Number of Distinct Detects	15	Number of Distinct Non-Detects 3
Minimum Detect	0.15	Minimum Non-Detect 0.5
Maximum Detect	3210	Maximum Non-Detect 10
Variance Detects	1277086	Percent Non-Detects 42.31%

135					Mean Detects	646.7					SD Detects	1130
136					Median Detects	33.4					CV Detects	1.747
137					Skewness Detects	1.676					Kurtosis Detects	1.419
138					Mean of Logged Detects	3.79					SD of Logged Detects	3.062
139												
140					**Normal GOF Test on Detects Only**							
141					Shapiro Wilk Test Statistic	0.632	**Shapiro Wilk GOF Test**					
142					1% Shapiro Wilk Critical Value	0.835	Detected Data Not Normal at 1% Significance Level					
143					Lilliefors Test Statistic	0.37	**Lilliefors GOF Test**					
144					1% Lilliefors Critical Value	0.255	Detected Data Not Normal at 1% Significance Level					
145					**Detected Data Not Normal at 1% Significance Level**							
146												
147					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
148					KM Mean	373.6	KM Standard Error of Mean	180.4				
149					90KM SD	888.5	95% KM (BCA) UCL	676.4				
150					95% KM (t) UCL	681.6	95% KM (Percentile Bootstrap) UCL	682.7				
151					95% KM (z) UCL	670.2	95% KM Bootstrap t UCL	1027				
152					90% KM Chebyshev UCL	914.6	95% KM Chebyshev UCL	1160				
153					97.5% KM Chebyshev UCL	1500	99% KM Chebyshev UCL	2168				
154												
155					**Gamma GOF Tests on Detected Observations Only**							
156					A-D Test Statistic	0.619	**Anderson-Darling GOF Test**					
157					5% A-D Critical Value	0.853	Detected data appear Gamma Distributed at 5% Significance Level					
158					K-S Test Statistic	0.2	**Kolmogorov-Smirnov GOF**					
159					5% K-S Critical Value	0.242	Detected data appear Gamma Distributed at 5% Significance Level					
160					**Detected data appear Gamma Distributed at 5% Significance Level**							
161												
162					**Gamma Statistics on Detected Data Only**							
163					k hat (MLE)	0.263	k star (bias corrected MLE)	0.255				
164					Theta hat (MLE)	2461	Theta star (bias corrected MLE)	2540				
165					nu hat (MLE)	7.882	nu star (bias corrected)	7.639				
166					Mean (detects)	646.7						
167												
168					**Gamma ROS Statistics using Imputed Non-Detects**							
169					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
170					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
171					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
172					This is especially true when the sample size is small.							
173					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
174					Minimum	0.01	Mean	373.1				
175					Maximum	3210	Median	1.4				
176					SD	906.3	CV	2.429				
177					k hat (MLE)	0.137	k star (bias corrected MLE)	0.147				
178					Theta hat (MLE)	2724	Theta star (bias corrected MLE)	2541				
179					nu hat (MLE)	7.124	nu star (bias corrected)	7.635				
180					Adjusted Level of Significance (β)	0.0398						
181					Approximate Chi Square Value (7.64, α)	2.526	Adjusted Chi Square Value (7.64, β)	2.335				
182					95% Gamma Approximate UCL	1128	95% Gamma Adjusted UCL	1220				
183												
184					**Estimates of Gamma Parameters using KM Estimates**							
185					Mean (KM)	373.6	SD (KM)	888.5				
186					Variance (KM)	789422	SE of Mean (KM)	180.4				
187					k hat (KM)	0.177	k star (KM)	0.182				
188					nu hat (KM)	9.192	nu star (KM)	9.464				
189					theta hat (KM)	2113	theta star (KM)	2052				
190					80% gamma percentile (KM)	466.6	90% gamma percentile (KM)	1127				
191					95% gamma percentile (KM)	1971	99% gamma percentile (KM)	4331				
192												
193					**Gamma Kaplan-Meier (KM) Statistics**							
194					Approximate Chi Square Value (9.46, α)	3.61	Adjusted Chi Square Value (9.46, β)	3.374				
195					95% KM Approximate Gamma UCL	979.4	95% KM Adjusted Gamma UCL	1048				
196												
197					**Lognormal GOF Test on Detected Observations Only**							
198					Shapiro Wilk Test Statistic	0.959	**Shapiro Wilk GOF Test**					
199					10% Shapiro Wilk Critical Value	0.901	Detected Data appear Lognormal at 10% Significance Level					
200					Lilliefors Test Statistic	0.113	**Lilliefors GOF Test**					
201					10% Lilliefors Critical Value	0.202	Detected Data appear Lognormal at 10% Significance Level					

202	**Detected Data appear Lognormal at 10% Significance Level**											
203												
204	**Lognormal ROS Statistics Using Imputed Non-Detects**											
205						Mean in Original Scale	373.5			Mean in Log Scale	1.694	
206						SD in Original Scale	906.1			SD in Log Scale	3.582	
207					95% t UCL (assumes normality of ROS data)		677.1			95% Percentile Bootstrap UCL	686.1	
208						95% BCA Bootstrap UCL	773.9			95% Bootstrap t UCL	1002	
209						95% H-UCL (Log ROS)	407891					
210												
211	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
212						KM Mean (logged)	1.839			KM Geo Mean	6.29	
213						KM SD (logged)	3.301			95% Critical H Value (KM-Log)	6.219	
214						KM Standard Error of Mean (logged)	0.721			95% H-UCL (KM -Log)	88748	
215						KM SD (logged)	3.301			95% Critical H Value (KM-Log)	6.219	
216						KM Standard Error of Mean (logged)	0.721					
217												
218	**DL/2 Statistics**											
219	**DL/2 Normal**									**DL/2 Log-Transformed**		
220						Mean in Original Scale	374.3			Mean in Log Scale	2.531	
221						SD in Original Scale	905.8			SD in Log Scale	2.787	
222						95% t UCL (Assumes normality)	677.7			95% H-Stat UCL	11933	
223	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
224												
225	**Nonparametric Distribution Free UCL Statistics**											
226	**Detected Data appear Gamma Distributed at 5% Significance Level**											
227												
228	**Suggested UCL to Use**											
229						95% KM Adjusted Gamma UCL	1048					
230												
231	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
232	**Please verify the data were collected from random locations.**											
233	**If the data were collected using judgmental or other non-random methods,**											
234	**then contact a statistician to correctly calculate UCLs.**											
235												
236	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
237	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
238	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
239												
240	**Zinc**											
241												
242	**General Statistics**											
243						Total Number of Observations	21			Number of Distinct Observations	13	
244										Number of Missing Observations	29	
245						Number of Detects	11			Number of Non-Detects	10	
246						Number of Distinct Detects	11			Number of Distinct Non-Detects	2	
247						Minimum Detect	5.2			Minimum Non-Detect	1.6	
248						Maximum Detect	4450			Maximum Non-Detect	10	
249						Variance Detects	1853574			Percent Non-Detects	47.62%	
250						Mean Detects	694.7			SD Detects	1361	
251						Median Detects	63.7			CV Detects	1.96	
252						Skewness Detects	2.493			Kurtosis Detects	6.553	
253						Mean of Logged Detects	4.379			SD of Logged Detects	2.37	
254												
255	**Normal GOF Test on Detects Only**											
256						Shapiro Wilk Test Statistic	0.588			**Shapiro Wilk GOF Test**		
257						1% Shapiro Wilk Critical Value	0.792			Detected Data Not Normal at 1% Significance Level		
258						Lilliefors Test Statistic	0.379			**Lilliefors GOF Test**		
259						1% Lilliefors Critical Value	0.291			Detected Data Not Normal at 1% Significance Level		
260	**Detected Data Not Normal at 1% Significance Level**											
261												
262	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
263						KM Mean	364.8			KM Standard Error of Mean	229.1	
264						90KM SD	1001			95% KM (BCA) UCL	732.9	
265						95% KM (t) UCL	760			95% KM (Percentile Bootstrap) UCL	780	
266						95% KM (z) UCL	741.7			95% KM Bootstrap t UCL	1323	
267						90% KM Chebyshev UCL	1052			95% KM Chebyshev UCL	1364	
268						97.5% KM Chebyshev UCL	1796			99% KM Chebyshev UCL	2645	

269												
270	**Gamma GOF Tests on Detected Observations Only**											
271					A-D Test Statistic	0.82	**Anderson-Darling GOF Test**					
272					5% A-D Critical Value	0.817	Detected Data Not Gamma Distributed at 5% Significance Level					
273					K-S Test Statistic	0.269	**Kolmogorov-Smirnov GOF**					
274					5% K-S Critical Value	0.275	Detected data appear Gamma Distributed at 5% Significance Level					
275	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
276												
277	**Gamma Statistics on Detected Data Only**											
278					k hat (MLE)	0.316	k star (bias corrected MLE)	0.29				
279					Theta hat (MLE)	2199	Theta star (bias corrected MLE)	2393				
280					nu hat (MLE)	6.949	nu star (bias corrected)	6.387				
281					Mean (detects)	694.7						
282												
283	**Gamma ROS Statistics using Imputed Non-Detects**											
284	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
285	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
286	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
287	This is especially true when the sample size is small.											
288	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
289					Minimum	0.01	Mean	363.9				
290					Maximum	4450	Median	5.2				
291					SD	1026	CV	2.82				
292					k hat (MLE)	0.135	k star (bias corrected MLE)	0.147				
293					Theta hat (MLE)	2702	Theta star (bias corrected MLE)	2473				
294					nu hat (MLE)	5.656	nu star (bias corrected)	6.181				
295					Adjusted Level of Significance (β)	0.0383						
296					Approximate Chi Square Value (6.18, α)	1.733	Adjusted Chi Square Value (6.18, β)	1.559				
297					95% Gamma Approximate UCL	1298	95% Gamma Adjusted UCL	1443				
298												
299	**Estimates of Gamma Parameters using KM Estimates**											
300					Mean (KM)	364.8	SD (KM)	1001				
301					Variance (KM)	1002341	SE of Mean (KM)	229.1				
302					k hat (KM)	0.133	k star (KM)	0.146				
303					nu hat (KM)	5.578	nu star (KM)	6.114				
304					theta hat (KM)	2747	theta star (KM)	2506				
305					80% gamma percentile (KM)	387.3	90% gamma percentile (KM)	1077				
306					95% gamma percentile (KM)	2020	99% gamma percentile (KM)	4771				
307												
308	**Gamma Kaplan-Meier (KM) Statistics**											
309					Approximate Chi Square Value (6.11, α)	1.698	Adjusted Chi Square Value (6.11, β)	1.527				
310					95% KM Approximate Gamma UCL	1313	95% KM Adjusted Gamma UCL	1461				
311												
312	**Lognormal GOF Test on Detected Observations Only**											
313					Shapiro Wilk Test Statistic	0.909	**Shapiro Wilk GOF Test**					
314					10% Shapiro Wilk Critical Value	0.876	Detected Data appear Lognormal at 10% Significance Level					
315					Lilliefors Test Statistic	0.167	**Lilliefors GOF Test**					
316					10% Lilliefors Critical Value	0.231	Detected Data appear Lognormal at 10% Significance Level					
317	**Detected Data appear Lognormal at 10% Significance Level**											
318												
319	**Lognormal ROS Statistics Using Imputed Non-Detects**											
320					Mean in Original Scale	364.2	Mean in Log Scale	1.462				
321					SD in Original Scale	1026	SD in Log Scale	3.78				
322					95% t UCL (assumes normality of ROS data)	750.4	95% Percentile Bootstrap UCL	778				
323					95% BCA Bootstrap UCL	1055	95% Bootstrap t UCL	1323				
324					95% H-UCL (Log ROS)	2667000						
325												
326	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
327					KM Mean (logged)	2.574	KM Geo Mean	13.12				
328					KM SD (logged)	2.515	95% Critical H Value (KM-Log)	5.04				
329					KM Standard Error of Mean (logged)	0.579	95% H-UCL (KM -Log)	5281				
330					KM SD (logged)	2.515	95% Critical H Value (KM-Log)	5.04				
331					KM Standard Error of Mean (logged)	0.579						
332												
333	**DL/2 Statistics**											
334	**DL/2 Normal**						**DL/2 Log-Transformed**					
335					Mean in Original Scale	364.9	Mean in Log Scale	2.449				

	A	B	C	D	E	F	G	H	I	J	K	L
336					SD in Original Scale	1026				SD in Log Scale		2.732
337					95% t UCL (Assumes normality)	751				95% H-Stat UCL		13277
338	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
339												
340	**Nonparametric Distribution Free UCL Statistics**											
341	**Detected Data appear Approximate Gamma Distributed at 5% Significance Level**											
342												
343	**Suggested UCL to Use**											
344					95% KM Adjusted Gamma UCL	1461						
345												
346	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
347	**Please verify the data were collected from random locations.**											
348	**If the data were collected using judgmental or other non-random methods,**											
349	**then contact a statistician to correctly calculate UCLs.**											
350												
351	When a data set follows an approximate distribution passing only one of the GOF tests,											
352	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
353												
354	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
355	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
356	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
357												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:24:08 PM
From File	SW Maintenance Dynamite West
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Copper

General Statistics

Total Number of Observations	40	Number of Distinct Observations	26
		Number of Missing Observations	17
Number of Detects	24	Number of Non-Detects	16
Number of Distinct Detects	23	Number of Distinct Non-Detects	3
Minimum Detect	2.2	Minimum Non-Detect	1.2
Maximum Detect	2400	Maximum Non-Detect	5
Variance Detects	234111	Percent Non-Detects	40%
Mean Detects	149	SD Detects	483.9
Median Detects	23.75	CV Detects	3.247
Skewness Detects	4.759	Kurtosis Detects	23.02
Mean of Logged Detects	3.272	SD of Logged Detects	1.698

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.305	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.884	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.391	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.205	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	89.91	KM Standard Error of Mean	60.4
90KM SD	374	95% KM (BCA) UCL	215
95% KM (t) UCL	191.7	95% KM (Percentile Bootstrap) UCL	206.8
95% KM (z) UCL	189.3	95% KM Bootstrap t UCL	711.3
90% KM Chebyshev UCL	271.1	95% KM Chebyshev UCL	353.2
97.5% KM Chebyshev UCL	467.1	99% KM Chebyshev UCL	690.9

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.938	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.833	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.218	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.191	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.383	k star (bias corrected MLE)	0.363
Theta hat (MLE)	389.3	Theta star (bias corrected MLE)	410.9
nu hat (MLE)	18.37	nu star (bias corrected)	17.41
Mean (detects)	149		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	89.41
Maximum	2400	Median	5.1
SD	378.9	CV	4.237
k hat (MLE)	0.172	k star (bias corrected MLE)	0.176
Theta hat (MLE)	519.1	Theta star (bias corrected MLE)	508
nu hat (MLE)	13.78	nu star (bias corrected)	14.08
Adjusted Level of Significance (β)	0.044		
Approximate Chi Square Value (14.08, α)	6.625	Adjusted Chi Square Value (14.08, β)	6.433
95% Gamma Approximate UCL	190	95% Gamma Adjusted UCL	195.7

68												
69	**Estimates of Gamma Parameters using KM Estimates**											
70					Mean (KM)	89.91				SD (KM)	374	
71					Variance (KM)	139852				SE of Mean (KM)	60.4	
72					k hat (KM)	0.0578				k star (KM)	0.0701	
73					nu hat (KM)	4.624				nu star (KM)	5.611	
74					theta hat (KM)	1555				theta star (KM)	1282	
75					80% gamma percentile (KM)	32.35				90% gamma percentile (KM)	194.3	
76					95% gamma percentile (KM)	517.3				99% gamma percentile (KM)	1693	
77												
78	**Gamma Kaplan-Meier (KM) Statistics**											
79					Approximate Chi Square Value (5.61, α)	1.444				Adjusted Chi Square Value (5.61, β)	1.367	
80					95% KM Approximate Gamma UCL	349.3				95% KM Adjusted Gamma UCL	368.9	
81	95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)											
82												
83	**Lognormal GOF Test on Detected Observations Only**											
84					Shapiro Wilk Test Statistic	0.957				**Shapiro Wilk GOF Test**		
85					10% Shapiro Wilk Critical Value	0.93				Detected Data appear Lognormal at 10% Significance Level		
86					Lilliefors Test Statistic	0.083				**Lilliefors GOF Test**		
87					10% Lilliefors Critical Value	0.162				Detected Data appear Lognormal at 10% Significance Level		
88	**Detected Data appear Lognormal at 10% Significance Level**											
89												
90	**Lognormal ROS Statistics Using Imputed Non-Detects**											
91					Mean in Original Scale	89.66				Mean in Log Scale	1.572	
92					SD in Original Scale	378.8				SD in Log Scale	2.59	
93					95% t UCL (assumes normality of ROS data)	190.6				95% Percentile Bootstrap UCL	206	
94					95% BCA Bootstrap UCL	268.8				95% Bootstrap t UCL	703.9	
95					95% H-UCL (Log ROS)	960						
96												
97	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
98					KM Mean (logged)	2.051				KM Geo Mean	7.777	
99					KM SD (logged)	1.976				95% Critical H Value (KM-Log)	3.74	
100					KM Standard Error of Mean (logged)	0.32				95% H-UCL (KM -Log)	179.1	
101					KM SD (logged)	1.976				95% Critical H Value (KM-Log)	3.74	
102					KM Standard Error of Mean (logged)	0.32						
103												
104	**DL/2 Statistics**											
105	**DL/2 Normal**									**DL/2 Log-Transformed**		
106					Mean in Original Scale	89.84				Mean in Log Scale	1.909	
107					SD in Original Scale	378.7				SD in Log Scale	2.171	
108					95% t UCL (Assumes normality)	190.7				95% H-Stat UCL	289.5	
109	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
110												
111	**Nonparametric Distribution Free UCL Statistics**											
112	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
113												
114	**Suggested UCL to Use**											
115					KM H-UCL	179.1						
116												
117	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
118	**Please verify the data were collected from random locations.**											
119	**If the data were collected using judgmental or other non-random methods,**											
120	**then contact a statistician to correctly calculate UCLs.**											
121												
122	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
123	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
124	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
125												
126	**Lead**											
127												
128	**General Statistics**											
129					Total Number of Observations	40				Number of Distinct Observations	25	
130										Number of Missing Observations	17	
131					Number of Detects	24				Number of Non-Detects	16	
132					Number of Distinct Detects	23				Number of Distinct Non-Detects	2	
133					Minimum Detect	9.2				Minimum Non-Detect	4.4	
134					Maximum Detect	1320				Maximum Non-Detect	10	

135				Variance Detects	160125					Percent Non-Detects	40%	
136				Mean Detects	278					SD Detects	400.2	
137				Median Detects	131					CV Detects	1.439	
138				Skewness Detects	2.06					Kurtosis Detects	3.18	
139				Mean of Logged Detects	4.688					SD of Logged Detects	1.493	
140												
141				**Normal GOF Test on Detects Only**								
142				Shapiro Wilk Test Statistic	0.649		**Shapiro Wilk GOF Test**					
143				1% Shapiro Wilk Critical Value	0.884		Detected Data Not Normal at 1% Significance Level					
144				Lilliefors Test Statistic	0.27		**Lilliefors GOF Test**					
145				1% Lilliefors Critical Value	0.205		Detected Data Not Normal at 1% Significance Level					
146				**Detected Data Not Normal at 1% Significance Level**								
147												
148				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
149				KM Mean	168.6		KM Standard Error of Mean	53.58				
150				90KM SD	331.7		95% KM (BCA) UCL	263.8				
151				95% KM (t) UCL	258.9		95% KM (Percentile Bootstrap) UCL	259.5				
152				95% KM (z) UCL	256.7		95% KM Bootstrap t UCL	303.2				
153				90% KM Chebyshev UCL	329.3		95% KM Chebyshev UCL	402.1				
154				97.5% KM Chebyshev UCL	503.2		99% KM Chebyshev UCL	701.7				
155												
156				**Gamma GOF Tests on Detected Observations Only**								
157				A-D Test Statistic	0.699		**Anderson-Darling GOF Test**					
158				5% A-D Critical Value	0.792		Detected data appear Gamma Distributed at 5% Significance Level					
159				K-S Test Statistic	0.137		**Kolmogorov-Smirnov GOF**					
160				5% K-S Critical Value	0.186		Detected data appear Gamma Distributed at 5% Significance Level					
161				**Detected data appear Gamma Distributed at 5% Significance Level**								
162												
163				**Gamma Statistics on Detected Data Only**								
164				k hat (MLE)	0.65		k star (bias corrected MLE)	0.596				
165				Theta hat (MLE)	427.8		Theta star (bias corrected MLE)	466.1				
166				nu hat (MLE)	31.2		nu star (bias corrected)	28.63				
167				Mean (detects)	278							
168												
169				**Gamma ROS Statistics using Imputed Non-Detects**								
170				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
171				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
172				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
173				This is especially true when the sample size is small.								
174				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
175				Minimum	0.01		Mean	166.8				
176				Maximum	1320		Median	20.8				
177				SD	336.8		CV	2.019				
178				k hat (MLE)	0.18		k star (bias corrected MLE)	0.183				
179				Theta hat (MLE)	925		Theta star (bias corrected MLE)	909.2				
180				nu hat (MLE)	14.43		nu star (bias corrected)	14.68				
181				Adjusted Level of Significance (β)	0.044							
182				Approximate Chi Square Value (14.68, α)	7.039		Adjusted Chi Square Value (14.68, β)	6.84				
183				95% Gamma Approximate UCL	347.9		95% Gamma Adjusted UCL	358				
184												
185				**Estimates of Gamma Parameters using KM Estimates**								
186				Mean (KM)	168.6		SD (KM)	331.7				
187				Variance (KM)	110029		SE of Mean (KM)	53.58				
188				k hat (KM)	0.258		k star (KM)	0.256				
189				nu hat (KM)	20.67		nu star (KM)	20.45				
190				theta hat (KM)	652.5		theta star (KM)	659.5				
191				80% gamma percentile (KM)	246.8		90% gamma percentile (KM)	505.3				
192				95% gamma percentile (KM)	810.7		99% gamma percentile (KM)	1621				
193												
194				**Gamma Kaplan-Meier (KM) Statistics**								
195				Approximate Chi Square Value (20.45, α)	11.19		Adjusted Chi Square Value (20.45, β)	10.93				
196				95% KM Approximate Gamma UCL	308.3		95% KM Adjusted Gamma UCL	315.6				
197												
198				**Lognormal GOF Test on Detected Observations Only**								
199				Shapiro Wilk Test Statistic	0.949		**Shapiro Wilk GOF Test**					
200				10% Shapiro Wilk Critical Value	0.93		Detected Data appear Lognormal at 10% Significance Level					
201				Lilliefors Test Statistic	0.114		**Lilliefors GOF Test**					

202				10% Lilliefors Critical Value		0.162	Detected Data appear Lognormal at 10% Significance Level					
203	**Detected Data appear Lognormal at 10% Significance Level**											
204												
205	**Lognormal ROS Statistics Using Imputed Non-Detects**											
206				Mean in Original Scale		168.4				Mean in Log Scale		3.189
207				SD in Original Scale		336.1				SD in Log Scale		2.286
208				95% t UCL (assumes normality of ROS data)		257.9				95% Percentile Bootstrap UCL		261.9
209				95% BCA Bootstrap UCL		280.2				95% Bootstrap t UCL		300.2
210				95% H-UCL (Log ROS)		1543						
211												
212	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
213				KM Mean (logged)		3.411				KM Geo Mean		30.3
214				KM SD (logged)		1.932				95% Critical H Value (KM-Log)		3.673
215				KM Standard Error of Mean (logged)		0.312				95% H-UCL (KM -Log)		609.8
216				KM SD (logged)		1.932				95% Critical H Value (KM-Log)		3.673
217				KM Standard Error of Mean (logged)		0.312						
218												
219	**DL/2 Statistics**											
220	**DL/2 Normal**									**DL/2 Log-Transformed**		
221				Mean in Original Scale		168				Mean in Log Scale		3.21
222				SD in Original Scale		336.3				SD in Log Scale		2.174
223				95% t UCL (Assumes normality)		257.6				95% H-Stat UCL		1074
224	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
225												
226	**Nonparametric Distribution Free UCL Statistics**											
227	**Detected Data appear Gamma Distributed at 5% Significance Level**											
228												
229	**Suggested UCL to Use**											
230				95% KM Adjusted Gamma UCL		315.6						
231												
232	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
233	**Please verify the data were collected from random locations.**											
234	**If the data were collected using judgmental or other non-random methods,**											
235	**then contact a statistician to correctly calculate UCLs.**											
236												
237	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
238	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
239	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
240												
241	**Mercury**											
242												
243	**General Statistics**											
244				Total Number of Observations		40				Number of Distinct Observations		12
245										Number of Missing Observations		17
246				Number of Detects		9				Number of Non-Detects		31
247				Number of Distinct Detects		9				Number of Distinct Non-Detects		3
248				Minimum Detect		0.064				Minimum Non-Detect		0.013
249				Maximum Detect		13				Maximum Non-Detect		0.1
250				Variance Detects		18.33				Percent Non-Detects		77.5%
251				Mean Detects		2.015				SD Detects		4.281
252				Median Detects		0.2				CV Detects		2.125
253				Skewness Detects		2.637				Kurtosis Detects		7.106
254				Mean of Logged Detects		-1.055				SD of Logged Detects		1.876
255												
256	**Normal GOF Test on Detects Only**											
257				Shapiro Wilk Test Statistic		0.541	**Shapiro Wilk GOF Test**					
258				1% Shapiro Wilk Critical Value		0.764	Detected Data Not Normal at 1% Significance Level					
259				Lilliefors Test Statistic		0.415	**Lilliefors GOF Test**					
260				1% Lilliefors Critical Value		0.316	Detected Data Not Normal at 1% Significance Level					
261	**Detected Data Not Normal at 1% Significance Level**											
262												
263	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
264				KM Mean		0.469				KM Standard Error of Mean		0.35
265				90KM SD		2.088				95% KM (BCA) UCL		1.112
266				95% KM (t) UCL		1.059				95% KM (Percentile Bootstrap) UCL		1.106
267				95% KM (z) UCL		1.045				95% KM Bootstrap t UCL		8.989
268				90% KM Chebyshev UCL		1.52				95% KM Chebyshev UCL		1.996

269				97.5% KM Chebyshev UCL	2.656					99% KM Chebyshev UCL	3.954	
270												
271					**Gamma GOF Tests on Detected Observations Only**							
272				A-D Test Statistic	1.05	**Anderson-Darling GOF Test**						
273				5% A-D Critical Value	0.793	Detected Data Not Gamma Distributed at 5% Significance Level						
274				K-S Test Statistic	0.326	**Kolmogorov-Smirnov GOF**						
275				5% K-S Critical Value	0.299	Detected Data Not Gamma Distributed at 5% Significance Level						
276					**Detected Data Not Gamma Distributed at 5% Significance Level**							
277												
278					**Gamma Statistics on Detected Data Only**							
279				k hat (MLE)	0.378	k star (bias corrected MLE)	0.326					
280				Theta hat (MLE)	5.327	Theta star (bias corrected MLE)	6.177					
281				nu hat (MLE)	6.809	nu star (bias corrected)	5.873					
282				Mean (detects)	2.015							
283												
284					**Gamma ROS Statistics using Imputed Non-Detects**							
285					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
286					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
287					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
288					This is especially true when the sample size is small.							
289					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
290				Minimum	0.01	Mean	0.461					
291				Maximum	13	Median	0.01					
292				SD	2.116	CV	4.589					
293				k hat (MLE)	0.236	k star (bias corrected MLE)	0.235					
294				Theta hat (MLE)	1.951	Theta star (bias corrected MLE)	1.96					
295				nu hat (MLE)	18.91	nu star (bias corrected)	18.82					
296				Adjusted Level of Significance (β)	0.044							
297				Approximate Chi Square Value (18.82, α)	9.989	Adjusted Chi Square Value (18.82, β)	9.747					
298				95% Gamma Approximate UCL	0.869	95% Gamma Adjusted UCL	0.891					
299												
300					**Estimates of Gamma Parameters using KM Estimates**							
301				Mean (KM)	0.469	SD (KM)	2.088					
302				Variance (KM)	4.36	SE of Mean (KM)	0.35					
303				k hat (KM)	0.0505	k star (KM)	0.0633					
304				nu hat (KM)	4.036	nu star (KM)	5.067					
305				theta hat (KM)	9.296	theta star (KM)	7.405					
306				80% gamma percentile (KM)	0.131	90% gamma percentile (KM)	0.929					
307				95% gamma percentile (KM)	2.657	99% gamma percentile (KM)	9.243					
308												
309					**Gamma Kaplan-Meier (KM) Statistics**							
310				Approximate Chi Square Value (5.07, α)	1.183	Adjusted Chi Square Value (5.07, β)	1.116					
311				95% KM Approximate Gamma UCL	2.009	95% KM Adjusted Gamma UCL	2.13					
312					95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)							
313												
314					**Lognormal GOF Test on Detected Observations Only**							
315				Shapiro Wilk Test Statistic	0.849	**Shapiro Wilk GOF Test**						
316				10% Shapiro Wilk Critical Value	0.859	Detected Data Not Lognormal at 10% Significance Level						
317				Lilliefors Test Statistic	0.204	**Lilliefors GOF Test**						
318				10% Lilliefors Critical Value	0.252	Detected Data appear Lognormal at 10% Significance Level						
319					**Detected Data appear Approximate Lognormal at 10% Significance Level**							
320					**Note GOF tests may be unreliable for small sample sizes**							
321												
322					**Lognormal ROS Statistics Using Imputed Non-Detects**							
323				Mean in Original Scale	0.461	Mean in Log Scale	-5.558					
324				SD in Original Scale	2.117	SD in Log Scale	3.399					
325				95% t UCL (assumes normality of ROS data)	1.024	95% Percentile Bootstrap UCL	1.056					
326				95% BCA Bootstrap UCL	1.432	95% Bootstrap t UCL	9.763					
327				95% H-UCL (Log ROS)	31.97							
328												
329					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
330				KM Mean (logged)	-3.452	KM Geo Mean	0.0317					
331				KM SD (logged)	1.617	95% Critical H Value (KM-Log)	3.214					
332				KM Standard Error of Mean (logged)	0.291	95% H-UCL (KM -Log)	0.269					
333				KM SD (logged)	1.617	95% Critical H Value (KM-Log)	3.214					
334				KM Standard Error of Mean (logged)	0.291							
335					**Note: KM UCLs may be biased low with this dataset. Other substitution method recommended**							

336												
337	**DL/2 Statistics**											
338	**DL/2 Normal**						**DL/2 Log-Transformed**					
339				Mean in Original Scale		0.476				Mean in Log Scale		-3.308
340				SD in Original Scale		2.113				SD in Log Scale		1.742
341				95% t UCL (Assumes normality)		1.039				95% H-Stat UCL		0.43
342	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
343												
344	**Nonparametric Distribution Free UCL Statistics**											
345	**Detected Data appear Approximate Lognormal Distributed at 10% Significance Level**											
346												
347	**Suggested UCL to Use**											
348				KM H-UCL		0.269						
349												
350	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
351	**Please verify the data were collected from random locations.**											
352	**If the data were collected using judgmental or other non-random methods,**											
353	**then contact a statistician to correctly calculate UCLs.**											
354												
355	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
356	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
357	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
358												
359	**Zinc**											
360												
361	**General Statistics**											
362				Total Number of Observations		38				Number of Distinct Observations		35
363										Number of Missing Observations		19
364				Number of Detects		34				Number of Non-Detects		4
365				Number of Distinct Detects		34				Number of Distinct Non-Detects		1
366				Minimum Detect		7.1				Minimum Non-Detect		1.6
367				Maximum Detect		2630				Maximum Non-Detect		1.6
368				Variance Detects		595135				Percent Non-Detects		10.53%
369				Mean Detects		448.4				SD Detects		771.5
370				Median Detects		52.8				CV Detects		1.72
371				Skewness Detects		1.995				Kurtosis Detects		2.912
372				Mean of Logged Detects		4.514				SD of Logged Detects		1.901
373												
374	**Normal GOF Test on Detects Only**											
375				Shapiro Wilk Test Statistic		0.621	**Shapiro Wilk GOF Test**					
376				1% Shapiro Wilk Critical Value		0.908	Detected Data Not Normal at 1% Significance Level					
377				Lilliefors Test Statistic		0.324	**Lilliefors GOF Test**					
378				1% Lilliefors Critical Value		0.175	Detected Data Not Normal at 1% Significance Level					
379	**Detected Data Not Normal at 1% Significance Level**											
380												
381	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
382				KM Mean		401.4				KM Standard Error of Mean		120.5
383				90KM SD		731.9				95% KM (BCA) UCL		618.7
384				95% KM (t) UCL		604.7				95% KM (Percentile Bootstrap) UCL		605.2
385				95% KM (z) UCL		599.6				95% KM Bootstrap t UCL		668.7
386				90% KM Chebyshev UCL		762.9				95% KM Chebyshev UCL		926.7
387				97.5% KM Chebyshev UCL		1154				99% KM Chebyshev UCL		1600
388												
389	**Gamma GOF Tests on Detected Observations Only**											
390				A-D Test Statistic		1.988	**Anderson-Darling GOF Test**					
391				5% A-D Critical Value		0.831	Detected Data Not Gamma Distributed at 5% Significance Level					
392				K-S Test Statistic		0.232	**Kolmogorov-Smirnov GOF**					
393				5% K-S Critical Value		0.161	Detected Data Not Gamma Distributed at 5% Significance Level					
394	**Detected Data Not Gamma Distributed at 5% Significance Level**											
395												
396	**Gamma Statistics on Detected Data Only**											
397				k hat (MLE)		0.411				k star (bias corrected MLE)		0.395
398				Theta hat (MLE)		1090				Theta star (bias corrected MLE)		1136
399				nu hat (MLE)		27.98				nu star (bias corrected)		26.84
400				Mean (detects)		448.4						
401												
402	**Gamma ROS Statistics using Imputed Non-Detects**											

403	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
404	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
405	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
406	This is especially true when the sample size is small.											
407	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
408					Minimum	0.01				Mean	401.2	
409					Maximum	2630				Median	46.2	
410					SD	741.8				CV	1.849	
411					k hat (MLE)	0.285				k star (bias corrected MLE)	0.28	
412					Theta hat (MLE)	1408				Theta star (bias corrected MLE)	1433	
413					nu hat (MLE)	21.65				nu star (bias corrected)	21.28	
414					Adjusted Level of Significance (β)	0.0434						
415					Approximate Chi Square Value (21.28, α)	11.8				Adjusted Chi Square Value (21.28, β)	11.5	
416					95% Gamma Approximate UCL	723.6				95% Gamma Adjusted UCL	742	
417												
418	**Estimates of Gamma Parameters using KM Estimates**											
419					Mean (KM)	401.4				SD (KM)	731.9	
420					Variance (KM)	535630				SE of Mean (KM)	120.5	
421					k hat (KM)	0.301				k star (KM)	0.295	
422					nu hat (KM)	22.86				nu star (KM)	22.39	
423					theta hat (KM)	1335				theta star (KM)	1363	
424					80% gamma percentile (KM)	612.7				90% gamma percentile (KM)	1186	
425					95% gamma percentile (KM)	1847				99% gamma percentile (KM)	3567	
426												
427	**Gamma Kaplan-Meier (KM) Statistics**											
428					Approximate Chi Square Value (22.39, α)	12.63				Adjusted Chi Square Value (22.39, β)	12.32	
429					95% KM Approximate Gamma UCL	711.5				95% KM Adjusted Gamma UCL	729.1	
430												
431	**Lognormal GOF Test on Detected Observations Only**											
432					Shapiro Wilk Test Statistic	0.908	**Shapiro Wilk GOF Test**					
433					10% Shapiro Wilk Critical Value	0.943	Detected Data Not Lognormal at 10% Significance Level					
434					Lilliefors Test Statistic	0.161	**Lilliefors GOF Test**					
435					10% Lilliefors Critical Value	0.137	Detected Data Not Lognormal at 10% Significance Level					
436	**Detected Data Not Lognormal at 10% Significance Level**											
437												
438	**Lognormal ROS Statistics Using Imputed Non-Detects**											
439					Mean in Original Scale	401.3				Mean in Log Scale	4.052	
440					SD in Original Scale	741.7				SD in Log Scale	2.263	
441					95% t UCL (assumes normality of ROS data)	604.3				95% Percentile Bootstrap UCL	607.9	
442					95% BCA Bootstrap UCL	627.4				95% Bootstrap t UCL	689	
443					95% H-UCL (Log ROS)	3470						
444												
445	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
446					KM Mean (logged)	4.088				KM Geo Mean	59.62	
447					KM SD (logged)	2.163				95% Critical H Value (KM-Log)	3.988	
448					KM Standard Error of Mean (logged)	0.356				95% H-UCL (KM -Log)	2555	
449					KM SD (logged)	2.163				95% Critical H Value (KM-Log)	3.988	
450					KM Standard Error of Mean (logged)	0.356						
451												
452	**DL/2 Statistics**											
453	**DL/2 Normal**						**DL/2 Log-Transformed**					
454					Mean in Original Scale	401.3				Mean in Log Scale	4.015	
455					SD in Original Scale	741.7				SD in Log Scale	2.323	
456					95% t UCL (Assumes normality)	604.3				95% H-Stat UCL	4134	
457	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
458												
459	**Nonparametric Distribution Free UCL Statistics**											
460	**Data do not follow a Discernible Distribution**											
461												
462	**Suggested UCL to Use**											
463					95% KM (t) UCL	604.7						
464												
465	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
466	**Please verify the data were collected from random locations.**											
467	**If the data were collected using judgmental or other non-random methods,**											
468	**then contact a statistician to correctly calculate UCLs.**											
469												

	A	B	C	D	E	F	G	H	I	J	K	L
470	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
471	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
472	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
473												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:17:06 PM
From File	SW Maintenance NG
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Copper

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
		Number of Missing Observations	5
Number of Detects	7	Number of Non-Detects	4
Number of Distinct Detects	7	Number of Distinct Non-Detects	1
Minimum Detect	3.2	Minimum Non-Detect	1.2
Maximum Detect	1030	Maximum Non-Detect	1.2
Variance Detects	147038	Percent Non-Detects	36.36%
Mean Detects	221.8	SD Detects	383.5
Median Detects	18.8	CV Detects	1.729
Skewness Detects	2.043	Kurtosis Detects	4.007
Mean of Logged Detects	3.821	SD of Logged Detects	2.034

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.662	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.73	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.369	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.35	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	141.6	KM Standard Error of Mean	98.49
90KM SD	302.4	95% KM (BCA) UCL	320.8
95% KM (t) UCL	320.1	95% KM (Percentile Bootstrap) UCL	308.8
95% KM (z) UCL	303.6	95% KM Bootstrap t UCL	2174
90% KM Chebyshev UCL	437	95% KM Chebyshev UCL	570.9
97.5% KM Chebyshev UCL	756.7	99% KM Chebyshev UCL	1122

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.557	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.766	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.292	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.331	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.414	k star (bias corrected MLE)	0.332
Theta hat (MLE)	535.8	Theta star (bias corrected MLE)	668.5
nu hat (MLE)	5.795	nu star (bias corrected)	4.645
Mean (detects)	221.8		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	141.1
Maximum	1030	Median	13.5
SD	317.4	CV	2.249
k hat (MLE)	0.179	k star (bias corrected MLE)	0.19
Theta hat (MLE)	790.3	Theta star (bias corrected MLE)	740.9
nu hat (MLE)	3.929	nu star (bias corrected)	4.191
Adjusted Level of Significance (β)	0.0278		
Approximate Chi Square Value (4.19, α)	0.799	Adjusted Chi Square Value (4.19, β)	0.591

68	95% Gamma Approximate UCL				740.7	95% Gamma Adjusted UCL					1000	
69												
70	**Estimates of Gamma Parameters using KM Estimates**											
71	Mean (KM)				141.6	SD (KM)					302.4	
72	Variance (KM)				91462	SE of Mean (KM)					98.49	
73	k hat (KM)				0.219	k star (KM)					0.22	
74	nu hat (KM)				4.821	nu star (KM)					4.84	
75	theta hat (KM)				646	theta star (KM)					643.6	
76	80% gamma percentile (KM)				195.4	90% gamma percentile (KM)					427.7	
77	95% gamma percentile (KM)				711	99% gamma percentile (KM)					1479	
78												
79	**Gamma Kaplan-Meier (KM) Statistics**											
80	Approximate Chi Square Value (4.84, α)				1.079	Adjusted Chi Square Value (4.84, β)					0.822	
81	95% KM Approximate Gamma UCL				635.1	95% KM Adjusted Gamma UCL					834	
82												
83	**Lognormal GOF Test on Detected Observations Only**											
84	Shapiro Wilk Test Statistic				0.935	**Shapiro Wilk GOF Test**						
85	10% Shapiro Wilk Critical Value				0.838	Detected Data appear Lognormal at 10% Significance Level						
86	Lilliefors Test Statistic				0.24	**Lilliefors GOF Test**						
87	10% Lilliefors Critical Value				0.28	Detected Data appear Lognormal at 10% Significance Level						
88	**Detected Data appear Lognormal at 10% Significance Level**											
89	**Note GOF tests may be unreliable for small sample sizes**											
90												
91	**Lognormal ROS Statistics Using Imputed Non-Detects**											
92	Mean in Original Scale				141.3	Mean in Log Scale					1.827	
93	SD in Original Scale				317.3	SD in Log Scale					3.277	
94	95% t UCL (assumes normality of ROS data)				314.7	95% Percentile Bootstrap UCL					317.4	
95	95% BCA Bootstrap UCL				418.6	95% Bootstrap t UCL					2142	
96	95% H-UCL (Log ROS)				6172776							
97												
98	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
99	KM Mean (logged)				2.498	KM Geo Mean					12.15	
100	KM SD (logged)				2.306	95% Critical H Value (KM-Log)					5.86	
101	KM Standard Error of Mean (logged)				0.751	95% H-UCL (KM -Log)					12471	
102	KM SD (logged)				2.306	95% Critical H Value (KM-Log)					5.86	
103	KM Standard Error of Mean (logged)				0.751							
104												
105	**DL/2 Statistics**											
106	**DL/2 Normal**					**DL/2 Log-Transformed**						
107	Mean in Original Scale				141.4	Mean in Log Scale					2.246	
108	SD in Original Scale				317.3	SD in Log Scale					2.694	
109	95% t UCL (Assumes normality)				314.7	95% H-Stat UCL					113401	
110	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
111												
112	**Nonparametric Distribution Free UCL Statistics**											
113	**Detected Data appear Gamma Distributed at 5% Significance Level**											
114												
115	**Suggested UCL to Use**											
116	95% KM Bootstrap t UCL				2174	95% Hall's Bootstrap					12471	
117												
118	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
119	**Please verify the data were collected from random locations.**											
120	**If the data were collected using judgmental or other non-random methods,**											
121	**then contact a statistician to correctly calculate UCLs.**											
122												
123	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
124	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
125	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
126												
127	**Lead**											
128												
129	**General Statistics**											
130	Total Number of Observations				11	Number of Distinct Observations					8	
131						Number of Missing Observations					5	
132	Number of Detects				7	Number of Non-Detects					4	
133	Number of Distinct Detects				7	Number of Distinct Non-Detects					1	
134	Minimum Detect				32.9	Minimum Non-Detect					4.4	

135				Maximum Detect	2320					Maximum Non-Detect	4.4	
136				Variance Detects	695860					Percent Non-Detects	36.36%	
137				Mean Detects	480.7					SD Detects	834.2	
138				Median Detects	70.9					CV Detects	1.735	
139				Skewness Detects	2.37					Kurtosis Detects	5.765	
140				Mean of Logged Detects	5.036					SD of Logged Detects	1.582	
141												
142				**Normal GOF Test on Detects Only**								
143				Shapiro Wilk Test Statistic	0.625		**Shapiro Wilk GOF Test**					
144				1% Shapiro Wilk Critical Value	0.73		Detected Data Not Normal at 1% Significance Level					
145				Lilliefors Test Statistic	0.314		**Lilliefors GOF Test**					
146				1% Lilliefors Critical Value	0.35		Detected Data appear Normal at 1% Significance Level					
147				**Detected Data appear Approximate Normal at 1% Significance Level**								
148				**Note GOF tests may be unreliable for small sample sizes**								
149												
150				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
151				KM Mean	307.5		KM Standard Error of Mean	214.1				
152				90KM SD	657.3		95% KM (BCA) UCL	705.8				
153				95% KM (t) UCL	695.5		95% KM (Percentile Bootstrap) UCL	698.3				
154				95% KM (z) UCL	659.6		95% KM Bootstrap t UCL	2599				
155				90% KM Chebyshev UCL	949.7		95% KM Chebyshev UCL	1241				
156				97.5% KM Chebyshev UCL	1644		99% KM Chebyshev UCL	2437				
157												
158				**Gamma GOF Tests on Detected Observations Only**								
159				A-D Test Statistic	0.626		**Anderson-Darling GOF Test**					
160				5% A-D Critical Value	0.748		Detected data appear Gamma Distributed at 5% Significance Level					
161				K-S Test Statistic	0.296		**Kolmogorov-Smirnov GOF**					
162				5% K-S Critical Value	0.326		Detected data appear Gamma Distributed at 5% Significance Level					
163				**Detected data appear Gamma Distributed at 5% Significance Level**								
164				**Note GOF tests may be unreliable for small sample sizes**								
165												
166				**Gamma Statistics on Detected Data Only**								
167				k hat (MLE)	0.549		k star (bias corrected MLE)	0.409				
168				Theta hat (MLE)	875		Theta star (bias corrected MLE)	1175				
169				nu hat (MLE)	7.691		nu star (bias corrected)	5.728				
170				Mean (detects)	480.7							
171												
172				**Gamma ROS Statistics using Imputed Non-Detects**								
173				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
174				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
175				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
176				This is especially true when the sample size is small.								
177				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
178				Minimum	0.01		Mean	305.9				
179				Maximum	2320		Median	42.2				
180				SD	690.2		CV	2.256				
181				k hat (MLE)	0.179		k star (bias corrected MLE)	0.19				
182				Theta hat (MLE)	1713		Theta star (bias corrected MLE)	1606				
183				nu hat (MLE)	3.929		nu star (bias corrected)	4.191				
184				Adjusted Level of Significance (β)	0.0278							
185				Approximate Chi Square Value (4.19, α)	0.798		Adjusted Chi Square Value (4.19, β)	0.591				
186				95% Gamma Approximate UCL	1605		95% Gamma Adjusted UCL	2168				
187												
188				**Estimates of Gamma Parameters using KM Estimates**								
189				Mean (KM)	307.5		SD (KM)	657.3				
190				Variance (KM)	432054		SE of Mean (KM)	214.1				
191				k hat (KM)	0.219		k star (KM)	0.22				
192				nu hat (KM)	4.814		nu star (KM)	4.835				
193				theta hat (KM)	1405		theta star (KM)	1399				
194				80% gamma percentile (KM)	424.1		90% gamma percentile (KM)	929				
195				95% gamma percentile (KM)	1545		99% gamma percentile (KM)	3215				
196												
197				**Gamma Kaplan-Meier (KM) Statistics**								
198				Approximate Chi Square Value (4.83, α)	1.077		Adjusted Chi Square Value (4.83, β)	0.82				
199				95% KM Approximate Gamma UCL	1381		95% KM Adjusted Gamma UCL	1814				
200												
201				**Lognormal GOF Test on Detected Observations Only**								

202					Shapiro Wilk Test Statistic	0.892	**Shapiro Wilk GOF Test**					
203					10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level					
204					Lilliefors Test Statistic	0.259	**Lilliefors GOF Test**					
205					10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level					
206	**Detected Data appear Lognormal at 10% Significance Level**											
207	**Note GOF tests may be unreliable for small sample sizes**											
208												
209	**Lognormal ROS Statistics Using Imputed Non-Detects**											
210					Mean in Original Scale	307				Mean in Log Scale	3.484	
211					SD in Original Scale	689.6				SD in Log Scale	2.55	
212					95% t UCL (assumes normality of ROS data)	683.9				95% Percentile Bootstrap UCL	693.3	
213					95% BCA Bootstrap UCL	934.3				95% Bootstrap t UCL	2585	
214					95% H-UCL (Log ROS)	150324						
215												
216	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
217					KM Mean (logged)	3.743				KM Geo Mean	42.23	
218					KM SD (logged)	2.071				95% Critical H Value (KM-Log)	5.316	
219					KM Standard Error of Mean (logged)	0.674				95% H-UCL (KM -Log)	11701	
220					KM SD (logged)	2.071				95% Critical H Value (KM-Log)	5.316	
221					KM Standard Error of Mean (logged)	0.674						
222												
223	**DL/2 Statistics**											
224	**DL/2 Normal**						**DL/2 Log-Transformed**					
225					Mean in Original Scale	306.7				Mean in Log Scale	3.491	
226					SD in Original Scale	689.8				SD in Log Scale	2.468	
227					95% t UCL (Assumes normality)	683.6				95% H-Stat UCL	89880	
228	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
229												
230	**Nonparametric Distribution Free UCL Statistics**											
231	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
232												
233	**Suggested UCL to Use**											
234					95% KM (t) UCL	695.5						
235												
236	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
237	**Please verify the data were collected from random locations.**											
238	**If the data were collected using judgmental or other non-random methods,**											
239	**then contact a statistician to correctly calculate UCLs.**											
240												
241	When a data set follows an approximate distribution passing only one of the GOF tests,											
242	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
243												
244	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
245	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
246	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
247												
248	**Zinc**											
249												
250	**General Statistics**											
251					Total Number of Observations	11				Number of Distinct Observations	11	
252										Number of Missing Observations	5	
253					Number of Detects	10				Number of Non-Detects	1	
254					Number of Distinct Detects	10				Number of Distinct Non-Detects	1	
255					Minimum Detect	26.2				Minimum Non-Detect	1.6	
256					Maximum Detect	3750				Maximum Non-Detect	1.6	
257					Variance Detects	2255185				Percent Non-Detects	9.091%	
258					Mean Detects	878.3				SD Detects	1502	
259					Median Detects	137.3				CV Detects	1.71	
260					Skewness Detects	1.703				Kurtosis Detects	1.231	
261					Mean of Logged Detects	5.291				SD of Logged Detects	1.828	
262												
263	**Normal GOF Test on Detects Only**											
264					Shapiro Wilk Test Statistic	0.601	**Shapiro Wilk GOF Test**					
265					1% Shapiro Wilk Critical Value	0.781	Detected Data Not Normal at 1% Significance Level					
266					Lilliefors Test Statistic	0.378	**Lilliefors GOF Test**					
267					1% Lilliefors Critical Value	0.304	Detected Data Not Normal at 1% Significance Level					
268	**Detected Data Not Normal at 1% Significance Level**											

269												
270	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
271					KM Mean	798.6			KM Standard Error of Mean	439.1		
272					90KM SD	1382			95% KM (BCA) UCL	1489		
273					95% KM (t) UCL	1594			95% KM (Percentile Bootstrap) UCL	1499		
274					95% KM (z) UCL	1521			95% KM Bootstrap t UCL	5451		
275					90% KM Chebyshev UCL	2116			95% KM Chebyshev UCL	2712		
276					97.5% KM Chebyshev UCL	3541			99% KM Chebyshev UCL	5167		
277												
278	**Gamma GOF Tests on Detected Observations Only**											
279					A-D Test Statistic	0.944			**Anderson-Darling GOF Test**			
280					5% A-D Critical Value	0.789			Detected Data Not Gamma Distributed at 5% Significance Level			
281					K-S Test Statistic	0.312			**Kolmogorov-Smirnov GOF**			
282					5% K-S Critical Value	0.283			Detected Data Not Gamma Distributed at 5% Significance Level			
283	**Detected Data Not Gamma Distributed at 5% Significance Level**											
284												
285	**Gamma Statistics on Detected Data Only**											
286					k hat (MLE)	0.437			k star (bias corrected MLE)	0.372		
287					Theta hat (MLE)	2012			Theta star (bias corrected MLE)	2359		
288					nu hat (MLE)	8.731			nu star (bias corrected)	7.445		
289					Mean (detects)	878.3						
290												
291	**Gamma ROS Statistics using Imputed Non-Detects**											
292	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
293	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
294	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
295	This is especially true when the sample size is small.											
296	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
297					Minimum	0.01			Mean	798.4		
298					Maximum	3750			Median	91.5		
299					SD	1449			CV	1.815		
300					k hat (MLE)	0.301			k star (bias corrected MLE)	0.279		
301					Theta hat (MLE)	2654			Theta star (bias corrected MLE)	2857		
302					nu hat (MLE)	6.619			nu star (bias corrected)	6.147		
303					Adjusted Level of Significance (β)	0.0278						
304					Approximate Chi Square Value (6.15, α)	1.716			Adjusted Chi Square Value (6.15, β)	1.363		
305					95% Gamma Approximate UCL	2861			95% Gamma Adjusted UCL	3601		
306												
307	**Estimates of Gamma Parameters using KM Estimates**											
308					Mean (KM)	798.6			SD (KM)	1382		
309					Variance (KM)	1908667			SE of Mean (KM)	439.1		
310					k hat (KM)	0.334			k star (KM)	0.304		
311					nu hat (KM)	7.35			nu star (KM)	6.679		
312					theta hat (KM)	2390			theta star (KM)	2630		
313					80% gamma percentile (KM)	1228			90% gamma percentile (KM)	2352		
314					95% gamma percentile (KM)	3639			99% gamma percentile (KM)	6979		
315												
316	**Gamma Kaplan-Meier (KM) Statistics**											
317					Approximate Chi Square Value (6.68, α)	1.996			Adjusted Chi Square Value (6.68, β)	1.607		
318					95% KM Approximate Gamma UCL	2672			95% KM Adjusted Gamma UCL	3319		
319												
320	**Lognormal GOF Test on Detected Observations Only**											
321					Shapiro Wilk Test Statistic	0.884			**Shapiro Wilk GOF Test**			
322					10% Shapiro Wilk Critical Value	0.869			Detected Data appear Lognormal at 10% Significance Level			
323					Lilliefors Test Statistic	0.214			**Lilliefors GOF Test**			
324					10% Lilliefors Critical Value	0.241			Detected Data appear Lognormal at 10% Significance Level			
325	**Detected Data appear Lognormal at 10% Significance Level**											
326												
327	**Lognormal ROS Statistics Using Imputed Non-Detects**											
328					Mean in Original Scale	798.6			Mean in Log Scale	4.89		
329					SD in Original Scale	1449			SD in Log Scale	2.185		
330					95% t UCL (assumes normality of ROS data)	1590			95% Percentile Bootstrap UCL	1509		
331					95% BCA Bootstrap UCL	1784			95% Bootstrap t UCL	5394		
332					95% H-UCL (Log ROS)	68453						
333												
334	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
335					KM Mean (logged)	4.853			KM Geo Mean	128.1		

336					KM SD (logged)	2.157					95% Critical H Value (KM-Log)	5.515
337					KM Standard Error of Mean (logged)	0.686					95% H-UCL (KM -Log)	56555
338					KM SD (logged)	2.157					95% Critical H Value (KM-Log)	5.515
339					KM Standard Error of Mean (logged)	0.686						
340												
341						**DL/2 Statistics**						
342					**DL/2 Normal**						**DL/2 Log-Transformed**	
343					Mean in Original Scale	798.5					Mean in Log Scale	4.79
344					SD in Original Scale	1449					SD in Log Scale	2.402
345					95% t UCL (Assumes normality)	1590					95% H-Stat UCL	219058
346					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
347												
348						**Nonparametric Distribution Free UCL Statistics**						
349						**Detected Data appear Lognormal Distributed at 10% Significance Level**						
350												
351						**Suggested UCL to Use**						
352					KM (t) UCL	1594						
353												
354						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
355						**Please verify the data were collected from random locations.**						
356						**If the data were collected using judgmental or other non-random methods,**						
357						**then contact a statistician to correctly calculate UCLs.**						
358												
359						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
360						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
361						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
362												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:17:13 PM
From File	SW Misc Offsite Streams Lower
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Copper

General Statistics

Total Number of Observations	41	Number of Distinct Observations	30
		Number of Missing Observations	14
Number of Detects	28	Number of Non-Detects	13
Number of Distinct Detects	28	Number of Distinct Non-Detects	2
Minimum Detect	2.2	Minimum Non-Detect	1.2
Maximum Detect	215	Maximum Non-Detect	5
Variance Detects	1902	Percent Non-Detects	31.71%
Mean Detects	36.15	SD Detects	43.61
Median Detects	20.7	CV Detects	1.206
Skewness Detects	2.835	Kurtosis Detects	10.1
Mean of Logged Detects	3.041	SD of Logged Detects	1.108

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.691	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.896	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.235	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.191	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	25.13	KM Standard Error of Mean	6.188
90KM SD	38.91	95% KM (BCA) UCL	35.13
95% KM (t) UCL	35.55	95% KM (Percentile Bootstrap) UCL	35.33
95% KM (z) UCL	35.31	95% KM Bootstrap t UCL	42.38
90% KM Chebyshev UCL	43.69	95% KM Chebyshev UCL	52.1
97.5% KM Chebyshev UCL	63.77	99% KM Chebyshev UCL	86.7

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.453	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.773	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.135	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.17	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.05	k star (bias corrected MLE)	0.961
Theta hat (MLE)	34.42	Theta star (bias corrected MLE)	37.6
nu hat (MLE)	58.81	nu star (bias corrected)	53.84
Mean (detects)	36.15		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	24.69
Maximum	215	Median	11.3
SD	39.67	CV	1.607
k hat (MLE)	0.271	k star (bias corrected MLE)	0.267
Theta hat (MLE)	91.18	Theta star (bias corrected MLE)	92.4
nu hat (MLE)	22.2	nu star (bias corrected)	21.91
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (21.91, α)	12.27	Adjusted Chi Square Value (21.91, β)	12.01
95% Gamma Approximate UCL	44.08	95% Gamma Adjusted UCL	45.05

68												
69	**Estimates of Gamma Parameters using KM Estimates**											
70					Mean (KM)	25.13				SD (KM)	38.91	
71					Variance (KM)	1514				SE of Mean (KM)	6.188	
72					k hat (KM)	0.417				k star (KM)	0.403	
73					nu hat (KM)	34.2				nu star (KM)	33.03	
74					theta hat (KM)	60.24				theta star (KM)	62.38	
75					80% gamma percentile (KM)	40.59				90% gamma percentile (KM)	70.89	
76					95% gamma percentile (KM)	104.2				99% gamma percentile (KM)	187.7	
77												
78	**Gamma Kaplan-Meier (KM) Statistics**											
79					Approximate Chi Square Value (33.03, α)	20.89				Adjusted Chi Square Value (33.03, β)	20.54	
80					95% KM Approximate Gamma UCL	39.73				95% KM Adjusted Gamma UCL	40.41	
81												
82	**Lognormal GOF Test on Detected Observations Only**											
83					Shapiro Wilk Test Statistic	0.975				**Shapiro Wilk GOF Test**		
84					10% Shapiro Wilk Critical Value	0.936				Detected Data appear Lognormal at 10% Significance Level		
85					Lilliefors Test Statistic	0.121				**Lilliefors GOF Test**		
86					10% Lilliefors Critical Value	0.151				Detected Data appear Lognormal at 10% Significance Level		
87	**Detected Data appear Lognormal at 10% Significance Level**											
88												
89	**Lognormal ROS Statistics Using Imputed Non-Detects**											
90					Mean in Original Scale	25.31				Mean in Log Scale	2.232	
91					SD in Original Scale	39.28				SD in Log Scale	1.553	
92					95% t UCL (assumes normality of ROS data)	35.64				95% Percentile Bootstrap UCL	35.98	
93					95% BCA Bootstrap UCL	38.74				95% Bootstrap t UCL	42.01	
94					95% H-UCL (Log ROS)	65.39						
95												
96	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
97					KM Mean (logged)	2.169				KM Geo Mean	8.746	
98					KM SD (logged)	1.572				95% Critical H Value (KM-Log)	3.051	
99					KM Standard Error of Mean (logged)	0.252				95% H-UCL (KM -Log)	64.22	
100					KM SD (logged)	1.572				95% Critical H Value (KM-Log)	3.051	
101					KM Standard Error of Mean (logged)	0.252						
102												
103	**DL/2 Statistics**											
104	**DL/2 Normal**									**DL/2 Log-Transformed**		
105					Mean in Original Scale	25.15				Mean in Log Scale	2.124	
106					SD in Original Scale	39.38				SD in Log Scale	1.688	
107					95% t UCL (Assumes normality)	35.51				95% H-Stat UCL	81.86	
108	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
109												
110	**Nonparametric Distribution Free UCL Statistics**											
111	**Detected Data appear Gamma Distributed at 5% Significance Level**											
112												
113	**Suggested UCL to Use**											
114					95% KM Adjusted Gamma UCL	40.41						
115												
116	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
117	**Please verify the data were collected from random locations.**											
118	**If the data were collected using judgmental or other non-random methods,**											
119	**then contact a statistician to correctly calculate UCLs.**											
120												
121	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
122	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
123	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
124												
125	**Lead**											
126												
127	**General Statistics**											
128					Total Number of Observations	41				Number of Distinct Observations	28	
129										Number of Missing Observations	14	
130					Number of Detects	26				Number of Non-Detects	15	
131					Number of Distinct Detects	25				Number of Distinct Non-Detects	3	
132					Minimum Detect	0.35				Minimum Non-Detect	4.4	
133					Maximum Detect	1020				Maximum Non-Detect	10	
134					Variance Detects	43221				Percent Non-Detects	36.59%	

135					Mean Detects	127.5					SD Detects	207.9
136					Median Detects	57.15					CV Detects	1.63
137					Skewness Detects	3.451					Kurtosis Detects	14.04
138					Mean of Logged Detects	3.783					SD of Logged Detects	1.806
139												
140					**Normal GOF Test on Detects Only**							
141					Shapiro Wilk Test Statistic	0.586	**Shapiro Wilk GOF Test**					
142					1% Shapiro Wilk Critical Value	0.891	Detected Data Not Normal at 1% Significance Level					
143					Lilliefors Test Statistic	0.284	**Lilliefors GOF Test**					
144					1% Lilliefors Critical Value	0.199	Detected Data Not Normal at 1% Significance Level					
145					**Detected Data Not Normal at 1% Significance Level**							
146												
147					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
148					KM Mean	81.15	KM Standard Error of Mean	27.62				
149					90KM SD	173.4	95% KM (BCA) UCL	128.5				
150					95% KM (t) UCL	127.7	95% KM (Percentile Bootstrap) UCL	128.3				
151					95% KM (z) UCL	126.6	95% KM Bootstrap t UCL	174.5				
152					90% KM Chebyshev UCL	164	95% KM Chebyshev UCL	201.6				
153					97.5% KM Chebyshev UCL	253.7	99% KM Chebyshev UCL	356				
154												
155					**Gamma GOF Tests on Detected Observations Only**							
156					A-D Test Statistic	0.323	**Anderson-Darling GOF Test**					
157					5% A-D Critical Value	0.801	Detected data appear Gamma Distributed at 5% Significance Level					
158					K-S Test Statistic	0.115	**Kolmogorov-Smirnov GOF**					
159					5% K-S Critical Value	0.18	Detected data appear Gamma Distributed at 5% Significance Level					
160					**Detected data appear Gamma Distributed at 5% Significance Level**							
161												
162					**Gamma Statistics on Detected Data Only**							
163					k hat (MLE)	0.583	k star (bias corrected MLE)	0.541				
164					Theta hat (MLE)	218.9	Theta star (bias corrected MLE)	235.7				
165					nu hat (MLE)	30.29	nu star (bias corrected)	28.13				
166					Mean (detects)	127.5						
167												
168					**Gamma ROS Statistics using Imputed Non-Detects**							
169					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
170					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
171					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
172					This is especially true when the sample size is small.							
173					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
174					Minimum	0.01	Mean	80.87				
175					Maximum	1020	Median	14.7				
176					SD	175.7	CV	2.173				
177					k hat (MLE)	0.2	k star (bias corrected MLE)	0.202				
178					Theta hat (MLE)	404.3	Theta star (bias corrected MLE)	401				
179					nu hat (MLE)	16.4	nu star (bias corrected)	16.54				
180					Adjusted Level of Significance (β)	0.0441						
181					Approximate Chi Square Value (16.54, α)	8.342	Adjusted Chi Square Value (16.54, β)	8.129				
182					95% Gamma Approximate UCL	160.3	95% Gamma Adjusted UCL	164.5				
183												
184					**Estimates of Gamma Parameters using KM Estimates**							
185					Mean (KM)	81.15	SD (KM)	173.4				
186					Variance (KM)	30082	SE of Mean (KM)	27.62				
187					k hat (KM)	0.219	k star (KM)	0.219				
188					nu hat (KM)	17.95	nu star (KM)	17.97				
189					theta hat (KM)	370.7	theta star (KM)	370.3				
190					80% gamma percentile (KM)	111.8	90% gamma percentile (KM)	245.2				
191					95% gamma percentile (KM)	408	99% gamma percentile (KM)	849.7				
192												
193					**Gamma Kaplan-Meier (KM) Statistics**							
194					Approximate Chi Square Value (17.97, α)	9.371	Adjusted Chi Square Value (17.97, β)	9.144				
195					95% KM Approximate Gamma UCL	155.6	95% KM Adjusted Gamma UCL	159.5				
196												
197					**Lognormal GOF Test on Detected Observations Only**							
198					Shapiro Wilk Test Statistic	0.933	**Shapiro Wilk GOF Test**					
199					10% Shapiro Wilk Critical Value	0.933	Detected Data appear Lognormal at 10% Significance Level					
200					Lilliefors Test Statistic	0.133	**Lilliefors GOF Test**					
201					10% Lilliefors Critical Value	0.156	Detected Data appear Lognormal at 10% Significance Level					

202	**Detected Data appear Lognormal at 10% Significance Level**											
203												
204	**Lognormal ROS Statistics Using Imputed Non-Detects**											
205						Mean in Original Scale	81.6			Mean in Log Scale	2.507	
206						SD in Original Scale	175.4			SD in Log Scale	2.301	
207					95% t UCL (assumes normality of ROS data)		127.7			95% Percentile Bootstrap UCL	130.3	
208						95% BCA Bootstrap UCL	149.3			95% Bootstrap t UCL	171.6	
209						95% H-UCL (Log ROS)	762.1					
210												
211	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
212						KM Mean (logged)	2.194			KM Geo Mean	8.972	
213						KM SD (logged)	2.551			95% Critical H Value (KM-Log)	4.443	
214						KM Standard Error of Mean (logged)	0.423			95% H-UCL (KM -Log)	1396	
215						KM SD (logged)	2.551			95% Critical H Value (KM-Log)	4.443	
216						KM Standard Error of Mean (logged)	0.423					
217												
218	**DL/2 Statistics**											
219	**DL/2 Normal**									**DL/2 Log-Transformed**		
220						Mean in Original Scale	82.04			Mean in Log Scale	2.806	
221						SD in Original Scale	175.2			SD in Log Scale	1.943	
222						95% t UCL (Assumes normality)	128.1			95% H-Stat UCL	325.7	
223	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
224												
225	**Nonparametric Distribution Free UCL Statistics**											
226	**Detected Data appear Gamma Distributed at 5% Significance Level**											
227												
228	**Suggested UCL to Use**											
229						95% KM Adjusted Gamma UCL	159.5					
230												
231	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
232	**Please verify the data were collected from random locations.**											
233	**If the data were collected using judgmental or other non-random methods,**											
234	**then contact a statistician to correctly calculate UCLs.**											
235												
236	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
237	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
238	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
239												
240	**Zinc**											
241												
242	**General Statistics**											
243						Total Number of Observations	41			Number of Distinct Observations	40	
244										Number of Missing Observations	14	
245						Number of Detects	38			Number of Non-Detects	3	
246						Number of Distinct Detects	38			Number of Distinct Non-Detects	2	
247						Minimum Detect	2.1			Minimum Non-Detect	1.6	
248						Maximum Detect	3330			Maximum Non-Detect	10	
249						Variance Detects	517548			Percent Non-Detects	7.317%	
250						Mean Detects	400			SD Detects	719.4	
251						Median Detects	73.25			CV Detects	1.799	
252						Skewness Detects	2.576			Kurtosis Detects	7.145	
253						Mean of Logged Detects	4.438			SD of Logged Detects	1.94	
254												
255	**Normal GOF Test on Detects Only**											
256						Shapiro Wilk Test Statistic	0.612			**Shapiro Wilk GOF Test**		
257						1% Shapiro Wilk Critical Value	0.916			Detected Data Not Normal at 1% Significance Level		
258						Lilliefors Test Statistic	0.315			**Lilliefors GOF Test**		
259						1% Lilliefors Critical Value	0.165			Detected Data Not Normal at 1% Significance Level		
260	**Detected Data Not Normal at 1% Significance Level**											
261												
262	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
263						KM Mean	370.9			KM Standard Error of Mean	109.4	
264						90KM SD	691.2			95% KM (BCA) UCL	557.3	
265						95% KM (t) UCL	555.1			95% KM (Percentile Bootstrap) UCL	556.6	
266						95% KM (z) UCL	550.8			95% KM Bootstrap t UCL	647.5	
267						90% KM Chebyshev UCL	699.1			95% KM Chebyshev UCL	847.8	
268						97.5% KM Chebyshev UCL	1054			99% KM Chebyshev UCL	1459	

269												
270	**Gamma GOF Tests on Detected Observations Only**											
271					A-D Test Statistic	1.462	**Anderson-Darling GOF Test**					
272					5% A-D Critical Value	0.83	Detected Data Not Gamma Distributed at 5% Significance Level					
273					K-S Test Statistic	0.22	**Kolmogorov-Smirnov GOF**					
274					5% K-S Critical Value	0.153	Detected Data Not Gamma Distributed at 5% Significance Level					
275	**Detected Data Not Gamma Distributed at 5% Significance Level**											
276												
277	**Gamma Statistics on Detected Data Only**											
278					k hat (MLE)	0.42	k star (bias corrected MLE)	0.405				
279					Theta hat (MLE)	951.9	Theta star (bias corrected MLE)	988.7				
280					nu hat (MLE)	31.94	nu star (bias corrected)	30.75				
281					Mean (detects)	400						
282												
283	**Gamma ROS Statistics using Imputed Non-Detects**											
284	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
285	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
286	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
287	This is especially true when the sample size is small.											
288	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
289					Minimum	0.01	Mean	370.7				
290					Maximum	3330	Median	64.2				
291					SD	699.9	CV	1.888				
292					k hat (MLE)	0.319	k star (bias corrected MLE)	0.312				
293					Theta hat (MLE)	1162	Theta star (bias corrected MLE)	1188				
294					nu hat (MLE)	26.17	nu star (bias corrected)	25.58				
295					Adjusted Level of Significance (β)	0.0441						
296					Approximate Chi Square Value (25.58, α)	15.06	Adjusted Chi Square Value (25.58, β)	14.76				
297					95% Gamma Approximate UCL	629.8	95% Gamma Adjusted UCL	642.4				
298												
299	**Estimates of Gamma Parameters using KM Estimates**											
300					Mean (KM)	370.9	SD (KM)	691.2				
301					Variance (KM)	477777	SE of Mean (KM)	109.4				
302					k hat (KM)	0.288	k star (KM)	0.283				
303					nu hat (KM)	23.61	nu star (KM)	23.22				
304					theta hat (KM)	1288	theta star (KM)	1310				
305					80% gamma percentile (KM)	560.2	90% gamma percentile (KM)	1101				
306					95% gamma percentile (KM)	1728	99% gamma percentile (KM)	3370				
307												
308	**Gamma Kaplan-Meier (KM) Statistics**											
309					Approximate Chi Square Value (23.22, α)	13.25	Adjusted Chi Square Value (23.22, β)	12.98				
310					95% KM Approximate Gamma UCL	649.7	95% KM Adjusted Gamma UCL	663.5				
311												
312	**Lognormal GOF Test on Detected Observations Only**											
313					Shapiro Wilk Test Statistic	0.965	**Shapiro Wilk GOF Test**					
314					10% Shapiro Wilk Critical Value	0.947	Detected Data appear Lognormal at 10% Significance Level					
315					Lilliefors Test Statistic	0.108	**Lilliefors GOF Test**					
316					10% Lilliefors Critical Value	0.13	Detected Data appear Lognormal at 10% Significance Level					
317	**Detected Data appear Lognormal at 10% Significance Level**											
318												
319	**Lognormal ROS Statistics Using Imputed Non-Detects**											
320					Mean in Original Scale	370.8	Mean in Log Scale	4.129				
321					SD in Original Scale	699.8	SD in Log Scale	2.183				
322					95% t UCL (assumes normality of ROS data)	554.9	95% Percentile Bootstrap UCL	554.8				
323					95% BCA Bootstrap UCL	603.7	95% Bootstrap t UCL	638.3				
324					95% H-UCL (Log ROS)	2583						
325												
326	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
327					KM Mean (logged)	4.165	KM Geo Mean	64.39				
328					KM SD (logged)	2.087	95% Critical H Value (KM-Log)	3.764				
329					KM Standard Error of Mean (logged)	0.331	95% H-UCL (KM -Log)	1971				
330					KM SD (logged)	2.087	95% Critical H Value (KM-Log)	3.764				
331					KM Standard Error of Mean (logged)	0.331						
332												
333	**DL/2 Statistics**											
334	**DL/2 Normal**						**DL/2 Log-Transformed**					
335					Mean in Original Scale	370.9	Mean in Log Scale	4.141				

	A	B	C	D	E	F	G	H	I	J	K	L
336					SD in Original Scale	699.8				SD in Log Scale		2.163
337				95% t UCL (Assumes normality)		554.9				95% H-Stat UCL		2452
338	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
339												
340	**Nonparametric Distribution Free UCL Statistics**											
341	**Detected Data appear Lognormal Distributed at 10% Significance Level**											
342												
343	**Suggested UCL to Use**											
344					KM H-UCL	1971						
345												
346	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
347	**Please verify the data were collected from random locations.**											
348	**If the data were collected using judgmental or other non-random methods,**											
349	**then contact a statistician to correctly calculate UCLs.**											
350												
351	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
352	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
353	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
354												

1	**UCL Statistics for Data Sets with Non-Detects**											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.2 8/7/2025 1:17:19 PM								
5	From File			SW Misc Offsite Streams Upper								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	**Copper**											
11												
12	**General Statistics**											
13	Total Number of Observations			21			Number of Distinct Observations			9		
14							Number of Missing Observations			8		
15	Number of Detects			8			Number of Non-Detects			13		
16	Number of Distinct Detects			7			Number of Distinct Non-Detects			2		
17	Minimum Detect			3.5			Minimum Non-Detect			1.2		
18	Maximum Detect			99			Maximum Non-Detect			5		
19	Variance Detects			1001			Percent Non-Detects			61.9%		
20	Mean Detects			25.46			SD Detects			31.63		
21	Median Detects			13.85			CV Detects			1.242		
22	Skewness Detects			2.226			Kurtosis Detects			5.304		
23	Mean of Logged Detects			2.69			SD of Logged Detects			1.096		
24												
25	**Normal GOF Test on Detects Only**											
26	Shapiro Wilk Test Statistic			0.711			**Shapiro Wilk GOF Test**					
27	1% Shapiro Wilk Critical Value			0.749			Detected Data Not Normal at 1% Significance Level					
28	Lilliefors Test Statistic			0.261			**Lilliefors GOF Test**					
29	1% Lilliefors Critical Value			0.333			Detected Data appear Normal at 1% Significance Level					
30	**Detected Data appear Approximate Normal at 1% Significance Level**											
31	**Note GOF tests may be unreliable for small sample sizes**											
32												
33	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
34	KM Mean			10.47			KM Standard Error of Mean			5.068		
35	90KM SD			21.72			95% KM (BCA) UCL			20.95		
36	95% KM (t) UCL			19.21			95% KM (Percentile Bootstrap) UCL			19.53		
37	95% KM (z) UCL			18.81			95% KM Bootstrap t UCL			31.89		
38	90% KM Chebyshev UCL			25.68			95% KM Chebyshev UCL			32.56		
39	97.5% KM Chebyshev UCL			42.12			99% KM Chebyshev UCL			60.9		
40												
41	**Gamma GOF Tests on Detected Observations Only**											
42	A-D Test Statistic			0.38			**Anderson-Darling GOF Test**					
43	5% A-D Critical Value			0.735			Detected data appear Gamma Distributed at 5% Significance Level					
44	K-S Test Statistic			0.199			**Kolmogorov-Smirnov GOF**					
45	5% K-S Critical Value			0.301			Detected data appear Gamma Distributed at 5% Significance Level					
46	**Detected data appear Gamma Distributed at 5% Significance Level**											
47	**Note GOF tests may be unreliable for small sample sizes**											
48												
49	**Gamma Statistics on Detected Data Only**											
50	k hat (MLE)			1.049			k star (bias corrected MLE)			0.739		
51	Theta hat (MLE)			24.27			Theta star (bias corrected MLE)			34.45		
52	nu hat (MLE)			16.79			nu star (bias corrected)			11.83		
53	Mean (detects)			25.46								
54												
55	**Gamma ROS Statistics using Imputed Non-Detects**											
56	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
57	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
58	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
59	This is especially true when the sample size is small.											
60	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
61	Minimum			0.01			Mean			9.706		
62	Maximum			99			Median			0.01		
63	SD			22.6			CV			2.328		
64	k hat (MLE)			0.182			k star (bias corrected MLE)			0.188		
65	Theta hat (MLE)			53.28			Theta star (bias corrected MLE)			51.66		
66	nu hat (MLE)			7.651			nu star (bias corrected)			7.891		
67	Adjusted Level of Significance (β)			0.0383								

68	Approximate Chi Square Value (7.89, α)					2.672	Adjusted Chi Square Value (7.89, β)					2.444
69	95% Gamma Approximate UCL					28.66	95% Gamma Adjusted UCL					31.34
70												
71	**Estimates of Gamma Parameters using KM Estimates**											
72	Mean (KM)					10.47	SD (KM)					21.72
73	Variance (KM)					471.9	SE of Mean (KM)					5.068
74	k hat (KM)					0.232	k star (KM)					0.231
75	nu hat (KM)					9.761	nu star (KM)					9.7
76	theta hat (KM)					45.06	theta star (KM)					45.35
77	80% gamma percentile (KM)					14.76	90% gamma percentile (KM)					31.58
78	95% gamma percentile (KM)					51.88	99% gamma percentile (KM)					106.5
79												
80	**Gamma Kaplan-Meier (KM) Statistics**											
81	Approximate Chi Square Value (9.70, α)					3.755	Adjusted Chi Square Value (9.70, β)					3.475
82	95% KM Approximate Gamma UCL					27.05	95% KM Adjusted Gamma UCL					29.23
83												
84	**Lognormal GOF Test on Detected Observations Only**											
85	Shapiro Wilk Test Statistic					0.962	**Shapiro Wilk GOF Test**					
86	10% Shapiro Wilk Critical Value					0.851	Detected Data appear Lognormal at 10% Significance Level					
87	Lilliefors Test Statistic					0.169	**Lilliefors GOF Test**					
88	10% Lilliefors Critical Value					0.265	Detected Data appear Lognormal at 10% Significance Level					
89	**Detected Data appear Lognormal at 10% Significance Level**											
90	**Note GOF tests may be unreliable for small sample sizes**											
91												
92	**Lognormal ROS Statistics Using Imputed Non-Detects**											
93	Mean in Original Scale					10.13	Mean in Log Scale					0.457
94	SD in Original Scale					22.41	SD in Log Scale					2.137
95	95% t UCL (assumes normality of ROS data)					18.57	95% Percentile Bootstrap UCL					18.89
96	95% BCA Bootstrap UCL					24.37	95% Bootstrap t UCL					31.74
97	95% H-UCL (Log ROS)					125.4						
98												
99	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
100	KM Mean (logged)					1.152	KM Geo Mean					3.163
101	KM SD (logged)					1.368	95% Critical H Value (KM-Log)					3.103
102	KM Standard Error of Mean (logged)					0.321	95% H-UCL (KM -Log)					20.84
103	KM SD (logged)					1.368	95% Critical H Value (KM-Log)					3.103
104	KM Standard Error of Mean (logged)					0.321						
105												
106	**DL/2 Statistics**											
107	**DL/2 Normal**						**DL/2 Log-Transformed**					
108	Mean in Original Scale					10.34	Mean in Log Scale					0.912
109	SD in Original Scale					22.32	SD in Log Scale					1.642
110	95% t UCL (Assumes normality)					18.75	95% H-Stat UCL					35.22
111	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
112												
113	**Nonparametric Distribution Free UCL Statistics**											
114	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
115												
116	**Suggested UCL to Use**											
117	95% KM (t) UCL					19.21						
118												
119	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
120	**Please verify the data were collected from random locations.**											
121	**If the data were collected using judgmental or other non-random methods,**											
122	**then contact a statistician to correctly calculate UCLs.**											
123												
124	When a data set follows an approximate distribution passing only one of the GOF tests,											
125	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
126												
127	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
128	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
129	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
130												
131	**Lead**											
132												
133	**General Statistics**											
134	Total Number of Observations					21	Number of Distinct Observations					14

135											Number of Missing Observations	8
136					Number of Detects	11					Number of Non-Detects	10
137					Number of Distinct Detects	11					Number of Distinct Non-Detects	3
138					Minimum Detect	12.9					Minimum Non-Detect	4.4
139					Maximum Detect	375					Maximum Non-Detect	10
140					Variance Detects	10829					Percent Non-Detects	47.62%
141					Mean Detects	101.2					SD Detects	104.1
142					Median Detects	83.2					CV Detects	1.028
143					Skewness Detects	2.048					Kurtosis Detects	4.92
144					Mean of Logged Detects	4.177					SD of Logged Detects	1.015
145												
146					**Normal GOF Test on Detects Only**							
147					Shapiro Wilk Test Statistic	0.779	**Shapiro Wilk GOF Test**					
148					1% Shapiro Wilk Critical Value	0.792	Detected Data Not Normal at 1% Significance Level					
149					Lilliefors Test Statistic	0.209	**Lilliefors GOF Test**					
150					1% Lilliefors Critical Value	0.291	Detected Data appear Normal at 1% Significance Level					
151					**Detected Data appear Approximate Normal at 1% Significance Level**							
152												
153					**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**							
154					KM Mean	55.1					KM Standard Error of Mean	19.81
155					90KM SD	86.56					95% KM (BCA) UCL	93.94
156					95% KM (t) UCL	89.27					95% KM (Percentile Bootstrap) UCL	90.04
157					95% KM (z) UCL	87.69					95% KM Bootstrap t UCL	116.1
158					90% KM Chebyshev UCL	114.5					95% KM Chebyshev UCL	141.5
159					97.5% KM Chebyshev UCL	178.8					99% KM Chebyshev UCL	252.2
160												
161					**Gamma GOF Tests on Detected Observations Only**							
162					A-D Test Statistic	0.258	**Anderson-Darling GOF Test**					
163					5% A-D Critical Value	0.746	Detected data appear Gamma Distributed at 5% Significance Level					
164					K-S Test Statistic	0.16	**Kolmogorov-Smirnov GOF**					
165					5% K-S Critical Value	0.261	Detected data appear Gamma Distributed at 5% Significance Level					
166					**Detected data appear Gamma Distributed at 5% Significance Level**							
167												
168					**Gamma Statistics on Detected Data Only**							
169					k hat (MLE)	1.276					k star (bias corrected MLE)	0.989
170					Theta hat (MLE)	79.29					Theta star (bias corrected MLE)	102.3
171					nu hat (MLE)	28.08					nu star (bias corrected)	21.75
172					Mean (detects)	101.2						
173												
174					**Gamma ROS Statistics using Imputed Non-Detects**							
175					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
176					GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)							
177					For such situations, GROS method may yield incorrect values of UCLs and BTVs							
178					This is especially true when the sample size is small.							
179					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
180					Minimum	0.01					Mean	53.01
181					Maximum	375					Median	12.9
182					SD	89.98					CV	1.697
183					k hat (MLE)	0.187					k star (bias corrected MLE)	0.192
184					Theta hat (MLE)	283.4					Theta star (bias corrected MLE)	276
185					nu hat (MLE)	7.856					nu star (bias corrected)	8.067
186					Adjusted Level of Significance (β)	0.0383						
187					Approximate Chi Square Value (8.07, α)	2.774					Adjusted Chi Square Value (8.07, β)	2.54
188					95% Gamma Approximate UCL	154.2					95% Gamma Adjusted UCL	168.3
189												
190					**Estimates of Gamma Parameters using KM Estimates**							
191					Mean (KM)	55.1					SD (KM)	86.56
192					Variance (KM)	7493					SE of Mean (KM)	19.81
193					k hat (KM)	0.405					k star (KM)	0.379
194					nu hat (KM)	17.02					nu star (KM)	15.92
195					theta hat (KM)	136					theta star (KM)	145.4
196					80% gamma percentile (KM)	88.32					90% gamma percentile (KM)	157.1
197					95% gamma percentile (KM)	233.2					99% gamma percentile (KM)	425.8
198												
199					**Gamma Kaplan-Meier (KM) Statistics**							
200					Approximate Chi Square Value (15.92, α)	7.905					Adjusted Chi Square Value (15.92, β)	7.473
201					95% KM Approximate Gamma UCL	111					95% KM Adjusted Gamma UCL	117.4

202												
203	**Lognormal GOF Test on Detected Observations Only**											
204					Shapiro Wilk Test Statistic	0.971	**Shapiro Wilk GOF Test**					
205					10% Shapiro Wilk Critical Value	0.876	Detected Data appear Lognormal at 10% Significance Level					
206					Lilliefors Test Statistic	0.142	**Lilliefors GOF Test**					
207					10% Lilliefors Critical Value	0.231	Detected Data appear Lognormal at 10% Significance Level					
208	**Detected Data appear Lognormal at 10% Significance Level**											
209												
210	**Lognormal ROS Statistics Using Imputed Non-Detects**											
211					Mean in Original Scale	55.34	Mean in Log Scale	2.843				
212					SD in Original Scale	88.58	SD in Log Scale	1.677				
213					95% t UCL (assumes normality of ROS data)	88.68	95% Percentile Bootstrap UCL	89.51				
214					95% BCA Bootstrap UCL	102.5	95% Bootstrap t UCL	115.4				
215					95% H-UCL (Log ROS)	269.7						
216												
217	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
218					KM Mean (logged)	2.893	KM Geo Mean	18.05				
219					KM SD (logged)	1.517	95% Critical H Value (KM-Log)	3.339				
220					KM Standard Error of Mean (logged)	0.347	95% H-UCL (KM -Log)	177.2				
221					KM SD (logged)	1.517	95% Critical H Value (KM-Log)	3.339				
222					KM Standard Error of Mean (logged)	0.347						
223												
224	**DL/2 Statistics**											
225	**DL/2 Normal**						**DL/2 Log-Transformed**					
226					Mean in Original Scale	54.47	Mean in Log Scale	2.692				
227					SD in Original Scale	89.09	SD in Log Scale	1.766				
228					95% t UCL (Assumes normality)	88	95% H-Stat UCL	308.4				
229	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
230												
231	**Nonparametric Distribution Free UCL Statistics**											
232	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
233												
234	**Suggested UCL to Use**											
235					95% KM (t) UCL	89.27						
236												
237	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
238	**Please verify the data were collected from random locations.**											
239	**If the data were collected using judgmental or other non-random methods,**											
240	**then contact a statistician to correctly calculate UCLs.**											
241												
242	When a data set follows an approximate distribution passing only one of the GOF tests,											
243	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
244												
245	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
246	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
247	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
248												
249	**Zinc**											
250												
251	**General Statistics**											
252					Total Number of Observations	21	Number of Distinct Observations	19				
253							Number of Missing Observations	8				
254					Number of Detects	18	Number of Non-Detects	3				
255					Number of Distinct Detects	18	Number of Distinct Non-Detects	1				
256					Minimum Detect	3.2	Minimum Non-Detect	10				
257					Maximum Detect	910	Maximum Non-Detect	10				
258					Variance Detects	54989	Percent Non-Detects	14.29%				
259					Mean Detects	141.9	SD Detects	234.5				
260					Median Detects	74.1	CV Detects	1.653				
261					Skewness Detects	2.657	Kurtosis Detects	7.043				
262					Mean of Logged Detects	3.933	SD of Logged Detects	1.558				
263												
264	**Normal GOF Test on Detects Only**											
265					Shapiro Wilk Test Statistic	0.6	**Shapiro Wilk GOF Test**					
266					1% Shapiro Wilk Critical Value	0.858	Detected Data Not Normal at 1% Significance Level					
267					Lilliefors Test Statistic	0.36	**Lilliefors GOF Test**					
268					1% Lilliefors Critical Value	0.235	Detected Data Not Normal at 1% Significance Level					

269	**Detected Data Not Normal at 1% Significance Level**											
270												
271	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
272					KM Mean	122.3			KM Standard Error of Mean	48.59		
273					90KM SD	216.4			95% KM (BCA) UCL	217.1		
274					95% KM (t) UCL	206.1			95% KM (Percentile Bootstrap) UCL	209.2		
275					95% KM (z) UCL	202.2			95% KM Bootstrap t UCL	373.3		
276					90% KM Chebyshev UCL	268.1			95% KM Chebyshev UCL	334.1		
277					97.5% KM Chebyshev UCL	425.7			99% KM Chebyshev UCL	605.7		
278												
279	**Gamma GOF Tests on Detected Observations Only**											
280					A-D Test Statistic	0.594			**Anderson-Darling GOF Test**			
281					5% A-D Critical Value	0.791			Detected data appear Gamma Distributed at 5% Significance Level			
282					K-S Test Statistic	0.198			**Kolmogorov-Smirnov GOF**			
283					5% K-S Critical Value	0.214			Detected data appear Gamma Distributed at 5% Significance Level			
284	**Detected data appear Gamma Distributed at 5% Significance Level**											
285												
286	**Gamma Statistics on Detected Data Only**											
287					k hat (MLE)	0.604			k star (bias corrected MLE)	0.54		
288					Theta hat (MLE)	234.9			Theta star (bias corrected MLE)	262.6		
289					nu hat (MLE)	21.75			nu star (bias corrected)	19.46		
290					Mean (detects)	141.9						
291												
292	**Gamma ROS Statistics using Imputed Non-Detects**											
293	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
294	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
295	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
296	This is especially true when the sample size is small.											
297	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
298					Minimum	0.01			Mean	121.6		
299					Maximum	910			Median	51.8		
300					SD	222.1			CV	1.826		
301					k hat (MLE)	0.326			k star (bias corrected MLE)	0.311		
302					Theta hat (MLE)	373.2			Theta star (bias corrected MLE)	391		
303					nu hat (MLE)	13.69			nu star (bias corrected)	13.07		
304					Adjusted Level of Significance (β)	0.0383						
305					Approximate Chi Square Value (13.07, α)	5.937			Adjusted Chi Square Value (13.07, β)	5.571		
306					95% Gamma Approximate UCL	267.7			95% Gamma Adjusted UCL	285.3		
307												
308	**Estimates of Gamma Parameters using KM Estimates**											
309					Mean (KM)	122.3			SD (KM)	216.4		
310					Variance (KM)	46818			SE of Mean (KM)	48.59		
311					k hat (KM)	0.32			k star (KM)	0.306		
312					nu hat (KM)	13.42			nu star (KM)	12.84		
313					theta hat (KM)	382.8			theta star (KM)	400.2		
314					80% gamma percentile (KM)	188.4			90% gamma percentile (KM)	359.9		
315					95% gamma percentile (KM)	556.2			99% gamma percentile (KM)	1065		
316												
317	**Gamma Kaplan-Meier (KM) Statistics**											
318					Approximate Chi Square Value (12.84, α)	5.783			Adjusted Chi Square Value (12.84, β)	5.422		
319					95% KM Approximate Gamma UCL	271.5			95% KM Adjusted Gamma UCL	289.6		
320												
321	**Lognormal GOF Test on Detected Observations Only**											
322					Shapiro Wilk Test Statistic	0.968			**Shapiro Wilk GOF Test**			
323					10% Shapiro Wilk Critical Value	0.914			Detected Data appear Lognormal at 10% Significance Level			
324					Lilliefors Test Statistic	0.141			**Lilliefors GOF Test**			
325					10% Lilliefors Critical Value	0.185			Detected Data appear Lognormal at 10% Significance Level			
326	**Detected Data appear Lognormal at 10% Significance Level**											
327												
328	**Lognormal ROS Statistics Using Imputed Non-Detects**											
329					Mean in Original Scale	122.4			Mean in Log Scale	3.593		
330					SD in Original Scale	221.7			SD in Log Scale	1.682		
331					95% t UCL (assumes normality of ROS data)	205.8			95% Percentile Bootstrap UCL	204.8		
332					95% BCA Bootstrap UCL	247.6			95% Bootstrap t UCL	361.1		
333					95% H-UCL (Log ROS)	581.1						
334												
335	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											

336				KM Mean (logged)		3.59				KM Geo Mean		36.24
337				KM SD (logged)		1.637				95% Critical H Value (KM-Log)		3.533
338				KM Standard Error of Mean (logged)		0.369				95% H-UCL (KM -Log)		504.6
339				KM SD (logged)		1.637				95% Critical H Value (KM-Log)		3.533
340				KM Standard Error of Mean (logged)		0.369						
341												
342						**DL/2 Statistics**						
343				**DL/2 Normal**						**DL/2 Log-Transformed**		
344				Mean in Original Scale		122.3				Mean in Log Scale		3.601
345				SD in Original Scale		221.7				SD in Log Scale		1.66
346				95% t UCL (Assumes normality)		205.8				95% H-Stat UCL		547.4
347						**DL/2 is not a recommended method, provided for comparisons and historical reasons**						
348												
349						**Nonparametric Distribution Free UCL Statistics**						
350						**Detected Data appear Gamma Distributed at 5% Significance Level**						
351												
352						**Suggested UCL to Use**						
353				95% KM Adjusted Gamma UCL		289.6						
354												
355						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
356						**Please verify the data were collected from random locations.**						
357						**If the data were collected using judgmental or other non-random methods,**						
358						**then contact a statistician to correctly calculate UCLs.**						
359												
360						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
361						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
362						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
363												

User Selected Options		
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:17:27 PM	
From File	SW TPND	
Full Precision	OFF	
Confidence Coefficient	95%	
Number of Bootstrap Operations	2000	

Copper

General Statistics

Total Number of Observations	8	Number of Distinct Observations	7
		Number of Missing Observations	1
Number of Detects	5	Number of Non-Detects	3
Number of Distinct Detects	5	Number of Distinct Non-Detects	2
Minimum Detect	2.5	Minimum Non-Detect	1.2
Maximum Detect	140	Maximum Non-Detect	1.6
Variance Detects	3411	Percent Non-Detects	37.5%
Mean Detects	37.08	SD Detects	58.4
Median Detects	7.7	CV Detects	1.575
Skewness Detects	2.081	Kurtosis Detects	4.38
Mean of Logged Detects	2.632	SD of Logged Detects	1.553

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.684	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.686	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.359	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level

Detected Data appear Approximate Normal at 1% Significance Level
Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	23.63	KM Standard Error of Mean	17.71
90KM SD	44.8	95% KM (BCA) UCL	55.69
95% KM (t) UCL	57.18	95% KM (Percentile Bootstrap) UCL	55.58
95% KM (z) UCL	52.75	95% KM Bootstrap t UCL	334.1
90% KM Chebyshev UCL	76.75	95% KM Chebyshev UCL	100.8
97.5% KM Chebyshev UCL	134.2	99% KM Chebyshev UCL	199.8

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.449	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.705	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.304	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.369	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level
Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.626	k star (bias corrected MLE)	0.384
Theta hat (MLE)	59.22	Theta star (bias corrected MLE)	96.61
nu hat (MLE)	6.262	nu star (bias corrected)	3.838
Mean (detects)	37.08		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)
For such situations, GROS method may yield incorrect values of UCLs and BTVs
This is especially true when the sample size is small.
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	23.18

68					Maximum	140					Median	4.65
69					SD	48.14					CV	2.077
70					k hat (MLE)	0.224					k star (bias corrected MLE)	0.223
71					Theta hat (MLE)	103.4					Theta star (bias corrected MLE)	103.7
72					nu hat (MLE)	3.586					nu star (bias corrected)	3.575
73					Adjusted Level of Significance (β)	0.0195						
74					Approximate Chi Square Value (3.57, α)	0.561					Adjusted Chi Square Value (3.57, β)	0.333
75					95% Gamma Approximate UCL	147.6					95% Gamma Adjusted UCL	248.8
76												
77					**Estimates of Gamma Parameters using KM Estimates**							
78					Mean (KM)	23.63					SD (KM)	44.8
79					Variance (KM)	2007					SE of Mean (KM)	17.71
80					k hat (KM)	0.278					k star (KM)	0.257
81					nu hat (KM)	4.449					nu star (KM)	4.114
82					theta hat (KM)	84.96					theta star (KM)	91.88
83					80% gamma percentile (KM)	34.65					90% gamma percentile (KM)	70.76
84					95% gamma percentile (KM)	113.4					99% gamma percentile (KM)	226.4
85												
86					**Gamma Kaplan-Meier (KM) Statistics**							
87					Approximate Chi Square Value (4.11, α)	0.767					Adjusted Chi Square Value (4.11, β)	0.474
88					95% KM Approximate Gamma UCL	126.7					95% KM Adjusted Gamma UCL	205.1
89												
90					**Lognormal GOF Test on Detected Observations Only**							
91					Shapiro Wilk Test Statistic	0.945					**Shapiro Wilk GOF Test**	
92					10% Shapiro Wilk Critical Value	0.806					Detected Data appear Lognormal at 10% Significance Level	
93					Lilliefors Test Statistic	0.248					**Lilliefors GOF Test**	
94					10% Lilliefors Critical Value	0.319					Detected Data appear Lognormal at 10% Significance Level	
95					**Detected Data appear Lognormal at 10% Significance Level**							
96					**Note GOF tests may be unreliable for small sample sizes**							
97												
98					**Lognormal ROS Statistics Using Imputed Non-Detects**							
99					Mean in Original Scale	23.26					Mean in Log Scale	1.015
100					SD in Original Scale	48.09					SD in Log Scale	2.551
101					95% t UCL (assumes normality of ROS data)	55.47					95% Percentile Bootstrap UCL	55.23
102					95% BCA Bootstrap UCL	70.93					95% Bootstrap t UCL	325.3
103					95% H-UCL (Log ROS)	121068						
104												
105					**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**							
106					KM Mean (logged)	1.714					KM Geo Mean	5.549
107					KM SD (logged)	1.617					95% Critical H Value (KM-Log)	5.061
108					KM Standard Error of Mean (logged)	0.639					95% H-UCL (KM -Log)	451.4
109					KM SD (logged)	1.617					95% Critical H Value (KM-Log)	5.061
110					KM Standard Error of Mean (logged)	0.639						
111												
112					**DL/2 Statistics**							
113					**DL/2 Normal**						**DL/2 Log-Transformed**	
114					Mean in Original Scale	23.43					Mean in Log Scale	1.49
115					SD in Original Scale	48					SD in Log Scale	1.968
116					95% t UCL (Assumes normality)	55.58					95% H-Stat UCL	2761
117					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
118												
119					**Nonparametric Distribution Free UCL Statistics**							
120					**Detected Data appear Approximate Normal Distributed at 1% Significance Level**							
121												
122					**Suggested UCL to Use**							
123					95% KM (t) UCL	57.18						
124												
125					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
126					**Please verify the data were collected from random locations.**							
127					**If the data were collected using judgmental or other non-random methods,**							
128					**then contact a statistician to correctly calculate UCLs.**							
129												
130					When a data set follows an approximate distribution passing only one of the GOF tests,							
131					it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL							
132												
133					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
134					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							

135	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
136												
137	**Lead**											
138												
139	**General Statistics**											
140						Total Number of Observations	8				Number of Distinct Observations	8	
141											Number of Missing Observations	1
142						Number of Detects	7				Number of Non-Detects	1
143						Number of Distinct Detects	7				Number of Distinct Non-Detects	1
144						Minimum Detect	11.7				Minimum Non-Detect	4.4
145						Maximum Detect	652				Maximum Non-Detect	4.4
146						Variance Detects	82025				Percent Non-Detects	12.5%
147						Mean Detects	194.2				SD Detects	286.4
148						Median Detects	27				CV Detects	1.475
149						Skewness Detects	1.239				Kurtosis Detects	-0.677
150						Mean of Logged Detects	4.026				SD of Logged Detects	1.736
151												
152	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
153	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
154	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
155	**The Chebyshev UCL often results in gross overestimates of the mean.**											
156	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
157												
158	**Normal GOF Test on Detects Only**											
159						Shapiro Wilk Test Statistic	0.673				**Shapiro Wilk GOF Test**	
160						1% Shapiro Wilk Critical Value	0.73				Detected Data Not Normal at 1% Significance Level	
161						Lilliefors Test Statistic	0.383				**Lilliefors GOF Test**	
162						1% Lilliefors Critical Value	0.35				Detected Data Not Normal at 1% Significance Level	
163	**Detected Data Not Normal at 1% Significance Level**											
164												
165	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
166						KM Mean	170.5				KM Standard Error of Mean	97.7
167						90KM SD	255.8				95% KM (BCA) UCL	329.4
168						95% KM (t) UCL	355.6				95% KM (Percentile Bootstrap) UCL	326
169						95% KM (z) UCL	331.2				95% KM Bootstrap t UCL	2097
170						90% KM Chebyshev UCL	463.6				95% KM Chebyshev UCL	596.3
171						97.5% KM Chebyshev UCL	780.6				99% KM Chebyshev UCL	1143
172												
173	**Gamma GOF Tests on Detected Observations Only**											
174						A-D Test Statistic	0.824				**Anderson-Darling GOF Test**	
175						5% A-D Critical Value	0.751				Detected Data Not Gamma Distributed at 5% Significance Level	
176						K-S Test Statistic	0.286				**Kolmogorov-Smirnov GOF**	
177						5% K-S Critical Value	0.327				Detected data appear Gamma Distributed at 5% Significance Level	
178	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
179	**Note GOF tests may be unreliable for small sample sizes**											
180												
181	**Gamma Statistics on Detected Data Only**											
182						k hat (MLE)	0.509				k star (bias corrected MLE)	0.386
183						Theta hat (MLE)	381.1				Theta star (bias corrected MLE)	502.6
184						nu hat (MLE)	7.133				nu star (bias corrected)	5.409
185						Mean (detects)	194.2					
186												
187	**Gamma ROS Statistics using Imputed Non-Detects**											
188	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
189	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
190	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
191	This is especially true when the sample size is small.											
192	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
193						Minimum	0.01				Mean	169.9
194						Maximum	652				Median	21.5
195						SD	273.9				CV	1.612
196						k hat (MLE)	0.313				k star (bias corrected MLE)	0.279
197						Theta hat (MLE)	543				Theta star (bias corrected MLE)	609.2
198						nu hat (MLE)	5.007				nu star (bias corrected)	4.463
199						Adjusted Level of Significance (β)	0.0195					
200						Approximate Chi Square Value (4.46, α)	0.913				Adjusted Chi Square Value (4.46, β)	0.578
201						95% Gamma Approximate UCL	830.9				95% Gamma Adjusted UCL	1312

Estimates of Gamma Parameters using KM Estimates		
Mean (KM)	170.5	SD (KM) 255.8
Variance (KM)	65458	SE of Mean (KM) 97.7
k hat (KM)	0.444	k star (KM) 0.361
nu hat (KM)	7.103	nu star (KM) 5.772
theta hat (KM)	384	theta star (KM) 472.5
80% gamma percentile (KM)	271.3	90% gamma percentile (KM) 489.9
95% gamma percentile (KM)	733.7	99% gamma percentile (KM) 1354
Gamma Kaplan-Meier (KM) Statistics		
Approximate Chi Square Value (5.77, α)	1.525	Adjusted Chi Square Value (5.77, β) 1.041
95% KM Approximate Gamma UCL	645.4	95% KM Adjusted Gamma UCL 945.6
Lognormal GOF Test on Detected Observations Only		
Shapiro Wilk Test Statistic	0.82	**Shapiro Wilk GOF Test**
10% Shapiro Wilk Critical Value	0.838	Detected Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.234	**Lilliefors GOF Test**
10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level
Detected Data appear Approximate Lognormal at 10% Significance Level		
Note GOF tests may be unreliable for small sample sizes		
Lognormal ROS Statistics Using Imputed Non-Detects		
Mean in Original Scale	170	Mean in Log Scale 3.507
SD in Original Scale	273.8	SD in Log Scale 2.177
95% t UCL (assumes normality of ROS data)	353.4	95% Percentile Bootstrap UCL 323.5
95% BCA Bootstrap UCL	379	95% Bootstrap t UCL 2106
95% H-UCL (Log ROS)	83700	
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution		
KM Mean (logged)	3.708	KM Geo Mean 40.76
KM SD (logged)	1.723	95% Critical H Value (KM-Log) 5.355
KM Standard Error of Mean (logged)	0.658	95% H-UCL (KM -Log) 5872
KM SD (logged)	1.723	95% Critical H Value (KM-Log) 5.355
KM Standard Error of Mean (logged)	0.658	
DL/2 Statistics		
DL/2 Normal		**DL/2 Log-Transformed**
Mean in Original Scale	170.2	Mean in Log Scale 3.621
SD in Original Scale	273.7	SD in Log Scale 1.973
95% t UCL (Assumes normality)	353.5	95% H-Stat UCL 23963
DL/2 is not a recommended method, provided for comparisons and historical reasons		
Nonparametric Distribution Free UCL Statistics		
Detected Data appear Approximate Gamma Distributed at 5% Significance Level		
Suggested UCL to Use		
95% KM Bootstrap t UCL	2097	95% Hall's Bootstrap 5872
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.		
Please verify the data were collected from random locations.		
If the data were collected using judgmental or other non-random methods,		
then contact a statistician to correctly calculate UCLs.		
When a data set follows an approximate distribution passing only one of the GOF tests,		
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.		
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.		
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.		

Zinc

General Statistics		
Total Number of Observations	8	Number of Distinct Observations 8
		Number of Missing Observations 1

269				Minimum	8.1				Mean	99.48		
270				Maximum	407				Median	22.65		
271				SD	139.8				Std. Error of Mean	49.42		
272				Coefficient of Variation	1.405				Skewness	1.877		
273												
274	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
275	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
276	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
277	**The Chebyshev UCL often results in gross overestimates of the mean.**											
278	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
279												
280	**Normal GOF Test**											
281				Shapiro Wilk Test Statistic	0.72	**Shapiro Wilk GOF Test**						
282				1% Shapiro Wilk Critical Value	0.749	Data Not Normal at 1% Significance Level						
283				Lilliefors Test Statistic	0.327	**Lilliefors GOF Test**						
284				1% Lilliefors Critical Value	0.333	Data appear Normal at 1% Significance Level						
285	**Data appear Approximate Normal at 1% Significance Level**											
286	**Note GOF tests may be unreliable for small sample sizes**											
287												
288	**Assuming Normal Distribution**											
289	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
290				95% Student's-t UCL	193.1	95% Adjusted-CLT UCL (Chen-1995)				215.8		
291						95% Modified-t UCL (Johnson-1978)				198.6		
292												
293	**Gamma GOF Test**											
294				A-D Test Statistic	0.639	**Anderson-Darling Gamma GOF Test**						
295				5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level						
296				K-S Test Statistic	0.315	**Kolmogorov-Smirnov Gamma GOF Test**						
297				5% K-S Critical Value	0.305	Data Not Gamma Distributed at 5% Significance Level						
298	**Detected data follow Appr. Gamma Distribution at 5% Significance Level**											
299	**Note GOF tests may be unreliable for small sample sizes**											
300												
301	**Gamma Statistics**											
302				k hat (MLE)	0.694	k star (bias corrected MLE)				0.517		
303				Theta hat (MLE)	143.4	Theta star (bias corrected MLE)				192.5		
304				nu hat (MLE)	11.1	nu star (bias corrected)				8.269		
305				MLE Mean (bias corrected)	99.48	MLE Sd (bias corrected)				138.4		
306						Approximate Chi Square Value (0.05)				2.892		
307				Adjusted Level of Significance	0.0195	Adjusted Chi Square Value				2.151		
308												
309	**Assuming Gamma Distribution**											
310				95% Approximate Gamma UCL	284.4	95% Adjusted Gamma UCL				382.5		
311												
312	**Lognormal GOF Test**											
313				Shapiro Wilk Test Statistic	0.896	**Shapiro Wilk Lognormal GOF Test**						
314				10% Shapiro Wilk Critical Value	0.851	Data appear Lognormal at 10% Significance Level						
315				Lilliefors Test Statistic	0.261	**Lilliefors Lognormal GOF Test**						
316				10% Lilliefors Critical Value	0.265	Data appear Lognormal at 10% Significance Level						
317	**Data appear Lognormal at 10% Significance Level**											
318	**Note GOF tests may be unreliable for small sample sizes**											
319												
320	**Lognormal Statistics**											
321				Minimum of Logged Data	2.092	Mean of logged Data				3.727		
322				Maximum of Logged Data	6.009	SD of logged Data				1.41		
323												
324	**Assuming Lognormal Distribution**											
325				95% H-UCL	1234	90% Chebyshev (MVUE) UCL				232.5		
326				95% Chebyshev (MVUE) UCL	295.9	97.5% Chebyshev (MVUE) UCL				383.9		
327				99% Chebyshev (MVUE) UCL	556.8							
328												
329	**Nonparametric Distribution Free UCL Statistics**											
330	**Data appear to follow a Discernible Distribution**											
331												
332	**Nonparametric Distribution Free UCLs**											
333				95% CLT UCL	180.8	95% BCA Bootstrap UCL				208.4		
334				95% Standard Bootstrap UCL	177.8	95% Bootstrap-t UCL				372.5		
335				95% Hall's Bootstrap UCL	466	95% Percentile Bootstrap UCL				185.2		

	A	B	C	D	E	F	G	H	I	J	K	L
336				90% Chebyshev(Mean, Sd) UCL		247.7				95% Chebyshev(Mean, Sd) UCL		314.9
337				97.5% Chebyshev(Mean, Sd) UCL		408.1				99% Chebyshev(Mean, Sd) UCL		591.2
338												
339						**Suggested UCL to Use**						
340					95% Student's-t UCL	193.1						
341												
342						**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**						
343						**Please verify the data were collected from random locations.**						
344						**If the data were collected using judgmental or other non-random methods,**						
345						**then contact a statistician to correctly calculate UCLs.**						
346												
347						When a data set follows an approximate distribution passing only one of the GOF tests,						
348						it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL						
349												
350						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.						
351						Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.						
352						However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.						
353												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:16:43 PM
From File	SW Unnamed Ponds
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum

General Statistics

Total Number of Observations	7	Number of Distinct Observations	7
		Number of Missing Observations	13
Minimum	168	Mean	2234
Maximum	12300	Median	605
SD	4451	Std. Error of Mean	1682
Coefficient of Variation	1.992	Skewness	2.616

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach, refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance, but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7). The Chebyshev UCL often results in gross overestimates of the mean. Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.523	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.73	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.464	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.35	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	5503	95% Adjusted-CLT UCL (Chen-1995)	6778
		95% Modified-t UCL (Johnson-1978)	5780

Gamma GOF Test

A-D Test Statistic	0.919	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.748	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.373	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.326	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.551	k star (bias corrected MLE)	0.41
Theta hat (MLE)	4053	Theta star (bias corrected MLE)	5446
nu hat (MLE)	7.718	nu star (bias corrected)	5.744
MLE Mean (bias corrected)	2234	MLE Sd (bias corrected)	3488
		Approximate Chi Square Value (0.05)	1.51
Adjusted Level of Significance	0.0158	Adjusted Chi Square Value	0.95

Assuming Gamma Distribution

95% Approximate Gamma UCL	8497	95% Adjusted Gamma UCL	13508

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.873	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.838	Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.258	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.28	Data appear Lognormal at 10% Significance Level

Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal Statistics

Minimum of Logged Data	5.124	Mean of logged Data	6.577
Maximum of Logged Data	9.417	SD of logged Data	1.436

68												
69	**Assuming Lognormal Distribution**											
70					95% H-UCL	37386			90% Chebyshev (MVUE) UCL	4167		
71					95% Chebyshev (MVUE) UCL	5328			97.5% Chebyshev (MVUE) UCL	6939		
72					99% Chebyshev (MVUE) UCL	10104						
73												
74	**Nonparametric Distribution Free UCL Statistics**											
75	**Data appear to follow a Discernible Distribution**											
76												
77	**Nonparametric Distribution Free UCLs**											
78					95% CLT UCL	5001			95% BCA Bootstrap UCL	5860		
79					95% Standard Bootstrap UCL	4820			95% Bootstrap-t UCL	31571		
80					95% Hall's Bootstrap UCL	23256			95% Percentile Bootstrap UCL	5530		
81					90% Chebyshev(Mean, Sd) UCL	7281			95% Chebyshev(Mean, Sd) UCL	9567		
82					97.5% Chebyshev(Mean, Sd) UCL	12740			99% Chebyshev(Mean, Sd) UCL	18972		
83												
84	**Suggested UCL to Use**											
85					Recommendation cannot be provided							
86												
87	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
88	**Please verify the data were collected from random locations.**											
89	**If the data were collected using judgmental or other non-random methods,**											
90	**then contact a statistician to correctly calculate UCLs.**											
91												
92	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
93	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
94	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
95												
96												
97	**Barium**											
98												
99	**General Statistics**											
100					Total Number of Observations	7			Number of Distinct Observations	7		
101									Number of Missing Observations	13		
102					Minimum	25.6			Mean	176.3		
103					Maximum	1000			Median	46		
104					SD	363.3			Std. Error of Mean	137.3		
105					Coefficient of Variation	2.061			Skewness	2.642		
106												
107	**Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,**											
108	**refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,**											
109	**but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).**											
110	**The Chebyshev UCL often results in gross overestimates of the mean.**											
111	**Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.**											
112												
113	**Normal GOF Test**											
114					Shapiro Wilk Test Statistic	0.477			**Shapiro Wilk GOF Test**			
115					1% Shapiro Wilk Critical Value	0.73			Data Not Normal at 1% Significance Level			
116					Lilliefors Test Statistic	0.493			**Lilliefors GOF Test**			
117					1% Lilliefors Critical Value	0.35			Data Not Normal at 1% Significance Level			
118	**Data Not Normal at 1% Significance Level**											
119												
120	**Assuming Normal Distribution**											
121	**95% Normal UCL**								**95% UCLs (Adjusted for Skewness)**			
122					95% Student's-t UCL	443.1			95% Adjusted-CLT UCL (Chen-1995)	548.7		
123									95% Modified-t UCL (Johnson-1978)	466		
124												
125	**Gamma GOF Test**											
126					A-D Test Statistic	1.646			**Anderson-Darling Gamma GOF Test**			
127					5% A-D Critical Value	0.747			Data Not Gamma Distributed at 5% Significance Level			
128					K-S Test Statistic	0.485			**Kolmogorov-Smirnov Gamma GOF Test**			
129					5% K-S Critical Value	0.326			Data Not Gamma Distributed at 5% Significance Level			
130	**Data Not Gamma Distributed at 5% Significance Level**											
131												
132	**Gamma Statistics**											
133					k hat (MLE)	0.58			k star (bias corrected MLE)	0.427		
134					Theta hat (MLE)	303.8			Theta star (bias corrected MLE)	413.1		

135					nu hat (MLE)	8.121				nu star (bias corrected)		5.974
136					MLE Mean (bias corrected)	176.3				MLE Sd (bias corrected)		269.8
137										Approximate Chi Square Value (0.05)		1.627
138					Adjusted Level of Significance	0.0158				Adjusted Chi Square Value		1.036
139												
140					**Assuming Gamma Distribution**							
141					95% Approximate Gamma UCL	647.3				95% Adjusted Gamma UCL		1016
142												
143					**Lognormal GOF Test**							
144					Shapiro Wilk Test Statistic	0.638				**Shapiro Wilk Lognormal GOF Test**		
145					10% Shapiro Wilk Critical Value	0.838				Data Not Lognormal at 10% Significance Level		
146					Lilliefors Test Statistic	0.416				**Lilliefors Lognormal GOF Test**		
147					10% Lilliefors Critical Value	0.28				Data Not Lognormal at 10% Significance Level		
148					**Data Not Lognormal at 10% Significance Level**							
149												
150					**Lognormal Statistics**							
151					Minimum of Logged Data	3.243				Mean of logged Data		4.101
152					Maximum of Logged Data	6.908				SD of logged Data		1.261
153												
154					**Assuming Lognormal Distribution**							
155					95% H-UCL	1331				90% Chebyshev (MVUE) UCL		275.3
156					95% Chebyshev (MVUE) UCL	348.5				97.5% Chebyshev (MVUE) UCL		450.1
157					99% Chebyshev (MVUE) UCL	649.7						
158												
159					**Nonparametric Distribution Free UCL Statistics**							
160					**Data do not follow a Discernible Distribution**							
161												
162					**Nonparametric Distribution Free UCLs**							
163					95% CLT UCL	402.2				95% BCA Bootstrap UCL		584.6
164					95% Standard Bootstrap UCL	387.3				95% Bootstrap-t UCL		6930
165					95% Hall's Bootstrap UCL	4808				95% Percentile Bootstrap UCL		449.5
166					90% Chebyshev(Mean, Sd) UCL	588.3				95% Chebyshev(Mean, Sd) UCL		774.9
167					97.5% Chebyshev(Mean, Sd) UCL	1034				99% Chebyshev(Mean, Sd) UCL		1543
168												
169					**Suggested UCL to Use**							
170					Recommendation cannot be provided							
171												
172					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
173					**Please verify the data were collected from random locations.**							
174					**If the data were collected using judgmental or other non-random methods,**							
175					**then contact a statistician to correctly calculate UCLs.**							
176												
177					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
178					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
179					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
180												
181	**Copper**											
182												
183					**General Statistics**							
184					Total Number of Observations	22				Number of Distinct Observations		13
185										Number of Missing Observations		6
186					Number of Detects	11				Number of Non-Detects		11
187					Number of Distinct Detects	11				Number of Distinct Non-Detects		2
188					Minimum Detect	3.1				Minimum Non-Detect		1.2
189					Maximum Detect	366				Maximum Non-Detect		5
190					Variance Detects	11705				Percent Non-Detects		50%
191					Mean Detects	41.05				SD Detects		108.2
192					Median Detects	5.5				CV Detects		2.635
193					Skewness Detects	3.272				Kurtosis Detects		10.77
194					Mean of Logged Detects	2.199				SD of Logged Detects		1.404
195												
196					**Normal GOF Test on Detects Only**							
197					Shapiro Wilk Test Statistic	0.399				**Shapiro Wilk GOF Test**		
198					1% Shapiro Wilk Critical Value	0.792				Detected Data Not Normal at 1% Significance Level		
199					Lilliefors Test Statistic	0.43				**Lilliefors GOF Test**		
200					1% Lilliefors Critical Value	0.291				Detected Data Not Normal at 1% Significance Level		
201					**Detected Data Not Normal at 1% Significance Level**							

202												
203	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
204					KM Mean	21.36			KM Standard Error of Mean	16.9		
205					90KM SD	75.56			95% KM (BCA) UCL	54.21		
206					95% KM (t) UCL	50.43			95% KM (Percentile Bootstrap) UCL	54.07		
207					95% KM (z) UCL	49.15			95% KM Bootstrap t UCL	588		
208					90% KM Chebyshev UCL	72.05			95% KM Chebyshev UCL	95.01		
209					97.5% KM Chebyshev UCL	126.9			99% KM Chebyshev UCL	189.5		
210												
211	**Gamma GOF Tests on Detected Observations Only**											
212					A-D Test Statistic	2.204	**Anderson-Darling GOF Test**					
213					5% A-D Critical Value	0.795	Detected Data Not Gamma Distributed at 5% Significance Level					
214					K-S Test Statistic	0.398	**Kolmogorov-Smirnov GOF**					
215					5% K-S Critical Value	0.271	Detected Data Not Gamma Distributed at 5% Significance Level					
216	**Detected Data Not Gamma Distributed at 5% Significance Level**											
217												
218	**Gamma Statistics on Detected Data Only**											
219					k hat (MLE)	0.429			k star (bias corrected MLE)	0.373		
220					Theta hat (MLE)	95.67			Theta star (bias corrected MLE)	110.2		
221					nu hat (MLE)	9.441			nu star (bias corrected)	8.2		
222					Mean (detects)	41.05						
223												
224	**Gamma ROS Statistics using Imputed Non-Detects**											
225	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
226	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
227	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
228	This is especially true when the sample size is small.											
229	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
230					Minimum	0.01			Mean	20.53		
231					Maximum	366			Median	1.555		
232					SD	77.56			CV	3.777		
233					k hat (MLE)	0.177			k star (bias corrected MLE)	0.184		
234					Theta hat (MLE)	115.7			Theta star (bias corrected MLE)	111.9		
235					nu hat (MLE)	7.806			nu star (bias corrected)	8.075		
236					Adjusted Level of Significance (β)	0.0386						
237					Approximate Chi Square Value (8.08, α)	2.779			Adjusted Chi Square Value (8.08, β)	2.551		
238					95% Gamma Approximate UCL	59.67			95% Gamma Adjusted UCL	64.98		
239												
240	**Estimates of Gamma Parameters using KM Estimates**											
241					Mean (KM)	21.36			SD (KM)	75.56		
242					Variance (KM)	5709			SE of Mean (KM)	16.9		
243					k hat (KM)	0.0799			k star (KM)	0.0993		
244					nu hat (KM)	3.517			nu star (KM)	4.371		
245					theta hat (KM)	267.2			theta star (KM)	215		
246					80% gamma percentile (KM)	14.68			90% gamma percentile (KM)	56.7		
247					95% gamma percentile (KM)	124			99% gamma percentile (KM)	340.5		
248												
249	**Gamma Kaplan-Meier (KM) Statistics**											
250					Approximate Chi Square Value (4.37, α)	0.873			Adjusted Chi Square Value (4.37, β)	0.766		
251					95% KM Approximate Gamma UCL	106.9			95% KM Adjusted Gamma UCL	121.9		
252	95% KM Adjusted Gamma UCL (use when k<=1 and 15 < n < 50)											
253												
254	**Lognormal GOF Test on Detected Observations Only**											
255					Shapiro Wilk Test Statistic	0.716	**Shapiro Wilk GOF Test**					
256					10% Shapiro Wilk Critical Value	0.876	Detected Data Not Lognormal at 10% Significance Level					
257					Lilliefors Test Statistic	0.311	**Lilliefors GOF Test**					
258					10% Lilliefors Critical Value	0.231	Detected Data Not Lognormal at 10% Significance Level					
259	**Detected Data Not Lognormal at 10% Significance Level**											
260												
261	**Lognormal ROS Statistics Using Imputed Non-Detects**											
262					Mean in Original Scale	20.92			Mean in Log Scale	0.735		
263					SD in Original Scale	77.45			SD in Log Scale	1.927		
264					95% t UCL (assumes normality of ROS data)	49.33			95% Percentile Bootstrap UCL	52.54		
265					95% BCA Bootstrap UCL	71.32			95% Bootstrap t UCL	538.2		
266					95% H-UCL (Log ROS)	73.62						
267												
268	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											

269				KM Mean (logged)	1.293					KM Geo Mean	3.644
270				KM SD (logged)	1.347					95% Critical H Value (KM-Log)	3.098
271				KM Standard Error of Mean (logged)	0.31					95% H-UCL (KM -Log)	22.44
272				KM SD (logged)	1.347					95% Critical H Value (KM-Log)	3.098
273				KM Standard Error of Mean (logged)	0.31						
274											
275					DL/2 Statistics						
276				DL/2 Normal						DL/2 Log-Transformed	
277				Mean in Original Scale	21.26					Mean in Log Scale	1.168
278				SD in Original Scale	77.36					SD in Log Scale	1.522
279				95% t UCL (Assumes normality)	49.64					95% H-Stat UCL	31.44
280				DL/2 is not a recommended method, provided for comparisons and historical reasons							
281											
282					Nonparametric Distribution Free UCL Statistics						
283					Data do not follow a Discernible Distribution						
284											
285					Suggested UCL to Use						
286				95% KM (t) UCL	50.43						
287											
288				The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.							
289				Please verify the data were collected from random locations.							
290				If the data were collected using judgmental or other non-random methods,							
291				then contact a statistician to correctly calculate UCLs.							
292											
293				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
294				Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
295				However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
296											
297											
298	Manganese										
299											
300					General Statistics						
301				Total Number of Observations	7					Number of Distinct Observations	7
302										Number of Missing Observations	13
303				Minimum	87.7					Mean	384.2
304				Maximum	1320					Median	275
305				SD	424.5					Std. Error of Mean	160.5
306				Coefficient of Variation	1.105					Skewness	2.345
307											
308				Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,							
309				refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,							
310				but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).							
311				The Chebyshev UCL often results in gross overestimates of the mean.							
312				Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.							
313											
314					Normal GOF Test						
315				Shapiro Wilk Test Statistic	0.679					Shapiro Wilk GOF Test	
316				1% Shapiro Wilk Critical Value	0.73					Data Not Normal at 1% Significance Level	
317				Lilliefors Test Statistic	0.365					Lilliefors GOF Test	
318				1% Lilliefors Critical Value	0.35					Data Not Normal at 1% Significance Level	
319					Data Not Normal at 1% Significance Level						
320											
321					Assuming Normal Distribution						
322				95% Normal UCL						95% UCLs (Adjusted for Skewness)	
323				95% Student's-t UCL	696					95% Adjusted-CLT UCL (Chen-1995)	800.1
324										95% Modified-t UCL (Johnson-1978)	719.7
325											
326					Gamma GOF Test						
327				A-D Test Statistic	0.493					Anderson-Darling Gamma GOF Test	
328				5% A-D Critical Value	0.721					Detected data appear Gamma Distributed at 5% Significance Level	
329				K-S Test Statistic	0.259					Kolmogorov-Smirnov Gamma GOF Test	
330				5% K-S Critical Value	0.317					Detected data appear Gamma Distributed at 5% Significance Level	
331					Detected data appear Gamma Distributed at 5% Significance Level						
332					Note GOF tests may be unreliable for small sample sizes						
333											
334					Gamma Statistics						
335				k hat (MLE)	1.507					k star (bias corrected MLE)	0.956

336					Theta hat (MLE)	255					Theta star (bias corrected MLE)	401.8
337					nu hat (MLE)	21.1					nu star (bias corrected)	13.39
338					MLE Mean (bias corrected)	384.2					MLE Sd (bias corrected)	392.9
339											Approximate Chi Square Value (0.05)	6.155
340					Adjusted Level of Significance	0.0158					Adjusted Chi Square Value	4.756
341												
342					**Assuming Gamma Distribution**							
343					95% Approximate Gamma UCL	835.8					95% Adjusted Gamma UCL	1082
344												
345					**Lognormal GOF Test**							
346					Shapiro Wilk Test Statistic	0.947					**Shapiro Wilk Lognormal GOF Test**	
347					10% Shapiro Wilk Critical Value	0.838					Data appear Lognormal at 10% Significance Level	
348					Lilliefors Test Statistic	0.202					**Lilliefors Lognormal GOF Test**	
349					10% Lilliefors Critical Value	0.28					Data appear Lognormal at 10% Significance Level	
350					**Data appear Lognormal at 10% Significance Level**							
351					**Note GOF tests may be unreliable for small sample sizes**							
352												
353					**Lognormal Statistics**							
354					Minimum of Logged Data	4.474					Mean of logged Data	5.584
355					Maximum of Logged Data	7.185					SD of logged Data	0.865
356												
357					**Assuming Lognormal Distribution**							
358					95% H-UCL	1251					90% Chebyshev (MVUE) UCL	720
359					95% Chebyshev (MVUE) UCL	881.9					97.5% Chebyshev (MVUE) UCL	1107
360					99% Chebyshev (MVUE) UCL	1548						
361												
362					**Nonparametric Distribution Free UCL Statistics**							
363					**Data appear to follow a Discernible Distribution**							
364												
365					**Nonparametric Distribution Free UCLs**							
366					95% CLT UCL	648.2					95% BCA Bootstrap UCL	760.9
367					95% Standard Bootstrap UCL	630.6					95% Bootstrap-t UCL	1386
368					95% Hall's Bootstrap UCL	1820					95% Percentile Bootstrap UCL	679.4
369					90% Chebyshev(Mean, Sd) UCL	865.6					95% Chebyshev(Mean, Sd) UCL	1084
370					97.5% Chebyshev(Mean, Sd) UCL	1386					99% Chebyshev(Mean, Sd) UCL	1981
371												
372					**Suggested UCL to Use**							
373					Recommendation cannot be provided							
374												
375					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
376					**Please verify the data were collected from random locations.**							
377					**If the data were collected using judgmental or other non-random methods,**							
378					**then contact a statistician to correctly calculate UCLs.**							
379												
380					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
381					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
382					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
383												
384												
385	**Zinc**											
386												
387					**General Statistics**							
388					Total Number of Observations	24					Number of Distinct Observations	24
389											Number of Missing Observations	4
390					Minimum	6					Mean	373.3
391					Maximum	6920					Median	25.9
392					SD	1413					Std. Error of Mean	288.5
393					Coefficient of Variation	3.787					Skewness	4.707
394												
395					**Normal GOF Test**							
396					Shapiro Wilk Test Statistic	0.275					**Shapiro Wilk GOF Test**	
397					1% Shapiro Wilk Critical Value	0.884					Data Not Normal at 1% Significance Level	
398					Lilliefors Test Statistic	0.483					**Lilliefors GOF Test**	
399					1% Lilliefors Critical Value	0.205					Data Not Normal at 1% Significance Level	
400					**Data Not Normal at 1% Significance Level**							
401												
402					**Assuming Normal Distribution**							

403	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
404				95% Student's-t UCL		867.7				95% Adjusted-CLT UCL (Chen-1995)		1144
405										95% Modified-t UCL (Johnson-1978)		914
406												
407	**Gamma GOF Test**											
408				A-D Test Statistic		4.281	**Anderson-Darling Gamma GOF Test**					
409				5% A-D Critical Value		0.85	Data Not Gamma Distributed at 5% Significance Level					
410				K-S Test Statistic		0.365	**Kolmogorov-Smirnov Gamma GOF Test**					
411				5% K-S Critical Value		0.193	Data Not Gamma Distributed at 5% Significance Level					
412	**Data Not Gamma Distributed at 5% Significance Level**											
413												
414	**Gamma Statistics**											
415				k hat (MLE)		0.307				k star (bias corrected MLE)		0.297
416				Theta hat (MLE)		1215				Theta star (bias corrected MLE)		1258
417				nu hat (MLE)		14.75				nu star (bias corrected)		14.24
418				MLE Mean (bias corrected)		373.3				MLE Sd (bias corrected)		685.4
419										Approximate Chi Square Value (0.05)		6.733
420				Adjusted Level of Significance		0.0392				Adjusted Chi Square Value		6.372
421												
422	**Assuming Gamma Distribution**											
423				95% Approximate Gamma UCL		789.2				95% Adjusted Gamma UCL		833.9
424												
425	**Lognormal GOF Test**											
426				Shapiro Wilk Test Statistic		0.831	**Shapiro Wilk Lognormal GOF Test**					
427				10% Shapiro Wilk Critical Value		0.93	Data Not Lognormal at 10% Significance Level					
428				Lilliefors Test Statistic		0.155	**Lilliefors Lognormal GOF Test**					
429				10% Lilliefors Critical Value		0.162	Data appear Lognormal at 10% Significance Level					
430	**Data appear Approximate Lognormal at 10% Significance Level**											
431												
432	**Lognormal Statistics**											
433				Minimum of Logged Data		1.792				Mean of logged Data		3.686
434				Maximum of Logged Data		8.842				SD of logged Data		1.595
435												
436	**Assuming Lognormal Distribution**											
437				95% H-UCL		445.2				90% Chebyshev (MVUE) UCL		283.5
438				95% Chebyshev (MVUE) UCL		353.8				97.5% Chebyshev (MVUE) UCL		451.5
439				99% Chebyshev (MVUE) UCL		643.4						
440												
441	**Nonparametric Distribution Free UCL Statistics**											
442	**Data appear to follow a Discernible Distribution**											
443												
444	**Nonparametric Distribution Free UCLs**											
445				95% CLT UCL		847.8				95% BCA Bootstrap UCL		1460
446				95% Standard Bootstrap UCL		836.7				95% Bootstrap-t UCL		14601
447				95% Hall's Bootstrap UCL		5957				95% Percentile Bootstrap UCL		939.1
448				90% Chebyshev(Mean, Sd) UCL		1239				95% Chebyshev(Mean, Sd) UCL		1631
449				97.5% Chebyshev(Mean, Sd) UCL		2175				99% Chebyshev(Mean, Sd) UCL		3244
450												
451	**Suggested UCL to Use**											
452				95% Student's-t UCL		867.7						
453												
454	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
455	**Please verify the data were collected from random locations.**											
456	**If the data were collected using judgmental or other non-random methods,**											
457	**then contact a statistician to correctly calculate UCLs.**											
458												
459	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
460	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
461	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
462												

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/7/2025 1:16:52 PM
From File	SW Western Tributary
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum

General Statistics

Total Number of Observations	11	Number of Distinct Observations	9
		Number of Missing Observations	12
Number of Detects	8	Number of Non-Detects	3
Number of Distinct Detects	8	Number of Distinct Non-Detects	1
Minimum Detect	137	Minimum Non-Detect	100
Maximum Detect	3120	Maximum Non-Detect	100
Variance Detects	1727226	Percent Non-Detects	27.27%
Mean Detects	1277	SD Detects	1314
Median Detects	461.5	CV Detects	1.029
Skewness Detects	0.676	Kurtosis Detects	-2
Mean of Logged Detects	6.559	SD of Logged Detects	1.216

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.754	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.749	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.354	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.333	Detected Data Not Normal at 1% Significance Level

Detected Data appear Approximate Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	955.9	KM Standard Error of Mean	377.8
90KM SD	1172	95% KM (BCA) UCL	1593
95% KM (t) UCL	1641	95% KM (Percentile Bootstrap) UCL	1564
95% KM (z) UCL	1577	95% KM Bootstrap t UCL	1832
90% KM Chebyshev UCL	2089	95% KM Chebyshev UCL	2603
97.5% KM Chebyshev UCL	3315	99% KM Chebyshev UCL	4715

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.739	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.736	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.31	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.302	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.975	k star (bias corrected MLE)	0.693
Theta hat (MLE)	1309	Theta star (bias corrected MLE)	1843
nu hat (MLE)	15.61	nu star (bias corrected)	11.09
Mean (detects)	1277		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	928.6
Maximum	3120	Median	357
SD	1251	CV	1.347
k hat (MLE)	0.219	k star (bias corrected MLE)	0.22
Theta hat (MLE)	4248	Theta star (bias corrected MLE)	4229
nu hat (MLE)	4.809	nu star (bias corrected)	4.831
Adjusted Level of Significance (β)	0.0278		
Approximate Chi Square Value (4.83, α)	1.075	Adjusted Chi Square Value (4.83, β)	0.818

68	95% Gamma Approximate UCL				4174	95% Gamma Adjusted UCL						5483
69												
70	**Estimates of Gamma Parameters using KM Estimates**											
71	Mean (KM)				955.9	SD (KM)						1172
72	Variance (KM)				1373861	SE of Mean (KM)						377.8
73	k hat (KM)				0.665	k star (KM)						0.544
74	nu hat (KM)				14.63	nu star (KM)						11.98
75	theta hat (KM)				1437	theta star (KM)						1756
76	80% gamma percentile (KM)				1574	90% gamma percentile (KM)						2540
77	95% gamma percentile (KM)				3562	99% gamma percentile (KM)						6056
78												
79	**Gamma Kaplan-Meier (KM) Statistics**											
80	Approximate Chi Square Value (11.98, α)				5.211	Adjusted Chi Square Value (11.98, β)						4.505
81	95% KM Approximate Gamma UCL				2197	95% KM Adjusted Gamma UCL						2541
82												
83	**Lognormal GOF Test on Detected Observations Only**											
84	Shapiro Wilk Test Statistic				0.87	**Shapiro Wilk GOF Test**						
85	10% Shapiro Wilk Critical Value				0.851	Detected Data appear Lognormal at 10% Significance Level						
86	Lilliefors Test Statistic				0.253	**Lilliefors GOF Test**						
87	10% Lilliefors Critical Value				0.265	Detected Data appear Lognormal at 10% Significance Level						
88	**Detected Data appear Lognormal at 10% Significance Level**											
89	**Note GOF tests may be unreliable for small sample sizes**											
90												
91	**Lognormal ROS Statistics Using Imputed Non-Detects**											
92	Mean in Original Scale				939.8	Mean in Log Scale						5.747
93	SD in Original Scale				1242	SD in Log Scale						1.746
94	95% t UCL (assumes normality of ROS data)				1618	95% Percentile Bootstrap UCL						1564
95	95% BCA Bootstrap UCL				1657	95% Bootstrap t UCL						1797
96	95% H-UCL (Log ROS)				18025							
97												
98	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
99	KM Mean (logged)				6.026	KM Geo Mean						414
100	KM SD (logged)				1.303	95% Critical H Value (KM-Log)						3.611
101	KM Standard Error of Mean (logged)				0.42	95% H-UCL (KM -Log)						4285
102	KM SD (logged)				1.303	95% Critical H Value (KM-Log)						3.611
103	KM Standard Error of Mean (logged)				0.42							
104												
105	**DL/2 Statistics**											
106	**DL/2 Normal**					**DL/2 Log-Transformed**						
107	Mean in Original Scale				942.3	Mean in Log Scale						5.837
108	SD in Original Scale				1240	SD in Log Scale						1.601
109	95% t UCL (Assumes normality)				1620	95% H-Stat UCL						10645
110	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
111												
112	**Nonparametric Distribution Free UCL Statistics**											
113	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
114												
115	**Suggested UCL to Use**											
116	95% KM (t) UCL				1641							
117												
118	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
119	**Please verify the data were collected from random locations.**											
120	**If the data were collected using judgmental or other non-random methods,**											
121	**then contact a statistician to correctly calculate UCLs.**											
122												
123	When a data set follows an approximate distribution passing only one of the GOF tests,											
124	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
125												
126	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
127	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
128	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
129												
130	**Copper**											
131												
132	**General Statistics**											
133	Total Number of Observations				26	Number of Distinct Observations						16
134						Number of Missing Observations						15

135				Number of Detects	14					Number of Non-Detects	12	
136				Number of Distinct Detects	14					Number of Distinct Non-Detects	2	
137				Minimum Detect	2.5					Minimum Non-Detect	1.2	
138				Maximum Detect	871					Maximum Non-Detect	5	
139				Variance Detects	65918					Percent Non-Detects	46.15%	
140				Mean Detects	211					SD Detects	256.7	
141				Median Detects	106.1					CV Detects	1.217	
142				Skewness Detects	1.412					Kurtosis Detects	1.986	
143				Mean of Logged Detects	3.938					SD of Logged Detects	2.232	
144												
145				**Normal GOF Test on Detects Only**								
146				Shapiro Wilk Test Statistic	0.806					**Shapiro Wilk GOF Test**		
147				1% Shapiro Wilk Critical Value	0.825					Detected Data Not Normal at 1% Significance Level		
148				Lilliefors Test Statistic	0.219					**Lilliefors GOF Test**		
149				1% Lilliefors Critical Value	0.263					Detected Data appear Normal at 1% Significance Level		
150				**Detected Data appear Approximate Normal at 1% Significance Level**								
151												
152				**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**								
153				KM Mean	114.4					KM Standard Error of Mean	42.62	
154				90KM SD	209.4					95% KM (BCA) UCL	193.6	
155				95% KM (t) UCL	187.2					95% KM (Percentile Bootstrap) UCL	190.7	
156				95% KM (z) UCL	184.5					95% KM Bootstrap t UCL	223	
157				90% KM Chebyshev UCL	242.2					95% KM Chebyshev UCL	300.1	
158				97.5% KM Chebyshev UCL	380.5					99% KM Chebyshev UCL	538.4	
159												
160				**Gamma GOF Tests on Detected Observations Only**								
161				A-D Test Statistic	0.649					**Anderson-Darling GOF Test**		
162				5% A-D Critical Value	0.802					Detected data appear Gamma Distributed at 5% Significance Level		
163				K-S Test Statistic	0.203					**Kolmogorov-Smirnov GOF**		
164				5% K-S Critical Value	0.243					Detected data appear Gamma Distributed at 5% Significance Level		
165				**Detected data appear Gamma Distributed at 5% Significance Level**								
166												
167				**Gamma Statistics on Detected Data Only**								
168				k hat (MLE)	0.456					k star (bias corrected MLE)	0.406	
169				Theta hat (MLE)	462.8					Theta star (bias corrected MLE)	519.9	
170				nu hat (MLE)	12.77					nu star (bias corrected)	11.36	
171				Mean (detects)	211							
172												
173				**Gamma ROS Statistics using Imputed Non-Detects**								
174				GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs								
175				GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)								
176				For such situations, GROS method may yield incorrect values of UCLs and BTVs								
177				This is especially true when the sample size is small.								
178				For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates								
179				Minimum	0.01					Mean	113.6	
180				Maximum	871					Median	2.6	
181				SD	214					CV	1.883	
182				k hat (MLE)	0.161					k star (bias corrected MLE)	0.168	
183				Theta hat (MLE)	707.5					Theta star (bias corrected MLE)	677.5	
184				nu hat (MLE)	8.352					nu star (bias corrected)	8.721	
185				Adjusted Level of Significance (β)	0.0398							
186				Approximate Chi Square Value (8.72, α)	3.16					Adjusted Chi Square Value (8.72, β)	2.942	
187				95% Gamma Approximate UCL	313.6					95% Gamma Adjusted UCL	336.9	
188												
189				**Estimates of Gamma Parameters using KM Estimates**								
190				Mean (KM)	114.4					SD (KM)	209.4	
191				Variance (KM)	43859					SE of Mean (KM)	42.62	
192				k hat (KM)	0.298					k star (KM)	0.289	
193				nu hat (KM)	15.5					nu star (KM)	15.05	
194				theta hat (KM)	383.5					theta star (KM)	395.2	
195				80% gamma percentile (KM)	173.8					90% gamma percentile (KM)	338.7	
196				95% gamma percentile (KM)	529.1					99% gamma percentile (KM)	1026	
197												
198				**Gamma Kaplan-Meier (KM) Statistics**								
199				Approximate Chi Square Value (15.05, α)	7.295					Adjusted Chi Square Value (15.05, β)	6.939	
200				95% KM Approximate Gamma UCL	235.9					95% KM Adjusted Gamma UCL	248	
201												

	A	B	C	D	E	F	G	H	I	J	K	L
202	**Lognormal GOF Test on Detected Observations Only**											
203					Shapiro Wilk Test Statistic	0.853	**Shapiro Wilk GOF Test**					
204					10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level					
205					Lilliefors Test Statistic	0.191	**Lilliefors GOF Test**					
206					10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level					
207	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
208												
209	**Lognormal ROS Statistics Using Imputed Non-Detects**											
210					Mean in Original Scale	114.1				Mean in Log Scale	1.62	
211					SD in Original Scale	213.7				SD in Log Scale	3.233	
212					95% t UCL (assumes normality of ROS data)	185.7				95% Percentile Bootstrap UCL	186.2	
213					95% BCA Bootstrap UCL	208.1				95% Bootstrap t UCL	225.3	
214					95% H-UCL (Log ROS)	48452						
215												
216	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
217					KM Mean (logged)	2.292				KM Geo Mean	9.891	
218					KM SD (logged)	2.392				95% Critical H Value (KM-Log)	4.659	
219					KM Standard Error of Mean (logged)	0.49				95% H-UCL (KM -Log)	1607	
220					KM SD (logged)	2.392				95% Critical H Value (KM-Log)	4.659	
221					KM Standard Error of Mean (logged)	0.49						
222												
223	**DL/2 Statistics**											
224	**DL/2 Normal**						**DL/2 Log-Transformed**					
225					Mean in Original Scale	114.3				Mean in Log Scale	2.214	
226					SD in Original Scale	213.6				SD in Log Scale	2.538	
227					95% t UCL (Assumes normality)	185.9				95% H-Stat UCL	2768	
228	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
229												
230	**Nonparametric Distribution Free UCL Statistics**											
231	**Detected Data appear Approximate Normal Distributed at 1% Significance Level**											
232												
233	**Suggested UCL to Use**											
234					95% KM (t) UCL	187.2						
235												
236	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
237	**Please verify the data were collected from random locations.**											
238	**If the data were collected using judgmental or other non-random methods,**											
239	**then contact a statistician to correctly calculate UCLs.**											
240												
241	When a data set follows an approximate distribution passing only one of the GOF tests,											
242	it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL											
243												
244	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
245	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
246	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
247												
248	**Lead**											
249												
250	**General Statistics**											
251					Total Number of Observations	26				Number of Distinct Observations	20	
252										Number of Missing Observations	15	
253					Number of Detects	18				Number of Non-Detects	8	
254					Number of Distinct Detects	18				Number of Distinct Non-Detects	2	
255					Minimum Detect	0.99				Minimum Non-Detect	4.4	
256					Maximum Detect	3000				Maximum Non-Detect	10	
257					Variance Detects	638803				Percent Non-Detects	30.77%	
258					Mean Detects	459.1				SD Detects	799.3	
259					Median Detects	33.95				CV Detects	1.741	
260					Skewness Detects	2.245				Kurtosis Detects	5.374	
261					Mean of Logged Detects	3.75				SD of Logged Detects	2.76	
262												
263	**Normal GOF Test on Detects Only**											
264					Shapiro Wilk Test Statistic	0.648	**Shapiro Wilk GOF Test**					
265					1% Shapiro Wilk Critical Value	0.858	Detected Data Not Normal at 1% Significance Level					
266					Lilliefors Test Statistic	0.3	**Lilliefors GOF Test**					
267					1% Lilliefors Critical Value	0.235	Detected Data Not Normal at 1% Significance Level					
268	**Detected Data Not Normal at 1% Significance Level**											

269												
270	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
271					KM Mean	318.4				KM Standard Error of Mean	137.2	
272					90KM SD	679.9				95% KM (BCA) UCL	575.2	
273					95% KM (t) UCL	552.7				95% KM (Percentile Bootstrap) UCL	566.1	
274					95% KM (z) UCL	544.1				95% KM Bootstrap t UCL	729.3	
275					90% KM Chebyshev UCL	730				95% KM Chebyshev UCL	916.4	
276					97.5% KM Chebyshev UCL	1175				99% KM Chebyshev UCL	1683	
277												
278	**Gamma GOF Tests on Detected Observations Only**											
279					A-D Test Statistic	0.79	**Anderson-Darling GOF Test**					
280					5% A-D Critical Value	0.846	Detected data appear Gamma Distributed at 5% Significance Level					
281					K-S Test Statistic	0.214	**Kolmogorov-Smirnov GOF**					
282					5% K-S Critical Value	0.221	Detected data appear Gamma Distributed at 5% Significance Level					
283	**Detected data appear Gamma Distributed at 5% Significance Level**											
284												
285	**Gamma Statistics on Detected Data Only**											
286					k hat (MLE)	0.291				k star (bias corrected MLE)	0.28	
287					Theta hat (MLE)	1576				Theta star (bias corrected MLE)	1641	
288					nu hat (MLE)	10.48				nu star (bias corrected)	10.07	
289					Mean (detects)	459.1						
290												
291	**Gamma ROS Statistics using Imputed Non-Detects**											
292	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
293	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
294	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
295	This is especially true when the sample size is small.											
296	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
297					Minimum	0.01				Mean	317.8	
298					Maximum	3000				Median	3.55	
299					SD	693.6				CV	2.182	
300					k hat (MLE)	0.165				k star (bias corrected MLE)	0.172	
301					Theta hat (MLE)	1922				Theta star (bias corrected MLE)	1849	
302					nu hat (MLE)	8.598				nu star (bias corrected)	8.939	
303					Adjusted Level of Significance (β)	0.0398						
304					Approximate Chi Square Value (8.94, α)	3.29				Adjusted Chi Square Value (8.94, β)	3.067	
305					95% Gamma Approximate UCL	863.5				95% Gamma Adjusted UCL	926.4	
306												
307	**Estimates of Gamma Parameters using KM Estimates**											
308					Mean (KM)	318.4				SD (KM)	679.9	
309					Variance (KM)	462212				SE of Mean (KM)	137.2	
310					k hat (KM)	0.219				k star (KM)	0.22	
311					nu hat (KM)	11.41				nu star (KM)	11.42	
312					theta hat (KM)	1452				theta star (KM)	1449	
313					80% gamma percentile (KM)	439.1				90% gamma percentile (KM)	961.9	
314					95% gamma percentile (KM)	1600				99% gamma percentile (KM)	3330	
315												
316	**Gamma Kaplan-Meier (KM) Statistics**											
317					Approximate Chi Square Value (11.42, α)	4.849				Adjusted Chi Square Value (11.42, β)	4.568	
318					95% KM Approximate Gamma UCL	750				95% KM Adjusted Gamma UCL	796.1	
319												
320	**Lognormal GOF Test on Detected Observations Only**											
321					Shapiro Wilk Test Statistic	0.911	**Shapiro Wilk GOF Test**					
322					10% Shapiro Wilk Critical Value	0.914	Detected Data Not Lognormal at 10% Significance Level					
323					Lilliefors Test Statistic	0.147	**Lilliefors GOF Test**					
324					10% Lilliefors Critical Value	0.185	Detected Data appear Lognormal at 10% Significance Level					
325	**Detected Data appear Approximate Lognormal at 10% Significance Level**											
326												
327	**Lognormal ROS Statistics Using Imputed Non-Detects**											
328					Mean in Original Scale	318.7				Mean in Log Scale	2.74	
329					SD in Original Scale	693.2				SD in Log Scale	2.838	
330					95% t UCL (assumes normality of ROS data)	550.9				95% Percentile Bootstrap UCL	561.2	
331					95% BCA Bootstrap UCL	641				95% Bootstrap t UCL	767	
332					95% H-UCL (Log ROS)	18812						
333												
334	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
335					KM Mean (logged)	2.767				KM Geo Mean	15.92	

336				KM SD (logged)	2.682					95% Critical H Value (KM-Log)	5.151	
337			KM Standard Error of Mean (logged)		0.545					95% H-UCL (KM -Log)	9196	
338				KM SD (logged)	2.682					95% Critical H Value (KM-Log)	5.151	
339			KM Standard Error of Mean (logged)		0.545							
340												
341					**DL/2 Statistics**							
342				**DL/2 Normal**						**DL/2 Log-Transformed**		
343				Mean in Original Scale	318.7					Mean in Log Scale	2.902	
344				SD in Original Scale	693.2					SD in Log Scale	2.628	
345			95% t UCL (Assumes normality)		550.9					95% H-Stat UCL	8206	
346					**DL/2 is not a recommended method, provided for comparisons and historical reasons**							
347												
348					**Nonparametric Distribution Free UCL Statistics**							
349					**Detected Data appear Gamma Distributed at 5% Significance Level**							
350												
351					**Suggested UCL to Use**							
352				95% KM Adjusted Gamma UCL	796.1							
353												
354					**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**							
355					**Please verify the data were collected from random locations.**							
356					**If the data were collected using judgmental or other non-random methods,**							
357					**then contact a statistician to correctly calculate UCLs.**							
358												
359					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
360					Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.							
361					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
362												
363												
364	**Manganese**											
365												
366					**General Statistics**							
367				Total Number of Observations	11					Number of Distinct Observations	11	
368										Number of Missing Observations	12	
369				Minimum	23					Mean	893.6	
370				Maximum	2070					Median	876	
371				SD	648.7					Std. Error of Mean	195.6	
372				Coefficient of Variation	0.726					Skewness	0.649	
373												
374					**Normal GOF Test**							
375				Shapiro Wilk Test Statistic	0.935					**Shapiro Wilk GOF Test**		
376				1% Shapiro Wilk Critical Value	0.792					Data appear Normal at 1% Significance Level		
377				Lilliefors Test Statistic	0.161					**Lilliefors GOF Test**		
378				1% Lilliefors Critical Value	0.291					Data appear Normal at 1% Significance Level		
379					**Data appear Normal at 1% Significance Level**							
380												
381					**Assuming Normal Distribution**							
382				**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**		
383				95% Student's-t UCL	1248					95% Adjusted-CLT UCL (Chen-1995)	1256	
384										95% Modified-t UCL (Johnson-1978)	1254	
385												
386					**Gamma GOF Test**							
387				A-D Test Statistic	0.342					**Anderson-Darling Gamma GOF Test**		
388				5% A-D Critical Value	0.746					Detected data appear Gamma Distributed at 5% Significance Level		
389				K-S Test Statistic	0.168					**Kolmogorov-Smirnov Gamma GOF Test**		
390				5% K-S Critical Value	0.261					Detected data appear Gamma Distributed at 5% Significance Level		
391					**Detected data appear Gamma Distributed at 5% Significance Level**							
392												
393					**Gamma Statistics**							
394				k hat (MLE)	1.311					k star (bias corrected MLE)	1.014	
395				Theta hat (MLE)	681.8					Theta star (bias corrected MLE)	881.4	
396				nu hat (MLE)	28.84					nu star (bias corrected)	22.3	
397				MLE Mean (bias corrected)	893.6					MLE Sd (bias corrected)	887.5	
398										Approximate Chi Square Value (0.05)	12.57	
399				Adjusted Level of Significance	0.0278					Adjusted Chi Square Value	11.39	
400												
401					**Assuming Gamma Distribution**							
402				95% Approximate Gamma UCL	1586					95% Adjusted Gamma UCL	1750	

403												
404	**Lognormal GOF Test**											
405					Shapiro Wilk Test Statistic	0.822	**Shapiro Wilk Lognormal GOF Test**					
406					10% Shapiro Wilk Critical Value	0.876	Data Not Lognormal at 10% Significance Level					
407					Lilliefors Test Statistic	0.241	**Lilliefors Lognormal GOF Test**					
408					10% Lilliefors Critical Value	0.231	Data Not Lognormal at 10% Significance Level					
409	**Data Not Lognormal at 10% Significance Level**											
410												
411	**Lognormal Statistics**											
412					Minimum of Logged Data	3.135			Mean of logged Data	6.368		
413					Maximum of Logged Data	7.635			SD of logged Data	1.259		
414												
415	**Assuming Lognormal Distribution**											
416					95% H-UCL	5229			90% Chebyshev (MVUE) UCL	2562		
417					95% Chebyshev (MVUE) UCL	3200			97.5% Chebyshev (MVUE) UCL	4086		
418					99% Chebyshev (MVUE) UCL	5827						
419												
420	**Nonparametric Distribution Free UCL Statistics**											
421	**Data appear to follow a Discernible Distribution**											
422												
423	**Nonparametric Distribution Free UCLs**											
424					95% CLT UCL	1215			95% BCA Bootstrap UCL	1233		
425					95% Standard Bootstrap UCL	1197			95% Bootstrap-t UCL	1319		
426					95% Hall's Bootstrap UCL	1357			95% Percentile Bootstrap UCL	1214		
427					90% Chebyshev(Mean, Sd) UCL	1480			95% Chebyshev(Mean, Sd) UCL	1746		
428					97.5% Chebyshev(Mean, Sd) UCL	2115			99% Chebyshev(Mean, Sd) UCL	2840		
429												
430	**Suggested UCL to Use**											
431					95% Student's-t UCL	1248						
432												
433	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
434	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
435	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
436												
437	**Zinc**											
438												
439	**General Statistics**											
440					Total Number of Observations	27			Number of Distinct Observations	25		
441									Number of Missing Observations	14		
442					Number of Detects	23			Number of Non-Detects	4		
443					Number of Distinct Detects	23			Number of Distinct Non-Detects	2		
444					Minimum Detect	5.8			Minimum Non-Detect	1.6		
445					Maximum Detect	7620			Maximum Non-Detect	10		
446					Variance Detects	3980942			Percent Non-Detects	14.81%		
447					Mean Detects	1091			SD Detects	1995		
448					Median Detects	42.1			CV Detects	1.829		
449					Skewness Detects	2.155			Kurtosis Detects	4.489		
450					Mean of Logged Detects	4.645			SD of Logged Detects	2.446		
451												
452	**Normal GOF Test on Detects Only**											
453					Shapiro Wilk Test Statistic	0.626	**Shapiro Wilk GOF Test**					
454					1% Shapiro Wilk Critical Value	0.881	Detected Data Not Normal at 1% Significance Level					
455					Lilliefors Test Statistic	0.337	**Lilliefors GOF Test**					
456					1% Lilliefors Critical Value	0.209	Detected Data Not Normal at 1% Significance Level					
457	**Detected Data Not Normal at 1% Significance Level**											
458												
459	**Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs**											
460					KM Mean	930.1			KM Standard Error of Mean	362.4		
461					90KM SD	1842			95% KM (BCA) UCL	1581		
462					95% KM (t) UCL	1548			95% KM (Percentile Bootstrap) UCL	1578		
463					95% KM (z) UCL	1526			95% KM Bootstrap t UCL	1934		
464					90% KM Chebyshev UCL	2017			95% KM Chebyshev UCL	2510		
465					97.5% KM Chebyshev UCL	3194			99% KM Chebyshev UCL	4536		
466												
467	**Gamma GOF Tests on Detected Observations Only**											
468					A-D Test Statistic	1.901	**Anderson-Darling GOF Test**					
469					5% A-D Critical Value	0.852	Detected Data Not Gamma Distributed at 5% Significance Level					

470				K-S Test Statistic	0.306	**Kolmogorov-Smirnov GOF**						
471				5% K-S Critical Value	0.197	Detected Data Not Gamma Distributed at 5% Significance Level						
472	**Detected Data Not Gamma Distributed at 5% Significance Level**											
473												
474	**Gamma Statistics on Detected Data Only**											
475				k hat (MLE)	0.294	k star (bias corrected MLE)	0.285					
476				Theta hat (MLE)	3707	Theta star (bias corrected MLE)	3829					
477				nu hat (MLE)	13.54	nu star (bias corrected)	13.11					
478				Mean (detects)	1091							
479												
480	**Gamma ROS Statistics using Imputed Non-Detects**											
481	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
482	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
483	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
484	This is especially true when the sample size is small.											
485	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
486				Minimum	0.01	Mean	929.4					
487				Maximum	7620	Median	27.1					
488				SD	1877	CV	2.02					
489				k hat (MLE)	0.206	k star (bias corrected MLE)	0.208					
490				Theta hat (MLE)	4516	Theta star (bias corrected MLE)	4477					
491				nu hat (MLE)	11.11	nu star (bias corrected)	11.21					
492				Adjusted Level of Significance (β)	0.0401							
493				Approximate Chi Square Value (11.21, α)	4.712	Adjusted Chi Square Value (11.21, β)	4.444					
494				95% Gamma Approximate UCL	2211	95% Gamma Adjusted UCL	2344					
495												
496	**Estimates of Gamma Parameters using KM Estimates**											
497				Mean (KM)	930.1	SD (KM)	1842					
498				Variance (KM)	3392560	SE of Mean (KM)	362.4					
499				k hat (KM)	0.255	k star (KM)	0.251					
500				nu hat (KM)	13.77	nu star (KM)	13.57					
501				theta hat (KM)	3647	theta star (KM)	3700					
502				80% gamma percentile (KM)	1353	90% gamma percentile (KM)	2791					
503				95% gamma percentile (KM)	4495	99% gamma percentile (KM)	9028					
504												
505	**Gamma Kaplan-Meier (KM) Statistics**											
506				Approximate Chi Square Value (13.57, α)	6.281	Adjusted Chi Square Value (13.57, β)	5.965					
507				95% KM Approximate Gamma UCL	2010	95% KM Adjusted Gamma UCL	2117					
508												
509	**Lognormal GOF Test on Detected Observations Only**											
510				Shapiro Wilk Test Statistic	0.866	**Shapiro Wilk GOF Test**						
511				10% Shapiro Wilk Critical Value	0.928	Detected Data Not Lognormal at 10% Significance Level						
512				Lilliefors Test Statistic	0.243	**Lilliefors GOF Test**						
513				10% Lilliefors Critical Value	0.165	Detected Data Not Lognormal at 10% Significance Level						
514	**Detected Data Not Lognormal at 10% Significance Level**											
515												
516	**Lognormal ROS Statistics Using Imputed Non-Detects**											
517				Mean in Original Scale	929.7	Mean in Log Scale	3.998					
518				SD in Original Scale	1877	SD in Log Scale	2.792					
519				95% t UCL (assumes normality of ROS data)	1546	95% Percentile Bootstrap UCL	1555					
520				95% BCA Bootstrap UCL	1671	95% Bootstrap t UCL	1949					
521				95% H-UCL (Log ROS)	51064							
522												
523	**Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution**											
524				KM Mean (logged)	4.16	KM Geo Mean	64.1					
525				KM SD (logged)	2.511	95% Critical H Value (KM-Log)	4.9					
526				KM Standard Error of Mean (logged)	0.497	95% H-UCL (KM -Log)	16748					
527				KM SD (logged)	2.511	95% Critical H Value (KM-Log)	4.9					
528				KM Standard Error of Mean (logged)	0.497							
529												
530	**DL/2 Statistics**											
531	**DL/2 Normal**					**DL/2 Log-Transformed**						
532				Mean in Original Scale	930	Mean in Log Scale	4.127					
533				SD in Original Scale	1877	SD in Log Scale	2.6					
534				95% t UCL (Assumes normality)	1546	95% H-Stat UCL	23889					
535	**DL/2 is not a recommended method, provided for comparisons and historical reasons**											
536												

	A	B	C	D	E	F	G	H	I	J	K	L
537	**Nonparametric Distribution Free UCL Statistics**											
538	**Data do not follow a Discernible Distribution**											
539												
540	**Suggested UCL to Use**											
541					95% KM (t) UCL	1548						
542												
543	**The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.**											
544	**Please verify the data were collected from random locations.**											
545	**If the data were collected using judgmental or other non-random methods,**											
546	**then contact a statistician to correctly calculate UCLs.**											
547												
548	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
549	Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.											
550	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
551												

Appendix G

Spatial Analysis of Lead and Copper – Back Calculated EPCs

Appendix G
Spatial Analysis of Lead and Copper - Back-Calculated EPCs
Hercules LLC Kenvil Works Facility
Kenvil, NJ

Chemical	Body Weight (kg)	Dietary Composition		BAF_{invert}	BAF_{plant}	C_{invert} (mg/kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	AUF	Daily Dietary Dose (mg/kg/d)	Soil Bioaccessible Fraction	Worm Bioccessible Fraction	TRV (mg/kg-d)	EPC (mg/kg)	HQ
		Inverts	Plants											LOAEL		LOAEL
Copper	0.081	37.5%	62.5%	0.515*(Cinvert)	e^(0.394*LN(Cplant)+0.668)	160.70	18.74	0.016	0.003	0.67	11.3	0.53	0.73	11.3	**312**	1
Lead	0.081	37.5%	62.5%	e^(0.807 * LN(Cinvert) - 0.218)	e^(0.561 * LN(Cplant) - 1.328)	118.73	8.54	0.016	0.003	0.67	11.3	0.53	0.73	11.3	**488**	1

Notes:
Based on the American Robin model
Equation:

$$EPC = \frac{HQ_{LOAEL} \times TRV \times BW}{AUF \times \left(IRsed + \left[IRfood \times \left[\left(BAF_{invert} \times \%diet\right) + \left(BAF_{plant} \times \%\, diet\right)\right]\right]\right)}$$

EPC = exposure point concentration
TRV = toxicity reference value
BW = body weight (kg)
AUF = area use factor
IRsed = Sediment Ingestion Rate (kg/day)
IRfood = Daily Ingestion Rate (kg/day)
BAF = Bioaccumulation Factor
%diet = Dietary Composition

Attachment 1

2016 Ecological Evaluation/Ecological Risk Assessment

Ecological Evaluation/ Ecological Risk Assessment

Hercules Incorporated
Kenvil Works Facility (PI No. 000741)
Kenvil, Morris County, New Jersey

April 2016

Ecological Evaluation/ Ecological Risk Assessment

Kenvil Works Facility
Kenvil, Morris County, New Jersey

Prepared for:
Hercules Incorporated

Date:
April 2016

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Table of Contents

Acronyms and Abbreviations

Executive Summary **1**

1. Introduction **1**

1.1 Sitewide Remedial Strategy 1

1.2 Purpose and Objectives 2

1.3 Report Organization 4

2. Facility Overview **6**

2.1 Location 6

2.2 Development and Operations 6

2.3 Regional Ecology 7

2.4 Facility-Specific Ecology 8

2.5 Threatened and Endangered Species 9

2.6 Habitat Characterization 10

2.6.1 Terrestrial Habitats 11

2.6.1.1 Terrestrial Wooded Areas 11

2.6.1.2 Terrestrial Scrub/Shrub and Terrestrial Open Field Areas 12

2.6.1.3 Terrestrial Miscellaneous Areas – Landscaped Areas 13

2.6.2 Aquatic and Wetland Habitats 13

2.6.2.1 Wetlands 13

2.6.2.2 Aquatic Flowing Areas 14

2.6.2.3 Aquatic Non-flowing Areas 14

2.6.3 Habitat Characterization Summary 15

3. Problem Formulation **16**

3.1 Environmental History 16

3.1.1 Environmental Releases 17

3.1.1.1 Fires 17

3.1.1.2 Explosions 18

Table of Contents

3.1.1.3 Spills 19

3.1.1.4 Historic Fill 20

3.2 Previous Investigations 22

3.2.1 Site Investigation 22

3.2.2 Remedial Actions 23

3.2.3 Facility Redevelopment 24

3.3 Ecological Conceptual Site Model 25

3.3.1 Potential Ecological Exposure Pathways 25

3.3.1.1 Surface Soil 26

3.3.1.2 Surface Water 27

3.3.1.3 Surface Sediment 28

3.3.2 Potential Ecological Receptors 29

3.3.3 Exposure Areas 30

3.3.3.1 Terrestrial Exposure Area 31

3.3.3.2 Aquatic Exposure Areas 32

3.3.3.3 Groundwater 33

3.3.4 Excluded Areas 33

3.3.4.1 Areas of Presumed Remedial Action 33

3.3.4.2 Areas Beyond the Remedial Area Boundary 34

3.3.5 Summary 35

3.4 Assessment and Measurement Endpoints 35

4. Data Review and COPEC Selection 38

4.1 Data Usability 38

4.1.1 Ecological Risk Assessment Dataset Selection 38

4.1.2 Data Management 39

4.1.2.1 PCDDs and PCDFs 40

4.1.2.2 Duplicate Samples 40

Table of Contents

4.1.2.3 Redundant Analytes – SW846 Methods 8270 and 8330 40

4.1.2.4 Redundant Analytes – SW846 Methods 8260 and 8270 41

4.2 Identification of Constituents of Potential Ecological Concern 42

4.2.1 Ecological Screening Benchmarks 42

4.2.2 COPEC Screen 44

4.2.2.1 Facility-Wide Soil 44

4.2.2.2 Northern Drainage Area 45

4.2.2.3 Southern Drainage Area 46

5. Ecological Exposure Assessment 49

5.1 Exposure Point Concentrations 49

5.1.1 Site Media 50

5.1.2 Estimated Tissue Concentrations 50

5.1.2.1 Bioaccumulation Factors 50

5.1.2.2 Biota-Sediment Accumulation Factors 51

5.2 Upper-Trophic Level Wildlife Exposure 53

5.3 Exposure Parameters 54

5.3.1 Dietary Ingestion Rates 54

5.3.2 Soil/Sediment Ingestion Rates 55

5.3.3 Body Weights 55

5.3.4 Additional Exposure Assumptions 55

6. Ecological Effects Assessment 57

6.1 Toxicological Properties of COPECs 57

6.1.1 Polycyclic Aromatic Hydrocarbons 57

6.1.1.1 Invertebrates 57

6.1.1.2 Fish 58

6.1.1.3 Wildlife 58

6.1.2 Metals 58

Table of Contents

6.1.2.1 Mercury 59

6.1.2.2 Lead 60

6.1.3 Polychlorinated Biphenyls 61

6.1.3.1 Invertebrates 61

6.1.3.2 Fish 62

6.1.3.3 Wildlife 62

6.1.4 Explosives and Energetics 63

6.1.4.1 Invertebrates 63

6.1.4.2 Fish 63

6.1.4.3 Wildlife 63

6.2 Potential Direct Effects 63

6.3 Potential Wildlife Effects 64

7. Ecological Risk Characterization 67

7.1 Terrestrial Receptors 67

7.1.1 Soil Invertebrates 67

7.1.2 Plants 68

7.1.3 Wildlife 68

7.1.3.1 Birds 68

7.1.3.2 Mammals 69

7.2 Aquatic Receptors 69

7.2.1 Northern Drainage Area 69

7.2.1.1 Benthic Invertebrates 69

7.2.1.2 Aquatic Plants 70

7.2.1.3 Fish and Aquatic Invertebrates 70

7.2.1.4 Birds 71

7.2.1.5 Mammals 71

7.2.2 Southern Drainage Area 71

Table of Contents

7.2.2.1 Benthic Invertebrates 72

7.2.2.2 Aquatic Plants 72

7.2.2.3 Fish and Aquatic Invertebrates 73

7.2.2.4 Birds 73

7.2.2.5 Mammals 74

7.3 PCDD/F Risk Characterization 74

7.4 Ecological Risk Characterization Discussion 75

7.4.1 Terrestrial Exposures 75

7.4.2 Aquatic Exposures 76

7.4.2.1 Northern Aquatic Drainage Area 76

7.4.2.2 Southern Aquatic Drainage Area 77

7.4.3 COPECs with the Greatest Potential for Risk 77

8. Uncertainty Analysis 79

8.1 Complexity of Natural Systems 79

8.2 Data Uncertainty 79

8.2.1 COPEC Screening Process 81

8.2.2 Exposure Point Concentrations 82

8.2.3 Exposure Areas 83

8.2.4 Exposure Parameters 83

8.2.5 Uptake Factors 84

8.3 Effects Uncertainty 85

8.3.1 Bioavailability 85

8.3.2 Explosive and Energetic Compounds 86

8.3.3 Toxicity Reference Values 86

9. Conclusions and Recommendations 88

9.1 Conclusions 88

9.2 Recommendations 96

Table of Contents

10. References **97**

Tables

2-1 Plant Species Observations

2-2 Wildlife Species Observations

3-1 Areas of Presumed Remedial Action

3-2 Assessment and Measurement Endpoints

4-1 Ecological Risk Assessment Dataset

4-2 Summary of Ecological Screening Benchmarks for Detected Constituents

4-3 Summary Statistics and COPEC Screen for Detected Constituents in Soil

4-4 Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Surface Water

4-5 Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Sediment

4-6 Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Surface Water

4-7 Summary Statistics and COPEC Screen for Detected Constituents in Southern Area Sediment

4-8 COPEC Summary

5-1 Exposure Point Concentrations for Soil

5-2 Exposure Point Concentrations for Northern Drainage Area Surface Water

5-3 Exposure Point Concentrations for Northern Drainage Area Sediment

5-4 Exposure Point Concentrations for Southern Drainage Area Surface Water

5-5 Exposure Point Concentrations for Southern Drainage Area Sediment

5-6 Bioaccumulation Factors

5-7 Terrestrial Tissue Exposure Point Concentrations

5-8 Biota-Sediment Accumulation Factors

5-9 Aquatic Tissue Exposure Point Concentrations

5-10 Exposure Parameters for Wildlife

Table of Contents

6-1 Toxicity Reference Values

7-1 Hazard Quotients for Soil Invertebrates

7-2 Hazard Quotients for Terrestrial Plants

7-3 Hazard Quotients for American Robin

7-4 Hazard Quotients for Northern Bobwhite

7-5 Hazard Quotients for Red-Tailed Hawk

7-6 Hazard Quotients for Short-Tailed Shrew

7-7 Hazard Quotients for White-Tailed Deer

7-8 Hazard Quotients for Red Fox

7-9 Summary of Hazard Quotients for Terrestrial Wildlife

7-10 Hazard Quotients for Benthic Invertebrates – Northern Drainage Area

7-11 Hazard Quotients for Aquatic Plants – Northern Drainage Area

7-12 Hazard Quotients for Fish and Aquatic Invertebrates – Northern Drainage Area

7-13 Hazard Quotients for Tree Swallow – Northern Drainage Area

7-14 Hazard Quotients for Great Blue Heron – Northern Drainage Area

7-15 Hazard Quotients for Mallard Duck – Northern Drainage Area

7-16 Hazard Quotients for Little Brown Bat – Northern Drainage Area

7-17 Hazard Quotients for Mink – Northern Drainage Area

7-18 Hazard Quotients for Muskrat – Northern Drainage Area

7-19 Hazard Quotients for Benthic Invertebrates – Southern Drainage Area

7-20 Hazard Quotients for Aquatic Plants – Southern Drainage Area

7-21 Hazard Quotients for Fish and Aquatic Invertebrates – Southern Drainage Area

7-22 Hazard Quotients for Tree Swallow – Southern Drainage Area

7-23 Hazard Quotients for Great Blue Heron – Southern Drainage Area

7-24 Hazard Quotients for Mallard Duck – Southern Drainage Area

7-25 Hazard Quotients for Little Brown Bat – Southern Drainage Area

7-26 Hazard Quotients for Mink – Southern Drainage Area

7-27 Hazard Quotients for Muskrat – Southern Drainage Area

7-28 Summary of Hazard Quotients for Aquatic Wildlife

8-1 Constituents Screened out as COPECs due to Low Frequency of Detection

Figures

1-1 Site Location

1-2 Site Operational Areas

2-1 Site Plan

2-2 Habitat Characterization Results

3-1 Conceptual Site Model

3-2 Terrestrial Exposure Area

3-3 Aquatic Exposure Areas

4-1 Terrestrial Exposure Area – VOC Soil Samples

4-2 Terrestrial Exposure Area – SVOC Soil Samples

4-3 Terrestrial Exposure Area – PAH Soil Samples

4-4 Terrestrial Exposure Area – Metals Soil Samples

4-5 Terrestrial Exposure Area – Pesticides Soil Samples

4-6 Terrestrial Exposure Area – PCBs Soil Samples

4-7 Terrestrial Exposure Area – E&E Soil Samples

4-8 Northern Aquatic Exposure Area – VOC Surface Water and Sediment Samples

4-9 Northern Aquatic Exposure Area – SVOC Surface Water and Sediment Samples

4-10 Northern Aquatic Exposure Area – Metals Surface Water and Sediment Samples

4-11 Northern Aquatic Exposure Area – E&E Surface Water and Sediment Samples

4-12 Southern Aquatic Exposure Area – VOC Surface Water and Sediment Samples

4-13 Southern Aquatic Exposure Area – SVOC Surface Water and Sediment Samples

4-14 Southern Aquatic Exposure Area – Metals Surface Water and Sediment Samples

4-15 Southern Aquatic Exposure Area – E&E Surface Water and Sediment Samples

Table of Contents

Appendices

A Ecological Risk Assessment Dataset

B Soil Analytical Results – Areas of Presumed Remedial Action

C Evaluation of Potential Ecological Risks Beyond the Remedial Area

D Ecological Risk Assessment of PCDD/Fs in Former Burning Areas

E ProUCL Output Files

F Ecological Risk Assessment Work Plan

Attachments

1 NJ Natural Heritage Program Database Search Results

2 Conservation Easement

Acronyms and Abbreviations

95UCL	95% upper confidence limit
AE	assessment endpoint
AN	ammonium nitrate
ANFO	ammonium nitrate fuel oil
ATSDR	Agency for Toxic Substances and Disease Registry
AVS	acid volatile sulfide
BAF	bioaccumulation factor
BaP	benzo(a)pyrene
BAZ	biologically active zone
bgs	below ground surface
BSAF	biota-sediment accumulation factor
bss	below soil/sediment surface
BTAG	Biological Technical Assistance Group
C&D landfill	construction and demolition debris landfill
COPEC	constituent of potential ecological concern
CSM	conceptual site model
DNT	dinitrotoluene
DTSC	California Department of Toxic Substances Control
E&E	explosive and energetic
EcoSSL	Ecological Soil Screening Level
EE	ecological evaluation
EPC	exposure point concentration
ERA	ecological risk assessment
ESB	ecological screening benchmark
ESC	Ecological Screening Criteria

GC/MS	gas chromatography/mass spectrometry
HMX	high melting explosive (octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)
HPLC	high-performance liquid chromatography
HQ	hazard quotient
HQ_{LOAEL}	LOAEL-based HQ
HQ_{NOAEL}	NOAEL-based HQ
ICMM	International Council on Mining and Metals
ISRA	Industrial Site Recovery Act
ITRC	Interstate Technology & Regulatory Council
kg/day	kilograms per day
kg_{oc}/kg_{l}	kilogram organic carbon per kilogram lipid
LOAEL	lowest observed adverse effects level
ME	measurement endpoint
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MRG	metal-rich granule
MT	metallothionein
NG	nitroglycerin
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NOAEL	no observed adverse effects level
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCDD	polychlorinated dibenzo-*p*-dioxin
PCDF	polychlorinated dibenzo-*p*-furan

PETN	pentaerythritol tetranitrate
RDX	royal demolition explosive (hexahydro-1,3,5-trinitro-1,3,5-triazine)
RI	remedial investigation
RIR	Remedial Investigation Report
SEM	simultaneously extracted metal
SI	site investigation
SUF	site use factor
SVOC	semivolatile organic compound
T&E	threatened and endangered
TNT	2,4,6-trinitrotoluene
TRSR	Technical Requirements for Site Remediation
TRV	toxicity reference value
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventative Medicine
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service
VOC	volatile organic compound

Executive Summary

Hercules Incorporated (Hercules) prepared this Ecological Evaluation/Ecological Risk Assessment (EE/ERA) as a component of the Remedial Investigation Report for the former Hercules Kenvil Works Facility, located on Hercules Road in Kenvil, Morris County, New Jersey (the Facility). The remedial program at the Facility is coordinated through a licensed site remediation professional and conducted in accordance with the New Jersey Department of Environmental Protection's (NJDEP's) Technical Requirements for Site Remediation, New Jersey Administrative Code (N.J.A.C.) 7:26E. This ERA was prepared in accordance with N.J.A.C. 7:26E-4.8 Remedial Investigation of Ecological Receptors, as well as the Ecological Evaluation Technical Guidance (NJDEP 2015).

Consistent with NJDEP (2015), ecological investigation and assessment activities were conducted in accordance with United States Environmental Protection Agency (USEPA) and other federal guidance, including Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (USEPA 1997). As specified in NJDEP and USEPA guidance, this ERA uses conservative assumptions related to potential exposures and receptors, and leverages Facility knowledge and associated remedial decision making processes to build upon the results of the site investigation (SI)/remedial investigation (RI).

The Facility occupies approximately 1,059 acres along Howard Boulevard, about 0.5 mile northwest of the center of Kenvil, in Morris County, New Jersey. The Facility began operation in 1871 and initially manufactured dynamite to support iron ore mining operations in the surrounding area. Through the early and middle parts of the 20th century, Hercules expanded its manufacturing operations to meet the growing economic need for explosives and propellants. In the final years of operation, smokeless powder was the primary product and was produced by Alliant under a lease agreement from 1995 to 1996. The facility ceased operation in 1996. Hercules, a wholly owned subsidiary of Ashland, Inc. and the current property owner, remains responsible for the remediation and closure of the Facility.

Data generated during the SI supported the establishment of the Remedial Area to focus RI activities within and immediately adjacent to the former manufacturing areas, and concluded that additional investigation of the outlying undeveloped portions of the Facility (those areas beyond the former manufacturing areas [beyond the Remedial Area]) was not warranted. This EE/ERA builds upon the information collected during characterization in the SI/RI phases and evaluates the potential for ecological risk

within the Remedial Area. A review of SI/RI data and findings identified areas where historical operations (e.g., emplacement of historic fill, point source releases, process upsets, etc.) influenced environmental media within the Remedial Area. In these ways, the SI/RI informs and focuses this EE/ERA. This EE/ERA separates the Facility into three general categories:

- Areas where ecological risk is negligible.
- Areas where ecological risk is uncertain and assessment is needed.
- Areas where constituent concentrations and/or physical characteristics merit remediation (e.g., ecological risk likely), regardless of the outcome of the ecological risk assessment process (Areas of Presumed Remedial Action).

This approach focuses the EE/ERA on areas where risks may be present and does not confound the process by evaluating areas where risks are unlikely (undeveloped areas beyond the Remedial Area) or very likely (certain Areas of Presumed Remedial Action), or where proposed remedial actions will address any potential exposure risks (certain Areas of Presumed Remedial Action). Using this approach, the EE/ERA aims to identify areas of the Facility that may present unacceptable ecological risk and to provide a foundation on which to base additional focused ecological evaluation (if warranted).

Ecological exposures could potentially occur across a range of areas and habitats found at the Facility, including:

- Former operational areas consisting of grassland, shrub, and young forest habitat in various states of succession and interspersed with remnants of operational structures (e.g., concrete pads, buildings, rubble piles).
- Mature forest occurring along the periphery of the Facility along steep ridgelines and ridgetops.
- Aquatic habitat including unnamed tributaries, Shooting Pond, Duck Pond, and several isolated vernal pools. Tributaries consist of altered (e.g., channelized, bermed) natural features and man-made drainage ditches that, along with Shooting Pond and Duck Pond, managed stormwater during Facility operations.

- The majority of the former operational areas, which drain to a forested wetland complex at the southern end of the Facility (southern wetland complex) via a series of tributaries.

These habitats support the identification of exposure areas and associated terrestrial and aquatic receptor species. Specifically, exposure areas used in this EE/ERA include site-wide soil (terrestrial) and two aquatic exposure areas (Northern Drainage Area and Southern Drainage Area) aligned with surface water drainages at the Facility. Areas beyond the Remedial Area and Areas of Presumed Remedial Action are not considered in this EE/ERA.

Potential exposures were evaluated using a series of assessment endpoints (AEs) and measurement endpoints (MEs). MEs include direct comparison of constituent concentrations in environmental media to ecological screening benchmarks (ESBs) protective of lower-trophic-level receptors (e.g., invertebrates and plants), as well as dietary dose modeling of constituents into upper-trophic-level receptors. Using generic screening levels and assumptions on the bioavailability of constituents adds conservative uncertainty to the assessment. These evaluations generated hazard quotients (HQs), which are ratios based on exposure concentrations relative to toxicity reference values from the scientific literature. Lowest observed adverse effects level-(LOAEL-) and no observed adverse effects level-based HQs provide a bounded range of risk estimates for consideration. Acknowledging the conservative assumptions on which this ERA is based, consideration of the LOAEL-based HQ (HQ_{LOAEL}) is appropriate.

An interpretation of HQ values relative to each AE and ME follows:

- AE 1. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial plant community?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to terrestrial plant communities by exposure to COPECs at the Facility are possible.

  – This conclusion is supported by the following ME:

    ✓ HQs resulting from a comparison of soil COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for 10 COPECs; HQs

ranged from 2 to 46, with the greatest potential for risk from the metals mercury (46)[1], chromium (23), and vanadium (19).

- *AE 2*. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial invertebrate community?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to terrestrial invertebrate communities by exposure to COPECs at the Facility are unlikely.

  – This conclusion is supported by the following ME:

    ✓ HQs resulting from a comparison of soil COPEC concentrations to ESBs protective of terrestrial invertebrates are less than 1 for COPECs, with the exception of copper (3) manganese (6), vanadium (2), and zinc (2).

- *AE 3*. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to herbivorous avian and mammal populations by exposure to COPECs at the Facility are unlikely.

  – This conclusion is supported by the following MEs:

    ✓ HQ_{LOAELs} for the northern bobwhite, an herbivorous bird, are less than 1.

    ✓ HQ_{LOAELs} for the white-tailed deer, an herbivorous mammal, are less than 1.

[1] Calculated HQs are presented in parentheses next to each COPEC to show magnitude of potential to cause adverse effects; in other words, the larger the number, the greater the likelihood that adverse effects are possible.

- *AE 4*. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to insectivorous avian populations by exposure to COPECs at the Facility are possible, but adverse effects to mammal populations by exposure to COPECs at the Facility are unlikely.

  – This conclusion is supported by the following MEs:

    ✓ HQ_{LOAELs} for American robin, an insectivorous bird, are less than 1, with the exception of total polychlorinated biphenyls (PCBs; 3), copper (3), and lead (25).

    ✓ HQ_{LOAELs} for short-tailed shrew, an insectivorous mammal, are less than 1, with the exception of lead (3).

- *AE 5*. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to carnivorous avian and mammal populations by exposure to COPECs at the Facility are unlikely.

  – This conclusion is supported by the following MEs:

    ✓ HQ_{LOAELs} for red-tailed hawk, a carnivorous bird, are less than or equal to 1.

    ✓ HQ_{LOAELs} for red fox, a carnivorous mammal, are less than 1.

- *AE 6*. Could direct contact with COPECs in sediment in each area affect the structure, function, and/or survival of the benthic invertebrate community?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to

benthic invertebrate communities by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are possible.

  – This conclusion is supported by the following MEs:

    ✓ HQs resulting from a comparison of Northern Drainage Area sediment COPEC concentrations to ESBs protective of benthic invertebrates are greater than 1 for 7 COPECs.

    ✓ HQs resulting from a comparison of Southern Drainage Area sediment COPEC concentrations to ESBs protective of benthic invertebrates are greater than 1 for 21 COPECs.

- AE 7. Could direct contact with COPECs in sediment in each area affect the survival and function of aquatic plant populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to aquatic plants in the Northern Drainage Area and Southern Drainage Area are possible but unlikely.

    – This conclusion is supported by the following MEs:

      ✓ HQs resulting from a comparison of Northern Drainage Area sediment COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for four COPECs; HQs ranged from 2 to 21, with the greatest potential for adverse effects from chromium.

      ✓ HQs resulting from a comparison of Southern Drainage Area sediment COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for 15 COPECs; HQs ranged from 2 to 38, with the greatest potential for adverse effects from lead.

- *AE 8*. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to fish

populations by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are possible, but unlikely.

– This conclusion is supported by the following MEs:

✓ HQs resulting from a comparison of Northern Drainage Area surface water COPEC concentrations (dissolved phase) to ESBs protective of fish and aquatic invertebrate populations are less than 1 for COPECs, with the exception of copper (3) and lead (4).

✓ HQs resulting from a comparison of Southern Drainage Area surface water COPEC concentrations (dissolved phase) to ESBs protective of fish populations were less than 1 for COPECs, with the exception of lead (3).

- *AE 9*. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?

– Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to herbivorous avian and mammal populations by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are possible, but unlikely.

– This conclusion is supported by the following MEs:

✓ Northern Drainage Area HQ_{LOAELs} for mallard duck, an herbivorous bird, are less than 1.

✓ Northern Drainage Area HQ_{LOAELs} for muskrat, an herbivorous mammal, are less than 1.

✓ Southern Drainage Area HQ_{LOAELs} for mallard duck, an herbivorous bird, are less than 1, with the exception of lead (2).

✓ Southern Drainage Area HQ_{LOAELs} for muskrat, an herbivorous mammal, are less than 1, with the exception of pyrene (2).

- *AE 10*. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to insectivorous avian and mammal populations by exposure to COPECs in both the Northern and Southern Drainage Areas are possible.

  – This conclusion is supported by the following MEs:

    ✓ Northern Drainage Area HQ_{LOAELs} for tree swallow, an insectivorous bird, are less than 1, with the exception of copper (7) and lead (10).

    ✓ Northern Drainage Area HQ_{LOAELs} for little brown bat, an insectivorous mammal, are less than or equal to 1, with the exception of copper (3).

    ✓ Southern Drainage Area HQ_{LOAELs} for tree swallow, an insectivorous bird, are less than 1, with the exception of fluoranthene (3), copper (4), lead (224), and selenium (2).

    ✓ Southern Drainage Area HQ_{LOAELs} for little brown bat, an insectivorous mammal, are less than or equal to 1, with the exception of fluoranthene (6), pyrene (3), copper (2) lead (26), and selenium (2).

- *AE 11*. Could food-chain transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammal populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to:

    ✓ Piscivorous avian and mammal populations by exposure to COPECs in the Northern Drainage Area are unlikely.

    ✓ Piscivorous avian populations by exposure to COPECs in the Southern Drainage Area are possible.

- ✓ Piscivorous mammal populations by exposure to COPECs in the Southern Drainage Area are unlikely.

– This conclusion is supported by the following MEs:

- ✓ Northern Drainage Area HQ_{LOAELs} for great blue heron, a piscivorous bird, are less than or equal to 1.

- ✓ Northern Drainage Area HQ_{LOAELs} for mink, a piscivorous mammal, are less than or equal to 1.

- ✓ Southern Drainage Area HQ_{LOAELs} for great blue heron, a piscivorous bird, are less than 1, with the exception of lead (24).

- ✓ Southern Drainage Area HQ_{LOAELs} for mink, a piscivorous mammal, are less than 1, with the exception of lead (8).

These are reasonable findings based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

Overall, the potential for ecological risks is low. The greatest potential for adverse effects is from lead. Upper-trophic-level receptors in terrestrial (i.e., American robin) and aquatic (i.e., tree swallow, great blue heron, and little brown bat) exposure areas exhibit elevated lead HQs (ranging from 3 [short-tailed shrew] to 227 [tree swallow in Southern Drainage Area]). These results are based on food web modeling that did not incorporate measures of lead bioavailability. Soil and sediment characteristics at the Facility allow for the sequestration and binding of metals, potentially reducing the fraction of lead available for uptake by receptors and reducing the potential for adverse effects. Based on the results presented in this EE/ERA and the uncertainty regarding bioavailability, additional ecological investigation and risk assessment activities at the Facility are warranted. Refinements to the conservative evaluation presented here, as well as recommendations for additional sampling are presented in an Ecological Risk Assessment Work Plan provided as an appendix to this report.

Ecological Evaluation/ Ecological Risk Assessment

Kenvil Works Facility
Kenvil, Morris County, New Jersey

1. Introduction

Hercules Incorporated (Hercules) prepared this draft Ecological Evaluation /Ecological Risk Assessment (EE/ERA) as a component of the Remedial Investigation Report (RIR) for the former Hercules Kenvil Works Facility, located on Hercules Road in Kenvil, Morris County, New Jersey (the Facility; Figure 1-1). The remedial program at the Facility is coordinated through a licensed site remediation professional (LSRP) and conducted in accordance with New Jersey Department of Environmental Protection's (NJDEP's) Technical Requirements for Site Remediation (TRSR), New Jersey Administrative Code (N.J.A.C.) 7:26E.

This EE/ERA was prepared in accordance with N.J.A.C. 7:26E-1.16 – Receptor Evaluation - Ecological and N.J.A.C. 7:26E-4.8 Remedial Investigation of Ecological Receptors, as well as the Ecological Evaluation Technical Guidance (NJDEP 2015); and fulfills the requirements set forth in both N.J.A.C. 7:26E subsections 1.16 and 4.8. Consistent with NJDEP (2015), ecological investigation and assessment activities were conducted in accordance with United States Environmental Protection Agency (USEPA) and other federal guidance, including Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (USEPA 1997). Acknowledging the breadth and depth of site characterization data available, this document supplements the Ecological Evaluation with a quantitative ERA (including food web modeling) based on conservative assumptions. As such it fulfills both NJDEP and USEPA technical requirements for ecological evaluations and ecological risk assessments.

1.1 Sitewide Remedial Strategy

As part of the Remedial Agreement executed between Hercules and NJDEP in March 1995, a sitewide restoration strategy was developed to guide the investigation, remediation, and closure of the Facility. The strategy employs a phased approach whereby the focus of subsequent phases is tailored based on interpretation of information obtained during previous phase(s). The strategic approach considers both areal extent (i.e., entire Facility, former operational area, Area of Concern [AOC]) and media of interest (i.e., soil, groundwater, surface water, sediment) as appropriate. With the sitewide restoration strategy in place, Hercules initiated a Site Investigation (SI) in 1997.

The SI identified and investigated approximately 1,200 AOCs at the Facility, and created ten AOC groups based on similarities in historical operational function and/or

processes. The results of the SI effectively reduced the number of AOCs requiring additional investigation in the RI and generated data necessary to define the "Remedial Area," which encompasses the former operational areas of the Facility and those areas immediately adjacent to former operational areas influenced by Facility operations (Figure 1-2). This informed reductive approach aligns with the sitewide redevelopment strategy described in Section 3.2.3. Investigation in undeveloped areas (i.e., those areas of the Facility beyond the Remedial Area boundary) also occurred. Additional details regarding the SI can be found in Section 3.2.1.

Building upon SI findings, the RI provides spatial coverage within the Remedial Area and focused sampling within and proximate to potential source areas. The Phase I RIR (Hercules 2007) provided a comprehensive assessment of conditions onsite and culminated in a conceptual site model (CSM) summarizing constituent sources, mechanisms of release and transport, and potential receptors. The Phase I RIR also identified data gaps necessary to affirm the RI conclusions and provide information necessary to support the remedial design process.

NJDEP reviewed the Phase I RIR and issued a November 2010 comment letter to Hercules. As required under NJDEP's new regulatory construct under the Site Remediation Reform Act, an LSRP assumed a regulatory oversight role for the project. The LSRP (Mark Foley, LSRP ID No. 575999) reviewed the administrative record, including the Phase I RIR and associated NJDEP comments, and approved a Phase II RI sampling plan to fill data gaps identified in the Phase I RIR and address NJDEP comments. Phase II RI field sampling occurred in 2013.

This document incorporates the findings of the Phase II RI activities and evaluated the comprehensive site characterization dataset (SI, Phase I RI, and Phase II RI) using the risk assessment framework.

1.2 Purpose and Objectives

This EE/ERA is a standalone volume of the Phase II RIR (Hercules 2016) that updates and supplements the Phase I RIR (Hercules 2007). This EE/ERA builds upon the findings presented in the media-specific RIRs for the Facility (i.e., soil, groundwater, surface water, and sediment), and utilizes nearly 20 years of accumulated knowledge regarding historical site operations and related chemical and physical influences at the Facility.

This EE/ERA develops a technical basis regarding whether exposure to COPECs related to former Facility operations could adversely affect flora or fauna that inhabit the site. It evaluates the potential for ecological risks using the same informed, reductive approach employed in the SI/RI and separates the Facility into three general categories:

- Undeveloped areas beyond the Remedial Area where the potential for ecological risk is assumed unlikely.

- Areas within the Remedial Area where constituent concentrations and/or physical characteristics merit remediation (e.g., the potential for ecological risk is likely), regardless of the outcome of the EE/ERA process (hereafter referred to as Areas of Presumed Remedial Action).

- Areas within the Remedial Area where the potential for ecological risk is uncertain.

The first two categories of areas represent locations where potential ecological risk is either unlikely or highly likely. These areas are discussed and considered separately, and are not included in the quantitative evaluation of ecological risk. This reductive approach focuses the EE/ERA on places where potential ecological risk is uncertain within the Remedial Area, and does not confound the process by evaluating locations where potential ecological risk is unlikely (undeveloped areas) or very likely (Areas of Presumed Remedial Action). Using this approach, this EE/ERA aims to identify areas of the Facility that may present unacceptable ecological risk and to provide a foundation on which to base decisions related to additional focused ecological evaluation and/or environmental remediation (if warranted).

The overall objectives of the EE/ERA are as follows:

- Evaluate and present data and additional information from scientific resources to characterize ecological structure and function at the Facility.

- Describe potential ecological effects that may occur due to receptor exposure to COPECs.

- Estimate the extent of wildlife receptor exposure to COPECs.

- Characterize potential risks to wildlife receptors that may be exposed to COPECs.

- Describe uncertainty associated with the data evaluation, exposure assessment, effects evaluation, and risk characterization.

- Provide multiple lines of evidence to support a scientifically based risk management decision regarding the need for further ecological evaluation at the Facility.

Per NJDEP and USEPA guidance, this EE/ERA uses conservative assumptions related to potential exposures and receptors, and integrates Facility knowledge and associated remedial decision making processes to build upon the results of the SI/RI with a focus on ecological risk. The conclusions and recommendations of this EE/ERA focus additional ecological risk-related activities and/or remedial actions, where applicable.

1.3 Report Organization

The remainder of this EE/ERA is organized as follows:

- Section 2, Facility Overview, summarizes the physical location of the Facility and its ecological setting.

- Section 3, Problem Formulation, describes the environmental history of the Facility, constituent releases, ecological CSM, and selects measurement endpoints (MEs) and assessment endpoints (AEs).

- Section 4, Data Review and COPEC Selection, describes data usability, the dataset used for the EE/ERA, and screens data against ecological benchmarks to identify COPECs.

- Section 5, Exposure Assessment, discusses the selection of representative receptor species and exposure parameters used for food web modeling and presents the methodology of the food web modeling.

- Section 6, Effects Characterization, presents toxicity reference values (TRVs) for each COPEC.

- Section 7, Risk Characterization, presents results of the EE/ERA, including hazard quotients (HQs) resulting from food web models.

- Section 8, Uncertainty Analysis, discusses specific uncertainties and their associated effects on the outcome of the EE/ERA.

- Section 9, Conclusions and Recommendations, summarizes the results of the risk assessment process, including an evaluation of MEs and AEs, and provides multiple lines of evidence to support a scientifically-based risk management decision regarding the need for further ecological evaluation at the Facility.

- Section 10, References, lists the references used to develop this EE/ERA.

Tables, figures, appendices, and attachments support the text and are referenced accordingly.

2. Facility Overview

2.1 Location

The Facility occupies approximately 1,059 acres along Howard Boulevard, about 0.5 mile northwest of the center of Kenvil, Morris County, New Jersey (Figure 1-1). Regionally, the Facility is approximately 40 miles west of New York City and 30 miles east of the Delaware Water Gap. The Facility is bounded by the New Jersey Transit Railway to the north, Berkshire Valley Road to the southeast, Route 46 to the south, and Howard Boulevard to the northwest. Figure 2-1 presents a Site Plan with major topographic features.

2.2 Development and Operations

The Facility began operation in 1871 and initially manufactured dynamite to support iron ore mining operations in the surrounding area. The facility was operated by various companies until 1912, when Hercules became the sole owner. Through the early and middle parts of the 20th century, Hercules expanded its manufacturing operations to meet the growing economic need for explosives and propellants. During this period, multiple operational areas were established, as described in Section 3.2.1.

Propellants and explosive and energetic (E&E) compounds, such as 2,4,6-trinitrotoluene (TNT), nitroglycerin (NG), pentaerythritol tetranitrate (PETN), smokeless powder, and ammonium nitrate fuel oil (ANFO), were produced for both military and commercial applications. Specialty products such as initiating materials, ingredients for medical applications, and materials for actuating devices were also produced. In the final years of operation, smokeless powder was the primary product, and was produced by Alliant under a site lease agreement from 1995 to 1996.

The facility ceased operation in 1996. At this time Alliant Tech Systems operated the Facility, and Hercules entered into a voluntary agreement with the State of New Jersey to investigate the TNT Area. Hercules reacquired control of the Facility on January 1, 1997 and, as the property owner, remained responsible for remediation and closure of the Facility. Hercules, and its related environmental liabilities at the Facility, was acquired by Ashland, Inc. in 1996. Hercules currently operates as a wholly owned subsidiary of Ashland, Inc. and is responsible for remediating the Facility.

2.3 Regional Ecology

The Facility is located in the New Jersey Highlands physiographic province of north-central New Jersey and is characterized by broad, elevated ridges separated by long, narrow valleys. In general, topographic features in this region (e.g., ridges and valleys) tend to be oriented in a southwest to northeast direction.

Preserved land, primarily upland deciduous forest (dry mesic mixed oak forest [Karlin 1989]), is relatively abundant near the Facility. Rock outcrops, forested wetland mosaics, and stream channels intersperse among the expanses of upland forest. Open space includes the Berkshire Valley Wildlife Management Area, Mahlon-Dickerson Reservation, Allamuchy State Park, and other smaller parcels. Dense commercial and residential development and major infrastructure routes (e.g., railroads and highways) fragment other areas of forest habitat into smaller isolated patches.

The area currently known as Morris County was subject to repeated glaciation. Glacial lakes of varying sizes (e.g., Longwood Lake, Lake Hopatcong) occur in areas around the Facility. The glaciers scoured the northern part of the county to bare rock in places, deposited glacially mixed till, transported material over the county, and altered drainage patterns. Included within the formerly glaciated areas are numerous kettles, or basins. These kettles were filled progressively as organic material and mineral sediment accumulated in them. These features occur in the northeastern portion of the Facility (Natural Resources Conservation Service 1976).

Roxbury Township and Morris County support light industrial/commercial development. Originally settled in the early 1700s, Morris County became a national leader in iron ore mining following the Revolutionary War. By the late 1800s, the county produced more than ½ million tons of iron ore and relied on forests to provide wood and the vast network of flowing streams to power the mills and forges. By the early 1900s, the mining industry moved toward the Great Lakes region and the county became a suburban center for New York City (http://www.co.morris.nj.us/history/history.asp). Consequently, this dynamic development history altered the landscape, ecology, and hydrology. Mapping and assessment (at the HUC-14 level) conducted by the New Jersey Highlands Council identifies the effect of these changes on the Facility's subwatershed, and others in the surrounding area, by assigning a low resource value (NJDEP 2005).

2.4 Facility-Specific Ecology

The Facility is situated on a valley floor between two forested ridgelines. The former Facility operational areas remain vacant following decommissioning and demolition activities conducted between 1996 and 2003. These areas are in various states of vegetation succession and currently exist primarily as grass field and shrublands, interspersed with remnant infrastructure and building remains. Beyond these forested ridgelines, the Facility is flanked by transit routes (I-80, New Jersey Transit railroad), state and county roads (Route 46, Berkshire Valley Road, Howard Boulevard), and a mixture of commercial and residential development.

Transit corridors and development adjacent to the Facility create ecological breaks, separating the Facility from other natural areas nearby. Smaller ecological receptor species are unlikely to cross these ecological breaks and thus exist at the Facility in the capacity that the Facility is capable of supporting them. Given the size of the Facility and range of habitat and forage sources it provides, the Facility likely supports populations of smaller receptor species. Larger, upper-trophic-level species are less restricted by these ecological breaks, particularly avian species that cover large areas to forage and/or breed. The Facility security fence may inhibit the movement of terrestrial species between these areas of adjacent habitat and the Facility. However, signs of movement over and through the fence have been observed, indicating that some local migration occurs.

Hydrologic inputs at the Facility consist of precipitation, surface water features, stormwater from adjacent developed areas, and other flow conveyed by natural, altered, and man-made features. Remnants of the stormwater management systems in place during historical Facility operations serve to drain and convey stormwater onsite. The area north of Powder Mill Road near the construction and demolition debris landfill (C&D landfill) serves as a general topographic and flow divide. Water entering the Facility via streams, runoff, and stormwater outfalls south of the C&D landfill is conveyed through a series of culverts and ditches to the wetland complex at the southern end of the Facility. Duck Pond (and vernal pools to a lesser extent) serves as the collection point for sources of hydrology north and east of the divide, including a series of wetlands and tributaries draining directly to Duck Pond.

2.5 Threatened and Endangered Species

A February 2014 search of the New Jersey Natural Heritage Database identified records of the following state or federal threatened and endangered (T&E) species, or their habitat, at the Facility:

- Red-shouldered hawk (*Buteo lineatus* [state endangered])
- Arogos skipper butterfly (*Atrytone arogos arogos* [state endangered])
- Bobcat (*Lynx rufus* [state endangered]).

According to the database, Downy phlox (*Phlox polisa var. pilosa* [state endangered plant]) was identified onsite in 1937. Downy phlox has not been observed during various ecological surveys conducted at the Facility between 2010 and 2014.

In addition to the records onsite, search results identified records of the following T&E species or their habitat within 0.25 mile of the Facility:

- Barred owl (*Strix varia* [state threatened])
- Indiana bat (*Myotis sodalis* [federally threatened, state endangered])
- Bog turtle (*Glyptemys muhlenbergii* [federally threatened, state endangered])
- Wood turtle (*Glyptemys insculpta* [state threatened]).

Attachment 1 provides the New Jersey Natural Heritage Database search results.

Information provided by the New Jersey Natural Heritage Program relies on records of documented occurrences and information contained in the NJDEP Landscape Project mapping. The Landscape Project mapping uses buffers representative of foraging ranges or other species-specific behaviors (e.g., migration) and mapped habitat types to develop areas considered potential habitat for the species in question.

None of the T&E species listed as possibly present on or near the Facility have been identified onsite. Hercules conducted a Phase I bog turtle survey in November 2014 as a component of an NJDEP – Division of Land Use Regulation freshwater wetlands general permit. The survey identified areas of potential bog turtle habitat onsite.

Habitats available onsite may be include in the home ranges of larger, mobile predators like the bobcat and red-shouldered hawk, however, species-specific surveys have not been conducted.

The Arogos skipper butterfly has not been observed onsite, nor has its host plant (little bluestem [*Schizachyrium scoparium*]). Nectar-producing plants associated with the Arogos skipper butterfly (milkweed [*Asclepias* spp.]) occur onsite. Given the historical absence of open grasslands onsite during operational years, and the temporary presence of grasslands onsite more recently as succession to shrublands occurs, the Facility is unlikely to provide critical habitat for this species.

Section 2.6 presents the results of a habitat characterization, including vegetative species composition data and wildlife observations.

2.6 Habitat Characterization

The characterization of onsite and adjacent habitats provides information to identify environmentally sensitive areas, refine potential exposure and migration pathways, and inform the selection of exposure areas and receptor species used in the exposure assessment.

Two general habitat types exist within the Remedial Area at the Facility: developed areas (former operational areas) and undeveloped areas (buffers between former operational areas and neighboring properties). Field surveys conducted on July 28, 29, and 30, 2010 characterized aquatic, terrestrial and wetland habitats and identified wildlife in these areas. In addition, data were collected from May through July 2011 during a Facility-wide wetlands assessment. The following information was collected in each habitat, as appropriate:

- Location and approximate boundaries
- Vegetative community structure and composition
- Hydrologic influences.

Designations were assigned to each identified habitat based on the Checklist for Ecological Assessment/Sampling, which is included in the Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (USEPA 1997). Ecosystem type designations include the following: terrestrial wooded, terrestrial scrub/shrub, terrestrial open field, terrestrial miscellaneous, aquatic non-flowing, aquatic flowing, and wetlands.

The presence of wildlife was identified via individual sightings, audible calls, or visual observation of wildlife signs (e.g., tracks, nesting structures, scat, and den sites). Rocks, logs, and leaf litter were also temporarily overturned to look for wildlife, such as

amphibians, reptiles, and small mammals. Wildlife survey data (identification to lowest taxon, sighting type, notable observations) were recorded in a field log book and documented with digital photographs when possible.

2.6.1 Terrestrial Habitats

Terrestrial ecosystem type designations (USEPA 1997) identified onsite include terrestrial wooded, terrestrial scrub/shrub, terrestrial open field, and terrestrial miscellaneous habitats. When possible, habitats onsite were placed into more descriptive subgroups within each of the USEPA-designated ecosystem types (USEPA 1997).

Table 2-1 lists plant species identified in each terrestrial habitat, as well as their USFWS hydrophytic classification. Table 2-2 lists wildlife species observed within each habitat area. Figure 2-2 shows the location and approximate boundaries of each terrestrial habitat.

2.6.1.1 Terrestrial Wooded Areas

2.6.1.1.1 Upland Deciduous (Oak/Hickory) Forest

The dominant upland forest community at the Facility (and in northern New Jersey) is oak-hickory, which commonly consists of a variety of oak and hickory species and includes secondary hardwood species. Oak-hickory forest occupies undisturbed (undeveloped) upland areas of the Facility, including the ridges that form the north and south sides of the Facility and the glaciated uplands on the east end of the Facility. Dominant tree species include white oak (*Quercus alba*), red oak (*Quercus rubra*), chestnut oak (*Quercus prinus*), shagbark hickory (*Carya ovata*), and mockernut hickory (*Carya glabra*). Other overstory plant associates include black birch (*Betula lenta*) and American basswood (*Tilia americana*).

The understory consists of sassafras (*Sassafras albidum*) and oak saplings where present, but is primarily dominated by black huckleberry (*Gaylussacia baccata*), Japanese barberry (*Berberis thunbergii*), and hay-scented fern (*Dennstaedtia punctilobula*).

2.6.1.1.2 Mixed Hardwood Forests

Mixed hardwood forests are second growth plant communities that re-invade disturbed areas. This common plant community onsite occurs along the fringes of wetlands, in portions of the interior of the Facility where demolition occurred, at the base of the two

ridges along the fringe of the oak-hickory forests, and in the uplands near Berkshire Valley Road. Dominant overstory species include black cherry (*Prunus serotina*), black walnut (*Juglans nigra*), American elm (*Ulmus americana*), red maple (*Acer rubrum*), red oak, sassafras, and hackberry (*Celtis occidenfalis*). These areas experience over-browsing by deer and commonly have a sparse understory.

2.6.1.1.3 Red Pine Stands

Historically, red or Norway pine (*Pinus resinosa*) was planted as a shock- and sound-absorbing buffer between the operational areas at the Facility. These trees grow in dense stands within these buffer areas. Japanese barberry (*Berberis thunbergii*) and hay-scented fern (*Dennstaedtia punctilobula*) dominate the understory.

2.6.1.2 Terrestrial Scrub/Shrub and Terrestrial Open Field Areas

2.6.1.2.1 Disturbed Shrubland

Disturbed shrubland patches border coniferous habitats in the southwestern offsite areas, and intersperse within the NG and Dynamite Areas, offsite areas east of the AN Area, and along the central eastern and northeastern borders of the B-Line Area. Disturbed shrublands included sparse tree canopies proximate to the upland red pine forests and deciduous oak/hickory forests. The shrub-dominated habitat includes Japanese barberry (*Berberis thunbergii*), autumn olive (*Elaeagnus umbellate*), black huckleberry (*Gaylussacia baccata*), multiflora rose (*Rosa multiflora*), horse nettle (*Solanum carolinense*), common reed (*Phragmites australis*), and deer-tongue panicum (*Panicum clandestinum*).

2.6.1.2.2 Disturbed Grassland/Forb Complex

Open field species are adapted to invading disturbed areas that are left to revert to a natural condition. Disturbed grassland/forb complexes occur throughout the formerly developed areas of the Facility. Dominant species include orchard grass (*Dactylis glomerata*), switchgrass (*Panicum virgatum*), red top (*Agrostis alba*), big bluestem (*Andropogon gerardii*), fescue species (*Festuca* spp.), deer-tongue panicum, bluegrass species (*Poa* spp.), multiflora rose (*Rosa multiflora*), common dewberry (*Rubus flagellaris*), yarrow (*Achillea millefolium*), spotted knapweed (*Centaurea stoebe*), Queen Anne's lace (*Daucus carota*), daisy fleabane (*Erigoron annus*), butter-and-eggs (*Linaria vulgaris*), birds foot treefoil (*Lotus cornifulatus*), black medick (*Medicago lupulina*), plantain species (*Plantago* spp.), Partridge pea (*Chamaecrista fasciculata*),and American vetch (*Vicia americana*).

Common reed monocultures occur in a few disturbed upland areas within this complex.

2.6.1.3 Terrestrial Miscellaneous Areas – Landscaped Areas

Formerly developed areas of the Facility retain some of the landscape plantings established during the operational era. These plantings and other volunteer species grow in open soil areas near former buildings and along Facility roads. Typical plantings include Norway maple (*Acer platanoides*) and silver maple (*Acer saccharinum*). Volunteer species include red maple (*Acer rubrum*), black cherry (*Prunus serotina*), and black walnut (*Juglans nigra*).

2.6.2 Aquatic and Wetland Habitats

Aquatic and wetland habitats identified onsite include wetlands and aquatic flowing and nonflowing ecosystem type designations, as provided in the Checklist for Ecological Assessment/Sampling (USEPA 1997). Table 2-1 lists plant species found within wetland habitats, as well as their USFWS hydrophytic classification. It also lists wildlife species observed within aquatic and wetland habitats. Figure 2-2 shows the approximate boundaries of wetland and aquatic habitats onsite. Aquatic and wetland habitats are described below.

2.6.2.1 Wetlands

2.6.2.1.1 Forested Wetland

Patches of forested wetlands occur in the Dynamite Area, south of the Dynamite Area within the miscellaneous/offsite areas, and the northeastern-most part of the Facility. Forest wetland patches also occur within the B-Line Area southeast of Duck Pond, Development Area northwest of Duck Pond, and Northeast and Northwest Storage Areas.

This wetland type is dominated by broad-leaved deciduous tree species. Red maple (*Acer rubrum*) mixed hardwood wetlands occur along stream corridors and in broad depressions. Other tree species include blackgum (*Nyssa sylvatica*), pin oak (*Quercus palustris*), and swamp white oak (*Quercus bicolor*). Understory consists primarily of sweet pepperbush (*Clethra alnifolia*), spicebush (*Lindera benzion*), highbush blueberry (*Vaccinium corymbosum*), and arrowwood (*Viburnum denfatum*). Disturbed understory areas are dominated by dense stands of Japanese barberry (*Berberis thunbergii*).

Cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), and tussock sedge (*Carex stricta*) occupy sunny openings in these plant communities.

Other areas are dominated by cattail (*Typha latifolia*) and/or soft stem bulrush (*Scirpus validus*).

2.6.2.1.2 Emergent Wetland

Emergent wetlands occur in areas of the Facility, including the Southern Maintenance Area, along the border of the NG and Dynamite Areas, sunny open areas of the Facility, some depressional areas formed during remedial activities, and open water fringe areas. Dominant emergent wetland species onsite include tussock sedge as well as a diversity of other sedge species (*Carex* spp.), cattails, several types of rushes (*Juncus* spp.), and flatsedges (*Cyperus* spp.).

Other emergent plant communities occur in the large open field areas of the Facility that have been disturbed by grading and filling for historical development. On the west side of the Facility, a network of drainage ditches connects to the stream corridor. Emergent plant communities have developed in these ditches and depressional areas. Typical species include various species of spirea (*Spirea* spp.), rush species (*Juncus* spp.), sedge species (*Carex* spp.), white snakeroot (*Eupatorium rugosum*, FACU-), cattail, reed canary grass (*Phalaris canariensis*), poison ivy (*Toxicodendron radicans*), and Japanese barberry (*Berberis thunbergii*). Some of these areas were also dominated by common reed.

2.6.2.2 Aquatic Flowing Areas

Aquatic flowing areas present onsite include:

- Unnamed tributary flowing through the Northwestern Development Area.
- Unnamed tributary system flowing from the Southern Maintenance Area south through the Dynamite Area and miscellaneous/offsite areas.

Figure 2-2 shows the location of aquatic flowing habitats. These areas are principally characterized as red maple- (*Acer rubrum*-) dominated forested wetland that transition to either mixed-hardwood or oak-hickory upland forest communities. In-stream habitats are described in Section 2.6.2.1.2.

2.6.2.3 Aquatic Non-flowing Areas

Duck Pond represents the largest aquatic feature onsite, and drains many of the wetlands and tributaries on the northern portion of the Facility. Duck Pond was created

as a farm pond during the Facility's pre-1870 agricultural period. Throughout the Facility's history as a manufacturing facility, Duck Pond has been bermed, diked, and otherwise altered. The northern and southern edges of the pond are moderately sloped, while the western edge rises gently to a depressional area historically used for the thermal destruction of off-spec and residual materials.

A smaller, man-made pond (Shooting Pond) occurs north of Duck Pond and serves as an intermediate drainage feature for some of the same tributaries that ultimately drain to Duck Pond. Shooting Pond is a 35-foot-deep, rectangular pond that was historically used to perform submerged detonation testing.

Emergent and submerged aquatic species observed along the fringes of these open water bodies include spatterdock, fragrant lily (*Nymphaea odorata*), waterweed (*Elodea* spp.), spikerush (*Eleocharis* spp.), and watershield (*Brasenia schreberi*). River birch (*Betula nigra*), black willow (*Salix nigra*), and eastern cottonwood (*Populus deltoides*) are also located along the pond edges.

2.6.3 Habitat Characterization Summary

In summary:

- Former operational areas of the Facility consist of grassland, shrub, and young forest habitat in various states of secondary succession, interspersed with remnants of operational structures (e.g., concrete pads, buildings, rubble piles).

- Mature forest occurs along the periphery of the Facility along steep ridgelines and ridgetops.

- Aquatic habitat includes unnamed tributaries, Shooting Pond, Duck Pond, and several isolated vernal pools. The tributaries consist of altered (e.g., channelized, bermed) natural features and man-made drainage ditches that, along with Shooting Pond and Duck Pond, managed stormwater during Facility operations.

- The majority of the former operational areas of the Facility drain to a forested wetland complex at the southern end of the Facility via a series of tributaries.

These habitat characterization findings, as well as general observations during time spent onsite, support the development of exposure areas and associated terrestrial and aquatic receptor species.

3. Problem Formulation

Problem formulation, the first step in the EE/ERA, presents the environmental history of the Facility, develops the ecological CSM, and identifies assessment and measurement endpoints to focus the quantitative evaluation. The ecological CSM is built upon the Facility's environmental history and identifies environmental media containing Facility-related constituents, describes potential exposure pathways, and identifies potential ecological receptors.

3.1 Environmental History

Historically, the valley currently occupied by the Facility drained the neighboring ridgelines via a network of wetlands and streams. Development and expansion occurred periodically throughout the Facility history and made use of historic fill materials (e.g., fly ash, bottom ash, and slag derived from the combustion of coal), obtained primarily from offsite sources. Fill was used to raise ground surface elevations, provide a stable substrate for transportation and operational infrastructure (i.e., narrow gauge rail, roadways, buildings) and otherwise manage or direct surface water (i.e., stormwater runoff, historical drainage features).

Multiple production/operational areas supported former operations at the Facility (Figure 1-2). Initial operations involved the manufacture of dynamite (NG encased with absorptive filler material in a waxed paper shell) to support local iron ore mining. The original dynamite production area was located within a small section of the later developed NG, TNT, and Dynamite Areas identified on Figure 1-2. Portions of the later developed A-Line and Maintenance Areas were also used for finished product storage (A-Line) and maintenance activities (Maintenance Area).

Demand for E&E products increased during war time (beginning with World War I and continuing through the Vietnam War). In response, manufacturing operations expanded to encompass approximately 800 acres, including the PETN, A-Line, B-Line, ammonium nitrate (AN), Finishing, Storage, Development, and Diazo (diazodinitrophenol) Areas. Support areas were also developed, including office space, plant laboratories, maintenance areas, power houses, mixed acid areas, drum storage areas, the water supply system, a wastewater treatment plant, warehouses, and miscellaneous production and support buildings.

Figure 1-2 provides approximate boundaries for former operational areas of the Facility.

3.1.1 Environmental Releases

Environmental releases occurred during the operational history and during historic demolition practices (e.g. burning structures in place). Releases included accidents and/or incidents during production and transport of materials throughout the Facility as well as influences from historical practices onsite. Release mechanisms (e.g., fires, explosions, spills) and notable events are described below.

3.1.1.1 Fires

Historically, fires occurred as accidents and a means of intentionally decontaminating structures contaminated with E&E constituents or destroying off-specification E&E products. Uncontrolled fires resulting from accidents and production upsets were most frequent from 1871 until the 1950s when more advanced manufacturing process controls were incorporated. Though less common, fires have been documented as recently as 1989. Fires were of critical concern for the Facility as the nature of the E&E constituents manufactured released tremendous energy that could result in multiple operations becoming involved prior to the fire becoming controlled and eliminated.

Fires resulting from both accidents and intentional thermal decontamination efforts required the use of significant quantities of water. Accidental fires were contained and extinguished as soon as possible with as much water as could be directed toward the fire. Intentional thermal decontamination efforts required the use of significant quantities of water to ensure the fire did not spread beyond the intended structure. The water used had the potential to redistribute constituents either not consumed or affected by the fire creating localized heterogeneity of constituent distribution.

The use of fire as a means of thermally decontaminating structures with E&E constituents has long been an industry standard, and though minimized, continues to be used today. Typically, scrap wood or similar combustible material was placed into the structure in a manner so that all surfaces of the structure would be exposed to either direct flame or temperatures in excess of the thermal decomposition temperature of the E&E constituents manufactured. The fires would be allowed to burn until all combustible materials were consumed. It would be assumed that non-combustible materials (e.g. masonry and steel) were subjected to sufficient heat that thermal decomposition of E&E constituents was complete.

Thermal decontamination of structures containing residual E&E constituents is known to have been performed at the Facility in the past. However, following the 1996 closure

of the Facility approximately 300 structures that formerly supported E&E manufacturing were carefully demolished by personnel highly trained in E&E safety without using thermal decontamination.

Nearly all large E&E manufacturing facilities used open burning as a safe means of destroying off-specification E&E constituents. Due to the tremendous energy stored within the E&E constituents it has long been an industry standard dating back to at least the 1700s that intentional land disposal is not appropriate. Storing large quantities of off-specification E&E constituents also can be hazardous and was limited as much as possible. The use of open burning, though highly regulated, continues to this day in the industry. Typically, burning grounds were located a safe distance from manufacturing operations and in close proximity to a supply of water (i.e. ponds or fire hydrants).

In some instances it is possible that not all combustible constituents, including E&E, are consumed by fire. Small-scale detonations can occur if E&E constituents detonate at their thermal decomposition temperature of if they are confined with sufficient pressure. These small-scale detonations can cause the material to be thrown away from the fire and not be consumed. Additionally, constituents similar to TNT and DNT have high melting and decomposition temperatures and have the potential to migrate away from the fire in the molten state and recrystallize when temperatures drop below their melting point.

3.1.1.2 Explosions

Historically explosions at the Facility were not uncommon occurrences. In particular, during the World War I (WW I) era as many as 6,000 marginally trained and educated employees were imported from around the country to meet the rapidly increasing need for E&E constituents required to supply the United States (US) and its allies (Great Britain, France, and Russia). Other peak war time production eras (WW II, Korea, and Vietnam) also incorporated large untrained work forces into an ever increasing production demand. Correspondingly, an increase in explosions occurred.

In most cases explosions were limited to single operational units (e.g., C13 – 666 Refined TNT Graining House), and while very destructive were limited in their effect. The primary exception occurred in 1940 when approximately 300,000 pounds of smokeless gunpowder exploded at a single unit. This explosion led to secondary explosions in other operational areas caused by the shock wave and hot debris thrown by the force of the detonation. Ultimately, the 1940 explosion encompassed nearly the

entire manufacturing area of the Facility causing 51 deaths and more than 200 injuries. This was reportedly the worse explosive manufacturing facility disaster in U.S. history and caused the Facility to cease operations until it could be reconstructed.

Explosions resulted in disturbed ground surface, shattered structures, and scattered debris. Along with these direct effects, explosions also represent a potential means of constituent release and distribution. Other historic explosions while not as widespread nonetheless produce similar destruction on a lesser scale and permit constituents to enter the environment in an unregulated and heterogeneous manner.

Explosions have the ability to scatter debris and constituents associated with manufacturing operations over an often unpredictable area. In many cases the blast from an explosion is directionally biased due to engineering controls (i.e. earthen barricades) placed around the structures in an attempt to direct shock waves and hot debris away from other manufacturing structures containing E&E constituents in various stages of manufacture susceptible to possible ignition and/or detonation. Depending on the force of the explosion the engineering controls were variably effective, and in the case of the 1940 explosion ineffectual.

Due to limited historical information concerning the placement of engineering controls at previously existing structures and their effectiveness in the event of an explosion significant heterogeneity exists concerning the localized effects of constituent release. Additionally, it is possible that not all combustible constituents, including E&E, are consumed by explosions due to the force of the shock wave, as evidenced by the TNT still present at C13-666 (Refined TNT Graining House) that exploded during WW I. However, the localized heterogeneity of constituent distribution is not widespread and when evaluated from a Facility-wide perspective constituent distribution is well defined.

3.1.1.3 Spills

Throughout the than 125 years of manufacturing history at the Facility, general operations had the potential to release constituents to the environment through accidents (other than the more destructive fires and explosions previously discussed) or spillages on relatively small scales. As noted previously, peak war time production required a large, marginally trained workforce to meet the increased demand for E&E compounds; likely increasing the potential for accidents or spillages.

Accidents during transportation of raw and finished products have the greatest potential to release constituents to the environment. Transportation of raw and finished

products was accomplished through a variety of methods that included: mule-drawn buggies, human-drawn buggies (angel buggies), narrow gauge rail, and trucks. A small percentage of the accidents may have involved a release of the transported materials. Spillage of materials can occur for a variety of reasons that are often precipitated by either mechanical failure or inattentiveness. The following is a list of the primary reasons materials may have been spilled at the Facility:

- Transfer of materials
- Operation of machinery (e.g., mixers, packers, cutters, presses)
- Maintenance activities
- Mechanical failure.

It is believed many of the identified reasons associated with the potential to spill materials occurred within the manufacturing structure, significantly reducing the potential for the materials to enter the environment. Further, it was standard industry procedure to thoroughly clean up any spill involving E&E constituents, therefore, it is believed that primarily non-E&E constituents may be released in this manner.

It is possible that to a small degree some of the localized heterogeneity within the former operational areas of the Facility where material handling occurred could be attributed to the release of constituents by accidents and spills.

3.1.1.4 Historic Fill

The Facility began as a small operation in 1871 and solely produced dynamite to support the local iron mining industry. Manufacturing activities were limited to the southwestern area of the Facility in a small section of the current NG, TNT, and Dynamite Areas. Operations are believed to have been limited to the higher topography of the western ridge or immediately adjacent to the ridge where wet areas were not present. Portions of the A-Line and Maintenance Areas were also used in support roles such as finished product storage (A-Line) and maintenance activities (Maintenance Area). These areas were either located on the western ridge, adjacent to the western ridge, or on well drained elevated ground.

In the years leading up to and including World War I (WWI) the need for explosives and propellants increased dramatically and Hercules greatly expanded its manufacturing

operations. Prior to this expansion, it is believed surface elevations in many portions of the Facility were in close proximity to the water table and unsuitable for industrial development. Historic fill (consisting of fly ash, bottom ash, and slag derived from the combustion of coal) largely imported from off-site sources, was used to increase grade, eliminate shallow ponds/wet areas, improve drainage, and increase compatibility of the soils to allow construction of large manufacturing complexes. Historic fill was also used extensively for establishing both narrow gauge and standard gauge rail beds. In addition to rail beds, historic fill was used in some locations as part of the bridging support material used to allow narrow gauge rail lines to cross the numerous shallow streams located in the southwestern portion of the facility. Narrow gauge rail was the primary vehicular conveyance system at the Facility for more than 75 years and is substantially smaller than standard gauge rail. It can be moved or redirected quickly to meet changing operational needs. Due to the unknown historic topography of the Facility (e.g. location of former ponds/wet areas) and the locations of former narrow gauge rails that changed over time, the distribution of the historic fill is widespread and heterogeneously distributed across the Facility.

Hercules imported potentially large quantities of historic fill from local available sources that is believed to have possessed metal and PAH constituents prior to entering the Facility. The former iron foundries located in Dover, New Jersey, approximately four miles east of the Facility, are thought to have been the primary source of historic fill based on their location and extensive use of coal, although documentation of the source is not available.

Due to the very short period (1912 to 1914) of the large scale Facility expansion, other unknown sources of historic fill may have been secured. It is likely that historic fill from on-site Facility boilers[2] were added to the imported historic fill but represented a very small fraction of the total historic fill emplaced.

[2] The Facility is believed to have possessed a total of four powerhouse sites with associated coal-fired boilers that supported previous manufacturing operations. Prior to the large WWI expansion the powerhouses were relatively small (typically two boilers per powerhouse) and provided steam for areas immediately adjacent to the individual powerhouses. The small powerhouses were located in the Dynamite, NG, Storage, and Maintenance former operational areas. The Maintenance Area power house was divided into two structures, each believed to have two boilers. A total of ten small boilers are believed to have been present at the Facility prior to the WWI expansion. The exact dates of construction or operation of the four small power houses are not known but may have extended from the late 1800s through WWI (1919). Following WWI and after the major Facility expansion was complete the four small boilers were dismantled and replaced by a single large central powerhouse in the Maintenance Area that produced both steam and electricity.

3.2 Previous Investigations

Environmental investigations and actions were conducted onsite in response to releases during Facility operation and as part of the Industrial Site Recovery Act (ISRA) process initiated by the property transfer in 1996. The Phase I and Phase II RIRs (Hercules 2007, 2016) provide a comprehensive chronicle of environmental investigations conducted at the Facility. Findings from previous investigations pertinent to this EE/ERA are summarized below.

3.2.1 Site Investigation

In 1997, Hercules initiated an SI in response to the 1996 property transfer to fulfill ISRA requirements. The SI involved a Facility-wide evaluation of environmental media (soil, groundwater, surface water, and sediment) to identify if constituents were present in media onsite, and if present, present at concentrations greater than NJDEP remedial criteria at the time. As part of the process, the SI defined former operational areas of the Facility (Figure 1-2). Collectively, these former operational areas and certain areas immediately adjacent to them influenced by Facility operations form the Remedial Area. The SI also evaluated whether operations influenced undeveloped areas of the Facility (i.e., those areas beyond the Remedial Area). The SI identified negligible influences related to Facility operations in the undeveloped areas, with the exception of a few small, isolated areas that were subsequently included in the Remedial Area and evaluated in the RI. The remaining undeveloped areas of the Facility were not evaluated further during the RI.

The results of the SI focused the scope of the subsequent RI on refining the understanding of magnitude and extent, and delineating constituents in the Remedial Area. The Facility evaluation approach developed during the RI divided the Remedial Area into three distinct areas based on geographic location:

- *Area I – RI*. Areas north and east of Powder Mill Road (B-Line, Finishing, Storage, and Development [eastern portion] Areas, and portions of miscellaneous/offsite former operational areas).

- *Area II – RI*. Areas south and west of Mule Barn Road (NG, PETN, TNT, and Dynamite Areas, and portions of miscellaneous/offsite former operational areas).

- *Area III – RI*. Central portions of the Facility (A-Line, Maintenance, AN, Diazo, and Development [western portion] Areas, and portions of miscellaneous/offsite former operational areas).

Figure 1-2 shows the Facility boundary, Remedial Area, and former operational areas.

Beyond the general residual influences of historical operations identified during the RI, constituents in certain areas can be tied to specific incidents or releases documented in historical Facility records. For example, in 1917, the Refined TNT Graining House (C13-666) in the TNT Area was destroyed in an explosion (Hercules 2007). Sample results identified residual TNT in soil in the footprint of former buildings and in the surrounding area directly affected by the explosion.

As part of the data evaluation conducted for the RI and presented in this EE/ERA, constituent detections and concentrations that spatially correspond to documented incidents associated with the former operation of the Facility were identified. In certain cases, constituents are present at concentrations that merit evaluation in the remedial action selection process. Remedial actions conducted to date and additional actions pending design and implementation are summarized below.

3.2.2 Remedial Actions

Decommissioning and demolition of onsite structures occurred between 1996 and 2003. This activity involved the removal of 325 structures and coincided with the performance of portions of the SI and RI. During decommissioning and demolition activities, residual product and other Facility-related influences encountered within the structures were addressed in compliance with federal, state, and local regulations and in a manner that prohibited the materials from entering the environment (e.g. off-site disposal).

A review and screen of RI data conducted as part of the EE/ERA identified areas that require remediation to address historical Facility-related effects (e.g., disposal areas, source areas). Additional RI or risk assessment in these areas is unlikely to influence the decision to remediate these areas. Pre-design investigations are underway in these areas to support remedy selection and design. These “Areas of Presumed Remedial Action” are further discussed in Section 3.3.4.1.

3.2.3 Facility Redevelopment

The overarching objective of the SI/RI process (including the EE/ERA) is to generate information necessary to identify a remedy protective of human health and the environment while allowing development of the Facility as a source of ratable income for the local community. Future use at the Facility is considered in remedial action objectives and incorporated into the design, ultimately positioning the Facility for reuse. Anticipated future use at this Facility includes a mixture of preserved open space, and light industrial/ commercial development within the former manufacturing areas, with the potential for a commuter town center focused around the adjacent commuter railroad station (NJ Transit Mount Arlington Station). Heavy rail access and the Interstate 80 corridor make this property very desirable for redevelopment.

Hercules, Roxbury Township, the New Jersey Highlands Council, and the New Jersey Office of Smart Growth developed conceptual future use plans for the Facility. Following cessation of operations in 1996 and throughout the decommissioning and environmental investigation process, the future use plans focused redevelopment in the central core of the Facility, in areas corresponding to those previously developed for Facility operations. The wetland complex at the southern end of the Facility, as well as Duck Pond and the forested area to the north, remain undeveloped as natural open space. Similarly, the steep wooded ridgelines that bound the Facility remain primarily undeveloped. With these plans in mind, Hercules anticipates placing a conservation easement on the wooded ridgeline along the eastern boundary of the Facility in partial fulfillment of its natural resource damage claim currently being negotiated with the NJDEP (Attachment 2).

In the years following decommissioning and demolition activities, former operational areas of the Facility have remained vacant, vegetation grows, and community succession continues. During this same time period, the State of New Jersey promulgated the Highlands Act and the NJDEP developed a new means of mapping potential habitat for sensitive species (Landscape Project version 3.0 using species-based patch models) and indirectly influencing future land use. A variety of related initiatives have followed the Highlands Act, such as sewer service area planning and watershed management planning at the county and local levels.

Hercules continues to develop a remedial strategy for the Facility that positions portions of the former operational areas for redevelopment while preserving the Facility's natural resources. This approach aligns with the brownfields redevelopment concept, best management practices (e.g., low-impact development and stormwater

management), NJDEP land use practices, conceptual development plans prepared by Roxbury Township, and infrastructure already in place to support redevelopment (e.g., transit station, heavy rail access, water and wastewater resources). Aligning redevelopment with former operational areas of the Facility investigated in the RI facilitates coupling a presumptive cap/cover remedy with Facility redevelopment.

3.3 Ecological Conceptual Site Model

Facility development, operations, and operational incidents served as historical sources and distributive processes by which constituents entered environmental media (primarily soil) at the Facility. The import of historic fill materials in the early 1900s, as well as precipitation and stormwater runoff draining from adjacent areas to the Facility, provide additional historical and current constituent sources. Time and natural processes (e.g., erosion, sorption, degradation) influence the distribution of constituents within soil, as well as from soil to secondary and tertiary media (e.g., groundwater, surface water, sediment, and biological tissue). As Facility operations changed through time, these distributive processes changed and altered the conditions in which potential exposures could occur.

3.3.1 Potential Ecological Exposure Pathways

Potential ecological receptors onsite and in the surrounding environment can be directly or indirectly exposed to constituents in environmental media if a complete exposure pathway exists. An exposure pathway is considered complete if it contains the following five elements:

- Constituent source
- Release mechanism to the environment
- Transport medium
- Receptor contact at the exposure point
- Exposure route.

Important considerations when evaluating exposure pathway completeness include:

- Constituent concentrations in different media and their respective locations
- Physical and chemical properties of Facility-related constituents
- Locations of environmentally sensitive areas.

Potentially complete exposure pathways for each medium are discussed in the following sections. A graphical ecological CSM showing potential media, pathways, and ecological receptors is provided on Figure 3-1.

3.3.1.1 Surface Soil

Potential exposure routes associated with surface soil[3] include direct contact, ingestion, inhalation, and indirect exposure (i.e., food-web transfer). Constituents in soil possess varying degrees of potential for exposure through each of these exposure routes depending on chemical-specific parameters. The following potentially complete exposure pathways to surface soil were identified:

- Incidental contact with constituents in soil (i.e., dermal exposure) by plants and soil invertebrates is a complete exposure pathway. Plants and soil invertebrates are directly exposed to constituents from the soil. This pathway is quantitatively evaluated in the EE/ERA by comparing soil constituent concentrations to soil ecological screening benchmarks (ESBs) that are protective of plants and soil invertebrates.

- Ingestion of constituents in soil by plants and soil invertebrates is a complete exposure pathway. Plants and soil invertebrates may directly ingest constituents from the soil. This pathway is quantitatively evaluated in the EE/ERA by comparing soil constituent concentrations to soil ESBs.

- Indirect exposure to soil via food-web transfer of bioaccumulative constituents is a complete exposure pathway for upper-trophic level wildlife receptors (i.e., birds and mammals). Bioaccumulative constituents taken up by soil invertebrates and plants may be consumed by mammalian and avian wildlife as part of their diets. This pathway is quantitatively evaluated in the EE/ERA in a food-web model.

- Incidental ingestion of contaminated soil by upper-trophic level wildlife (i.e., birds and mammals) is a complete exposure pathway. Wildlife may indirectly ingest constituents from soil during foraging. This pathway is quantitatively evaluated in the EE/ERA in a food-web model.

[3] This EE/ERA evaluates a surface soil sample as a soil sample with a starting depth from 0 to 1 foot below ground surface (bgs) and an end depth no more than 3 feet bgs. This evaluation accounts for the size and variability of the SI/RI dataset and includes sample intervals spanning the biologically active zone (BAZ).

- Incidental contact with constituents in soil (i.e., dermal exposure) by wildlife is a potentially complete exposure pathway. Wildlife may have direct exposure to soil while burrowing and/or preening; however, because fur or feathers greatly reduce the potential exposure, direct contact with soil is considered a minor, *de minimis* pathway for wildlife and is not evaluated quantitatively (Suter 2007).

- Inhalation of constituents in soil by wildlife, via inhalation of airborne soil particulates or volatilization of constituents from the soil, is a potentially compete exposure pathway. However, inhalation as a route of exposure is likely to be insignificant compared to other routes of exposure for two reasons:

  – Vegetative cover would prevent substantial production of airborne particulates due to wind erosion.

  – Most constituents in soil are unlikely to volatilize from the soil due to their physicochemical properties. Those constituents that may volatilize are unlikely to be present in substantial concentrations following volatilization and subsequent dispersal.

  As a result, the inhalation pathway is considered insignificant (Suter 2007) and is not quantitatively evaluated.

3.3.1.2 Surface Water

Direct contact with surface water represents a potentially complete exposure pathway for both aquatic and terrestrial receptors. Aquatic receptors such as fish and water column invertebrates may be directly exposed to constituents in surface water via ingestion and direct contact/uptake. Exposure to surface water is evaluated by comparing surface water ESBs that are protective of aquatic life to surface water data.

Upper-trophic level aquatic and terrestrial wildlife receptors may ingest surface water; however, surface water ingestion represents a *de minimis* exposure pathway for constituents, when compared to wildlife exposure via ingestion of dietary food items, soil and/or sediment. As such, the surface water ingestion pathway for wildlife receptors is not quantitatively evaluated.

3.3.1.3 Surface Sediment

Surface sediment represents the primary medium for aquatic receptor exposure to constituents. Exposure to sediment occurs in the BAZ, which is identified based on levels of dissolved oxygen, bioturbation, and other biological processes (Interstate Technology & Regulatory Council [ITRC] 2011). Ecological receptors may be exposed to constituents in surface sediment via three potential routes of exposure: direct contact, ingestion, and food-web transfer. The potential completeness of each of these exposure pathways is evaluated below:

- Direct contact with constituents bound to sediment is a potentially complete exposure pathway for aquatic plants and benthic invertebrates. Constituents bound to sediment and those dissolved in the interstitial water (pore water) of the sediment can affect aquatic plants and invertebrates through dermal contact and absorption into tissues. This pathway is quantitatively evaluated in the EE/ERA by comparing sediment constituent concentrations to ESBs protective of plants and benthic invertebrates.

- Ingestion of constituents bound to sediment is a potentially complete exposure pathway for aquatic plants and benthic invertebrates. Constituents bound to ingested sediment and in pore water may partition into invertebrate tissues through the lining of the digestive tract and via root uptake into aquatic plants. This pathway is quantitatively evaluated in the EE/ERA by comparing sediment constituent concentrations to sediment ESBs protective of aquatic plants and benthic invertebrates.

- Food-web transfer of constituents bound to sediment is a complete exposure pathway for upper-trophic level wildlife consumers. Constituents can accumulate in tissues of lower-trophic level aquatic organisms (e.g., benthic organisms, fish, aquatic plants), which are then consumed by avian and mammalian receptors. This pathway is quantitatively evaluated in the EE/ERA through food web modeling.

- Ingestion of sediment containing COPECs is a complete exposure pathway for upper-trophic level wildlife (i.e., birds and mammals). Wildlife may indirectly ingest constituents from sediment during foraging. This pathway is quantitatively evaluated in the EE/ERA in a food-web model.

3.3.2 Potential Ecological Receptors

Ecological receptor groups potentially exposed to constituents in terrestrial areas of the Facility include:

- Terrestrial plants
- Soil-dwelling invertebrates
- Mammals with terrestrial-based diets
- Birds with terrestrial-based diets

Ecological receptors potentially exposed to constituents in aquatic areas of the Facility include:

- Benthic invertebrates
- Aquatic plants
- Water column invertebrates
- Fish
- Mammals with aquatic-based diets
- Birds with aquatic-based diets

Specific receptors are selected to represent the organisms that could be present most frequently or are likely to be sensitive to the effects of constituents in environmental media. Selection considerations include the following factors:

- Occurrence of potentially complete pathways for exposure of ecological receptors to constituents in environmental media

- Resident communities or species exposed to the highest concentrations of constituents in environmental media

- Species or functional groups considered to be essential to, or indicative of, the normal functioning of the affected habitat

- Species of special status or designation (e.g., threatened or endangered) by state or federal entities

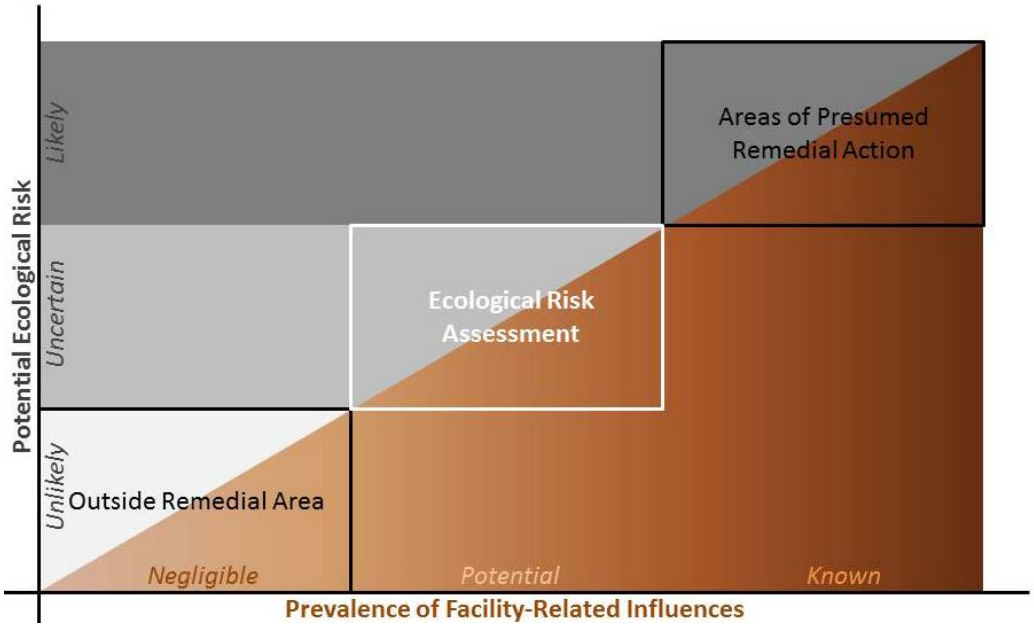
- Feasibility of completing a quantitative assessment for the identified pathways and receptors (e.g., availability of modeling parameters and toxicology values)

Based on the above criteria, the following ecological receptor populations and associated feeding guilds (where applicable) are evaluated in this EE/ERA:

- Terrestrial Area:
  - Terrestrial plant communities
  - Soil invertebrate communities
  - Insectivorous mammals (short-tailed shrew [*Blarina brevicauda*])
  - Insectivorous birds (American robin [*Turdus migratorius*])
  - Herbivorous birds (northern bobwhite [*Colinus virginianus*])
  - Herbivorous mammals (white-tailed deer [*Odocoileus virginianus*])
  - Carnivorous birds (red-tailed hawk [*Buteo jamaicensis*])
  - Carnivorous mammals (red fox [*Vulpes vulpes*])
- Aquatic Area:
  - Benthic invertebrate communities
  - Aquatic plant communities
  - Fish and aquatic invertebrate communities
  - Piscivorous mammals (mink [*Neovison vison*])
  - Piscivorous birds (great blue heron [*Ardea herodias*])
  - Herbivorous birds (mallard duck [*Anas platyrhynchos*])
  - Herbivorous mammals (muskrat [*Ondatra zibethicus*])
  - Insectivorous birds (tree swallow [*Tachycineta bicolor*])
  - Insectivorous mammals (little brown bat [*Myotis lucifugus*])

3.3.3 Exposure Areas

Results of SI/RI data collection as well as the habitat characterization, described in Section 3.2 supported the development of exposure areas. Exposure areas for the EE/ERA were selected based upon the Facility-specific EE/ERA approach, as described in Section 1, and as shown below.



By eliminating areas beyond the influences of historical Facility operations based on previous investigation results (e.g., areas beyond the Remedial Area), and areas where active remediation or removal will occur (Areas of Presumed Remedial Action), the exposure areas selected below represent portions of the Remedial Area of the Facility where the potential for ecological risk remains uncertain.

Terrestrial and aquatic exposure areas are discussed below and presented in Figures 3-2 and 3-3, respectively.

3.3.3.1 Terrestrial Exposure Area

The SI/RI identified a relative absence of Facility-related influences in undeveloped areas of the Facility and excluded these areas from further consideration in the RI. These areas flank the former operational areas of the Facility and provide contiguous corridors of mature forest habitat.

The formerly developed portion of the Facility (the Remedial Area) provides patches of habitat for ecological receptors. Upper-trophic-level ecological receptors using onsite terrestrial habitats are likely to move among the habitat patches that share a common list of Facility-related constituents, as well as similarities in habitat type and composition. As such, this EE/ERA evaluates potential exposure and risks to terrestrial

receptors using one Facility-wide terrestrial soil exposure area within the Remedial Area (Figure 3-2).

3.3.3.2 Aquatic Exposure Areas

Based on the distinct areas of surface water flow and the potential for groundwater to interact with surface water as identified during the RI, two aquatic exposure areas were identified for evaluation in this EE/ERA: Northern Drainage Area and Southern Drainage Area (Figure 3-3). These drainages support similar aquatic or semi-aquatic habitat, but different sources of hydrology influence these features, as discussed below:

- *Southern Drainage Area*. Surface water enters the Facility via a small stream channel along the northwestern Facility boundary, near the intersection of Howard Boulevard and Interstate 80. The stream flows southeast before entering a culvert beneath Powder Mill Road and discharges to the southern wetland complex. Overland flow and surface water runoff generally follow the same pattern, draining to aquatic features and flowing to the southern end of the Facility via a series of ditches and swales. These drainage features and the receiving waters of the southern wetland complex make up the Southern Drainage Area. The Southern Drainage Area captures the water bodies within the Remedial Area as well as the series of ditches that drain the southern wetland complex south of the Remedial Area boundary. These ditches receive surface water and suspended sediment from the southern wetland complex (within the Remedial Area boundary) that drains former operational areas of the Facility. These drainage channels also receive runoff from Howard Boulevard and Route 46. Ultimately the wetland complex drains to a single tributary that flows offsite at the southeastern corner of the Facility. Data from 2013 sampling at and proximate to this outlet indicate that Facility-related influences cease upstream of the outlet, thus the exposure area does not extend offsite.

- *Northern Drainage Area*. This drainage area consists of aquatic features located north and east of the small stream channel referenced above. Duck Pond serves as the primary drainage feature in the Northern Drainage Area, receiving water from surrounding stream channels, wetlands, and Shooting Pond. A series of isolated wetlands and pools also exist in the Northern Drainage Area. The Northern Drainage Area occurs almost entirely within the Remedial Area boundary; samples collected from an isolated pond that borders the Remedial Area were also included in the Northern Drainage Area.

3.3.3.3 Groundwater

Groundwater quality at the Facility is well defined. Given the long industrial history of the Facility, groundwater is largely unaffected by historic site operations (Hercules 2007, 2009, 2016), with the exception of a TNT plume in the southwestern corner of the Facility. TNT is observed in groundwater in proximity to the southern wetland complex, however, the influences of TNT in groundwater are not observed in surface-water and sediment in this area of the Facility.

Regional groundwater issues do have the potential to affect surface water and sediment quality at the Facility. For example, NJDEP, in cooperation with Hercules, evaluated a regional tetrachloroethene (TCE) groundwater plume adjacent to the Facility. They found that while the Facility falls within the footprint of the TCE plume, the Facility was not a contributor to the plume (Hercules 2007). However, the interaction between groundwater underlying the Facility and various surface water features (e.g., wetlands, ponds, ditches) represents a potential migration pathway for constituents unrelated to the Facility.

Ecological receptors are exposed to constituents in groundwater via groundwater discharges to surface-water features. As such, evaluating surface water and sediment characterizes potential ecological risk related to groundwater for aquatic receptors at the Facility.

3.3.4 Excluded Areas

As discussed, areas of the Facility where potential ecological risk is unlikely or likely are not evaluated in this EE/ERA. These excluded areas are summarized below.

3.3.4.1 Areas of Presumed Remedial Action

Based on a review of the CSM, historical Facility information, and SI/RI data, several process/disposal areas within the Remedial Area were identified as areas where remedial action is warranted, irrespective of the outcome of the EE/ERA. The locations, composition, and/or constituents present in these areas align with historical Facility practices and records from the Facility (e.g., disposal areas, explosions).

To guide the feasibility study process, these Areas of Presumed Remedial Action were prioritized using a tiered system. Tier ranking prioritizes remediation in areas of the Facility based (in part) on elements such as complexity of the remedy, severity of the

effects, duration of remedy implementation, and/or alignment with Facility redevelopment planning. The tiered organization includes the following areas:

- Tier I:
  - TNT Area (conglomerate of adjacent areas of concern)
- Tier II:
  - Ammonium Nitrate Area – Former Burning Ground and intervening areas of concern (H12-237, H13-1, H13-7)
  - B-Line Area – Disposal Area (M8-1)
  - Diazo Area – Diazo Ponds (H8-1)
  - B-Line Area - Dinitrotoluene (DNT) Heater House (L11-2091)
  - Development Area – Old Burning Ground and adjacent areas of concern to the southwest (M5-3, L5-2313, L5-10, L5-2275, L5-539)
- Tier III:
  - Storage Area – Disposal Area (N6-1)
  - B-Line Area – South (conglomerate of adjacent areas of concern)
  - A-Line Area – Northwest (conglomerate of adjacent areas of concern)

Acknowledging the pending remedial actions in the Tier I, II, and III areas, data from these areas are not included in this EE/ERA. Table 3-1 provides information regarding the history, constituent fate and transport, and presumptive remedy for each area. Figure 3-2 notes these areas on a site plan.

3.3.4.2 Areas Beyond the Remedial Area Boundary

The SI/RI identified the Remedial Area by comparing sample results from undeveloped areas around the margins of the Facility to criteria protective of human health (i.e., soil remediation goals). Once established, additional site characterization activities focused on the Remedial Area. This EE/ERA relies on the Remedial Area to focus assessment activities. As part of establishing the assessment area, sample results from undeveloped areas around the margins of the Facility (outside the Remedial Area) were evaluated in the context of potential ecological risk.

3.3.5 Summary

This EE/ERA uses data collected as part of site characterization activities. Where potential ecological risk is likely (i.e., in Areas of Presumed Remedial Action), Hercules is committed to active remediation and focusing efforts on remedial planning. Acknowledging undeveloped areas of the Facility beyond the influence of former operations (i.e., beyond the Remedial Area boundary) allows the evaluation to focus on the remaining areas of the Facility where potential ecological risk is uncertain.

3.4 Assessment and Measurement Endpoints

AEs provide explicit expressions of the actual environmental values (i.e., ecological resources) that are to be protected at the Facility (USEPA 1997) and are based on the complete exposure pathways and receptor categories identified in the CSM. Four principal criteria are used to select ecological values that may be appropriate for use as AEs (USEPA 1998):

1. Ecological relevance
2. Susceptibility to known or potential stressors
3. Commercial or social value
4. Relevance to management goals

AEs focus risk assessment to components that could be adversely affected by COPECs at a site. AEs are typically communities or trophic guilds (e.g., insectivorous birds). Trophic guilds may be deemed at risk if statistically significant, population-level effects occur to reproduction or survival of a receptor species representing the subject trophic guild.

Population-level effects of concern include:

- Mortality, growth, or reproductive effects resulting from direct exposure to constituents that may result in population-level effects.

- Mortality, growth, or reproductive effects resulting from exposure to constituents that have bioaccumulated in the food web and may result in effects to trophic-level receptor populations.

- Indirect effects associated with a substantial reduction in abundance of prey populations.

MEs are characteristics, quantifiable through laboratory or field experimentation, that are related to the valued characteristic chosen as the AE (USEPA 1992a, 1998). The ME represents the same exposure pathway and mechanisms of toxicity as the associated AE.

Based on the complete exposure pathways and potential receptor categories identified at the Facility, the following AEs and MEs were identified for each of the selected receptor groups (Table 3-2). The AEs are phrased as risk questions and the MEs were selected to address these questions, as presented below.

Terrestrial Area

AE 1. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial plant community?

- ME 1. Compare concentrations of COPEC in soil to ESBs protective of terrestrial plants.

AE 2. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial invertebrate community?

- ME 2. Compare concentrations of COPECs in soil to ESBs protective of terrestrial invertebrates.

AE 3. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

- ME 3. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals (represented by northern bobwhite and white-tailed deer).

AE 4. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

- ME 4. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals (represented by American robin and short-tailed shrew).

AE 5. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

- ME 5. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for carnivorous birds and mammals (represented by red-tailed hawk and red fox).

Aquatic Areas

AE 6. Could direct contact with COPECs in sediment in each area affect the structure, function, and/or survival of the benthic invertebrate community?

- ME 6. Compare COPEC concentrations in sediment in the Northern and Southern Drainage Areas to ESBs protective of benthic invertebrates.

AE 7. Could direct contact with COPECs in sediment in each area affect the survival and function of aquatic plant populations?

- ME 7. Compare COPEC concentrations in sediment in the Northern and Southern Drainage Areas to ESBs protective of terrestrial plants.

AE 8. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?

- ME 8. Compare COPEC concentrations in surface water in the Northern and Southern Drainage Areas to ESBs protective of fish and aquatic invertebrates.

AE 9. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?

- ME 9. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals (represented by mallard duck and muskrat) in the Northern and Southern Drainage Areas.

AE 10. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?

- ME 10. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals (represented by tree swallow and little brown bat) in the Northern and Southern Drainage Areas.

AE 11. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammalian populations?

- ME 11. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for piscivorous birds and mammals (represented by great blue heron and mink) in the Northern and Southern Drainage Areas.

4. Data Review and COPEC Selection

Information in the following sections describes the data available from previous investigations described in Section 3.2 and data consolidation procedures used in the EE/ERA. The data were then screened against literature-based benchmarks to identify COPECs for quantitative evaluation in the EE/ERA.

4.1 Data Usability

The SI/RI dataset was reviewed for applicability to the EE/ERA. Data collected as part of the SI and Phase I RI were validated by a third-party validator in accordance with USEPA's Region II Standard Operating Procedures (SOPs) for data validation. The quality of the data was assessed according to USEPA's PARCC (precision, accuracy, representativeness, comparability and completeness) parameters. These criteria were used to identify unacceptable or biased data that could result in corrective actions being implemented, or otherwise require qualification of the data. Reporting limits provided by the laboratory were elevated if the sample was analyzed at a dilution; however, data were not qualified based on elevated reporting limits. The evaluation of the data against PARCC criteria provided information on the data quality and reliability. Phase II RI data were validated in accordance with NJDEP guidance on data usability. As a result of these evaluations, data are considered to be of known and acceptable quality, and are considered valid and usable for decision-making purposes (Hercules 2007). Available site characterization data used in the EE/ERA are described below.

4.1.1 Ecological Risk Assessment Dataset Selection

Data selected for the EE/ERA include surface soil and sediment samples from the 0- to 12-inch interval below soil/sediment surface (bss; representative of the BAZ) and surface water sample results. Where historical information contained in the database was ambiguous (e.g., sample interval recorded as 12 inches without listing both a start and ending depth bss), samples that included any portion of the 0- to 12-inch bss

interval, including those listed as being collected from 12 inches bss, were included in the EE/ERA dataset. A soil sample with a starting depth of 0- to 1- foot bss and an end depth no more than 3 feet bss was also included. This definition accounts for the size and variability of the SI/RI dataset and includes sample intervals spanning the BAZ. Table 4-1 summarizes samples available for the EE/ERA dataset. Consistent with the approach outlined in Section 1.2, the dataset was separated into the following exposure areas:

- Within the Remedial Area, outside Areas of Presumed Remedial Action
- Within Areas of Presumed Remedial Action
- Outside the Remedial Area

As previously discussed, this EE/ERA focuses on data from sample locations within the Remedial Area, and excludes data from the Areas of Presumed Remedial Action (hereafter referred to as the ERA dataset [Appendix A]). Appendix B presents data for each Area of Presumed Remedial Action. Appendix C presents data from the undeveloped areas beyond the Remedial Area boundary.

The EE/ERA dataset was also separated by medium: soil (2000+ samples), sediment (500+ samples), and surface water (300+ samples). Figures 4-1 through 4-15 illustrate the spatial coverage of sample locations by constituent class. As discussed in Section 3.3.3, the soil dataset was evaluated as a whole based on the similarity in constituent composition and habitat suitability across former manufacturing areas of the Facility, while the sediment and surface water datasets were divided into two exposure areas (Northern and Southern Drainage Areas). The figures demonstrate the spatial coverage of samples included in the EE/ERA for terrestrial and aquatic exposure areas. The Phase II RIR (Hercules 2016) presents sample locations, sample IDs, and results on a sample-by-sample basis. RI conclusions indicate that constituents occur primarily within the former operational areas and acknowledge that the horizontal extent of constituents is well defined.

4.1.2 Data Management

Specific data handling was required to achieve spatial representativeness for the EE/ERA. Duplicate analyses at one sample location (e.g., field duplicates), or constituents analyzed by more than one method, create spatial disparity among the dataset during statistical evaluation. Additional data reduction and handling was

conducted to minimize these influences. The following subsections present methods and rationale for additional database management to facilitate the COPEC screen.

4.1.2.1 PCDDs and PCDFs

The PCDD/F soil sample dataset is relatively small (n=20) compared to the Facility-wide soil characterization dataset. The spatial coverage of the datasets differ considerably, as sampling for polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzo-*p*-furans (PCDFs) focused on four former burning grounds at the Facility at the request of NJDEP. Given these differences, PCDD/F is evaluated separately (Appendix D). Results of the evaluation are discussed in sections of this EE/ERA where applicable. The soil volume of the Phase II RIR (Hercules 2016) provides additional information regarding the genesis of PCDD/F soil sampling at the Facility.

4.1.2.2 Duplicate Samples

Field duplicate samples are presented in tables in brackets next to their parent sample (i.e., XX [YY]). One numerical representation of parent/duplicate data was derived for use in risk calculations to avoid spatial weighting bias associated with two results at the same sample location. When the parent/duplicate data were either both detects or both non-detects, sample results were averaged. Because field duplicates are co-located, sample variation caused by potential heterogeneity is also included in the measurement (USEPA 1991). The average concentration provides for the best representation of concentration at that location. In situations where one-half of a parent/duplicate pair was detected and the other half was not detected, the detected concentration was used, which provides for a conservative measurement.

4.1.2.3 Redundant Analytes – SW846 Methods 8270 and 8330

Eight constituents occur on the analyte lists for both the SW846 8270 semivolatile organic compound (SVOC) and SW846 8330 E&E methods. As such, the SI/RI database contains two results for each constituent at each sample location where both methods were used.

For this EE/ERA, NJDEP's acceptance of data based on laboratory certification (which is based on the analytical methods meeting precision and accuracy targets) was used. Method SW846 8270 is a gas chromatography/mass spectrometry (GC/MS) method and SW846 8330 uses high-performance liquid chromatography (HPLC); each method

offers distinct advantages and disadvantages depending on the target analyte. The table below summarizes the eight analytes and associated NJDEP-approved analytical methods, and notes the data selected for use in this EE/ERA.

Analyte	NJDEP Laboratory Certification[1]		Data used in EE/ERA
	SW846 8270	SW846 8330	
2,4-DNT	X	X	SW846 8270
2,6-DNT	X	X	SW846 8270
2-nitrotoluene		X	SW846 8330
3-nitrotoluene		X	SW846 8330
4-nitrotoluene		X	SW846 8330
Nitrobenzene	X	X	SW846 8330
1,3,5-trinitrobenzene	X	X	SW846 8330
2,4-dinitrophenol	X		SW846 8270

Note:

[1]Application for Certification of Environmental Measurements, Part III – Analytical Testing Parameters (NJDEP 2014).

For analytes with one NJDEP-approved laboratory analytical method, data from the approved method was selected for use in the EE/ERA. Where the NJDEP approves both analytical methods, additional information related to precision and accuracy of the methods as they relate to analytes (or analyte families) was evaluated. For nitrotoluene compounds, the GC/MS method (8270) generates chromatographs enabling the analytical laboratory to more precisely identify individual compound peaks and accurately quantify associated concentrations. Conversely, the HPLC (8330) methods provide superior performance for the analysis of nitrobenzene compounds. This rationale is consistent with that provided in the Phase I RIR (Hercules 2007).

4.1.2.4 Redundant Analytes – SW846 Methods 8260 and 8270

Six constituents occur on the analyte lists for both the SW846 8270 SVOC and SW846 8260 volatile organic compound (VOC) methods. As such, the SI/RI database contains two results for each constituent at each sample location where both methods were used.

The NJDEP approves both analytical methods for six constituents (1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, hexachloro-1,3-butadiene, and naphthalene). With the exception of naphthalene, these

constituents were not retained as COPECs during the initial data screen (see Section 4.2.2).

Naphthalene was retained as a COPEC based on maximum detected concentrations for both the VOC and SVOC data. The SVOC analysis of naphthalene featured a larger number of data points and a higher 95% upper confidence limit (95UCL) compared to the dataset for naphthalene as a VOC. Naphthalene also represents one of the 17 constituents that make up the PAH subset of SVOCs. As such, this EE/ERA evaluates naphthalene as an SVOC.

4.2 Identification of Constituents of Potential Ecological Concern

COPECs are identified via a comparison of generic ESBs to maximum detected constituent concentrations in environmental media. Generic ESBs represent a threshold concentration that a majority of target organisms (e.g., plants, invertebrates) can tolerate and a concentration that may cause adverse effects in specific organism communities. Generally, ESBs were developed from various datasets that relate constituent concentrations in an environmental medium with occurrence of effects in sensitive species. Generic ESBs do not consider site-specific factors that may affect constituent bioavailability and toxicity (e.g., pH, organic carbon content). Ecological screening benchmarks utilized in this EE/ERA are summarized below.

4.2.1 Ecological Screening Benchmarks

Ecological screening benchmarks were selected from NJDEP's Ecological Screening Criteria (ESC) table (NJDEP 2009) and supplemented with ESBs from the following additional sources:

- Resource Conservation and Recovery Act (RCRA) Region 5 Ecological Screening Levels (ESLs; USEPA 2003a)
- Ecological Soil Screening Levels (EcoSSLs) (USEPA 2007a)
- Ecotoxicology of Explosives (Sunahara et al. 2009)
- Nitroaromatic Munition Compounds: Environmental Effects and Screening Values (Talmage et al. 1999)

- Region 3 Biological Technical Assistance Group - Freshwater Sediment and Freshwater Screening Benchmarks (USEPA 2006)

- Munition constituents: Preliminary sediment screening criteria for the protection of marine benthic invertebrates (Pascoe et al. 2010)

- Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water (Verbruggen et al. 2001)

- USEPA's Ecotox Database (available at http://cfpub.epa.gov/ecotox/)

- Acute Oral Toxicity and Repellency of 933 Chemicals to House and Deer Mice (Schafer et al. 1985)

- Comparison of Lethality, Reproduction, and Behavior as Toxicological Endpoints in the Nematode *Caenorhabditis elegans* (Dhawan et al. 1999)

- Toxicity of Trihalomethanes to Common Carp Embryos (Mattice et al. 1981).

Table 4-2 summarizes ESBs used in this EE/ERA. For constituents lacking ESB, surrogate values from constituents with similar properties (e.g., chemical class, molecular structure) were selected. Surrogate values and their sources are footnoted in Table 4-2.

Surface water ESBs for certain metals (i.e., cadmium, chromium, copper, nickel, silver, and zinc) presented in the NJDEP ESC table are hardness-dependent. Representative hardness values were calculated for both the Northern and Southern Drainage Areas using available surface water data. An average hardness value and a 95UCL were calculated for each area. The table below summarizes hardness values, presented as milligrams per liter (mg/L) calcium carbonate.

Representative Hardness Values (mg/L)		
	Northern Drainage Area	**Southern Drainage Area**
Average	57	120
95UCL	84	155

In both the Northern and Southern Drainage Areas, the average hardness value was lower than the 95UCL value. As such, the calculated screening values were lower using the average hardness, which represents the more conservative approach for screening surface water data. Screening values were calculated for both total and dissolved metals per the NJDEP ESC table (2009) equations using a conversion factor. Table 4-2 presents hardness-dependent ESB.

Where appropriate, organic carbon-normalized sediment ESBs were calculated using drainage area-specific total organic carbon (TOC) data. Average drainage area-specific TOC content in sediment is 6 percent in the Northern Drainage Area and 13 percent in the Southern Drainage Area. Table 4-2 presents drainage area-specific TOC-normalized sediment ESBs.

4.2.2 COPEC Screen

The maximum concentration of each detected constituent was compared to its ESB to calculate a hazard quotient (HQ). Constituents with HQs greater than 1 or those lacking an ESB were retained as COPECs. Constituents were not retained as COPECs if they were not detected (i.e., 0 detections), had a low frequency of detection (i.e., less than 5 detections irrespective of the number of samples analyzed), or if the HQ was less than 1. Tables 4-3 through 4-7 present the COPEC screen and associated summary statistics by sample media and exposure area.

The following sections summarize selected COPECs by media, exposure area, and constituent class. Table 4-8 summarizes COPECs identified onsite.

4.2.2.1 Facility-Wide Soil

A total of 42 COPECs were identified in Facility-wide soil (Tables 4-3 and 4-8). The following table summarizes COPECs by constituent class.

COPEC Summary – Facility-Wide Soil				
VOCs	**SVOCs**	**Metals**	**E&E**	**PCBs**
Benzene	2,4-DNT	Antimony	1,3,5-Trinitrobenzene	Aroclor 1254
Bromomethane	2,6-DNT	Arsenic	TNT	Aroclor 1260
---	Benzo(a)anthracene	Cadmium	2-Amino-4,6-DNT	Total PCBs
---	Benzo(a)pyrene	Chromium	4-Amino-2,6-DNT	---
---	Benzo(g,h,i)fluoranthene	Cobalt	HMX	---
---	Benzyl butyl phthalate	Copper	Nitrocellulose	---
---	Bis(2-ethylhexyl)phthalate	Lead	Nitroglycerin	---
---	Chrysene	Manganese	PETN	---
---	Di-n-butyl phthalate	Mercury	RDX	---
---	Naphthalene	Nickel	---	---
---	N-nitrosodi-n-propylamine	Selenium	---	---
---	N-nitrosodiphenylamine	Silver	---	---
---	Phenanthrene	Thallium	---	---
---	---	Vanadium	---	---
---	---	Zinc		---

Notes:
RDX = Royal Demolition Explosive (hexahydro-1,3,5-trinitro-1,3,5-triazine)
HMX = High Melting Explosive (octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)

Metals commonly considered essential nutrients (i.e., calcium, iron, magnesium, potassium, and sodium) were not retained as COPECs. The soluble fraction of aluminum in soil can pose a potential risk to ecological receptors; however, it is understood that solubility, and therefore bioavailability, is based on the measured pH of onsite soil. Potential ecological risks associated with aluminum are only expected to occur when soil pH is less than 5.5 (USEPA 2003b). The 95UCL for soil pH was calculated from both field (pH = 5.8) and laboratory samples (pH = 6.1). As such, aluminum was not retained as a COPEC.

4.2.2.2 Northern Drainage Area

The Northern Drainage Area encompasses aquatic areas located north and east of the surface water divide described in Section 3.3.3.2). Aquatic features include Duck Pond, Shooting Pond, and associated tributaries, as well as smaller isolated ponds (miscellaneous ponds). Figure 3-3 shows the Northern Drainage Area.

4.2.2.2.1 Northern Drainage Area Surface Water

Four COPECs were identified in Northern Drainage Area surface water (Table 4-4) and below.

COPEC Summary – Northern Drainage Area Surface Water
Metals
Copper
Lead
Nickel
Zinc

Metals were retained as COPECs based on a conservative comparison of total metals data to ESBs. COPEC screening using dissolved metals data, which better approximates the fraction of the metal that is available for uptake by aquatic organisms (i.e., bioavailable, not bound to suspended particulates) (International Council on Mining and Metals [ICMM] 2007; Meyer et al. 2007; USEPA 1993a), would retain only copper, lead, and zinc as COPECs with HQs reduced by at least one order of magnitude (Table 4-4).

Table 4-4 presents the results of the COPEC screen and provides summary statistics for COPECs identified in surface water in the Northern Drainage Area.

4.2.2.2.2 Northern Drainage Area Sediment

Twenty-one COPECs were identified in Northern Drainage Area sediment (Table 4-5). The following table summarizes Northern Drainage Area sediment COPECs by constituent class.

COPEC Summary – Northern Drainage Area Sediment		
SVOCs	**Metals**	**E&E**
Benzo(a)anthracene	Arsenic	Nitrocellulose
Benzo(a)pyrene	Beryllium	Nitroglycerin
Benzo(g,h,i)perylene	Cadmium	---
Benzo(k)fluoranthene	Chromium	---
Chrysene	Copper	---
Dibenzo(a,h)anthracene	Lead	---
Fluoranthene	Mercury	---
Phenanthrene	Nickel	---
Pyrene	Silver	---
---	Zinc	---

4.2.2.3 Southern Drainage Area

The Southern Drainage Area encompasses aquatic areas south and west of the surface water divide described in Section 3.3.3.2. Aquatic features include intermittent

and perennial ditches draining to, and including, the southern wetland complex. Figure 3-3 shows the Southern Drainage Area.

4.2.2.3.1 Southern Drainage Area Surface Water

Eleven COPECs were identified in Southern Drainage Area surface water (Table 4-6). The following table summarizes COPECs by constituent class.

COPEC Summary – Southern Drainage Area Surface Water	
SVOCs	**Metals**
Chrysene	Aluminum
---	Arsenic
---	Cadmium
---	Copper
---	Lead
---	Manganese
---	Mercury
---	Selenium
---	Silver
---	Zinc

Metals were retained as COPECs based on a conservative comparison of total metals data to ESBs. COPEC screening using dissolved metals data, which better approximates the fraction of the metal that is available for uptake by aquatic organisms (i.e., bioavailable, not bound to suspended particulates) (ICMM 2007, Meyer et al. 2007; USEPA 1993a), would retain no metals as COPECs. Chrysene, a constituent insoluble in water, detected in surface water is likely attributable to chrysene bound to sediment or organic matter suspended in the sample matrix.

4.2.2.3.2 Southern Drainage Area Sediment

Thirty-six COPECs were identified in Southern Drainage Area sediment (Table 4-7). The following table summarizes Southern Drainage Area sediment COPECs by constituent class.

COPEC Summary – Southern Drainage Area Sediment			
VOCs	**SVOCs**	**Metals**	**E&E**
Tetrachloroethene	2,4-DNT	Antimony	2,4,6-TNT
---	Acenaphthene	Arsenic	Nitrobenzene
---	Acenaphthylene	Beryllium	Nitrocellulose
---	Anthracene	Cadmium	---
---	Benzo(a)anthracene	Chromium	---
---	Benzo(a)pyrene	Copper	---
---	Benzo(g,h,i)perylene	Lead	---
---	Benzo(k)fluoranthene	Manganese	---
---	Bis(2-Ethylhexyl)phthalate	Mercury	---
---	Chrysene	Nickel	---
---	Dibenzo(a,h)anthracene	Selenium	---
---	Fluoranthene	Silver	---
---	Fluorene	Thallium	---
---	Indeno(1,2,3-cd)pyrene	Zinc	---
	N-nitrosodiphenylamine	---	
---	Naphthalene	---	---
---	Phenanthrene	---	---
---	Pyrene	---	---

5. Ecological Exposure Assessment

The exposure assessment estimates a dose for each COPEC to which a receptor could be exposed. Exposure to plants and soil invertebrates (i.e., earthworms) is estimated solely by the Facility-specific soil concentration. Exposure to fish is estimated by the Facility-specific surface water concentration. Exposure to benthic invertebrates is estimated by the Facility-specific sediment concentration. Exposure to upper-trophic-level wildlife (birds and mammals) is estimated using an average daily dietary dose calculated via a food web model that incorporates estimated concentrations of COPEC in the diet (Section 5.2).

5.1 Exposure Point Concentrations

The exposure point concentration (EPC) is a conservative estimate of the average chemical concentration in an environmental medium. An individual receptor is assumed to be equally exposed to media within all portions of the exposure unit over the time frame of the risk assessment (USEPA 2002). USEPA recommends using the average concentration to represent "a reasonable estimate of the concentration likely to be contacted over time" (USEPA 1989). In addition USEPA (1992b) notes that “because of the uncertainty associated with estimating the true average concentration at a site, the 95 percent upper confidence limit (95UCL) of the arithmetic mean should be used for this variable.” In cases where the maximum detected concentration exceeds the 95UCL, the maximum detected concentration becomes the EPC. EPCs were calculated for COPECs identified at the Facility in soil, sediment and surface water, as indicated in Table 4-8.

To evaluate potential effects to lower-trophic-level organisms (i.e., soil invertebrates, plants, and benthic invertebrates), both the maximum detected concentration and the 95UCL are used as EPCs. Using both values for the EPC ensures that potential ecological threats are not overlooked and considers the concentration of a COPEC to which receptors are likely to be exposed. To evaluate potential effects to wildlife, the 95UCL is used as the EPC because upper-trophic level organisms (i.e., birds and mammals) are mobile and are expected to move throughout an exposure area, rather than remaining sessile and limiting exposure to one location with a maximum concentration.

Although PCB Aroclors 1254 and 1260 were selected as COPECs during the initial data screen, only the concentration of total PCBs (sum of detected Aroclors) was carried forward for use in food web modeling. This value provides a more

conservative estimate of the concentration of PCBs in Facility media. Aroclors are mixtures of individual PCB congeners, and the value for total PCBs incorporates the congeners that make up Aroclors 1254 and 1260.

5.1.1 Site Media

95UCLs were calculated for soil, surface water, and sediment using ProUCL Version 4.1.00. Per USEPA (2010) guidance, 95UCL calculation requires a dataset with at least eight samples and five detects. For datasets that do not meet this requirement, the maximum concentration was used as the EPC. Due to the size of the datasets and number of samples collected for each COPEC, non-detects in the database were excluded from 95UCL calculations. Due to the large number of samples available for each media from across the Facility, excluding these data does not have a meaningful impact on the spatial representativeness of the dataset. Tables 5-1 through 5-5 present EPCs and their basis for terrestrial and aquatic exposure areas. Appendix E presents ProUCL output files.

5.1.2 Estimated Tissue Concentrations

In the absence of Facility-specific tissue concentrations, soil bioaccumulation factors (BAFs) and biota-sediment accumulation factors (BSAFs) were used to estimate COPEC concentrations in biological tissue. These factors relate the concentration in environmental medium to which receptors are exposed to a tissue concentration. The bioavailability of each COPEC varies relative to physical and biological Facility-specific conditions; therefore, the use of BSAFs and BAFs introduces considerable uncertainty. BAFs and BSAFs are discussed below and in Section 8. Bioaccumulative compounds were selected from USEPA (2000).

5.1.2.1 Bioaccumulation Factors

BAFs are available for several COPECs to estimate concentrations in terrestrial organisms (i.e., soil invertebrates [earthworms], terrestrial plants, and mammals). Although bioaccumulation can vary substantially by species and site, these factors provide some bounding estimates of potential bioaccumulation to help assess potential risk and the need for additional Facility-specific bioaccumulation information.

BAFs may either be a simple factor by which the soil EPC is multiplied or based on a linear equation that incorporates the soil EPC.

Sources of BAFs include:

- Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities – Appendices C through E (USEPA 1999)
- Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs), including Attachment 4-1 – Exposure Factors and Bioaccumulation Models for Derivation of Wildlife Eco-SSLs (USEPA 2007a)
- Development and Validation of Bioaccumulation Models for Earthworms (Sample et al. 1998a)
- Development and Validation of Bioaccumulation Models for Small Mammals (Sample et al. 1998b)
- Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants (Bechtel Jacobs 1998)
- Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates (CH2M HILL 2005)
- Ecotoxicology of Explosives (Sunahara et al. 2009).

When multiple BAFs are available, BAFs based on a wide range of studies or a large dataset were preferentially selected over those developed based on more limited information. Terrestrial BAFs are presented in Table 5-6; the resulting estimated tissue concentrations are presented in Table 5-7.

5.1.2.2 Biota-Sediment Accumulation Factors

BSAFs were available for several COPECs to estimate tissue concentrations in aquatic organisms (i.e., fish and benthic invertebrates). While these values vary by species and site, they provide some bounding estimates of potential bioaccumulation to help assess potential risk and the need for additional Facility-specific bioaccumulation information.

Aquatic tissue concentrations estimated with BSAFs incorporate the organic carbon of the sediment and the percent lipid of the organism, according to the following equation:

$$C_{tissue} = \left(\frac{BSAF \times C_{sed} \times f_{lipid}}{f_{oc}}\right)$$

Where:

C_{tissue} = COPEC concentration in tissue (invertebrate or fish) (milligrams per kilogram [mg/kg])

BSAF = Biota-sediment accumulation factor (kilogram organic carbon per kilogram lipid [kg_{oc}/kg_l])

C_{sed} = COPEC concentration in sediment (mg/kg)

f_{lipid} = Fraction of lipid in tissue (kg_{oc}/kg_l)

f_{oc} = Fraction of organic carbon in sediment (kg_{oc}/kg_l)

Sources of BSAFs include:

- USEPA's Mid-Atlantic Ecology Division BSAF database (http://www.epa.gov/med/Prods_Pubs/bsaf.htm) (USEPA 2009)
- U.S. Army Corps of Engineers (USACE) BSAF database (http://el.erdc.usace.army.mil/bsafnew/) (USACE ERDC EL 2011[4])
- Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants (Bechtel Jacobs 1998)
- Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates (CH2M HILL 2005)
- Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities – Appendices C through E (USEPA 1999).

Average lipid content was assumed to be 5 percent for fish and 3 percent for invertebrates, based on average lipid values from the USACE's BSAF database (USACE ERDC EL 2011). Consistent with the Phase I and Phase II RIRs (Hercules 2007, 2016), average sediment TOC concentrations were calculated for each drainage area using data specific to the drainage area. While the Phase I and Phase II RIRs

[4] This website is down for construction indefinitely.

(Hercules 2007, 2016) evaluated sediment using three areas (RI Areas I, II, and III), this EE/ERA evaluates sediment using the Northern and Southern Drainage Areas. Average TOC content for the Northern and Southern Drainage Areas of 13 and 6 percent, respectively, were used to calculate tissue concentrations.

BSAFs required for fish tissue concentration estimates were unavailable for several COPECs. As a result, BSAFs for invertebrates are used in lieu of BSAFs for fish tissue. Furthermore, BSAFs do not exist for aquatic plants; therefore, terrestrial BAFs were used. In other cases where BSAFs were unavailable, the BAF for soil invertebrates was selected as a conservative factor to estimate aquatic invertebrate and fish tissue concentrations.

The aquatic BSAFs are provided in Table 5-8; resulting tissue concentrations are provided in Table 5-9.

5.2 Upper-Trophic Level Wildlife Exposure

To evaluate potential exposure of a COPEC to upper-trophic-level wildlife (e.g., mammals and birds), a food web model is used to estimate the daily dietary dose to each receptor. This equation estimates the dose of a COPEC through dietary ingestion of soil/sediment and prey tissue items.

Generally, only bioaccumulative COPECs are modeled to upper-trophic-level wildlife, as these constituents accumulate in prey tissue and can be transferred up the food web via ingestion. As a result, chronic effects to survival, growth, and reproduction are the general endpoints of an ERA and are evaluated through the dietary ingestion pathway. Although upper-trophic level wildlife may also be exposed to non-bioaccumulative constituents via other pathways (e.g., inhalation, dermal exposure), these exposure pathways are generally considered *de minimis* and are not quantitatively evaluated in ecological risk assessments (Suter 2007).

For this EE/ERA, E&E constituents (although not considered bioaccumulative) were also run through food web models due to their direct ties to the Facility operational history and sitewide presence.

The food web model to estimate potential exposure to wildlife is as follows:

$$DDD = \frac{\{[(IR_f \times C_f) + (IR_s \times C_s)] \times SUF\}}{BW}$$

Where:

DDD	=	Daily dietary dose of COPEC (mg/kg per day)
C_f	=	Concentration of a COPEC in food (mg/kg)
IR_f	=	Daily ingestion of food (kilograms per day [kg/day])
C_s	=	Concentration of a COPEC in soil/sediment (mg/kg)
IR_s	=	Daily incidental ingestion rate of soil/sediment (kg/day)
SUF	=	Site use factor (unitless)
BW	=	Body weight (kilograms)

5.3 Exposure Parameters

Exposure parameters for upper-trophic-level wildlife receptors include dietary and incidental media (e.g., soil and/or sediment) ingestion rates, body weights, and dietary composition. These values were obtained from a variety of sources, including the USEPA's Exposure Factors Handbook (USEPA 1993b), Sample and Suter (1994), Nagy (2001), USEPA (2007), and Beyer et al. (1994). Exposure parameters were selected from a hierarchy of sources to preferentially select values based on measured data (e.g., Nagy 2001) instead of modeled data, and more recent sources instead of historical information. Table 5-10 presents the selected exposure parameters for the terrestrial and aquatic receptor species.

5.3.1 Dietary Ingestion Rates

Ingestion rates are generally presented on either a dry or fresh (wet) weight basis. Nagy (2001) presents actual dietary ingestion data for both wet and dry weight dietary tissue. Available values from Nagy (2001) were selected instead of values from other sources presenting only wet or dry weights that require conversion factors to obtain the corresponding wet or dry weight value. When values were not available in Nagy (2001), wet weight ingestion rates were selected from USEPA (1993b) and converted to dry weight ingestion rates using the following equation:

$$IR_{dw} = IR_{ww} \times (1 - Percent\ moisture)$$

Where:

IR_{dw}	=	Ingestion rate (dry weight)
IR_{ww}	=	Ingestion rate (wet weight)

Percent moisture	=	Invertebrates: 84 percent, tissue: 68 percent; plants: 85 percent (USEPA 2007a)

5.3.2 Soil/Sediment Ingestion Rates

Soil/sediment ingestion rates were preferentially selected from Beyer et al. (1994) for muskrat, American robin, northern bobwhite, red fox, and white-tailed deer. Soil ingestion rates for red-tailed hawk and short-tailed shrew are from USEPA (2007). If literature values less than 2 percent soil ingestion (by weight) were noted, or if no soil/sediment ingestion rate could be found for a particular species, a conservative value of 2 percent was used. The percent of soil/sediment ingested was multiplied by the dry weight ingestion rate to obtain the rate in kg/day.

5.3.3 Body Weights

Body weights were selected from Nagy (2001) when available. If unavailable, body weights were calculated as the mean adult and juvenile body weights provided in USEPA (1993b). Incorporating juvenile body weights is a conservative approach because it is protective of the juvenile portion of the population in addition to the adults.

5.3.4 Additional Exposure Assumptions

Several exposure parameters were assigned values based on conservative assumptions and best professional judgment per USEPA (1997) guidance. For example, the site use factor (SUF) is an input parameter representing the fraction of time that a wildlife receptor spends on site (based on factors such as proportion of a receptor's foraging range that is encompassed by the site or migratory patterns). This value was conservatively set to 1, implying that receptors spend 100 percent of their time in the exposure area.

Similarly, prey items with a potential to bioaccumulate COPECs were selected to represent the entirety of a receptor's diet. For instance, American robins do not solely ingest earthworms; however, their diet was conservatively assumed to consist only of earthworms (i.e., 100 percent). Use of these conservative assumptions is consistent with NJDEP (2015) and USEPA (1997) guidance and likely overestimates potential risk.

Table 5-10 summarizes the exposure parameters used to calculate the daily dietary dose for each receptor species.

6. Ecological Effects Assessment

The ecological effects assessment describes the potential effects associated with the exposure of identified COPECs to ecological receptors, and reflects the type of AEs selected. The potential for effects is estimated by comparing COPEC concentrations in receptor species (daily dietary doses) known effects concentrations from the literature. These benchmark values are concentrations of COPECs that are not expected to cause adverse effects to ecological receptors. ESBs were selected for evaluation of direct contact to lower-trophic-level organisms (i.e., invertebrates, fish, and plants) and wildlife toxicity reference values (TRVs) were selected to evaluate exposure to upper-trophic-level organisms (i.e., birds and mammals).

6.1 Toxicological Properties of COPECs

Brief toxicological profiles for major categories of COPECs (PAHs, metals, PCBs, E&E) are presented below.

6.1.1 Polycyclic Aromatic Hydrocarbons

PAHs are composed of two or more aromatic or benzene rings. There is a large number (>10,000) of possible PAH structures that occur in the environment as complex mixtures (USEPA 2003c). The ecological impact of PAHs is uncertain (Eisler 1987a). PAHs show little tendency for bioconcentration despite their high lipid solubility (Pucknat 1981), likely because most PAHs are rapidly metabolized. PAHs evaluated at the Facility include the common 16 priority pollutant PAHs identified by USEPA.

6.1.1.1 Invertebrates

PAHs deposited in sediments can affect benthic invertebrates differently, depending on the individual PAH and species of organisms. For instance, in sediment toxicity tests with the tubificid, *Limnodrilus hoffmeisteri*, Lotufo and Fleeger (1996) observed a median lethal phenanthrene concentration of 298 mg/kg. In the same study, pyrene concentrations up to 841 mg/kg were not acutely toxic. Decreases in tubificid reproduction were observed at lower levels. Bivalve molluscs tend to accumulate high PAH levels due to their inability to metabolize and excrete them (Eisler 1987a).

6.1.1.2 Fish

Most PAHs in aquatic environments are associated with particulate materials; only about 33% are present in dissolved form (Eisler 1987a). Fish have been shown to be capable of metabolizing PAHs better than other aquatic organisms (e.g., invertebrates) (Meador et al. 1995). Varanasi et al. (1985) as cited by the Agency for Toxic Substances and Disease Registry (ATSDR [1995]) ranked the extent of benzo(a)pyrene (BaP) metabolism by aquatic organisms as follows: fish > shrimp > amphipod > crustaceans > mussels. In addition, some fish species have been shown to avoid areas with high PAH concentrations (Rice 1973 in Pastorok et al. 1994).

6.1.1.3 Wildlife

In general, PAHs show little tendency to biomagnify in food webs, despite their high lipid solubility, likely because most PAHs are rapidly metabolized. PAH exposure to mammalian and avian laboratory species is reported for both low- and high-molecular-weight PAHs (USEPA 2007b). Juvenile mice orally ingesting 2-methylnaphthalene at a dose of 110 mg/kg-body weight/day for 81 weeks exhibited reduced growth (Murata et al. 1997 in USEPA 2007b). Mice orally exposed to BaP for 65 weeks (3.07 mg/kg-body weight/day) were found to have lower survival (Culp et al. 1998 in USEPA 2007b).

Sparse data are available on the effects of PAH ingestion to avian species. Patton and Dieter (1980) reported effects on liver function of mallards fed low-molecular-weight PAHs at the dose of 440 mg/kg-body weight/day for 7 months. European starlings (*Sturnus vulgaris*) gavaged with dimethylbenz(a)anthracene at a dose of 20 mg/kg-body weight/day for 5 days experienced reduced growth (Trust et al. 1994 in USEPA 2007b).

6.1.2 Metals

Metals enter the environment from natural processes and through anthropogenic sources. Chemical, physical, and biological factors influence the potential toxicity of metals. Generally, the bioavailable fraction of total metals concentrations can affect ecological receptors. Metals exhibit a range of binding affinities with both organic (e.g., carbon) and inorganic (e.g., other metals) substances, so the concentration of bioavailable fractions of metals varies. The total concentration of metals is generally not predictive of their bioavailability. Key factors that affect the partitioning and speciation, and thus the bioavailability, of metals include redox conditions, pH,

hardness, organic carbon content, sulfide availability, and percent fines. These factors influence the sequestration, oxidation state, and species of dissolved ions present.

Mercury and lead are two metals that are neither essential nor beneficial to living organisms and can be especially toxic. All measured effects to ecological receptors - including those on survival, growth, reproduction, development, behavior, learning, and metabolism – are adverse, as discussed in more detail below.

6.1.2.1 Mercury

According to Eisler (1987b), most authorities agree on the following six points regarding mercury in the environment (1) mercury and its compounds have no known biological function, and the presence of the metal in the cells of living organisms is undesirable and potentially hazardous; (2) forms of mercury with relatively low toxicity (e.g., inorganic compounds) can be transformed into forms of mercury with high toxicity (i.e. organomercury compounds, such as methylmercury) through biological and other processes; (3) mercury can be bioconcentrated in organisms and biomagnified through food chains; (4) mercury is a mutagen, teratogen, and carcinogen; (5) some species of fish and wildlife contain high concentrations of mercury that are not attributable to human activities; (6) the difference between tolerable natural background levels of mercury and harmful effects in the environment is small.

6.1.2.1.1 Invertebrates

Mercury at comparatively low concentrations adversely affects the reproduction, growth, behavior, metabolism, blood chemistry, osmoregulation, and oxygen exchange of marine and freshwater organisms. In general, the accumulation of mercury by aquatic biota is rapid, and depuration is slow. It is emphasized that organomercury compounds, especially methylmercury, were significantly more effective than inorganic mercury compounds in producing adverse effects and accumulations.

For sensitive marine invertebrates such as hydroids, protozoans, and mysid shrimp, reproduction was inhibited at concentrations between 1.1 and 2.5 ug Hg2+/l; this range was 5 to 71 ug/l for more resistant species of marine invertebrates (Eisler 1987b).

6.1.2.1.2 Fish

In general, the accumulation of mercury in fish is enhanced at elevated water temperatures, reduced water salinity or hardness, reduced water pH, increased age of the fish, and reduced organic matter content of the medium; in the presence of zinc, cadmium, or selenium in solution; after increased duration of exposure; and in the

presence of increased nominal concentrations of protein-bound mercury. Uptake patterns were significantly modified by sex, sexual condition, prior history of exposure to mercury salts, the presence of complexing and chelating agents in solution, dietary composition, feeding niche, tissue specificity, and metabolism; however, trends were not consistent between species and it is difficult to generalize (Eisler 1987b).

6.1.2.1.3 Wildlife

For the protection of sensitive species of birds that regularly consume fish and other aquatic organisms, total mercury concentrations in the prey items should not exceed 100 ug/kg fresh weight. For some birds, adverse effects, predominantly on reproduction, have been associated with total mercury concentrations of (in fresh weight) of 5,000 ug/kg in feather, 900 ug/kg in egg; and with daily intakes of 640 ug/kg body weight (Eisler 1987b).

The significance of elevated mercury levels in tissues of fish and wildlife is not fully understood; some species of marine pinnipeds, for example, normally contain high concentrations of mercury in various tissues without apparent adverse effects. Mercury concentrations in sensitive mammals in excess of 1,100 ug/kg fresh weight of tissue (liver, kidney, blood, brain, hair) or when daily intakes reach 250 ug/kg body weight can cause adverse effects (Eisler 1987b).

6.1.2.2 Lead

Lead adversely affects survival, growth, reproduction, development, and metabolism of most species under controlled conditions, but its effects are substantially modified by numerous physical, chemical, and biological variables. In general, organic lead compounds are more toxic than inorganic lead compounds, food web biomagnification of lead is negligible, and younger, immature organisms are most susceptible to its adverse effects. Uptake of lead by terrestrial plants is limited by the low bioavailability of lead from soils; adverse effects occur only at total concentrations of several hundred parts per million of lead in soil. Lead concentrations in aquatic and terrestrial vertebrates tend to increase with increasing age of the organism, and to localize in hard tissues such as bone and teeth (Eisler 1988).

6.1.2.2.1 Invertebrates

In general, the responses of aquatic invertebrate species to lead differ. In sensitive species the following conclusions can be made: dissolved waterborne lead is more toxic than total lead; organic lead compounds are more toxic than inorganic forms; and lead causes adverse effects on daphnid reproduction (Eisler 1988).

6.1.2.2.2 Fish

Although lead is concentrated by biota from water, no significant biomagnification of lead occurs in aquatic food chains. Increasing waterborne concentrations of lead over 10 ug/l may cause increasingly severe long-term effects on fish and fisheries (Eisler 1988). Lethal solutions of lead can cause a variety of adverse effects to fish including increased mucous formation, anemia, spinal curvature, degeneration of the caudal fin, muscular atrophy, and growth inhibition (Eisler 1988).

6.1.2.2.3 Wildlife

In wildlife, lead can modify the function and structure of kidney, bone, the central nervous system, and the hematopoietic system. It can also produce adverse biochemical, histopathological, neuropsychological, fetotoxic, teratogenic, and reproductive effects.

Remedial goals at five Superfund Sites across the country range from 380 mg/kg to 605 mg/kg of lead in soil, based on robins, ground-feeding insectivores, or earthworm-feeding wildlife (Beyer et al. 2013). Field (bioavailability) data suggest that the remedial goals could be set even higher. For instance, Beyer et al. (2013) concluded a lack of effects to songbirds with lead soil concentrations less than 1,000 mg/kg in the southeast Missouri Lead Mining District. Hansen et al. (2011) showed no effects to robins with lead soil concentrations of up to 1300 ppm of Pb in Idaho's Coeur d'Alene River Basin. In addition, data from the Dutchman Riparian Lands at the Anaconda Superfund Site indicate no adverse effects to robins with lead in soils below 2,000 mg/kg (Texas Tech 2002).

6.1.3 Polychlorinated Biphenyls

PCBs are synthetic organic chemical compounds consisting of chlorine atoms attached to biphenyl. There are 209 configurations of organochlorides with 1 to 10 chlorine atoms. Of the different PCB arrangements and orientations 130 are used commercially. The toxicity of PCBs depends on the structure and number of chlorine atoms.

6.1.3.1 Invertebrates

Aquatic invertebrates assume an important role in the cycling of PCBs within and between ecosystems. Mysid crustaceans from Lake Michigan have a low assimilation efficiency for PCBs and a high efficiency for fecal excretion of ingested PCBs. By vertically migrating to the surface at night, mysids may transport PCBs into the upper regions; the PCBs will continue to recycle through the Lake Michigan ecosystem if the

PCBs are excreted, egested, lost with molts, or if the mysid is consumed by fish (Eisler 1986).

PCB concentrations in freshwater oligochaete worms from the Niagara River in New York State were positively correlated with sediment PCB levels. Uptake of PCBs from the sediment by chironomid (*Chironomus plumosus*) larvae was also directly related to the concentration of PCBs in the sediment. When larvae metamorphosed to adults, PCB compounds were concentrated and transferred from the aquatic to the terrestrial environment. Terrestrial predators that feed on emerging aquatic insects whose larval stage inhabits PCB-contaminated sediments may be exposed to PCBs (Eisler 1986).

In general, aquatic toxicity increases with increasing exposure, crustaceans and younger developmental stages are the most sensitive groups, and lower chlorinated PCBs were more toxic than higher chlorinated PCBs. Bioconcentration factors are generally higher with increasing exposure period, increasing PCB concentration, and with increasing chlorination of PCB congeners (Eisler 1986).

6.1.3.2 Fish

Since PCBs are highly lipophilic, highest concentrations occur in fatty tissues. Other factors known to modify PCB accumulations in aquatic biota include: temperature magnitude and variation; time of incubation and age of larvae; presence of mineral oils on PCB-contaminated substrates; and diet. Of these, diet contributes most of the total PCB body burdens of upper level carnivores.

Considerable interspecies differences exist in the responses of aquatic organisms to PCB loadings, but the following adverse effects are known occur: decreased growth, reproductive toxicity, carcinogenesis, and mutagenesis (Eisler 1986).

6.1.3.3 Wildlife

PCBs have been shown to cause reproductive failure, birth defects, skin lesions, tumors, liver disorders, and death in wildlife. The high lipid solubility of PCBs enables them to bioaccumulate and biomagnify up the food web. Fish are a source of PCBs to wildlife such as mink, which have been found to be very sensitive to PCBs. Similarly, among sensitive avian species, PCBs disrupt normal patterns of growth, reproduction, metabolism, and behavior. Waterfowl have also been shown to be affected by PCBs following dietary exposure (Eisler 1986).

6.1.4 Explosives and Energetics

Limited ecotoxicological information is available for compounds such as tetryl, NG, nitrocellulose, PETN, or other E&E compounds. Toxicity data are available for nitroaromatics: TNT and its metabolites (e.g., 2,4-DNT and 2,6-DNT) as well as the nitramines RDX and HMX, as discussed below.

6.1.4.1 Invertebrates

TNT metabolites can accumulate in the tissues of earthworms and root portions of plants. In terrestrial systems, evidence suggests that nitroaromatics do not bioaccumulate in the above-ground portion of plants or in the body burdens of terrestrial wildlife species.

6.1.4.2 Fish

Available data indicate that E&E compounds have a low potential to bioconcentrate in aquatic organisms given their weak hydrophobicity. However, metabolically formed transformation products (e.g., 2,4-DNT, 2-6-DNT, 4-amino-2,6-DNT) appear to be eliminated at slower rates than their parent compound (TNT).

6.1.4.3 Wildlife

Due to the rapid transformation, excretion, and lack of potential for high, continuous exposure, it is unlikely that nitroaromatic compounds can be transferred between prey and predator species. Few data indicate that environmental exposures of E&E compounds to wildlife are problematic (Sunahara et al. 2009).

6.2 Potential Direct Effects

Direct exposure risks to lower-trophic-level receptors (i.e., plants, terrestrial and aquatic invertebrates, and fish) are evaluated via a comparison of soil, sediment, or surface water EPCs to available ESBs used to represent threshold values below which adverse effects are unlikely. ESB sources include:

- Plants and terrestrial invertebrates:
  - NJDEP ESC table (NJDEP 2009)

  - USEPA (2007) EcoSSLs
  - USEPA's Ecotox Database
  - Oak Ridge National Laboratory (e.g., Efroymson et al.1997a, 1997b)
  - Published peer-reviewed journal articles (e.g., Sverdrup et al. 2003; Talmage et al. 1999)

- Benthic invertebrates:
  - NJDEP ESC table (NJDEP 2009)
  - Mid-Atlantic (Region 3 Biological Technical Assistance Group [BTAG]) Freshwater Sediment Screening Values (USEPA 2006)
  - Published peer-reviewed journal articles (e.g., Persaud et al. 1993)
  - USEPA (2003a) Region 5 ESLs

- Fish:
  - NJDEP ESC table (NJDEP 2009)
  - Mid-Atlantic (Region 3 BTAG) Freshwater Screening Values (USEPA 2006)
  - National Recommended Water Quality Criteria (USEPA 2009)

Section 7 compares soil, sediment, and surface water EPCs to ESBs to characterize potential risk from direct contact exposures.

6.3 Potential Wildlife Effects

USEPA (2007) defines a TRV as a dose (based on laboratory toxicological investigations) above which a particular ecologically relevant effect may be expected to occur in an organism following chronic dietary exposure, and below which it is reasonably expected that such effects will not occur. Rather than deriving one point estimate associated with specific biological effects, both high and low TRVs are identified for each COPEC to bracket a threshold effect level.

The low TRV is a conservative value consistent with a chronic no observed adverse effects level (NOAEL). It represents a conservative dose level at or below which adverse effects are unlikely to occur. Conversely, the high TRV is a less conservative estimator of potential adverse effects, representing a dose level at which adverse effects may occur, and is consistent with a chronic lowest observed adverse effects level (LOAEL). As recommended by USEPA (1997), in the absence of either an NOAEL or LOAEL, the missing value was obtained by extrapolating from the existing value by a factor of 10.

The following literature sources were reviewed for the selection of TRVs for upper-trophic-level wildlife (i.e., birds and mammals):

- USEPA EcoSSLs (USEPA 2003b, 7a, 7b)
- Toxicological studies cited in Sample et al. (1996)
- California Department of Toxic Substances Control (DTSC) BTAG TRVs for Birds and Mammals (DTSC 2002)
- Wildlife Toxicity Assessment Program at the U.S. Army Center for Health Promotion and Preventative Medicine (USACHPPM: 2001a, 2001b, 2001c, 2007, 2012)

When reviewing the toxicological literature and selecting the most appropriate study for TRV development, several factors were considered:

- Taxonomic relationship between the test animal and the receptor species.
- Use of laboratory animals or domesticated species, with preference for wildlife species.
- Toxicological studies where the chemical was administered through diet are preferred over studies using other dosing methods, such as oral gavage or intraperitoneal injection.
- Ecological relevance of the study endpoints. Studies with toxicity endpoints such as reproduction, growth, behavior, and developmental endpoints were targeted. Sensitive endpoints such as reproductive or developmental toxicity were preferentially selected because they are closely related to the selected AEs.

- Long-term studies representing chronic exposure were preferentially selected over short-term, acute studies.

The selected mammalian and avian TRVs are presented in Table 6-1.

7. Ecological Risk Characterization

Risk characterization evaluates potential ecological risk to receptors. For lower-trophic-level terrestrial and aquatic receptors (i.e., terrestrial plants and invertebrates, aquatic invertebrates and fish) potential risks were characterized by comparing soil, sediment, or surface water EPCs to ESBs, which results in an HQ.

For upper-trophic-level avian and mammalian species, resulting dietary doses from the food web models were compared to TRVs to derive the HQs. NOAEL-based HQs (HQ_{NOAEL}) and LOAEL-based HQs (HQ_{LOAEL}) were calculated for both the low and high TRVs, respectively. In general, HQ_{NOAEL} less than one indicate that there are no potential ecological risks and HQ_{LOAEL} less than one suggest that adverse effects are unlikely. With respect to HQ_{LOAEL} greater than 1, USEPA (1994) recommends that HQs be interpreted relative to the assumptions on which the assessment is based. In other words, more conservative exposure and effects assumptions result in a broader range of tolerable HQs.

Given the conservative nature of the assumptions and exposure parameters used in this EE/ERA, the HQ_{LOAEL} provides a more representative indicator of potential ecological risk to upper-trophic-level receptors than the HQ_{NOAEL}. Furthermore, the SI/RI dataset provides general spatial coverage of the Facility, with more focused sampling in source areas. EPCs used in food web models are statistical representations of the dataset (i.e., 95UCLs) that do not consider the spatial context of the data and, therefore, incorporate a conservative bias to the EPCs. Acknowledging the conservative assumptions on which this EE/ERA is based, consideration of the HQ_{LOAEL} is appropriate.

7.1 Terrestrial Receptors

The following section summarizes HQs for terrestrial receptors at the Facility. Tables 7-1 through 7-8 present the results of the terrestrial receptor evaluation. Table 7-9 summarizes the results presented in Tables 7-1 through 7-8.

7.1.1 Soil Invertebrates

Table 7-1 presents HQs based on maximum detected constituent concentrations and 95UCL EPCs estimating potential risks to soil invertebrates. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

COPEC	Soil Invertebrate HQ (95UCL)
Copper	3
Manganese	6
Vanadium	2
Zinc	2

7.1.2 Plants

Table 7-2 presents HQs based on maximum detected constituent concentrations and 95UCL EPCs estimating potential risks to terrestrial plants. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

COPEC	Terrestrial Plant HQ (95UCL)
Antimony	2
Arsenic	2
Chromium	23
Copper	4
Lead	12
Manganese	3
Mercury	46
Selenium	5
Vanadium	19
Zinc	2

7.1.3 Wildlife

Potential ecological risk was evaluated for three avian receptors (Tables 7-3, 7-4, and 7-5) and three mammalian receptors (Tables 7-6, 7-7, and 7-8). Table 7-9 summarizes the terrestrial receptor HQs.

7.1.3.1 Birds

The evaluation of potential ecological risks for American robin, northern bobwhite, and red-tailed hawk indicates the following:

- Three COPEC HQ_{LOAELs} exceed 1 for American robin.
- COPEC HQ_{LOAELs} are less than or equal to 1 for northern bobwhite.
- COPEC HQ_{LOAELs} are less than or equal to 1 for red-tailed hawk.

The following table summarizes COPECs with HQs greater than 1.

COPECs	American Robin	Northern Bobwhite	Red-Tailed Hawk
	HQ_{LOAEL}		
Total PCBs	3	≤1	≤1
Copper	3	≤1	≤1
Lead	25	≤1	≤1

7.1.3.2 Mammals

The evaluation of potential ecological risks for short-tailed shrew, white-tailed deer, and red fox indicates the following:

- One COPEC HQ_{LOAEL} exceeds 1 for short-tailed shrew.
- COPEC HQ_{LOAELs} are less than or equal to 1 for white-tailed deer.
- COPEC HQ_{LOAELs} are less than or equal to 1 for red fox.

The following table summarizes COPECs with HQs greater than 1.

COPECs	Short-Tailed Shrew	White-Tailed Deer	Red Fox
	HQ_{LOAEL}		
Lead	3	≤1	≤1

7.2 Aquatic Receptors

The following section presents HQs for aquatic receptors in the Northern and Southern Drainage Areas. HQs were calculated for benthic invertebrates, aquatic life (fish and aquatic invertebrates), tree swallow, great blue heron, mallard duck, little brown bat, mink, and muskrat. Tables 7-10 through 7-27 present COPEC HQs for each receptor. Table 7-28 summarizes HQs for aquatic wildlife receptors.

7.2.1 Northern Drainage Area

The Northern Drainage Area encompasses several aquatic habitats, including Duck Pond, Shooting Pond, and various tributaries. Results of the evaluation for the Northern Drainage Area are presented in Tables 7-10 through 7-18.

7.2.1.1 Benthic Invertebrates

Table 7-10 presents HQs based on maximum detected constituent concentrations and 95UCL EPCs estimating potential risks to benthic invertebrates in the Northern

Drainage Area. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

Northern Drainage Area	
COPEC	**Benthic Invertebrate HQ (95UCL)**
Pyrene	2
Arsenic	2
Cadmium	2
Copper	4
Lead	6
Mercury	4
Zinc	3

7.2.1.2 Aquatic Plants

Table 7-11 presents HQs estimating potential risks to aquatic plants in the Northern Drainage Area. Metals are the only risk drivers for aquatic plants (i.e., have HQs greater than 1). The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

Northern Drainage Area	
COPEC	**Aquatic Plant HQ (95UCL)**
Chromium	21
Lead	2
Mercury	3
Zinc	2

7.2.1.3 Fish and Aquatic Invertebrates

Table 7-12 presents HQs estimating potential risks to fish and aquatic invertebrates in the Northern Drainage Area. Northern Drainage Area surface water COPECs are limited to metals. HQ calculations used dissolved metals concentrations to estimate potential risks to fish and aquatic invertebrates. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

Northern Drainage Area	
COPEC	**Fish and Aquatic Invertebrate HQ (95UCL)**
Copper	3
Lead	4

7.2.1.4 Birds

The evaluation of potential ecological risks for tree swallow, great blue heron, and mallard duck using aquatic habitats in the Northern Drainage Area, as presented in Tables 7-13, 7-14, and 7-15, indicates the following:

- Two COPEC HQ_{LOAELs} exceed 1 for tree swallow.
- COPEC HQ_{LOAELs} are less than or equal to 1 for great blue heron.
- COPEC HQ_{LOAELs} are less than or equal to 1 for mallard duck.

The following table summarizes COPECs with HQs greater than 1.

Northern Drainage Area			
COPECs	**Tree Swallow**	**Great Blue Heron**	**Mallard Duck**
	HQ_{LOAEL}		
Copper	7	≤1	≤1
Lead	10	≤1	≤1

7.2.1.5 Mammals

The evaluation of potential ecological risks for little brown bat, mink, and muskrat using aquatic habitats in the Northern Drainage Area, as presented in Tables 7-16, 7-17, and 7-18, indicates the following:

- One COPEC HQ_{LOAEL} exceeds 1 for little brown bat.
- COPEC HQ_{LOAELs} are less than or equal to 1 for mink.
- COPEC HQ_{LOAELs} are less than or equal to 1 for muskrat.

The following table summarizes COPECs with HQs greater than 1.

Northern Drainage Area			
COPECs	**Little Brown Bat**	**Mink**	**Muskrat**
	HQ_{LOAEL}		
Copper	3	≤1	≤1

7.2.2 Southern Drainage Area

The Southern Drainage Area drains the majority of the former operational area of the Facility. Tables 7-19 through 7-27 present results of the evaluation for the Southern Drainage Area.

7.2.2.1 Benthic Invertebrates

Table 7-19 presents HQs based on maximum detected constituent concentrations and 95UCL EPCs estimating potential risks to benthic invertebrates in the Southern Drainage Area. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

Southern Drainage Area	
COPEC	**Benthic Invertebrate HQ (95UCL)**
Tetrachloroethene	10
2,4-DNT	7
Acenaphthene	382
Acenaphthylene	872
Anthracene	213
Benzo(a)anthracene	199
Benzo(a)pyrene	104
Benzo(g,h,i)perylene	119
Benzo(k)fluoranthene	103
Chrysene	138
Dibenzo(a,h)anthracene	73
Fluoranthene	198
Fluorene	270
Indeno(1,2,3-cd)pyrene	2
Naphthalene	89
Phenanthrene	542
Pyrene	305
Arsenic	3
Copper	3
Lead	126
Manganese	5
Mercury	8

7.2.2.2 Aquatic Plants

Table 7-20 presents HQs estimating potential risks to aquatic plants in the Southern Drainage Area. Metals and PAHs are the primary risk drivers for aquatic plants (i.e., have HQs greater than 1). The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

Southern Drainage Area	
COPEC	**Aquatic Plant HQ (95UCL)**
Acenaphthylene	2
Anthracene	2
Benzo(a)anthracene	6
Benzo(a)pyrene	4

Southern Drainage Area	
COPEC	**Aquatic Plant HQ (95UCL)**
Benzo(g,h,i)fluoranthene	2
Benzo(k)fluoranthene	2
Chrysene	5
Phenanthrene	7
Pyrene	3
Chromium	26
Lead	38
Manganese	12
Mercury	6
Selenium	3
Thallium	3

7.2.2.3 Fish and Aquatic Invertebrates

Table 7-21 summarizes potential risks to fish and aquatic invertebrates in the Southern Drainage Area. HQs were calculated using dissolved COPEC concentrations when available. In the absence of dissolved COPEC concentrations, total concentrations were used as a conservative measure. The following table summarizes COPECs with HQs greater than one (based on the 95UCL).

Southern Drainage Area	
COPEC	**Fish and Aquatic Invertebrate HQ (95UCL)**
Aluminum[1]	8
Manganese[1]	11
Lead	3

Note:
[1] HQs for aluminum and manganese calculated using total concentration due to a lack of dissolved data.

7.2.2.4 Birds

The evaluation of potential ecological risks for tree swallow, great blue heron, and mallard duck using aquatic habitats in the Southern Drainage Area, as presented in Tables 7-22, 7-23, and 7-24, indicates the following:

- Four COPEC HQ_{LOAELs} exceed 1 for tree swallow.
- One COPEC HQ_{LOAEL} exceeds 1 for great blue heron.
- One COPEC HQ_{LOAEL} exceeds 1 for mallard duck.

The following table summarizes COPECs with HQs greater than 1.

Southern Drainage Area			
COPECs	**Tree Swallow**	**Great Blue Heron**	**Mallard Duck**
	HQ_{LOAEL}		
Fluoranthene	3	≤1	≤1
Copper	4	≤1	≤1
Lead	224	24	2
Selenium	2	≤1	≤1

7.2.2.5 Mammals

The evaluation of potential ecological risks for little brown bat, mink, and muskrat using aquatic habitats in the Southern Drainage Area, as presented in Tables 7-25, 7-26, and 7-27, indicates the following:

- Five COPEC HQ_{LOAELs} exceed 1 for little brown bat.
- One COPEC HQ_{LOAEL} exceeds 1 for mink.
- COPEC HQ_{LOAELs} are less than or equal to 1 for muskrat.

The following table summarizes COPECs with HQs greater than 1.

Southern Drainage Area			
COPECs	**Little Brown Bat**	**Mink**	**Muskrat**
	HQ_{LOAEL}		
Fluoranthene	6	≤1	≤1
Pyrene	3	≤1	2
Copper	2	≤1	≤1
Lead	26	8	≤1
Selenium	2	≤1	≤1

7.3 PCDD/F Risk Characterization

Appendix D presents an ERA specific to PCDD/F in soil in former burning areas of the Facility. General site characterization sampling in the SI/RI did not include analysis for PCDD/F. Focused PCDD/F sampling was conducted in areas of the site that supported historical burning activities and in response to a request by NJDEP. PCDD/F data were evaluated separately given the differences in size and spatial coverage of the datasets (i.e., Facility-wide [more than 1,000 acres] versus four discrete former burning areas totaling less than 10 acres).

Food web modeling was conducted for each of the terrestrial receptors evaluated in this EE/ERA using congener-specific 95UCLs for PCDD/F and a toxicity equivalency quotient (TEQ)-based approach (Van den Berg et al. 1998, 2006). Species-specific exposure factors used in the food web model for PCDD/F remain consistent with those in the overall ERA.

As summarized in the table below, food web models for PCDD/F in soil resulted in HQs less than 1 for all ecological receptors evaluated. These results indicate that potential ecological risk attributable to PCDD/F in soil in former burning areas of the Facility is unlikely.

PCDD/F – Former Burning Area Soil	
Receptors	**HQs**
American robin	≤1
Red-tailed hawk	≤1
Bobwhite quail	≤1
Short-tailed shrew	≤1
Red fox	≤1
White-tailed deer	≤1

7.4 Ecological Risk Characterization Discussion

The risk characterization compares COPEC concentrations in potential receptors to conservative benchmark values identified in Section 6. To characterize potential ecological risk to populations using the exposure areas, consideration of benchmark values below which significant effects are not expected (i.e., LOAEL-based TRVs) to occur is appropriate.

7.4.1 Terrestrial Exposures

Potential risks to terrestrial receptors were evaluated over one Facility-wide soil exposure area. Metals including lead, chromium, vanadium, and copper in soil present the highest potential for risk to terrestrial receptors via both direct exposure and food-web transfer. Metals are commonly associated with historical fill materials (e.g., fly ash, bottom ash, slag), which were byproducts of the local iron mining and processing industry and imported to the Facility as fill to support Facility development in the early 1900s.

Total PCB HQs exceeded 1 in the food web models for American robin (HQ = 3). The appearance of total PCBs to cause potential risk is an artifact of one sample result (150 mg/kg at one location in the Maintenance Area) in a dataset where PCBs were

detected in 141 of 451 samples (a 31 percent frequency of detection). The sum of the detected PCB concentrations across the 141 samples totals 254 mg/kg, indicating that almost 60 percent of the detected mass Facility-wide is attributable to one sample location (150/254 = 0.59). Absent this sample location, total PCB HQs would be less than 1. Considering this spatial bias, potential risk to terrestrial receptors at the Facility from PCBs is unlikely.

Overall, potential risks to terrestrial receptor populations related to COPECs other than lead are low.

7.4.2 Aquatic Exposures

Aquatic exposure pathways were evaluated by drainage area. Beyond the distinct surface water drainages, each exposure area possesses a unique developmental and operational history. For instance, although the Northern Drainage Area consists of altered land and contains some discernable filled areas, the majority of the historical fill imported to the Facility was used to raise the ground surface elevation and support development within the Southern Drainage Area. Due to its earlier development in the Facility's history, the Southern Drainage Area also housed the largest concentration of historical operations and facility support services (e.g., Maintenance Area, powerhouse). These historical differences are evident in aquatic HQs from these exposure areas, as discussed below.

7.4.2.1 Northern Aquatic Drainage Area

Copper and lead emerge as having the highest potential for risk in the Northern Drainage Area. Copper and lead concentrations in sediment and surface water yielded HQs greater than one for direct contact exposure scenarios (i.e., benthic invertebrates, and fish and aquatic invertebrates) as well as food web modeling for an upper-trophic-level aquatic bird (i.e., tree swallow). Lead represents the only COPEC with an HQ greater than 10 in the Northern Drainage Area.

Nickel, zinc, and NG have slightly lower HQs than copper and lead. Metals often exist in sediment in one or more insoluble forms (e.g., metal selenides [including copper sulfide and/or zinc sulfide]), thus limiting bioavailability (ATSDR 2003). The presence of metallic complexes in organic-rich sediment would limit the bioavailability of these constituents. The presence of NG to cause potential risk assumes 100 percent bioavailability. In reality, NG occurs at the Facility as a component of solid smokeless

powder grains, and thus is bound in a solid, insoluble matrix with likely limited bioavailability.

7.4.2.2 Southern Aquatic Drainage Area

A similar group of metals emerge as having the greatest potential for ecological risk in the Southern Drainage Area, as well as PAHs. Lead HQs are at least one order of magnitude greater than other metals for both direct contact and food web transfer exposure scenarios. Potential direct contact risks are limited to sediment exposure by benthic invertebrates, with PAHs and lead presenting the greatest potential for risk. Copper, selenium, fluoranthene, and pyrene also pose potential risk to upper-trophic level aquatic wildlife.

7.4.3 COPECs with the Greatest Potential for Risk

The emergence of lead to present potential risk in multiple media and exposure scenarios is not unexpected given the presence of lead in commerce, historical fill, and use of lead in historical Facility operations. Lead possesses non-conductive/non-sparking properties and several buildings were partially lined with lead, as were material conveyances (i.e., pipes, culverts, vessels). Lead used onsite existed primarily in the inorganic form, which is not readily bioavailable and not expected to bioaccumulate (Eisler 1988).

Vegetated wetland features make up the majority of aquatic habitat in the Southern Drainage Area, with intermittent ditches and other drainage features draining wetlands to the large southern wetland complex. Sediment in these wetland habitats is rich in organics (Southern Drainage Area total organic carbon average of 5.8 percent, with a maximum value of 43 percent and many values between 10 and 30 percent in the southern wetland complex). The breakdown of these organics consumes oxygen and results in anoxic sediment conditions.

Together, anoxic (reducing) conditions and available organic carbon yield an environment favorable for binding of metals, rendering them unavailable for uptake by organisms (ITRC 2011). Lead (as well as other divalent metals: copper, cadmium, nickel, zinc, and silver) is subject to binding/ sequestration in the presence of acid volatile sulfide (AVS), often found in anoxic wetland sediment. While food web modeling results identify potential risks related to lead in soil and sediment, the conservative assumptions on which the HQs are based, particularly those related to bioavailability, likely overestimate potential risks. The inorganic forms of lead used

onsite during historical operations, and reducing onsite aquatic habitat conditions likely constrain lead bioavailability, as do other habitat conditions that facilitate metals sequestration (e.g., high organic carbon content).

Historical fill is known to contain PAHs and metals (N.J.A.C. 7:26E – NJDEP TRSR). Historical fill materials were used during early development of the Facility to raise ground surface elevations. The Southern Drainage Area, where both PAHs and metals appear more prevalent in sediment, drains much of the former operational area of the Facility where large amounts of historical fill have been mapped (Hercules 2007, 2016). Surface water drains through shallow ditches cut into the filled valley floor. PAHs and metals in Southern Drainage Area sediments may be influenced by non-Facility-related sources as well. The RI has documented these constituents in stormwater runoff from adjacent roadways (i.e., Route 46 and Howard Boulevard) that directly discharge to a series of ditches in the Southern Drainage Area (Hercules 2007). Physical and chemical conditions onsite, like those outlined above for lead, likely limit bioavailability of these potential secondary risk drivers.

The Facility history, previous reports (Hercules 2007), and CSM (Section 3.1) establish links between the terrestrial and aquatic exposure areas used in this EE/ERA. The RIRs (Hercules 2007) identified lead as a “frequent exceedance” constituent in soil, sediment, and surface water. Thus, the appearance of similar constituents (lead in particular) as potential risk drivers confirms historical findings and further informs an understanding of COPEC fate, transport, and exposure pathways.

8. Uncertainty Analysis

This EE/ERA presents an initial, conservative evaluation of potential risks to ecological receptors by incorporating upper-bound estimates of potential effects and exposure. Therefore, HQs greater than 1 are not considered to be an indication of actual risk, but only that the potential for adverse effects cannot be ruled out. In a risk assessment, a substantial level of uncertainty exists. Sources of uncertainty include:

- Natural variability of ecological systems
- Incomplete knowledge of site-specific fate and transport mechanisms and biological processes
- Use of organism-specific TRVs to evaluate potential population level effects
- Use of generic bioaccumulation factors and models to estimate uptake of COPECs at the Facility

Uncertainties potentially influencing results of the EE/ERA are briefly described below.

8.1 Complexity of Natural Systems

Natural systems are complex and involve the interaction of several physical, chemical, and biological elements. The EE/ERA uses simplifying assumptions to attempt to model these interactions. Direct measurements of COPEC concentrations are used along with information from scientific literature to model the interactions that may be occurring in natural systems. The assumptions made and models used, and how well or poorly these assumptions and models reproduce the interactions taking place in the natural system, introduce uncertainty in the EE/ERA. An effort has been made to use conservative assumptions to bias potential risk to ecological receptors toward overestimation.

8.2 Data Uncertainty

The ERA makes use of the SI/RI dataset collected between 1999 and 2013. These data were collected in support of general site characterization activities; not specifically to assess ecological risk. As such, certain limitations are inherent in the existing dataset that contribute uncertainty to the results of the EE/ERA.

The overall approach of the EE/ERA focuses the assessment on areas of the Facility where potential ecological risk is uncertain. To achieve this focus, data representative of undeveloped areas outside the Remedial Area boundary and data from areas where Hercules is committed to active remediation (Areas of Presumed Remedial Action) to address Facility-related influences were removed from the ERA dataset. The evaluation of potential ecological risk at the Facility using the parsed dataset introduces uncertainty to the process. However, the commitment to implement a remedy protective of human health and the environment in Areas of Presumed Remedial Action addresses ecological risk with a greater degree of certainty than estimating risks via the methods outlined in this EE/ERA. The undeveloped areas beyond the Remedial Area boundary were defined using the SI/RI dataset and a comparison to remediation standards protective of human health. Appendix C quantitatively evaluates these data in the context of potential ecological risk. Addressing these areas via remediation and quantitative assessment reduces potential uncertainties.

Data collected during the SI/RI were analyzed using the standard/commonly accepted analytical method and associated method detection limits. In many cases, the non-detect reporting limits are greater than the ESBs used in this EE/ERA. As such, the presence (and concentration) of those constituents at or below the ESB is unknown, as is the associated contribution to total potential risk. However, given the large datasets that consist of hundreds of samples collected over multiple sampling timeframes, the exclusion of data qualified as non-detect does not impede the spatial evaluation of potential risk across the facility.

Samples collected early in the SI/RI process were analyzed for a full constituent list per regulatory requirements. As the investigation progressed, the analyte list was reduced based on previous findings to focus on Facility-related constituents. Presumably, if the constituents were not analyzed for, detections were below screening standards at the time those decisions were made. This situation contributes a degree of uncertainty to the EE/ERA.

Analytical data resulting from a preliminary investigation of free or residual product (i.e., motor oil, diesel fuel, No. 6 fuel oil, gasoline, hydrocarbons as mineral spirits, and total petroleum hydrocarbons) were reported for six samples in the database. Results were non-detect for these analytes (except motor oil). Motor oil has not been carried forward as a COPEC because it represents a combination of individual PAH constituents represented elsewhere in the dataset, and toxicology information specific to motor oil is not available to support food web modeling.

Finally, the SI/RI sediment dataset represents the 0- to 1-foot sample interval. The BAZ in sediment is generally considered the 0- to 0.5-foot interval, and occasionally extends to the 1 foot-depth based on geochemical conditions in the sediment (e.g., redox potential). Data from the deeper component of the interval may not represent the most recently deposited sediment and/or the BAZ, and may have been deposited decades ago during the Facility's operational history. In this case, the COPEC concentrations in sediment at the sampled depth may overestimate potential ecological risk and reflect an interval of the substrate uninhabited by infaunal biota. Similarly, anoxic sediment conditions, more likely to occur at depth than at the surface, retard the degradation process of COPECs. Thus, COPEC concentrations in sediment between 0.5 and 1 foot may overestimate COPEC concentrations in surface sediment. The correlation of constituent concentrations in sediment between 0.0 to 0.5 and 0.5 to 1 foot is unknown and contributes a degree of conservatism and uncertainty to the EE/ERA.

8.2.1 COPEC Screening Process

The COPEC screening process involved a sequential analysis of the dataset to retain constituents for consideration in the EE/ERA. Constituents detected in at least five samples and that exceeded their respective benchmark (or lacked a screening benchmark) were retained as COPECs. Constituents that were detected in less than five samples were not retained as COPECs. Table 8-1 summarizes statistical information for the constituents with low detection frequencies in each exposure medium. Although some of these constituents have detection limits that are higher than associated screening values, many of these constituents are volatile, can be associated with laboratory techniques, can be tentatively identified compounds, and/or have limited toxicity. Given the size of the site characterization dataset, elimination of these infrequently detected constituents contributes negligible uncertainty to the assessment.

COPEC screening considered the number of detects and maximum detected concentration. Based on the comprehensive nature of the dataset, non-detect reporting limits were not considered in the COPEC selection process. As such, some constituents that were not retained as COPECs possessed a maximum non-detect reporting limit greater than the associated ESB. Thus, the potential exists for this process to underestimate risk. However, inclusion of these data by relying on assumptions regarding the actual concentration that may be present would also introduce significant uncertainty to the assessment, and the overall size and comprehensive nature of the dataset limit the likelihood of these false negatives.

Potential risk associated with several constituents could not be quantitatively evaluated because screening benchmarks were unavailable. A list of commonly used ESB sources were evaluated, as well as constituent- and class-specific peer-reviewed literature and publically available documents, without identifying an appropriate ESB. Little is known about the environmental fate, transport, and/or toxicity for many of these constituents; or the information available indicates that these constituents are unlikely to pose significant risk to ecological receptors. Limited toxicity and/or scientific information for certain constituents (i.e., beryllium, methanol, thallium, and nitrocellulose in sediment) results in some uncertainty, and the magnitude of any potential for risk is unknown.

Beyond a comparison of constituent concentrations to ESB, constituent-specific information was used to further refine the list of COPECs carried through the EE/ERA, as presented below:

- As described in Section 4.1.2, some constituents appeared on multiple analyte lists, resulting in multiple data points at the same location. A combination of technical and regulatory information was used to select the more representative (e.g., accurate and precise) data for use in the EE/ERA.

- The maximum detected concentration of aluminum exceeded its associated generic ESB. Risk guidance (USEPA 2003b) indicates that soluble aluminum in soil can pose a potential risk to ecological receptors, and that soil pH below 5.5 dictates aluminum solubility and therefore bioavailability. As such, information regarding the pH of Facility soil was evaluated prior to retaining aluminum as a COPEC. The 95UCL calculated for Facility soil from field (pH = 5.8) and laboratory samples (pH = 6.1) was greater than 5.5; therefore, aluminum was not retained as a COPEC.

8.2.2 Exposure Point Concentrations

The COPEC screen identified COPECs based on the maximum detected constituent concentration. EPCs used in the food web models were calculated using the 95UCL (or maximum detected concentration in the absence of sufficient data for statistical analysis). The size of the available datasets introduces uncertainty to the development of one point concentration representative of exposures across the entire exposure area. For many COPECs, orders of magnitude differences occur when calculating HQs using the maximum concentration and the 95UCL (Tables 6-1, 6-2, 6-10, and 6-18). While the direction and magnitude of this uncertainty are not completely measurable

across receptor groups, the use of the maximum concentration or the 95UCL may overestimate risk.

8.2.3 Exposure Areas

Field conditions and observations were used to select aquatic exposure areas. Historical drawings provided information on the location of Facility drainage features. Some historical drainage patterns onsite were altered during decommissioning and demolition activities. Intermittent ditches and swales drained stormwater runoff from former process areas. The altered topography following demolition and the increase in the rate of evaporation and transpiration due to the successional vegetation currently occupying these areas, and the potential inability for them to support a benthic invertebrate community, contributes some uncertainty to the evaluation of sediment samples collected in ditches and swales. For the EE/ERA, samples collected from ditches and swales were retained as sediment samples. This represents a conservative approach because sediment screening benchmarks protective of benthic invertebrate communities are generally much lower than those of soil. The uncertainty associated with this decision may result in an overestimation of risk.

The habitat quality within each exposure area varies. In general, natural areas and those forested areas that served as buffers between historical operational areas provide higher quality habitat, while the former operational areas consist of disturbed lands with early successional vegetation and provide habitat of lesser quality. The quality of the habitat is often consistent with the quality of the environmental media within. That is, areas of poorer quality habitat often coincide with areas of former Facility operations and influences, resulting in higher COPEC concentrations and a greater characterization sample density. Conversely, COPEC concentrations and sampling density in buffer areas that often provide higher quality habitat are generally lower. Food web models assume that wildlife receptors spend equal amounts of time in all areas of the Facility. In reality, wildlife receptors may prefer the higher quality habitat for cover, forage resources, and other ecological advantages that it affords. This assumption inherent to the food web models may overestimate risk.

8.2.4 Exposure Parameters

Risk assessment requires assumptions regarding the extent to which organisms are exposed to constituents at the Facility. The exposure parameters used to conduct food web modeling for birds and mammals were selected to represent conservative feeding strategies for each of the selected receptors. These exposure parameters are not

Facility-specific, although an attempt was made to reflect actual Facility conditions to the extent possible. For example, relevant information about regional diet was considered. Site-specific habitat characteristics (e.g., availability, distribution, and quality of food) influence feeding strategies and, therefore, exposure parameters, resulting in uncertainty attributable to the use of generic exposure parameters.

Site use factors were conservatively set at one, indicating that receptor species spent their time foraging exclusively at the Facility. The approach fails to acknowledge receptor-specific behaviors such as seasonal migration and large foraging ranges, and thus may overestimate potential risks.

In addition, receptor species' dietary composition was conservatively assumed to consist of one prey item representing a particular feeding guild. Therefore, herbivorous species were assumed to eat 100 percent plants, insectivorous species 100 percent insects, and carnivorous species 100 percent animal tissue. Further, representative prey item selection was conservative, selecting those prey items more prone to accumulation of COPECs. In particular, the American robin was assumed to eat only invertebrates, with earthworms representing the invertebrate prey items because worms represent the portion of the robin's diet that is most likely to be associated with bioaccumulative compounds. In reality, invertebrates comprise only a fraction of the robin's diet, with worms making up a percentage of that fraction. As a result, the species-specific exposure parameters, and ultimately the dose estimates, presented in this EE/ERA may overestimate actual exposures. More realistic dietary percentages for tree swallow and American robin are provided below:

Receptor	Invertebrates (%)	Vegetation (%)	Reference
Tree swallow	80	20	Beal 1918
American robin	37.5	62.5	USEPA 1993b

8.2.5 Uptake Factors

The EE/ERA used literature-derived BAFs and BSAFs to estimate tissue concentrations for soil/sediment invertebrates, plants, small mammals, and fish tissue. For soil, literature-based BAF models from USEPA (1999 and 2007) were used. For sediment, BSAF data were obtained from the USACE BSAF database (USACE ERDC EL 2011).

Non-site-specific and modeled accumulation factors introduce a high degree of uncertainty. Furthermore, BSAFs are highly variable and dependent upon the species

tested, lipid content of the organism, and organic carbon content of the sediment. Values selected from the USACE BSAF database are based on data collected at different sites and across ranges of species that likely do not reflect uptake under the conditions at the Facility. To date, only non-polar organic compounds have been shown to uphold the relationship between sediment organic content and tissue lipids, and even these constituents show a wide variation in BSAF values (USACE ERDC EL 2011). The direction and magnitude of this uncertainty are not measurable.

8.3 Effects Uncertainty

8.3.1 Bioavailability

Per regulatory guidance (USEPA 1997, NJDEP 2015), this EE/ERA conservatively assumes that COPECs are 100 percent bioavailable to receptors, which is generally not realistic for most constituents, particularly in soil and sediment. The bioavailability of constituents depends on the form originally released, as well as various physical and chemical characteristics of the medium (e.g., soil or sediment). Potential interactions among metals may also influence their bioavailability and uptake to terrestrial organisms.

For example, when absorbed by invertebrates, metals such as lead have been shown to form detoxification products by binding special proteins called metallothioneins (MTs) or by forming salt particulate bodies with sulfur or calcium, sometimes termed metal-rich granules (MRGs). When associated with MTs or MRGs, metals would not cause adverse effects to the organism. There is some evidence indicating that metals within MRGs are not available for trophic transfer to other organisms (USACE ERDC EL 2011; Adams et al. 2010).

Concentrations of certain metals in sediment pore water have been correlated with biological effects (DiToro et al. 1991). For several divalent metals, a key partitioning phase controlling cationic metal activity and toxicity in sediments appears to be AVS (DiToro et al. 1990, 1991; Ankley et al. 1996). Simultaneously extracted metal (SEM) and AVS measurements can be made to assess the potential bioavailability of SEM (including cadmium, copper, lead, nickel, and zinc). In general, the bioavailability of metals decreases as conditions become more reducing and pH, hardness, organic carbon, percent fines, and AVS increase. As discussed in Section 7.4, sediment conditions in aquatic habitats onsite are favorable for metals sequestration.

8.3.2 Explosive and Energetic Compounds

Despite more than 100 years of E&E material production onsite, potential ecological risks related to E&E compounds are generally low. There are several reasons that this could be possible:

- TNT, the most prominent E&E constituent identified in the SI/RI, occurs in one of the Areas of Presumed Remedial Action that will undergo remediation. As such, the TNT data representing the most substantially influenced areas of the Facility were not considered in the EE/ERA. The chemical and biological breakdown of TNT is a source of the DNT and amino-DNT constituents onsite. Thus, these constituents are frequently co-located and, by excluding areas of highest TNT concentrations, the highest concentrations of DNTs and amino-DNTs were removed as well.

- Most E&E compounds will degrade via natural weathering and through time. The Facility was decommissioned between 1996 and 2003; therefore, natural recovery has been occurring at the Facility. In addition, E&E compounds are capable of being metabolized by biological processes and in ecological tissues.

- Many E&E compounds that were detected at the Facility were screened out of media during the COPEC screen. This indicates that E&E compounds have relatively low toxicity to organisms, resulting in higher ESBs.

- Several E&E compounds were carried through the COPEC screen and into the food web models because they lacked ESB. They were then modeled to upper-trophic-level receptors but, because they lack bioaccumulative properties, could not be assessed further.

As a result of the low toxicity/low bioavailability and propensity of E&Es to be metabolized or degraded over time, most E&Es released at the Facility are unlikely to pose potential ecological risk. However, there is some uncertainty for E&E constituents with laboratory detection limits greater than ESB, and/or those for which ESB are unavailable. The effect of this uncertainty on the EE/ERA is unknown.

8.3.3 Toxicity Reference Values

This EE/ERA uses toxicological data that were collected on an individual basis, not at the population level. Therefore, the HQs represent potential risks to single species of

organisms, not to a population or community. However, potential risks were extrapolated to include the entire population as a whole. In general, species selected for study are those with a high degree of sensitivity to the chemical exposure being evaluated, resulting in benchmarks that are protective of sensitive species and conservative when used for the general population.

In addition, the majority of the evaluated toxicity data were derived from laboratory studies conducted in settings that do not mimic true field conditions. Laboratory studies typically control various factors in order to isolate one particular parameter. Although such controlled experiments make it simpler to interpret isolated parameters or relationships, uncertainty is associated with assuming that laboratory exposure conditions are equivalent to in-field exposure conditions. TRVs are typically based on laboratory dosing studies in which highly soluble forms of the COPECs were used. As a result, these toxicity estimates can overestimate the bioavailability, uptake, and ultimate toxicity of a particular COPEC. However, for the EE/ERA, it is assumed that the TRVs represent actual exposures to the receptors evaluated. As such, potential risks are likely overestimated.

The TRV available for PCBs is based on an individual Aroclor (Aroclor 1254). Receptor species sensitivity and associated toxicity varies by Aroclor based on the degree and location of chlorination in the molecular structure. The TRV from Sample et al. (1996) selected for use in this EE/ERA is based on studies using Aroclor 1254, which dominated the literature at that time. Aroclor 1254 is the most prevalent Aroclor identified onsite; therefore, using this TRV for total PCBs is appropriate for this dataset.

9. Conclusions and Recommendations

This EE/ERA provides a conservative assessment of potential ecological risk, focusing on former operational influences in historically developed areas of the Facility. The risk characterization for lower-trophic-level receptors compares COPEC concentrations in exposure media to ESBs. For upper-trophic-level wildlife receptors, the estimated exposure (i.e., daily dietary dose) of each COPEC to potential wildlife receptors is compared to literature-based TRVs. In certain areas, additional evaluations of potential risks refine the conservative nature of the assessment and provide context to the results.

9.1 Conclusions

An interpretation of HQ values relative to each AE and ME is presented below.

- AE 1. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial plant community?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to terrestrial plant communities by exposure to COPECs at the Facility are possible.

  – This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  – This conclusion is supported by the following ME:

    ✓ HQs resulting from a comparison of soil COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for 10 COPECs; HQs

ranged from 2 to 46, with the greatest potential for risk from the metals mercury (46)[5], chromium (23), and vanadium (19).

- AE 2. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial invertebrate community?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to terrestrial invertebrate communities by exposure to COPECs at the Facility are unlikely.

  – This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  – This conclusion is supported by the following ME:

    ✓ HQs resulting from a comparison of soil COPEC concentrations to ESBs protective of terrestrial invertebrates were less than 1 for COPECs, with the exception of copper (3), manganese (6), vanadium (2), and zinc (2).

- AE 3. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

  – Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to herbivorous avian and mammal populations by exposure to COPECs at the Facility are unlikely.

  – This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective)

[5] Calculated HQs are presented in parentheses next to each COPEC to show magnitude of potential to cause adverse effects; in other words, the larger the number, the greater the likelihood that adverse effects are possible.

assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

- This conclusion is supported by the following MEs:

  - ✓ HQ_{LOAELs} for northern bobwhite, an herbivorous bird, are less than 1.
  - ✓ HQ_{LOAELs} for white-tailed deer, an herbivorous mammal, are less than 1.

- AE 4. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to insectivorous avian populations by exposure to COPECs at the Facility are possible, but adverse effects to mammal populations by exposure to COPECs at the Facility are unlikely.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following MEs:

    - ✓ HQ_{LOAELs} for American robin, an insectivorous bird, are less than 1, with the exception of total PCBs (3), copper (3), and lead (25).

    - ✓ HQ_{LOAELs} for short-tailed shrew, an insectivorous mammal, are less than 1, with the exception of lead (3).

- AE 5. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to carnivorous avian and mammal populations by exposure to COPECs at the Facility are unlikely.

- This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

- This conclusion is supported by the following MEs:

  - ✓ HQ_{LOAELs} for red-tailed hawk, a carnivorous bird, are less than or equal to 1.

  - ✓ HQ_{LOAELs} for red fox, a carnivorous mammal, are less than 1.

- AE 6. Could direct contact with COPECs in sediment in each area affect the structure, function, and/or survival of the benthic invertebrate community?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to benthic invertebrate communities by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are possible.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following MEs:

    - ✓ HQs resulting from a comparison of Northern Drainage Area sediment COPEC concentrations to ESBs protective of benthic invertebrates were greater than 1 for 7 COPECs; HQs range from 2 to 6.

    - ✓ HQs resulting from a comparison of Southern Drainage Area sediment COPEC concentrations to ESBs protective of benthic invertebrates were greater than 1 for 22 COPECs; HQs range from 3 to 872.

- AE 7. Could direct contact with COPECs in sediment in each area affect the survival and function of aquatic plant populations?

- Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to aquatic plants in the Northern Drainage Area and Southern Drainage Area are possible, but unlikely.

- This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk and considering ESBs for aquatic plants are based on toxicity to terrestrial plants.

  - This conclusion is supported by the following MEs:

    - ✓ HQs resulting from a comparison of Northern Drainage Area sediment COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for four COPECs; HQs ranged from 2 to 21, with the greatest potential for adverse effects from chromium.

    - ✓ HQs resulting from a comparison of Southern Drainage Area sediment COPEC concentrations to ESBs protective of terrestrial plants were greater than 1 for 15 COPECs; HQs range from 2 to 38, with the greatest potential for adverse effects from lead.

- AE 8. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to fish populations by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are possible, but unlikely.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following measurement endpoint:

- ✓ HQs resulting from a comparison of Northern Drainage Area surface water COPEC concentrations (dissolved phase) to ESBs protective of fish populations were less than 1 for all COPECs, with the exception of copper (3) and lead (4).

- ✓ HQs resulting from a comparison of Southern Drainage Area surface water COPEC concentrations (dissolved phase) to ESBs protective of fish populations were less than 1 for all COPECs, with the exception of lead (3).

- AE 9. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to herbivorous avian and mammal populations by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are possible, but unlikely.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following MEs:

    - ✓ Northern Drainage Area HQ_{LOAELs} for mallard duck, an herbivorous bird, are less than 1.

    - ✓ Northern Drainage Area HQ_{LOAELs} for muskrat, an herbivorous mammal, are less than 1.

    - ✓ Southern Drainage Area HQ_{LOAELs} for mallard duck, an herbivorous bird, are less than 1, with the exception of lead (2).

    - ✓ Southern Drainage Area HQ_{LOAELs} for muskrat, an herbivorous mammal, are less than 1, with the exception of pyrene (2).

- AE 10. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to insectivorous avian and mammal populations by exposure to COPECs in both the Northern and Southern Drainage Areas are possible.

  - This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

  - This conclusion is supported by the following MEs:

    - ✓ Northern Drainage Area HQ_{LOAELs} for tree swallow, an insectivorous bird, are less than 1, with the exception of copper (7) and lead (10).

    - ✓ Northern Drainage Area HQ_{LOAELs} for little brown bat, an insectivorous mammal, are less than or equal to 1, with the exception of copper (3).

    - ✓ Southern Drainage Area HQ_{LOAELs} for tree swallow, an insectivorous bird, are less than 1, with the exception of fluoranthene (3), copper (4), lead (224), and selenium (2).

    - ✓ Southern Drainage Area HQ_{LOAELs} for little brown bat, an insectivorous mammal, are less than or equal to 1, with the exception of fluoranthene (6), pyrene (3), copper (2) lead (26), and selenium (2).

- AE 11. Could food-chain transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammal populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicate that adverse effects to:

    - ✓ Piscivorous avian and mammal populations by exposure to COPECs in the Northern Drainage Area are unlikely.

- ✓ Piscivorous avian populations by exposure to COPECs in the Southern Drainage Area are possible.

- ✓ Piscivorous mammal populations by exposure to COPECs in the Southern Drainage Area are unlikely.

- This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

- This conclusion is supported by the following MEs:

  - ✓ Northern Drainage Area HQ_{LOAELs} for great blue heron, a piscivorous bird, are less than or equal to 1.

  - ✓ Northern Drainage Area HQ_{LOAELs} for mink, a piscivorous mammal, are less than or equal to 1.

  - ✓ Southern Drainage Area HQ_{LOAELs} for great blue heron, a piscivorous bird, are less than 1, with the exception of lead (24).

  - ✓ Southern Drainage Area HQ_{LOAELs} for mink, a piscivorous mammal, are less than 1, with the exception of lead (8).

Overall, potential ecological risks are low. The greatest potential for adverse effects is from lead. Upper-trophic-level receptors in terrestrial (i.e., American robin) and aquatic (i.e., tree swallow, great blue heron, and little brown bat) exposure areas exhibit elevated lead HQs (ranging from 3 [short-tailed shrew] to 227 [tree swallow in Southern Drainage Area]). These results are based on food web modeling that did not incorporate measures of lead bioavailability. Soil and sediment characteristics at the Facility allow for the sequestration and binding of metals, potentially reducing the fraction of lead available for uptake by receptors and reducing the potential for adverse effects. Based on the results presented in this EE/ERA and the uncertainty regarding bioavailability, additional ecological investigation and risk assessment activities at the Facility are warranted.

9.2 Recommendations

Additional ecological risk assessment activities include refining the conservative assumptions upon which modeled results are based to represent more realistic exposure scenarios. As part of this exercise, spatial analysis to define areas within the broader exposure areas with the greatest potential for risk has been conducted. These activities yielded a more realistic assessment with greater resolution and are used to focus additional data collection. As noted throughout this EE/ERA, the bioavailability of COPECs remains unknown and is conservatively assumed to be 100 percent. Understanding the bioavailability of constituents with the greatest potential for risk will be one element of the field program.

Ultimately, these activities will provide a weight-of-evidence approach to refine risk estimates and inform associated risk-based management decisions related to potential ecological risks at the Facility. The methods and results of the desktop activities, as well as proposed elements of a subsequent field program, are provided in an Ecological Risk Assessment Work Plan, presented in Appendix F. The field program will be implemented during the summer (biological field season) in 2016 such that the results can inform ongoing remedial decisions.

10. References

Adams, W., R. Blust, U. Borgmann, K. Brix, D. DeForest, A. Green, J. McGeer, J. Meyer, P. Paquin, P. Rainbow, and C. Wood. 2010. Utility of tissue residues for predicting effects of metals on aquatic organisms. *Integr Environ Assess Manage*. 7(1)75-98.

Ankley, G.T, D.M. DiToro, D.J. Hansen, and W.J. Berry. 1996. Technical Basis and Proposal for Deriving Sediment Quality Criteria for Metals*. Environ. Toxicol. Chem*. 15:2056-2066.

ATSDR. 1995. Toxicological profile for Polycyclic Aromatic Hydrocarbons (PAHs). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

ATSDR. 2003. Toxicological profile for Selenium. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Beal, F. E. L. 1918. Food habits of the swallows, a family of valuable native birds. U.S. Dept. Agric. Bull. 619.

Bechtel-Jacobs. 1998. Empirical Models for the Uptake of Inorganic Chemicals from Soil by Plants. Bechtel Jacobs Company LLC, Oak Ridge, TN. BJC/OR-133.

Beyer, W.N., E.E. Connor, and S. Gerould. 1994. Estimates of soil ingestion by wildlife. *Journal of Wildlife Management.* Vol 58.

Beyer W.N., Franson, J.C., French, J.B., May T., Rattner B.A., Shearn-Bochsler, V.I., Warner, S.E., Weber, J.S., and D.E. Mosby. 2013, Toxic exposure of songbirds to lead in the Southeast Missouri Lead Mining District, *Archives of Environmental Contamination and Toxicology* 10.1007/s00244-013-9923-3.

CH2M HILL. 2005. Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates. Technical Memorandum. Prepared by Mark S. Johnson, USACHPPM. Prepared for Allen Tsao and Brad Sample (CH2M HILL). June 27.

Culp, S. J., Gaylor, D. W., Sheldon, W. G., Goldstein, L. S., and Beland, F. A. 1998. A comparison of the tumors induced by coal tar and benzo(a)pyrene in a 2-year bioassay. *Carcinogenesis.* 19(1): 117-124.

Dhawan, R., D.B. Dusenbery, and P.L. Williams. 1999. Comparison of Lethality, Reproduction, and Behavior as Toxicological Endpoints in the Nematode *Caenorhabditis elegans*; *J. Toxicol. Environ. Health Part A* 58(7): 451-462.

DiToro, D.M., J.D. Mahony, D.J. Hansen, K.J. Scott, M.B. Hicks, S.M. Mayr, and M.S. Redmond. 1990. Toxicity of Cadmium in Sediments: the Role of Acid Volatile Sulfide; *Environ. Toxicol. Chem*. 9:1487-1502.

Di Toro, D.M., C.S. Zarba, D.J. Hansen, W.J. Berry, and J.C. Swartz. 1991. Technical basis for establishing sediment quality criteria for non-ionic organic chemicals using equilibrium partitioning. *Env. Sci. Technol*. 37:735-741.

DTSC. 2002. HERD Ecological Risk Assessment (ERA) Note 5. November.

Efroymson, R.A., M.E. Will, and G.W. Suter II. 1997a. Toxicological Benchmarks for Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Processes: 1997 Revision. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory, TN. ES/ER/TM-126/R2. November.

Efroymson, R.A., M.E. Will, G.W. Suter II, and A.C. Wooten. 1997b. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory, TN. ES/ER/TM-85/R3. November.

Eisler, R. 1986. Polychlorinated biphenyl hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.7). 72 pp.

Eisler, R. 1987a. Polycyclic aromatic hydrocarbon hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.11).

Eisler, R. 1987b. Mercury hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.10).

Eisler, R. 1988. Lead hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85(1.14).

Hercules. 2007. Remedial Investigation Report – Volumes A through E. Prepared for Hercules Incorporated. December 2006 through May 2007.

Hercules. 2009. Additional Groundwater Remedial Investigation Sampling Report. Prepared for Hercules Incorporated. June 2009.

Hercules. 2016. Phase II Remedial Investigation Report – Volumes A through E. Prepared for Hercules Incorporated. May 2016.

ICMM. 2007. MERAG: Metals Environmental Risk Assessment Guidance.

ITRC. 2011. Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites. CS-1. Washington, D.C.: Interstate Technology & Regulatory Council, Contaminated Sediments Team. www.itrcweb.org.

Lotufo, G.R., and J.W. Fleeger. 1996. Toxicity of Sediment-Associated Pyrene and Phenanthrene to *Limnodrilus hoffmeisteri* (Oligochaeta: Tubificidae), *Environ. Toxicol. Chem.*15: 1508-1516.

Mattice, J.S., S.C. Tsai, M.B. Burch, and J.J. Beauchamp. 1981. Toxicity of Trihalomethanes to Common Carp Embryos; *Trans. Am. Fish. Soc.*110(2): 261-269

Meador, J.P., J.E. Stein, W.L. Reichert, and U. Varanasi. 1995. Bioaccumulation of polycyclic aromatic hydrocarbons by marine organisms. *Reviews of Environmental Contamination and Toxicology* 143:79-165.

Meyer, J.S., S.J. Clearwater, T.A. Doser, M.J. Rogaczewski, and J.A. Hansen. 2007. Effects of Water Chemistry on the Bioavailability and Toxicity of Waterborne Cadmium, Copper, Nickel, Lead, and Zinc to Freshwater Organisms. SETAC Press, Pensacola, Florida.

Murata, Y., Denda, A., Maruyama, H., Nakae, D., Tsutsumi, M., Tsujiuchi, M., and Konishi, Y. 1997. Chronic toxicity and carcinogenicity studies of 2-methylnaphthalene in b6c3f1 mice. *Fundam.Appl.Toxicol.* 36(1): 90-93.

Nagy, K.A. 2001. Food requirements of wild animals: predictive equations for free-living mammals, reptiles, and birds. *Nutrition Abstracts and Reviews*, Series B 71, 21R-31R.

Natural Resources Conservation Service. 1976. Soil Survey of Morris County.

NJDEP. 2005. HUC14 Subwatershed Mapping GIS Dataset. Available for download here: http://www.state.nj.us/njhighlands/gis/downloads/.

NJDEP. 2009. Ecological Screening Criteria Table. NJDEP – Site Remediation Program – Environmental Toxicology and Risk Assessment Unit. Last Updated March 10, 2009.

NJDEP. 2014. Application for Certification of Environmental Measurements, Part III – Analytical Testing Parameters. Office of Quality Assurance. July 23.

NJDEP. 2015. Ecological Evaluation Technical Guidance. Site Remediation Program. Version 1.3. February.

Pascoe, G.A., K. Kroeger, D. Leisle, and R.J. Feldpausch. 2010. Munition constituents: Preliminary sediment screening criteria for the protection of marine benthic invertebrates. *Chemosphere.* 81: 807-816.

Pastorak, R.A., D.C. Peek, J.R. Sampson, and M.A. Jacobson. 1994. Ecological risk assessment for river sediments contaminated by creosote. *Envir. Tox. Chem*. 13: 1929-1942.

Patton, J.F., and M.P. Dieter. 1980. Effects of petroleum hydrocarbon on hepatic function in the duck. *Comp. Biochem. Physiol*. 65C: 33-36.

Persaud, D., R. Jaaguagi, and A. Hayton. 1993. Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario. Ontario Ministry of the Environment. March.

Pucknat, A.W. (ed.). 1981. Health impacts of polynuclear aromatic hydrocarbons. Environmental Health Review No. 5. Noyes Data Corp., Park Ridge, New Jersey. 271 pp.

Rice, S.D. 1973. Toxicity and avoidance tests with Prudhoe Bay oil and pink salmon fry Proceedings, Joint Conference on the Prevention and Control of Oil Spills API 4172 American Petroleum Institute, Washington, DC, pp 667–670.

Sample, B.E., and G.W. Suter II. 1994. Estimating Exposure of Terrestrial Wildlife to Contaminants. DRAFT. Prepared by Environmental Sciences Division Oak Ridge National Laboratory Oak Ridge, Tennessee. Prepared for U.S. Department of Energy Office of Environmental Restoration and Waste Management under budget and reporting code EW 20. ES/ER/TM-125.

Sample, B.E., D.M. Opresko, and G.W. Suter II. 1996. Toxicological Benchmarks for Wildlife: 1996 Revision. Prepared by the Risk Assessment Program Health Sciences Research Division. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-86/R3.

Sample, B.E, J.J. Beauchamp, R.A. Efroymson, G.W. Suter II, and T.L. Ashwood. 1998a. Development and Validation of Bioaccumulation Models for Earthworms. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-220.

Sample, B.E., J.J. Beauchamp, R.A. Efroymson, and G.W. Suter II. 1998b. Development and Validation of Bioaccumulation Models for Small Mammals. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-219.

Schafer, E.W., Jr., and W.A. Bowles, Jr. 1985. Acute Oral Toxicity and Repellency of 933 Chemicals to House and Deer Mice; *Arch. Environ. Contam. Toxicol.* 14(1): 111-129.

Sunahara, G.I., G. Lotufo, R.G. Kuperman, and J. Hawari. 2009. *Ecotoxicology of Explosives*. CRC Press. Boca Raton, FL.

Suter II, G.W. 2007. *Ecological Risk Assessment*. CRC Press. Taylor & Francis Group. Boca Raton, FL.

Sverdrup, L.E., P.H. Krogh, T. Nielsen, C. Kjær, and J. Stenersen. 2003. Toxicity of eight polycyclic aromatic compounds to red clover (*Trifolium pratense*), ryegrass (*Lolium perenne*), and mustard (*Sinapsis alba*). *Chemosphere* 53:993-1003.

Talmage, S.S., D.M. Opresko, C.J. Maxwell, C.J. Welsh, F.M. Cretella, P.H. Reno, and F.B. Daniel. 1999. Nitroaromatic Munition Compounds: Environmental Effects and Screening Values. *Rev Environ Contam Toxicol* 161:1-156.

Texas Tech University (Texas Tech). 2002. Wildlife Monitoring at the Anaconda Smelter Site, Deer Lodge County, Montana. Final Report. Presented to: Dr. Bill Olsen, USFWS and Dr. Dale Hoff, USEPQ Region 8. August 16.

Trust, K. A., Fairbrother, A., and Hooper, M. J. 1994. Effects of 7,12-dimethylbenz(a)anthracene on immune function and mixed-function oxygenase activity in the European starling. *Environmental Toxicology and Chemistry*. 13(5): 821.

USACHPPM. 2001a. Wildlife Toxicity Assessment for 2,4,6-trinitrotoluene (TNT). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2001b. Wildlife Toxicity Assessment for Pentaerythritol Tetranitrate (PETN). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2001c. Wildlife Toxicity Assessment for High Melting Explosive (HMX). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACHPPM. 2012. Wildlife Toxicity Assessment for 2,4 &2,6-Dinitrotoluene. Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. May.

USACHPPM. 2007. Wildlife Toxicity Assessment for Nitroglycerin (NG). Prepared by Health Effects Research Program Environmental Health Risk Assessment Program. November.

USACE ERDC EL. 2011. BSAF Database. http://el.erdc.usace.army.mil/bsafnew/bsaf.html. Accessed: 2/8/11, Charles H. Lutz, editor. U.S. Army Engineer Research and Development Center.

USEPA. 1989. Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part A). Interim Final, EPA/540/1-89/002. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. Available online: http://www.epa.gov/superfund/programs/risk/ragsa/.

USEPA. 1991. Guidance for Data Useability in Risk Assessment (Part A) Final. EPA/540/R-92/003. December. Available online: https://rais.ornl.gov/documents/USERISKA.pdf

USEPA. 1992a. Framework for Ecological Risk Assessment. Risk Assessment Forum, Washington, DC.EPA/630/R-92/001. February 1992.

USEPA.1992b. A Supplemental Guidance to RAGS: Calculating the Concentration Term. Publication 9285.7-081. Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available online: http://www.deq.state.ms.us/newweb/opchome.nsf/pages/HWDivisionFiles/$file/uclmean.pdf.

USEPA. 1993a. Memorandum from Martha G. Prothro, Acting Assistant Administrator for Water, to Water Management Division Directors RE Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria. October 1.

USEPA. 1993b. Wildlife Exposure Factors Handbook. Volumes I and II. United States Environmental Protection Agency, Washington, D.C. EPA/600/R-93/187a&b.

United States Environmental Protection Agency. 1994. Great Lakes Water Quality Initiative Technical Support Document for the Procedure to Determine Bioaccumulation Factors. EPA-822-R-94-002.

USEPA. 1997. Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments. EPA 540-R-97-006. Office of Solid Waste and Emergency Response. June.

USEPA. 1998. Guidelines for Ecological Risk Assessment. Risk Assessment Forum. EPA/630/R-95/002F. April.

USEPA. 1999. Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Appendices C through E.

USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

USEPA. 2002. Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10. December.

USEPA. 2003a. Ecological Screening Levels. Region 5, Resource Conservation and Recovery Act.

USEPA. 2003b. Ecological Soil Screening Level for Aluminum. OSWER Directive 9285.7-60

USEPA. 2003c. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC. EPA/600/R-02/013. Available at: http://www.epa.gov/nheerl/publications/files/PAHESB.pd

USEPA. 2006. Mid-Atlantic Freshwater and Freshwater Sediment Screening Benchmarks. Available at: http://www.epa.gov/reg3hwmd/risk/eco/btag/sbv/fwsed/screenbench.htm

USEPA. 2007a. Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs). Including Attachment 4-1. Exposure Factors and Bioaccumulation Models for Derivation of Wildlife Eco-SSLs. Office of Solid Waste and Emergency Response. http://www.epa.gov/ecotox/ecossl/.

USEPA. 2007b.Ecological Soil Screening Level for Polycyclic Aromatic Hydrocarbons (PAHs). OSWER Directive 9285.7-78.

USEPA. 2009. National Recommended Water Quality Criteria. Office of Water. Office of Science and Technology. Online at _http://www.epa.gov/ost/criteria/wqctable/.

USEPA. 2010. ProUCL Version 4.1.00. Technical Guide (Draft) May. EPA/600/R-07/041.

Van den Berg, M., Birnbaum, L., Bosveld, ATC., 1998. Toxic equivalency factors (TEFs) for PCBs, PCDDs, and PCDFs for humans and wildlife. *Environ. Health Perspect.* 106, 775–792.

Van den Berg, M., Birnbaum, L., Denison, M., et al., 2006. The 2006 World Health Organization re-evaluation of human and mammalian toxic equivalency factors for dioxin and dioxin-like compounds. *Toxicol.* Sci. 93, 223–241.

Varanasi U, Reichert WL, Stein JE, et al. 1985. Bioavailability and biotransformation of aromatic hydrocarbons in benthic organisms exposed to sediment from an urban estuary. *Environ Sci Technol* 19:836-841.

Verbruggen, E.M.J., R. Posthumus, and A.P. van Wezel. 2001. Ecotoxicological Serious Risk Concentrations for soil, sediment, and (ground)water: updated proposals for first series of compounds. RIVM report 711701 020. April.

Wittig, R., H.J. Ballach, and A. Kuhn. 2003. Exposure of the Roots of *Populus nigra* L. cv. Loenen to PAHs and Its Effect on Growth and Water Balance. *Environ. Sci. Pollut. Res. Int.*10(4): 235-244.

TABLES

Table 2-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Terrestrial Habitats					
				Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Upland Deciduous (Oak/Hickory) Forest	Mixed Hardwood Forests	Red Pine Stands	Disturbed Shrubland	Disturbed Grassland/Forb Complex	Landscaped Areas
Tree									
Acer rubrum	red maple	FAC	FAC	X	X*	X	X		
Acer saccharum	sugar maple	FAC, FACW	FACW	X					
Ailanthus altissima	tree of heaven	FACU	NI		X		X	X	
Betula lenta	black birch	FACU	FACU	X		X	X		
Betula populifolia	grey birch	FAC	FAC	X				X	
Carya glabra	pignut hickory	FACU-, FACU	FACU-	X				X	
Carya ovata	shagbark hickory	FACU-, FACU+	FACU-					X	
Carya tomentosa	mockernut hickory	NL	NL	X		X			
Catalpa speciosa	catalpa	FACU, FAC	FAC					X	
Cornus florida	flowering dogwood (understory)	FACU-, FACU	FACU-	X					
Fraxinus pennsylvanica	green ash	FAC, FACW	FACW					X	
Juglans nigra	black walnut	FACU	FACU					X	
Juniperus virginiana	eastern red cedar	FACU-, FACU	FACU					X	
Pinus resinosa	red pine	FACU	FACU	X		X*		X	
Pinus rigida	pitch pine	FACU-, FACU	FACU	X	X				
Pinus strobus	white pine	FACU	FACU				X	X	
Populus deltoides	eastern cottonwood	FAC, FACW	FAC				X	X	X
Populus tremuloides	quaking aspen	NL	NL		X				
Prunus serotina	wild black cherry	FACU	FACU		X	X		X	
Prunus virginiana	chokecherry	FACU-, FAC	FACU			X			
Quercus alba	white oak	FACU-, FACU+	FACU-	X	X	X		X	
Quercus palustris	pin oak	FAC, FACW	FACW		X				
Quercus prinus	chestnut oak	UPL, FACU-	UPL	X*			X	X	
Quercus rubra	red oak	FACU-, FACU+	FACU-	X	X	X		X	
Quercus velutina	black oak	NL	NL	X					
Rhus glabra	smooth sumac	NA	NA		X		X		X
Robinia pseudoacacia	black locust	UPL, FAC	FACU-		X			X	
Sassafras albidum	sassafras	FACU-, FACU	FACU-		X		X		
Tilia americana	American basswood	FACU	FACU	X	X				
Tsuga canadensis	eastern hemlock	FACU	FACU	X	X				
Shrub									
Berberis thunbergii	Japanese barberry	UPL, FACU	FACU	X*	X*	X*	X		
Betula lenta	black birch seedling	FACU	FACU				X		
Elaeagnus umbellata	autumn olive	NL	NL		X		X		
Gaylussacia baccata	black huckleberry	FACU	FACU	X*	X*		X*		
Gaylussacia frondosa	dangleberry	NA	NA				X		
Rubus flagellaris	common dewberry	NL	NL				X	X*	
Rubus phoenicolasius	wineberry	NL	NL		X*				
Rubus spp.	blackberry	NA	NA			X	X		X

Table 2-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Terrestrial Habitats					
				Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	**Common Name**	**National Indicator**	**Region 1 Indicator**	**Upland Deciduous (Oak/Hickory) Forest**	**Mixed Hardwood Forests**	**Red Pine Stands**	**Disturbed Shrubland**	**Disturbed Grassland/Forb Complex**	**Landscaped Areas**
Sambucus canadensis	elderberry	NA	NA		X		X		
Spirea spp.	spirea	NA	NA		X		X	X	
Vaccinium corymbosum	highbush blueberry	FACW-, FACW	FACW-	X			X		
Zanthoxylum clava-herculis	hercules club	NL	NL	X		X			
Herbaceous									
Achillea millefolium	yarrow	UPL, FACU	FACU		X			X*	
Adiantum pedatum	maiden hair fern	FACU, FAC	FAC-	X					
Ageratina altissima	white snakeroot	UPL, FAC	FACU-		X				
Agrostis alba	red top	FACW, OBL	FACW					X*	
Andropogon gerardii	big bluestem	FACU, FAC	0					X	
Apocynum androsaemifolium	spreading dogbane	NL	NL		X		X	X*	
Asclepias syriaca	common milkweed	NL	NL					X	X
Asclepias tuberosa	butterfly weed	NL	NL					X	
Bidens spp.	bidens	NA	NA		X		X		
Bryophyta spp.	moss	NA	NA				X		
Carex vulpinoidea	fox sedge	OBL	OBL				X		
Centaurea spp.	knapweed	NA	NA						X
Centaurea stoebe	spotted knapweed	NA	NA					X*	
Chimaphila maculata	striped wintergreen	NA	NA	X					
Cimicifuga spp.	snakeroot	NA	NA		X		X		
Cirsium arvense	Canada thistle	FACU-, FAC	FACU					X	X
Dactylis glomerata	orchard grass	UPL, FACU+	FACU				X		
Daucus carota	Queen Anne's lace	NL	NL					X*	
Dennstaedtia punctilobula	hey-scented fern	NL	NL	X*	X*	X*	X		
Desmodium ciliare	hairy small-leaved tick treefoil	NL	NL				X		
Equisetum spp.	horsetail (unbranched)	NA	NA					X*	
Erigeron strigosus	daisy fleabane	FACU, FAC	FACU+				X		
Hypericum perforatum	St. John's Wort	NA	NA						X
Juncus effusus	common rush	FACW+, OBL	FACW+				X		
Lespedeza spp.	bush clover	NA	NA					X	
Leucanthemum vulgare	common oxeye daisy	NL	NL					X*	
Linaria vulgaris	butter and eggs	NL	NL					X*	
Lotus scoparius	deerweed	NL	NL					X*	
Matteuccia struthiopteris	ostrich fern	FACW	FACW	X	X				
Medicago lupulina	black medick	UPL, FAC	UPL					X*	
Microstegium vimineum	Japanese stiltgrass	NA	NA		X	X	X		
Panicum clandestinum	deer tongue panicum	NL	NL		X*	X	X	X*	
Panicum virgatum	switchgrass	UPL, FACW	FAC		X		X	X*	
Phleum pratense	timothy grass	FACU	FACU					X	
Phlox paniculata	fall phlox	FACU, FAC	FACU		X				

Table 2-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Terrestrial Habitats					
				Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
Scientific Name	**Common Name**	**National Indicator**	**Region 1 Indicator**	**Upland Deciduous (Oak/Hickory) Forest**	**Mixed Hardwood Forests**	**Red Pine Stands**	**Disturbed Shrubland**	**Disturbed Grassland/Forb Complex**	**Landscaped Areas**
Phragmites australis	common reed	FACW, OBL	FACW				X	X	
Phytolacca americana	pokeberry	FACU+, FAC	FACU+		X		X		
Plantago lanceolata	narrow leaf plantain	UPL, FACW	UPL		X				
Polystichum acrostichoides	christmas fern	UPL, FAC	FACU-	X					
Pteridium aquilinum	bracken fern	FACU-, FAC-	FACU		X		X		
Rudbeckia hirta	black-eyed susan	FACU-, FACU	FACU-					X	
Scirpus cyperinus	woolgrass	FACW+, OBL	FACW+		X*				
Solanum carolinense	horse nettle	UPL, FACU	UPL				X		
Solidago spp.	goldenrod	NA	NA		X				X
Symplocarpus foetidus	skunk cabbage	OBL	OBL	X					
Verbascum blattaria	moth mullein	UPL, FACW	UPL				X	X	
Verbascum thapsus	common mullein	NL	NL				X	X	X
Woody Vine									
Parthenocissus quinquefolia	Virginia creeper	FACU, FAC	FACU	X					
Polygonum perfoliatum	mile-a-minute	FAC	FAC*		X		X		X
Rosa multiflora	multiflora rose	UPL, FACU	FACU		X		X	X*	X
Smilax spp.	catbriar	NA	NA	X	X				
Solanum dulcamara	bittersweet nightshade	FACU, FAC+	FAC-		X				
Toxicodendron radicans	poison ivy	FACU, FACW	FAC	X		X			
Vicia americana	American vetch	FAC?	NI					X*	X
Vitus spp.	wild grape	NA	NA		X*		X		

Table 2-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Aquatic and Wetland Habitats			
				Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Forested Wetland	Emergent Wetland		
Tree							
Acer rubrum	red maple	FAC	FAC	X*	X		X
Acer spp.	maple	NA	NA		X		
Betula lenta	black birch	FACU	FACU	X	X		
Betula nigra	river birch	FACW, OBL	FACW				X
Betula papyrifera	white birch	FACU, FACU+	FACU		X		
Betula populifolia	grey birch	FAC	FAC	X			
Carya spp.	hickory	NA	NA	X			
Carya tomentosa	mockernut hickory	NL	NL	X			
Fraxinus pennsylvanica	green ash	FAC, FACW	FACW	X			
Juglans nigra	black walnut	FACU	FACU	X			
Nyssa sylvatica	blackgum	FAC	FAC	X	X		
Pinus resinosa	red pine	FACU	FACU	X			
Populus deltoides	eastern cottonwood	FAC, FACW	FAC		X		
Prunus serotina	wild black cherry	FACU	FACU	X			
Prunus virginiana	chokecherry	FACU-, FAC	FACU	X			
Quercus alba	white oak	FACU-, FACU+	FACU-	X			
Quercus bicolor	swamp white oak	FACW+, OBL	FACW+	X			
Quercus coccinea	scarlet oak	NL	NL	X			
Quercus palustris	pin oak	FAC, FACW	FACW	X	X		X
Quercus rubra	red oak	FACU-, FACU+	FACU-	X			
Quercus spp.	oak	NA	NA	X			
Rhus glabra	smooth sumac	NA	NA		X		
Robinia pseudoacacia	black locust	UPL, FAC	FACU-		X		
Salix nigra	black willow	UPL, OBL	FACW+		X		X
Salix sepulcralis	weeping willow	0	0		X		
Sassafras albidum	sassafras	FACU-, FACU	FACU-	X			
Tilia americana	American basswood	FACU	FACU	X			
Ulmus americana	American elm	FAC, FACW	FACW-	X			
Shrub							
Berberis thunbergii	Japanese barberry	UPL, FACU	FACU	X	X		
Cephalanthus occidentalis	button bush	NA	NA		X		X
Clethra alnifolia	sweet pepperbush	FAC+, FACW	FAC+	X			
Elaeagnus umbellata	autumn olive	NL	NL	X	X		
Gaylussacia baccata	black huckleberry	FACU	FACU	X*			
Gaylussacia frondosa	dangleberry	NA	NA	X*			
Rhododendron viscosum	swamp azalea	FACW+, OBL	OBL	X			
Rubus flagellaris	common dewberry	NL	NL		X		
Rubus phoenicolasius	wineberry	NL	NL		X		
Rubus spp.	blackberry	NA	NA	X			
Spirea spp.	spirea	NA	NA	X	X		
Vaccinium angustifolium	lowbush blueberry	FACU-, FACU	FACU-	X			
Vaccinium corymbosum	highbush blueberry	FACW-, FACW	FACW-	X*	X		

Table 2-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Aquatic and Wetland Habitats			
				Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	National Indicator	Region 1 Indicator	Forested Wetland	Emergent Wetland		
Herbaceous							
Agrostis alba	red top	FACW, OBL	FACW		X		
Andropogon gerardii	big bluestem	FACU, FAC	NA		X		
Apocynum androsaemifolium	spreading dogbane	NL	NL		X		X
Arisaema triphyllum	jack in the pulpit	FAC, FACW	FACW-	X			
Asclepias incarnata	swamp milkweed	FACW+, OBL	OBL		X		
Asclepias syriaca	common milkweed	NL	NL		X		
Aster spp.	unknown aster	NA	NA		X		
Athyrium filix-femina	lady fern	FAC, FAC+	FAC	X	X		
Bidens spp.	bidens	NA	NA		X		
Boehmeria cylindrica	false nettle	FACW, OBL	FACW+	X	X		
Brasenia schreberi	watershield	OBL	OBL				X
Carex lupulina	hop sedge	FACW+, OBL	OBL		X		
Carex lurida	lord sedge	NA	NA		X		
Carex spp.	sedge	NA	NA		X		
Carex stricta	tussex sedge	OBL	OBL	X			
Carex vulpinoidea	fox sedge	OBL	OBL		X		
Chimaphila maculata	striped wintergreen	NA	NA	X			
Convolvulus arvensis	bindweed	NA	NA	X			
Dennstaedtia punctilobula	hey-scented fern	NL	NL	X	X		
Dulichium arundinaceum	threeway sedge	OBL	OBL		X		
Eleocharis spp.	spikerush	NA	NA		X		X
Elodea spp.	waterweed	NA	NA				X
Euthamia graminifolia	long-leaved goldenrod	NA	NA		X		
Gallium spp.	bedstraw	NA	NA	X			
Impatiens capensis	jewelweed	FACW, FACW+	FACW	X			
Iris pseudacorus	yellow iris	OBL	OBL		X		
Juncus effusus	common rush	FACW+, OBL	FACW+		X		
Juncus spp.	juncus	NA	NA		X		
Justicia americana	water willow	OBL	OBL		X		X
Lemna minor	duckweed	OBL	OBL	X	X		
Lolium spp.	ryegrass	NA	NA		X		X
Lythrum salicaria	purple loosestrife	FACW+, OBL	FACW+	X			
Matteuccia struthiopteris	ostrich fern	FACW	FACW	X	X*		
Mentha spp.	mint	NA	NA		X		X
Microstegium vimineum	Japanese stiltgrass	NA	NA		X		
Mimulus spp.	monkey flower	NA	NA		X		X
Monotropa uniflora	indianpipe	UPL, FACU	FACU-	X			
Nasturtium officinale	watercress	OBL	OBL	X			
Nuphar lutea	spaderdock	OBL	OBL		X		X
Nymphaea odorata	fragrant lily	OBL	OBL				X
Onoclea sensibilis	sensitive fern	FACW	FACW	X			
Osmunda claytoniana	interrupted fern	FAC, FAC+	FAC	X			
Osmunda regalis	royal fern	OBL	OBL	X	X		

Table 2-1
Plant Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Vegetation[1]		USFWS Hydrophytic Classification		Aquatic and Wetland Habitats			
				Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	**Common Name**	**National Indicator**	**Region 1 Indicator**	**Forested Wetland**	**Emergent Wetland**		
Panicum clandestinum	deer tongue panicum	NL	NL	X	X		
Panicum virgatum	switchgrass	UPL, FACW	FAC		X		
Phalaris arundinacea	reed canary grass	FACW, OBL	FACW+	X*	X		
Phlox paniculata	fall phlox	FACU, FAC	FACU		X		
Phragmites australis	common reed	FACW, OBL	FACW	X	X*		X
Plantago lanceolata	narrow leaf plantain	UPL, FACW	UPL		X		
Polygonum spp.	smartweed	NA	NA		X		X
Schoenoplectus acutus	hard stem bulrush	NL	NL		X		X
Schoenoplectus tabernaemontani	softstem bulrush	OBL	OBL	X			
Scirpus cyperinus	woolgrass	FACW+, OBL	FACW+	X	X		X
Sparganium spp.	sparganium	NA	NA		X		X
Symplocarpus foetidus	skunk cabbage	OBL	OBL	X	X		
Typha spp.	cattail	NA	NA	X*	X		X
Urtica dioica	stinging nettle	FACU, FACW	FACU		X		
Verbascum blattaria	moth mullein	UPL, FACW	UPL		X		
Verbascum thapsus	common mullein	NL	NL		X		
Verbena hastata	blue vervain	NA	NA		X		
Woody Vine							
Lygodium palmatum	climbing fern	FACW-, FACW	FACW	X	X		
Parthenocissus quinquefolia	Virginia creeper	FACU, FAC	FACU	X	X		
Rosa multiflora	multiflora rose	UPL, FACU	FACU	X			
Solanum dulcamara	bittersweet nightshade	FACU, FAC+	FAC-	X			
Toxicodendron radicans	poison ivy	FACU, FACW	FAC	X	X		
Vitus spp.	wild grape	NA	NA	X	X		

Notes:

[1] Species observations made during July 2010 and July 2011 habitat characterizations.

X* = Dominant species

USFWS = United States Fish and Wildlife Service

The following are the USFWS hydrophytic classifications for the observed species:

OBL = a plant species generally (>99% of the time) only found in wetlands under natural conditions

FACW = a plant species usually (>66% to 99% of the time) found in wetlands, but which may be found occasionally in uplands under natural conditions

Note: a negative sign (-) indicates a species less frequently found in wetlands, a positive sign (+) indicates a species more frequently found in wetlands, and a star sign (*) indicates a tentative status.

FAC = a plant species sometimes (>33% to 66% of the time) found in wetlands, but which may also be found commonly in uplands

FACU = a plant species seldom (<33% of the time) found in wetlands, but which may also be found commonly in uplands

UPL = a plant species generally (>99% of the time) found only in uplands under natural conditions

NL = a plant species that is not listed

NI = insufficient information was available to determine an indicator status

NA = not available

Table 2-2
Wildlife Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Wildlife[1]		Terrestrial Habitats					
Scientific Name	Common Name	Terrestrial Forest Areas			Terrestrial Scrub/Shrub and Terrestrial Open Field Areas		Terrestrial Miscellaneous Areas
		Upland Deciduous (Oak/Hickory) Forest	Mixed Hardwood Forests	Red Pine Stands	Disturbed Shrubland	Disturbed Grassland/ Forb Complex	Landscaped Areas
Birds							
Buteo jamaicensis	red-tailed hawk					X	
Cardinalis cardinalis	cardinal					X	
Hirundo rustica	barn swallow					X	
Mimus polyglottos	mocking bird	X			X	X	
Tachycineta bicolor	tree swallow					X	
Dumetella carolinensis	catbird				X		
Accipiter	sparrow hawk					X	
Insects							
Papilio glaucus	yellow swallowtail					X	
Danaus plexippus	monarch butterfly	X			X	X	
Lepidoptera	butterflies					X	
Phoebis sennae	yellow sulphur butterfly					X	
Mammals							
Odocoileus virginianus	deer	X				X	X
Tamias striatus	chipmunk					X	

Table 2-2
Wildlife Species Observations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Wildlife[1]		Aquatic and Wetland Habitats			
		Onsite Wetlands		Aquatic Flowing Areas	Aquatic Non-Flowing Areas
Scientific Name	Common Name	Forested Wetland	Emergent Wetland		
Birds					
Cynocitta cristata	blue jay	X			
Turdus migratorius	American robin	X			
Dumetella carolinensis	catbird	X	X		
Anas platyrhynchos	mallard	X			X
Insects					
Anisoptera	dragonfly	X			
Mammals					
Leporidae	rabbit	X			
Odocoileus virginianus	deer	X	X		
Canis latrans var	coyote	X			
Marmota monax	ground hog				X
Reptiles/Amphibians					
Rana clamitans melanota	green frog	X			
Bufo americanus	American toad	X			

Notes:

[1] Species observations made during a July 2010 and July, 2011 habitat characterization.

X = individual observed, specific activity not noted

Table 3-1 - Areas of Presumed Remedial Action
Ecological Evaluation / Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

	Area of Presumed Remedial Action	History	Fate and Transport	Remedial Objective
Tier I	TNT Area (conglomerate of adjacent areas of concern)	One of the earliest developed portions of the Facility as well as the Facility of one of the most powerful explosions in the history of the Facility. This area of the Facility produced explosives for more than a century; during this period operational procedures and incidental release of materials affected soil and groundwater quality. Areas of stressed vegetation, as well as areas devoid of vegetation (former footprint of Building 666 that exploded in 1917) are visible. Stained soil and discolored water have been observed in a former lagoon area (depression in ground surface) where overburden groundwater interacts with surface soil and discharges becoming surface water.	Constituent distribution in this areas occurred primarily during process upsets (e.g., explosions, spills). Following these incidents, the ground surface was leveled and new structures built, these activities further distributed source material (e.g., crystalline TNT, inorganic lead chunks) into the upper few feet of the soil column. Over time, precipitation mobilized constituents in soil to groundwater. TNT in soil influences groundwater quality in this area of the Facility. Groundwater discharges to the southern wetland complex adjacent to the Dynamite/TNT area. The absence of source area constituents in these wetland features is likely related to strong reducing conditions in sediment and associated biological degradation of dissolved phase constituents as groundwater discharges through the sediment. In the southwestern corner of the Facility, TNT in groundwater migrates offsite, however, the plume is delineated beneath a shopping plaza parking lot and no exposure pathway linking TNT in groundwater to offsite ecological receptors exists.	Hercules is evaluating a combination of source removal, bioremediation, and monitored natural attenuation to address constituent concentrations (primarily TNT and its breakdown products) in this area.
Tier II	Ammonium Nitrate Area – Former Burning Ground and intervening areas of concern (H12-237, H13-1, H13-7)	From the beginning of production onsite through the end of WWI, off-specification product and residual materials were transported via rail car to the WWI Burning Grounds (near the AN Area and wastewater treatment plant). The contents of the rail car were emptied down a slope where the materials were incinerated in place on the ground surface. Currently, the area supports sparse vegetation and the ground surface contains a non-combustible fraction of the waste materials (e.g., ceramic, metal) and related constituents in soil (e.g., metals, PAHs).	Given the surficial nature of the activities conducted in this area, debris and constituents in soil do not extend beyond the surface soil. No interaction with groundwater is evident, and would not be expected based on the topography of the area and associated groundwater table elevations. In the absence of vegetation, erosion of surficial soil is possible and may result in localized transport of constituents at/near the perimeter of the area of concern.	The presumptive remedy for this area involves excavation of soil and comingled debris, backfilling with clean fill and restoration of vegetative cover. Excavated material may be disposed of offsite or consolidated and contained elsewhere onsite. Additional study is needed to guide final disposition of the excavated material.
	B-Line Area – Disposal Area (M8-1)	This area served as a disposal area for solid waste materials during the period of increased production surrounding World War II (WWII). The area currently consists of a low-lying depression with visible surface debris. Vegetation is moderate to sparse and consists of grasses and shrubs. The area occurs between Duck Pond and an emergent/forested wetland complex.	The groundwater table is at or near the ground surface in this areas throughout the year. The material disposed of consists of empty metal containers, concrete debris, and off-spec fiberglass motor housings. This debris, while potentially emplaced below the groundwater table, are not expected to contain constituents that would leach to groundwater. Groundwater monitoring wells in proximity to the disposal area confirm this expectation.	The presumptive remedy will include a combination of removal and offsite disposal, debris consolidation and capping while minimizing disturbance to freshwater wetlands. Pre-design investigation activities will include test pitting to refine the perimeter of the disposal area and further characterize the emplaced material.
	Diazo Pond (H8-1)	The Diazo Pond is a remnant operational feature located in the Diazo Area. Historical diazo production processes generated a spent acid sludge that was neutralized via a sodium hydroxide bath and then disposed of in a shallow man-made lagoon (pond). Over time the production process changed and the sludge was managed to reclaim/reuse certain production materials rather than being disposed of. The pond area was covered with soil. SI test pit investigations identified layers of sludge comingled with soil in the location of the former disposal pond.	Constituents present in the spent acid sludge are generally immobile and bound in the sludge/soil mixture. This area is abutted by other upland areas of the Facility and the depth of the sludge/soil mixture does not extend into the groundwater table. Related constituents have not been identified above applicable standards in downgradient groundwater monitoring wells.	Analytical testing indicates that the sludge contains metals and PAHs at levels consistent with other areas of former operations. However, the sludge creates additional geotechnical stability concerns associated with future reuse of this area of the Facility. Additional investigation of the physical and chemical properties of the soil/sludge mixture are underway. The results of these studies will inform design of an appropriate remedy. Reuse onsite following dewatering/stabilization may represent a viable option, as does excavation and disposal at a licensed offsite facility.

Table 3-1 - Areas of Presumed Remedial Action
Ecological Evaluation / Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

	Area of Presumed Remedial Action	History	Fate and Transport	Remedial Objective
Tier II (cont.)	B-Line Area - Dinitrotoluene (DNT) Heater House (L11-2091)	During demolition of Facility structures crystalline DNT was identified within the concrete walls and slab of the DNT Heater House. DNT in the concrete rubble and soil represents a source of DNT to surrounding soil and groundwater.	Crystalline DNT is soluble and migrates readily through the soil column to groundwater via precipitation/infiltration. Soil samples surrounding the former structure confirmed the presence of DNT in soil, DNT is also present in nearby groundwater monitoring wells. There are no surface water bodies in proximity to this area of concern.	The presumptive remedy includes disposal of remaining concrete rubble potentially containing DNT residues, excavation of soil beneath former structure footprint, and monitored natural attenuation for residual influences in groundwater.
	Development Area – Old Burning Ground and adjacent areas of concern to the southwest (M5-3, L5-2313, L5-10, L5-2275, L5-539)	The burning area was used to dispose off-spec and residual energetic materials and was situated in a low-lying area adjacent to Duck Pond. Duck Pond provided a source of water and a buffer from nearby forested areas. Currently, the area supports sparse vegetation and the ground surface contains a non-combustible fraction of the waste materials (e.g., metal, ceramic).	The topography of the old burning grounds slopes down towards the northern end of Duck Pond. The absence of vegetation creates conditions where stormwater runoff and overland flow can erode surface soil and associated constituents (i.e., metals, PAHs, E&E) into the sediment at the northern end of Duck Pond. Duck Pond bathymetry confirms that deposition is greatest along the northern shoreline adjacent to the burning grounds. Infiltration of precipitation and runoff do not appear to influence local groundwater quality based on recent groundwater quality monitoring results.	The presumptive remedy involves a combination of debris/hot spot removal, and isolation and capping of the remaining material. Given the low-lying topography of the area and proximity to Duck Pond, this area may serve as a consolidation site in the event that sediment is removed from Duck Pond or for similar materials generated elsewhere onsite during remedial activities (e.g., Ammonium Nitrate Area – Former Burning Ground soil).
Tier III	Storage Area – Disposal Area (N6-1)	This area served as a disposal area for solid waste materials during the period of increased production associated with WWI and the years that followed. Over time, soil has been placed/accumulated at the ground surface and the area has almost entirely revegetated with grasses and shrubs. Miscellaneous debris is present at ground surface in places. A focused removal of large metal debris occurred concurrent with Facility demolition.	This area lies at a topographic high spot onsite, well above the underlying groundwater table. Similar to the B-Line disposal area, the buried waste consists primary of solid, metal containers and similar scrap material. Constituents in soil do not appear mobile and may be related more to the fill material place atop the debris than the debris itself. The area is heavily vegetated, reducing the liklihood of erosion or wind scour of surface soil. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will address the removal and/or containment of these materials during the feasibility study (FS) process. Additional evaluation and assessment of this area may be required to select an appropriate remedy.
	B Line Area - South (conglomerate of adjacent areas of concern)	Various process buildings and structures (e.g., basins, sheds) existed at the southern end of the B-Line Area near the terminus of Powder Mill Road. During decommissioning and demolition activities, residual product was observed in soil at various locations in this area and interim remedial measures (e.g., excavation) implemented. A review of SI/RI sample results identified an aggregation of locations surrounding former structures that share similar Facility-related influences approximately 11 acres in size.	This area does not occur in proximity to surface water features, and constituents detected in this area (i.e., metals and PAHs) do not appear to be influencing groundwater quality. Localized erosion and transport of surface soil and associated constituents may occur, however, the dense vegetation established in this area likely minimizes those influences. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will address removal and/or containment these materials during the FS process. Additional evaluation and assessment of this area is required to refine the extente of Facility-related influences and select an appropriate remedy (where applicable).
	A Line Area - Northwest (conglomerate of adjacent areas of concern)	Historical records indicate that two buildings in the northwestern corner of the A-Line Area were destroyed during a fire and explosion. The buildings were later rebuilt on the Facility of the incident. During the SI/RI investigation and decommissioning and demolition activities, evidence of explosions (e.g., physical debris and residual source material) were identified in the area surrounding the former building locations. A review of SI/RI sample results identified two areas where these historical influences were evident.	This portion of the former operational area is relatively flat and well vegetated. Historical influences occur primarily in surface soil, and do not appear mobile in groundwater based on recent groundwater quality data. The dense vegetation throughout the area preclude erosion or wind scour of surface soils. Soil and associated constituents in this area appear stable and generally immobile.	Hercules will address the removal and/or containment of these materials during the FS process. Additional evaluation and assessment of this area is required to refine the extente of Facility-related influences and select an appropriate remedy (where applicable).

Table 3-2
Assessment and Measurement Endpoints
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Exposure Medium	Exposure Areas		Rationale	Receptor Group	Assessment Endpoint	Measurement Endpoint	Target Species
Soil	Terrestrial	Former Operational Areas and Undeveloped Areas	*Former Operational Areas:* Contiguous area of site that has similar historical uses and potential for operational impacts; subject to future redevelopment. *Undeveloped Areas:* Contiguous area of site that remained undeveloped during site's known history; proposed as conservation area during site redevelopment.	Terrestrial Plant Community - Structure, Function, Survival	1. Could direct contact with COPECs in site soil affect the structure, function, and/or survival of the terrestrial plant community?	1. Compare concentrations of COPECs in soil to ESBs protective of plants.	NA
				Terrestrial Invertebrate Community - Survival and Reproduction	2. Could direct contact with COPECs in site soil affect the structure, function, and/or survival of the terrestrial invertebrate community?	2. Compare concentrations of COPECs in soil to ESBs protective of terrestrial invertebrates.	NA
				Herbivorous Avian and Mammal Populations - Survival and Reproduction	3. Could food-web transfer of COPECs in site soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?	3. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals.	Northern Bobwhite; White-tailed Deer
				Insectivorous Avian and Mammal Populations - Survival and Reproduction	4. Could food-web transfer of COPECs in site soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?	4. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals.	American Robin; Short-tailed Shrew
				Carnivorous Avian and Mammal Populations - Survival and Reproduction	5. Could food-web transfer of COPECs in site soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?	5. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for carnivorous birds and mammals.	Red-Tailed Hawk; Red Fox
Sediment and Surface Water	Aquatic	Northern Drainage Area (Duck Pond, miscellaneous ponds, tributaries) Southern Drainage Area (drainage areas and wetland complex)	*Ponds and Tributaries:* Perennial aquatic habitat features onsite, located amidst historic operational areas; miscellaneous ponds are isolated surface-water features that provide semi-aquatic habitat. *Drainage Areas and Wetland Complex:* Linear intermittent drainage features drain historic operational areas to the undeveloped wetland complex, which consists of perennial aquatic habitat consisting of both flowing and non-flowing water bodies.	Aquatic Plant Populations - Structure, Function, Survival	6. Could direct contact with COPECs in sediment in each area affect the survival and function of aquatic plant populations?	6. Compare concentrations of COPECs in sediment and surface water in the Northern and Southern Drainage Areas to ESBs protective of terrestrial plants.	NA
				Benthic Community - Structure, Function, Survival	7. Could direct contact with COPECs in sediment in each area affect the structure, function, and/or survival of the benthic invertebrate community?	7. Compare concentrations of COPECs in sediment in the Northern and Southern Drainage Areas to ESBs protective of benthic invertebrates.	NA
				Fish and Aquatic Invertebrate Populations - Survival and Reproduction	8. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?	8. Compare concentrations of COPECs in surface water in the Northern and Southern Drainage Areas to ESBs protective of fish and aquatic invertebrates.	NA
				Herbivorous Avian and Mammal Populations - Survival and Reproduction	9. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?	9. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for herbivorous birds and mammals in the Northern and Southern Drainage Areas.	Mallard Duck; Muskrat
				Insectivorous Avian and Mammal Populations - Survival and Reproduction	10. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?	10. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for insectivorous birds and mammals in the Northern and Southern Drainage Areas.	Tree Swallow; Little Brown Bat
				Piscivorous Avian and Mammal Populations - Survival and Reproduction	11. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammal populations?	11. Compare modeled dietary COPEC exposure to TRVs (calculate HQs) for piscivorous birds and mammals in the Northern and Southern Drainage Areas.	Great Blue Heron; Mink

Notes:
COPEC = constituent of potential ecological concern
ESB = ecological screening benchmark
HQ = hazard quotient
NA = not applicable
TRV = toxicity reference value

Table 4-1
Ecological Risk Assessment Dataset
Kenvil Works Facility
Kenvil, New Jersey

Matrix	Depth (ft)	VOCs	SVOCs	TPH	Metals	Explosives & Energetics	Dioxins/ Furans	Pesticides/ PCBs
Soil	0-0.2		X		X	X		
Soil	0-0.25		X		X	X		X
Soil	0-0.4		X					
Soil	0-0.5	X	X	X	X	X	X	X
Soil	0-0.6						X	
Soil	0-0.67	X	X	X	X	X		X
Soil	0-0.69						X	
Soil	0-0.7		X		X	X		
Soil	0-0.75		X		X	X		
Soil	0-0.8	X	X		X	X		
Soil	0-0.83	X	X	X	X	X		X
Soil	0-0.96		X	X	X	X		X
Soil	0-1	X	X	X	X	X		X
Soil	0-1.2		X					
Soil	0-1.25	X	X		X	X		X
Soil	0-1.3		X		X	X		
Soil	0-1.4		X					
Soil	0-1.5	X	X	X	X	X		X
Soil	0-1.67		X		X	X		
Soil	0-1.7		X					
Soil	0-1.75	X	X		X	X		X
Soil	0-1.8		X		X			
Soil	0-2	X	X	X	X	X		X
Soil	0-2.5							
Soil	0-3.17			X				
Soil	0-4		X		X	X		
Soil	0-5		X	X				
Soil	0-7.5		X			X		
Soil	0-10	X	X		X			
Soil	0.1-0.6	X	X		X	X		
Soil	0.17-0.67		X					
Soil	0.2-0.69	X	X		X	X	X	
Soil	0.25-0.75	X	X		X	X	X	X
Soil	0.3-0.8	X	X		X	X		
Soil	0.4-0.89	X	X		X	X		
Soil	0.5-1	X	X	X	X	X	X	X
Soil	0.58-1.08	X	X		X	X		X
Soil	0.6-1.1						X	
Soil	0.75-1.25	X	X		X	X		X
Soil	0.83-1.33	X	X		X	X		X
Soil	0.9-1.4	X	X		X	X		X
Soil	0.92-1.42	X	X		X	X		X
Soil	1-1.5	X	X	X	X	X		X
Soil	1-1.6	X	X		X	X	X	
Soil	1.08-1.58	X	X		X	X		X
Surface Water	0-0.5	X	X		X	X		
Surface Water	0-0.75				X	X		
Surface Water	0-2				X	X		
Surface Water	0-3		X		X	X		
Surface Water	0-3.5		X			X		
Surface Water	0-4		X		X	X		
Surface Water	0.25-0.75	X	X		X	X		
Surface Water	0.5-1	X	X	X	X	X		
Surface Water	0.75-1.25		X		X	X		
Surface Water	1-1.5		X		X	X		
Surface Water	1.25-1.75				X	X		
Surface Water	1.5-2		X		X	X		
Surface Water	2.5-3		X		X	X		
Surface Water	3.5-4		X		X	X		

Table 4-1
Ecological Risk Assessment Dataset
Kenvil Works Facility
Kenvil, New Jersey

Matrix	Depth (ft)	VOCs	SVOCs	TPH	Metals	Explosives & Energetics	Dioxins/ Furans	Pesticides/ PCBs
Surface Water	5.5-6		X		X	X		
Surface Water	13.5-14		X		X	X		
Sediment	0-0.5	X	X		X	X		
Sediment	0.5-1	X	X	X	X	X		
Sediment	1-1.5		X		X	X		

Notes:
ft = feet
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
VOC = volatile organic compound

Table 4-2
Summary of Ecological Screening Benchmarks for Detected Constituents
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte [12]	CAS	Soil Screening Value (mg/kg)	Note	Sediment Screening Value (mg/kg)	Note	Surface Water Screening Value (µg/L)	Note
VOCs							
1,1,2,2-Tetrachloroethane	79-34-5	0.127	2	0.85	2	380	1
1,1-Dichloroethene	75-35-4	8.28	2	0.0194	2	65	1
1,2,4-Trichlorobenzene	120-82-1	11.1	2	5.062	2	NA	--
1,2-Dichlorobenzene	95-50-1	2.96	2	0.294	2	NA	--
1,3-Dichlorobenzene	541-73-1	37.7	2	1.315	2	NA	--
1,4-Dichlorobenzene	106-46-7	0.546	2	0.318	2	NA	--
2-Butanone	78-93-3	89.6	2	0.0424	2	NA	--
Acetone	67-64-1	2.5	2	0.0099	2	NA	--
Acrolein	107-02-8	5.27	2	0.00000152	2	0.19	1
Acrylonitrile	107-13-1	0.0239	2	0.0012	2	66	1
Benzene	71-43-2	0.255	2	0.34	1	114	1
Bromodichloromethane	75-27-4	0.54	2	NA	--	--	15
Bromomethane	74-83-9	0.235	2	0.00137	2	16	1
Carbon Disulfide	75-15-0	0.0941	2	0.0239	2	NA	--
Carbon Tetrachloride	56-23-5	2.98	2	1.45	2	240	1
Chlorobenzene	108-90-7	13.1	2	0.291	2	47	1
Chlorodibromomethane	124-48-1	2.05	2	NA	--	35000	23
Chloroform	67-66-3	1.19	2	0.121	2	140	1
Chloromethane	74-87-3	10.4	2	NA	--	NA	--
cis-1,2-Dichloroethene	156-59-2	--	--	NA	--	590	9
Dichloromethane	75-09-2	4.05	2	0.159	2	940	1
Ethylbenzene	100-41-4	5.16	2	1.4	1	14	1
Hexachloro-1,3-Butadiene	87-68-3	0.0398	2	0.0265	2	NA	--
Isopropylbenzene	98-82-8	--	15	0.086	9	NA	--
Methyl Acetate	79-20-9	--	15	NA	--	NA	--
Naphthalene	91-20-3	0.0994	2	0.16	1	13	1
Tetrachloroethene	127-18-4	9.92	2	0.45	1	45	1
Toluene	108-88-3	200	1	2.5	1	253	1
Trichloroethene	79-01-6	12.4	2	1.6	1	47	1
Vinyl Chloride	75-01-4	0.646	2	0.202	2	930	1
SVOCs							
1,2-Diphenylhydrazine	122-66-7	--	15	--	--	--	--
1-Methylnaphthalene	90-12-0	--	--	0.0202	25	--	--
2,2-Oxybis(1-Chloropropane)	108-60-1	19.9	1	NA	--	NA	--
2,4-Dimethylphenol	105-67-9	0.01	2	0.304	2	100	1
2,4-Dinitrophenol	51-28-5	0.0609	2	0.00621	2	19	1
2,4-Dinitrotoluene	121-14-2	1.28	2	0.0144	2,12	44	1
2,6-Dinitrotoluene	606-20-2	0.0328	2	0.0398	2,12	81	2
2-Chlorophenol	95-57-8	0.243	2	0.0319	2	24	1
2-Methylnaphthalene	91-57-6	3.24	1	0.0202	1	330	1
3,3-Dichlorobenzidine	91-94-1	0.646	2	0.127	2	4.5	1
3,5,5-Trimethyl-2-Cyclohexene-1-One	78-59-1	139	2	0.432	2	920	1
4-Nitrophenol	100-02-7	7	1	0.0133	2	60	1
Acenaphthene	83-32-9	20	1	0.016	1	38	1
Acenaphthylene	208-96-8	682	2	0.044	1	4840	1
Anthracene	120-12-7	1480	2	0.22	7	0.035	1
Benzaldehyde	100-52-7	470	16	NA	--	NA	--
Benzidine	92-87-5	1.31	17	--	--	3.9	9
Benzo(a)anthracene	56-55-3	5.21	2	0.32	7	0.025	1
Benzo(a)pyrene	50-32-8	1.52	2	0.37	2	0.014	1
Benzo(b)fluoranthene	205-99-2	59.8	2	10.4	2	9.07	1
Benzo(g,h,i)fluoranthene	203-12-3	1.1	18	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	119	2	0.17	7	7.64	1
Benzo(k)fluoranthene	207-08-9	148	2	0.24	7	9.07	22
Benzyl Butyl Phthalate	85-68-7	0.239	2	1.97	2	23	1
Bis(2-Ethylhexyl)phthalate	117-81-7	0.925	2	0.182	2	0.3	1

Table 4-2
Summary of Ecological Screening Benchmarks for Detected Constituents
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte [12]	CAS	Soil Screening Value (mg/kg)	Note	Sediment Screening Value (mg/kg)	Note	Surface Water Screening Value (ug/L)	Note
SVOCs							
Chrysene	218-01-9	4.73	2	0.34	7	0.28	10
Dibenzo(a,h)anthracene	53-70-3	18.4	2	0.06	7	NA	--
Dibenzofuran	132-64-9	NA	--	0.449	2	4	2
Diethyl Phthalate	84-66-2	24.8	2	0.295	2	110	1
Dimethyl Phthalate	131-11-3	734	2	1	10	NA	--
Di-N-Butyl Phthalate	84-74-2	0.15	2	1.114	2	9.7	1
Di-n-Octyl Phthalate	117-84-0	7.09	2	40.6	2	NA	--
Fluoranthene	206-44-0	122	2	0.75	7	1.9	1
Fluorene	86-73-7	122	2	0.19	7	19	1
Hexachlorobenzene	118-74-1	0.199	2	0.02	7	0.0003	1
Hexachloroethane	67-72-1	0.596	2	0.584	2	8	1
Indeno(1,2,3-cd)pyrene	193-39-5	109	2	0.2	7	4.31	1
Nitrobenzene	98-95-3	1.31	2	0.145	2	220	1
N-Nitrosodimethylamine	62-75-9	0.0000321	2	NA	--	117	9
N-Nitrosodi-N-Propylamine	621-64-7	0.544	2	NA	--	NA	--
N-nitrosodiphenylamine	86-30-6	0.545	2	2.68	9	210	9
Pentachlorophenol	87-86-5	2.1	3	23	2	5	14
Phenanthrene	85-01-8	45.7	2	0.56	7	3.6	1
Phenol	108-95-2	30	1	0.0491	2	180	1
Pyrene	129-00-0	78.5	2	0.49	7	0.3	1
Total PAHs	ARC-TPAH	NA	--	NA	--	NA	--
TPH							
Ethanol	64-17-5	NA	--	NA	--	8,000,000	24
Methanol	67-56-1	NA	--	NA	--	NA	--
Triphenylene	217-59-4	1.1	18	NA	--	NA	--
PCBs							
Aroclor 1016	12674-11-2	0.371	1	NA	--	--	--
Aroclor 1221	11104-28-2	0.371	1	NA	--	--	--
Aroclor 1232	11141-16-5	0.371	1	NA	--	--	--
Aroclor 1242	53469-21-9	0.371	1	NA	--	--	--
Aroclor 1248	12672-29-6	0.371	1	NA	--	--	--
Aroclor 1254	11097-69-1	0.371	1	NA	--	--	--
Aroclor 1260	11096-82-5	0.371	1	NA	--	--	--
Total PCBs	1336-36-3	0.371	1	NA	--	--	--
Inorganics							
Aluminum	7429-90-5	50	1	25,500	1	87	9
Antimony	7440-36-0	0.27	3	3	8	80	1
Arsenic	7440-38-2	9.9	1	6	7	150	1
Barium	7440-39-3	283	1	7,000	10	220	1
Beryllium	7440-41-7	10	1	NA	--	3.6	1
Cadmium (solid)	7440-43-9	0.36	3	0.6	7	--	--
Cadmium (AQ - dissolved)	7440-43-9	NA	--	NA	--	0.12^{n} / 0.20^{s}	13
Cadmium (AQ - total)	7440-43-9	NA	--	NA	--	0.18^{n} / 0.31^{s}	13
Calcium	7440-70-2	--	19	--	19	--	19
Chromium (solid)	7440-47-3	0.4	1	26	7	42	1
Chromium (AQ - dissolved)	7440-47-3	NA	--	NA	--	15^{n} / 28^{s}	13
Chromium (AQ - total)	7440-47-3	NA	--	NA	--	54^{n} / 100^{s}	13
Cobalt	7440-48-4	0.14	2	50	7	24	1
Copper (solid)	7440-50-8	5.4	2	16	7	--	--
Copper (AQ - dissolved)	7440-50-8	NA	--	NA	--	5.2^{n} / 9.9^{s}	13
Copper (AQ - total)	7440-50-8	NA	--	NA	--	5.7^{n} / 11^{s}	13
Iron	7439-89-6	--	19	20,000	9	300	9
Lead	7439-92-1	11	3	31	7	5.4	1
Magnesium	7439-95-4	--	19	460	9	82,000	9
Manganese	7439-96-5	220	3	630	7	120	9
Mercury	7439-97-6	0.1	2	0.2	7	0.77	1
Nickel (solid)	7440-02-0	38	3	16	7	--	--
Nickel (AQ - dissolved)	7440-02-0	NA	--	NA	--	27^{n} / 52^{s}	13
Nickel (AQ - total)	7440-02-0	NA	--	NA	--	32^{n} / 61^{s}	13
Potassium	7440-09-7	--	19	--	19	--	19
Selenium	7782-49-2	0.52	3	2	9	5	1
Silver (solid)	7440-22-4	2	1	1	1	--	--
Silver (AQ - dissolved)	7440-22-4	NA	--	NA	--	1.2^{n} / 4.4^{s}	13
Silver (AQ - total)	7440-22-4	NA	--	NA	--	1.4^{n} / 5.2^{s}	13
Sodium	7440-23-5	--	19	--	19	--	19

Table 4-2
Summary of Ecological Screening Benchmarks for Detected Constituents
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte [12]	CAS	Soil Screening Value (mg/kg)	Note	Sediment Screening Value (mg/kg)	Note	Surface Water Screening Value (ug/L)	Note
Inorganics							
Thallium	7440-28-0	1	1	NA	--	10	1
Vanadium	7440-62-2	2	1	57	27	12	1
Zinc (solid)	7440-66-6	8.5	1	120	7	--	--
Zinc (AQ - dissolved)	7440-66-6	NA	--	NA	--	70^{n} / 133^{s}	13
Zinc (AQ - total)	7440-66-6	NA	--	NA	--	74^{n} / 140^{s}	13
Explosives							
1,3,5-Trinitrobenzene	99-35-4	0.376	2	0.16	11	10	6
1,3-Dinitrobenzene	99-65-0	655	2	0.5	11	22	2
2,4,6-Trinitrotoluene	118-96-7	6	4	1.1	11	90	6
2-Amino-4,6-dinitrotoluene	35572-78-2	80	6	1.3	11	20	6
2-Nitrotoluene	88-72-2	--	15	--	--	--	--
3-Nitrotoluene	99-08-1	--	15	--	--	--	--
4-Nitrotoluene	99-99-0	NA	--	--	--	--	--
4-Amino-2,6-Dinitrotoluene	19406-51-0	80	6	3.5	11	20	21
Diazodinitrophenol	87-31-0	NA		NA	--	NA	--
HMX	2691-41-0	600	4	0.38	11	150	9
Nitrocellulose	9004-70-0	65	20	NA	--	9825	4
Nitroglycerin	55-63-0	65	4	127	11	138	9
Pentaerythritol Tetranitrate	78-11-5	65	20	32533	11	85000	9
RDX	121-82-4	98	4	1.2	11	360	9
Tetryl	479-45-8	25	6	0.6	11	NA	--

Notes:

1. New Jersey Department of Environmental Protection (NJDEP) value from Ecological Screening Criteria (ESC) Table (NJDEP 2009)
2. Resource Conservation and Recovery Act Region 5 Ecological Screening Level (United States Environmental Protection Agency [USEPA
3. Ecological Soil Screening Value (EcoSSL) (USEPA 2007)
4. Kuperman et al. 2009. In Ecotoxicology of Explosives. Sunahara et al. (eds). CRC Press.
6. Talmage et al. 1999
7. NJDEP Lowest Effects Level value
8. NJDEP Severe Effects Level value
9. Region 3 Biological Technical Assistance Group Freshwater Sediment Screening Benchmarks (USEPA 2006)
10. Verbruggen et al. 2001
11. Pascoe et al. 2010
12. Some constituents were analyzed under multiple analytical methods but are presented once in the table.
13. Metals screening values based on average hardness of 57 milligrams per liter (mg/L) calcium carbonate ($CaCO_3$) in Northern Drainage A and 120 mg/L CaCO3 in Southern Drainage Area. Values for the Northern Drainage Area designated with an "n" while values for the Southern Drainage Area are designated with an "s"
14. Value calculated as a function of pH based on NJDEP ESC Table.
15. Analyte detected fewer than five times and screens out based on frequency of detection. Screening value not necessary.
16. Schafer et al. 1985
17. Value for nitrobenzene used as a surrogate.
18. Conservative high molecular weight polycyclic aromatic hydrocarbons from EcoSSL Table.
19. Analyte considered an essential nutrient; therefore, a screening level is not necessary.
20. Value for nitroglycerin used as a surrogate.
21. Chronic value for 2-amino-4,6-dinitrotoluene used as a surrogate.
22. Value for benzo(b)fluoranthene used as a surrogate.
23. Mattice et al. 1981
24. Dhawan et al. 1999
25. Value for 2-methylnaphthalene used as a surrogate.
26. Screening value is organic carbon normalized. Converted to site-specific screening value based on an average organic carbon of 13.3% in the Northern Drainage Area and 5.8% in the Southern Drainage Area.
27. Value for saline water in the NJDEP ESC Table used for lack of a freshwater value.

-- = not applicable
CAS = Chemical Abstract Service
mg/kg = milligram per kilogram
NA = not available
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
µg/L = microgram per liter
VOC = volatile organic compound

Table 4-3
Summary Statistics and COPEC Screen for Detected Constituents in Soil
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS NO.	CONSTITUENT	Soil Screening Value	Detects/ Analyses	Frequency of Detections	Range of Detected Concentrations	Detection Limit Range	Max Concentration Location	Hazard Quotient	COPEC	Rationale
	Volatile Organic Compounds (ug/kg)									
79-34-5	1,1,2,2-Tetrachloroethane	127	2/232	0.9%	120 - 601	5 - 2100	L11-2-010.5N	4.73	N	LOW FOD
75-35-4	1,1-Dichloroethene	8280	1/246	0.4%	151 - 151	5 - 2100	F10-3-070.5N	0.02	N	HQ<1
120-82-1	1,2,4-Trichlorobenzene	11100	6/205	2.9%	151 - 384	5 - 2100	F10-3-010.5N	0.03	N	HQ<1
95-50-1	1,2-Dichlorobenzene	2960	2/204	1.0%	150 - 207	5 - 2100	F10-3-010.5N	0.1	N	HQ<1
541-73-1	1,3-Dichlorobenzene	37700	2/204	1.0%	160 - 212	5 - 2100	F10-3-010.5N	0.01	N	HQ<1
106-46-7	1,4-Dichlorobenzene	546	3/205	1.5%	160 - 280	5 - 2100	H12-8563-030.5N	0.5	N	HQ<1
78-93-3	2-Butanone	89600	9/21	42.9%	4 - 29	11 - 20	SO-R2-E-9-1_20131115	0.0	N	HQ<1
67-64-1	Acetone	2500	21/21	100%	19 - 400	-	SO-R2-E-9-1_20131115	0.2	N	HQ<1
107-02-8	Acrolein	5270	1/211	0.5%	2300 - 2300	186 - 9500	G10-8159-030.5N	0.4	N	HQ<1
107-13-1	Acrylonitrile	23.9	1/529	0.2%	1370 - 1370	46 - 19000	G8-3-020.5N	57	N	LOW FOD
71-43-2	Benzene	255	16/563	2.8%	1 - 8000	5 - 4800	F10-2222-010.5N	31	Y	HQ>1
74-83-9	Bromomethane	235	13/209	6.2%	123 - 907	5 - 4200	H7-8248-020.5N	4	Y	HQ>1
56-23-5	Carbon Tetrachloride	2980	4/232	1.7%	230 - 574	5 - 2100	G6-906-020.5N	0.2	N	HQ<1
108-90-7	Chlorobenzene	13100	1/563	0.2%	755 - 755	5 - 4800	E15-8560-060.5N	0.1	N	HQ<1
67-66-3	Chloroform	1190	11/232	4.7%	129 - 376	5 - 2100	G10-8106-020.5N	0.3	N	HQ<1
74-87-3	Chloromethane	10400	37/232	15.9%	126 - 2213	5 - 3700	E9-2296C-010.5N	0.2	N	HQ<1
124-48-1	Dibromochloromethane	2050	1/232	0.4%	290 - 290	5 - 2100	G10-8159-030.5N	0.1	N	HQ<1
100-41-4	Ethylbenzene	5160	2/232	0.9%	128 - 260	5 - 2100	G10-8159-030.5N	0.1	N	HQ<1
87-68-3	Hexachlorobutadiene	39.8	3/183	1.6%	190 - 331	52 - 2100	F10-3-010.5N	8	N	LOW FOD
98-82-8	Isopropylbenzene	NA	2/21	9.5%	3 - 7	5 - 8	SO-R2-I-13-2_20131111	--	N	LOW FOD
79-20-9	Methyl Acetate	NA	1/21	4.8%	5 - 5	5 - 10	SO-R2-E-9-1_20131115	--	N	LOW FOD
75-09-2	Methylene Chloride	4050	24/587	4.1%	31.1 - 2861	5 - 5300	H10-9103-040.5N	0.7	N	HQ<1
91-20-3	Naphthalene	99.4	4/40	10.0%	147 - 586	52 - 2100	J11-1-120.5FD	6	N	LOW FOD
127-18-4	Tetrachloroethene	9920	3/563	0.5%	430 - 800	5 - 4800	G11-2017B-010.5N	0.1	N	HQ<1
108-88-3	Toluene	200000	13/232	5.6%	116 - 1100	5 - 2100	F10-2162-040.5N	0.01	N	HQ<1
79-01-6	Trichloroethene	12400	15/232	6.5%	124 - 2100	5 - 2100	G9-8207-050.5N	0.2	N	HQ<1
75-01-4	Vinyl Chloride	646	2/214	0.9%	172 - 260	5 - 4200	E11-6-040.5N	0.4	N	HQ<1
	Semivolatile Organic Compounds (ug/kg)									
122-66-7	1,2-Diphenylhydrazine	NA	4/1419	0.3%	24 - 980	33 - 429276.6	L10-2191-021.5N	--	N	LOW FOD
105-67-9	2,4-Dimethylphenol	10	2/1439	0.1%	280 - 1700	34 - 429276.6	G10-8106C-042N	170	N	LOW FOD
51-28-5	2,4-Dinitrophenol	60.9	3/1801	0.2%	190 - 4240	68 - 858553.2	L10-8210-031N810	70	N	LOW FOD
121-14-2	2,4-Dinitrotoluene	1280	326/1801	18.1%	28 - 6250000	36 - 15000	C14-4-032N	4883	Y	HQ>1
606-20-2	2,6-Dinitrotoluene	32.8	163/1787	9.1%	16 - 305000	21 - 15000	C14-4-032N	9299	Y	HQ>1
91-57-6	2-Methylnaphthalene	3240	2/21	9.5%	5 - 44	18 - 220	SO-R2-J-5-1_20131113	0.01	N	HQ<1
91-94-1	3,3-Dichlorobenzidine	646	1/1426	0.1%	980 - 980	67 - 858553.2	D10-6-021N	2	N	LOW FOD
100-02-7	4-Nitrophenol	7000	2/1261	0.2%	16 - 17.5	68 - 37000	O8-4-011N	0	N	HQ<1
83-32-9	Acenaphthene	20000	133/1440	9.2%	5 - 16000	18 - 429276.6	I6-9-042N	1	N	HQ<1
208-96-8	Acenaphthylene	682000	328/1450	22.6%	12 - 5970	18 - 429276.6	G6-2-021.25N	0.01	N	HQ<1
120-12-7	Anthracene	1480000	420/1440	29.2%	8 - 19000	18 - 429276.6	I6-8171-041N	0.01	N	HQ<1
100-52-7	Benzaldehyde	470000	2/21	9.5%	300 - 1200	180 - 2200	SO-R2-K-9-1_20131115	0.0	N	HQ<1
92-87-5	Benzidine	1310	1/1419	0.1%	177 - 177	34 - 429276.6	A12-6-022N	0.1	N	HQ<1
203-12-3	Benzo(g,h,i)fluoranthene	1100	48/137	35.0%	96 - 5500	360 - 4500	G9-3-031N	5	Y	HQ>1
56-55-3	Benzo[a]anthracene	5210	990/1801	55.0%	4 - 46000	18 - 429276.6	I6-8171-041N	9	Y	HQ>1
50-32-8	Benzo[a]pyrene	1520	985/1801	54.7%	4 - 39000	19 - 429276.6	I6-8171-041N	26	Y	HQ>1
205-99-2	Benzo[b]fluoranthene	59800	921/1800	51.2%	4 - 51000	19 - 429276.6	I6-8171-041N	1	N	HQ<1
191-24-2	Benzo[g,h,i]perylene	119000	389/1304	29.8%	4 - 21400	19 - 429276.6	M9-2261-021N	0.2	N	HQ<1
207-08-9	Benzo[k]fluoranthene	148000	539/1800	29.9%	4 - 19000	18 - 429276.6	TP-R-K5-1-41.5N	0.1	N	HQ<1
108-60-1	Bis(2-Chloroisopropyl)ether	19900	1/1440	0.1%	28 - 28	33 - 429276.6	G9-15-011FD	0	N	HQ<1
117-81-7	Bis(2-Ethylhexyl)phthalate	925	792/1801	44.0%	17 - 57000	23 - 429276.6	D10-2231-031N	62	Y	HQ>1
85-68-7	Butylbenzylphthalate	239	42/1823	2.3%	41 - 190000	34 - 429276.6	G10-8114-032N	795	Y	HQ>1
218-01-9	Chrysene	4730	1010/1801	56.1%	5 - 40000	18 - 429276.6	I6-8171-041N	8	Y	HQ>1
53-70-3	Dibenzo[a,h]anthracene	18400	223/1801	12.4%	7 - 6500	18 - 429276.6	SB-R-M9-011.0N, TP-R-K5-1-41.5N	0.4	N	HQ<1
84-66-2	Diethylphthalate	24800	332/1801	18.4%	20 - 23000	35 - 429276.6	E11-2083-032N	1	N	HQ<1
131-11-3	Dimethylphthalate	734000	8/1439	0.6%	26 - 760	34 - 429276.6	F9-2105-050.5N	0.001	N	HQ<1
84-74-2	Di-n-butylphthalate	150	675/1801	37.5%	15 - 190000	33 - 429276.6	K11-3-021N	1267	Y	HQ>1
117-84-0	Di-n-octylphthalate	7090	15/1440	1.0%	19 - 2700	34 - 429276.6	E9-6-030.5N	0.4	N	HQ<1
206-44-0	Fluoranthene	122000	776/1440	53.9%	5 - 87000	18 - 429276.6	I6-8171-041N	1	N	HQ<1
86-73-7	Fluorene	122000	164/1440	11.4%	7 - 11000	18 - 429276.6	I6-8171-041N	0.1	N	HQ<1

Table 4-3
Summary Statistics and COPEC Screen for Detected Constituents in Soil
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS NO.	CONSTITUENT	Soil Screening Value	Detects/ Analyses	Frequency of Detections	Range of Detected Concentrations	Detection Limit Range	Max Concentration Location	Hazard Quotient	COPEC	Rationale
118-74-1	Hexachlorobenzene	199	1/1240	0.1%	170 - 170	18 - 7400	H10-9000-011.5N	1	N	HQ<1
67-72-1	Hexachloroethane	596	1/1439	0.1%	211 - 211	33 - 429276.6	L6-371-022N	0.4	N	HQ<1
193-39-5	Indeno[1,2,3-cd]pyrene	109000	553/1801	30.7%	4 - 23000	19 - 429276.6	TP-R-K5-1-41.5N	0.2	N	HQ<1
78-59-1	Isophorone	139000	7/1440	0.5%	69 - 3700	33 - 429276.6	D10-241B-031.5N	0.03	N	HQ<1
	Semivolatile Organic Compounds (ug/kg) (cont.)									
91-20-3	Naphthalene	99.4	135/1416	9.5%	4 - 14900	18 - 429276.6	G6-2-021.25N	150	Y	HQ>1
98-95-3	Nitrobenzene	1310	3/751	0.4%	85 - 5500	34 - 429276.6	C11-9-040.5N	4.2	N	LOW FOD
62-75-9	N-Nitrosodimethylamine	0.0321	2/1419	0.1%	330 - 430	34 - 429276.6	E11-2064-012FD	13396	N	LOW FOD
621-64-7	N-Nitroso-Di-N-Propylamine	544	14/1801	0.8%	21.6 - 2840	33 - 429276.6	H6-8285-081N	5	Y	HQ>1
86-30-6	N-Nitrosodiphenylamine	545	420/1738	24.2%	25.2 - 24000	33 - 7400	L10-2191-021.5N	44	Y	HQ>1
87-86-5	Pentachlorophenol	2100	5/1440	0.3%	79 - 2150	68 - 858553.2	H5-8254-041.25FD	1	N	HQ<1
85-01-8	Phenanthrene	45700	858/1440	59.6%	5 - 79000	18 - 429276.6	I6-8171-041N	2	Y	HQ>1
108-95-2	Phenol	30000	9/1440	0.6%	18.6 - 580	34 - 429276.6	F9-A5-010.5N	0.02	N	HQ<1
129-00-0	Pyrene	78500	697/1440	48.4%	4 - 77000	18 - 429276.6	I6-8171-041N	0.98	N	HQ<1
ARC-TPAH	Total PAHs	NA	4/5	80.0%	360 - 6300	200 - 200	SB-R0-M9-091.0N1530	NA	N	LOW FOD
	Polychlorinated Biphenyls (ug/kg)									
12674-11-2	Aroclor-1016	371	8/451	2%	21 - 110	1 - 20000	G10-8522-011.5N	0.30	N	HQ<1
11104-28-2	Aroclor-1221	371	8/451	2%	21 - 110	1 - 20000	G10-8522-011.5N	0.30	N	HQ<1
11141-16-5	Aroclor-1232	371	8/451	2%	21 - 110	1 - 20000	G10-8522-011.5N	0.30	N	HQ<1
53469-21-9	Aroclor-1242	371	8/451	2%	21 - 110	1 - 20000	G10-8522-011.5N	0.30	N	HQ<1
12672-29-6	Aroclor-1248	371	8/449	2%	21 - 110	1 - 20000	G10-8522-011.5N	0.30	N	HQ<1
11097-69-1	Aroclor-1254	371	88/451	20%	4.2 - 150000	1 - 2000	H10-262-020.5N	404	Y	HQ>1
11096-82-5	Aroclor-1260	371	103/448	23%	4.3 - 7600	3 - 40000	G10-2008-031N	20	Y	HQ>1
1336-36-3	Polychlorinated biphenyls	371	141/451	31%	0.4 - 150000	18 - 430	H10-262-020.5N	404	Y	HQ>1
	Explosives and Energetics (ug/kg)									
99-35-4	1,3,5-Trinitrobenzene	376	5/871	0.6%	108 - 860	13 - 11905	D14-667-032N	2	Y	HQ>1
99-65-0	1,3-Dinitrobenzene	655000	22/1236	1.8%	120 - 4941	13 - 11000	H10-14-022N	0.01	N	HQ<1
118-96-7	2,4,6-Trinitrotoluene	6000	151/1236	12.2%	106 - 350000	13 - 4762	H9-2261-041.25N	58	Y	HQ>1
51-28-5	2,4-Dinitrophenol	60.9	1/2	50.0%	14800 - 14800	250 - 250	L10-8210-031N1630	243	N	LOW FOD
121-14-2	2,4-Dinitrotoluene	1280	1/15	6.7%	66.7 - 66.7	140 - 250	M10-7-031.5FD	0.05	N	HQ<1
35572-78-2	2-Amino-4,6-dinitrotoluene	80000	30/1235	2.4%	120 - 290000	13 - 7500	H9-2261-041.25N	4	Y	HQ>1
88-72-2	2-Nitrotoluene	NA	1/880	0.1%	130 - 130	26 - 23810	C11-27-030.5N	--	N	LOW FOD
99-08-1	3-Nitrotoluene	NA	2/880	0.2%	270 - 800	26 - 9524	F10-20-031.25N	--	N	LOW FOD
19406-51-0	4-Amino-2,6-dinitrotoluene	80000	36/1236	2.9%	104 - 200000	13 - 11905	H9-2261-041.25N	3	Y	HQ>1
98-95-3	Nitrobenzene	1310	57/880	6.5%	67 - 1200	13 - 11905	J10-2-111.5N	0.9	N	HQ<1
9004-70-0	Nitrocellulose	65000	525/1030	51.0%	22000 - 33700000	28.4 - 890000	G7-2115-071N	518	Y	HQ>1
55-63-0	Nitroglycerin	65000	301/1261	23.9%	1800 - 3900000	349 - 429276.6	L10-2191-021.5N	60	Y	HQ>1
2691-41-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	600000	29/1236	2.3%	280 - 8500000	26 - 23810	H7-8145-031.5N	14	Y	HQ>1
78-11-5	Pentaerythritol Tetranitrate	65000	8/47	17.0%	4300 - 12100000	50 - 7800	C10-2-041N	186	Y	HQ>1
121-82-4	RDX (Cyclonite)	98000	32/1236	2.6%	120 - 323000	26 - 9524	N4-2-012N	3	Y	HQ>1
479-45-8	Tetryl	25000	15/880	1.7%	140 - 5700	26 - 9524	H9-2261-041.25N	0.2	N	HQ<1
	Metals (mg/kg)									
7429-90-5	Aluminum	50	25/25	100%	4070 - 28400	-	SO-R2-B-8-1_20131114	568	N	see footnote 1
7440-36-0	Antimony	0.27	430/1734	25%	0.15 - 5060	0.006838 - 1180.3	I5-3-060.75N	18741	Y	HQ>1
7440-38-2	Arsenic	9.9	1723/1734	99%	1 - 1150	2.45 - 96.1	G11-B86-030.5N	116	Y	HQ>1
7440-39-3	Barium	283	25/25	100%	22.8 - 198	-	F8-2207-012N	0.7	N	HQ<1
7440-41-7	Beryllium	10	1721/1728	100%	0.045 - 5.2	0.606 - 17.3	G10-3-010.5N	0.5	N	HQ<1
7440-43-9	Cadmium	0.36	1054/1734	61%	0.02 - 140	0.003419 - 632.5	N4-3-030.75N	389	Y	HQ>1
7440-70-2	Calcium	NA	25/25	100%	214 - 18900	-	SO-R2-J-5-2_20131113	--	N	Nutrient
7440-47-3	Chromium	0.4	1395/1401	100%	2.4 - 1010	0.34 - 473.1	H7-8255-021N	2525	Y	HQ>1
7440-48-4	Cobalt	0.14	25/25	100%	1.13 - 10	-	SO-R2-G-7-1_20131114	71	Y	HQ>1
7440-50-8	Copper	5.4	1727/1734	100%	1.89 - 47000	0.42 - 201.2	C12-5-022N	8704	Y	HQ>1
7439-89-6	Iron	NA	25/25	100%	9110 - 40400	-	SO-R2-K-9-1_20131115	--	N	Nutrient
7439-92-1	Lead	11	1734/1734	100%	1.77 - 144000	-	I5-3-060.75N	13091	Y	HQ>1
7439-95-4	Magnesium	NA	25/25	100%	231 - 3310	-	SO-R2-B-8-1_20131114	--	N	Nutrient
7439-96-5	Manganese	220	25/25	100%	28.5 - 2270	-	SO-R2-E-9-1_20131115	10	Y	HQ>1
7439-97-6	Mercury	0.1	1654/1730	96%	0.0039 - 2940	0.021904 - 144.2	H6-8285-050.75N	29400	Y	HQ>1
7440-02-0	Nickel	38	1726/1734	100%	0.87 - 1380	1.21 - 339.1	M7-2-051N	36.3	Y	HQ>1
7440-09-7	Potassium	NA	25/25	100%	279 - 1020	-	SO-R2-J-5-1_20131113	--	N	Nutrient
7782-49-2	Selenium	0.52	1224/1734	71%	0.11 - 803	0.011166 - 36.5	I10-550-021N	1544	Y	HQ>1

Table 4-3
Summary Statistics and COPEC Screen for Detected Constituents in Soil
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS NO.	CONSTITUENT	Soil Screening Value	Detects/ Analyses	Frequency of Detections	Range of Detected Concentrations	Detection Limit Range	Max Concentration Location	Hazard Quotient	COPEC	Rationale
7440-22-4	Silver	2	427/1734	25%	0.07 - 332	0.003419 - 423	O8-3-041N	166	Y	HQ>1
7440-23-5	Sodium	NA	19/25	76%	30.3 - 170	109 - 212	SO-R2-C-14-1_20131115	--	N	Nutrient
7440-28-0	Thallium	1	395/1734	23%	0.3 - 9.3	0.011397 - 167.8	L6-1-072N	9	Y	HQ>1
7440-62-2	Vanadium	2	25/25	100%	15.8 - 54.1	-	SO-R2-B-8-1_20131114, SO-R2-R-7-1_20131112	27	Y	HQ>1
7440-66-6	Zinc	8.5	1732/1734	100%	2.58 - 42000	1.2 - 1.6	TP-R-K5-2-31.0N	4941	Y	HQ>1

Notes:
1. Aluminum is not considered a COPEC because site soil pH (6.1) is above the level where aluminum toxicity occurs (<5.5) per USEPA 2003b.
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LOW FOD = low frequency of detection
mg/kg = milligrams per kilogram
NA = not available
N = no
Nutrient = screened out to due status as essential nutrient
ug/kg = micrograms per kilogram
Y = yes

Table 4-4
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency (%)	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Limit Range	Hazard Quotient	COPEC	Rationale
VOCs									
1,1,1-Trichloroethane	--	--	0/44	-	--	1 - 1	ND	N	ND
1,1,2,2-Tetrachloroethane	--	--	0/44	-	--	1 - 1	ND	N	ND
1,1,2-Trichloroethane	--	--	0/44	-	--	1 - 1	ND	N	ND
1,1-Dichloroethane	--	--	0/44	-	--	1 - 1	ND	N	ND
1,1-Dichloroethene	--	--	0/44	-	--	1 - 1	ND	N	ND
1,2-Dichloroethane	--	--	0/44	-	--	1 - 1	ND	N	ND
1,2-Dichloropropane	--	--	0/44	-	--	1 - 1	ND	N	ND
2-Chloroethyl Vinyl Ether	--	--	0/44	-	--	2 - 2	ND	N	ND
Acrolein	--	--	0/44	-	--	40 - 40	ND	N	ND
Acrylonitrile	--	--	0/44	-	--	4 - 4	ND	N	ND
Benzene	--	--	0/44	-	--	1 - 1	ND	N	ND
Bromodichloromethane	--	--	0/44	-	--	1 - 1	ND	N	ND
Bromomethane	--	--	0/44	-	--	2 - 2	ND	N	ND
Carbon Tetrachloride	--	--	0/44	-	--	1 - 1	ND	N	ND
CFC-11	--	--	0/44	-	--	2 - 2	ND	N	ND
Chlorobenzene	--	--	0/44	-	--	1 - 1	ND	N	ND
Chlorodibromomethane	--	--	0/44	-	--	1 - 1	ND	N	ND
Chloroethane	--	--	0/44	-	--	2 - 2	ND	N	ND
Chloroform	--	--	0/44	-	--	1 - 1	ND	N	ND
Chloromethane	--	--	0/44	-	--	2 - 2	ND	N	ND
cis-1,2-Dichloroethene	--	--	0/44	-	--	1 - 1	ND	N	ND
cis-1,3-Dichloropropene	--	--	0/44	-	--	1 - 1	ND	N	ND
Dichloromethane	--	--	0/44	-	--	2 - 2	ND	N	ND
Ethylbenzene	--	--	0/44	-	--	1 - 1	ND	N	ND
Tetrachloroethene	--	--	0/44	-	--	1 - 1	ND	N	ND
Toluene	--	--	0/44	-	--	1 - 1	ND	N	ND
trans-1,2-Dichloroethene	--	--	0/44	-	--	1 - 1	ND	N	ND
trans-1,3-Dichloropropene	--	--	0/44	-	--	1 - 1	ND	N	ND
Tribromomethane	--	--	0/44	-	--	1 - 1	ND	N	ND
Trichloroethene	--	--	0/44	-	--	1 - 1	ND	N	ND
Vinyl Chloride	--	--	0/44	-	--	1 - 1	ND	N	ND
Xylenes (total)	--	--	0/44	-	--	1 - 1	ND	N	ND
SVOCs									
1,1-Biphenyl	--	--	0/6	-	--	1 - 1	ND	N	ND
1,2,4-Trichlorobenzene	--	--	0/44	-	--	0.9 - 1	ND	N	ND
1,2-Dichlorobenzene	--	--	0/44	-	--	0.9 - 1	ND	N	ND
1,2-Diphenylhydrazine	--	--	0/44	-	--	0.9 - 1	ND	N	ND
1,3-Dichlorobenzene	--	--	0/44	-	--	0.9 - 1	ND	N	ND
1,4-Dichlorobenzene	--	--	0/44	-	--	0.9 - 1	ND	N	ND
2,2-Oxybis(1-Chloropropane)	--	--	0/50	-	--	0.9 - 1	ND	N	ND
2,4,5-Trichlorophenol	--	--	0/6	-	--	1 - 1	ND	N	ND
2,4,6-Trichlorophenol	--	--	0/50	-	--	1 - 2	ND	N	ND

Table 4-4
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency (%)	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Limit Range	Hazard Quotient	COPEC	Rationale
2,4-Dichlorophenol	--	--	0/50	-	--	0.9 - 1	ND	N	ND
2,4-Dimethylphenol	--	--	0/50	-	--	0.9 - 1	ND	N	ND
2,4-Dinitrophenol	--	--	0/50	-	--	19 - 32	ND	N	ND
2,4-Dinitrotoluene	--	--	0/67	-	--	0.9 - 5	ND	N	ND
2,6-Dinitrotoluene	--	--	0/67	-	--	1 - 5	ND	N	ND
SVOCs									
2-Chloronaphthalene	--	--	0/50	-	--	0.9 - 1	ND	N	ND
2-Chlorophenol	--	--	0/50	-	--	0.9 - 1	ND	N	ND
2-Methyl-4,6-dinitrophenol	--	--	0/50	-	--	5 - 16	ND	N	ND
2-Methylnaphthalene	--	--	0/6	-	--	0.5 - 0.5	ND	N	ND
2-Methylphenol	--	--	0/6	-	--	1 - 1	ND	N	ND
2-Nitroaniline	--	--	0/6	-	--	1 - 1	ND	N	ND
2-Nitrophenol	--	--	0/50	-	--	0.9 - 1	ND	N	ND
3,3-Dichlorobenzidine	--	--	0/50	-	--	3 - 5	ND	N	ND
3,5,5-Trimethyl-2-Cyclohexene-1-One	--	920	1/50	6-6	SW-O4-3-01	0.9 - 1	0.007	N	HQ<1
3-Nitroaniline	--	--	0/6	-	--	1 - 1	ND	N	ND
4-Bromophenyl Phenyl Ether	--	--	0/50	-	--	1 - 2	ND	N	ND
4-Chloro-3-Methylphenol	--	--	0/50	-	--	0.9 - 1	ND	N	ND
4-Chlorophenyl Phenyl Ether	--	--	0/50	-	--	0.9 - 1	ND	N	ND
4-Methylphenol	--	25	1/6	5-5	SW-R2-N-5-1	1 - 1	0.2	N	HQ<1
4-Nitroaniline	--	--	0/6	-	--	1 - 1	ND	N	ND
4-Nitrophenol	--	--	0/50	-	--	9 - 32	ND	N	ND
Acenaphthene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
Acenaphthylene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
Acetophenone	--	--	0/6	-	--	1 - 1	ND	N	ND
Anthracene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
Atrazine	--	--	0/6	-	--	5 - 5	ND	N	ND
Benzaldehyde	--	--	0/6	-	--	5 - 5	ND	N	ND
Benzidine	--	--	0/44	-	--	19 - 23	ND	N	ND
Benzo(a)anthracene	--	--	0/67	-	--	0.5 - 5	ND	N	ND
Benzo(a)pyrene	--	--	0/67	-	--	0.5 - 5	ND	N	ND
Benzo(b)fluoranthene	--	--	0/67	-	--	0.5 - 5	ND	N	ND
Benzo(g,h,i)perylene	--	--	0/67	-	--	0.5 - 5	ND	N	ND
Benzo(k)fluoranthene	--	--	0/67	-	--	0.5 - 5	ND	N	ND
Benzyl Butyl Phthalate	--	--	0/50	-	--	2 - 5	ND	N	ND
bis(2-Chloroethoxy)methane	--	--	0/50	-	--	0.9 - 1	ND	N	ND
Bis(2-Chloroethyl)ether	--	--	0/50	-	--	0.9 - 1	ND	N	ND
Bis(2-Ethylhexyl)phthalate	--	0.3	2/67	2-12	SW-R2-M-5-2	2 - 5	40	N	Low FOD
Caprolactam	--	--	0/6	-	--	15 - 16	ND	N	ND
Carbazole	--	--	0/6	-	--	1 - 1	ND	N	ND
Chrysene	--	--	0/67	-	--	0.5 - 5	ND	N	ND
Dibenzo(a,h)anthracene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
Dibenzofuran	--	--	0/6	-	--	1 - 1	ND	N	ND

Table 4-4
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency (%)	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Limit Range	Hazard Quotient	COPEC	Rationale
Diethyl Phthalate	--	--	0/50	-	--	2 - 5	ND	N	ND
Dimethyl Phthalate	--	--	0/50	-	--	2 - 5	ND	N	ND
Di-N-Butyl Phthalate	--	--	0/50	-	--	2 - 5	ND	N	ND
Di-n-Octyl Phthalate	--	--	0/50	-	--	2 - 5	ND	N	ND
Fluoranthene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
Fluorene	--	--	0/47	-	--	0.5 - 1	ND	N	ND
Hexachloro-1,3-Butadiene	--	--	0/50	-	--	1 - 2	ND	N	ND
Hexachlorobenzene	--	--	0/50	-	--	0.5 - 2	ND	N	ND
Hexachlorocyclopentadiene	--	--	0/50	-	--	5 - 16	ND	N	ND
Hexachloroethane	--	--	0/50	-	--	0.9 - 5	ND	N	ND
Indeno(1,2,3-cd)pyrene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
SVOCs									
Naphthalene	--	13	1/50	1-1	SW-P4-1-01	0.5 - 1	0.08	N	HQ<1
Nitrobenzene	--	--	0/50	-	--	0.9 - 1	ND	N	ND
N-Nitrosodimethylamine	--	--	0/44	-	--	2 - 2	ND	N	ND
N-Nitrosodi-N-Propylamine	--	--	0/50	-	--	0.9 - 1	ND	N	ND
N-nitrosodiphenylamine	--	--	0/50	-	--	0.9 - 1	ND	N	ND
p-Chloroaniline	--	--	0/6	-	--	1 - 1	ND	N	ND
Pentachlorophenol	--	--	0/50	-	--	3 - 5	ND	N	ND
Phenanthrene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
Phenol	--	--	0/50	-	--	0.9 - 1	ND	N	ND
Pyrene	--	--	0/50	-	--	0.5 - 1	ND	N	ND
TPH									
Amyl Alcohol	--	--	0/44	-	--	1000 - 1000	ND	N	ND
Di-n-propyl ether	--	--	0/44	-	--	1000 - 1000	ND	N	ND
Ethanol	--	8000000	1/44	0-1300	SW-R4-1-01	1000 - 1000	0.0002	N	HQ<1
Ethyl ether	--	--	0/44	-	--	1000 - 1000	ND	N	ND
Methanol	--	--	0/44	-	--	1000 - 1000	ND	N	ND
n-Butyl ether	--	--	0/44	-	--	1000 - 1000	ND	N	ND
Metals									
Aluminum (AQ - total)	--	87	4/6	88.1-605	SW-R2-N-5-1	200 - 200	7	N	Low FOD
Antimony (AQ - dissolved)	--	--	0/44	-	--	5900 - 5900	ND	N	ND
Antimony (AQ - total)	--	80	2/50	0.34-0.41	SW-R2-M-5-1	1 - 5900	0.005	N	HQ<1
Arsenic (AQ - dissolved)	NA	150	1/53	3.8-3.8	SW-M7-1-01	20 - 3700	0.03	N	HQ<1
Arsenic (AQ - total)	--	150	12/85	0.89-176	SW-R-K5-11	20 - 3700	1	N	HQ<1
Barium (AQ - total)	--	220	6/6	20.9-33.7	SW-R2-L-5-2	--	0.2	N	HQ<1
Beryllium (AQ - dissolved)	--	--	0/44	-	--	640 - 640	ND	N	ND
Beryllium (AQ - total)	--	--	0/49	-	--	5 - 640	ND	N	ND
Cadmium (AQ - dissolved)	0.12	--	1/44	0-0.74	SW-O4-2-01	640 - 640	6	N	Low FOD
Cadmium (AQ - total)	--	--	0/50	-	--	5 - 640	ND	N	ND
Calcium (AQ - total)	--	--	6/6	2480-9140	SW-R2-L-5-2,SW-R2-M-5-2	--	--	N	Nutrient
Chromium (AQ - dissolved)	--	--	0/44	-	--	1700 - 1700	ND	N	ND

Table 4-4
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency (%)	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Limit Range	Hazard Quotient	COPEC	Rationale
Chromium (AQ - total)	--	54	2/50	2.6-22.4	SW-N5-5-01	15 - 1700	0.4	N	HQ<1
Cobalt (AQ - total)	--	--	0/6	-	--	5 - 5	ND	N	ND
Copper (AQ - dissolved)	5.2	--	12/53	1.9-72.4	SW-R-K5-05	10 - 2400	14	Y	HQ>1
Copper (AQ - total)	--	5.7	36/85	2.4-871	SW-R-K5-11	10 - 2400	153	Y	HQ>1
Iron (AQ - total)	--	300	6/6	178-1080	SW-R2-N-5-1	--	4	N	Nutrient
Lead (AQ - dissolved)	NA	5.4	7/53	8.5-40	SW-R-K5-05	20 - 8800	7	Y	HQ>1
Lead (AQ - total)	--	5.4	23/85	0.99-3000	SW-R-K5-11	15 - 8800	556	Y	HQ>1
Magnesium (AQ - total)	--	82000	6/6	730-3770	SW-R2-L-5-2	--	0.05	N	Nutrient
Manganese (AQ - total)	--	120	6/6	9.2-140	SW-R2-N-5-1	--	1	N	HQ<1
Mercury (AQ - dissolved)	NA	0.77	9/53	0.026-0.32	SW-R-K5-03	0.2 - 26	0.4	N	HQ<1
Mercury (AQ - total)	--	0.77	6/85	0.027-0.23	SW-R-K5-07	0.2 - 26	0.3	N	HQ<1
Nickel (AQ - dissolved)	27	--	20/44	1.6-7.7	SW-L6-1-01	1600 - 1600	0.3	N	HQ<1
Nickel (AQ - total)	--	32	14/50	1.7-178	SW-N5-5-01	10 - 1600	6	Y	HQ>1
Potassium (AQ - total)	--	--	6/6	570-1390	SW-R2-N-5-2	--	--	N	Nutrient
Selenium (AQ - dissolved)	NA	5	1/53	10.3-10.3	SW-R-K5-01	20 - 4300	2	N	Low FOD
Selenium (AQ - total)	--	--	0/85	-	--	20 - 4300	ND	N	ND
Metals									
Silver (AQ - dissolved)	--	--	0/53	-	--	5 - 1300	ND	N	ND
Silver (AQ - total)	--	1.4	3/85	2.8-12.2	SW-R-J5-02	5 - 1300	9	N	Low FOD
Sodium (AQ - total)	--	--	6/6	1270-5490	SW-R2-L-5-2	--	--	N	Nutrient
Thallium (AQ - dissolved)	NA	10	1/53	9.7-9.7	SW-M7-1-01	20 - 8800	1.0	N	HQ<1
Thallium (AQ - total)	--	10	2/85	104-149	SW-R-J5-01	0.5 - 8800	15	N	Low FOD
Vanadium (AQ - total)	--	12	1/6	4.3-4.3	SW-R2-N-5-1	5 - 5	0.4	N	HQ<1
Zinc (AQ - dissolved)	70	--	52/53	4.8-504	SW-R-K5-01	3200 - 3200	7	Y	HQ>1
Zinc (AQ - total)	--	74	71/85	2.1-7620	SW-R-K5-07	20 - 3200	103	Y	HQ>1
Explosives and Energetics						-			
1,2-Dinitrobenzene	--	--	0/6	-	--	0.6 - 0.6	ND	N	ND
1,3,5-Trinitrobenzene	--	--	0/52	-	--	0.2 - 2.2	ND	N	ND
1,3-Dinitrobenzene	--	--	0/50	-	--	0.2 - 0.6	ND	N	ND
1,4-Dinitrobenzene	--	--	0/6	-	--	0.6 - 0.6	ND	N	ND
1-Nitronaphthalene	--	--	0/6	-	--	0.6 - 0.6	ND	N	ND
2,4,6-Trinitrotoluene	--	--	0/107	-	--	0.2 - 60	ND	N	ND
2,4-Dinitrotoluene	--	--	0/50	-	--	0.2 - 2	ND	N	ND
2,6-Dinitrotoluene	--	--	0/50	-	--	0.2 - 1.3	ND	N	ND
2-Amino-4,6-Dinitrotoluene	--	--	0/107	-	--	0.2 - 60	ND	N	ND
2-Nitrotoluene	--	--	0/52	-	--	0.2 - 0.75	ND	N	ND
3-Nitrotoluene	--	--	0/52	-	--	0.2 - 1.2	ND	N	ND
4-Amino-2,6-Dinitrotoluene	--	--	0/107	-	--	0.2 - 60	ND	N	ND
4-Nitrotoluene	--	--	0/52	-	--	0.2 - 1.2	ND	N	ND
HMX	--	--	0/107	-	--	0.2 - 200	ND	N	ND
Nitrobenzene	--	--	0/50	-	--	0.2 - 0.6	ND	N	ND
Nitrocellulose	--	--	0/44	-	--	500 - 500	ND	N	ND
Nitroglycerin	--	--	0/50	-	--	15 - 120	ND	N	ND
Pentaerythritol Tetranitrate	--	--	0/50	-	--	4 - 18	ND	N	ND

Table 4-4
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency (%)	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Limit Range	Hazard Quotient	COPEC	Rationale
RDX	--	--	0/107	-	--	0.2 - 60	ND	N	ND
Tetryl	--	--	0/50	-	--	0.2 - 0.6	ND	N	ND
Perchlorate									
Perchlorate	--	--	0/2	-	--	5 - 5	ND	N	ND

Notes:
-- = not applicable
< = less than
> = greater than
AQ = aqueous
COPEC = constituent of potential ecological concern
FOD = frequency of detection
HQ = hazard quotient
N = no
NA = not available
ND = not detected
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
µg/L = micrograms per liter
VOC = volatile organic compound
Y = yes

Table 4-5
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Sediment
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS No.	Constituent	Sediment Screening Value	Detects/ Analyses	Frequency of Detections	Range of Deteted Concentrations	Detection Limit Range (for non-detects)	Location of Max Detection	Hazard Quotient	COPEC	Rationale
VOCs (ug/kg)										
108-88-3	Toluene	2500	1/46	2%	660 - 660	110 - 1500	SD-L6-1-010.5FD	0.3	N	HQ<1
SVOCs (ug/kg)										
90-12-0	1-Methylnaphthalene	20.2	2/5	40%	83 - 120	190 - 5200	SD-R2-K-5-1_20131104	6	N	LOW FOD
121-14-2	2,4-Dinitrotoluene	14.4	2/48	4%	270 - 4500	67 - 20000	SD-R-L5-011.0N	313	N	LOW FOD
91-57-6	2-Methylnaphthalene	20.2	2/6	33%	63 - 130	190 - 5200	SD-R2-K-5-1_20131104	6	N	LOW FOD
208-96-8	Acenaphthylene	44	4/53	8%	130 - 580	33 - 20000	SD-R-M7-011N	13	N	LOW FOD
120-12-7	Anthracene	220	4/53	8%	120 - 560	33 - 20000	SD-R-M7-011N	3	N	LOW FOD
56-55-3	Benzo[a]anthracene	320	20/53	38%	48 - 2100	50 - 20000	SD-R-M7-051.0N	7	Y	HQ>1
50-32-8	Benzo[a]pyrene	370	20/53	38%	67 - 1500	33 - 20000	SD-R-M7-011N, SD-R-M7-051.0N	4	Y	HQ>1
205-99-2	Benzo[b]fluoranthene	10400	8/14	57%	48 - 420	50 - 5200	SD-L6-1-011FD	0.04	N	HQ<1
191-24-2	Benzo[g,h,i]perylene	170	18/53	34%	57 - 1300	33 - 20000	SD-R-M7-051.0N	8	Y	HQ>1
207-08-9	Benzo[k]fluoranthene	240	20/53	38%	57 - 1700	33 - 20000	SD-R-M7-051.0N	7	Y	HQ>1
117-81-7	Bis(2-Ethylhexyl)phthalate	182	2/9	22%	150 - 230	67 - 6100	SD-M5-1-011.5N	1	N	HQ<1
218-01-9	Chrysene	340	25/53	47%	41 - 2900	50 - 20000	SD-R-M7-051.0N	9	Y	HQ>1
53-70-3	Dibenzo[a,h]anthracene	60	5/53	9%	95 - 240	33 - 20000	SD-R-M7-011N	4	Y	HQ>1
206-44-0	Fluoranthene	750	30/53	57%	56 - 2200	50 - 20000	SD-R-M7-051.0N	3	Y	HQ>1
86-73-7	Fluorene	190	1/53	2%	210 - 210	33 - 20000	SD-R2-K-5-1_20131104	1	N	HQ<1
193-39-5	Indeno[1,2,3-cd]pyrene	200	5/14	36%	64 - 270	33 - 5200	SD-L6-1-011FD	1	N	HQ<1
91-20-3	Naphthalene	160	2/53	4%	90 - 170	33 - 20000	SD-R2-K-5-1_20131104	1	N	HQ<1
86-30-6	N-Nitrosodiphenylamine	2680	3/9	33%	83 - 1200	33 - 84	SD-R2-L-5-02_20131104	0.4	N	HQ<1
85-01-8	Phenanthrene	560	14/53	26%	49 - 1100	33 - 20000	SD-R2-0-4-1_20131105	2	Y	HQ>1
129-00-0	Pyrene	490	29/53	55%	53 - 4000	50 - 20000	SD-R-M7-011N	8	Y	HQ>1
Metals (mg/kg)										
7429-90-5	Aluminum	25500	6/6	100%	7030 - 38000	-	SD-R2-0-4-3_20131105	1	N	HQ<1
7440-36-0	Antimony	3	1/14	7%	1.2 - 1.2	0.64 - 198	SD-M5-1-011.5N	0	N	HQ<1
7440-38-2	Arsenic	6	102/123	83%	0.64 - 111	2.82 - 198	SD-R-M7-051.0N	19	Y	HQ>1
7440-39-3	Barium	7000	6/6	100%	101 - 191	-	SD-R2-0-4-3_20131105	0.03	N	HQ<1
7440-41-7	Beryllium	NA	11/14	79%	0.12 - 2.04	9.08 - 49.5	SD-R2-K-5-2_20131104	NA	Y	NSV
7440-43-9	Cadmium	0.6	97/123	79%	0.096 - 7.19	0.079 - 49.5	SD-R-M7-051.0N	12	Y	HQ>1
7440-70-2	Calcium	--	6/6	100%	490 - 13300	-	SD-R2-K-5-2_20131104	--	N	Nutrient
7440-47-3	Chromium	26	123/123	100%	2 - 106	-	SD-R-M5-091.0N	4	Y	HQ>1
7440-48-4	Cobalt	50	4/6	67%	1.96 - 2.97	13.2 - 49.5	SD-R2-K-5-1_20131104	0.1	N	HQ<1
7440-50-8	Copper	16	122/123	99%	3.6 - 584	0.22 - 0.22	SD-R-K5-171.0N	37	Y	HQ>1

Table 4-5
Summary Statistics and COPEC Screen for Detected Constituents in Northern Drainage Area Sediment
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS No.	Constituent	Sediment Screening Value	Detects/ Analyses	Frequency of Detections	Range of Deteted Concentrations	Detection Limit Range (for non-detects)	Location of Max Detection	Hazard Quotient	COPEC	Rationale
Metals (mg/kg) (cont'd)										
7439-89-6	Iron	20000	6/6	100%	2340 - 23400	-	SD-R2-K-5-1_20131104	--	N	Nutrient
7439-92-1	Lead	31	123/123	100%	4.51 - 2990	-	SD-R-K5-201.0N	96	Y	HQ>1
7439-95-4	Magnesium	460	6/6	100%	443 - 2320	-	SD-R2-K-5-2_20131104	--	N	Nutrient
7439-96-5	Manganese	630	6/6	100%	25.6 - 514	-	SD-R2-K-5-1_20131104	0.8	N	HQ<1
7439-97-6	Mercury	0.2	120/123	98%	0.0043 - 11.4	0.126 - 1.01	SD-R-M7-041.0N	57	Y	HQ>1
7440-02-0	Nickel	16	123/123	100%	1.7 - 151	-	SD-R-M5-091.0N	9	Y	HQ>1
7440-09-7	Potassium	--	5/6	83%	412 - 665	4950 - 4950	SD-R2-0-4-3_20131105, SD-R2-L-5-02_20131104	--	N	Nutrient
7782-49-2	Selenium	2	4/14	29%	0.55 - 5.49	0.47 - 198	SD-R2-K-5-1_20131104	3	N	LOW FOD
7440-22-4	Silver	1	13/123	11%	0.25 - 5.06	0.14 - 49.5	SD-R2-0-4-2_20131105	5	Y	HQ>1
7440-23-5	Sodium	--	5/6	83%	37.7 - 188	9910 - 9910	SD-R2-L-5-02_20131104	--	N	Nutrient
7440-28-0	Thallium	NA	1/14	7%	2 - 2	0.83 - 297	SD-M5-1-011.5N	NA	N	LOW FOD
7440-62-2	Vanadium	57	5/6	83%	20.1 - 36.7	49.5 - 49.5	SD-R2-K-5-1_20131104	0.6	N	HQ<1
7440-66-6	Zinc	120	123/123	100%	10.6 - 4500	-	SD-R-M7-051.0N	38	Y	HQ>1
Explosives (ug/kg)			/							
118-96-7	2,4,6-Trinitrotoluene	1100	2/123	2%	830 - 1200	100 - 3700	SD-R-N5-051N	1	N	HQ<1
35572-78-2	2-Amino-4,6-dinitrotoluene	1300	1/123	1%	280 - 280	100 - 3700	SD-R-N5-051N	0.2	N	HQ<1
9004-70-0	Nitrocellulose	NA	12/117	10%	95000 - 6000000	60000 - 1500000	SD-R-L5-011.0N	NA	Y	NSV
55-63-0	Nitroglycerin	127000	17/123	14%	3100 - 2700000	2000 - 73000	SD-R-L5-011.0N	21	Y	HQ>1
121-82-4	RDX (Cyclonite)	1200	1/123	1%	600 - 600	100 - 3700	SD-R-L5-011.0N	0.5	N	HQ<1

Notes:
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LOW FOD = low frequency of detection
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
NA = not available
NSV = no screening value

Table 4-6
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Range Limit	Hazard Quotient	COPEC	Rationale
VOCs									
1,1,1-Trichloroethane	--	--	0/75	-	--	1 - 1	ND	N	ND
1,1,2,2-Tetrachloroethane	--	--	0/75	-	--	1 - 1	ND	N	ND
1,1,2-Trichloroethane	--	--	0/75	-	--	1 - 1	ND	N	ND
1,1-Dichloroethane	--	--	0/75	-	--	1 - 1	ND	N	ND
1,1-Dichloroethene	--	--	0/75	-	--	1 - 1	ND	N	ND
1,2-Dichloroethane	--	--	0/75	-	--	1 - 1	ND	N	ND
1,2-Dichloropropane	--	--	0/75	-	--	1 - 1	ND	N	ND
2-Chloroethyl Vinyl Ether	--	--	0/75	-	--	2 - 2	ND	N	ND
Acrolein	--	--	0/75	-	--	40 - 40	ND	N	ND
Acrylonitrile	--	--	0/75	-	--	4 - 4	ND	N	ND
Benzene	--	--	0/75	-	--	1 - 1	ND	N	ND
Bromodichloromethane	--	--	1/92	3-3	SW-E15-2-01	1 - 5	--	N	Low FOD
Bromomethane	--	--	0/75	-	--	2 - 2	ND	N	ND
Carbon Tetrachloride	--	--	0/75	-	--	1 - 1	ND	N	ND
CFC-11	--	--	0/75	-	--	2 - 2	ND	N	ND
Chlorobenzene	--	--	0/75	-	--	1 - 1	ND	N	ND
Chlorodibromomethane	--	35000	1/75	2-2	SW-E15-2-01	1 - 1	0.0001	N	HQ<1
Chloroethane	--	--	0/75	-	--	2 - 2	ND	N	ND
Chloroform	--	140	1/75	3-3	SW-E15-2-01	1 - 1	0.02	N	HQ<1
Chloromethane	--	--	0/75	-	--	2 - 2	ND	N	ND
cis-1,2-Dichloroethene	--	590	4/75	1-4	SW-B15-1-01, SW-B15-2-01	1 - 1	0.007	N	HQ<1
cis-1,3-Dichloropropene	--	--	0/75	-	--	1 - 1	ND	N	ND
Dichloromethane	--	--	0/75	-	--	2 - 2	ND	N	ND
Ethylbenzene	--	--	0/75	-	--	1 - 1	ND	N	ND
Tetrachloroethene	--	45	9/92	0.9-6	SW-A15-3-01, SW-B15-1-01, SW-R-B15-06	1 - 5	0.1	N	HQ<1
Toluene	--	--	0/75	-	--	1 - 1	ND	N	ND
trans-1,2-Dichloroethene	--	--	0/75	-	--	1 - 1	ND	N	ND
trans-1,3-Dichloropropene	--	--	0/75	-	--	1 - 1	ND	N	ND
Tribromomethane	--	--	0/75	-	--	1 - 1	ND	N	ND
Trichloroethene	--	47	3/75	1-1	SW-B15-1-01, SW-B15-2-01, SW-E15-2-01	1 - 1	0.02	N	HQ<1
Vinyl Chloride	--	--	0/75	-	--	1 - 1	ND	N	ND
Xylenes (total)	--	--	0/75	-	--	1 - 1	ND	N	ND
SVOCs						-			
1,1-Biphenyl	--	--	0/9	-	--	1 - 1	ND	N	ND
1,2,4-Trichlorobenzene	--	--	0/75	-	--	0.9 - 1	ND	N	ND

Table 4-6
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Range Limit	Hazard Quotient	COPEC	Rationale
1,2-Dichlorobenzene	--	--	0/75	-	--	0.9 - 1	ND	N	ND
1,2-Diphenylhydrazine	--	--	0/75	-	--	0.9 - 1	ND	N	ND
1,3-Dichlorobenzene	--	--	0/75	-	--	0.9 - 1	ND	N	ND
1,4-Dichlorobenzene	--	--	0/75	-	--	0.9 - 1	ND	N	ND
2,2-Oxybis(1-Chloropropane)	--	--	0/84	-	--	0.9 - 1	ND	N	ND
2,4,5-Trichlorophenol	--	--	0/9	-	--	1 - 1	ND	N	ND
2,4,6-Trichlorophenol	--	--	0/84	-	--	1 - 2	ND	N	ND
SVOCs									
2,4-Dichlorophenol	--	--	0/84	-	--	0.9 - 1	ND	N	ND
2,4-Dimethylphenol	--	--	0/84	-	--	0.9 - 1	ND	N	ND
2,4-Dinitrophenol	--	--	0/87	-	--	19 - 63	ND	N	ND
2,4-Dinitrotoluene	--	44	1/101	1-1	SW-R-D13-03	0.9 - 50	0.02	N	HQ<1
2,6-Dinitrotoluene	--	81	2/101	1-3	SW-R-D13-03	1 - 50	0.04	N	HQ<1
2-Chloronaphthalene	--	--	0/84	-	--	0.9 - 1	ND	N	ND
2-Chlorophenol	--	--	0/84	-	--	0.9 - 1	ND	N	ND
2-Methyl-4,6-dinitrophenol	--	--	0/84	-	--	5 - 16	ND	N	ND
2-Methylnaphthalene	--	--	0/9	-	--	0.5 - 0.5	ND	N	ND
2-Methylphenol	--	--	0/9	-	--	1 - 1	ND	N	ND
2-Nitroaniline	--	--	0/9	-	--	1 - 1	ND	N	ND
2-Nitrophenol	--	--	0/84	-	--	0.9 - 1	ND	N	ND
3,3-Dichlorobenzidine	--	--	0/84	-	--	3 - 5	ND	N	ND
3,5,5-Trimethyl-2-Cyclohexene-1-One	--	--	0/84	-	--	0.9 - 1	ND	N	ND
3-Nitroaniline	--	--	0/9	-	--	1 - 1	ND	N	ND
4-Bromophenyl Phenyl Ether	--	--	0/84	-	--	1 - 2	ND	N	ND
4-Chloro-3-Methylphenol	--	--	0/84	-	--	0.9 - 1	ND	N	ND
4-Chlorophenyl Phenyl Ether	--	--	0/84	-	--	0.9 - 1	ND	N	ND
4-Methylphenol	--	--	0/9	-	--	1 - 1	ND	N	ND
4-Nitroaniline	--	--	0/9	-	--	1 - 1	ND	N	ND
4-Nitrophenol	--	--	0/84	-	--	9 - 32	ND	N	ND
Acenaphthene	--	--	0/84	-	--	0.5 - 1	ND	N	ND
Acenaphthylene	--	--	0/84	-	--	0.5 - 1	ND	N	ND
Acetophenone	--	--	0/9	-	--	1 - 1	ND	N	ND
Anthracene	--	--	0/84	-	--	0.5 - 1	ND	N	ND
Atrazine	--	--	0/9	-	--	5 - 5	ND	N	ND
Benzaldehyde	--	--	0/9	-	--	5 - 5	ND	N	ND
Benzidine	--	--	0/75	-	--	19 - 22	ND	N	ND
Benzo(a)anthracene	--	0.025	3/101	0.1-2	SW-D13-2-01	0.5 - 50	80	N	Low FOD
Benzo(a)pyrene	--	0.014	4/101	0.2-2	SW-D13-2-01	0.5 - 50	143	N	Low FOD
Benzo(b)fluoranthene	--	9.07	7/101	0.2-3	SW-D13-2-01	0.5 - 50	0.3	N	HQ<1
Benzo(g,h,i)perylene	--	7.64	4/101	0.1-2	SW-D13-2-01	0.5 - 50	0.3	N	HQ<1
Benzo(k)fluoranthene	--	9.07	3/101	0.1-1	SW-D13-2-01	0.5 - 50	0.1	N	HQ<1
Benzyl Butyl Phthalate	--	--	0/84	-	--	2 - 5	ND	N	ND
bis(2-Chloroethoxy)methane	--	--	0/84	-	--	0.9 - 1	ND	N	ND
Bis(2-Chloroethyl)ether	--	--	0/84	-	--	0.9 - 1	ND	N	ND

Table 4-6
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Range Limit	Hazard Quotient	COPEC	Rationale
Bis(2-Ethylhexyl)phthalate	--	0.3	1/101	2-2	SW-D13-4-01	2 - 50	6.7	N	Low FOD
Caprolactam	--	--	0/9	-	--	15 - 16	ND	N	ND
Carbazole	--	--	0/9	-	--	1 - 1	ND	N	ND
Chrysene	--	0.28	6/101	0.2-2	SW-D13-2-01	0.5 - 50	7.1	Y	HQ>1
Dibenzo(a,h)anthracene	--	--	0/84	-	--	0.5 - 1	ND	N	ND
Dibenzofuran	--	--	0/9	-	--	1 - 1	ND	N	ND
Diethyl Phthalate	--	--	0/84	-	--	2 - 5	ND	N	ND
Dimethyl Phthalate	--	--	0/84	-	--	2 - 5	ND	N	ND
Di-N-Butyl Phthalate	--	--	0/84	-	--	2 - 5	ND	N	ND
Di-n-Octyl Phthalate	--	--	0/84	-	--	2 - 5	ND	N	ND
Fluoranthene	--	1.9	4/84	0.3-3	SW-D13-2-01	0.5 - 1	1.6	N	Low FOD
SVOCs									
Fluorene	--	--	0/70	-	--	0.5 - 1	ND	N	ND
Hexachloro-1,3-Butadiene	--	--	0/84	-	--	1 - 2	ND	N	ND
Hexachlorobenzene	--	--	0/84	-	--	0.5 - 2	ND	N	ND
Hexachlorocyclopentadiene	--	--	0/84	-	--	5 - 16	ND	N	ND
Hexachloroethane	--	--	0/84	-	--	0.9 - 5	ND	N	ND
Indeno(1,2,3-cd)pyrene	--	4.31	2/84	0.1-2	SW-D13-2-01	0.5 - 1	0.5	N	HQ<1
Naphthalene	--	13	2/84	0.1-0.9	SW-R2-E-16-1	0.5 - 1	0.07	N	HQ<1
Nitrobenzene	--	--	0/84	-	--	0.9 - 1	ND	N	ND
N-Nitrosodimethylamine	--	--	0/75	-	--	2 - 2	ND	N	ND
N-Nitrosodi-N-Propylamine	--	--	0/84	-	--	0.9 - 1	ND	N	ND
N-nitrosodiphenylamine	--	--	0/84	-	--	0.9 - 1	ND	N	ND
p-Chloroaniline	--	--	0/9	-	--	1 - 1	ND	N	ND
Pentachlorophenol	--	--	0/84	-	--	3 - 15	ND	N	ND
Phenanthrene	--	3.6	4/84	0.1-2	SW-D13-2-01	0.5 - 1	0.6	N	HQ<1
Phenol	--	--	0/84	-	--	0.9 - 1	ND	N	ND
Purge Volume	--	--	0/14	-	--	0.9 - 1	ND	N	ND
Pyrene	--	0.3	4/84	0.3-3	SW-D13-2-01	0.5 - 1	10	N	Low FOD
TPH		0							
Amyl Alcohol	--	--	0/75	-	--	1000 - 1000	ND	N	ND
Di-n-Propyl Ether	--	--	0/75	-	--	1000 - 1000	ND	N	ND
Ethanol	--	--	0/75	-	--	1000 - 1000	ND	N	ND
Ethyl Ether	--	--	0/75	-	--	1000 - 1000	ND	N	ND
Methanol	--	--	0/75	-	--	1000 - 1000	ND	N	ND
n-Butyl Ether	--	--	0/75	-	--	1000 - 1000	ND	N	ND
Metals									
Aluminum (AQ - total)	--	87	6/9	107-1430	SW-R2-B-15-2	200 - 200	16	Y	HQ>1
Antimony (AQ - dissolved)	--	--	0/75	-	--	5900 - 5900	ND	N	ND
Antimony (AQ - total)	--	80	6/84	0.46-12	SW-F11-1-01	1 - 5900	0.2	N	HQ<1
Arsenic (AQ - dissolved)	NA	150	2/89	3.9-5.3	SW-E11-2-01	20 - 3700	0.04	N	HQ<1
Arsenic (AQ - total)	--	150	39/159	0.55-469	SW-R-F11-02	2 - 3700	3	Y	HQ>1
Barium (AQ - total)	--	220	9/9	37.5-133	SW-R2-D-12-3	--	0.6	N	HQ<1

Table 4-6
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Range Limit	Hazard Quotient	COPEC	Rationale
Beryllium (AQ - dissolved)	--	--	0/75	-	--	640 - 640	ND	N	ND
Beryllium (AQ - total)	--	3.6	2/84	1.6-21.7	SW-E16-1-01	5 - 640	6	N	Low FOD
Cadmium (AQ - dissolved)	--	--	0/75	-	--	640 - 640	ND	N	ND
Cadmium (AQ - total)	--	0.31	8/84	0.66-8.6	SW-E16-1-01	5 - 640	28	Y	HQ>1
Calcium (AQ - total)	--	--	9/9	19100-61700	SW-R2-B-15-1	--	--	N	Nutrient
Chromium (AQ - dissolved)	--	--	0/75	-	--	1700 - 1700	ND	N	ND
Chromium (AQ - total)	--	100	18/84	1.8-31.8	SW-E16-1-01	15 - 1700	0.3	N	HQ<1
Cobalt (AQ - total)	--	24	2/9	2.1-12.4	SW-R2-B-15-2	5 - 5	0.5	N	HQ<1
Copper (AQ - dissolved)	9.9	--	16/89	2.4-4.4	SW-H5-1-01	10 - 2400	0.4	N	HQ<1
Copper (AQ - total)	--	11	85/159	2.1-2400	SW-R-F11-02	10 - 2400	220	Y	HQ>1
Iron (AQ - total)	--	300	9/9	118-28000	SW-R2-D-12-3	--	93	N	Nutrient
Lead (AQ - dissolved)	NA	5.4	1/89	17.5-17.5	SW-D13-5-01	20 - 8800	3	N	Low FOD
Lead (AQ - total)	--	5.4	88/159	0.35-3210	SW-R-G11-01	1 - 8800	594	Y	HQ>1
Magnesium (AQ - total)	--	82000	9/9	7890-26300	SW-R2-B-15-1	--	0.3	N	Nutrient
Manganese (AQ - total)	--	120	9/9	75.6-2060	SW-R2-D-12-3	--	17	Y	HQ>1
Mercury (AQ - dissolved)	NA	0.77	1/89	0.072-0.072	SW-R-D13-05	0.2 - 26	0.09	N	HQ<1
Metals		0							
Mercury (AQ - total)	--	0.77	33/159	0.026-13	SW-R-F11-02	0.2 - 26	17	Y	HQ>1
Nickel (AQ - dissolved)	52	--	9/75	1.7-9.2	SW-F14-1-01	1600 - 1600	0.2	N	HQ<1
Nickel (AQ - total)	--	61	21/84	1.6-91.3	SW-E16-1-01	10 - 1600	1	N	HQ<1
Potassium (AQ - total)	--	--	9/9	1750-4130	SW-R2-B-15-2	--	--	N	Nutrient
Selenium (AQ - dissolved)	NA	5	4/89	4.4-5.2	SW-F14-1-01	20 - 4300	1	N	HQ<1
Selenium (AQ - total)	--	5	11/159	4.6-71.9	SW-R-D12-07	20 - 4300	14	Y	HQ>1
Silver (AQ - dissolved)	4.4	--	1/89	2.1-2.1	SW-D13-2-01	5 - 1300	0.5	N	HQ<1
Silver (AQ - total)	--	5.2	12/159	1.8-16.2	SW-R-D12-07	5 - 1300	3	Y	HQ>1
Sodium (AQ - total)	--	--	9/9	53100-89600	SW-R2-F-14-2	--	--	N	Nutrient
Thallium (AQ - total)	--	10	3/159	10.4-32.1	SW-R-D12-07	0.5 - 8800	3	N	Low FOD
Thallium (AQ - dissolved)	NA	10	2/89	10-11.6	SW-G12-1-01	20 - 8800	1	N	HQ<1
Vanadium (AQ - total)	--	12	3/9	2-5.6	SW-R2-B-15-2	5 - 5	0.5	N	HQ<1
Zinc (AQ - dissolved)	133	--	67/89	3.4-89.6	SW-F10-1-01	20 - 3200	0.7	N	HQ<1
Zinc (AQ - total)	--	140	127/159	2.1-4450	SW-R-G12-04	20 - 3200	32	Y	HQ>1
Explosives and Energetics		0							
1,2-Dinitrobenzene	--	--	0/10	-	--	0.2 - 0.6	ND	N	ND
1,3,5-Trinitrobenzene	--	--	0/84	-	--	0.2 - 0.6	ND	N	ND
1,3-Dinitrobenzene	--	--	0/84	-	--	0.2 - 0.6	ND	N	ND
1,4-Dinitrobenzene	--	--	0/10	-	--	0.2 - 0.6	ND	N	ND
1-Nitronaphthalene	--	--	0/9	-	--	0.6 - 0.6	ND	N	ND
2,4,6-Trinitrotoluene	--	90	18/178	0.25-11	SW-R-D14-01	0.2 - 0.6	0.1	N	HQ<1
2,4-Dinitrotoluene	--	44	1/84	0.36-0.36	SW-D11-1-01	0.2 - 2	0.008	N	HQ<1
2,6-Dinitrotoluene	--	81	11/84	0.24-2.07	SW-D11-1-01	0.2 - 1.3	0.03	N	HQ<1
2-Amino-4,6-Dinitrotoluene	--	20	29/178	0.31-16	SW-R-D14-01	0.2 - 0.7	0.8	N	HQ<1
2-Nitrotoluene	--	--	0/84	-	--	0.2 - 0.75	ND	N	ND
3-Nitrotoluene	--	--	0/84	-	--	0.2 - 1.2	ND	N	ND

Table 4-6
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Surface Water Screening Value - Filtered (ug/L)	Surface Water Screening Value (ug/L)	Detection Frequency	Range of Detected Concentrations (ug/L)	Maximum Detect Location	Detection Range Limit	Hazard Quotient	COPEC	Rationale
4-Amino-2,6-Dinitrotoluene	--	20	34/178	0.32-21	SW-R-D14-01	0.2 - 0.7	1.1	N	HQ<1
4-Nitrotoluene	--	--	0/84	-	--	0.2 - 1.2	ND	N	ND
HMX	--	150	2/178	1.81-2.67	SW-D14-1-01	0.2 - 2	0.02	N	HQ<1
Nitrobenzene	--	--	0/84	-	--	0.2 - 0.6	ND	N	ND
Nitrocellulose	--	9825	1/75	690-690	SW-E11-1-01	500 - 500	0.07	N	HQ<1
Nitroglycerin	--	--	0/84	-	--	4 - 400	ND	N	ND
Pentaerythritol Tetranitrate	--	--	0/84	-	--	4 - 18	ND	N	ND
RDX	--	360	10/178	0.26-9.3	SW-R-E15-04	0.2 - 0.6	0.03	N	HQ<1
Tetryl	--	--	0/84	-	--	0.2 - 0.6	ND	N	ND

Notes:

-- = not applicable
< = less than
> = greater than
AQ = aqueous
COPEC = constituent of potential ecological concern
FOD = frequency of detection
HQ = hazard quotient
N = no
NA = not available
ND = not detected
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
µg/L = micrograms per liter
VOC = volatile organic compound
Y = yes

Table 4-7
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Sediment
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS No.	Constituent	Sediment Screening Value	Detects/ Analyses	Frequency of Detections	Range of Detected Concentrations	Detection Limit Range (for non-detects)	Location of Max Detection	Hazard Quotient	COPEC	Rationale
VOCs (ug/kg)										
67-64-1	Acetone	9.9	1/1	100%	19 - 19	-	SD-R2-E-16-1_20131105	2	N	LOW FOD
75-15-0	Carbon disulfide	23.9	1/1	100%	2 - 2	-	SD-R2-E-16-1_20131105	0	N	HQ<1
127-18-4	Tetrachloroethene	450	5/90	6%	1300 - 6700	6 - 6300	SD-R-B15-051.0N	15	Y	HQ>1
SVOCs (ug/kg)										
90-12-0	1-Methylnaphthalene	20.2	3/15	20%	120 - 810	130 - 4000	SD-R2-F-14-1_20131105	40	N	LOW FOD
51-28-5	2,4-Dinitrophenol	6.21	1/28	4%	6000 - 6000	670 - 41000	SD-H7-2-011FD	966	N	LOW FOD
121-14-2	2,4-Dinitrotoluene	14.4	5/101	5%	120 - 560	67 - 30000	SD-R-E11-071.0FD	39	Y	HQ>1
606-20-2	2,6-Dinitrotoluene	39.8	1/101	1%	75 - 75	33 - 30000	SD-R-C11-041.0N	2	N	LOW FOD
91-57-6	2-Methylnaphthalene	20.2	4/16	25%	100 - 780	130 - 4000	SD-R2-F-14-1_20131105	39	N	LOW FOD
100-02-7	4-Nitrophenol	13.3	1/28	4%	540 - 540	170 - 21000	SD-H7-2-011FD	41	N	LOW FOD
83-32-9	Acenaphthene	16	14/116	12%	51 - 140000	33 - 4000	SD-R-D14-031.0N	8750	Y	HQ>1
208-96-8	Acenaphthylene	44	34/116	29%	35 - 900000	33 - 4000	SD-R-D14-031.0N	20455	Y	HQ>1
120-12-7	Anthracene	220	41/116	35%	37 - 1100000	42 - 4000	SD-R-D14-031.0N	5000	Y	HQ>1
56-55-3	Benzo[a]anthracene	320	73/116	63%	49 - 1500000	42 - 4000	SD-R-D14-031.0N	4688	Y	HQ>1
50-32-8	Benzo[a]pyrene	370	71/116	61%	53 - 900000	42 - 4000	SD-R-D14-031.0N	2432	Y	HQ>1
205-99-2	Benzo[b]fluoranthene	10400	35/43	81%	50 - 5500	42 - 4000	SD-R2-F-14-1_20131105	1	N	HQ<1
191-24-2	Benzo[g,h,i]perylene	170	67/116	58%	47 - 470000	42 - 4000	SD-R-D14-031.0N	2765	Y	HQ>1
207-08-9	Benzo[k]fluoranthene	240	65/116	56%	41 - 580000	42 - 4000	SD-R-D14-031.0N	2417	Y	HQ>1
117-81-7	Bis(2-Ethylhexyl)phthalate	182	6/28	21%	97 - 1400	85 - 7000	SD-I11-2-011N	8	Y	HQ>1
85-68-7	Butylbenzylphthalate	1970	1/28	4%	200 - 200	81 - 6900	SD-B8-1-011N	0	N	HQ<1
218-01-9	Chrysene	340	79/116	68%	43 - 1100000	42 - 4000	SD-R-D14-031.0N	3235	Y	HQ>1
53-70-3	Dibenzo[a,h]anthracene	60	38/116	33%	50 - 180000	42 - 4000	SD-R-D14-031.0N	3000	Y	HQ>1
84-66-2	Diethylphthalate	295	1/28	4%	340 - 340	67 - 6900	SD-E10-1-011.5N	1	N	HQ<1
84-74-2	Di-n-butylphthalate	1114	4/28	14%	180 - 1500	81 - 6900	SD-E10-1-011.5N	1	N	HQ<1
117-84-0	Di-n-octylphthalate	40600	1/28	4%	86 - 86	81 - 6900	SD-B8-1-011N	0	N	HQ<1
206-44-0	Fluoranthene	750	89/116	77%	46 - 3500000	42 - 4000	SD-R-D14-031.0N	4667	Y	HQ>1
86-73-7	Fluorene	190	23/116	20%	45 - 1200000	33 - 4000	SD-R-D14-031.0N	6316	Y	HQ>1
193-39-5	Indeno[1,2,3-cd]pyrene	200	28/43	65%	57 - 2200	42 - 4000	SD-R2-F-14-1_20131105	11	Y	HQ>1
91-20-3	Naphthalene	160	11/116	9%	57 - 240000	33 - 4000	SD-R-D14-031.0N	1500	Y	HQ>1
86-30-6	N-Nitrosodiphenylamine	2680	11/28	39%	56 - 14000	33 - 1400	SD-F10-2-011.5N	5	Y	HQ>1
85-01-8	Phenanthrene	560	74/116	64%	44 - 5300000	42 - 4000	SD-R-D14-031.0N	9464	Y	HQ>1
129-00-0	Pyrene	490	93/116	80%	47 - 2600000	42 - 4000	SD-R-D14-031.0N	5306	Y	HQ>1
Metals (mg/kg)										
7429-90-5	Aluminum	25500	16/16	100%	1670 - 21700	-	SD-R2-G-12-5_20131106	1	N	HQ<1
7440-36-0	Antimony	3	8/43	19%	0.91 - 5.67	0.78 - 296	SD-R2-C-11-1_20131106	2	Y	HQ>1
7440-38-2	Arsenic	6	204/236	86%	0.69 - 192	0.63 - 296	SD-R-C12-011.0N	32	Y	HQ>1
7440-39-3	Barium	7000	16/16	100%	31.9 - 380	-	SD-R2-G-12-4_20131106	0	N	HQ<1
7440-41-7	Beryllium	NA	33/43	77%	0.19 - 1.41	0.026 - 73.9	SD-R2-F-14-1_20131105	NA	Y	NSV
7440-43-9	Cadmium	0.6	127/236	54%	0.11 - 3.8	0.066 - 73.9	SD-R-E10-011N	6	Y	HQ>1
7440-70-2	Calcium	--	16/16	100%	1430 - 47200	-	SD-R2-E-13-1_20131106	--	N	Nutrient
7440-47-3	Chromium	26	235/236	100%	4.04 - 246	222 - 222	SD-R2-F-14-1_20131105	9	Y	HQ>1
7440-48-4	Cobalt	50	14/16	88%	1.97 - 40.6	37.8 - 73.9	SD-R2-G-12-4_20131106	1	N	HQ<1
7440-50-8	Copper	16	235/236	100%	2.13 - 979	148 - 148	SD-R-E10-051.0N	61	Y	HQ>1

Table 4-7
Summary Statistics and COPEC Screen for Detected Constituents in Southern Drainage Area Sediment
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

CAS No.	Constituent	Sediment Screening Value	Detects/ Analyses	Frequency of Detections	Range of Detected Concentrations	Detection Limit Range (for non-detects)	Location of Max Detection	Hazard Quotient	COPEC	Rationale
7439-89-6	Iron	20000	16/16	100%	9610 - 109000	-	SD-R2-E-10-2_20131106	--	N	Nutrient
7439-92-1	Lead	31	235/236	100%	2.9 - 148000	16.4 - 16.4	SD-R-D11-071.0N	4774	Y	HQ>1
7439-95-4	Magnesium	460	16/16	100%	722 - 6000	-	SD-R2-E-13-1_20131106	13	N	Nutrient
7439-96-5	Manganese	630	16/16	100%	40.3 - 7280	-	SD-R2-G-12-4_20131106	12	Y	HQ>1
7439-97-6	Mercury	0.2	222/236	94%	0.0043 - 27	0.0035 - 0.809	SD-R-E10-051.0N	135	Y	HQ>1
7440-02-0	Nickel	16	233/236	99%	1.35 - 81.9	7.02 - 148	SD-R-E10-021.0N	5	Y	HQ>1
7440-09-7	Potassium	--	13/16	81%	324 - 891	1090 - 7390	SD-R2-G-12-5_20131106	--	N	Nutrient
7782-49-2	Selenium	2	11/43	26%	0.98 - 5.58	0.57 - 296	SD-R2-C-15-1_20131106	3	Y	HQ>1
7440-22-4	Silver	1	50/236	21%	0.223 - 13.4	0.17 - 73.9	SD-R2-G-12-1_20131105	13	Y	HQ>1
7440-23-5	Sodium	--	11/16	69%	134 - 808	1260 - 14800	SD-R2-E-13-1_20131106	--	N	Nutrient
7440-28-0	Thallium	NA	10/43	23%	1.6 - 11.1	1 - 443	SD-I5-2-011N	NA	Y	NSV
7440-62-2	Vanadium	57	15/16	94%	13.6 - 62.4	73.9 - 73.9	SD-R2-G-12-1_20131105	1	N	HQ<1
7440-66-6	Zinc	120	236/236	100%	13.6 - 1550	-	SD-R-E10-021.0N	13	Y	HQ>1
	TPH (ug/kg)									
67-56-1	Methanol	--	3/81	4%	24000 - 65000	10000 - 96000	SD-E14-1-011N	--	N	LOW FOD
	Explosives (ug/kg)				-	-				
118-96-7	2,4,6-Trinitrotoluene	1100	7/245	3%	200 - 19000	98 - 4500	SD-R-D14-031.0N	17	Y	HQ>1
35572-78-2	2-Amino-4,6-dinitrotoluene	1300	7/245	3%	230 - 1300	98 - 4500	SD-R-B14-041N	1	N	HQ<1
19406-51-0	4-Amino-2,6-dinitrotoluene	3500	7/245	3%	500 - 1100	98 - 5200	SD-R-C11-031.0N	0	N	HQ<1
98-95-3	Nitrobenzene	145	7/244	3%	250 - 1800	98 - 54000	SD-R-E14-091.0N	12	Y	HQ>1
9004-70-0	Nitrocellulose	NA	39/229	17%	58000 - 2200000	60000 - 1200000	SD-F10-2-011.5N	NA	Y	NSV
55-63-0	Nitroglycerin	127000	15/244	6%	3600 - 75000	130 - 90000	SD-R-F10-041N	1	N	HQ<1

Notes:
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LOW FOD = low frequency of detection
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
NA = not available
NSV = no screening value

Table 4-8
COPEC Summary
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil	Sediment		Surface Water	
		North	South	North	South
VOC					
Benzene	X				
Bromomethane	X				
Tetrachloroethene			X		
SVOC					
2,4-Dinitrotoluene	X		X		
2,6-Dinitrotoluene	X				
Acenaphthene			X		
Acenaphthylene			X		
Anthracene			X		
Benzo(a)anthracene	X	X	X		
Benzo(a)pyrene	X	X	X		
Benzo(g,h,i)fluoranthene	X				
Benzo(g,h,i)perylene		X	X		
Benzo(k)fluoranthene		X	X		
Benzyl Butyl Phthalate	X				
Bis(2-Ethylhexyl)phthalate	X		X		
Chrysene	X	X	X		X
Dibenzo(a,h)anthracene		X	X		
Di-N-Butyl Phthalate	X				
Fluoranthene		X	X		
Fluorene			X		
Indeno(1,2,3-cd)pyrene			X		
Naphthalene			X		
Naphthalene	X				
N-Nitrosodi-N-Propylamine	X				
N-nitrosodiphenylamine	X		X		
Phenanthrene	X	X	X		
Pyrene		X	X		
Metals - Filtered					
Copper				X	
Lead				X	
Zinc				X	
Metals - Total					
Aluminum					X
Antimony	X		X		
Arsenic	X	X	X		X
Beryllium		X	X		
Cadmium	X	X	X		X
Chromium	X	X	X		
Cobalt	X				
Copper	X	X	X	X	X
Lead	X	X	X	X	X
Manganese	X		X		X
Mercury	X	X	X		X
Nickel	X	X	X	X	
Selenium	X		X		X
Silver	X	X	X		X
Thallium	X		X		
Vanadium	X				
Zinc	X	X	X	X	X

Table 4-8
COPEC Summary
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil	Sediment		Surface Water	
		North	South	North	South
Explosives and Energetics					
1,3,5-Trinitrobenzene	X				
2,4,6-Trinitrotoluene	X		X		
2-Amino-4,6-dinitrotoluene	X				
4-Amino-2,6-dinitrotoluene	X				
HMX	X				
Nitrobenzene			X		
Nitrocellulose	X	X	X		
Nitroglycerin	X	X			
Pentaerythritol Tetranitrate	X				
RDX	X				
PCBs					
Aroclor 1254	X				
Aroclor 1260	X				
Total PCBs	X				

Notes:
COPEC = constituent of potential ecological concern
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound

Table 5-1
Exposure Point Concentrations for Soil
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	n	Detects	Range of Detects	FOD	Distribution[1]	95UCL[2]	Maximum Detect	Exposure Point Concentration[3]	Basis	Bioaccumulative[4]
VOCs											
Benzene	ug/kg	604	16	1-8000	3%	Nonparametric	126	8000	126	95% KM (Chebyshev) UCL	
Bromomethane	ug/kg	209	13	123-907	6%	Nonparametric	300	907	300	95% KM (t) UCL	
SVOCs											
2,4-Dinitrotoluene	ug/kg	1708	314	0.028-6300	18%	Nonparametric	22	6300	22	95% KM (Chebyshev) UCL	(5)
2,6-Dinitrotoluene	ug/kg	1694	158	0.016-310	9%	Nonparametric	6.2	310	6.2	95% KM (Chebyshev) UCL	(5)
Benzo(a)anthracene	ug/kg	1954	1068	4-46000	55%	Nonparametric	673	46000	673	95% KM (Chebyshev) UCL	X
Benzo(a)pyrene	ug/kg	1954	1061	4-39000	54%	Nonparametric	589	39000	589	95% KM (Chebyshev) UCL	X
Benzo(g,h,i)fluoranthene	ug/kg	148	50	96-5500	34%	Nonparametric	417	5500	417	95% KM (BCA) UCL	X
Benzyl Butyl Phthalate	ug/kg	1979	44	41-190000	2%	Nonparametric	622	190000	622	95% KM (Chebyshev) UCL	
Bis(2-Ethylhexyl)phthalate	ug/kg	1954	845	17-57000	43%	Nonparametric	257	57000	257	95% KM (BCA) UCL	
Chrysene	ug/kg	1954	1091	5-40000	56%	Nonparametric	674	40000	674	95% KM (Chebyshev) UCL	X
Di-N-Butyl Phthalate	ug/kg	1954	719	15-190000	37%	Nonparametric	774	190000	774	95% KM (BCA) UCL	
Naphthalene	ug/kg	1586	142	4-14900	9%	Nonparametric	75	14900	75	95% KM (BCA) UCL	
N-Nitrosodi-N-Propylamine	ug/kg	1954	16	21.6-2840	1%	Lognormal	41	2840	41	95% KM (BCA) UCL	
N-nitrosodiphenylamine	ug/kg	1885	447	25.2-24000	24%	Nonparametric	309	24000	309	95% KM (BCA) UCL	
Phenanthrene	ug/kg	1571	933	5-79000	59%	Nonparametric	855	79000	855	95% KM (Chebyshev) UCL	X
Metals											
Antimony	mg/kg	1884	462	0.15-5060	25%	Nonparametric	10	5060	10	95% KM (BCA) UCL	
Arsenic	mg/kg	1884	1872	1-1150	99%	Nonparametric	28	1150	28	95% KM (Chebyshev) UCL	X
Cadmium	mg/kg	1884	1131	0.02-140	60%	Nonparametric	1.2	140	1.2	95% KM (Chebyshev) UCL	X
Chromium	mg/kg	1529	1522	2.4-1010	100%	Nonparametric	23	1010	23	95% KM (BCA) UCL	X
Cobalt	mg/kg	28	28	1.13-10	100%	Normal	6.1	10	6.1	95% Student's-t UCL	
Copper	mg/kg	1884	1877	1.89-47000	100%	Nonparametric	262	47000	262	95% KM (Chebyshev) UCL	X
Lead	mg/kg	1884	1884	1.77-144000	100%	Nonparametric	1435	144000	1435	95% Chebyshev (Mean, Sd) UCL	X
Manganese	mg/kg	28	28	28.5-2270	100%	Gamma	559	2270	559	95% Approximate Gamma UCL	
Mercury	mg/kg	1881	1797	0.0039-2940	96%	Nonparametric	14	2940	14	95% KM (Chebyshev) UCL	X
Nickel	mg/kg	1884	1875	0.87-1380	100%	Nonparametric	16	1380	16	95% KM (BCA) UCL	X
Selenium	mg/kg	1884	1326	0.11-803	70%	Nonparametric	2.6	803	2.6	95% KM (BCA) UCL	X
Silver	mg/kg	1884	447	0.07-332	24%	Nonparametric	0.9	332	0.9	95% KM (BCA) UCL	X
Thallium	mg/kg	1884	414	0.3-9.3	22%	Lognormal	0.9	9	0.9	95% KM (t) UCL	
Vanadium	mg/kg	28	28	15.8-54.1	100%	Normal	38	54	38	95% Student's-t UCL	
Zinc	mg/kg	1884	1882	2.58-42000	100%	Nonparametric	268	42000	268	95% KM (BCA) UCL	X
Explosives and Energetics											
1,3,5-Trinitrobenzene	ug/kg	963	5	108-860	1%	Gamma	17	860	17	95% KM (t) UCL	(5)
2,4,6-Trinitrotoluene	ug/kg	1340	160	106-350000	12%	Nonparametric	1141	350000	1141	95% KM (BCA) UCL	(5)
2-Amino-4,6-Dinitrotoluene	ug/kg	1339	34	120-290000	3%	Lognormal	691	290000	691	95% KM (BCA) UCL	(5)
4-Amino-2,6-Dinitrotoluene	ug/kg	1340	40	104-200000	3%	Lognormal	489	200000	489	95% KM (BCA) UCL	(5)
HMX	ug/kg	1340	31	280-8500000	2%	Nonparametric	47335	8500000	47335	97.5% KM (Chebyshev)	(5)
Nitrocellulose	ug/kg	1116	563	22000-33700000	50%	Nonparametric	1011166	33700000	1011166	97.5% KM (Chebyshev)	(5)
Nitroglycerin	ug/kg	1368	326	1800-3900000	24%	Nonparametric	43508	3900000	43508	95% KM (Chebyshev) UCL	(5)
Pentaerythritol Tetranitrate	ug/kg	51	9	4300-12100000	18%	Gamma	687898	12100000	687898	95% KM (t) UCL	(5)
RDX	ug/kg	1340	34	120-323000	3%	Lognormal	1411	323000	1411	95% KM (Chebyshev) UCL	(5)

Table 5-1
Exposure Point Concentrations for Soil
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	n	Detects	Range of Detects	FOD	Distribution[1]	95UCL[2]	Maximum Detect	Exposure Point Concentration[3]	Basis	Bioaccumulative[4]
PCBs											
Aroclor 1254	ug/kg	480	94	4.2-150000	20%	Nonparametric	1817	150000	1817	95% KM (Chebyshev) UCL	X
Aroclor 1260	ug/kg	477	108	4.3-7600	23%	Nonparametric	218	7600	218	95% KM (Chebyshev) UCL	X
Total PCBs	ug/kg	480	149	0.4-150000	31%	Lognormal	2529	150000	2529	97.5% KM (Chebyshev)	X

Notes:

[1] Distribution assessed by goodness-of-fit tests based on detected values only conducted using ProUCL 4.1.00 at a 95% confidence level (α = 0.05).
Distributions:
Normal: dataset follows a normal distribution, according to the Shapiro-Wilk test.
Gamma: dataset follows a gamma distribution, according to the Kolmogorov-Smirnov test.
Nonparametric: dataset does not follow a normal distribution.

[2] 95UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.

[3] The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections).

[4] Considered bioaccumulative according to USEPA 2000 and NJDEP 2015.

[5] Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational history.

% = percent
95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
FOD = frequency of detection
KM = Kaplan-Meier
mg/kg = milligram per kilogram
n = sample size
NJDEP = New Jersey Department of Environmental Protection
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
USEPA = United States Environmental Protection Agency
VOC = volatile organic compound

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2010. ProUCL Version 4.1.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development. EPA/600/R-07/041. May.
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 5-2
Exposure Point Concentrations for Northern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	n	Detects	Range of Detects (µg/L)	FOD (%)	Distribution[1]	95UCL[2] (µg/L)	Maximum Detect (µg/L)	Exposure Point Concentration[3] (µg/L)	Basis
Metals									
Copper (AQ - dissolved)	53	12	1.9-72.4	23	Nonparametric	17	72	17	95% KM (% Bootstrap) UCL
Lead (AQ - dissolved)	53	7	8.5-40	13	Nonparametric	20	40	20	95% KM (% Bootstrap) UCL
Nickel (AQ - dissolved)	44	20	1.6-7.7	46	Nonparametric	4	7.7	3.5	95% KM (t) UCL
Zinc (AQ - dissolved)	53	52	4.8-504	98	Nonparametric	103	504	103	95% KM (Chebyshev) UCL

Notes:

[1] Distribution assessed by goodness-of-fit tests based on detected values only conducted using ProUCL 4.1.00 at a 95% confidence level (α = 0.05).
Distributions:
Normal: dataset follows a normal distribution, according to the Shapiro-Wilk test.
Gamma: dataset follows a gamma distribution, according to the Kolmogorov-Smirnov test.
Nonparametric: dataset does not follow a normal distribution.

[2] 95UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.

[3] The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections). The maximum detected concentration was selected as the exposure point concentration for constituents with less than 5 detections.

% = percent
95UCL = 95% upper confidence limit of the mean
AQ = aqueous
COPEC = constituent of potential ecological concern
FOD = frequency of detection
KM = Kaplan-Meier
n = sample size
NJDEP = New Jersey Department of Environmental Protection
µg/L = microgram per liter
USEPA = United States Environmental Protection Agency

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2010. ProUCL Version 4.1.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development. EPA/600/R-07/041. May.
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 5-3
Exposure Point Concentrations for Northern Drainage Area Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	n	Detects	Range of Detects	FOD	Distribution[1]	95UCL[2]	Maximum Detect	Exposure Point Concentration[3]	Basis	Bioaccumulative[4]
SVOCs											
Benzo(a)anthracene	ug/kg	54	20	48-2100	37%	Lognormal	377	2100	377	95% KM (BCA) UCL	X
Benzo(a)pyrene	ug/kg	54	19	67-1500	35%	Lognormal	345	1500	345	95% KM (BCA) UCL	X
Benzo(g,h,i)perylene	ug/kg	54	17	57-1300	31%	Gamma	253	1300	253	95% Approximate Gamma KM	X
Benzo(k)fluoranthene	ug/kg	54	19	57-1700	35%	Nonparametric	324	1700	324	95% KM (BCA) UCL	X
Chrysene	ug/kg	54	24	41-2900	44%	Lognormal	484	2900	484	95% KM (BCA) UCL	X
Dibenzo(a,h)anthracene	ug/kg	54	5	95-240	9%	Normal	113	240	113	95% KM (t) UCL	X
Fluoranthene	ug/kg	54	30	56-2200	56%	Nonparametric	720	2200	720	95% KM (Chebyshev) UCL	X
Phenanthrene	ug/kg	54	14	49-1100	26%	Gamma	201	1100	201	95% Approximate Gamma KM	X
Pyrene	ug/kg	54	29	53-4000	54%	Lognormal	863	4000	863	95% KM (Chebyshev) UCL	X
Metals											
Arsenic	mg/kg	127	104	0.64 - 111	82%	Lognormal	9.4	111	9.4	95% KM (BCA) UCL	X
Beryllium	mg/kg	15	12	0.12 - 2.04	80%	Normal	1.0	2.0	1.0	95% KM (t) UCL	
Cadmium	mg/kg	127	100	0.096 - 7.19	79%	Lognormal	1.0	7.2	1.0	95% KM (BCA) UCL	X
Chromium	mg/kg	127	127	2 - 106	100%	Nonparametric	21	106	21	95% Chebyshev (Mean, Sd) UCL	X
Copper	mg/kg	127	126	3.6 - 584	99%	Lognormal	65	584	65	95% KM (BCA) UCL	X
Lead	mg/kg	127	127	4.51 - 2990	100%	Lognormal	182	2990	182	95% H-UCL	X
Mercury	mg/kg	127	124	0.0043 - 11.4	98%	Lognormal	0.9	11	0.9	95% KM (Chebyshev) UCL	X
Nickel	mg/kg	127	127	1.7 - 151	100%	Nonparametric	17	151	17	95% Chebyshev (Mean, Sd) UCL	X
Silver	mg/kg	127	13	0.25-5.06	10%	Gamma	0.5	5.1	0.5	95% Approximate Gamma KM	X
Zinc	mg/kg	127	127	10.6 - 4500	100%	Lognormal	316	4500	316	95% H-UCL	X
Explosives and Energetics											
Nitrocellulose	ug/kg	112	12	95000-6000000	11%	Lognormal	305165	6000000	305165	95% KM (BCA) UCL	(5)
Nitroglycerin	ug/kg	127	16	3100-2700000	13%	Nonparametric	123142	2700000	123142	95% KM (Chebyshev) UCL	(5)

Notes:

[1] Distribution assessed by goodness-of-fit tests based on detected values only conducted using ProUCL 4.1.00 at a 95% confidence level (α = 0.05).
Distributions:
Normal: dataset follows a normal distribution, according to the Shapiro-Wilk test.
Gamma: dataset follows a gamma distribution, according to the Kolmogorov-Smirnov test.
Nonparametric: dataset does not follow a normal distribution.

[2] 95UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.

[3] The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections). The maximum detected concentration was selected as the exposure point concentration for constituents with less than 5 detections.

[4] Considered bioaccumulative according to USEPA 2000 and NJDEP 2015

[5] Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational history and general ubiquity within certain former operational areas.

% = percent
95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
FOD = frequency of detection
KM = Kaplan-Meier

Table 5-3
Exposure Point Concentrations for Northern Drainage Area Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

mg/kg = milligrams per kilogram
n = sample size
NJDEP = New Jersey Department of Environmental Protection
SVOC = semivolatile organic compound
USEPA = United States Environmental Protection Agency

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2010. ProUCL Version 4.1.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development. EPA/600/R-07/041. May.
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 5-4
Exposure Point Concentrations for Southern Drainage Area Surface Water
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	n	Detects	Range of Detects (µg/L)	FOD (%)	Distribution[1]	95UCL[2] (µg/L)	Maximum Detect (µg/L)	Exposure Point Concentration[3] (µg/L)	Basis
SVOCs									
Chrysene	101	6	0.2-2	6	Nonparametric	0.3	2.0	0.3	95% KM (t) UCL
Metals									
Aluminum (AQ - total)[4]	9	6	107-1430	67	Nonparametric	664	1430	664	95% KM (t) UCL
Arsenic (AQ - dissolved)	89	2	3.9-5.3	2	NA	NA	5.3	5.3	Maximum Detected Concentration
Cadmium (AQ - dissolved)	75	0	-	0	NA	NA	--	--	Maximum Detected Concentration
Copper (AQ - dissolved)	89	16	2.4-4.4	18	Nonparametric	3.4	4.4	3.4	95% KM (Percentile Bootstrap) UCL
Lead (AQ - dissolved)	89	1	17.5-17.5	1	NA	NA	18	18	Maximum Detected Concentration
Manganese (AQ - total) [4]	9	9	75.6-2060	100	Normal	1274	2060	1274	95% Student's-t UCL
Mercury (AQ - dissolved)	89	1	0.072-0.072	1	NA	NA	0.07	0.07	Maximum Detected Concentration
Selenium (AQ - dissolved)	89	4	4.4-5.2	4	NA	NA	5.2	5.2	Maximum Detected Concentration
Silver (AQ - dissolved)	89	1	2.1-2.1	1	NA	NA	2.1	2.1	Maximum Detected Concentration
Zinc (AQ - dissolved)	89	67	3.4-89.6	75	Nonparametric	15	90	15	95% KM (BCA) UCL

Notes:

[1] Distribution assessed by goodness-of-fit tests based on detected values only conducted using ProUCL 4.1.00 at a 95% confidence level (α = 0.05).
Distributions:
Normal: dataset follows a normal distribution, according to the Shapiro-Wilk test.
Gamma: dataset follows a gamma distribution, according to the Kolmogorov-Smirnov test.
Nonparametric: dataset does not follow a normal distribution.

[2] 95UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.

[3] The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections). The maximum detected concentration was selected as the exposure point concentration for constituents with less than 5 detections.

[4] No dissolved data for aluminum and manganese. Total metal data used in lieu of dissolved.

-- = not applicable
% = percent
95UCL = 95% upper confidence limit of the mean
AQ = aqueous
COPEC = constituent of potential ecological concern
FOD = frequency of detection
KM = Kaplan-Meier
n = sample size
NA = not available/applicable
NJDEP = New Jersey Department of Environmental Protection
µg/L = microgram per liter
USEPA = United States Environmental Protection Agency

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2010. ProUCL Version 4.1.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development. EPA/600/R-07/041. May.
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 5-5
Exposure Point Concentrations for Southern Drainage Area Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Units	n	Detects	Range of Detects	FOD	Distribution[1]	95UCL[2]	Maximum Detect	Exposure Point Concentration[3]	Basis	Bioaccumulative[4]
VOCs											
Tetrachloroethene	ug/kg	90	5	1300-6700	6%	Nonparametric	4500	6700	4500	95% KM (Percentile Bootstrap) UCL	
SVOCs											
2,4-Dinitrotoluene	ug/kg	112	6	120-560	5%	Normal	99.25	560	99	95% KM (t) UCL	
Acenaphthene	ug/kg	127	15	51-140000	12%	Nonparametric	6112	140000	6112	95% KM (Chebyshev) UCL	
Acenaphthylene	ug/kg	127	38	35-900000	30%	Nonparametric	38386	900000	38386	95% KM (Chebyshev) UCL	X
Anthracene	ug/kg	127	45	37-1100000	35%	Nonparametric	46852	1100000	46852	95% KM (Chebyshev) UCL	X
Benzo(a)anthracene	ug/kg	127	82	49-1500000	65%	Nonparametric	63801	1500000	63801	95% KM (Chebyshev) UCL	X
Benzo(a)pyrene	ug/kg	127	79	53-900000	62%	Lognormal	38423	900000	38423	95% KM (Chebyshev) UCL	X
Benzo(g,h,i)perylene	ug/kg	127	73	47-470000	57%	Nonparametric	20153	470000	20153	95% KM (Chebyshev) UCL	X
Benzo(k)fluoranthene	ug/kg	127	72	41-580000	57%	Nonparametric	24773	580000	24773	95% KM (Chebyshev) UCL	X
Bis(2-Ethylhexyl)phthalate	ug/kg	32	5	97-1400	16%	Normal	1.0	1400	243	95% KM (Percentile Bootstrap) UCL	
Chrysene	ug/kg	127	88	43-1100000	69%	Nonparametric	46954	1100000	46954	95% KM (Chebyshev) UCL	X
Dibenzo(a,h)anthracene	ug/kg	127	41	50-180000	32%	Nonparametric	4365	180000	4365	95% KM (BCA) UCL	X
Fluoranthene	ug/kg	127	99	46-3500000	78%	Nonparametric	148553	3500000	148553	95% KM (Chebyshev) UCL	X
Fluorene	ug/kg	127	26	45-1200000	20%	Nonparametric	51371	1200000	51371	95% KM (Chebyshev) UCL	X
Indeno(1,2,3-cd)pyrene	ug/kg	48	32	57-2200	67%	Lognormal	375	2200	375	95% KM (BCA) UCL	X
N-nitrosodiphenylamine	ug/kg	32	13	56-14000	41%	Lognormal	1554	14000	1554	95% KM (BCA) UCL	
Naphthalene	ug/kg	127	11	57-240000	9%	Nonparametric	14276	240000	14276	97.5% KM (Chebyshev) UCL	
Phenanthrene	ug/kg	127	83	44-5300000	65%	Nonparametric	303331	5300000	303331	97.5% KM (Chebyshev) UCL	X
Pyrene		127	103	47-2600000	81%	Lognormal	149294	2600000	149294	97.5% KM (Chebyshev) UCL	X
Metals											
Antimony	mg/kg	48	8	0.91-5.67	17%	Nonparametric	1.3	5.7	1.3	95% KM (t) UCL	
Arsenic	mg/kg	524	219	0.69-192	42%	Nonparametric	16	192	16	95% KM (Chebyshev) UCL	X
Beryllium	mg/kg	48	37	0.19-1.14	77%	Normal	0.6	1.1	0.6	95% KM (t) UCL	
Cadmium	mg/kg	254	133	0.11-3.8	52%	Nonparametric	0.6	3.8	0.6	95% KM (t) UCL	X
Chromium	mg/kg	254	253	4.04-246	100%	Nonparametric	26	246	26	95% KM (BCA) UCL	X
Copper	mg/kg	254	253	2.13-979	100%	Lognormal	40	979	40	95% KM (BCA) UCL	X
Lead	mg/kg	254	253	2.9-148000	100%	Nonparametric	4536	148000	4536	97.5% KM (Chebyshev) UCL	X
Manganese	mg/kg	17	17	40.3-7280	100%	Nonparametric	2721	7280	2721	95% Chebyshev (Mean, Sd) UCL	
Mercury	mg/kg	254	239	0.0043-27	94%	Lognormal	1.7	27	1.7	97.5% KM (Chebyshev) UCL	X
Nickel	mg/kg	254	250	1.35-81.9	98%	Lognormal	10	82	10	95% KM (BCA) UCL	X
Selenium	mg/kg	48	11	0.98-5.58	23%	Lognormal	1.4	5.6	1.4	95% KM (t) UCL	X
Silver	mg/kg	254	51	0.223-13.4	20%	Nonparametric	0.6	13	0.6	95% KM (BCA) UCL	X
Thallium	mg/kg	48	13	1.6-11.1	27%	Normal	3.0	11	3.0	95% KM (t) UCL	
Zinc	mg/kg	254	254	13.6-1550	100%	Lognormal	134	1550	134	95% H-UCL	X
Explosives											
2,4,6-Trinitrotoluene	ug/kg	264	7	200-19000	3%	Lognormal	406	19000	406	95%KM (BCA) UCL	(5)
Nitrobenzene	ug/kg	263	7	250-1800	3%	Normal	155	1800	155	95% KM (t) UCL	(5)
Nitrocellulose	ug/kg	247	42	58000-2200000	17%	Lognormal	146775	2200000	146775	95% KM (t) UCL	(5)

Table 5-5
Exposure Point Concentrations for Southern Drainage Area Sediment
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Notes:

[1] Distribution assessed by goodness-of-fit tests based on detected values only conducted using ProUCL 4.1.00 at a 95% confidence level (α = 0.05).
Distributions:
Normal: dataset follows a normal distribution, according to the Shapiro-Wilk test.
Gamma: dataset follows a gamma distribution, according to the Kolmogorov-Smirnov test.
Nonparametric: dataset does not follow a normal distribution.

[2] 95UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.

[3] The exposure point concentration is the 95UCL when available (i.e., sample size greater than or equal to 8 with a minimum of 5 detections). The maximum detected concentration was selected as the exposure point concentration for constituents with less than 5 detections.

[4] Considered bioaccumulative according to USEPA 2000 and NJDEP 2015.

[5] Although not considered bioaccumulative, explosive compounds were included in the dose-exposure model based on their direct ties to the site operational history and general ubiquity within certain former operational areas.

% = percent
95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
FOD = frequency of detection
KM = Kaplan-Meier
mg/kg = milligrams per kilogram
n = sample size
NJDEP = New Jersey Department of Environmental Protection
SVOC = semivolatile organic compound
USEPA = United States Environmental Protection Agency
VOC = volatile organic compound

References:

NJDEP. 2015. Ecological Evaluation Technical Guidance. February
USEPA. 2010. ProUCL Version 4.1.00 Technical Guide (Draft). U.S. Environmental Protection Agency, Office of Research and Development. EPA/600/R-07/041. May.
USEPA. 2000. Bioaccumulation Testing and Interpretation For The Purpose Of Sediment Quality Assessment Status and Needs. EPA-823-R-00-001.

Table 5-6
Bioaccumulation Factors
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Soil EPC (mg/kg)	Bioaccumulation Factors					
		BAF_{invert}	Note	BAF_{plant}	Note	BAF_{mammal}	Note
SVOCs							
2,4-Dinitrotoluene	0.02	0.0581* (Cs)	f	3.53*(Cs) [foliage]	f,g	0	h
2,6-Dinitrotoluene	0.006	0.0581* (Cs)	f	3.53*(Cs) [foliage]	f,g	0	
Benzo(a)anthracene	0.7	1.59*(Cs)	b	e^(0.5944*LN(Cs)-2.7078)	b	0	b
Benzo(a)pyrene	0.6	1.33*(Cs)	b	e^(0.975*LN(Cs)-2.0615)	b	0	b
Benzo(g,h,i)fluoranthene	0.4	2.94*(Cs)	b	e^(1.1829*LN(Cs)-0.9313)	b	0	b
Chrysene	0.7	2.29*(Cs)	b	e^(0.5944*LN(Cs)-2.7078)	b	0	b
Phenanthrene	0.9	1.72*(Cs)	b	e^(0.6203*LN(Cs)-0.1665)	b	0	b
Pesticides/PCBs							
Total PCBs	2.5	e^(1.7903 * ln(Cs) + 1.2909)	c	0.0045*(Cs)	i	0.025* (Cd)	i
Metals							
Arsenic	28	e^(0.706*LN(Cs)-1.421)	b	0.03752*(Cs)	b	e^(0.8188*LN(Cs)-4.871)	b
Cadmium	1.2	e^(0.795*LN(Cs)+2.114)	b	e^(0.546*LN(Cs)-0.475)	b	e^(0.4723*LN(Cs)-1.2571)	b
Chromium	23	0.306*(Cs)	b	0.041*(Cs)	b	e^(0.7338*LN(Cs) -1.4599)	b
Copper	262	0.515*(Cs)	b	e^(0.394*LN(Cs)+0.668)	b	e^(0.1444*LN(Cs)+2.042)	b
Lead	1435	e^(0.807 * LN(Cs) - 0.218)	b	e^(0.561 * LN(Cs) - 1.328)	b	e^(0.4422 * LN(Cs) + 0.0761)	b
Mercury	14	e^(0.0781+0.3369*LN(Cs))	c	e^(-4.186+0.641*LN(Cs)+0.4238(pH))	d	e^(-4.0341-0.8965*LN(Cs))	e
Nickel	16	e^(7.033-1.548*LN(Cs))	c	e^(0.748*LN(Cs)-2.223)	b	e^(0.4658*LN(Cs)-0.2462)	b
Selenium	2.6	e^(0.733*LN(Cs)-0.075)	b	e^(1.104*LN(Cs)-0.677)	b	e^(0.3764*LN(Cs)-0.4158)	b
Silver	0.9	2.045*(Cs)	b	0.014*(Cs)	b	0.004*(Cs)	b
Zinc	268	e^(0.328 * LN(Cs) + 4.449)	b	e^(0.554 * LN(Cs) + 1.575)	b	e^(0.0706 * LN(Cs) + 4.3632)	b
Explosives and Energetics							
1,3,5-Trinitrobenzene	0.02	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
2,4,6-Trinitrotoluene	1.1	0.0581* (Cs)	f	3.53*(Cs) [foliage]	f	0	h
2-Amino-4,6-Dinitrotoluene	0.7	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
4-Amino-2,6-Dinitrotoluene	0.5	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
HMX	47	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
Nitrocellulose	1011	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
Nitroglycerin	44	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
Pentaerythritol Tetranitrate	688	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h
RDX	1.4	0.0581* (Cs)	f,g	3.53*(Cs) [foliage]	f,g	0	h

Notes:

Average pH = 5.91.

b. USEPA 2007

c. Sample et al. 1998a

d. Bechtel Jacobs 1998

e. Sample et al. 1998b

f. CH2MHill 2005

g. Values for TNT used as a surrogate

h. Assumed to be negligible (Sunahara et al. 2009, USEPA 2007)

i. USEPA 1999

BAF = bioaccumulation factor
Cd = concentration in diet
COPEC = constituent of potential ecological concern
Cs = concentration in soil
EPC = exposure point concentration
mg/kg = milligram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
USEPA = United States Environmental Protection Agency

Table 5-7
Terrestrial Tissue Exposure Point Concentrations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Soil EPC (mg/kg)	Estimated Tissue Concentrations (mg/kg)		
		C_{invert}	C_{plant}	C_{mammal}
SVOCs				
2,4-Dinitrotoluene	0.02	0.001	0.008	0
2,6-Dinitrotoluene	0.006	0.0004	0.002	0
Benzo(a)anthracene	0.7	1.1	0.05	0
Benzo(a)pyrene	0.6	0.8	0.08	0
Benzo(g,h,i)fluoranthene	0.4	1.2	0.2	0
Chrysene	0.7	1.5	0.05	0
Phenanthrene	0.9	1.5	0.8	0
Pesticides/PCBs				
Total PCBs	2.5	19	0.01	0.06
Metals				
Arsenic	28	2.6	1.1	0.1
Cadmium	1.2	9.5	0.7	0.3
Chromium	23	7.0	0.9	2.3
Copper	262	135	17	17
Lead	1435	284	16	27
Mercury	14	2.6	1.0	0.002
Nickel	16	15	0.9	2.9
Selenium	2.6	1.8	1.4	0.9
Silver	0.9	1.8	0.01	0.003
Zinc	268	535	107	117
Explosives and Energetics				
1,3,5-Trinitrobenzene	0.02	0.001	0.06	0
2,4,6-Trinitrotoluene	1.1	0.07	4.0	0
2-Amino-4,6-Dinitrotoluene	0.7	0.04	2.4	0
4-Amino-2,6-Dinitrotoluene	0.5	0.03	1.7	0
HMX	47	2.8	167	0
Nitrocellulose	1011	59	3569	0
Nitroglycerin	44	2.5	154	0
Pentaerythritol Tetranitrate	688	40	2428	0
RDX	1.4	0.08	5.0	0

Notes:
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
mg/kg = milligram per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound

Table 5-8
Biota-Sediment Accumulation Factors
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	$BSAF_{fish}$	Note	$BSAF_{invert}$	Note	BAF_{plant}	Note
SVOCs						
Acenaphthylene	(0.0182*[Cs]*flipid) / foc	a	(0.691*[Cs]*flipid) / foc	b	e^(0.791*LN(Cs)-1.144)	c
Anthracene	(0.00991*[Cs]*flipid) / foc	a	(0.502*[Cs]*flipid) / foc	b	e^(0.7784*LN(Cs)-0.9887)	c
Benzo(a)anthracene	(0.0135*[Cs]*flipid) / foc	a	(0.619*[Cs]*flipid) / foc	b	e^(0.5944*LN(Cs)-2.7078)	c
Benzo(a)pyrene	(0.0021*[Cs]*flipid) / foc	a	(0.272*[Cs]*flipid) / foc	b	e^(0.975*LN(Cs)-2.0615)	c
Benzo(g,h,i)perylene	(0.025*[Cs]*flipid) / foc	a	(0.068*[Cs]*flipid) / foc	b	e^(1.1829*LN(Cs)-0.9313)	c
Benzo(k)fluoranthene	(0.0023*[Cs]*flipid) / foc	a	(1.32*[Cs]*flipid) / foc	b	e^(0.8595*LN(Cs)-2.1579)	c
Chrysene	(0.01*[Cs]*flipid) / foc	a	(0.397*[Cs]*flipid) / foc	b	e^(0.5944*LN(Cs)-2.7078)	c
Dibenzo(a,h)anthracene	(0.00215*[Cs]*flipid) / foc	a	(0.148*[Cs]*flipid) / foc	b	0.13*[Cs]	c
Fluoranthene	(0.0075*[Cs]*flipid) / foc	a	(1.26*[Cs]*flipid) / foc	b	0.5*[Cs]	c
Fluorene	(0.0257*[Cs]*flipid) / foc	a	(0.865*[Cs]*flipid) / foc	b	e^(-0.8556*LN(Cs)-5.562)	c
Indeno(1,2,3-cd)pyrene	(0.0144*[Cs]*flipid) / foc	a	(0.121*[Cs]*flipid) / foc	b	0.11*[Cs]	c
Phenanthrene	(0.0308*[Cs]*flipid) / foc	a	(0.487*[Cs]*flipid) / foc	b	e^(0.6203*LN(Cs)-0.1665)	c
Pyrene	(0.0126*[Cs]*flipid) / foc	a	(0.569*[Cs]*flipid) / foc	b	0.72*[Cs]	c
Metals						
Arsenic	0.24*[Cs]	d	0.24*[Cs]	d	0.03752*[Cs]	c
Cadmium	3.44*[Cs]	d	3.44*[Cs]	d	e^(0.546*LN(Cs)-0.475)	c
Chromium	0.206*[Cs]	d	0.206*[Cs]	d	0.041*[Cs]	c
Copper	2.14*[Cs]	d	2.14*[Cs]	d	e^(0.394*LN(Cs)+0.668)	c
Lead	0.331*[Cs]	d	0.331*[Cs]	d	e^(0.561 * LN(Cs) - 1.328)	c
Mercury	1.2*[Cs]	d	1.2*[Cs]	d	e^(-4.186+0.641*LN(Cs)+0.4238(pH)	d
Nickel	1.3*[Cs]	d	1.3*[Cs]	d	e^(0.748*LN(Cs)-2.223)	c
Selenium	0.974*[Cs]	e	0.974*[Cs]	e	e^(1.104*LN(Cs)-0.677)	c
Silver	0.974*[Cs]	e	0.974*[Cs]	e	0.014*[Cs]	c
Zinc	3.4*[Cs]	d	3.4*[Cs]	d	e^(0.554 * LN(Cs) + 1.575)	c
Explosives and Energetics						
2,4,6-Trinitrotoluene	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g
Nitrobenzene	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g
Nitrocellulose	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g
Nitroglycerin	(2.9*[Cs]*flipid) / foc	e,g	(2.9*[Cs]*flipid) / foc	e,g	3.7*[Cs]	f,g

Notes:
Average pH = 5.8

a. BSAFs obtained from USEPA BSAF database; values are the mean values for each individual PAH across various freshwater sites for whole body fish tissue data.

b. Mean values from USACE BSAF database for all aquatic invertebrates.
c. USEPA 2007
d. Bechtel Jacobs 1998
e. USEPA 1999
f. CH2MHill 2005
g. Values for 2,4,6-trinitrotoluene used as a surrogate.
COPEC = constituent of potential ecological concern
Cs = concentration in sediment
BAF = bioaccumulation factor
BSAF = biota-sediment accumulation factor
f_{lipid} = percent lipid body composition; assumes 3% for inverts and 5% for fish
foc = fraction organic carbon; 0.13 in the Northern Drainage Area and 0.058 in the Southern Drainage Area
PAH = polycyclic aromatic hydrocarbon
SVOC = semivolatile organic compound
USACE = United States Army Corps of Engineers
USEPA = United States Environmental Protection Agency

Table 5-9
Aquatic Tissue Exposure Point Concentrations
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Sediment EPC (mg/kg)		Northern Area - Tissue EPCs[a] (mg/kg)			Southern Area - Tissue EPCs[a] (mg/kg)		
	Northern Area	Southern Area	C_{invert}	C_{fish}	C_{plant}	C_{invert}	C_{fish}	C_{plant}
SVOCs								
Acenaphthylene	- -	38	- -	- -	- -	14	0.6	5.7
Anthracene	- -	47	- -	- -	- -	12	0.4	7.4
Benzo(a)anthracene	0.4	64	0.05	0.002	0.04	20	0.7	0.8
Benzo(a)pyrene	0.3	38	0.02	0.0003	0.05	5.4	0.07	4.5
Benzo(g,h,i)perylene	0.3	20	0.004	0.002	0.08	0.7	0.4	14
Benzo(k)fluoranthene	0.3	25	0.10	0.0003	0.04	17	0.05	1.8
Chrysene	0.5	47	0.04	0.002	0.04	9.6	0.4	0.7
Dibenzo(a,h)anthracene	- -	4.4	- -	- -	- -	0.3	0.008	0.6
Fluoranthene	0.7	149	0.2	0.002	0.4	96	1.0	74
Fluorene	- -	51	- -	- -	- -	23	1.1	0.0001
Indeno(1,2,3-cd)pyrene	- -	0.4	- -	- -	- -	0.02	0.005	0.04
Phenanthrene	0.2	303	0.02	0.002	0.3	76	8.1	29
Pyrene	0.9	149	0.1	0.004	0.6	44	1.6	107
Metals								
Arsenic	9.4	17	2.3	2.3	0.4	4.1	4.1	0.6
Cadmium	1.0	0.7	3.5	3.5	0.6	2.4	2.4	0.5
Chromium	21	27	4.2	4.2	0.8	5.6	5.6	1.1
Copper	65	43	138	138	10	91	91	8.6
Lead	182	3891	60	60	4.9	1288	1288	27
Mercury	0.9	1.6	1.0	1.0	0.2	1.9	1.9	0.2
Nickel	17	10	22	22	0.9	14	14	0.6
Selenium	- -	2.2	--	--	--	2.2	2.2	1.2
Silver	0.5	0.7	0.5	0.5	0.007	0.7	0.7	0.01
Zinc	316	139	1075	1075	117	472	472	74
Explosives and Energetics								
2,4,6-Trinitrotoluene	- -	0.4	- -	- -	- -	0.6	1.0	1.5
Nitrobenzene	- -	0.2	- -	- -	- -	0.2	0.4	0.6
Nitrocellulose	305	147	200	333	1129	220	367	543
Nitroglycerin	123	- -	81	134	456	- -	- -	- -

Notes:

a. Tissue concentrations of non-polar organic compounds calculated using the equation: $C_{tissue} = (BSAF \times C_{sed} \times f_{lipid})/f_{oc}$
where: f_{lipid} assumes an average lipid content of 3% for invertebrates; 5% for fish.

Total Organic Carbon	(mg/kg)	%	f_{oc}
Northern Drainage Area	133,000	13.3	0.13
Southern Drainage Area	58,000	5.8	0.058

- - = not applicable
% = percent
BSAF = biota-sediment accumulation factor
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
SVOC = semivolatile organic compound
mg/kg = milligram per kilogram

Table 5-10
Exposure Parameters for Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Common Name	Scientific Name	Feeding Guild	Body Weight (kg)	Note	Dietary Composition (%)			Daily Ingestion Rate (kg/day ww)	Note	Daily Ingestion Rate (kg/day dw)	Note	Soil/ Sediment Ingestion (%)	Note	Soil/ Sediment Ingestion Rate (kg/day dw)	Note
					Plants	Invertebrates	Tissue								
Aquatic Species															
Tree swallow	*Tachycineta bicolor*	Insectivorous	0.0202	a	0	100	0	0.04	a	0.01	a	0	g	0	g
Great blue heron	*Ardea herodias*	Piscivorous	2.34	b	0	0	100	0.4	b	0.1	c	2.0	f	0.003	h
Mallard duck	*Anas platyrhynchos*	Herbivorous	1.16	b	100	0	0	0.4	a	0.06	i	2.0	f	0.001	h
Little brown bat	*Myotis lucifugus*	Insectivorous	0.0090	a	0	100	0	0.01	a	0.002	a	0	g	0	g
Mink	*Mustela vison*	Piscivorous	0.8961	b	0	0	100	0.1	b	0.05	c	2.0	f	0.0009	h
Muskrat	*Ondatra zibethicus*	Herbivorous	1.174	b	100	0	0	0.4	b	0.05	c	2.0	d	0.001	h
Terrestrial Species															
American robin	*Turdus migratorius*	Insectivorous	0.081	b	0	100	0	0.10	b	0.02	c	10	d	0.002	h
Red-tailed hawk	*Buteo jamaicensis*	Carnivorous	1.13	b	0	0	100	0.1	b	0.04	c	5.7	e	0.002	h
Northern bobwhite	*Colinus virginianus*	Herbivorous	0.174	b	100	0	0	0.01	b	0.002	c	9.3	d	0.0002	h
Short-tailed shrew	*Blarina brevicauda*	Insectivorous	0.017	b	0	100	0	0.008	b	0.001	c	3.0	e	0.00004	h
Red fox	*Vulpes vulpes*	Carnivorous	4.535	b	0	0	100	0.5	b	0.2	c	2.8	d	0.005	h
White-tailed deer	*Odocoileus virginianus*	Herbivorous	56.5	b	100	0	0	1.7	b	0.3	e	2.0	d	0.005	h

Notes:

a. Nagy 2001

b. USEPA 1993

c. Daily ingestion rates converted to dry weight assuming a moisture content of the following (USEPA 2007):
Invertebrates: 84%
Tissue: 68%
Plants: 85%

d. Beyer et al. 1994 (muskrat based on values for woodchuck; robin based on values for woodcock; bobwhite based on values for wild turkey)

e. USEPA 2007

f. Conservative estimates

g. Aerial insectivore; therefore, soil/sediment ingestion assumed to be neglible (Sample and Suter 1994).

h. Calculated by multiplying the soil ingestion rate times the dry weight daily ingestion rate.

i. Calculated using the allometric equation for non-passerines from USEPA 1993.

% = percent

kg = kilogram

kg/day dw = kilogram per day dry weight

kg/day ww = kilogram per day wet weight

USEPA = United States Environmental Protection Agency

Table 6-1
Toxicity Reference Values
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Toxicity Reference Values (mg/kg/day)					
	Mammals		Note	Birds		Note
	NOAEL	LOAEL		NOAEL	LOAEL	
SVOCs						
Acenaphthene	65.6	328	a	1653	16530	a
Acenaphthylene	65.6	328	a	1653	16530	a
Anthracene	65.6	328	a	1653	16530	a
Benzo(a)anthracene	0.615	3.07	a	2	20	a
Benzo(a)pyrene	0.615	3.07	a	2	20	a
Benzo(g,h,i)perylene	0.615	3.07	a	2	20	a
Benzo(k)fluoranthene	0.615	3.07	a	2	20	a
Chrysene	0.615	3.07	a	2	20	a
Dibenzo(a,h)anthracene	0.615	3.07	a	2	20	a
Fluoranthene	0.615	3.07	a	2	20	a
Fluorene	65.6	328	a	1653	16530	a
Indeno(1,2,3-cd)pyrene	0.615	3.07	a	2	20	a
Phenanthrene	65.6	328	a	1653	16530	a
Pyrene	0.615	3.07	a	2	20	a
Pesticides/PCBs						
Total PCBs	0.36	1.28	d	0.09	1.27	d
Metals						
Arsenic	1.04	1.66	a	2.24	3.6	a
Cadmium	0.77	7.7	a	1.47	14.7	a
Chromium	2.4	24	a	2.66	26.6	a
Copper	5.6	9.34	a	4.05	12.1	a
Lead	4.7	8.9	a	1.63	3.3	a
Mercury	1	10	b	0.45	0.9	b
Nickel	1.7	3.4	a	6.71	67.1	a
Selenium	0.143	0.215	a	0.29	0.579	a
Silver	6.02	60.2	a	2.02	20.2	a
Zinc	75.4	754	a	66.1	661	a
Explosives and Energetics						
2,4,6-Trinitrotoluene	0.2	0.3	c	0.07	1.8	c
2,4-Dinitrophenol	NA	NA	--	NA	NA	--
2,4-Dinitrotoluene	0.67	1.4	c	0.01	0.13	c
2,6-Dinitrotoluene	0.7	7	c	0.1	1	c
Nitrobenzene	NA	NA	--	NA	NA	--
Nitrocellulose	NA	NA	c,e	NA	NA	c,e
Nitroglycerin	3	32	c	NA	NA	--
Pentaerythritol Tetranitrite	170	1700	c	NA	NA	--

Notes:

a. Ecological soil screening levels (EcoSSLs) (2003-2008). EcoSSLs identify the NOAEL; the LOAEL is from either the corresponding study, or is extrapolated from the NOAEL using a multiplying factor of 10. USEPA did not identify a TRV for PAHs for birds; therefore, the lowest reported effect level from the studies assigned an Evaluation Score greater than 10 was used.

b. Sample et al. 1996

c. United States Army Center for Health Promotion and Preventive Medicine

d. USEPA Region 9 (2002) Biological Technical Assistance Group TRVs for Birds and Mammals

e. TRVs in progress

-- = not applicable

COPEC = constituent of potential ecological concern

LOAEL = lowest observed adverse effects level

mg/kg/day = milligram per kilogram per day

NA = not available

NOAEL = no observed adverse effects level

PAH = polycyclic aromatic hydrocarbon

PCB = polychlorinated biphenyl

SVOC = semivolatile organic compound

TPH = total petroleum hydrocarbon

TRV = toxicity reference value

USEPA = United States Environmental Protection Agency

Table 7-1
Hazard Quotients for Soil Invertebrates
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
VOCs						
Benzene	1000	h	8.0	0.1	0.008	0.0001
Bromomethane	NA	--	0.9	0.3	NA	NA
SVOCs						
2,4-Dinitrotoluene	20	c	6.3	0.02	0.3	0.001
2,6-Dinitrotoluene	7	c	0.3	0.006	0.04	0.0009
Benzo(a)anthracene	18	b	46	0.7	3	0.04
Benzo(a)pyrene	18	b	39	0.6	2	0.03
Benzo(g,h,i)fluoranthene	18	b	5.5	0.4	0.3	0.02
Benzyl Butyl Phthalate	NA	--	190	0.6	NA	NA
Bis(2-Ethylhexyl)phthalate	200	d,e	57	0.3	0.3	0.001
Chrysene	18	b	40	0.7	2	0.04
Di-N-Butyl Phthalate	200	d,e	190	0.8	1	0.004
Naphthalene	29	f	15	0.07	0.5	0.003
N-Nitrosodi-N-Propylamine	NA	--	2.8	0.04	NA	NA
N-nitrosodiphenylamine	20	d	24	0.3	1	0.02
Phenanthrene	29	b	79	0.9	3	0.03
Metals						
Antimony	78	b	5060	10	65	0.1
Arsenic	100	d	1150	28	12	0.3
Cadmium	140	b	140	1.2	1	0.008
Chromium	57	b	1010	23	18	0.4
Cobalt	1000	d	10	6.1	0.01	0.006
Copper	80	b	47000	262	588	**3**
Lead	1700	b	144000	1435	85	0.8
Manganese	100	d	2270	559	23	**6**
Mercury	30	d	2940	14	98	0.5
Nickel	280	b	1380	16	5	0.06
Selenium	4.1	b	803	2.6	196	0.6
Silver	50	d	332	0.9	7	0.02
Thallium	NA	--	9.3	0.9	NA	NA
Vanadium	20	d	54	38	3	**2**
Zinc	120	b	42000	268	350	**2**
Explosives						
1,3,5-Trinitrobenzene	18	c	0.9	0.02	0.05	0.001
2,4,6-Trinitrotoluene	6	c	350	1.1	58	0.2
2-Amino-4,6-Dinitrotoluene	80	g	290	0.7	4	0.009
4-Amino-2,6-Dinitrotoluene	80	g	200	0.5	3	0.006
HMX	600	c	8500	47	14	0.08
Nitrocellulose	NA	--	33700	1011	NA	NA
Nitroglycerin	NA	--	3900	44	NA	NA
Pentaerythritol Tetranitrate	NA	--	12100	688	NA	NA
RDX	98	c	323	1.4	3	0.01
PCBs						
Total PCBs	NA	--	150	2.5	NA	NA

Notes:

Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.

b. EcoSSLs

c. Sunahara et al. 2009 (Table 12.6 for weathered and aged)

d. Efroymson et al. 1997a

e. Based on value for dimethylphthalate

f. Value for LMW PAH used as surrogate.

g. Talmage et al. 1999 (NOEC value)

h. Ecotox database (value is LC50 for earthworm [*Eisenia fetida*] from Balhorn et al. 1984).

-- = not applicable

95UCL = 95th percentile upper confidence limit of the mean

COPEC = constituent of potential ecological concern

mg/kg = milligram per kilogram

SVOCs = semivolatile organic compounds

PCBs = polychlorinated biphenyls

NA = not available

VOC = volatile organic compound

Table 7-2
Hazard Quotients for Terrestrial Plants
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
VOCs						
Benzene	1000	j	8.0	0.1	0.01	0.0001
Bromomethane	NA	--	0.9	0.3	NA	NA
SVOCs						
2,4-Dinitrotoluene	6	h	6.3	0.02	1	0.004
2,6-Dinitrotoluene	5	h	0.3	0.006	0	0.001
Benzo(a)anthracene	10	b	46	0.7	5	0.07
Benzo(a)pyrene	10	b	39	0.6	4	0.06
Benzo(g,h,i)fluoranthene	10	b	5.5	0.4	0.6	0.04
Benzyl Butyl Phthalate	NA	--	190	0.6	NA	NA
bis(2-ethylhexyl)phthalate	200	c,d	57	0.3	0.3	0.001
Chrysene	10	e	40	0.7	4	0.07
Di-n-butyl phthalate	200	c	190	0.8	1	0.004
Naphthalene	10	c	15	0.07	1	0.007
N-Nitrosodi-N-Propylamine	NA	--	2.8	0.04	NA	NA
N-Nitrosodiphenylamine	NA	--	24	0.3	NA	NA
Phenanthrene	46	f	79	0.9	2	0.02
Pesticides/PCBs						
Total PCBs	40	c	150	2.5	4	0.06
Metals						
Antimony	5	c	5060	10	1012	**2**
Arsenic	18	g	1150	28	64	**2**
Cadmium	32	g	140	1.2	4	0.04
Chromium	1	c	1010	23	1010	**23**
Cobalt	13	g	10	6.1	0.8	0.5
Copper	70	g	47000	262	671	**4**
Lead	120	g	144000	1435	1200	**12**
Manganese	220	g	2270	559	10	**3**
Mercury	0.3	c	2940	14	9800	**46**
Nickel	38	g	1380	16	36	0.4
Selenium	0.52	g	803	2.6	1544	**5**
Silver	560	g	332	0.9	0.6	0.002
Thallium	1	c	9.3	0.9	9	0.9
Vanadium	2	c	54	38	27	**19**
Zinc	160	g	42000	268	263	**2**
Explosives and Energetics						
1,3,5-Trinitrobenzene	9	h	0.9	0.02	0.1	0.002
2,4,6-Trinitrotoluene	6	h	350	1.1	58	0.2
2-Amino-4,6-Dinitrotoluene	80	i	290	0.7	4	0.009
4-Amino-2,6-Dinitrotoluene	80	i	200	0.5	3	0.006
HMX	9341	h	8500	47	0.9	0.005
Nitrocellulose	NA	--	33700	1011	NA	NA
Nitroglycerin	NA	--	3900	44	NA	NA
Pentaerythritol Tetranitrate	NA	--	12100	688	NA	NA
RDX	9537	h	323	1.4	0.03	0.0001

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
b. Value for chrysene (HMW PAH) used as surrogate.
c. Efroymson et al. 1997b
d. Value for di-n-butylphthalate used as a surrogate.
e. Ecotox database (value is NOAEL for black poplar [*Populus nigra*] from Wittig et al. 2003).
f. Sverdrup et al. 2003
g. Ecological soil screening levels
h. Sunahara et al. 2009 (Table 12.5 for weathered and aged)
i. Talmage et al. 1999 (NOEC value)
j. Ecotox database (value is EC50 for common oat [*Avena sativa*] from Kordel et al. 1984).
-- = not applicable
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HMW = high molecular weight
mg/kg = milligram per kilogram
NA = not available
NOAEL = no observed adverse effects level
NOEC = no observed effect concentration
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
VOC = volatile organic compound

Table 7-3
Hazard Quotients for American Robin
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Invertebrates	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d) NOAEL	TRV (mg/kg/d) LOAEL	HQ NOAEL	HQ LOAEL
SVOCs											
2,4-Dinitrotoluene	0.02	0.081	1	0.001	0.016	0.002	0.0007	0.01	1.3	0.07	0.0005
2,6-Dinitrotoluene	0.006	0.081	1	0.0004	0.016	0.002	0.0002	0.1	1	0.002	0.0002
Benzo(a)anthracene	0.7	0.081	1	1.1	0.016	0.002	0.2	2	20	0.1	0.01
Benzo(a)pyrene	0.6	0.081	1	0.8	0.016	0.002	0.2	2	20	0.08	0.008
Benzo(g,h,i)fluoranthene	0.4	0.081	1	1.2	0.016	0.002	0.2	2	20	0.1	0.01
Chrysene	0.7	0.081	1	1.5	0.016	0.002	0.3	2	20	0.2	0.02
Phenanthrene	0.9	0.081	1	1.5	0.016	0.002	0.3	1653	16530	0.0002	0.00002
Pesticides/PCBs											
Total PCBs	2.5	0.081	1	19	0.016	0.002	3.7	0.09	1.27	**42**	**3**
Metals											
Arsenic	28	0.081	1	2.6	0.016	0.002	1.1	2.24	3.6	0.5	0.3
Cadmium	1.2	0.081	1	9.5	0.016	0.002	1.8	1.47	14.7	1	0.1
Chromium	23	0.081	1	7.0	0.016	0.002	1.8	2.66	26.6	0.7	0.07
Copper	262	0.081	1	135	0.016	0.002	31	4.05	12.1	**8**	**3**
Lead	1435	0.081	1	284	0.016	0.002	83	1.63	3.3	**51**	**25**
Mercury	14	0.081	1	2.6	0.016	0.002	0.8	0.45	0.9	**2**	0.9
Nickel	16	0.081	1	15	0.016	0.002	3.2	6.71	67.1	0.5	0.05
Selenium	2.6	0.081	1	1.8	0.016	0.002	0.4	0.29	0.579	1	0.7
Silver	0.9	0.081	1	1.8	0.016	0.002	0.4	2.02	20.2	0.2	0.02
Zinc	268	0.081	1	535	0.016	0.002	109	66.1	661	**2**	0.2
Explosives and Energetics											
1,3,5-Trinitrobenzene	0.02	0.081	1	0.001	0.016	0.002	0.0005	NA	NA	--	--
2,4,6-Trinitrotoluene	1.1	0.081	1	0.07	0.016	0.002	0.04	0.07	1.8	0.5	0.02
2-Amino-4,6-Dinitrotoluene	0.7	0.081	1	0.04	0.016	0.002	0.02	NA	NA	--	--
4-Amino-2,6-Dinitrotoluene	0.5	0.081	1	0.03	0.016	0.002	0.02	NA	NA	--	--
HMX	47	0.081	1	2.8	0.016	0.002	1.5	NA	NA	--	--
Nitrocellulose	1011	0.081	1	59	0.016	0.002	32	NA	NA	--	--
Nitroglycerin	44	0.081	1	2.5	0.016	0.002	1.4	NA	NA	--	--
Pentaerythritol Tetranitrate	688	0.081	1	40	0.016	0.002	21	NA	NA	--	--
RDX	1.4	0.081	1	0.08	0.016	0.002	0.04	3.65	8.14	0.01	0.005

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-4
Hazard Quotients for Northern Bobwhite
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,4-Dinitrotoluene	0.02	0.17	1	0	0.002	0.0002	0.0001	0.01	0.13	0.01	0.0009
2,6-Dinitrotoluene	0.006	0.17	1	0	0.002	0.0002	0.0000	0.1	1	0.0003	0.00003
Benzo(a)anthracene	0.7	0.17	1	0.053	0.002	0.0002	0.001	2	20	0.0007	0.00007
Benzo(a)pyrene	0.6	0.17	1	0.076	0.002	0.0002	0.002	2	20	0.0008	0.00008
Benzo(g,h,i)fluoranthene	0.4	0.17	1	0.211	0.002	0.0002	0.003	2	20	0.001	0.0001
Chrysene	0.7	0.17	1	0.053	0.002	0.0002	0.001	2	20	0.0007	0.00007
Phenanthrene	0.9	0.17	1	0.768	0.002	0.0002	0.010	1653	16530	0.000006	0.0000006
Pesticides/PCBs											
Total PCBs	2.5	0.17	1	0.011	0.002	0.0002	0.003	0.09	1.27	0.03	0.002
Metals											
Arsenic	28	0.17	1	1.062	0.002	0.0002	0.04	2.24	3.6	0.02	0.01
Cadmium	1.2	0.17	1	0.682	0.002	0.0002	0.009	1.47	14.7	0.006	0.0006
Chromium	23	0.17	1	0.942	0.002	0.0002	0.04	2.66	26.6	0.01	0.001
Copper	262	0.17	1	17.495	0.002	0.0002	0.5	4.05	12.1	0.1	0.04
Lead	1435	0.17	1	15.641	0.002	0.0002	1.7	1.63	3.3	1	0.5
Mercury	14	0.17	1	1.003	0.002	0.0002	0.03	0.45	0.9	0.06	0.03
Nickel	16	0.17	1	0.875	0.002	0.0002	0.03	6.71	67.1	0.004	0.0004
Selenium	2.6	0.17	1	1.436	0.002	0.0002	0.02	0.29	0.579	0.07	0.03
Silver	0.9	0.17	1	0.012	0.002	0.0002	0.001	2.02	20.2	0.0005	0.00005
Zinc	268	0.17	1	106.955	0.002	0.0002	1.5	66.1	661	0.02	0.002
Explosives and Energetics											
1,3,5-Trinitrobenzene	0.02	0.17	1	0	0.002	0.0002	0.0007	NA	NA	--	--
2,4,6-Trinitrotoluene	1.1	0.17	1	4	0.002	0.0002	0.05	0.07	1.8	0.7	0.03
2-Amino-4,6-Dinitrotoluene	0.7	0.17	1	2	0.002	0.0002	0.03	NA	NA	--	--
4-Amino-2,6-Dinitrotoluene	0.5	0.17	1	2	0.002	0.0002	0.02	NA	NA	--	--
HMX	47	0.17	1	167	0.002	0.0002	2.0	NA	NA	--	--
Nitrocellulose	1011	0.17	1	3569	0.002	0.0002	43	NA	NA	--	--
Nitroglycerin	44	0.17	1	154	0.002	0.0002	1.8	NA	NA	--	--
Pentaerythritol Tetranitrate	688	0.17	1	2428	0.002	0.0002	29	NA	NA	--	--
RDX	1.4	0.17	1	5	0.002	0.0002	0.06	3.65	8.14	0.02	0.007

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-5
Hazard Quotients for Red-Tailed Hawk
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Mammals	C_{mammal} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d) NOAEL	TRV (mg/kg/d) LOAEL	HQ NOAEL	HQ LOAEL
SVOCs											
2,4-Dinitrotoluene	0.02	1.13	1	0	0.036	0.002	0.0000	0.01	0.13	0.004	0.0003
2,6-Dinitrotoluene	0.006	1.13	1	0	0.036	0.002	0.0000	0.1	1	0.0001	0.00001
Benzo(a)anthracene	0.7	1.13	1	0	0.036	0.002	0.001	2	20	0.0006	0.00006
Benzo(a)pyrene	0.6	1.13	1	0	0.036	0.002	0.001	2	20	0.0005	0.00005
Benzo(g,h,i)fluoranthene	0.4	1.13	1	0	0.036	0.002	0.0008	2	20	0.0004	0.00004
Chrysene	0.7	1.13	1	0	0.036	0.002	0.001	2	20	0.0006	0.00006
Phenanthrene	0.9	1.13	1	0	0.036	0.002	0.002	1653	16530	0.000001	0.00000009
Pesticides/PCBs											
Total PCBs	2.5	1.13	1	0.06	0.036	0.002	0.007	0.09	1.27	0.07	0.005
Metals											
Arsenic	28	1.13	1	0.1	0.036	0.002	0.05	2.24	3.6	0.02	0.02
Cadmium	1.2	1.13	1	0.3	0.036	0.002	0.01	1.47	14.7	0.008	0.0008
Chromium	23	1.13	1	2.3	0.036	0.002	0.1	2.66	26.6	0.04	0.004
Copper	262	1.13	1	17	0.036	0.002	1.0	4.05	12.1	0.3	0.08
Lead	1435	1.13	1	27	0.036	0.002	3.4	1.63	3.3	**2**	1
Mercury	14	1.13	1	0.002	0.036	0.002	0.02	0.45	0.9	0.06	0.03
Nickel	16	1.13	1	2.9	0.036	0.002	0.1	6.71	67.1	0.02	0.002
Selenium	2.6	1.13	1	0.9	0.036	0.002	0.03	0.29	0.579	0.1	0.06
Silver	0.9	1.13	1	0.003	0.036	0.002	0.002	2.02	20.2	0.0008	0.00008
Zinc	268	1.13	1	117	0.036	0.002	4.2	66.1	661	0.06	0.006
Explosives and Energetics											
1,3,5-Trinitrobenzene	0.02	1.13	1	0	0.036	0.002	0.0000	NA	NA	--	--
2,4,6-Trinitrotoluene	1.1	1.13	1	0	0.036	0.002	0.002	0.07	1.8	0.03	0.001
2-Amino-4,6-dinitrotoluene	0.7	1.13	1	0	0.036	0.002	0.001	NA	NA	--	--
4-Amino-2,6-dinitrotoluene	0.5	1.13	1	0	0.036	0.002	0.0009	NA	NA	--	--
HMX	47	1.13	1	0	0.036	0.002	0.09	NA	NA	--	--
Nitrocellulose	1011	1.13	1	0	0.036	0.002	1.8	NA	NA	--	--
Nitroglycerin	44	1.13	1	0	0.036	0.002	0.08	NA	NA	--	--
Pentaerythritol Tetranitrate	688	1.13	1	0	0.036	0.002	1.2	NA	NA	--	--
RDX	1.4	1.13	1	0	0.036	0.002	0.003	3.65	8.14	0.0007	0.0003

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
COPEC = constituent of potential ecological concern
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-6
Hazard Quotients for Short-Tailed Shrew
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,4-Dinitrotoluene	0.02	0.017	1	0.001	0.001	0.00004	0.0001	0.67	1.4	0.0002	0.0001
2,6-Dinitrotoluene	0.006	0.017	1	0.0004	0.001	0.00004	0.0000	0.7	7	0.00006	0.0000
Benzo(a)anthracene	0.7	0.017	1	1.1	0.001	0.00004	0.08	0.615	3.07	0.1	0.03
Benzo(a)pyrene	0.6	0.017	1	0.8	0.001	0.00004	0.06	0.615	3.07	0.10	0.02
Benzo(g,h,i)fluoranthene	0.4	0.017	1	1.2	0.001	0.00004	0.09	0.615	3.07	0.2	0.03
Chrysene	0.7	0.017	1	1.5	0.001	0.00004	0.1	0.615	3.07	0.2	0.04
Phenanthrene	0.9	0.017	1	1.5	0.001	0.00004	0.1	65.6	328	0.002	0.0003
Pesticides/PCBs											
Total PCBs	2.5	0.017	1	19	0.001	0.00004	1.4	0.36	1.28	**4**	1
Metals											
Arsenic	28	0.017	1	2.6	0.001	0.00004	0.3	1.04	1.66	0.2	0.2
Cadmium	1.2	0.017	1	9.5	0.001	0.00004	0.7	0.77	7.7	0.9	0.09
Chromium	23	0.017	1	7.0	0.001	0.00004	0.6	2.4	24	0.2	0.02
Copper	262	0.017	1	135	0.001	0.00004	11	5.6	9.34	**2**	1
Lead	1435	0.017	1	284	0.001	0.00004	24	4.7	8.9	**5**	**3**
Mercury	14	0.017	1	2.6	0.001	0.00004	0.2	1	10	0.2	0.02
Nickel	16	0.017	1	15	0.001	0.00004	1.2	1.7	3.4	0.7	0.3
Selenium	2.6	0.017	1	1.8	0.001	0.00004	0.1	0.143	0.215	1	0.7
Silver	0.9	0.017	1	1.8	0.001	0.00004	0.1	6.02	60.2	0.02	0.002
Zinc	268	0.017	1	535	0.001	0.00004	41	75.4	754	0.5	0.05
Explosives and Energetics											
1,3,5-Trinitrobenzene	0.02	0.017	1	0.001	0.001	0.00004	0.0001	2.68	13.31	0.00004	0.0000
2,4,6-Trinitrotoluene	1.1	0.017	1	0.07	0.001	0.00004	0.008	0.2	0.3	0.04	0.03
2-Amino-4,6-Dinitrotoluene	0.7	0.017	1	0.04	0.001	0.00004	0.005	9	48	0.0005	0.00009
4-Amino-2,6-Dinitrotoluene	0.5	0.017	1	0.03	0.001	0.00004	0.003	9	48	0.0004	0.00007
HMX	47	0.017	1	2.8	0.001	0.00004	0.3	1	5	0.3	0.06
Nitrocellulose	1011	0.017	1	59	0.001	0.00004	6.7	NA	NA	--	--
Nitroglycerin	44	0.017	1	2.5	0.001	0.00004	0.3	3	32	0.10	0.009
Pentaerythritol Tetranitrate	688	0.017	1	40	0.001	0.00004	4.5	170	1700	0.03	0.003
RDX	1.4	0.017	1	0.08	0.001	0.00004	0.009	1.19	2.73	0.008	0.003

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-7
Hazard Quotients for White-Tailed Deer
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
2,4-Dinitrotoluene	0.02	56.50	1	0.008	0.261	0.0052	0.0000	0.67	1.4	0.00006	0.00003
2,6-Dinitrotoluene	0.006	56.50	1	0.002	0.261	0.0052	0.0000	0.7	7	0.00002	0.0000
Benzo(a)anthracene	0.7	56.50	1	0.05	0.261	0.0052	0.0003	0.615	3.07	0.0005	0.00010
Benzo(a)pyrene	0.6	56.50	1	0.08	0.261	0.0052	0.0004	0.615	3.07	0.0007	0.0001
Benzo(g,h,i)fluoranthene	0.4	56.50	1	0.2	0.261	0.0052	0.001	0.615	3.07	0.002	0.0003
Chrysene	0.7	56.50	1	0.05	0.261	0.0052	0.0003	0.615	3.07	0.0005	0.00010
Phenanthrene	0.9	56.50	1	0.8	0.261	0.0052	0.004	65.6	328	0.00006	0.00001
Pesticides/PCBs											
Total PCBs	2.5	56.50	1	0.01	0.261	0.0052	0.0003	0.36	1.28	0.0008	0.0002
Metals											
Arsenic	28	56.50	1	1.1	0.261	0.0052	0.008	1.04	1.66	0.007	0.005
Cadmium	1.2	56.50	1	0.7	0.261	0.0052	0.003	0.77	7.7	0.004	0.0004
Chromium	23	56.50	1	0.9	0.261	0.0052	0.006	2.4	24	0.003	0.0003
Copper	262	56.50	1	17	0.261	0.0052	0.1	5.6	9.34	0.02	0.01
Lead	1435	56.50	1	16	0.261	0.0052	0.2	4.7	8.9	0.04	0.02
Mercury	14	56.50	1	1.0	0.261	0.0052	0.006	1	10	0.006	0.0006
Nickel	16	56.50	1	0.9	0.261	0.0052	0.006	1.7	3.4	0.003	0.002
Selenium	2.6	56.50	1	1.4	0.261	0.0052	0.007	0.143	0.215	0.05	0.03
Silver	0.9	56.50	1	0.01	0.261	0.0052	0.0001	6.02	60.2	0.00002	0.0000
Zinc	268	56.50	1	107	0.261	0.0052	0.5	75.4	754	0.007	0.0007
Explosives and Energetics											
1,3,5-Trinitrobenzene	0.02	56.50	1	0.06	0.261	0.0052	0.0003	2.68	13.31	0.0001	0.00002
2,4,6-Trinitrotoluene	1.1	56.50	1	4.0	0.261	0.0052	0.02	0.2	0.3	0.09	0.06
2-Amino-4,6-Dinitrotoluene	0.7	56.50	1	2.4	0.261	0.0052	0.01	9	48	0.001	0.0002
4-Amino-2,6-Dinitrotoluene	0.5	56.50	1	1.7	0.261	0.0052	0.008	9	48	0.0009	0.0002
HMX	47	56.50	1	167	0.261	0.0052	0.8	1	5	0.8	0.2
Nitrocellulose	1011	56.50	1	3569	0.261	0.0052	17	NA	NA	--	--
Nitroglycerin	44	56.50	1	154	0.261	0.0052	0.7	3	32	0.2	0.02
Pentaerythritol Tetranitrate	688	56.50	1	2428	0.261	0.0052	11	170	1700	0.07	0.007
RDX	1.4	56.50	1	5.0	0.261	0.0052	0.02	1.19	2.73	0.02	0.008

Notes:

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-8
Hazard Quotients for Red Fox
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Mammals	C_{mammal} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d) NOAEL	TRV (mg/kg/d) LOAEL	HQ NOAEL	HQ LOAEL
SVOCs											
2,4-Dinitrotoluene	0.02	4.54	1	0	0.163	0.005	0.0000	0.67	1.4	0.00003	0.00002
2,6-Dinitrotoluene	0.006	4.54	1	0	0.163	0.005	0.0000	0.7	7	0.0000	0.0000
Benzo(a)anthracene	0.7	4.54	1	0	0.163	0.005	0.0007	0.615	3.07	0.001	0.0002
Benzo(a)pyrene	0.6	4.54	1	0	0.163	0.005	0.0006	0.615	3.07	0.0010	0.0002
Benzo(g,h,i)fluoranthene	0.4	4.54	1	0	0.163	0.005	0.0004	0.615	3.07	0.0007	0.0001
Chrysene	0.7	4.54	1	0	0.163	0.005	0.0007	0.615	3.07	0.001	0.0002
Phenanthrene	0.9	4.54	1	0	0.163	0.005	0.0009	65.6	328	0.00001	0.0000
Pesticides/PCBs											
Total PCBs	2.5	4.54	1	0.06	0.163	0.005	0.005	0.36	1.28	0.01	0.004
Metals											
Arsenic	28	4.54	1	0.1	0.163	0.005	0.03	1.04	1.66	0.03	0.02
Cadmium	1.2	4.54	1	0.3	0.163	0.005	0.01	0.77	7.7	0.02	0.002
Chromium	23	4.54	1	2.3	0.163	0.005	0.1	2.4	24	0.04	0.004
Copper	262	4.54	1	17	0.163	0.005	0.9	5.6	9.34	0.2	0.09
Lead	1435	4.54	1	27	0.163	0.005	2.4	4.7	8.9	0.5	0.3
Mercury	14	4.54	1	0.002	0.163	0.005	0.01	1	10	0.01	0.001
Nickel	16	4.54	1	2.9	0.163	0.005	0.1	1.7	3.4	0.07	0.04
Selenium	2.6	4.54	1	0.9	0.163	0.005	0.04	0.143	0.215	0.3	0.2
Silver	0.9	4.54	1	0.003	0.163	0.005	0.0010	6.02	60.2	0.0002	0.00002
Zinc	268	4.54	1	117	0.163	0.005	4.4	75.4	754	0.06	0.006
Explosives and Energetics											
1,3,5-Trinitrobenzene	0.02	4.54	1	0	0.163	0.005	0.0000	2.68	13.31	0.0000	0.0000
2,4,6-Trinitrotoluene	1.1	4.54	1	0	0.163	0.005	0.001	0.2	0.3	0.006	0.004
2-Amino-4,6-dinitrotoluene	0.7	4.54	1	0	0.163	0.005	0.0007	9	48	0.00008	0.00001
4-Amino-2,6-dinitrotoluene	0.5	4.54	1	0	0.163	0.005	0.0005	9	48	0.00005	0.00001
HMX	47	4.54	1	0	0.163	0.005	0.05	1	5	0.05	0.010
Nitrocellulose	1011	4.54	1	0	0.163	0.005	1.0	NA	NA	--	--
Nitroglycerin	44	4.54	1	0	0.163	0.005	0.04	3	32	0.01	0.001
Pentaerythritol Tetranitrate	688	4.54	1	0	0.163	0.005	0.7	170	1700	0.004	0.0004
RDX	1.4	4.54	1	0	0.163	0.005	0.001	1.19	2.73	0.001	0.0005

Notes:

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-9
Summary of Hazard Quotients for Terrestrial Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	American Robin		Northern Bobwhite		Red-Tailed Hawk		Short-Tailed Shrew		White-Tailed Deer		Red Fox	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Pesticides/PCBs												
Total PCBs	**42**	**3**	≤1	≤1	≤1	≤1	**4**	≤1	≤1	≤1	≤1	≤1
Metals												
Copper	**8**	**3**	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Lead	**51**	**25**	≤1	≤1	**2**	<1	**5**	**3**	≤1	≤1	≤1	≤1
Mercury	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Zinc	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Notes:
Bolded values indicate HQ>1.
≤ = less than or equal to
COPEC = constituent of potential ecological concern
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl

Table 7-10
Hazard Quotients for Benthic Invertebrates - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Screening Value (mg/kg)	Exposure Point		Hazard Quotients	
		Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
SVOCs					
Benzo(a)anthracene	0.32	2.1	0.4	7	1
Benzo(a)pyrene	0.37	1.5	0.3	4	0.9
Benzo(g,h,i)perylene	0.17	1.3	0.3	8	1
Benzo(k)fluoranthene	0.24	1.7	0.3	7	1
Chrysene	0.34	2.9	0.5	9	1
Fluoranthene	0.75	2.2	0.7	3	1.0
Phenanthrene	0.56	1.1	0.2	2	0.4
Pyrene	0.49	4.0	0.9	8	**2**
Metals					
Arsenic	6	111	9.4	19	**2**
Beryllium	NA	2.0	1.0	--	--
Cadmium	0.6	7.2	1.0	12	**2**
Chromium	26	106	21	4	0.8
Copper	16	584	65	37	**4**
Lead	31	2990	182	96	**6**
Mercury	0.2	11	0.9	57	**4**
Nickel	16	151	17	9	1
Silver	1	5.1	0.5	5	0.5
Zinc	120	4500	316	38	**3**
Explosives					
Nitrocellulose	NA	6000	305	--	--
Nitroglycerin	127	2700	123	21	1.0

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
-- = not applicable
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
NA = not available
SVOC = semivolatile organic compound

Table 7-11
Hazard Quotients for Aquatic Plants - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
SVOCs						
Benzo(a)anthracene	10	a	2.1	0.4	0.2	0.04
Benzo(a)pyrene	10	a	1.5	0.3	0.2	0.03
Benzo(g,h,i)fluoranthene	10	a	1.3	0.3	0.1	0.03
Benzo(k)fluoranthene	10	a	1.7	0.3	0.2	0.03
Chrysene	10	c	2.9	0.5	0.3	0.05
Dibenzo(a,h)anthracene	10	a	0.2	0.1	0.02	0.01
Fluoranthene	150	d	2.2	0.7	0.01	0.005
Phenanthrene	46	d	1.1	0.2	0.02	0.004
Pyrene	56	d	4.0	0.9	0.1	0.02
Metals						
Arsenic	18	e	111	9.4	6	0.5
Beryllium	10	b	2.0	1.0	0.2	0.10
Cadmium	32	e	7.2	1.0	0.2	0.03
Chromium	1	b	106	21	106	**21**
Copper	70	e	584	65	8	0.9
Lead	120	e	2990	182	25	**2**
Mercury	0.3	b	11	0.9	38	**3**
Nickel	38	e	151	17	4	0.5
Silver	560	e	5.1	0.5	0.01	0.0009
Zinc	160	e	4500	316	28	**2**
Explosives and Energetics						
Nitrocellulose	NA	-	6000	305	NA	NA
Nitroglycerin	NA	-	2700	123	NA	NA

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
a. Value for chrysene (HMW PAH) used as surrogate.
b. Efroymson et al. 1997b
c. Ecotox database (value is NOAEL for black poplar [*Populus nigra*] from Wittig et al. 2003).
d. Sverdrup et al. 2003
e. Ecological soil screening levels
- = not applicable
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HMW = high molecular weight
mg/kg = milligram per kilogram
NA = not available
SVOC = semivolatile organic compound

Table 7-12
Hazard Quotients for Fish and Aquatic Invertebrates - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (µg/L)	Screening Value (µg/L)	HQ
Metals - Dissolved			
Copper	17	5.2	3
Lead [a]	20	5.4	4
Nickel	4	27	0.1
Zinc	103	70.4	1

Notes:
Screening values from Table 4-2.

[a] Screening value for total metal used as surrogate in absence of dissolved metal screening value.

95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
EPC = exposure point concentration, equivalent to the 95UCL
HQ = hazard quotient
µg/L = microgram per liter

Table 7-13
Hazard Quotients for Tree Swallow - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Benzo(a)anthracene	0.4	0.0202	1	0.05	0.0116	0	0.03	2	20	0.02	0.002
Benzo(a)pyrene	0.3	0.0202	1	0.02	0.0116	0	0.01	2	20	0.006	0.0006
Benzo(g,h,i)perylene	0.3	0.0202	1	0.004	0.0116	0	0.002	2	20	0.001	0.0001
Benzo(k)fluoranthene	0.3	0.0202	1	0.10	0.0116	0	0.06	2	20	0.03	0.003
Chrysene	0.5	0.0202	1	0.04	0.0116	0	0.02	2	20	0.01	0.001
Dibenzo(a,h)anthracene	0.1	0.0202	1	0.1	0.0116	0	0.06	2	20	0.03	0.003
Fluoranthene	0.7	0.0202	1	0.2	0.0116	0	0.1	2	20	0.06	0.006
Phenanthrene	0.2	0.0202	1	0.02	0.0116	0	0.01	1653	16530	0.0000	0.0000
Pyrene	0.9	0.0202	1	0.1	0.0116	0	0.06	2	20	0.03	0.003
Metals											
Arsenic	9.4	0.0202	1	2.3	0.0116	0	1.3	2.24	3.6	0.6	0.4
Cadmium	1.0	0.0202	1	3.5	0.0116	0	2.0	1.47	14.7	1	0.1
Chromium	21	0.0202	1	4.2	0.0116	0	2.4	2.66	26.6	0.9	0.09
Copper	65	0.0202	1	138	0.0116	0	79	4.05	12.1	**20**	**7**
Lead	182	0.0202	1	60	0.0116	0	34	1.63	3.3	**21**	**10**
Mercury	0.9	0.0202	1	1.0	0.0116	0	0.6	0.45	0.9	1	0.7
Nickel	17	0.0202	1	22	0.0116	0	13	6.71	67.1	**2**	0.2
Silver	0.5	0.0202	1	0.5	0.0116	0	0.3	2.02	20.2	0.1	0.01
Zinc	316	0.0202	1	1075	0.0116	0	617	66.1	661	**9**	0.9
Explosives and Energetics											
Nitrocellulose	305	0.0202	1	200	0.0116	0	115	NA	NA	- -	- -
Nitroglycerin	123	0.0202	1	81	0.0116	0	46	NA	NA	- -	- -

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value

Table 7-14
Hazard Quotients for Great Blue Heron - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Benzo(a)anthracene	0.4	2.34	1	0.002	0.1348	0.0027	0.0005	2	20	0.0003	0.00003
Benzo(a)pyrene	0.3	2.34	1	0.0003	0.1348	0.0027	0.0004	2	20	0.0002	0.00002
Benzo(g,h,i)perylene	0.3	2.34	1	0.002	0.1348	0.0027	0.0004	2	20	0.0002	0.00002
Benzo(k)fluoranthene	0.3	2.34	1	0.0003	0.1348	0.0027	0.0004	2	20	0.0002	0.00002
Chrysene	0.5	2.34	1	0.002	0.1348	0.0027	0.0007	2	20	0.0003	0.00003
Dibenzo(a,h)anthracene	0.1	2.34	1	0.1	0.1348	0.0027	0.007	2	20	0.003	0.0003
Fluoranthene	0.7	2.34	1	0.002	0.1348	0.0027	0.0009	2	20	0.0005	0.00005
Phenanthrene	0.2	2.34	1	0.002	0.1348	0.0027	0.0004	1653	16530	0.0000	0.0000
Pyrene	0.9	2.34	1	0.004	0.1348	0.0027	0.001	2	20	0.0006	0.00006
Metals											
Arsenic	9.4	2.34	1	2.3	0.1348	0.0027	0.1	2.24	3.6	0.06	0.04
Cadmium	1.0	2.34	1	3.5	0.1348	0.0027	0.2	1.47	14.7	0.1	0.01
Chromium	21	2.34	1	4.2	0.1348	0.0027	0.3	2.66	26.6	0.1	0.01
Copper	65	2.34	1	138	0.1348	0.0027	8.0	4.05	12.1	**2**	0.7
Lead	182	2.34	1	60	0.1348	0.0027	3.7	1.63	3.3	**2**	1
Mercury	0.9	2.34	1	1.0	0.1348	0.0027	0.06	0.45	0.9	0.1	0.07
Nickel	17	2.34	1	22	0.1348	0.0027	1.3	6.71	67.1	0.2	0.02
Silver	0.5	2.34	1	0.5	0.1348	0.0027	0.03	2.02	20.2	0.01	0.001
Zinc	316	2.34	1	1075	0.1348	0.0027	62	66.1	661	0.9	0.09
Explosives and Energetics											
Nitrocellulose	305	2.34	1	333	0.1348	0.0027	20	NA	NA	- -	- -
Nitroglycerin	123	2.34	1	134	0.1348	0.0027	7.9	NA	NA	- -	- -

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-15
Hazard Quotients for Mallard Duck - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Benzo(a)anthracene	0.4	1.16	1	0.04	0.0603	0.0012	0.002	2	20	0.001	0.0001
Benzo(a)pyrene	0.3	1.16	1	0.05	0.0603	0.0012	0.003	2	20	0.001	0.0001
Benzo(g,h,i)perylene	0.3	1.16	1	0.08	0.0603	0.0012	0.004	2	20	0.002	0.0002
Benzo(k)fluoranthene	0.3	1.16	1	0.04	0.0603	0.0012	0.003	2	20	0.001	0.0001
Chrysene	0.5	1.16	1	0.04	0.0603	0.0012	0.003	2	20	0.001	0.0001
Dibenzo(a,h)anthracene	0.1	1.16	1	- -	0.0603	0.0012	- -	2	20	- -	- -
Fluoranthene	0.7	1.16	1	0.4	0.0603	0.0012	0.02	2	20	0.010	0.0010
Phenanthrene	0.2	1.16	1	0.3	0.0603	0.0012	0.02	1653	16530	0.0000	0.0000
Pyrene	0.9	1.16	1	0.6	0.0603	0.0012	0.03	2	20	0.02	0.002
Metals											
Arsenic	9.4	1.16	1	0.4	0.0603	0.0012	0.03	2.24	3.6	0.01	0.008
Cadmium	1.0	1.16	1	0.6	0.0603	0.0012	0.03	1.47	14.7	0.02	0.002
Chromium	21	1.16	1	0.8	0.0603	0.0012	0.07	2.66	26.6	0.02	0.002
Copper	65	1.16	1	10	0.0603	0.0012	0.6	4.05	12.1	0.1	0.05
Lead	182	1.16	1	4.9	0.0603	0.0012	0.4	1.63	3.3	0.3	0.1
Mercury	0.9	1.16	1	0.2	0.0603	0.0012	0.009	0.45	0.9	0.02	0.01
Nickel	17	1.16	1	0.9	0.0603	0.0012	0.07	6.71	67.1	0.010	0.0010
Silver	0.5	1.16	1	0.007	0.0603	0.0012	0.0009	2.02	20.2	0.0004	0.00004
Zinc	316	1.16	1	117	0.0603	0.0012	6.4	66.1	661	0.10	0.010
Explosives and Energetics											
Nitrocellulose	305	1.16	1	1129	0.0603	0.0012	59	NA	NA	- -	- -
Nitroglycerin	123	1.16	1	456	0.0603	0.0012	24	NA	NA	- -	- -

Notes:

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-16
Hazard Quotients for Little Brown Bat - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Benzo(a)anthracene	0.4	0.009	1	0.05	0.0016	0	0.009	0.615	3.07	0.02	0.003
Benzo(a)pyrene	0.3	0.009	1	0.02	0.0016	0	0.004	0.615	3.07	0.006	0.001
Benzo(g,h,i)perylene	0.3	0.009	1	0.004	0.0016	0	0.0007	0.615	3.07	0.001	0.0002
Benzo(k)fluoranthene	0.3	0.009	1	0.10	0.0016	0	0.02	0.615	3.07	0.03	0.006
Chrysene	0.5	0.009	1	0.04	0.0016	0	0.008	0.615	3.07	0.01	0.003
Dibenzo(a,h)anthracene	0.1	0.009	1	0.1	0.0016	0	0.02	0.615	3.07	0.03	0.007
Fluoranthene	0.7	0.009	1	0.2	0.0016	0	0.04	0.615	3.07	0.06	0.01
Phenanthrene	0.2	0.009	1	0.02	0.0016	0	0.004	65.6	328	0.00006	0.00001
Pyrene	0.9	0.009	1	0.1	0.0016	0	0.02	0.615	3.07	0.03	0.006
Metals											
Arsenic	9.4	0.009	1	2.3	0.0016	0	0.4	1.04	1.66	0.4	0.2
Cadmium	1.0	0.009	1	3.5	0.0016	0	0.6	0.77	7.7	0.8	0.08
Chromium	21	0.009	1	4.2	0.0016	0	0.8	2.4	24	0.3	0.03
Copper	65	0.009	1	138	0.0016	0	25	5.6	9.34	**4**	**3**
Lead	182	0.009	1	60	0.0016	0	11	4.7	8.9	**2**	1
Mercury	0.9	0.009	1	1.0	0.0016	0	0.2	1	10	0.2	0.02
Nickel	17	0.009	1	22	0.0016	0	4.0	1.7	3.4	**2**	1
Silver	0.5	0.009	1	0.5	0.0016	0	0.09	6.02	60.2	0.01	0.001
Zinc	316	0.009	1	1075	0.0016	0	191	75.4	754	**3**	0.3
Explosives and Energetics											
Nitrocellulose	305	0.009	1	200	0.0016	0	35	NA	NA	- -	- -
Nitroglycerin	123	0.009	1	81	0.0016	0	14	3	32	**5**	0.4

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-17
Hazard Quotients for Mink - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Benzo(a)anthracene	0.4	0.90	1	0.002	0.0452	0.0009	0.0005	0.615	3.07	0.0008	0.0002
Benzo(a)pyrene	0.3	0.90	1	0.0003	0.0452	0.0009	0.0004	0.615	3.07	0.0006	0.0001
Benzo(g,h,i)perylene	0.3	0.90	1	0.002	0.0452	0.0009	0.0004	0.615	3.07	0.0006	0.0001
Benzo(k)fluoranthene	0.3	0.90	1	0.0003	0.0452	0.0009	0.0003	0.615	3.07	0.0006	0.0001
Chrysene	0.5	0.90	1	0.002	0.0452	0.0009	0.0006	0.615	3.07	0.0009	0.0002
Dibenzo(a,h)anthracene	0.1	0.90	1	0.1	0.0452	0.0009	0.006	0.615	3.07	0.009	0.002
Fluoranthene	0.7	0.90	1	0.002	0.0452	0.0009	0.0008	0.615	3.07	0.001	0.0003
Phenanthrene	0.2	0.90	1	0.002	0.0452	0.0009	0.0003	65.6	328	0.0000	0.0000
Pyrene	0.9	0.90	1	0.004	0.0452	0.0009	0.001	0.615	3.07	0.002	0.0004
Metals											
Arsenic	9.4	0.90	1	2.3	0.0452	0.0009	0.1	1.04	1.66	0.1	0.07
Cadmium	1.0	0.90	1	3.5	0.0452	0.0009	0.2	0.77	7.7	0.2	0.02
Chromium	21	0.90	1	4.2	0.0452	0.0009	0.2	2.4	24	0.10	0.010
Copper	65	0.90	1	138	0.0452	0.0009	7.0	5.6	9.34	1	0.8
Lead	182	0.90	1	60	0.0452	0.0009	3.2	4.7	8.9	0.7	0.4
Mercury	0.9	0.90	1	1.0	0.0452	0.0009	0.05	1	10	0.05	0.005
Nickel	17	0.90	1	22	0.0452	0.0009	1.1	1.7	3.4	0.7	0.3
Silver	0.5	0.90	1	0.5	0.0452	0.0009	0.02	6.02	60.2	0.004	0.0004
Zinc	316	0.90	1	1075	0.0452	0.0009	55	75.4	754	0.7	0.07
Explosives and Energetics											
Nitrocellulose	305	0.90	1	333	0.0452	0.0009	17	NA	NA	- -	- -
Nitroglycerin	123	0.90	1	134	0.0452	0.0009	6.9	3	32	**2**	0.2

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-18
Hazard Quotients for Muskrat - Northern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Benzo(a)anthracene	0.4	1.17	1	0.04	0.0528	0.0011	0.002	0.615	3.07	0.003	0.0007
Benzo(a)pyrene	0.3	1.17	1	0.05	0.0528	0.0011	0.002	0.615	3.07	0.004	0.0008
Benzo(g,h,i)perylene	0.3	1.17	1	0.08	0.0528	0.0011	0.004	0.615	3.07	0.006	0.001
Benzo(k)fluoranthene	0.3	1.17	1	0.04	0.0528	0.0011	0.002	0.615	3.07	0.004	0.0007
Chrysene	0.5	1.17	1	0.04	0.0528	0.0011	0.002	0.615	3.07	0.004	0.0008
Dibenzo(a,h)anthracene	0.1	1.17	1	- -	0.0528	0.0011	- -	0.615	3.07	- -	- -
Fluoranthene	0.7	1.17	1	0.4	0.0528	0.0011	0.02	0.615	3.07	0.03	0.005
Phenanthrene	0.2	1.17	1	0.3	0.0528	0.0011	0.01	65.6	328	0.0002	0.00004
Pyrene	0.9	1.17	1	0.6	0.0528	0.0011	0.03	0.615	3.07	0.05	0.009
Metals											
Arsenic	9.4	1.17	1	0.4	0.0528	0.0011	0.02	1.04	1.66	0.02	0.01
Cadmium	1.0	1.17	1	0.6	0.0528	0.0011	0.03	0.77	7.7	0.04	0.004
Chromium	21	1.17	1	0.8	0.0528	0.0011	0.06	2.4	24	0.02	0.002
Copper	65	1.17	1	10	0.0528	0.0011	0.5	5.6	9.34	0.09	0.05
Lead	182	1.17	1	4.9	0.0528	0.0011	0.4	4.7	8.9	0.08	0.04
Mercury	0.9	1.17	1	0.2	0.0528	0.0011	0.008	1	10	0.008	0.0008
Nickel	17	1.17	1	0.9	0.0528	0.0011	0.06	1.7	3.4	0.03	0.02
Silver	0.5	1.17	1	0.007	0.0528	0.0011	0.0008	6.02	60.2	0.0001	0.00001
Zinc	316	1.17	1	117	0.0528	0.0011	5.6	75.4	754	0.07	0.007
Explosives and Energetics											
Nitrocellulose	305	1.17	1	1129	0.0528	0.0011	51	NA	NA	- -	- -
Nitroglycerin	123	1.17	1	456	0.0528	0.0011	21	3	32	**7**	0.6

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-19
Hazard Quotients for Benthic Invertebrates - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Screening Value (mg/kg)	Exposure Point		Hazard Quotients	
		Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
VOCs					
Tetrachloroethene	0.45	6.7	4.5	15	**10**
SVOCs					
2,4-Dinitrotoluene	0.0144	0.6	0.10	39	**7**
Acenaphthene	0.016	140	6.1	8750	**382**
Acenaphthylene	0.044	900	38	20455	**872**
Anthracene	0.22	1100	47	5000	**213**
Benzo(a)anthracene	0.32	1500	64	4688	**199**
Benzo(a)pyrene	0.37	900	38	2432	**104**
Benzo(g,h,i)perylene	0.17	470	20	2765	**119**
Benzo(k)fluoranthene	0.24	580	25	2417	**103**
Bis(2-Ethylhexyl)phthalate	0.182	1.4	0.2	8	1
Chrysene	0.34	1100	47	3235	**138**
Dibenzo(a,h)anthracene	0.06	180	4.4	3000	**73**
Fluoranthene	0.75	3500	149	4667	**198**
Fluorene	0.19	1200	51	6316	**270**
Indeno(1,2,3-cd)pyrene	0.2	2.2	0.4	11	**2**
N-nitrosodiphenylamine	2.68	14	1.6	5	0.6
Naphthalene	0.16	240	14	1500	**89**
Phenanthrene	0.56	5300	303	9464	**542**
Pyrene	0.49	2600	149	5306	**305**
Metals					
Antimony	3	5.7	1.7	1.8900	0.6
Arsenic	6	192	17	32	**3**
Beryllium	NA	1.4	0.7	--	**--**
Cadmium	0.6	3.8	0.7	6.3333	1
Chromium	26	246	27	9.4615	1
Copper	16	979	43	61	**3**
Lead	31	148000	3891	4774	**126**
Manganese	630	7280	2867	12	**5**
Mercury	0.2	27	1.6	135	**8**
Nickel	16	82	10	5.1188	0.7
Selenium	2	5.6	2.2	2.7900	1
Silver	1	13	0.7	13.4000	0.7
Zinc	120	1550	139	12.9167	1
Explosives					
2,4,6-Trinitrotoluene	1.1	19	0.4	17	0.4
Nitrobenzene	0.145	1.8	0.2	12	1
Nitrocellulose	NA	2200	147	--	**--**

Notes:
Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.
-- = not applicable
95UCL = 95th percentile upper confidence limit of the mean
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
NA = not available
SVOC = semivolatile organic compound

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
VOCs						
Tetrachloroethene	NA	-	6.7	4.5	NA	NA
SVOCs						
2,4-Dinitrotoluene	30	i	0.56	0.1	0.019	0.003
Acenaphthene	20	b	140	6.1	7	0.3
Acenaphthylene	20	h	900	38.4	45	**2**
Anthracene	20	h	1100	46.9	55	**2**
Benzo(a)anthracene	10	a	1500	63.8	150	**6**
Benzo(a)pyrene	10	a	900	38.4	90	**4**
Benzo(g,h,i)fluoranthene	10	a	470	20.2	47	**2**
Benzo(k)fluoranthene	10	a	580	24.8	58	**2**
Bis(2-ethylhexyl)phthalate	200	b,c	1.4	0.2	0.01	0.001
Chrysene	10	d	1100	47.0	110	**5**
Dibenzo(a,h)anthracene	10	a	180	4.4	18	0.4
Fluoranthene	150	e	3500	148.6	23	1
Fluorene	76	e	1200	51.4	16	0.7
Indeno(1,2,3-cd)pyrene	10	a	2.2	0.4	0.2	0.04
N-nitrosodiphenylamine	NA	--	14	1.6	NA	NA
Naphthalene	10	b	240	14.3	24	1
Phenanthrene	46	e	5300	303.3	115	**7**
Pyrene	56	e	2600	149.3	46	**3**
Metals						
Antimony	5	b	5.67	1	1.1	0.3
Arsenic	18	f	192	16	11	0.9
Beryllium	10	b	1.14	1	0.1	0.06
Cadmium	32	f	3.8	1	0.1	0.02
Chromium	1	b	246	26	246	**26**
Copper	70	f	979	40	14	0.6
Lead	120	f	148000	4536	1233	**38**
Manganese	220	f	7280	2721	33	**12**
Mercury	0.3	b	27	2	90	**6**
Nickel	38	f	81.9	10	2	0.3
Selenium	0.52	f	5.58	1	11	**3**
Silver	560	f	13.4	1	0.02	0.001
Thallium	1	b	11.1	3	11	**3**

Table 7-20
Hazard Quotients for Aquatic Plants - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Screening Value (mg/kg)	Note	Exposure Point Concentration		Hazard Quotients	
			Maximum Detected (mg/kg)	95UCL (mg/kg)	Maximum Detected	95UCL
Zinc	160	f	1550	134	10	0.8
Explosives and Energetics						
2,4,6-Trinitrotoluene	6	g	19	0.4	3	1
Nitrobenzene	NA	-	1.8	0.2	NA	NA
Nitrocellulose	NA	-	2200	146.8	NA	NA

Notes:

Bolded values indicate a hazard quotient based on the 95UCL that is greater than 1.

a. Value for chrysene (HMW PAH) used as surrogate.

b. Efroymson et al. 1997b

c. Value for di-n-butylphthalate used as a surrogate.

d. Ecotox database (value is NOAEL for black poplar [*Populus nigra*] from Wittig et al. 2003).

e. Sverdrup et al. 2003

f. Ecological soil screening levels

g. Sunahara et al. 2009 (Table 12.5 for weathered and aged)

h. Value for acenaphthene used as surrogate

i. Value for TNT used as surrogate (Talmage et al. 1999)

-- = not applicable

95UCL = 95th percentile upper confidence limit of the mean

COPEC = constituent of potential ecological concern

HMW = high molecular weight

mg/kg = milligram per kilogram

NA = not available

SVOC = semivolatile organic compound

Table 7-21
Hazard Quotients for Fish and Aquatic Invertebrates - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (µg/L)	Screening Value (µg/L)	HQ
Metals - Total [a]			
Aluminum	664	87	8
Manganese	1274	120	11
SVOCs			
Chrysene	0.3	0.28	1
Metals - Dissolved			
Cadmium [b]	--	--	--
Arsenic [c]	5.3	150	0.04
Copper	3.4	9.9	0.3
Lead [c]	18	5.4	3
Mercury [c]	0.1	0.77	0.1
Selenium [c]	5.2	5	1
Silver	2.1	4.4	0.5
Zinc	15	133	0.1

Notes:
Screening values from Table 4-2.

[a] Total metal data used due to a lack of dissolved data.

[b] Cadmium screened based on total metal data; however, it was non-detect for all dissolved s and, therefore, it is not ecologically relevant.

[c] Screening value for total metal used for lack of dissolved metal screening value.

-- = not applicable
95UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
EPC = exposure point concentration, equivalent to the 95UCL
HQ = hazard quotient
NA = not available
µg/L = microgram per liter

Table 7-22
Hazard Quotients for Tree Swallow - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Acenaphthylene	38	0.0202	1	14	0.0116	0	7.9	1653	16530	0.005	0.0005
Anthracene	47	0.0202	1	12	0.0116	0	7.0	1653	16530	0.004	0.0004
Benzo(a)anthracene	64	0.0202	1	20	0.0116	0	12	2	20	**6**	0.6
Benzo(a)pyrene	38	0.0202	1	5.4	0.0116	0	3.1	2	20	**2**	0.2
Benzo(g,h,i)perylene	20	0.0202	1	0.7	0.0116	0	0.4	2	20	0.2	0.02
Benzo(k)fluoranthene	25	0.0202	1	17	0.0116	0	9.7	2	20	**5**	0.5
Chrysene	47	0.0202	1	9.6	0.0116	0	5.5	2	20	**3**	0.3
Dibenzo(a,h)anthracene	4.4	0.0202	1	0.3	0.0116	0	0.2	2	20	0.10	0.010
Fluoranthene	149	0.0202	1	96	0.0116	0	55	2	20	**28**	**3**
Fluorene	51	0.0202	1	23	0.0116	0	13	1653	16530	0.008	0.0008
Indeno(1,2,3-cd)pyrene	0.4	0.0202	1	0.02	0.0116	0	0.01	2	20	0.007	0.0007
Phenanthrene	303	0.0202	1	76	0.0116	0	44	1653	16530	0.03	0.003
Pyrene	149	0.0202	1	44	0.0116	0	25	2	20	**13**	1
Metals											
Arsenic	17	0.0202	1	4.1	0.0116	0	2.4	2.24	3.6	1	0.7
Cadmium	0.7	0.0202	1	2.4	0.0116	0	1.4	1.47	14.7	1	0.10
Chromium	27	0.0202	1	5.6	0.0116	0	3.2	2.66	26.6	1	0.1
Copper	43	0.0202	1	91	0.0116	0	52	4.05	12.1	**13**	**4**
Lead	3891	0.0202	1	1288	0.0116	0	740	1.63	3.3	**454**	**224**
Mercury	1.6	0.0202	1	1.9	0.0116	0	1.1	0.45	0.9	**2**	1
Nickel	10	0.0202	1	14	0.0116	0	7.8	6.71	67.1	1	0.1
Selenium	2.2	0.0202	1	2.2	0.0116	0	1.2	0.29	0.579	**4**	**2**
Silver	0.7	0.0202	1	0.7	0.0116	0	0.4	2.02	20.2	0.2	0.02
Zinc	139	0.0202	1	472	0.0116	0	271	66.1	661	**4**	0.4
Explosives and Energetics											
2,4,6-Trinitrotoluene	0.4	0.0202	1	0.6	0.0116	0	0.3	0.07	1.8	**5**	0.2
Nitrobenzene	0.2	0.0202	1	0.2	0.0116	0	0.1	NA	NA	**- -**	**- -**
Nitrocellulose	147	0.0202	1	220	0.0116	0	126	NA	NA	**- -**	**- -**
Nitroglycerin	- -	0.0202	1	- -	0.0116	0	- -	NA	NA	**- -**	**- -**

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

-- = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-23
Hazard Quotients for Great Blue Heron - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Acenaphthylene	38	2.34	1	0.6	0.1348	0.0027	0.08	1653	16530	0.00005	0.0000
Anthracene	47	2.34	1	0.4	0.1348	0.0027	0.08	1653	16530	0.00005	0.0000
Benzo(a)anthracene	64	2.34	1	0.7	0.1348	0.0027	0.1	2	20	0.06	0.006
Benzo(a)pyrene	38	2.34	1	0.07	0.1348	0.0027	0.05	2	20	0.02	0.002
Benzo(g,h,i)perylene	20	2.34	1	0.4	0.1348	0.0027	0.05	2	20	0.02	0.002
Benzo(k)fluoranthene	25	2.34	1	0.05	0.1348	0.0027	0.03	2	20	0.02	0.002
Chrysene	47	2.34	1	0.4	0.1348	0.0027	0.08	2	20	0.04	0.004
Dibenzo(a,h)anthracene	4.4	2.34	1	0.008	0.1348	0.0027	0.005	2	20	0.003	0.0003
Fluoranthene	149	2.34	1	1.0	0.1348	0.0027	0.2	2	20	0.1	0.01
Fluorene	51	2.34	1	1.1	0.1348	0.0027	0.1	1653	16530	0.00008	0.0000
Indeno(1,2,3-cd)pyrene	0.4	2.34	1	0.005	0.1348	0.0027	0.0007	2	20	0.0004	0.00004
Phenanthrene	303	2.34	1	8.1	0.1348	0.0027	0.8	1653	16530	0.0005	0.00005
Pyrene	149	2.34	1	1.6	0.1348	0.0027	0.3	2	20	0.1	0.01
Metals											
Arsenic	17	2.34	1	4.1	0.1348	0.0027	0.3	2.24	3.6	0.1	0.07
Cadmium	0.7	2.34	1	2.4	0.1348	0.0027	0.1	1.47	14.7	0.10	0.010
Chromium	27	2.34	1	5.6	0.1348	0.0027	0.4	2.66	26.6	0.1	0.01
Copper	43	2.34	1	91	0.1348	0.0027	5.3	4.05	12.1	1	0.4
Lead	3891	2.34	1	1288	0.1348	0.0027	79	1.63	3.3	**48**	**24**
Mercury	1.6	2.34	1	1.9	0.1348	0.0027	0.1	0.45	0.9	0.2	0.1
Nickel	10	2.34	1	14	0.1348	0.0027	0.8	6.71	67.1	0.1	0.01
Selenium	2.2	2.34	1	2.2	0.1348	0.0027	0.1	0.29	0.579	0.4	0.2
Silver	0.7	2.34	1	0.7	0.1348	0.0027	0.04	2.02	20.2	0.02	0.002
Zinc	139	2.34	1	472	0.1348	0.0027	27	66.1	661	0.4	0.04
Explosives and Energetics											
2,4,6-Trinitrotoluene	0.4	2.34	1	1.0	0.1348	0.0027	0.06	0.07	1.8	0.8	0.03
Nitrobenzene	0.2	2.34	1	0.4	0.1348	0.0027	0.02	NA	NA	- -	- -
Nitrocellulose	147	2.34	1	367	0.1348	0.0027	21	NA	NA	- -	- -
Nitroglycerin	- -	2.34	1	- -	0.1348	0.0027	- -	NA	NA	- -	- -

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-24
Hazard Quotients for Mallard Duck - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Acenaphthylene	38	1.16	1	5.7	0.0603	0.0012	0.3	1653	16530	0.0002	0.00002
Anthracene	47	1.16	1	7.4	0.0603	0.0012	0.4	1653	16530	0.0003	0.00003
Benzo(a)anthracene	64	1.16	1	0.8	0.0603	0.0012	0.1	2	20	0.05	0.005
Benzo(a)pyrene	38	1.16	1	4.5	0.0603	0.0012	0.3	2	20	0.1	0.01
Benzo(g,h,i)perylene	20	1.16	1	14	0.0603	0.0012	0.7	2	20	0.4	0.04
Benzo(k)fluoranthene	25	1.16	1	1.8	0.0603	0.0012	0.1	2	20	0.06	0.006
Chrysene	47	1.16	1	0.7	0.0603	0.0012	0.08	2	20	0.04	0.004
Dibenzo(a,h)anthracene	4.4	1.16	1	0.6	0.0603	0.0012	0.03	2	20	0.02	0.002
Fluoranthene	149	1.16	1	74	0.0603	0.0012	4.0	2	20	**2**	0.2
Fluorene	51	1.16	1	0.0001	0.0603	0.0012	0.05	1653	16530	0.00003	0.0000
Indeno(1,2,3-cd)pyrene	0.4	1.16	1	0.04	0.0603	0.0012	0.003	2	20	0.001	0.0001
Phenanthrene	303	1.16	1	29	0.0603	0.0012	1.8	1653	16530	0.001	0.0001
Pyrene	149	1.16	1	107	0.0603	0.0012	5.7	2	20	**3**	0.3
Metals											
Arsenic	17	1.16	1	0.6	0.0603	0.0012	0.05	2.24	3.6	0.02	0.01
Cadmium	0.7	1.16	1	0.5	0.0603	0.0012	0.03	1.47	14.7	0.02	0.002
Chromium	27	1.16	1	1.1	0.0603	0.0012	0.09	2.66	26.6	0.03	0.003
Copper	43	1.16	1	8.6	0.0603	0.0012	0.5	4.05	12.1	0.1	0.04
Lead	3891	1.16	1	27	0.0603	0.0012	5.5	1.63	3.3	**3**	**2**
Mercury	1.6	1.16	1	0.2	0.0603	0.0012	0.01	0.45	0.9	0.03	0.02
Nickel	10	1.16	1	0.6	0.0603	0.0012	0.04	6.71	67.1	0.006	0.0006
Selenium	2.2	1.16	1	1.2	0.0603	0.0012	0.07	0.29	0.579	0.2	0.1
Silver	0.7	1.16	1	0.01	0.0603	0.0012	0.001	2.02	20.2	0.0006	0.00006
Zinc	139	1.16	1	74	0.0603	0.0012	4.0	66.1	661	0.06	0.006
Explosives and Energetics											
2,4,6-Trinitrotoluene	0.4	1.16	1	1.5	0.0603	0.0012	0.08	0.07	1.8	1	0.04
Nitrobenzene	0.2	1.16	1	0.6	0.0603	0.0012	0.03	NA	NA	**- -**	**- -**
Nitrocellulose	147	1.16	1	543	0.0603	0.0012	28	NA	NA	**- -**	**- -**
Nitroglycerin	- -	1.16	1	- -	0.0603	0.0012	- -	NA	NA	**- -**	**- -**

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-25
Hazard Quotients for Little Brown Bat - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Acenaphthylene	38	0.009	1	14	0.0016	0	2.4	65.6	328	0.04	0.007
Anthracene	47	0.009	1	12	0.0016	0	2.2	65.6	328	0.03	0.007
Benzo(a)anthracene	64	0.009	1	20	0.0016	0	3.6	0.615	3.07	**6**	1
Benzo(a)pyrene	38	0.009	1	5.4	0.0016	0	1.0	0.615	3.07	**2**	0.3
Benzo(g,h,i)perylene	20	0.009	1	0.7	0.0016	0	0.1	0.615	3.07	0.2	0.04
Benzo(k)fluoranthene	25	0.009	1	17	0.0016	0	3.0	0.615	3.07	**5**	1
Chrysene	47	0.009	1	9.6	0.0016	0	1.7	0.615	3.07	**3**	0.6
Dibenzo(a,h)anthracene	4.4	0.009	1	0.3	0.0016	0	0.06	0.615	3.07	0.10	0.02
Fluoranthene	149	0.009	1	96	0.0016	0	17	0.615	3.07	**28**	**6**
Fluorene	51	0.009	1	23	0.0016	0	4.1	65.6	328	0.06	0.01
Indeno(1,2,3-cd)pyrene	0.4	0.009	1	0.02	0.0016	0	0.004	0.615	3.07	0.007	0.001
Phenanthrene	303	0.009	1	76	0.0016	0	14	65.6	328	0.2	0.04
Pyrene	149	0.009	1	44	0.0016	0	7.8	0.615	3.07	**13**	**3**
Metals											
Arsenic	17	0.009	1	4.1	0.0016	0	0.7	1.04	1.66	0.7	0.4
Cadmium	0.7	0.009	1	2.4	0.0016	0	0.4	0.77	7.7	0.6	0.06
Chromium	27	0.009	1	5.6	0.0016	0	1.0	2.4	24	0.4	0.04
Copper	43	0.009	1	91	0.0016	0	16	5.6	9.34	**3**	**2**
Lead	3891	0.009	1	1288	0.0016	0	229	4.7	8.9	**49**	**26**
Mercury	1.6	0.009	1	1.9	0.0016	0	0.3	1	10	0.3	0.03
Nickel	10	0.009	1	14	0.0016	0	2.4	1.7	3.4	1	0.7
Selenium	2.2	0.009	1	2.2	0.0016	0	0.4	0.143	0.215	**3**	**2**
Silver	0.7	0.009	1	0.7	0.0016	0	0.1	6.02	60.2	0.02	0.002
Zinc	139	0.009	1	472	0.0016	0	84	75.4	754	1	0.1
Explosives and Energetics											
2,4,6-Trinitrotoluene	0.4	0.009	1	0.6	0.0016	0	0.1	0.2	0.3	0.5	0.4
Nitrobenzene	0.2	0.009	1	0.2	0.0016	0	0.04	NA	NA	- -	- -
Nitrocellulose	147	0.009	1	220	0.0016	0	39	NA	NA	- -	- -
Nitroglycerin	- -	0.009	1	- -	0.0016	0	- -	3	32	- -	- -

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-26
Hazard Quotients for Mink - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Acenaphthylene	38	0.90	1	0.6	0.0452	0.0009	0.07	65.6	328	0.001	0.0002
Anthracene	47	0.90	1	0.4	0.0452	0.0009	0.07	65.6	328	0.001	0.0002
Benzo(a)anthracene	64	0.90	1	0.7	0.0452	0.0009	0.1	0.615	3.07	0.2	0.03
Benzo(a)pyrene	38	0.90	1	0.07	0.0452	0.0009	0.04	0.615	3.07	0.07	0.01
Benzo(g,h,i)perylene	20	0.90	1	0.4	0.0452	0.0009	0.04	0.615	3.07	0.07	0.01
Benzo(k)fluoranthene	25	0.90	1	0.05	0.0452	0.0009	0.03	0.615	3.07	0.04	0.009
Chrysene	47	0.90	1	0.4	0.0452	0.0009	0.07	0.615	3.07	0.1	0.02
Dibenzo(a,h)anthracene	4.4	0.90	1	0.008	0.0452	0.0009	0.005	0.615	3.07	0.008	0.002
Fluoranthene	149	0.90	1	1.0	0.0452	0.0009	0.2	0.615	3.07	0.3	0.06
Fluorene	51	0.90	1	1.1	0.0452	0.0009	0.1	65.6	328	0.002	0.0003
Indeno(1,2,3-cd)pyrene	0.4	0.90	1	0.005	0.0452	0.0009	0.0006	0.615	3.07	0.0010	0.0002
Phenanthrene	303	0.90	1	8.1	0.0452	0.0009	0.7	65.6	328	0.01	0.002
Pyrene	149	0.90	1	1.6	0.0452	0.0009	0.2	0.615	3.07	0.4	0.08
Metals											
Arsenic	17	0.90	1	4.1	0.0452	0.0009	0.2	1.04	1.66	0.2	0.1
Cadmium	0.7	0.90	1	2.4	0.0452	0.0009	0.1	0.77	7.7	0.2	0.02
Chromium	27	0.90	1	5.6	0.0452	0.0009	0.3	2.4	24	0.1	0.01
Copper	43	0.90	1	91	0.0452	0.0009	4.6	5.6	9.34	0.8	0.5
Lead	3891	0.90	1	1288	0.0452	0.0009	69	4.7	8.9	**15**	**8**
Mercury	1.6	0.90	1	1.9	0.0452	0.0009	0.10	1	10	0.10	0.010
Nickel	10	0.90	1	14	0.0452	0.0009	0.7	1.7	3.4	0.4	0.2
Selenium	2.2	0.90	1	2.2	0.0452	0.0009	0.1	0.143	0.215	0.8	0.5
Silver	0.7	0.90	1	0.7	0.0452	0.0009	0.04	6.02	60.2	0.006	0.0006
Zinc	139	0.90	1	472	0.0452	0.0009	24	75.4	754	0.3	0.03
Explosives and Energetics											
2,4,6-Trinitrotoluene	0.4	0.90	1	1.0	0.0452	0.0009	0.05	0.2	0.3	0.3	0.2
Nitrobenzene	0.2	0.90	1	0.4	0.0452	0.0009	0.02	NA	NA	- -	- -
Nitrocellulose	147	0.90	1	367	0.0452	0.0009	19	NA	NA	- -	- -
Nitroglycerin	- -	0.90	1	- -	0.0452	0.0009	- -	3	32	- -	- -

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-27
Hazard Quotients for Muskrat - Southern Drainage Area
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
SVOCs											
Acenaphthylene	38	1.17	1	5.7	0.0528	0.0011	0.3	65.6	328	0.004	0.0009
Anthracene	47	1.17	1	7.4	0.0528	0.0011	0.4	65.6	328	0.006	0.001
Benzo(a)anthracene	64	1.17	1	0.8	0.0528	0.0011	0.09	0.615	3.07	0.2	0.03
Benzo(a)pyrene	38	1.17	1	4.5	0.0528	0.0011	0.2	0.615	3.07	0.4	0.08
Benzo(g,h,i)perylene	20	1.17	1	14	0.0528	0.0011	0.6	0.615	3.07	1	0.2
Benzo(k)fluoranthene	25	1.17	1	1.8	0.0528	0.0011	0.1	0.615	3.07	0.2	0.03
Chrysene	47	1.17	1	0.7	0.0528	0.0011	0.07	0.615	3.07	0.1	0.02
Dibenzo(a,h)anthracene	4.4	1.17	1	0.6	0.0528	0.0011	0.03	0.615	3.07	0.05	0.010
Fluoranthene	149	1.17	1	74	0.0528	0.0011	3.5	0.615	3.07	**6**	1
Fluorene	51	1.17	1	0.0001	0.0528	0.0011	0.05	65.6	328	0.0007	0.0001
Indeno(1,2,3-cd)pyrene	0.4	1.17	1	0.04	0.0528	0.0011	0.002	0.615	3.07	0.004	0.0007
Phenanthrene	303	1.17	1	29	0.0528	0.0011	1.6	65.6	328	0.02	0.005
Pyrene	149	1.17	1	107	0.0528	0.0011	5.0	0.615	3.07	**8**	**2**
Metals											
Arsenic	17	1.17	1	0.6	0.0528	0.0011	0.04	1.04	1.66	0.04	0.03
Cadmium	0.7	1.17	1	0.5	0.0528	0.0011	0.02	0.77	7.7	0.03	0.003
Chromium	27	1.17	1	1.1	0.0528	0.0011	0.07	2.4	24	0.03	0.003
Copper	43	1.17	1	8.6	0.0528	0.0011	0.4	5.6	9.34	0.08	0.05
Lead	3891	1.17	1	27	0.0528	0.0011	4.7	4.7	8.9	1	0.5
Mercury	1.6	1.17	1	0.2	0.0528	0.0011	0.01	1	10	0.01	0.001
Nickel	10	1.17	1	0.6	0.0528	0.0011	0.04	1.7	3.4	0.02	0.01
Selenium	2.2	1.17	1	1.2	0.0528	0.0011	0.06	0.143	0.215	0.4	0.3
Silver	0.7	1.17	1	0.01	0.0528	0.0011	0.001	6.02	60.2	0.0002	0.00002
Zinc	139	1.17	1	74	0.0528	0.0011	3.5	75.4	754	0.05	0.005
Explosives and Energetics											
2,4,6-Trinitrotoluene	0.4	1.17	1	1.5	0.0528	0.0011	0.07	0.2	0.3	0.3	0.2
Nitrobenzene	0.2	1.17	1	0.6	0.0528	0.0011	0.03	NA	NA	- -	- -
Nitrocellulose	147	1.17	1	543	0.0528	0.0011	25	NA	NA	- -	- -
Nitroglycerin	- -	1.17	1	- -	0.0528	0.0011	- -	3	32	- -	- -

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

- - = not applicable
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 7-28
Summary of Hazard Quotients for Aquatic Wildlife
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

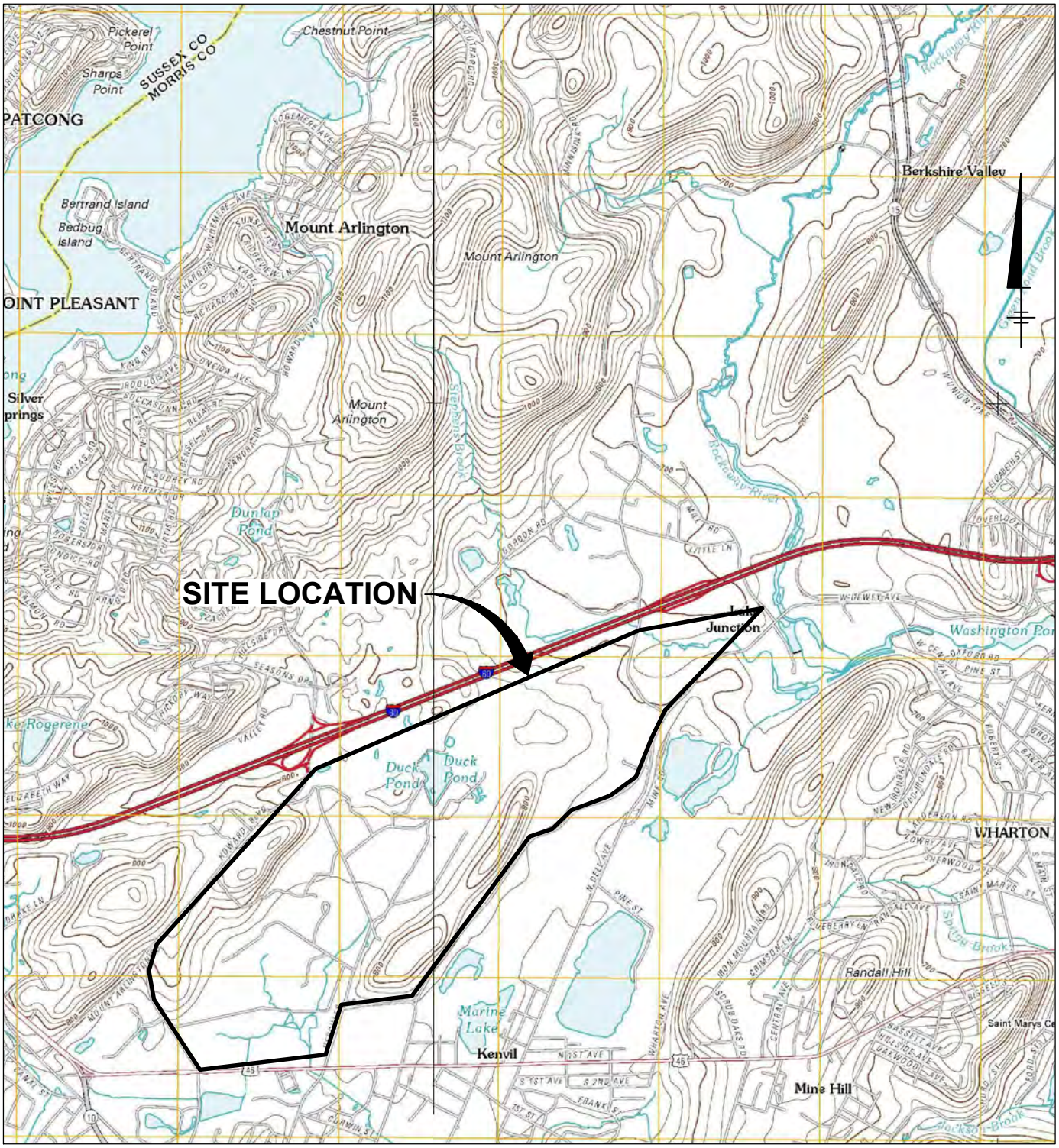
COPECs	Tree Swallow		Great Blue Heron		Mallard Duck		Little Brown Bat		Mink		Muskrat	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Northern Area												
Metals												
Copper	**20**	**7**	**2**	≤1	≤1	≤1	**4**	**3**	≤1	≤1	≤1	≤1
Lead	**21**	**10**	**2**	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Nickel	**2**	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Zinc	**9**	≤1	≤1	≤1	≤1	≤1	**3**	≤1	≤1	≤1	≤1	≤1
Explosives and Energetics												
Nitroglycerin	- -	- -	- -	- -	- -	- -	**5**	<1	**2**	≤1	**7**	<1
Southern Area												
SVOCs												
Benzo(a)anthracene	**6**	≤1	≤1	≤1	≤1	≤1	**6**	≤1	≤1	≤1	≤1	≤1
Benzo(a)pyrene	**2**	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1
Benzo(k)fluoranthene	**5**	≤1	≤1	≤1	≤1	≤1	**5**	≤1	≤1	≤1	≤1	≤1
Chrysene	**3**	≤1	≤1	≤1	≤1	≤1	**3**	≤1	≤1	≤1	≤1	≤1
Fluoranthene	**28**	**3**	≤1	≤1	**2**	≤1	**28**	**6**	≤1	≤1	**6**	≤1
Pyrene	**13**	≤1	≤1	≤1	**3**	≤1	**13**	**3**	≤1	≤1	**8**	**2**
Metals												
Copper	**13**	**4**	≤1	≤1	≤1	≤1	**3**	**2**	≤1	≤1	≤1	≤1
Lead	**454**	**224**	**48**	**24**	**3**	**2**	**49**	**26**	**15**	**8**	≤1	≤1
Mercury	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Selenium	**4**	**2**	≤1	≤1	≤1	≤1	**3**	**2**	≤1	≤1	≤1	≤1
Zinc	**4**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Explosives and Energetics												
2,4,6-Trinitrotoluene	**5**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Notes:
- - = not applicable
≤ = less than or equal to
COPEC = constituent of potential ecological concern
NOAEL = no observed adverse effects level
LOAEL = lowest observed adverse effects level
SVOC = semivolatile organic compound

Table 8-1
Constituents Screened out as COPECs due to Low Frequency of Detection
Ecological Risk Assessment
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Screening Value	Units	Detection Frequency	Range of Detected Concentrations	Maximum Detect Location	Detection Limit Range	Hazard Quotient
Soil							
1,1,2,2-Tetrachloroethane	127	ug/kg	2/232	120 - 601	L11-2-010.5N	5 - 2100	5
Acrylonitrile	23.9	ug/kg	1/529	1370 - 1370	G8-3-020.5N	46 - 19000	57
Hexachlorobutadiene	39.8	ug/kg	3/183	190 - 331	F10-3-010.5N	52 - 2100	8.3
Isopropylbenzene	NA	ug/kg	2/21	3 - 7	SO-R2-I-13-2_20131111	5 - 8	--
Methyl Acetate	NA	ug/kg	1/21	5 - 5	SO-R2-E-9-1_20131115	5 - 10	--
Naphthalene	99.4	ug/kg	4/40	147 - 586	J11-1-120.5FD	52 - 2100	5.9
1,2-Diphenylhydrazine	NA	ug/kg	4/1419	24 - 980	L10-2191-021.5N	33 - 429276.6	--
2,4-Dimethylphenol	10	ug/kg	2/1439	280 - 1700	G10-8106C-042N	34 - 429276.6	170
2,4-Dinitrophenol	60.9	ug/kg	3/1801	190 - 4240	L10-8210-031N810	68 - 858553.2	70
3,3-Dichlorobenzidine	646	ug/kg	1/1426	980 - 980	D10-6-021N	67 - 858553.2	2
Nitrobenzene	1310	ug/kg	3/751	85 - 5500	C11-9-040.5N	34 - 429276.6	4
N-Nitrosodimethylamine	0.0321	ug/kg	2/1419	330 - 430	E11-2064-012FD	34 - 429276.6	13396
2,4-Dinitrophenol	60.9	ug/kg	1/2	14800 - 14800	L10-8210-031N1630	250 - 250	243
2-Nitrotoluene	NA	ug/kg	1/880	130 - 130	C11-27-030.5N	26 - 23810	--
3-Nitrotoluene	NA	ug/kg	2/880	270 - 800	F10-20-031.25N	26 - 9524	--
Northern Drainage Area Surface Water							
Bis(2-Ethylhexyl)phthalate	0.3	ug/L	2/67	2-12	SW-R2-M-5-2	2 - 5	40
Aluminum (AQ - total)	87	ug/L	4/6	88.1-605	SW-R2-N-5-1	200 - 200	7
Cadmium (AQ - dissolved)	0.12	ug/L	1/44	0-0.74	SW-O4-2-01	640 - 640	6
Selenium (AQ - dissolved)	5	ug/L	1/53	10.3-10.3	SW-R-K5-01	20 - 4300	2
Silver (AQ - total)	1.4	ug/L	3/85	2.8-12.2	SW-R-J5-02	5 - 1300	9
Thallium (AQ - total)	10	ug/L	2/85	104-149	SW-R-J5-01	0.5 - 8800	15
Northern Drainage Area Sediment							
1-Methylnaphthalene	20.2	ug/kg	2/5	83 - 120	SD-R2-K-5-1_20131104	190 - 5200	6
2,4-Dinitrotoluene	14.4	ug/kg	2/48	270 - 4500	SD-R-L5-011.0N	67 - 20000	313
2-Methylnaphthalene	20.2	ug/kg	2/6	63 - 130	SD-R2-K-5-1_20131104	190 - 5200	6
Acenaphthylene	44	ug/kg	4/53	130 - 580	SD-R-M7-011N	33 - 20000	13
Anthracene	220	ug/kg	4/53	120 - 560	SD-R-M7-011N	33 - 20000	3
Selenium	2	mg/kg	4/14	0.55 - 5.49	SD-R2-K-5-1_20131104	0.47 - 198	3
Thallium	NA	mg/kg	1/14	2 - 2	SD-M5-1-011.5N	0.83 - 297	--
Southern Drainage Area Surface Water							
Bromodichloromethane	--	ug/L	1/92	3-3	SW-E15-2-01	1 - 5	--
Benzo(a)anthracene	0.025	ug/L	3/101	0.1-2	SW-D13-2-01	0.5 - 50	80
Benzo(a)pyrene	0.014	ug/L	4/101	0.2-2	SW-D13-2-01	0.5 - 50	143
Bis(2-Ethylhexyl)phthalate	0.3	ug/L	1/101	2-2	SW-D13-4-01	2 - 50	7
Fluoranthene	1.9	ug/L	4/84	0.3-3	SW-D13-2-01	0.5 - 1	2
Pyrene	0.3	ug/L	4/84	0.3-3	SW-D13-2-01	0.5 - 1	10
Beryllium (AQ - total)	3.6	ug/L	2/84	1.6-21.7	SW-E16-1-01	5 - 640	6
Lead (AQ - dissolved)	5.4	ug/L	1/89	17.5-17.5	SW-D13-5-01	20 - 8800	3
Thallium (AQ - total)	10	ug/L	3/159	10.4-32.1	SW-R-D12-07	0.5 - 8800	3
Southern Drainage Area Sediment							
Acetone	9.9	ug/kg	1/1	19 - 19	SD-R2-E-16-1_20131105	-	2
1-Methylnaphthalene	20.2	ug/kg	3/15	120 - 810	SD-R2-F-14-1_20131105	130 - 4000	40
2,4-Dinitrophenol	6.21	ug/kg	1/28	6000 - 6000	SD-H7-2-011FD	670 - 41000	966
2,6-Dinitrotoluene	39.8	ug/kg	1/101	75 - 75	SD-R-C11-041.0N	33 - 30000	2
2-Methylnaphthalene	20.2	ug/kg	4/16	100 - 780	SD-R2-F-14-1_20131105	130 - 4000	39
4-Nitrophenol	13.3	ug/kg	1/28	540 - 540	SD-H7-2-011FD	170 - 21000	41
Methanol	NA	ug/kg	3/81	24000 - 65000	SD-E14-1-011N	10000 - 96000	--

FIGURES



GRAPHIC SCALE

SOURCES:

USGS QUADRANGLE MAPS
DOVER, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

STANHOPE, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

NEW JERSEY

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

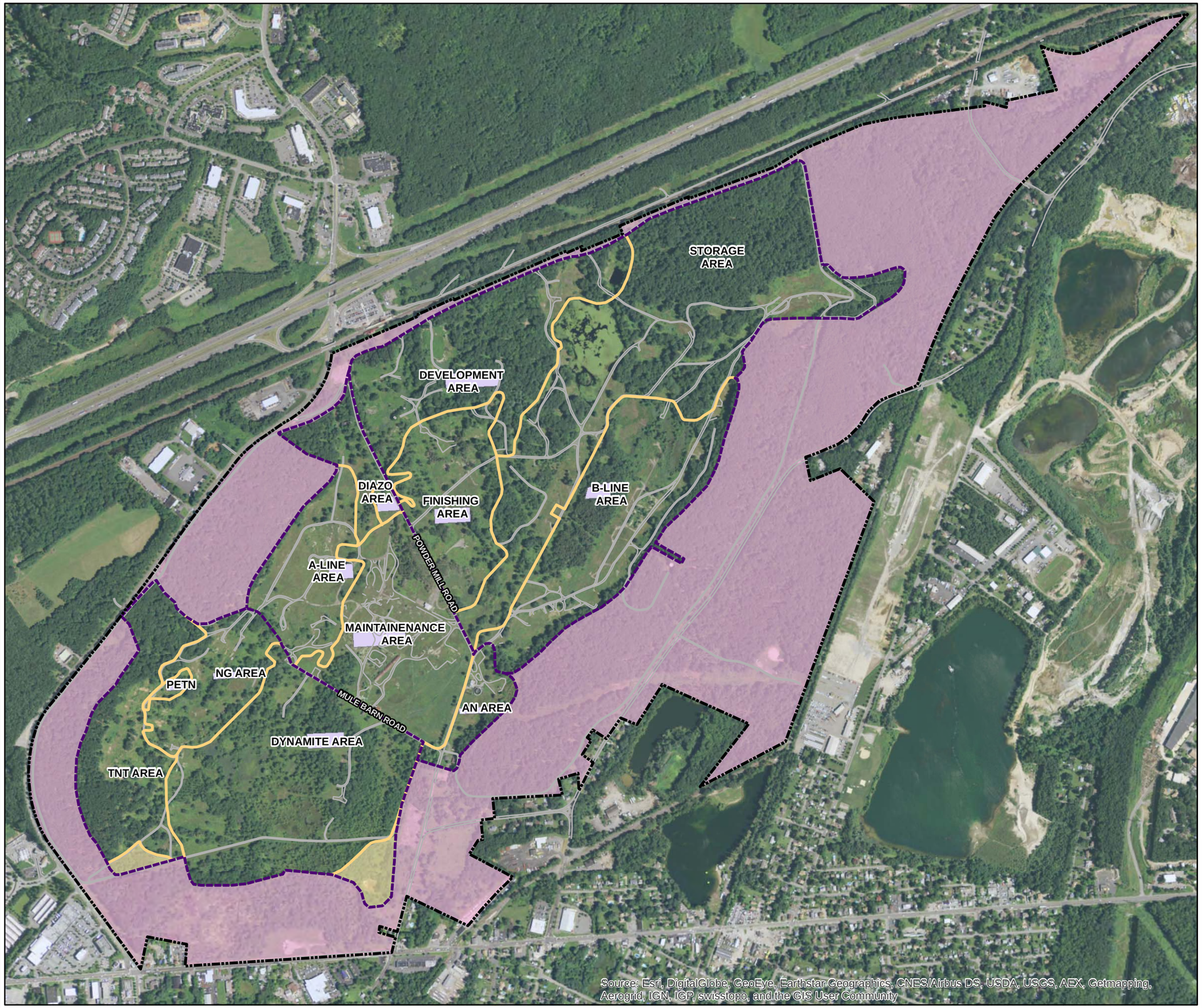
SITE LOCATION

HERCULES

FIGURE
1-1

CITY: CRANBURY-NJ DIV/GROUP: ENVCAD DB: T.FATTO/JMEYER/TFATTO LD: TFATTO PIC: PM: B.PIERCE TM: S.LAREW LYR: ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY\ACT\NJ007000\NJ77\00003\NJ007000N01.dwg LAYOUT: 1-1 SAVED: 3/30/2015 1:23 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/7/2015 10:15 AM BY: MEYER, JULIE
XREFS: IMAGES: PROJECTNAME: ---
hercules logo.png
NJ003000X01.jpg
NJ003000X02.jpg

DRAFT



LEGEND:

- SITE BOUNDARY
- REMEDIAL AREA BOUNDARY
- FORMER OPERATIONAL AREA BOUNDARY
- ROAD
- MISCELLANEOUS/OFF-SITE AREA INSIDE REMEDIAL AREA
- MISCELLANEOUS/OFF-SITE AREA OUTSIDE REMEDIAL AREA

0 1,000 2,000 Feet

GRAPHIC SCALE

NOTES:

1. AUGUST 2013 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. BASEMAP INFORMATION FROM ELECTRONIC FILE PROVIDED BY ASHLAND, INC. TITLED: "SITE PLAN.DWG"
3. OPERATIONAL AREAS DIGITIZED FROM MWH, REMEDIAL INVESTIGATION REPORT, HERCULES INCORPORATED KENVIL WORKS FACILITY, FIGURE TITLED: "SEDIMENT SAMPLE LOCATION MAP", FIGURE D-1.

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

SITE OPERATIONAL AREAS AND OTHER FEATURES

HERCULES

FIGURE 1-2

City: SYR Div/Group: SED Created By: JRAPP Last Saved By: jrapp
Ashland-Kenvil, NJ (NJ007000.NJ73.00000)
Q:\Ashland\Kenvil_NJ\EcoRiskAssessment\mxd\SiteOperationalAreas_Bsize_revd1.mxd 11/16/2015 2:49:02 PM

CITY:CRANBURY-NJ DIV/GROUP: ENVCAD DB: T.FATTO/JMEYER LD: T.FATTO PIC: PM: B.PIERCE TM: S.LAREW LYR: ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY\ACTIVE\NJ007000\NJ77000003\NJ007000B01.dwg LAYOUT: 2-1 SAVED: 3/31/2015 2:23 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/7/2015 10:17 AM BY: MEYER, JULIE
XREFS: IMAGES: PROJECTNAME: ----
NJ003000X01hercules logo.png
NJ003000X02

LEGEND:

- PROPERTY BOUNDARY
- STREAM/WATER FEATURE
- TOPOGRAPHIC CONTOURS
- DIRT ROAD/TRAIL
- TREELINE
- RAILROAD
- FENCE

0 500' 1000'
GRAPHIC SCALE

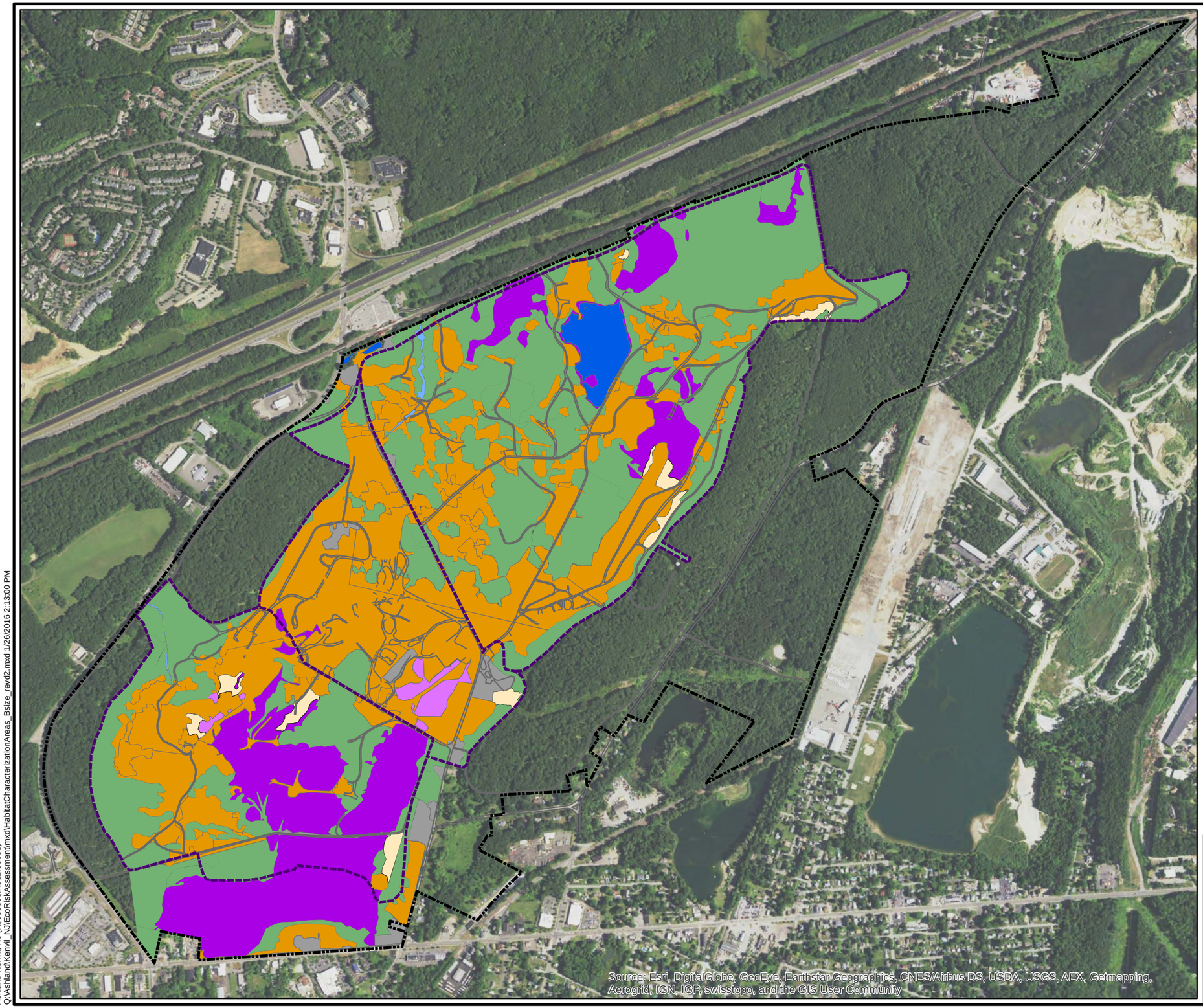
SOURCE:
BASEMAP INFORMATION FROM ELECTRONIC FILES PROVIDED BY ASHLAND, INC.
TITLED: SITE PLAN.DWG AND TOPO.DWG

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

SITE PLAN

HERCULES

FIGURE
2-1



LEGEND:

- SITE BOUNDARY
- REMEDIAL AREA BOUNDARY

N HABITAT TYPE:

- DISTURBED SHRUBLAND
- DISTURBED GRASSLAND/FORB COMPLEX
- FOREST
- EMERGENT WETLAND
- FORESTED WETLAND
- ROAD / BUILT-UP
- AQUATIC FLOWING AREAS
- AQUATIC NON-FLOWING AREAS

0 1,000 2,000 Feet

GRAPHIC SCALE

NOTES:

1. 2015 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. BASEMAP INFORMATION FROM ELECTRONIC FILE PROVIDED BY ASHLAND, INC. TITLED: "SITE PLAN.DWG"
3. OPERATIONAL AREAS DIGITIZED FROM MWH, REMEDIAL INVESTIGATION REPORT, HERCULES INCORPORATED KENVIL WORKS FACILITY, FIGURE TITLED: "SEDIMENT SAMPLE LOCATION MAP", FIGURE D-1.

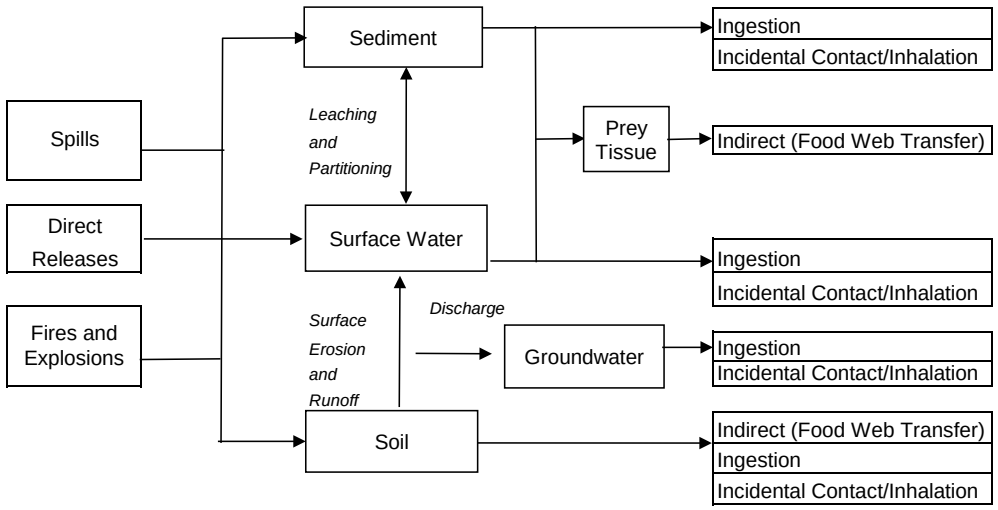
HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

HABITAT CHARACTERIZATION RESULTS

HERCULES

FIGURE
2-2

City: SYR Div/Group: SED Created By: JRAPP Last Saved By: jrapp
Ashland-Kenvil, NJ (NJ003000.NJ62.00008)
Q:\AshlandKenvil_NJ\EcoRiskAssessment\mxd\HabitatCharacterizationAreas_Bsize_revd2.mxd 1/26/2016 2:13:00 PM



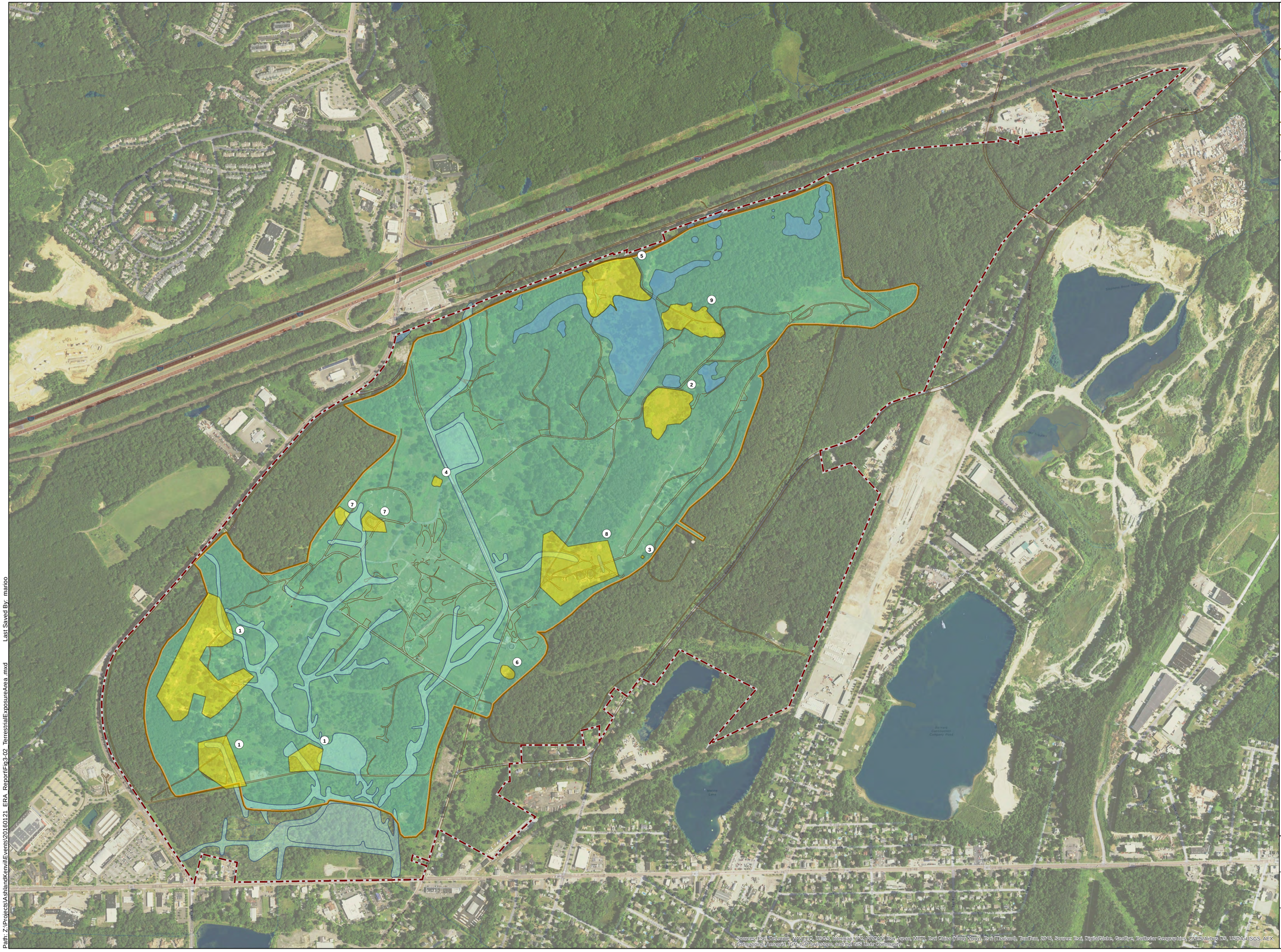
● Complete exposure pathway, evaluated quantitatively.
○ Potentially complete but insignificant exposure pathway evaluated qualitatively.
X Incomplete exposure pathway.

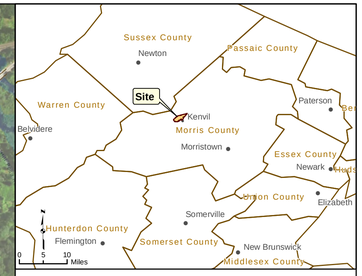
ASHLAND, INC.
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

ECOLOGICAL CONCEPTUAL SITE MODEL

HERCULES

FIGURE 3-1





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Area of Presumed Remedial Action
- Terrestrial Exposure Area
- Stream/Water Feature
- Ponds
- Roads

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. VOC = volatile organic compounds
2. TNT = 2,4,6-trinitrotoluene
3. DNT = dinitrotoluene
4. DIAZO = diazodinitrophenol

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

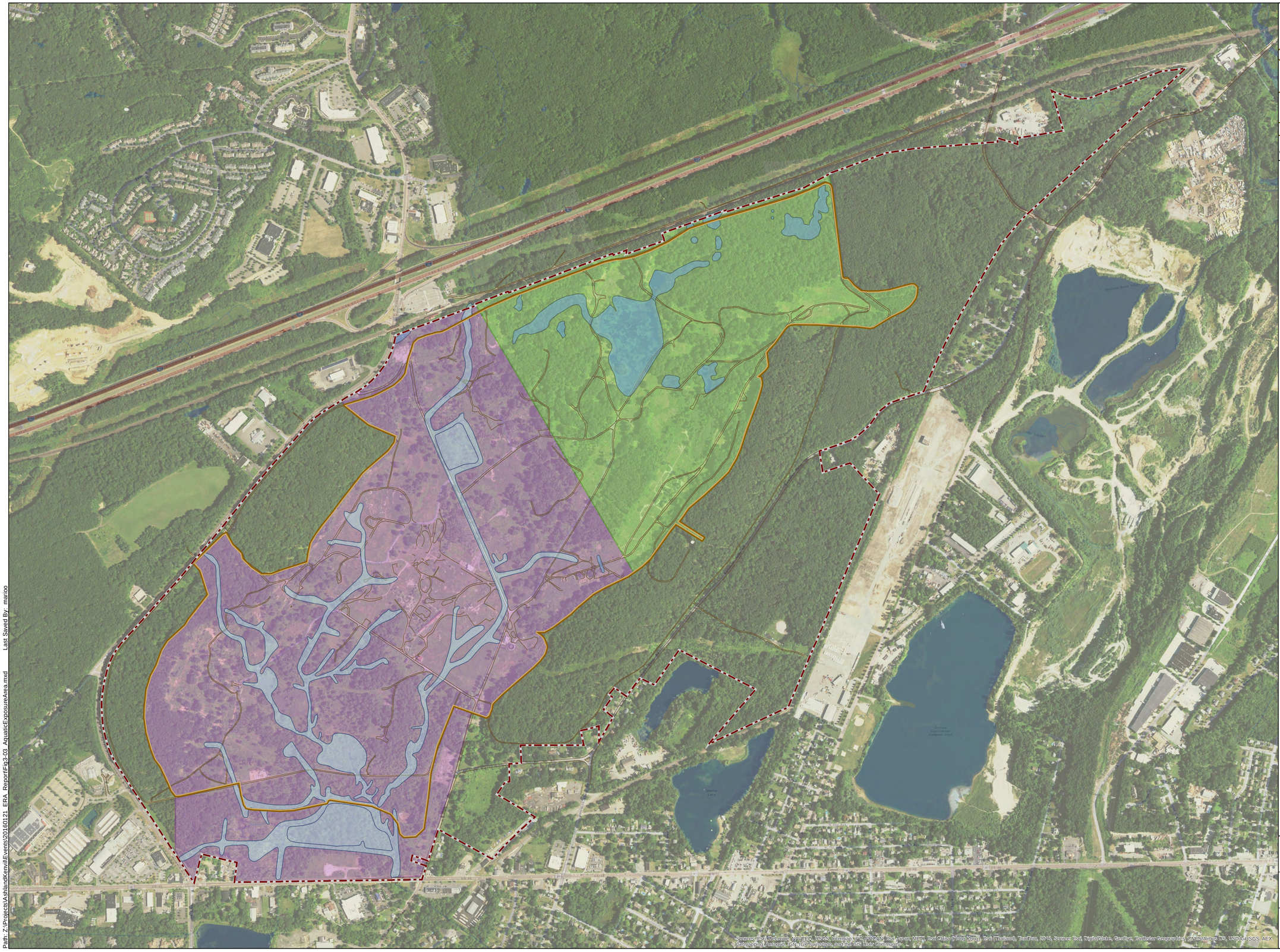
TERRESTRIAL EXPOSURE AREA

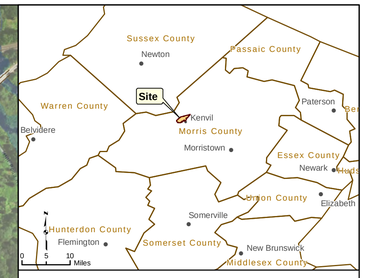
HERCULES

FIGURE
3-2

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig3-02_TerrestrialExposureArea.mxd Last Saved By: mariog

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community





Index Map

Legend

- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

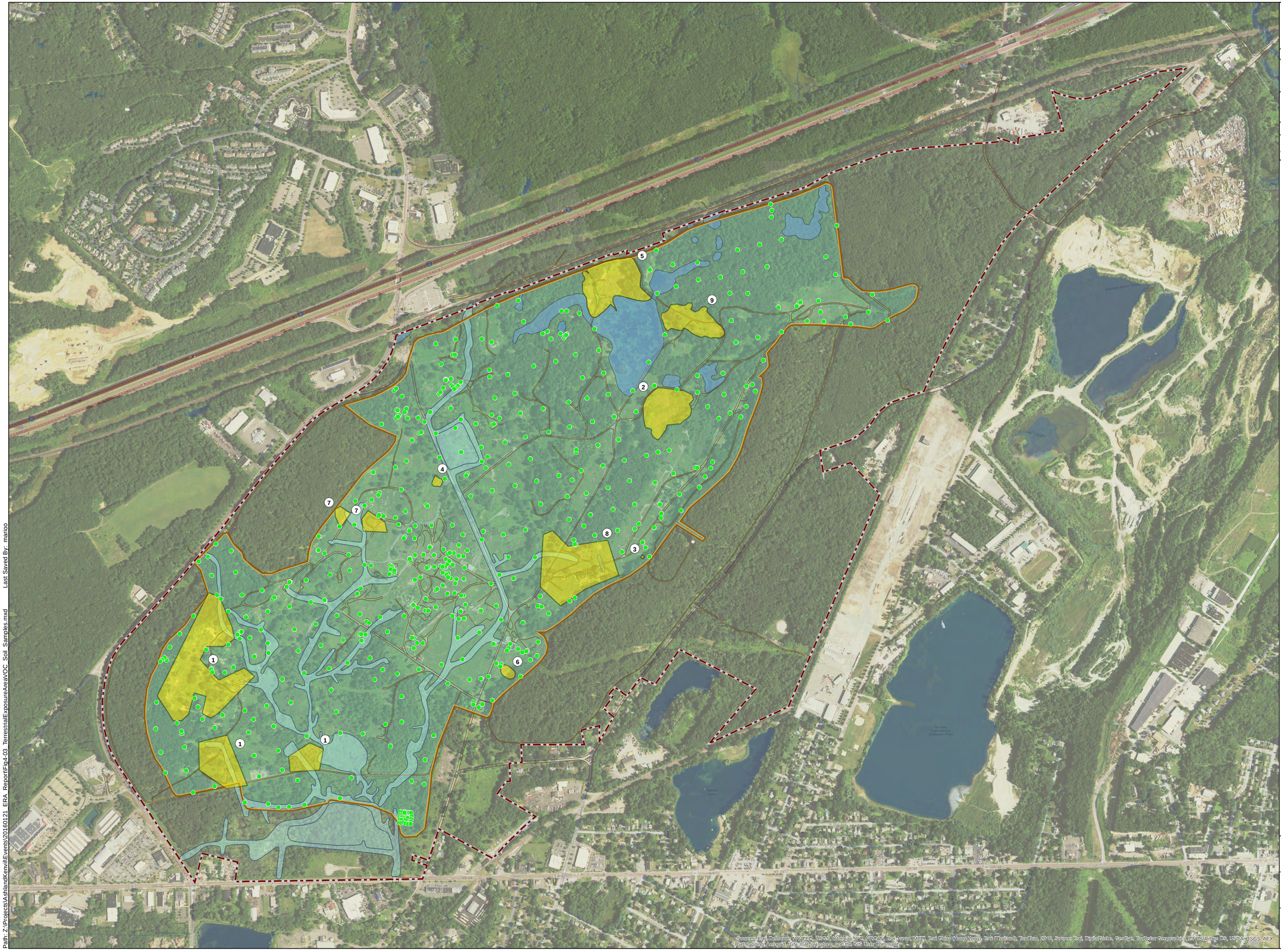
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

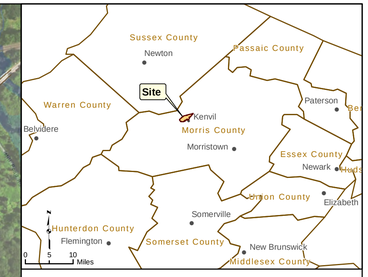
AQUATIC EXPOSURE AREA

HERCULES

FIGURE
3-3

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig3-03_AquaticExposureArea.mxd Last Saved By: mariop





Index Map

Legend

- Terrestrial Exposure Area VOC Soil Samples
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. VOC = volatile organic compounds
2. TNT = 2,4,6-trinitrotoluene
3. DNT = dinitrotoluene
4. DIAZO = diazodinitrophenol

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

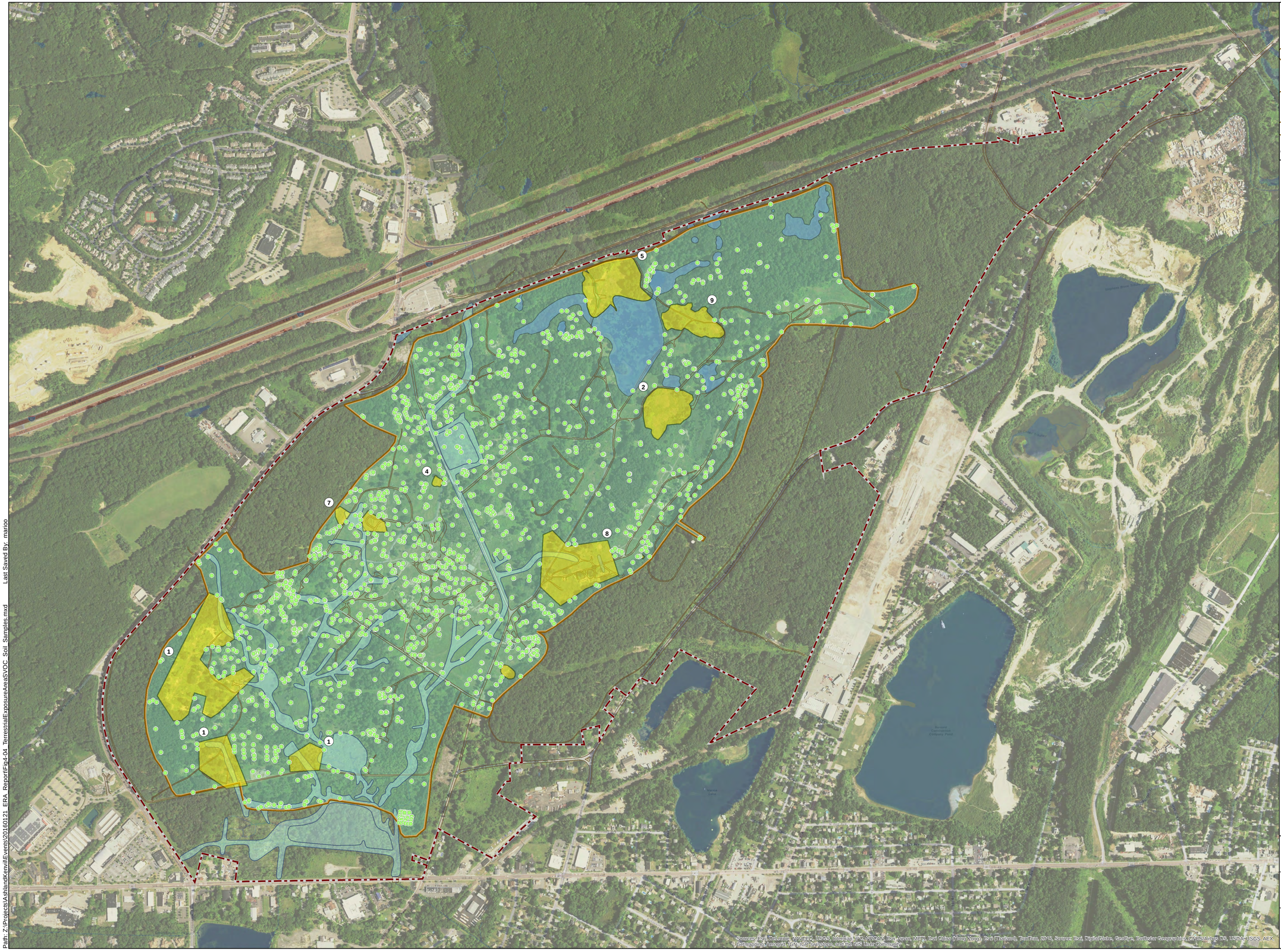
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

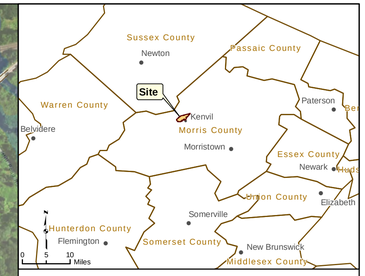
TERRESTRIAL EXPOSURE AREA VOC SOIL SAMPLES

HERCULES

FIGURE **4-1**

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-03_TerrestrialExposureAreaVOC_Soil_Samples.mxd Last Saved By: mariod





Index Map

Legend

- Terrestrial Exposure Area SVOC Soil Samples (Excluding PAHs)
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. SVOC = semivolatile organic compounds
2. TNT = 2,4,6-trinitrotoluene
3. DNT = dinitrotoluene
4. DIAZO = diazodinitrophenol

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

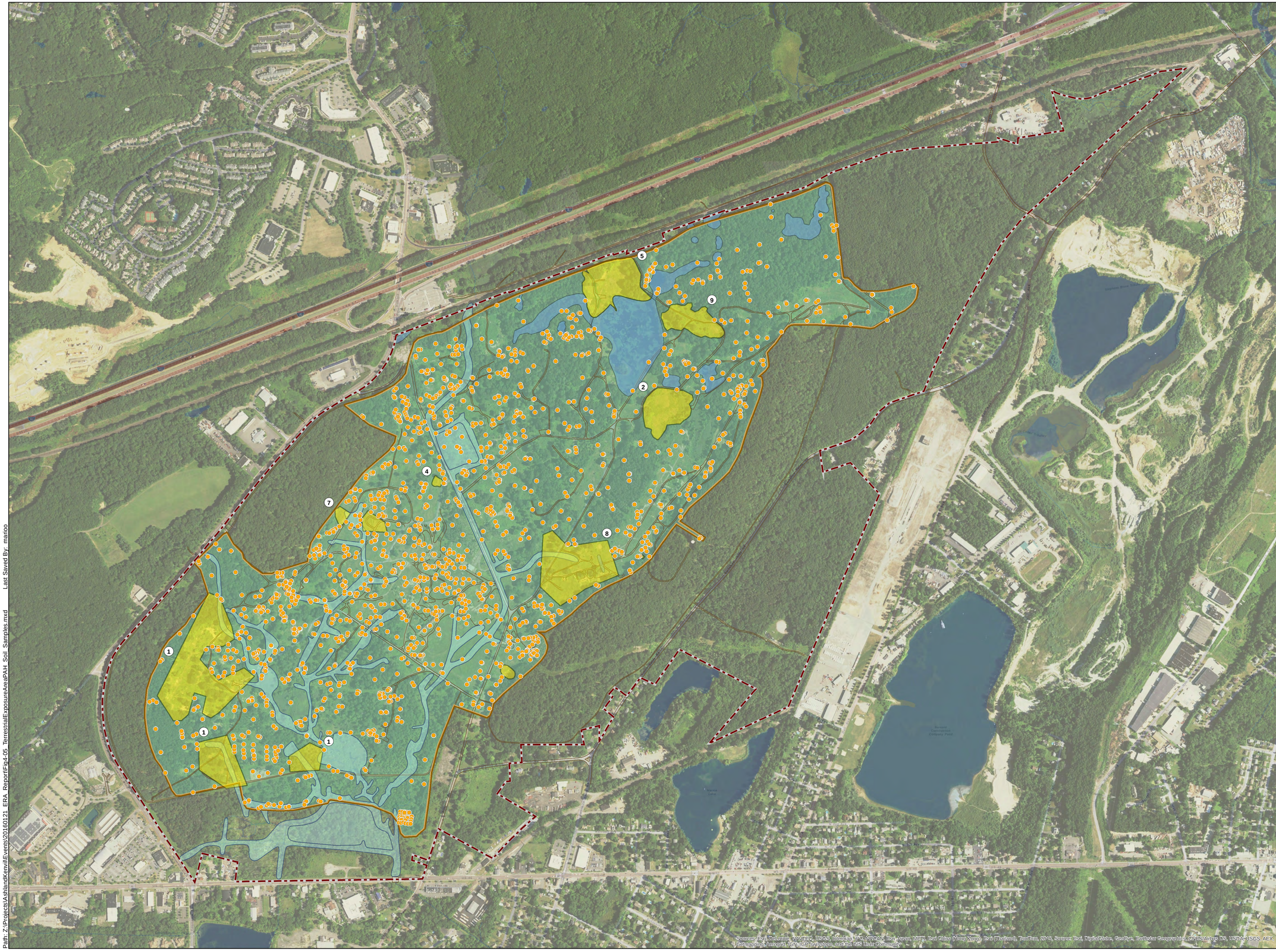
TERRESTRIAL EXPOSURE AREA SVOC SOIL SAMPLES (EXCLUDING PAHS)

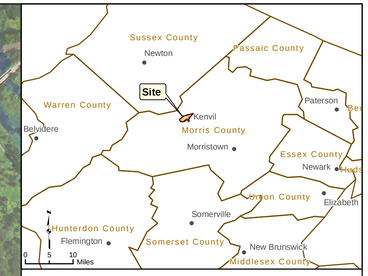
HERCULES

FIGURE **4-2**

Sources: Esri, Delorme, MAPMY, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, Swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-04_TerrestrialExposureAreaSVOC_Soil_Samples.mxd Last Saved By: marioo





Index Map

Legend

- Terrestrial Exposure Area PAH Soil Samples
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. SVOC = semivolatile organic compounds
2. TNT = 2,4,6-trinitrotoluene
3. DNT = dinitrotoluene
4. DIAZO = diazodinitrophenol

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

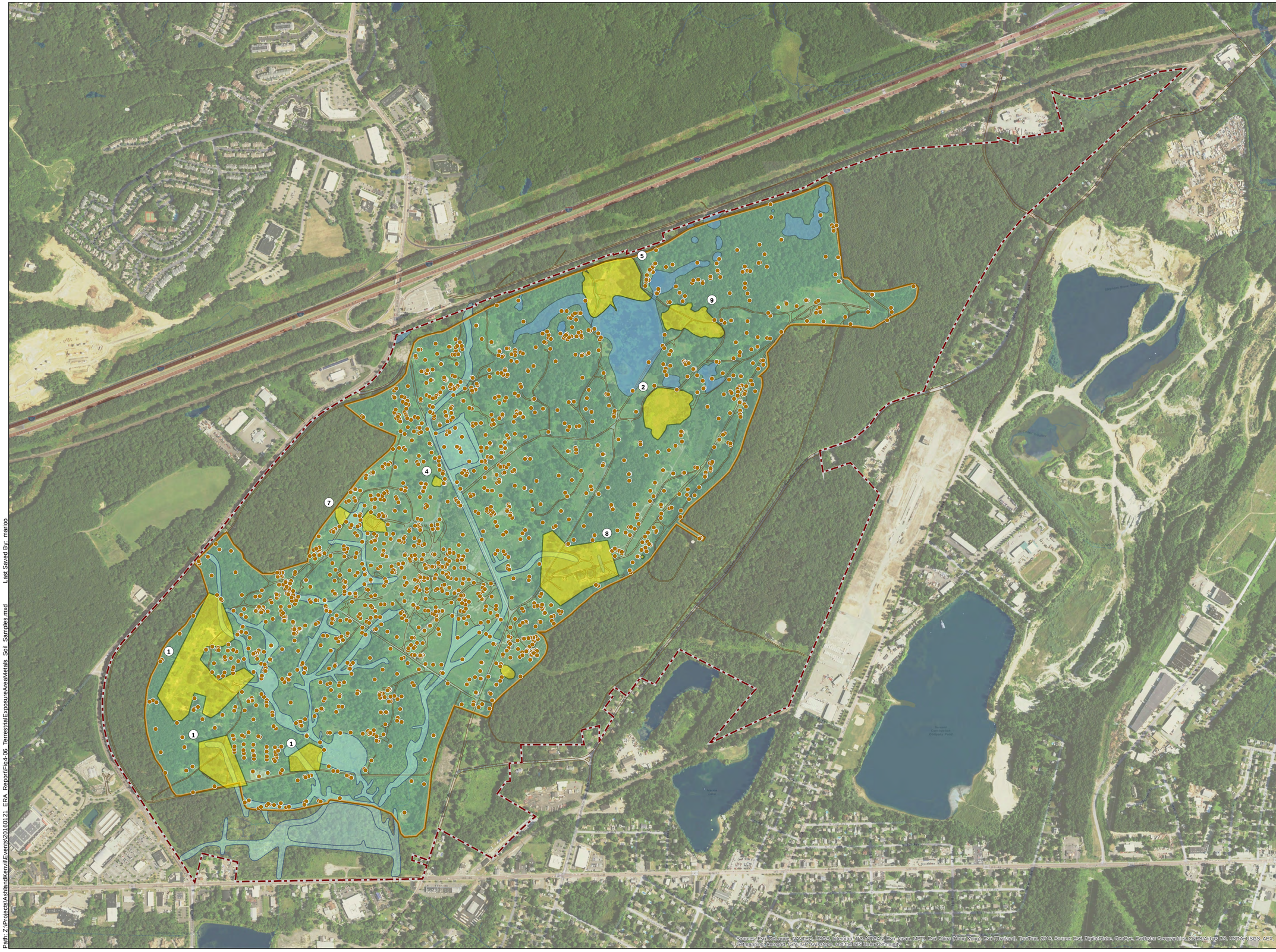
TERRESTRIAL EXPOSURE AREA PAH SOIL SAMPLES

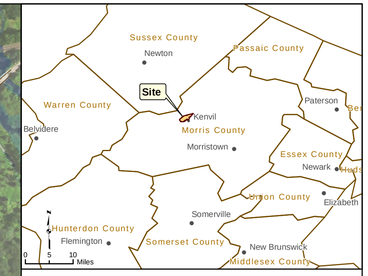
HERCULES

FIGURE 4-3

Sources: Esri, Delorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-05_TerrestrialExposureAreaPAH_Soil_Samples.mxd Last Saved By: marioo





Index Map

Legend

- Terrestrial Exposure Area Metals Soil Samples
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. TNT = 2,4,6-trinitrotoluene
2. DNT = dinitrotoluene
3. DIAZO = diazodinitrophenol

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

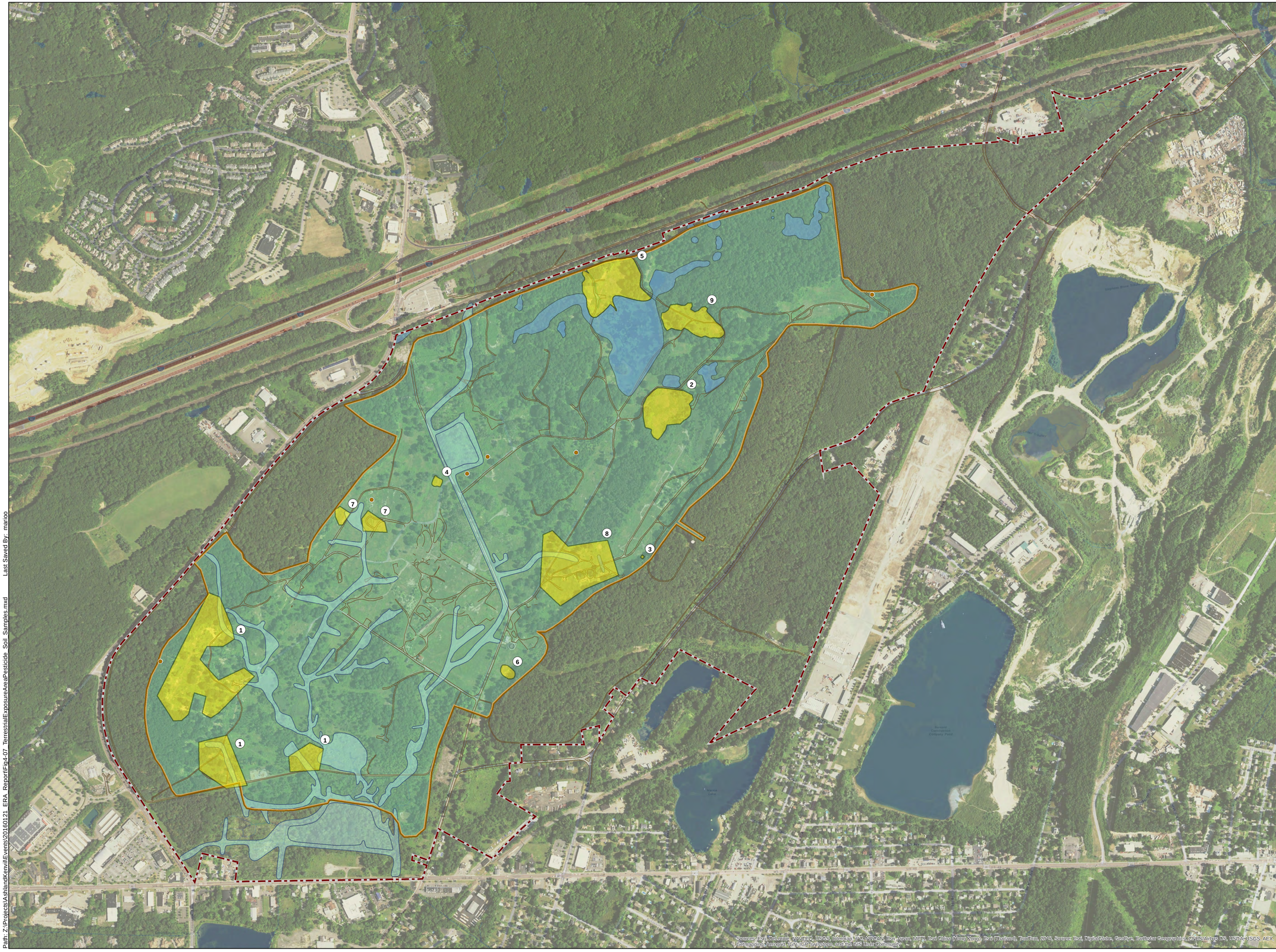
TERRESTRIAL EXPOSURE AREA METALS SOIL SAMPLES

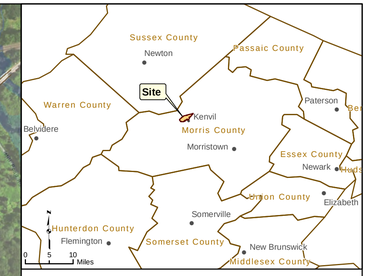
HERCULES

FIGURE **4-4**

Sources: Esri, Delorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, (c) copyright Aerogrid, GEN, IGP, swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-06_TerrestrialExposureAreaMetals_Soil_Samples.mxd Last Saved By: marioo





Index Map

Legend

- Terrestrial Exposure Area Pesticide Soil Samples
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. TNT = 2,4,6-trinitrotoluene
2. DNT = dinitrotoluene
3. DIAZO = diazodinitrophenol

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

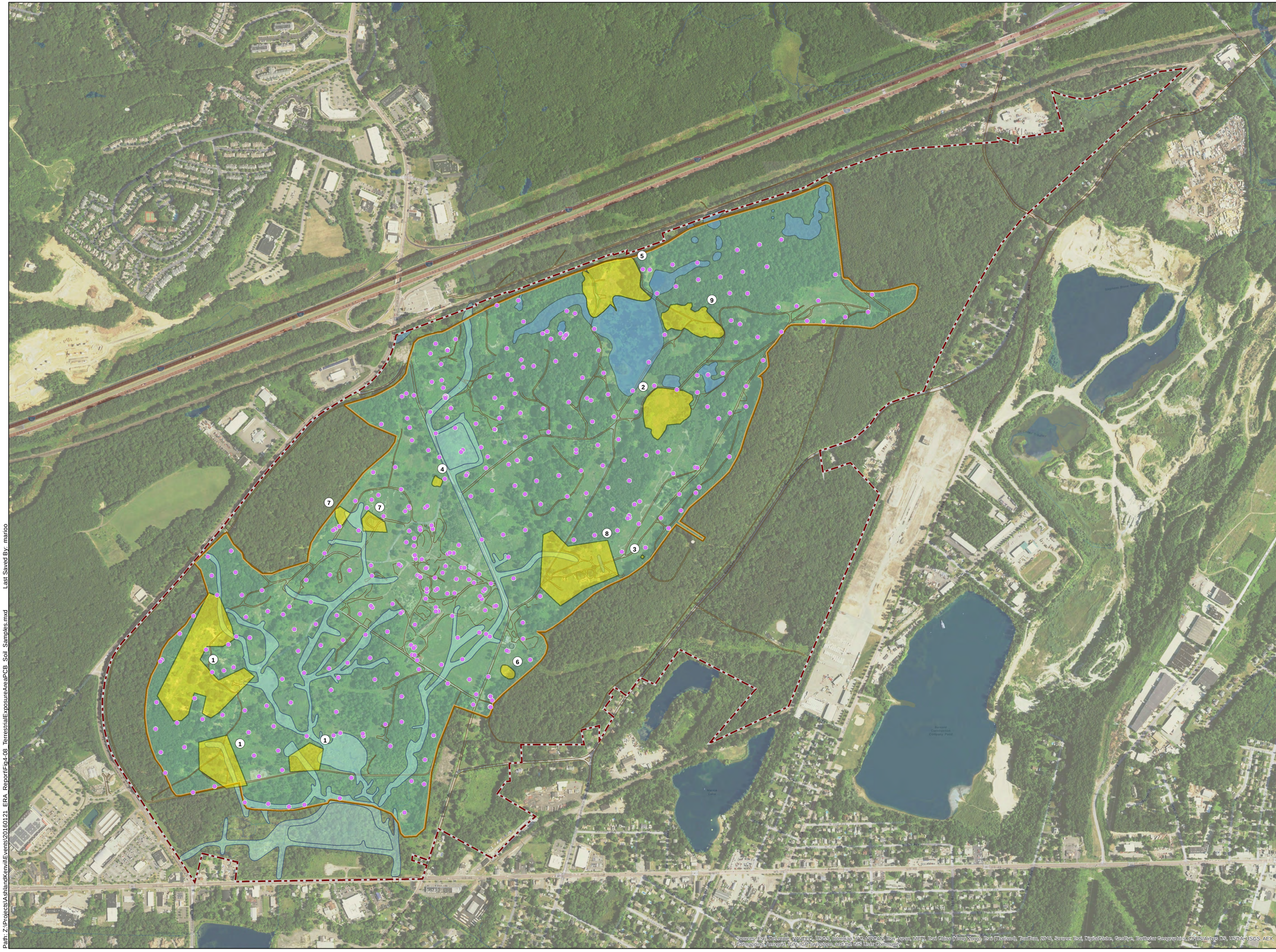
TERRESTRIAL EXPOSURE AREA PESTICIDE SOIL SAMPLES

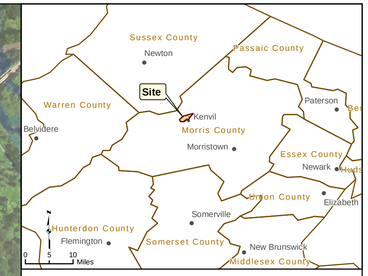
HERCULES

FIGURE 4-5

Sources: Esri, Delorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, Swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-07_TerrestrialExposureAreaPesticide_Soil_Samples.mxd Last Saved By: marioo





Index Map

Legend

- Terrestrial Exposure Area PCB Soil Samples
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. PCB = polychlorinated biphenyl
2. TNT = 2,4,6-trinitrotoluene
3. DNT = dinitrotoluene
4. DIAZO = diazodinitrophenol

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

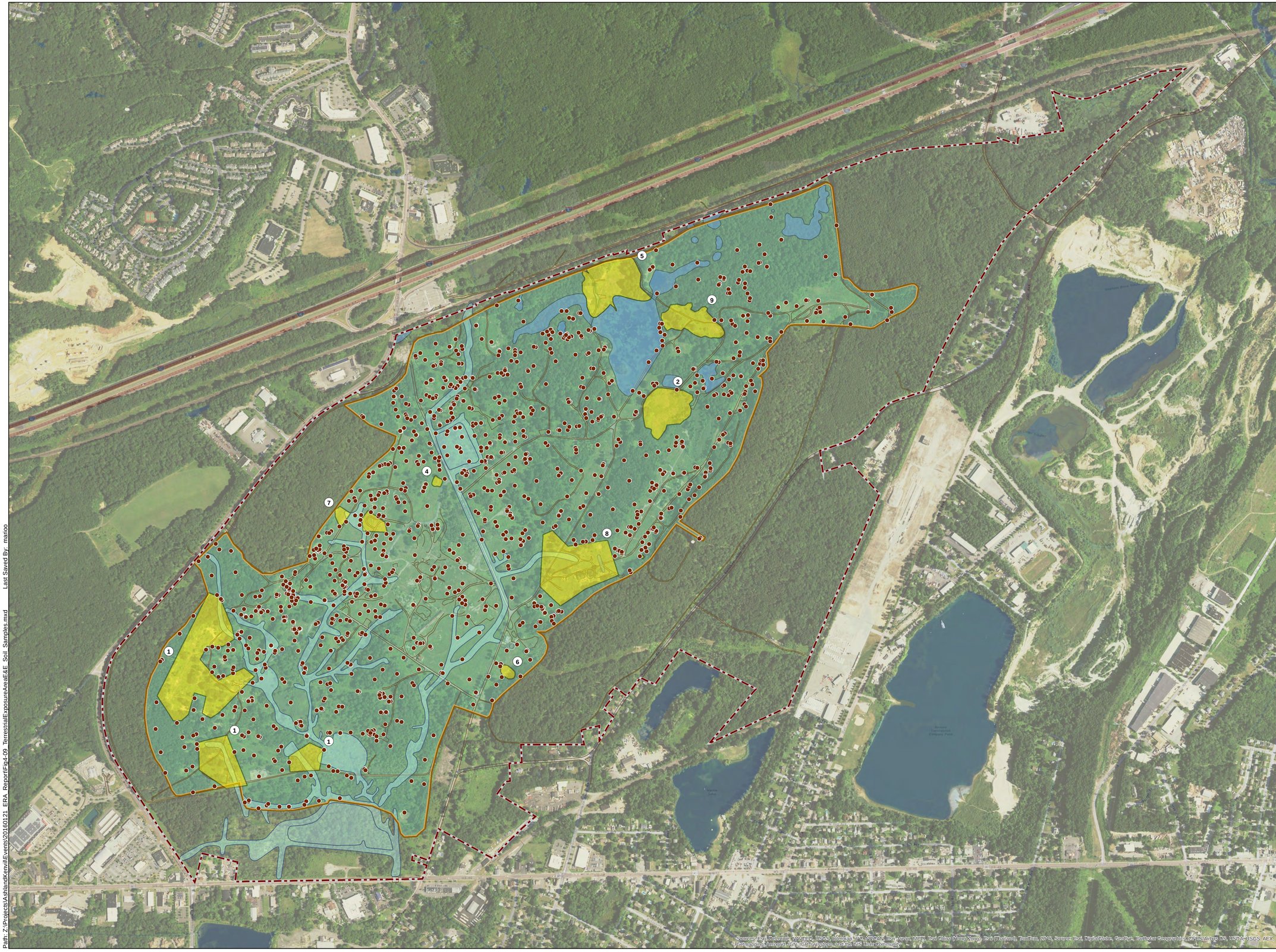
TERRESTRIAL EXPOSURE AREA PCB SOIL SAMPLES

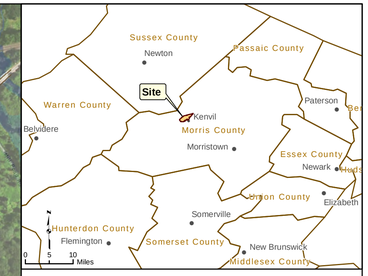
HERCULES

FIGURE **4-6**

Source: Esri, Delorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\KenvilEvents\20160121_ERA_Report\Fig4-06_TerrestrialExposureAreaPCB_Soil_Samples.mxd Last Saved By: marioo





Index Map

Legend

- Terrestrial Exposure Area E&E Soil Samples
- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. E&E = Explosives and Energetics
2. TNT = 2,4,6-trinitrotoluene
3. DNT = dinitrotoluene
4. DIAZO = diazodinitrophenol

N

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

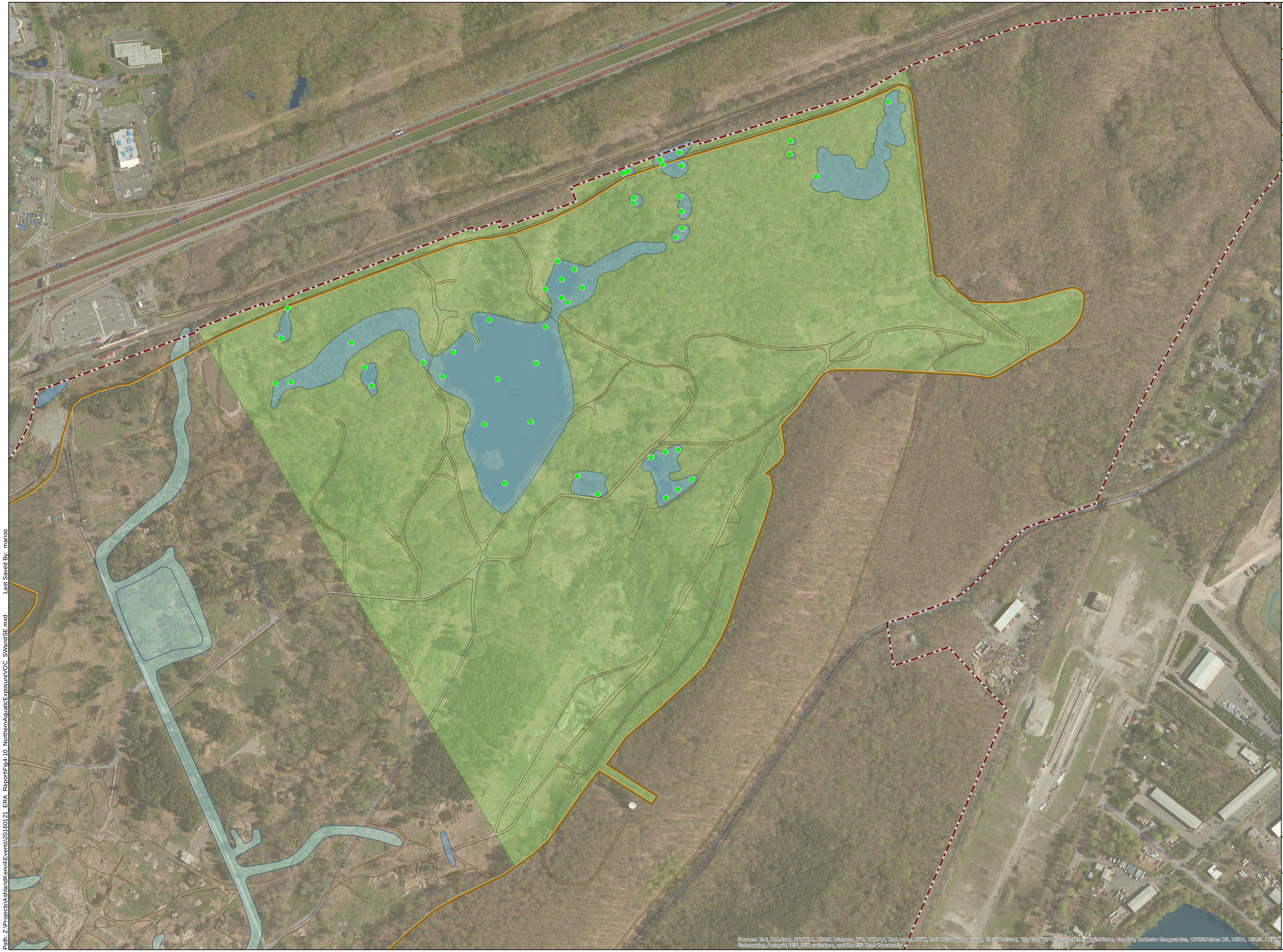
TERRESTRIAL EXPOSURE AREA E&E SOIL SAMPLES

HERCULES

FIGURE **4-7**

Sources: Esri, Delorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, (c) copyright Aerogrid, GEN, IGP, swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-09_TerrestrialExposureAreaE&E_Soil_Samples.mxd Last Saved By: marioo



Index Map

Legend

- Northern Aquatic Exposure Area VOC Surface Water and Sediment Samples
- Site Boundary
- Remedial Area

Aquatic Exposure

- Northern Drainage
- Stream/Water Feature
- Pond
- Road

Note:
1. VOC = volatile organic compounds

N

0 125 250 500
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

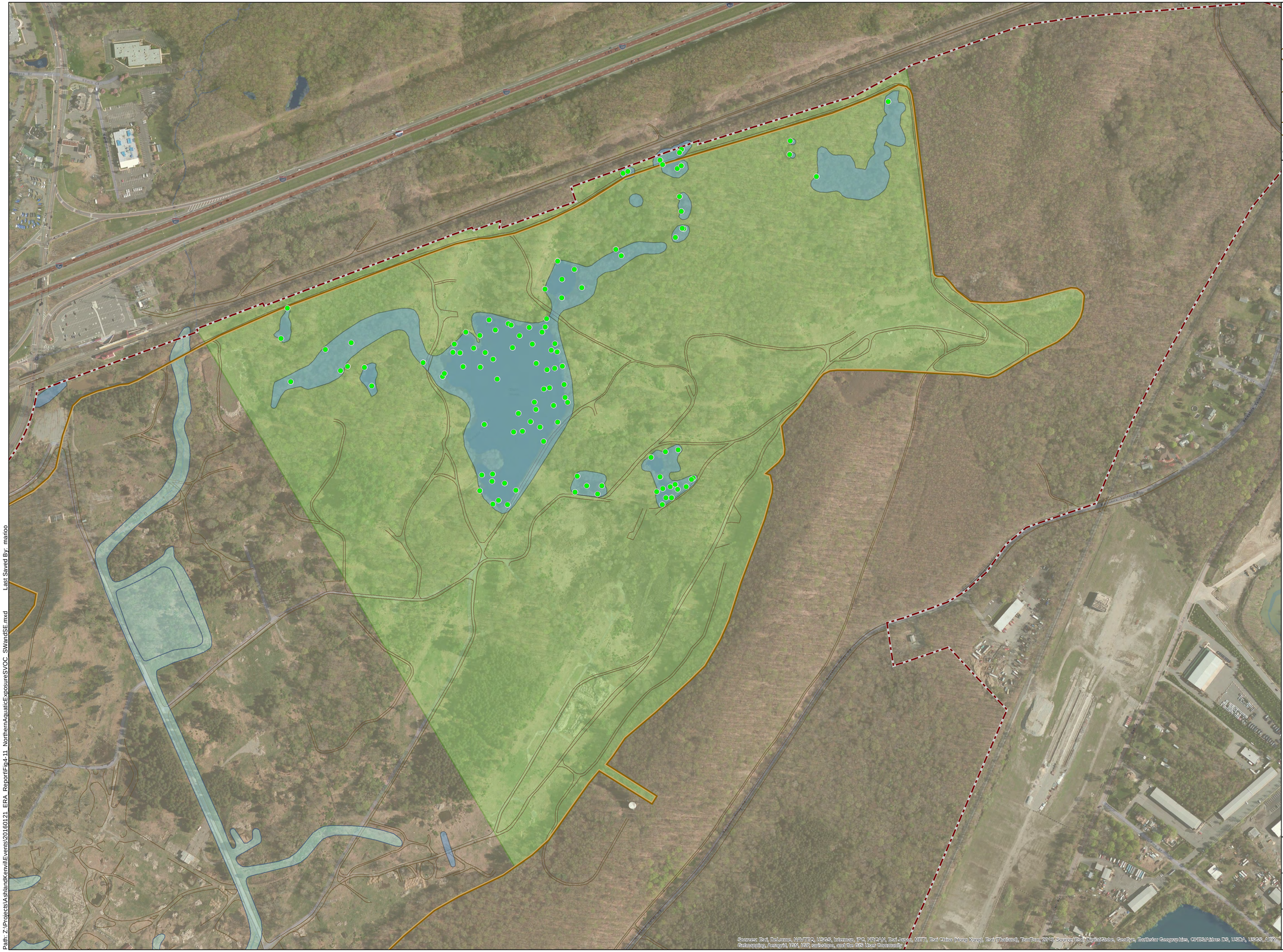
NORTHERN AQUATIC EXPOSURE AREA VOC SURFACE WATER AND SEDIMENT SAMPLES

HERCULES

FIGURE
4-8

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-10_NorthernAquaticExposureVOC_SWandSE.mxd Last Saved By: marioo

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012 | Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Index Map

Legend

- Northern Aquatic Exposure Area SVOC Surface Water and Sediment Samples (Including PAHs)
- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Stream/Water Feature
- Pond
- Road

Note:
1. SVOC = semivolatile organic compounds

N

0 125 250 500
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

NORTHERN AQUATIC EXPOSURE AREA SVOC SURFACE WATER AND SEDIMENT SAMPLES

HERCULES

FIGURE
4-9

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012 | Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-11_NorthernAquaticExposuresSVOC_SWandSE.mxd Last Saved By: matoo

Index Map

Legend

- Northern Aquatic Exposure Area Metals Surface Water and Sediment Samples
- Site Boundary
- Remedial Area

Aquatic Exposure Area

- Northern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 125 250 500
Feet

Source: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

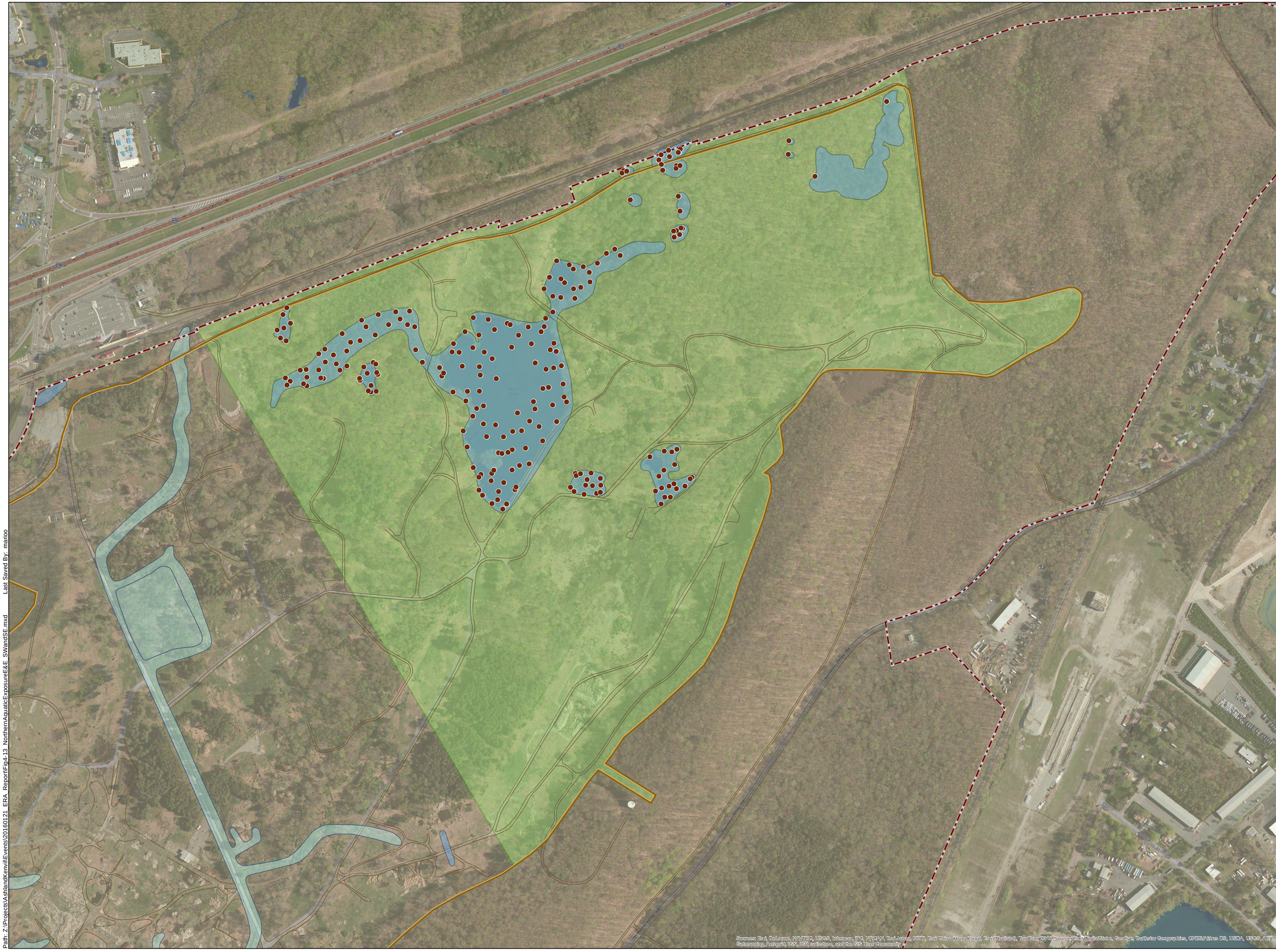
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

NORTHERN AQUATIC EXPOSURE AREA METALS SURFACE WATER AND SEDIMENT SAMPLES

HERCULES

FIGURE **4-10**

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-12_NorthernAquaticExposureMetals_SWandSE.mxd Last Saved By: marioo



Index Map

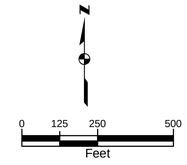
Legend

- Northern Aquatic Exposure Area
- E&E Surface-Water and Sediment Samples
- Site Boundary
- Remedial Area

Aquatic Exposure

- Northern Drainage
- Stream/Water Feature
- Pond
- Road

Notes:
1. E&E = Explosives and Energetics



HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

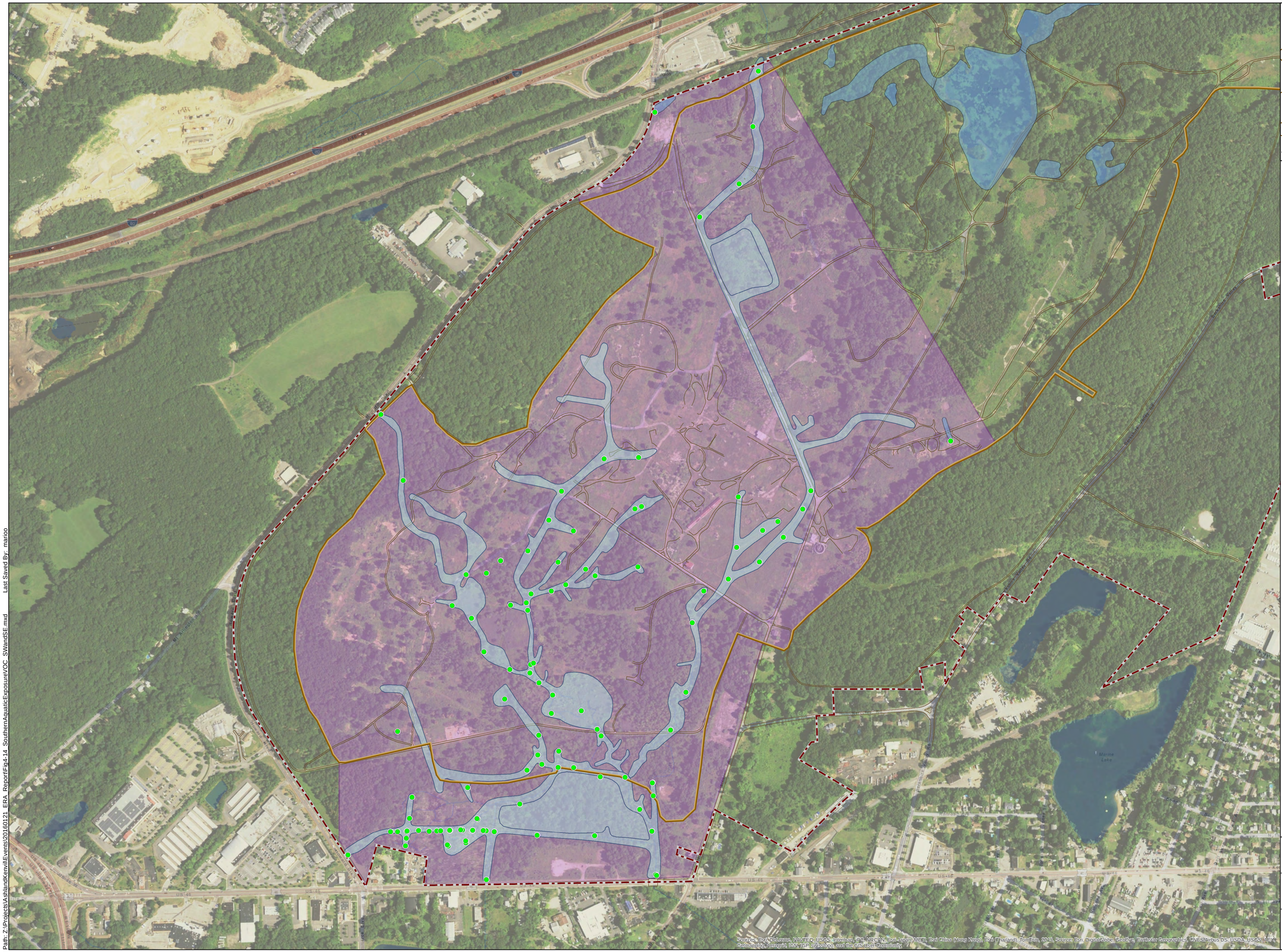
NORTHERN AQUATIC EXPOSURE AREA E&E SURFACE WATER AND SEDIMENT SAMPLES

HERCULES

FIGURE **4-11**

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012 Source: Esri, i-cubed, Kibra, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-13_NorthernAquaticExposure&E&E_SWandSE.mxd Last Saved By: marroo



HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

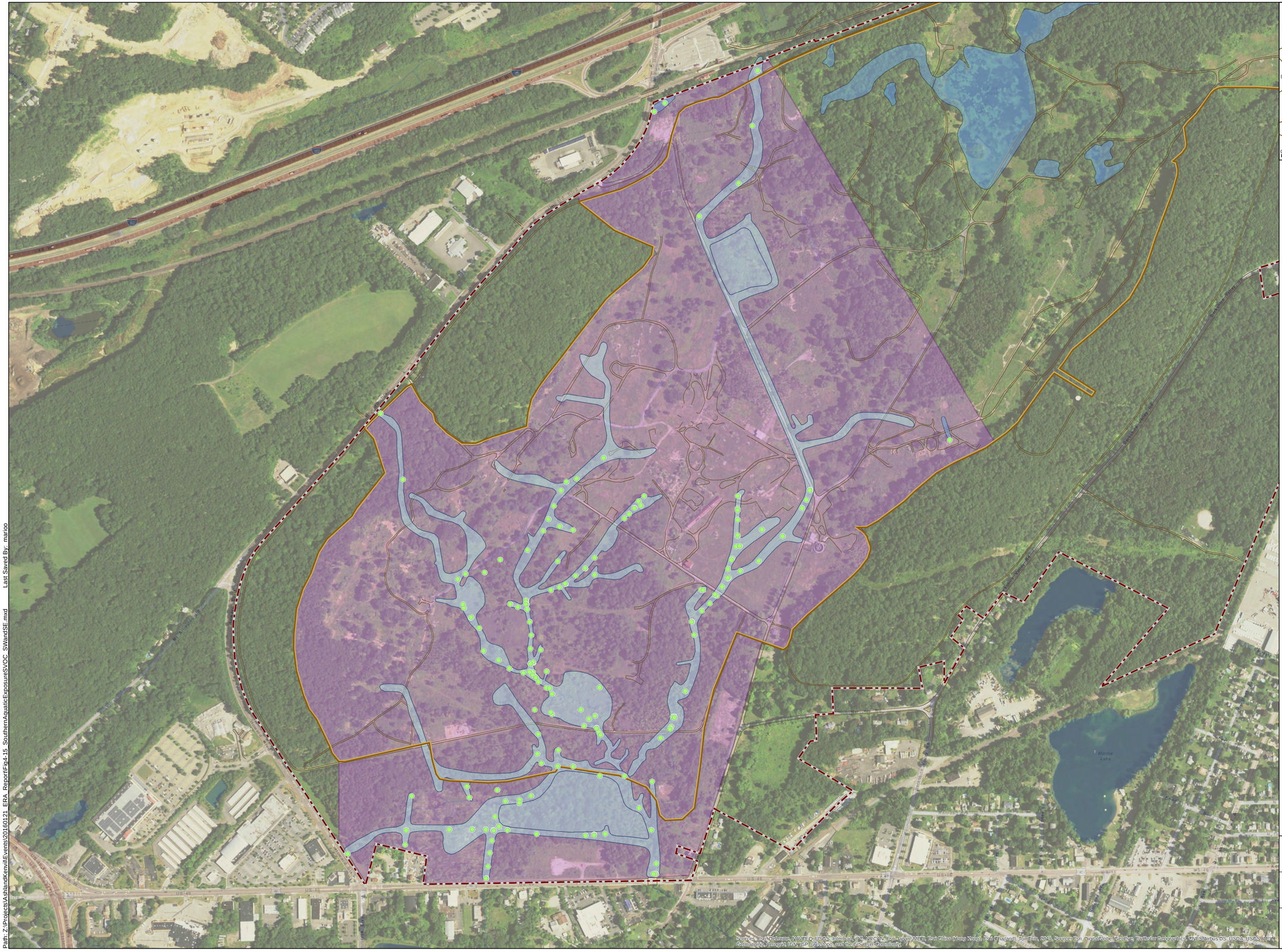
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

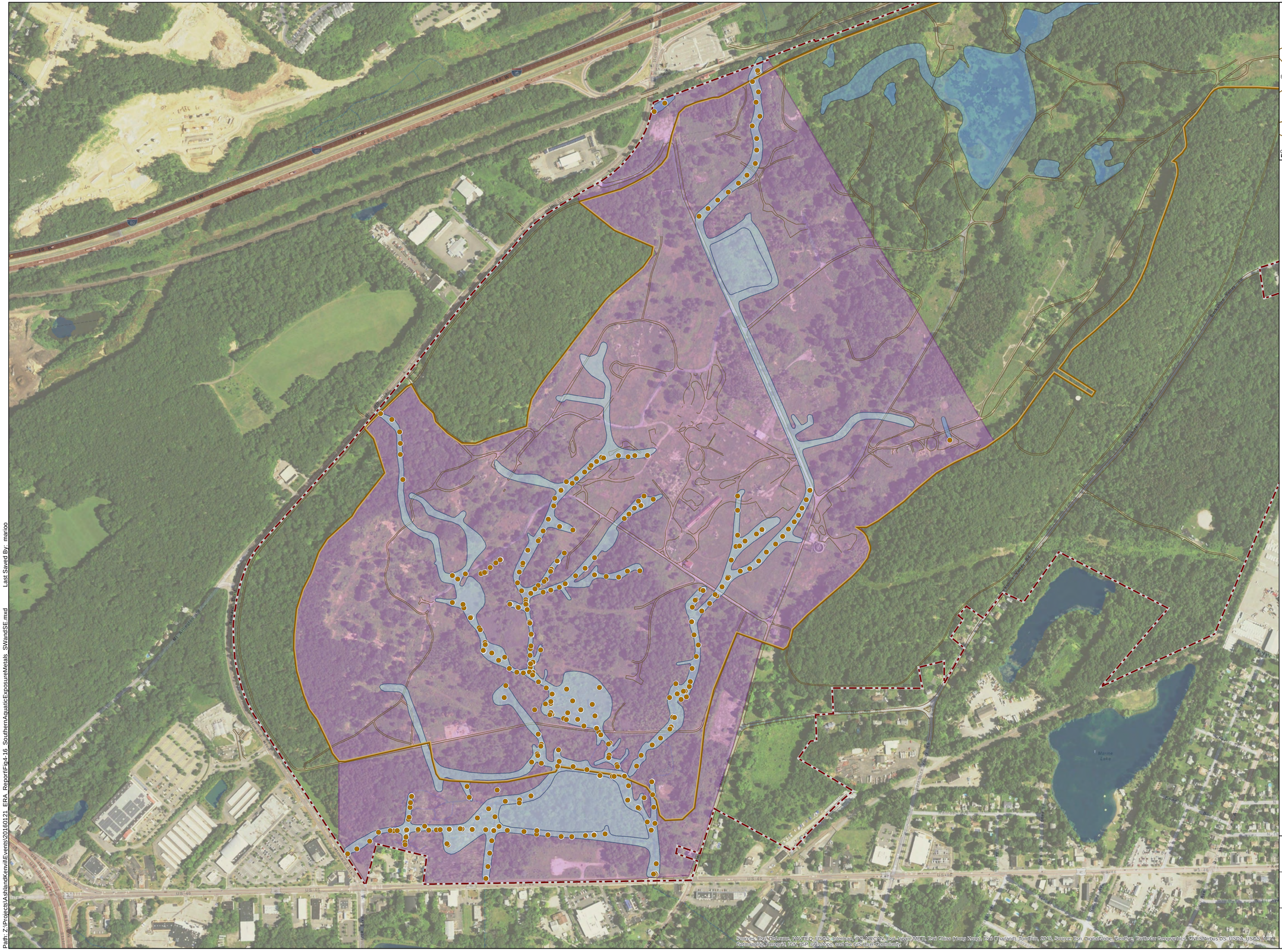
SOUTHERN AQUATIC EXPOSURE AREA VOC SURFACE WATER AND SEDIMENT SAMPLES

HERCULES

FIGURE **4-12**

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-14_SouthernAquaticExposureVOC_SWandSE.mxd Last Saved By: marioo


Sussex County
Newton
Passaic County
Site
Warren County
Kenvil
Paterson
Belvidere
Morris County
Morristown
Essex County
Newark
Union County
Elizabeth
Somerville
Hunterdon County
Somerset County
Flemington
New Brunswick
Middlesex County
0 5 10 Miles
Index Map
Legend
Southern Aquatic Exposure Area
SVOC Surface-Water and Sediment Samples (Including PAHs)
Site Boundary
Remedial Area Boundary
Aquatic Exposure Area
Southern Drainage
Stream/Water Feature
Pond
Road
Note:
1. SVOC = semivolatile organic compounds
N
0 175 350 700
Feet
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Marine Lake
Rockaway River
Rockaway River Rd
Kenvil Rd
Hilltop Rd
Mill Rd
Mill Creek Rd
Mill Creek Marsh
Mill Creek
Mill Creek Pond
Mill Creek Marsh Rd
Mill Creek Marsh Trail
Mill Creek Marsh Trail Spur
Mill Creek Marsh Trail Loop
Mill Creek Marsh Trail Loop Spur
Mill Creek Marsh Trail Loop Spur 2
Mill Creek Marsh Trail Loop Spur 3
Mill Creek Marsh Trail Loop Spur 4
Mill Creek Marsh Trail Loop Spur 5
Mill Creek Marsh Trail Loop Spur 6
Mill Creek Marsh Trail Loop Spur



HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

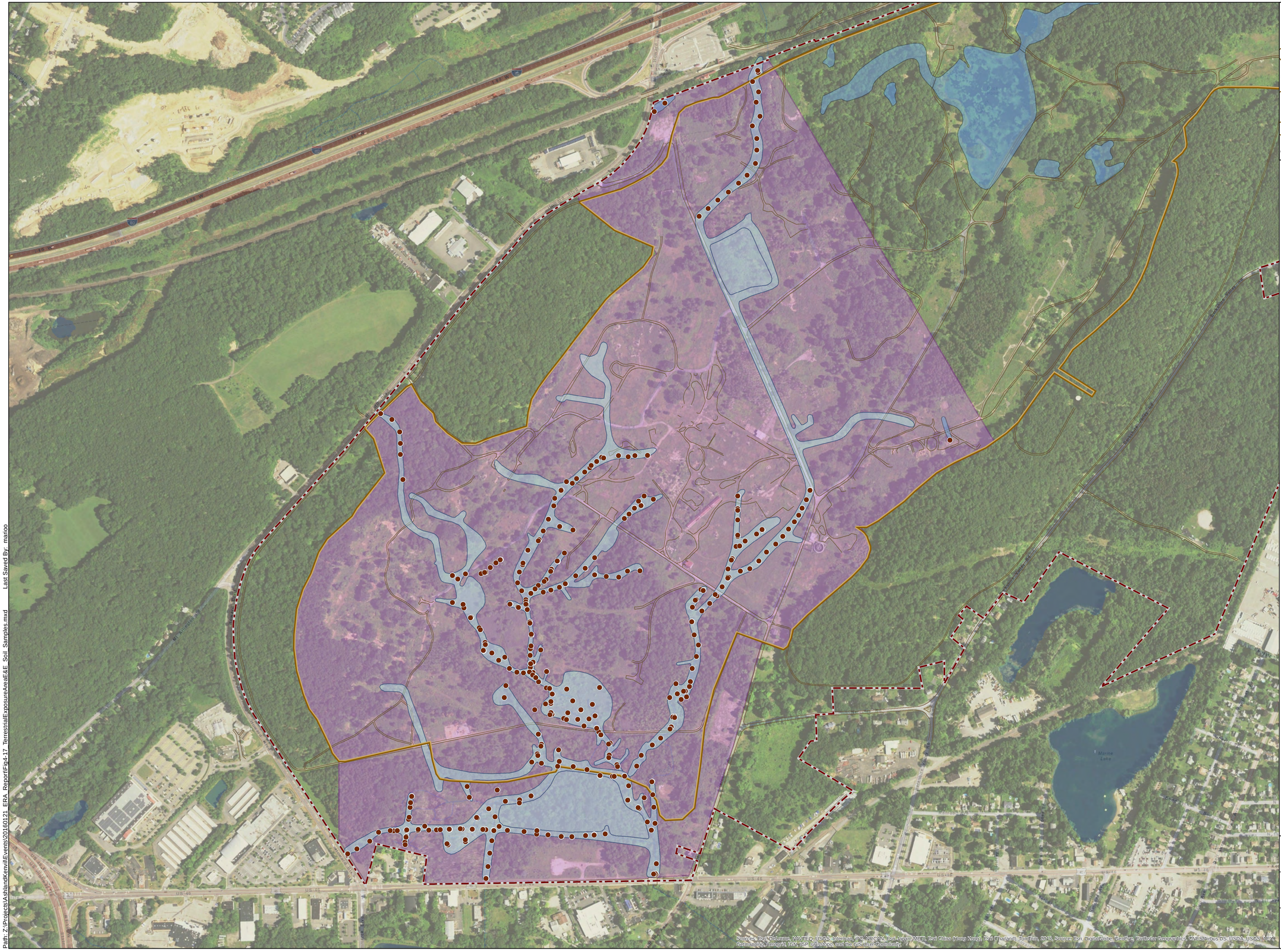
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT

SOUTHERN AQUATIC EXPOSURE AREA METALS SURFACE WATER AND SEDIMENT SAMPLES

HERCULES

FIGURE **4-14**

Path: Z:\Projects\Ashland\Kenvil\Events\20160121_ERA_Report\Fig4-16_SouthernAquaticExposureMetals_SWandSE.mxd Last Saved By: mariob


Sussex County
Newton
Passaic County
Site
Warren County
Kenvil
Paterson
Belvidere
Morris County
Morristown
Essex County
Newark
Union County
Elizabeth
Somerville
Hunterdon County
Somerset County
Flemington
New Brunswick
Middlesex County
0 5 10 Miles
Index Map
Legend
Southern Aquatic Exposure Area
E&E Surface Water and Sediment Samples
Site Boundary
Remedial Area
Aquatic Exposure
Southern Drainage
Stream/Water Feature
Pond
Road
Notes:
E&E = Explosives and Energetics
N
0 175 350 700
Feet
HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL EVALUATION / ECOLOGICAL RISK ASSESSMENT REPORT
SOUTHERN AQUATIC EXPOSURE AREA E&E SURFACE WATER AND SEDIMENT SAMPLES
HERCULES
FIGURE
4-15
Path: Z:\Projects\Ashland\KenvilEvents\20160121_ERA_Report\Fig4-17_TerrestrialExposureAreaE&E_Soil_Samples.mxd Last Saved By: marioo
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

APPENDICES

Appendix A

Ecological Risk Assessment Dataset

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 620	NA	NA	< 620	NA	NA	NA	< 530	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1200	NA	NA	< 1200	< 1250	NA	NA	< 1100	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2500	NA	NA	< 2500	< 2500	NA	NA	< 2100	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 620	NA	NA	< 620	< 6250	NA	NA	< 530	NA	NA	NA
Benzene	71-43-2	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1200	NA	NA	< 1200	< 1250	NA	NA	< 1100	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1200	NA	NA	< 1200	< 1250	NA	NA	< 1100	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1200	NA	NA	290	< 1250	NA	NA	360	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 490	NA	NA	< 620	< 2500	NA	NA	< 530	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Toluene	108-88-3	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 620	NA	NA	< 620	< 625	NA	NA	< 530	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1200	NA	NA	< 1200	NA	NA	NA	< 1100	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	< 2100	< 2000	NA	< 2300	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	< 840	< 800	NA	< 900	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	< 2100	< 2000	NA	< 2300	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	< 2100	< 2000	NA	< 2300	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	92	< 400	NA	< 450	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	98	< 400	NA	< 450	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	110	< 400	NA	< 450	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	97	< 400	NA	< 450	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	98	< 400	NA	< 450	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	170	< 400	NA	< 450	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	< 420	500	NA	< 450	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	< 2100	< 2000	NA	< 2300	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	39	< 400	NA	< 450	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 400	NA	< 450	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	150	< 400	NA	< 450	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	< 0.59	< 0.46	NA	NA	< 0.5	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	5.5	3	NA	NA	3	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	0.72	0.49	NA	NA	NA	1
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	0.04	0.53	NA	NA	0.18	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	20.4	12.5	NA	NA	15.5	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	22	27.8	NA	NA	14.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	1700	577	NA	NA	NA	5.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	0.06	0.07	NA	NA	NA	< 0.03
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	10.2	8.4	NA	NA	6.6	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	1.3	0.79	NA	NA	< 0.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	0.12	< 0.27	NA	NA	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	< 1.2	< 0.92	NA	NA	< 0.99	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	68.3	190	NA	NA	37.2	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	11300	44000	NA	NA	57300	NA	NA	5250	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	16.2	16.5	NA	NA	7.5	NA	NA	22.8	NA	NA
Gravel	ARC-PGRAVEL	%	NA	16.2	19	NA	NA	37.6	NA	NA	19.3	NA	NA
Sand	ARC-PSAND	%	NA	42.7	41.3	NA	NA	35.2	NA	NA	37.4	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	24.9	23.3	NA	NA	19.7	NA	NA	20.4	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A12-4-01	A12-5-03	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			A12-4-011N	A12-5-030.5N	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999
Parent Sample										A12-6-022N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1100	NA	< 1200	NA	NA	NA	NA	NA	< 1100	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2200	NA	< 2300	NA	NA	NA	NA	NA	< 2200	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Benzene	71-43-2	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Bromoform	75-25-2	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Bromomethane	74-83-9	ug/kg	NA	< 1100	NA	< 1200	NA	NA	NA	NA	NA	< 1100	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Chloroethane	75-00-3	ug/kg	NA	< 1100	NA	< 1200	NA	NA	NA	NA	NA	< 1100	NA
Chloroform	67-66-3	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Chloromethane	74-87-3	ug/kg	NA	150	NA	150	NA	NA	NA	NA	NA	260	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A12-4-01	A12-5-03	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			A12-4-011N	A12-5-030.5N	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999
Parent Sample										A12-6-022N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	560	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Toluene	108-88-3	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 540	NA	< 580	NA	NA	NA	NA	NA	< 560	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1100	NA	< 1200	NA	NA	NA	NA	NA	< 1100	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	NA	< 1900	NA	< 2000	< 2200	< 797.162	< 803	< 2000	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 399	< 402	< 400	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 399	< 402	< 400	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 430	NA	< 380	NA	< 400	< 440	NA	NA	< 400	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 860	NA	< 760	NA	< 800	< 880	< 797.162	< 803	< 800	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2200	NA	< 1900	NA	< 2000	< 2200	< 797.162	< 803	< 2000	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A12-4-01	A12-5-03	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			A12-4-011N	A12-5-030.5N	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999
Parent Sample										A12-6-022N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2200	NA	< 1900	NA	< 2000	< 2200	NA	NA	< 2000	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 430	NA	< 380	NA	< 400	< 440	99.3	< 402	< 400	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	41	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	112	< 402	75	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 430	NA	< 380	NA	< 400	< 440	177	< 402	< 400	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	70	NA	48	NA	48	140	129	< 402	650	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	80	NA	< 380	NA	46	170	148	< 402	580	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	110	NA	< 380	NA	< 400	320	< 398.581	< 402	740	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 430	NA	< 380	NA	< 400	140	< 398.581	< 402	170	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	84	NA	< 380	NA	94	110	NA	NA	340	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	43	NA	29	NA	33	67	35.5	< 402	< 400	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	85	NA	54	NA	78	130	155	< 402	530	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Fluoranthene	206-44-0	ug/kg	130	NA	88	NA	120	200	370	< 402	1000	NA	NA
Fluorene	86-73-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	58.2	< 402	< 400	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	NA	NA	< 400	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 430	NA	< 380	NA	< 400	110	< 398.581	< 402	190	NA	NA
Isophorone	78-59-1	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A12-4-01	A12-5-03	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			A12-4-011N	A12-5-030.5N	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999
Parent Sample										A12-6-022N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 430	NA	< 380	NA	< 400	< 440	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 2200	NA	< 1900	NA	< 2000	< 2200	< 797.162	< 803	< 2000	NA	NA
Phenanthrene	85-01-8	ug/kg	97	NA	48	NA	84	< 440	563	71.5	190	NA	NA
Phenol	108-95-2	ug/kg	< 430	NA	< 380	NA	< 400	< 440	< 398.581	< 402	< 400	NA	NA
Pyrene	129-00-0	ug/kg	200	NA	130	NA	100	290	465	< 402	740	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A12-4-01	A12-5-03	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			A12-4-011N	A12-5-030.5N	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999
Parent Sample										A12-6-022N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 227	< 217	< 250	NA	< 240
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	< 227	< 217	< 250	NA	< 240
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	< 227	< 217	2200	NA	< 240
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	< 227	< 217	1700	NA	< 240
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 455	< 435	< 500	NA	< 480
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	< 455	< 435	< 500	NA	< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	< 227	< 217	990	NA	< 240
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 455	< 435	< 500	NA	< 480
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 227	< 217	< 250	NA	< 240
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	< 41957.96	< 40500	97300	NA	72500
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	< 5980	< 6010	< 5463.3	NA	< 543.1
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	< 455	< 435	< 500	NA	< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	< 455	< 435	< 500	NA	< 480
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	< 455	< 435	< 500	NA	< 480
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.62	NA	NA	NA	NA	< 0.58	< 0.640577	< 0.651	< 0.52	NA	NA
Arsenic	7440-38-2	mg/kg	4	NA	NA	NA	NA	3.2	1.79	2.03	5.9	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.22	NA	NA	NA	NA	0.13	0.117	0.119	0.71	NA	NA
Cadmium	7440-43-9	mg/kg	0.22	NA	NA	NA	NA	< 0.35	< 0.320288	< 0.325548	< 0.31	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.7	NA	NA	NA	NA	8.3	11.6	13.4	18.1	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	9.2	NA	NA	NA	NA	7.2	5.27	5.5	23.3	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	57.9	NA	NA	NA	NA	91.1	4.94	11.3	417	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.11	NA	NA	NA	NA	1.8	0.849	1.32	0.06	NA	NA
Nickel	7440-02-0	mg/kg	4.6	NA	NA	NA	NA	2.1	2.97	3.6	10.7	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.57	NA	NA	NA	NA	0.73	0.383	0.447	1	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A12-4-01	A12-5-03	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			A12-4-011N	A12-5-030.5N	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999
Parent Sample										A12-6-022N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.12	NA	NA	NA	NA	< 0.35	< 0.320288	< 0.326	< 0.31	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.2	NA	NA	NA	NA	< 1.2	< 1.067628	< 1.09	< 1	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	49.6	NA	NA	NA	NA	12.6	11.2	11.2	59.6	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	121000	NA	NA	NA	51400	66300	NA	NA	47600	NA	16900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	6.6	NA	NA	NA	10	12	NA	NA	11	NA	7.4
Gravel	ARC-PGRAVEL	%	35.8	NA	NA	NA	30.3	39.9	NA	NA	39	NA	28
Sand	ARC-PSAND	%	41.4	NA	NA	NA	43.5	36.3	NA	NA	23.4	NA	44.9
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	16.2	NA	NA	NA	16.2	11.8	NA	NA	26.6	NA	19.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A13-753-01	A13-753-01	A13-753-01	B10-2178-03	B10-511-03	B11-1-08	B11-11-05	B11-1-11	B11-2044-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			10/15/1999	11/18/1999	11/18/1999	11/19/1999	11/19/1999	11/10/1999	11/10/1999	11/10/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999	B10-2178-031N	B10-511-032N	B11-1-081N	B11-11-050.5N	B11-1-111N	B11-2044-041.3N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A13-753-01	A13-753-01	A13-753-01	B10-2178-03	B10-511-03	B11-1-08	B11-11-05	B11-1-11	B11-2044-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			10/15/1999	11/18/1999	11/18/1999	11/19/1999	11/19/1999	11/10/1999	11/10/1999	11/10/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999	B10-2178-031N	B10-511-032N	B11-1-081N	B11-11-050.5N	B11-1-111N	B11-2044-041.3N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds (cont.)											
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	NA	NA	< 1900	< 20000	< 2400	< 2200	< 2200	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	NA	NA	170	480	< 480	< 430	< 440	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	NA	NA	45	< 3900	< 480	< 430	< 440	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2-Chlorophenol	95-57-8	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 790	NA	NA	< 760	< 7800	< 970	< 870	< 880	< 750
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	NA	NA	< 1900	< 20000	< 2400	< 2200	< 2200	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A13-753-01	A13-753-01	A13-753-01	B10-2178-03	B10-511-03	B11-1-08	B11-11-05	B11-1-11	B11-2044-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			10/15/1999	11/18/1999	11/18/1999	11/19/1999	11/19/1999	11/10/1999	11/10/1999	11/10/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999	B10-2178-031N	B10-511-032N	B11-1-081N	B11-11-050.5N	B11-1-111N	B11-2044-041.3N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	NA	NA	< 1900	< 20000	< 2400	< 2200	< 2200	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Acenaphthylene	208-96-8	ug/kg	33	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	33	NA	NA	< 380	< 3900	< 480	71	< 440	< 370
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 370
Benzo[a]anthracene	56-55-3	ug/kg	340	NA	NA	58	< 3900	100	410	190	< 370
Benzo[a]pyrene	50-32-8	ug/kg	300	NA	NA	73	< 3900	390	360	150	< 370
Benzo[b]fluoranthene	205-99-2	ug/kg	320	NA	NA	250	< 3900	320	350	190	< 370
Benzo[g,h,i]perylene	191-24-2	ug/kg	180	NA	NA	< 380	< 3900	1300	300	120	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	220	NA	NA	100	< 3900	< 480	160	< 440	< 370
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	31	NA	NA	< 380	< 3900	< 480	< 430	< 440	18
Butylbenzylphthalate	85-68-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	300	NA	NA	120	< 3900	220	310	130	< 370
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Dimethylphthalate	131-11-3	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Di-n-butylphthalate	84-74-2	ug/kg	< 400	NA	NA	500	< 3900	< 480	< 430	< 440	< 370
Di-n-octylphthalate	117-84-0	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Fluoranthene	206-44-0	ug/kg	500	NA	NA	120	< 3900	89	550	250	< 370
Fluorene	86-73-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Hexachlorobenzene	118-74-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Hexachlorobutadiene	87-68-3	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Hexachloroethane	67-72-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	170	NA	NA	< 380	< 3900	630	220	99	< 370
Isophorone	78-59-1	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A13-753-01	A13-753-01	A13-753-01	B10-2178-03	B10-511-03	B11-1-08	B11-11-05	B11-1-11	B11-2044-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			10/15/1999	11/18/1999	11/18/1999	11/19/1999	11/19/1999	11/10/1999	11/10/1999	11/10/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999	B10-2178-031N	B10-511-032N	B11-1-081N	B11-11-050.5N	B11-1-111N	B11-2044-041.3N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
Naphthalene	91-20-3	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Nitrobenzene	98-95-3	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Pentachlorophenol	87-86-5	ug/kg	< 2000	NA	NA	< 1900	< 20000	< 2400	< 2200	< 2200	< 1900
Phenanthrene	85-01-8	ug/kg	95	NA	NA	51	< 3900	50	320	120	< 370
Phenol	108-95-2	ug/kg	< 400	NA	NA	< 380	< 3900	< 480	< 430	< 440	< 370
Pyrene	129-00-0	ug/kg	400	NA	NA	< 380	< 3900	< 480	850	360	< 370
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls											
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A13-753-01	A13-753-01	A13-753-01	B10-2178-03	B10-511-03	B11-1-08	B11-11-05	B11-1-11	B11-2044-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			10/15/1999	11/18/1999	11/18/1999	11/19/1999	11/19/1999	11/10/1999	11/10/1999	11/10/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999	B10-2178-031N	B10-511-032N	B11-1-081N	B11-11-050.5N	B11-1-111N	B11-2044-041.3N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Explosives and Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 230	210	< 250	< 210	< 220	< 130
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 230	270	< 250	< 210	< 220	< 130
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 230	1900	< 250	< 210	< 220	< 130
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 230	2500	< 250	300	< 220	< 130
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 450	< 480	< 500	< 420	< 430	< 270
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 450	< 480	< 500	< 420	< 430	< 270
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 230	1600	< 250	150	< 220	< 130
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 450	< 480	< 500	< 420	< 430	< 270
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 230	< 240	< 250	120	< 220	< 130
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	94300
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	2000	< 4900	< 4500	< 4800	< 4900	< 4800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 450	< 480	< 500	< 420	< 430	< 270
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	260000	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 450	< 480	< 500	< 420	< 430	< 270
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 450	< 480	< 500	< 420	< 430	< 270
Metals											
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.54	3.4	< 0.44	2	1.3	2.2	< 0.47
Arsenic	7440-38-2	mg/kg	NA	NA	4.3	14.6	6.2	64.4	12.9	53.8	5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.73	NA	0.57	0.8	0.51	0.21	0.22	0.6
Cadmium	7440-43-9	mg/kg	NA	NA	0.32	1.3	< 0.26	< 0.25	0.08	< 0.26	< 0.28
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	16.2	42	20.4	17.6	6.4	7.9	24
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	17.3	186	33.1	46	12.7	17.8	13.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	334	NA	17200	1160	16900	7320	33800	27.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.11	2.3	0.17	0.96	0.24	1.2	0.03
Nickel	7440-02-0	mg/kg	NA	NA	9	25.8	10.6	7.8	3.8	2.8	6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	1.1	0.85	0.72	4.6	1.2	13.8	0.42

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			A13-753-01	A13-753-01	A13-753-01	B10-2178-03	B10-511-03	B11-1-08	B11-11-05	B11-1-11	B11-2044-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			10/15/1999	11/18/1999	11/18/1999	11/19/1999	11/19/1999	11/10/1999	11/10/1999	11/10/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999	B10-2178-031N	B10-511-032N	B11-1-081N	B11-11-050.5N	B11-1-111N	B11-2044-041.3N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Metals (cont.)											
Silver	7440-22-4	mg/kg	NA	NA	< 0.33	0.87	< 0.26	0.67	0.57	1.5	< 0.28
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1.1	< 0.97	< 0.87	3	< 1.2	1.3	< 0.93
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	77.8	1330	57.5	41.8	48.3	20.2	65
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	6.77	NA	4.71	NA	4.96	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	84200	34700	10100	88500	NA	7310
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution											
Clay	ARC-PCLAY	%	NA	NA	NA	12.3	15.9	17.9	4.8	NA	13.1
Gravel	ARC-PGRAVEL	%	NA	NA	NA	37.6	19.5	21.6	30	NA	23.4
Sand	ARC-PSAND	%	NA	NA	NA	32.2	39.9	26	49.8	NA	37
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	17.9	24.7	34.5	15.4	NA	26.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-2044-04	B11-2044-08	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-02	B11-513-05	B11-6-03	B11-6-03
Depths			0.0-1.3 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	10/14/1999	11/9/1999	11/9/1999
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-041.3FD	B11-2044-080.8N	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-022N	B11-513-051N	B11-6-031N	B11-6-030.5N
Parent Sample			B11-2044-041.3N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	< 1134	NA	< 1180	NA	NA	NA	< 1223
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	< 2269	NA	< 2361	NA	NA	NA	< 2446
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	< 1134	NA	< 1180	NA	NA	NA	< 1223
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	< 1134	NA	< 1180	NA	NA	NA	< 1223
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	< 1134	NA	< 1180	NA	NA	NA	< 1223
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-2044-04	B11-2044-08	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-02	B11-513-05	B11-6-03	B11-6-03
Depths			0.0-1.3 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	10/14/1999	11/9/1999	11/9/1999
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-041.3FD	B11-2044-080.8N	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-022N	B11-513-051N	B11-6-031N	B11-6-030.5N
Parent Sample			B11-2044-041.3N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	< 567	NA	< 590	NA	NA	NA	< 612
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	< 1134	NA	< 1180	NA	NA	NA	< 1223
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 1800	NA	NA	< 2300	NA	< 2800	NA	< 1900	NA	< 2000	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2-Chlorophenol	95-57-8	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 880	< 720	NA	NA	< 930	NA	< 1100	NA	< 780	NA	< 780	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2200	< 1800	NA	NA	< 2300	NA	< 2800	NA	< 1900	NA	< 2000	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-2044-04	B11-2044-08	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-02	B11-513-05	B11-6-03	B11-6-03
Depths			0.0-1.3 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	10/14/1999	11/9/1999	11/9/1999
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-041.3FD	B11-2044-080.8N	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-022N	B11-513-051N	B11-6-031N	B11-6-030.5N
Parent Sample			B11-2044-041.3N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2200	< 1800	NA	NA	< 2300	NA	< 2800	NA	< 1900	NA	< 2000	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Acenaphthylene	208-96-8	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	NA	NA	< 390	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	42	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	45	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 440	35	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	59	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Dimethylphthalate	131-11-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 440	100	NA	NA	63	NA	< 560	NA	< 390	NA	< 390	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Fluoranthene	206-44-0	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	110	NA
Fluorene	86-73-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Hexachlorobenzene	118-74-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Hexachloroethane	67-72-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Isophorone	78-59-1	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-2044-04	B11-2044-08	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-02	B11-513-05	B11-6-03	B11-6-03
Depths			0.0-1.3 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	10/14/1999	11/9/1999	11/9/1999
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-041.3FD	B11-2044-080.8N	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-022N	B11-513-051N	B11-6-031N	B11-6-030.5N
Parent Sample			B11-2044-041.3N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Pentachlorophenol	87-86-5	ug/kg	< 2200	< 1800	NA	NA	< 2300	NA	< 2800	NA	< 1900	NA	< 2000	NA
Phenanthrene	85-01-8	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	40	NA
Phenol	108-95-2	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	< 390	NA
Pyrene	129-00-0	ug/kg	< 440	< 360	NA	NA	< 460	NA	< 560	NA	< 390	NA	110	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 41	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-2044-04	B11-2044-08	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-02	B11-513-05	B11-6-03	B11-6-03
Depths			0.0-1.3 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	10/14/1999	11/9/1999	11/9/1999
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-041.3FD	B11-2044-080.8N	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-022N	B11-513-051N	B11-6-031N	B11-6-030.5N
Parent Sample			B11-2044-041.3N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 160	< 130	NA	NA	NA	NA	NA	NA	NA	< 210	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 160	< 130	NA	NA	NA	NA	NA	NA	NA	< 210	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 160	< 130	NA	NA	NA	NA	NA	NA	NA	11000	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 160	< 130	NA	NA	NA	NA	NA	NA	NA	3400	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 310	< 270	NA	NA	NA	NA	NA	NA	NA	< 420	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 310	< 270	NA	NA	NA	NA	NA	NA	NA	< 420	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 160	< 130	NA	NA	NA	NA	NA	NA	NA	4800	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 310	< 270	NA	NA	NA	NA	NA	NA	NA	< 420	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 160	< 130	NA	NA	NA	NA	NA	NA	NA	< 210	NA	NA
Nitrocellulose	9004-70-0	ug/kg	108000	150000	NA	NA	NA	NA	NA	NA	NA	84400	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4500	< 4900	NA	NA	NA	NA	NA	NA	NA	< 5967.3	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 310	< 270	NA	NA	NA	NA	NA	NA	NA	< 420	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 310	< 270	NA	NA	NA	NA	NA	NA	NA	< 420	NA	NA
Tetryl	479-45-8	ug/kg	< 310	< 270	NA	NA	NA	NA	NA	NA	NA	< 420	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.47	< 0.39	NA	NA	NA	NA	NA	NA	< 0.53	NA	< 0.52	NA
Arsenic	7440-38-2	mg/kg	7	3.4	NA	NA	NA	NA	NA	NA	4.3	NA	5.1	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.69	0.51	NA	NA	NA	NA	NA	NA	0.48	NA	0.53	NA
Cadmium	7440-43-9	mg/kg	< 0.28	0.29	NA	NA	NA	NA	NA	NA	0.15	NA	< 0.31	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	56	18.9	NA	NA	NA	NA	NA	NA	17	NA	32.7	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.4	17.2	NA	NA	NA	NA	NA	NA	25.4	NA	24.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	39.4	37.5	NA	NA	NA	NA	NA	NA	90.3	NA	450	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.03	0.07	NA	NA	NA	NA	NA	NA	0.11	NA	0.05	NA
Nickel	7440-02-0	mg/kg	7.7	7.5	NA	NA	NA	NA	NA	NA	8.3	NA	8.3	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.11	0.17	NA	NA	NA	NA	NA	NA	1.2	NA	0.95	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-2044-04	B11-2044-08	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-02	B11-513-05	B11-6-03	B11-6-03
Depths			0.0-1.3 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	10/14/1999	11/9/1999	11/9/1999
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-041.3FD	B11-2044-080.8N	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-022N	B11-513-051N	B11-6-031N	B11-6-030.5N
Parent Sample			B11-2044-041.3N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.28	< 0.24	NA	NA	NA	NA	NA	NA	< 0.32	NA	< 0.31	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.94	< 0.78	NA	NA	NA	NA	NA	NA	< 1.1	NA	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	68.8	239	NA	NA	NA	NA	NA	NA	79.1	NA	54.5	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	9040	42500	NA	NA	NA	80400	NA	19600	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	16.9	NA	17.1	NA	NA	NA	6.4	NA	15.9	NA
Gravel	ARC-PGRAVEL	%	NA	NA	17.4	NA	22.5	NA	NA	NA	33.8	NA	16.3	NA
Sand	ARC-PSAND	%	NA	NA	45.9	NA	32.7	NA	NA	NA	37.3	NA	32	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	19.8	NA	27.7	NA	NA	NA	22.5	NA	35.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-9-02	B11-9-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01	B14-128-02	B14-3-02	B14-3-05	B9-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/5/1999	6/30/2000	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999	7/6/2000	7/6/2000	11/3/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-9-022N	B11-9-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-9-02	B11-9-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01	B14-128-02	B14-3-02	B14-3-05	B9-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/5/1999	6/30/2000	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999	7/6/2000	7/6/2000	11/3/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-9-022N	B11-9-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
1,2-Dichlorobenzene	95-50-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
1,4-Dichlorobenzene	106-46-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
2,4-Dichlorophenol	120-83-2	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
2,4-Dimethylphenol	105-67-9	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 818	< 810.634	< 2000	< 1800	< 1900	< 2100	< 2500	< 2100	< 796.8	< 794.786	< 2100	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 460	< 409	< 405	< 390	< 350	390	< 410	< 500	< 420	< 398	< 397	< 420	< 480
2,6-Dinitrotoluene	606-20-2	ug/kg	< 460	< 409	< 405	< 390	< 350	< 390	< 410	< 500	< 420	< 398	< 397	< 420	< 480
2-Chloronaphthalene	91-58-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
2-Chlorophenol	95-57-8	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 460	NA	NA	< 390	< 350	< 390	< 410	< 500	< 420	NA	NA	< 420	< 480
2-Nitrotoluene	88-72-2	ug/kg	NA	< 409	NA	NA	NA	NA	NA	NA	NA	NA	< 397.393	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 910	< 818	< 810.634	< 780	< 700	< 780	< 810	< 990	< 840	< 796.8	< 794.786	< 840	< 950
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2300	< 818	< 810.634	< 2000	< 1800	< 1900	< 2100	< 2500	< 2100	< 796.8	< 794.786	< 2100	< 2400
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-9-02	B11-9-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01	B14-128-02	B14-3-02	B14-3-05	B9-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/5/1999	6/30/2000	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999	7/6/2000	7/6/2000	11/3/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-9-022N	B11-9-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2300	NA	NA	< 2000	< 1800	< 1900	< 2100	< 2500	< 2100	NA	NA	< 2100	< 2400
4-Nitrotoluene	99-99-0	ug/kg	NA	< 818	NA	NA	NA	NA	NA	NA	NA	NA	< 794.786	NA	NA
Acenaphthene	83-32-9	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	90
Acenaphthylene	208-96-8	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	70	< 420	< 398.4	< 397.393	< 420	280
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	65	< 409	< 405.317	< 390	< 350	< 390	< 410	71	< 420	< 398.4	< 397.393	< 420	810
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	420	178	< 405.317	< 390	< 350	62	< 410	99	< 420	< 398.4	< 397.393	< 420	4100
Benzo[a]pyrene	50-32-8	ug/kg	320	154	< 405.317	< 390	< 350	34	< 410	110	< 420	< 398.4	< 397.393	< 420	3700
Benzo[b]fluoranthene	205-99-2	ug/kg	430	152	< 405.317	< 390	< 350	< 390	< 410	520	< 420	< 398.4	< 397.393	< 420	3900
Benzo[g,h,i]perylene	191-24-2	ug/kg	180	101	< 405.317	< 390	< 350	< 390	< 410	320	< 420	< 398.4	< 397.393	< 420	2000
Benzo[k]fluoranthene	207-08-9	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	88	< 420	< 398.4	< 397.393	< 420	2300
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	40	29	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Butylbenzylphthalate	85-68-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	290	124	< 405.317	< 390	< 350	100	< 410	340	< 420	< 398.4	< 397.393	< 420	3800
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	540
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 460	< 409	< 405.317	< 390	46	< 390	45	130	< 420	< 398.4	< 397.393	< 420	< 480
Dimethylphthalate	131-11-3	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Di-n-butylphthalate	84-74-2	ug/kg	< 460	< 409	75.39	< 390	48	59	47	120	< 420	< 398.4	< 397.393	< 420	< 480
Di-n-octylphthalate	117-84-0	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Fluoranthene	206-44-0	ug/kg	760	257	< 405.317	< 390	< 350	< 390	< 410	330	< 420	< 398.4	< 397.393	< 420	7500
Fluorene	86-73-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	210
Hexachlorobenzene	118-74-1	ug/kg	< 460	NA	NA	< 390	< 350	< 390	< 410	< 500	< 420	NA	NA	< 420	< 480
Hexachlorobutadiene	87-68-3	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Hexachloroethane	67-72-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	180	96.1	< 405.317	< 390	< 350	< 390	< 410	290	< 420	< 398.4	< 397.393	< 420	1700
Isophorone	78-59-1	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-9-02	B11-9-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01	B14-128-02	B14-3-02	B14-3-05	B9-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/5/1999	6/30/2000	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999	7/6/2000	7/6/2000	11/3/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-9-022N	B11-9-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	86
Nitrobenzene	98-95-3	ug/kg	< 460	< 409	NA	NA	NA	NA	< 410	< 500	NA	NA	< 397.393	< 420	< 480
N-Nitrosodimethylamine	62-75-9	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	NA	NA	< 420	< 480
Pentachlorophenol	87-86-5	ug/kg	< 2300	< 818	< 810.634	< 2000	< 1800	< 1900	< 2100	< 2500	< 2100	< 796.8	< 794.786	< 2100	< 2400
Phenanthrene	85-01-8	ug/kg	270	75.3	< 405.317	< 390	< 350	48	< 410	90	< 420	< 398.4	< 397.393	< 420	3100
Phenol	108-95-2	ug/kg	< 460	< 409	< 405.317	< 390	< 350	< 390	< 410	< 500	< 420	< 398.4	< 397.393	< 420	< 480
Pyrene	129-00-0	ug/kg	650	286	< 405.317	< 390	< 350	< 390	< 410	300	< 420	< 398.4	< 397.393	< 420	7800
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-9-02	B11-9-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01	B14-128-02	B14-3-02	B14-3-05	B9-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/5/1999	6/30/2000	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999	7/6/2000	7/6/2000	11/3/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-9-022N	B11-9-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 250	< 230	< 250	< 230	NA	NA	< 220	< 497.5	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 250	< 230	< 250	< 230	NA	NA	< 220	< 497.5	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 250	< 230	< 250	< 230	NA	NA	< 220	< 497.5	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 250	< 230	< 250	< 230	NA	NA	< 220	< 497.5	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 500	< 450	< 500	< 450	NA	NA	< 430	< 995	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 500	< 450	< 500	< 450	NA	NA	< 430	< 995	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 250	< 230	< 250	< 230	NA	NA	< 220	< 497.5	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 500	< 450	< 500	< 450	NA	NA	< 430	< 995	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 250	< 230	< 250	< 230	NA	NA	< 220	< 497.5	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 5527.06	< 5000	< 4700	< 4500	NA	NA	< 4878	< 398	< 397.393	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 500	< 450	< 500	< 450	NA	NA	< 430	< 995	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 500	< 450	< 500	< 450	NA	NA	< 430	< 995	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	< 500	< 450	< 500	< 450	NA	NA	< 430	< 995	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.23	< 0.478	< 0.588365	< 0.5	< 0.38	< 0.5	< 0.44	1.5	< 0.56	< 0.685248	< 0.687796	< 0.53	14.5
Arsenic	7440-38-2	mg/kg	4.8	5.45	3.01	3.8	1.7	17	5	8.8	4.3	4.22	6.71	3.1	24.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.68	0.536	0.574	0.75	0.52	0.55	0.76	0.78	0.49	0.699	0.494	0.87	0.88
Cadmium	7440-43-9	mg/kg	0.07	2	< 0.294182	0.23	< 0.23	0.49	< 0.26	2.5	< 0.34	0.869	0.965	< 0.32	0.59
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	41.1	16.4	16.8	14.7	9.5	17	22	19.7	16.3	14.5	14.7	15.3	60.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.5	21.2	14.6	14.3	12.7	19.3	10.6	34.2	8.9	13.6	19.1	8.6	171
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	103	212	13.5	8.5	3.6	47.3	13.7	355	32.2	49.6	65.8	12.9	2190
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.14	0.111	0.076	0.03	< 0.03	0.09	0.04	0.14	0.05	0.11	0.247	0.06	0.72
Nickel	7440-02-0	mg/kg	18.2	9.47	9.43	7	6.7	10.1	9.9	12.2	6.8	6.77	10.1	7.6	25.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1	1.1	0.334	0.95	< 0.38	1.2	0.44	1.2	1.5	0.902	1.28	0.95	3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			B11-9-02	B11-9-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01	B14-128-02	B14-3-02	B14-3-05	B9-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/5/1999	6/30/2000	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999	7/6/2000	7/6/2000	11/3/1999	10/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-9-022N	B11-9-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.3	< 0.239	< 0.294182	< 0.3	< 0.23	< 0.3	< 0.26	< 0.39	< 0.34	< 0.342624	< 0.343898	< 0.32	1.4
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.9	< 0.797	< 0.980608	< 1	< 0.75	< 0.99	< 0.87	< 1.3	< 1.1	< 1.142081	< 1.146326	< 1.1	< 12.8
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	70.5	929	45.2	48.4	32.3	75.5	58.8	768	33.6	73.8	181	61.6	258
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	5.68	4.97	5.62	5.69	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	25600	NA	NA	11400	861	NA	33400	NA	42500	NA	NA	17000	56000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	10.9	NA	NA	19.2	0.2	NA	19	NA	13.6	NA	NA	21.1	2.8
Gravel	ARC-PGRAVEL	%	23.9	NA	NA	25.6	40.1	NA	22	NA	23.5	NA	NA	29.2	35.8
Sand	ARC-PSAND	%	35.2	NA	NA	38.9	57.3	NA	20	NA	43	NA	NA	21.4	33.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	30	NA	NA	16.4	2.4	NA	39	NA	19.9	NA	NA	28.3	27.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-10-01 0.0-2.0 ft 11/16/1999 N C10-10-012N	C10-10-02 0.0-1.0 ft 6/30/2000 N C10-10-021N	C10-1-01 0.0-1.0 ft 11/18/1999 N C10-1-011N	C10-12-03 0.0-1.0 ft 11/16/1999 N C10-12-031N	C10-12-03 0.0-1.0 ft 11/16/1999 FD C10-12-031FD C10-12-031N	C10-13-01 0.0-1.5 ft 11/19/1999 N C10-13-011.5N	C10-13-01 0.0-1.5 ft 11/19/1999 FD C10-13-011.5FD C10-13-011.5N	C10-15-02 0.0-0.5 ft 11/22/1999 N C10-15-020.5N	C10-15-02 0.0-1.0 ft 11/22/1999 N C10-15-021N	C10-2-04 0.0-0.5 ft 11/22/1999 N C10-2-040.5N	C10-2-04 0.0-1.0 ft 11/22/1999 N C10-2-041N	C10-2-05 0.0-0.5 ft 11/22/1999 N C10-2-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1059	NA	< 992	NA	< 1033
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2119	NA	< 1984	NA	< 2066
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1059	NA	< 992	NA	< 1033
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1059	NA	< 992	NA	< 1033
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1059	NA	< 992	NA	< 1033
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-10-01 0.0-2.0 ft 11/16/1999 N C10-10-012N	C10-10-02 0.0-1.0 ft 6/30/2000 N C10-10-021N	C10-1-01 0.0-1.0 ft 11/18/1999 N C10-1-011N	C10-12-03 0.0-1.0 ft 11/16/1999 N C10-12-031N	C10-12-03 0.0-1.0 ft 11/16/1999 FD C10-12-031FD C10-12-031N	C10-13-01 0.0-1.5 ft 11/19/1999 N C10-13-011.5N	C10-13-01 0.0-1.5 ft 11/19/1999 FD C10-13-011.5FD C10-13-011.5N	C10-15-02 0.0-0.5 ft 11/22/1999 N C10-15-020.5N	C10-15-02 0.0-1.0 ft 11/22/1999 N C10-15-021N	C10-2-04 0.0-0.5 ft 11/22/1999 N C10-2-040.5N	C10-2-04 0.0-1.0 ft 11/22/1999 N C10-2-041N	C10-2-05 0.0-0.5 ft 11/22/1999 N C10-2-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 496	NA	< 517
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1059	NA	< 992	NA	< 1033
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 1700	< 721	NA	< 2100	< 2100	< 1800	< 1900	NA	< 2000	NA	< 23000	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	64	< 360	NA	58	40	< 360	< 370	NA	< 400	NA	< 4500	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 350	< 360	NA	52	31	< 360	< 370	NA	< 400	NA	< 4500	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2-Chlorophenol	95-57-8	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 350	NA	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 700	< 721	NA	< 840	< 820	< 720	< 740	NA	< 800	NA	< 9000	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1700	< 721	NA	< 2100	< 2100	< 1800	< 1900	NA	< 2000	NA	< 23000	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-10-01 0.0-2.0 ft 11/16/1999 N C10-10-012N	C10-10-02 0.0-1.0 ft 6/30/2000 N C10-10-021N	C10-1-01 0.0-1.0 ft 11/18/1999 N C10-1-011N	C10-12-03 0.0-1.0 ft 11/16/1999 N C10-12-031N	C10-12-03 0.0-1.0 ft 11/16/1999 FD C10-12-031FD C10-12-031N	C10-13-01 0.0-1.5 ft 11/19/1999 N C10-13-011.5N	C10-13-01 0.0-1.5 ft 11/19/1999 FD C10-13-011.5FD C10-13-011.5N	C10-15-02 0.0-0.5 ft 11/22/1999 N C10-15-020.5N	C10-15-02 0.0-1.0 ft 11/22/1999 N C10-15-021N	C10-2-04 0.0-0.5 ft 11/22/1999 N C10-2-040.5N	C10-2-04 0.0-1.0 ft 11/22/1999 N C10-2-041N	C10-2-05 0.0-0.5 ft 11/22/1999 N C10-2-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1700	NA	NA	< 2100	< 2100	< 1800	< 1900	NA	< 2000	NA	< 23000	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 721	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Acenaphthylene	208-96-8	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 350	< 360	NA	65	110	520	900	NA	< 400	NA	< 4500	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 350	< 360	NA	55	110	400	790	NA	< 400	NA	< 4500	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 350	< 360	NA	83	190	610	980	NA	< 400	NA	< 4500	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 350	< 360	NA	< 420	< 410	460	690	NA	< 400	NA	< 4500	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 350	< 360	NA	< 420	< 410	130	410	NA	< 400	NA	< 4500	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	31	< 360	NA	35	44	530	660	NA	< 400	NA	< 4500	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 350	< 360	NA	70	140	260	720	NA	< 400	NA	< 4500	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	190	NA	< 400	NA	< 4500	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Dimethylphthalate	131-11-3	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Di-n-butylphthalate	84-74-2	ug/kg	31	< 360	NA	< 420	38	< 360	< 370	NA	52	NA	< 4500	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Fluoranthene	206-44-0	ug/kg	< 350	< 360	NA	170	210	320	620	NA	< 400	NA	< 4500	NA
Fluorene	86-73-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Hexachlorobenzene	118-74-1	ug/kg	< 350	NA	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Hexachloroethane	67-72-1	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 350	< 360	NA	< 420	< 410	420	620	NA	< 400	NA	< 4500	NA
Isophorone	78-59-1	ug/kg	< 350	< 360	NA	< 420	< 410	300	190	NA	< 400	NA	< 4500	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-10-01 0.0-2.0 ft 11/16/1999 N C10-10-012N	C10-10-02 0.0-1.0 ft 6/30/2000 N C10-10-021N	C10-1-01 0.0-1.0 ft 11/18/1999 N C10-1-011N	C10-12-03 0.0-1.0 ft 11/16/1999 N C10-12-031N	C10-12-03 0.0-1.0 ft 11/16/1999 FD C10-12-031FD C10-12-031N	C10-13-01 0.0-1.5 ft 11/19/1999 N C10-13-011.5N	C10-13-01 0.0-1.5 ft 11/19/1999 FD C10-13-011.5FD C10-13-011.5N	C10-15-02 0.0-0.5 ft 11/22/1999 N C10-15-020.5N	C10-15-02 0.0-1.0 ft 11/22/1999 N C10-15-021N	C10-2-04 0.0-0.5 ft 11/22/1999 N C10-2-040.5N	C10-2-04 0.0-1.0 ft 11/22/1999 N C10-2-041N	C10-2-05 0.0-0.5 ft 11/22/1999 N C10-2-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Nitrobenzene	98-95-3	ug/kg	< 350	< 360	NA	NA	NA	360	< 370	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Pentachlorophenol	87-86-5	ug/kg	< 1700	< 721	NA	< 2100	< 2100	< 1800	< 1900	NA	< 2000	NA	< 23000	NA
Phenanthrene	85-01-8	ug/kg	< 350	< 360	NA	150	160	1200	1700	NA	< 400	NA	< 4500	NA
Phenol	108-95-2	ug/kg	< 350	< 360	NA	< 420	< 410	< 360	< 370	NA	< 400	NA	< 4500	NA
Pyrene	129-00-0	ug/kg	< 350	< 360	NA	150	240	360	950	NA	< 400	NA	< 4500	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	54	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	54	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-10-01 0.0-2.0 ft 11/16/1999 N C10-10-012N	C10-10-02 0.0-1.0 ft 6/30/2000 N C10-10-021N	C10-1-01 0.0-1.0 ft 11/18/1999 N C10-1-011N	C10-12-03 0.0-1.0 ft 11/16/1999 N C10-12-031N	C10-12-03 0.0-1.0 ft 11/16/1999 FD C10-12-031FD C10-12-031N	C10-13-01 0.0-1.5 ft 11/19/1999 N C10-13-011.5N	C10-13-01 0.0-1.5 ft 11/19/1999 FD C10-13-011.5FD C10-13-011.5N	C10-15-02 0.0-0.5 ft 11/22/1999 N C10-15-020.5N	C10-15-02 0.0-1.0 ft 11/22/1999 N C10-15-021N	C10-2-04 0.0-0.5 ft 11/22/1999 N C10-2-040.5N	C10-2-04 0.0-1.0 ft 11/22/1999 N C10-2-041N	C10-2-05 0.0-0.5 ft 11/22/1999 N C10-2-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	< 140	NA	< 160	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	< 140	NA	< 160	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	< 140	NA	< 160	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	< 140	NA	< 160	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 430	< 400	NA	NA	NA	< 280	NA	< 310	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 430	< 400	NA	NA	NA	< 280	NA	< 310	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	< 140	NA	< 160	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 430	< 400	NA	NA	NA	< 280	NA	< 310	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	< 140	NA	< 160	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 4500	< 5000	NA	NA	NA	< 5600	NA	< 6100	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 430	< 400	NA	NA	NA	< 280	NA	< 310	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	69000	NA	12100000	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 430	< 400	NA	NA	NA	< 280	NA	< 310	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 430	< 400	NA	NA	NA	< 280	NA	< 310	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.37	< 0.425	NA	0.59	0.36	3.4	8.3	NA	NA	NA	< 0.59	NA
Arsenic	7440-38-2	mg/kg	4.6	14.8	NA	15	11.4	37.1	63.5	NA	NA	NA	11.5	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.62	0.412	NA	0.43	0.46	0.44	0.46	NA	NA	NA	0.55	NA
Cadmium	7440-43-9	mg/kg	< 0.22	0.52	NA	< 0.26	< 0.13	0.21	0.25	NA	NA	NA	1.6	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.4	18.9	NA	15.3	17.4	< 0.34	13.7	NA	NA	NA	40.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.7	14.9	NA	20.5	23	23.7	31.1	NA	NA	NA	390	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	56.2	120	NA	1110	884	810	1040	NA	NA	NA	1130	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.05	0.066	NA	0.18	0.2	0.72	0.74	NA	NA	NA	7.1	NA
Nickel	7440-02-0	mg/kg	7	5.24	NA	8	8.4	6.8	6.3	NA	NA	NA	32.3	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.37	0.595	NA	1.3	1.3	0.45	0.67	NA	NA	NA	< 0.59	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-10-01	C10-10-02	C10-1-01	C10-12-03	C10-12-03	C10-13-01	C10-13-01	C10-15-02	C10-15-02	C10-2-04	C10-2-04	C10-2-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			11/16/1999	6/30/2000	11/18/1999	11/16/1999	11/16/1999	11/19/1999	11/19/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N	N	N
Sample Name			C10-10-012N	C10-10-021N	C10-1-011N	C10-12-031N	C10-12-031FD	C10-13-011.5N	C10-13-011.5FD	C10-15-020.5N	C10-15-021N	C10-2-040.5N	C10-2-041N	C10-2-050.5N
Parent Sample							C10-12-031N		C10-13-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.22	< 0.213	NA	< 0.26	< 0.32	< 0.2	< 0.11	NA	NA	NA	0.44	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.75	< 0.709	NA	< 0.86	< 1.1	< 0.68	< 0.61	NA	NA	NA	< 1.2	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	45.4	39.4	NA	35.1	37	137	165	NA	NA	NA	482	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	4880	NA	8780	3600	NA	4320	NA	NA	9400	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	4.5	NA	9.9	16.7	NA	10.3	NA	NA	11.9	NA	NA	NA
Gravel	ARC-PGRAVEL	%	47.4	NA	31.8	9.5	NA	25.3	NA	NA	24.7	NA	NA	NA
Sand	ARC-PSAND	%	39.5	NA	36.5	33.6	NA	54.9	NA	NA	40.9	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	8.6	NA	21.8	40.1	NA	9.5	NA	NA	22.6	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-2-05	C10-2-07	C10-2-07	C10-2-07	C10-2-07	C10-211C-04	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/16/1999	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			C10-2-051N	C10-2-070.5N	C10-2-070.5FD	C10-2-071.67N	C10-2-071.67FD	C10-211C-042N	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N
Parent Sample					C10-2-070.5N		C10-2-071.67N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1097	< 1287	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2193	< 2574	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 1097	< 1287	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1097	< 1287	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1097	< 1287	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-2-05	C10-2-07	C10-2-07	C10-2-07	C10-2-07	C10-211C-04	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/16/1999	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			C10-2-051N	C10-2-070.5N	C10-2-070.5FD	C10-2-071.67N	C10-2-071.67FD	C10-211C-042N	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N
Parent Sample					C10-2-070.5N		C10-2-071.67N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 548	< 659	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 548	< 644	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1097	< 1287	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
1,2-Dichlorobenzene	95-50-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
1,4-Dichlorobenzene	106-46-7	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
2,4-Dichlorophenol	120-83-2	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
2,4-Dimethylphenol	105-67-9	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
2,4-Dinitrophenol	51-28-5	ug/kg	< 1900	NA	NA	< 1900	< 2100	< 1800	< 1800	< 1800	< 2700	< 802	< 715
2,4-Dinitrotoluene	121-14-2	ug/kg	< 380	NA	NA	< 370	< 420	< 360	350	< 350	< 540	< 401	< 358
2,6-Dinitrotoluene	606-20-2	ug/kg	< 380	NA	NA	< 370	< 420	29	< 350	< 350	< 540	< 401	< 358
2-Chloronaphthalene	91-58-7	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
2-Chlorophenol	95-57-8	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 760	NA	NA	< 750	< 830	< 720	< 700	< 700	< 1100	< 802	< 715
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1900	NA	NA	< 1900	< 2100	< 1800	< 1800	< 1800	< 2700	< 802	< 715
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-2-05	C10-2-07	C10-2-07	C10-2-07	C10-2-07	C10-211C-04	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/16/1999	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			C10-2-051N	C10-2-070.5N	C10-2-070.5FD	C10-2-071.67N	C10-2-071.67FD	C10-211C-042N	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N
Parent Sample					C10-2-070.5N		C10-2-071.67N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1900	NA	NA	< 1900	< 2100	< 1800	< 1800	< 1800	< 2700	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Acenaphthylene	208-96-8	ug/kg	< 380	NA	NA	34	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 380	NA	NA	44	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 380	NA	NA	200	< 420	< 360	< 350	< 350	140	< 401	< 358
Benzo[a]pyrene	50-32-8	ug/kg	< 380	NA	NA	160	< 420	76	< 350	< 350	180	< 401	< 358
Benzo[b]fluoranthene	205-99-2	ug/kg	< 380	NA	NA	250	< 420	150	< 350	< 350	310	< 401	< 358
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	NA	< 401	< 358
Benzo[k]fluoranthene	207-08-9	ug/kg	< 380	NA	NA	160	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	49	NA	NA	110	57	21	31	20	170	< 401	< 358
Butylbenzylphthalate	85-68-7	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 380	NA	NA	220	< 420	50	< 350	< 350	220	< 401	< 358
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	50	< 401	< 358
Dimethylphthalate	131-11-3	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Di-n-butylphthalate	84-74-2	ug/kg	76	NA	NA	< 370	< 420	110	< 350	98	72	< 401	< 358
Di-n-octylphthalate	117-84-0	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Fluoranthene	206-44-0	ug/kg	< 380	NA	NA	640	< 420	< 360	< 350	< 350	280	< 401	< 358
Fluorene	86-73-7	ug/kg	< 380	NA	NA	40	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Hexachlorobenzene	118-74-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Hexachloroethane	67-72-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Isophorone	78-59-1	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-2-05	C10-2-07	C10-2-07	C10-2-07	C10-2-07	C10-211C-04	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/16/1999	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			C10-2-051N	C10-2-070.5N	C10-2-070.5FD	C10-2-071.67N	C10-2-071.67FD	C10-211C-042N	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N
Parent Sample					C10-2-070.5N		C10-2-071.67N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Pentachlorophenol	87-86-5	ug/kg	< 1900	NA	NA	< 1900	< 2100	< 1800	< 1800	< 1800	< 2700	< 802	< 715
Phenanthrene	85-01-8	ug/kg	< 380	NA	NA	550	< 420	< 360	< 350	< 350	180	< 401	< 358
Phenol	108-95-2	ug/kg	< 380	NA	NA	< 370	< 420	< 360	< 350	< 350	< 540	< 401	< 358
Pyrene	129-00-0	ug/kg	< 380	NA	NA	460	< 420	< 360	< 350	< 350	270	< 401	< 358
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-2-05	C10-2-07	C10-2-07	C10-2-07	C10-2-07	C10-211C-04	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/16/1999	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			C10-2-051N	C10-2-070.5N	C10-2-070.5FD	C10-2-071.67N	C10-2-071.67FD	C10-211C-042N	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N
Parent Sample					C10-2-070.5N		C10-2-071.67N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 140	NA	NA	< 140	< 150	< 230	< 210	< 220	< 182	< 249	< 249
1,3-Dinitrobenzene	99-65-0	ug/kg	< 140	NA	NA	< 140	< 150	< 230	< 210	< 220	< 182	< 249	< 249
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 140	NA	NA	< 140	< 150	< 230	< 210	< 220	< 182	< 249	< 249
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 140	NA	NA	< 140	< 150	< 230	< 210	< 220	< 182	< 249	< 249
2-Nitrotoluene	88-72-2	ug/kg	< 280	NA	NA	< 270	< 290	< 450	< 420	< 430	< 364	< 498	< 498
3-Nitrotoluene	99-08-1	ug/kg	< 280	NA	NA	< 270	< 290	< 450	< 420	< 430	< 364	< 498	< 498
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 140	NA	NA	< 140	< 150	< 230	< 210	< 220	< 182	< 249	< 249
4-Nitrotoluene	99-99-0	ug/kg	< 280	NA	NA	< 270	< 290	< 450	< 420	< 430	< 364	< 498	< 498
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 140	NA	NA	< 140	< 150	< 230	< 210	< 220	< 182	< 249	< 249
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5100	NA	NA	< 4900	< 5700	< 4500	< 4900	< 4700	< 7500	< 6000	< 5360
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 280	NA	NA	< 270	< 290	< 450	< 420	< 430	< 364	< 498	< 498
Pentaerythritol Tetranitrate	78-11-5	ug/kg	6400	NA	NA	13000	16000	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 280	NA	NA	< 270	< 290	< 450	< 420	< 430	< 364	< 498	< 498
Tetryl	479-45-8	ug/kg	< 280	NA	NA	< 270	< 290	< 450	< 420	< 430	< 364	< 498	< 498
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.42	NA	NA	< 0.42	< 0.52	< 0.44	< 0.42	< 0.46	< 0.63	< 0.688	< 0.439
Arsenic	7440-38-2	mg/kg	6.1	NA	NA	3.9	4.8	4.5	6.4	2.9	9.5	4.13	17.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.74	NA	NA	0.79	0.71	0.55	0.71	0.56	1.1	0.497	0.432
Cadmium	7440-43-9	mg/kg	0.36	NA	NA	0.45	0.5	0.21	0.16	< 0.27	< 0.38	0.748	0.525
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	24.5	NA	NA	26.8	16.8	18.4	13.3	9.5	24.3	19.8	29.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	30.4	NA	NA	54.5	65.7	19.1	16.9	15.7	24.8	16.3	16.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	813	NA	NA	782	1440	1280	491	174	171	68.7	12.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.44	NA	NA	0.32	0.56	0.56	0.06	0.5	0.47	0.07	0.046
Nickel	7440-02-0	mg/kg	9.9	NA	NA	11.1	13.8	8	7.4	5.7	11.7	6.4	5.79
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.42	NA	NA	< 0.42	< 0.61	< 0.44	0.75	< 0.46	1.1	1.04	0.517

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-2-05	C10-2-07	C10-2-07	C10-2-07	C10-2-07	C10-211C-04	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/16/1999	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			C10-2-051N	C10-2-070.5N	C10-2-070.5FD	C10-2-071.67N	C10-2-071.67FD	C10-211C-042N	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N
Parent Sample					C10-2-070.5N		C10-2-071.67N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.25	NA	NA	< 0.25	< 0.31	< 0.27	< 0.25	< 0.27	< 0.38	< 0.344	< 0.22
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.84	NA	NA	< 0.85	< 1	< 0.89	< 0.84	< 0.91	< 1.3	< 1.15	< 0.732
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	126	NA	NA	101	125	64.7	58.8	44.4	113	25.9	31.4
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	5.21	4.42	4.66	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	8290	NA	5380	NA	NA	110000	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	7.3	NA	7.7	NA	NA	3.5	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	27.9	NA	46.8	NA	NA	30.4	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	55.9	NA	39	NA	NA	49.4	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	8.9	NA	6.6	NA	NA	16.7	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-241C-04 0.0-2.0 ft 11/16/1999 N C10-241C-042N	C10-3-02 0.0-0.5 ft 11/22/1999 N C10-3-020.5N	C10-3-02 0.0-1.0 ft 11/22/1999 N C10-3-021N	C10-4-02 0.0-0.5 ft 11/19/1999 N C10-4-020.5N	C10-4-07 0.0-1.0 ft 11/19/1999 N C10-4-071N	C10-440-02 0.0-2.0 ft 10/8/1999 N C10-440-022N	C10-5-01 0.0-1.0 ft 11/16/1999 N C10-5-011N	C10-7-01 0.0-1.0 ft 11/16/1999 N C10-7-011N	C11-10-01 0.0-2.0 ft 11/9/1999 N C11-10-012N	C11-1-04 0.0-1.0 ft 11/18/1999 N C11-1-041N	C11-1-05 0.0-1.5 ft 11/18/1999 N C11-1-051.5N	C11-1-09 0.0-0.8 ft 11/18/1999 N C11-1-090.8N	C11-1-17 0.0-1.0 ft 11/18/1999 N C11-1-171N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2286	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 1143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-241C-04	C10-3-02	C10-3-02	C10-4-02	C10-4-07	C10-440-02	C10-5-01	C10-7-01	C11-10-01	C11-1-04	C11-1-05	C11-1-09	C11-1-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft
Collection Date			11/16/1999	11/22/1999	11/22/1999	11/19/1999	11/19/1999	10/8/1999	11/16/1999	11/16/1999	11/9/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-241C-042N	C10-3-020.5N	C10-3-021N	C10-4-020.5N	C10-4-071N	C10-440-022N	C10-5-011N	C10-7-011N	C11-10-012N	C11-1-041N	C11-1-051.5N	C11-1-090.8N	C11-1-171N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
1,2-Dichlorobenzene	95-50-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
1,4-Dichlorobenzene	106-46-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2,4-Dichlorophenol	120-83-2	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2,4-Dimethylphenol	105-67-9	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2,4-Dinitrophenol	51-28-5	ug/kg	< 1700	NA	< 1900	NA	NA	< 2600	< 1900	< 2300	< 1900	< 2500	NA	< 2100	< 9700
2,4-Dinitrotoluene	121-14-2	ug/kg	< 340	NA	68	NA	NA	< 510	< 380	210	< 390	< 510	NA	71	< 1900
2,6-Dinitrotoluene	606-20-2	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	160	< 390	< 510	NA	< 420	< 1900
2-Chloronaphthalene	91-58-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2-Chlorophenol	95-57-8	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 690	NA	< 780	NA	NA	< 1000	< 770	< 940	< 780	< 1000	NA	< 830	< 3900
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1700	NA	< 1900	NA	NA	< 2600	< 1900	< 2300	< 1900	< 2500	NA	< 2100	< 9700
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-241C-04	C10-3-02	C10-3-02	C10-4-02	C10-4-07	C10-440-02	C10-5-01	C10-7-01	C11-10-01	C11-1-04	C11-1-05	C11-1-09	C11-1-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft
Collection Date			11/16/1999	11/22/1999	11/22/1999	11/19/1999	11/19/1999	10/8/1999	11/16/1999	11/16/1999	11/9/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-241C-042N	C10-3-020.5N	C10-3-021N	C10-4-020.5N	C10-4-071N	C10-440-022N	C10-5-011N	C10-7-011N	C11-10-012N	C11-1-041N	C11-1-051.5N	C11-1-090.8N	C11-1-171N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1700	NA	< 1900	NA	NA	< 2600	< 1900	< 2300	< 1900	< 2500	NA	< 2100	< 9700
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 340	NA	< 390	NA	NA	< 510	110	< 470	< 390	< 510	NA	21	4000
Acenaphthylene	208-96-8	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	19	99
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	280	< 470	< 390	45	NA	47	7200
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	340	NA	130	4300
Benzo[a]anthracene	56-55-3	ug/kg	< 340	NA	82	NA	NA	< 510	600	60	94	280	NA	200	9400
Benzo[a]pyrene	50-32-8	ug/kg	< 340	NA	99	NA	NA	< 510	470	55	99	290	NA	170	8200
Benzo[b]fluoranthene	205-99-2	ug/kg	< 340	NA	190	NA	NA	< 510	660	97	120	420	NA	270	9700
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 340	NA	< 390	NA	NA	< 510	150	< 470	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 340	NA	68	NA	NA	< 510	280	< 470	< 390	160	NA	110	3600
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	29	NA	86	NA	NA	26	45	60	< 390	220	NA	< 420	< 1900
Butylbenzylphthalate	85-68-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 340	NA	220	NA	NA	< 510	490	73	110	230	NA	200	8700
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	200	NA	< 420	1200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	50	NA	< 420	< 1900
Dimethylphthalate	131-11-3	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Di-n-butylphthalate	84-74-2	ug/kg	76	NA	62	NA	NA	< 510	< 380	< 470	34	< 510	NA	< 420	< 1900
Di-n-octylphthalate	117-84-0	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Fluoranthene	206-44-0	ug/kg	< 340	NA	260	NA	NA	< 510	1200	130	170	610	NA	400	18000
Fluorene	86-73-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	89	< 470	< 390	< 510	NA	< 420	3100
Hexachlorobenzene	118-74-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Hexachlorobutadiene	87-68-3	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Hexachloroethane	67-72-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 340	NA	< 390	NA	NA	< 510	150	< 470	< 390	310	NA	110	4100
Isophorone	78-59-1	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-241C-04	C10-3-02	C10-3-02	C10-4-02	C10-4-07	C10-440-02	C10-5-01	C10-7-01	C11-10-01	C11-1-04	C11-1-05	C11-1-09	C11-1-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft
Collection Date			11/16/1999	11/22/1999	11/22/1999	11/19/1999	11/19/1999	10/8/1999	11/16/1999	11/16/1999	11/9/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-241C-042N	C10-3-020.5N	C10-3-021N	C10-4-020.5N	C10-4-071N	C10-440-022N	C10-5-011N	C10-7-011N	C11-10-012N	C11-1-041N	C11-1-051.5N	C11-1-090.8N	C11-1-171N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 340	NA	< 390	NA	NA	< 510	33	< 470	< 390	< 510	NA	< 420	2700
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	< 510	NA	< 420	< 1900
N-Nitrosodimethylamine	62-75-9	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Pentachlorophenol	87-86-5	ug/kg	< 1700	NA	< 1900	NA	NA	< 2600	< 1900	< 2300	< 1900	< 2500	NA	< 2100	< 9700
Phenanthrene	85-01-8	ug/kg	< 340	NA	350	NA	NA	< 510	1300	110	100	200	NA	230	18000
Phenol	108-95-2	ug/kg	< 340	NA	< 390	NA	NA	< 510	< 380	< 470	< 390	< 510	NA	< 420	< 1900
Pyrene	129-00-0	ug/kg	< 340	NA	450	NA	NA	< 510	1300	140	170	470	NA	380	18000
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-241C-04	C10-3-02	C10-3-02	C10-4-02	C10-4-07	C10-440-02	C10-5-01	C10-7-01	C11-10-01	C11-1-04	C11-1-05	C11-1-09	C11-1-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft
Collection Date			11/16/1999	11/22/1999	11/22/1999	11/19/1999	11/19/1999	10/8/1999	11/16/1999	11/16/1999	11/9/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-241C-042N	C10-3-020.5N	C10-3-021N	C10-4-020.5N	C10-4-071N	C10-440-022N	C10-5-011N	C10-7-011N	C11-10-012N	C11-1-041N	C11-1-051.5N	C11-1-090.8N	C11-1-171N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 240	NA	< 140	< 220	< 240	< 200	< 220	< 230	NA	NA	< 143	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 240	NA	< 140	310	< 240	< 200	< 220	< 230	NA	NA	< 143	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 240	NA	680	< 220	< 240	< 200	< 220	< 230	NA	NA	370	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 220	< 240	NA	NA	NA	NA	NA	< 143	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 240	NA	150	< 220	< 240	< 200	< 220	< 230	NA	NA	165	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 480	NA	< 290	< 430	< 480	< 400	< 430	< 450	NA	NA	< 285	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 480	NA	< 290	< 430	< 480	< 400	< 430	< 450	NA	NA	< 285	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 240	NA	180	< 220	< 240	< 200	< 220	< 230	NA	NA	349	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 480	NA	< 290	< 430	< 480	< 400	< 430	< 450	NA	NA	< 285	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 240	NA	130	< 220	< 240	< 200	< 220	< 230	NA	NA	< 143	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	48400	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4900	NA	< 5400	< 4500	< 4900	< 7177.7	< 4300	< 4800	NA	NA	3700	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 480	NA	< 290	< 430	< 480	< 400	< 430	< 450	NA	NA	< 285	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	1200000	< 430	4300	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 480	NA	< 290	< 430	< 480	< 400	< 430	< 450	NA	NA	< 285	NA	NA
Tetryl	479-45-8	ug/kg	< 480	NA	< 290	< 430	< 480	< 400	< 430	< 450	NA	NA	< 285	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.41	NA	0.29	NA	NA	< 0.47	< 0.45	4	< 0.5	0.52	NA	0.4	1.6
Arsenic	7440-38-2	mg/kg	1.7	NA	7.8	NA	NA	5.4	8.5	10	69.4	51.9	NA	11.1	38.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.44	NA	0.26	NA	NA	0.85	0.43	0.67	0.38	0.95	NA	0.67	0.49
Cadmium	7440-43-9	mg/kg	< 0.24	NA	0.13	NA	NA	< 0.28	0.66	0.55	< 0.3	< 0.39	NA	< 0.3	< 0.26
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	5.2	NA	19.4	NA	NA	20.6	15	20.2	7.6	22.5	NA	16.4	13.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.7	NA	39.7	NA	NA	18.8	18.9	20.6	14.8	181	NA	32.4	26.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	44.7	NA	971	NA	NA	1550	1110	3260	2090	68200	NA	1200	10900
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0.03	NA	0.32	NA	NA	0.07	0.9	0.28	0.21	NA	NA	0.29	0.34
Nickel	7440-02-0	mg/kg	5.6	NA	5.8	NA	NA	11	8.7	12	3.3	10.9	NA	8.4	5.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.41	NA	< 0.45	NA	NA	1.1	1	1.7	3.8	1.5	NA	1.2	3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C10-241C-04	C10-3-02	C10-3-02	C10-4-02	C10-4-07	C10-440-02	C10-5-01	C10-7-01	C11-10-01	C11-1-04	C11-1-05	C11-1-09	C11-1-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft
Collection Date			11/16/1999	11/22/1999	11/22/1999	11/19/1999	11/19/1999	10/8/1999	11/16/1999	11/16/1999	11/9/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-241C-042N	C10-3-020.5N	C10-3-021N	C10-4-020.5N	C10-4-071N	C10-440-022N	C10-5-011N	C10-7-011N	C11-10-012N	C11-1-041N	C11-1-051.5N	C11-1-090.8N	C11-1-171N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.24	NA	0.1	NA	NA	< 0.28	0.19	< 0.34	0.25	0.91	NA	< 0.3	0.23
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.82	NA	< 0.9	NA	NA	< 0.95	< 0.89	< 1.1	< 0.99	1.2	NA	< 0.99	< 0.86
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	33.7	NA	69.2	NA	NA	83	219	103	22.7	141	NA	52.2	215
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	6.24	NA	6.92	NA	NA	4.66	NA	NA	5.75	5.43
Total Organic Carbon	ARC-TOC	mg/kg	4370	NA	17100	39100	NA	22800	7030	14600	52800	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	0.2	NA	9.1	4.9	NA	13.4	11.4	11.9	1.2	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	59	NA	10	57.9	NA	25.6	21.1	4.7	40.7	NA	NA	NA	NA
Sand	ARC-PSAND	%	38.2	NA	61.7	25.9	NA	26.5	40.4	41.1	53.5	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	2.6	NA	19.2	11.2	NA	34.5	27.1	42.3	4.6	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C11-12-02 0.0-1.0 ft 11/10/1999 N C11-12-021N	C11-15-05 0.0-2.0 ft 11/10/1999 N C11-15-052N	C11-18-01 0.0-2.0 ft 6/30/2000 N C11-18-012N	C11-18-01 0.0-2.0 ft 6/30/2000 FD C11-18-012FD C11-18-012N	C11-18-02 0.0-2.0 ft 11/5/1999 N C11-18-022N	C11-19-05 0.0-0.5 ft 11/18/1999 N C11-19-050.5N	C11-22-03 0.0-2.0 ft 11/9/1999 N C11-22-032N	C11-22-03 0.5-1.0 ft 11/9/1999 N C11-22-030.5N	C11-2233-01 0.0-1.0 ft 11/10/1999 N C11-2233-011N	C11-2233-01 0.0-2.0 ft 7/19/2000 N C11-2233-012N	C11-2233-02 0.0-1.0 ft 11/10/1999 N C11-2233-021N	C11-2233-03 0.0-2.0 ft 11/10/1999 N C11-2233-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1119	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2238	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1119	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1119	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1119	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-12-02	C11-15-05	C11-18-01	C11-18-01	C11-18-02	C11-19-05	C11-22-03	C11-22-03	C11-2233-01	C11-2233-01	C11-2233-02	C11-2233-03
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/10/1999	11/10/1999	6/30/2000	6/30/2000	11/5/1999	11/18/1999	11/9/1999	11/9/1999	11/10/1999	7/19/2000	11/10/1999	11/10/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C11-12-021N	C11-15-052N	C11-18-012N	C11-18-012FD	C11-18-022N	C11-19-050.5N	C11-22-032N	C11-22-030.5N	C11-2233-011N	C11-2233-012N	C11-2233-021N	C11-2233-032N
Parent Sample						C11-18-012N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 560	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1119	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2,4-Dichlorophenol	120-83-2	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2000	< 796	< 789	< 2000	< 2300	< 2000	NA	< 1900	< 763	< 2000	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2-Chlorophenol	95-57-8	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 460	< 410	NA	NA	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 930	< 810	< 796	< 789	< 790	< 900	< 820	NA	< 740	< 763	< 780	< 760
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2300	< 2000	< 796	< 789	< 2000	< 2300	< 2000	NA	< 1900	< 763	< 2000	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C11-12-02 0.0-1.0 ft 11/10/1999 N C11-12-021N	C11-15-05 0.0-2.0 ft 11/10/1999 N C11-15-052N	C11-18-01 0.0-2.0 ft 6/30/2000 N C11-18-012N	C11-18-01 0.0-2.0 ft 6/30/2000 FD C11-18-012FD C11-18-012N	C11-18-02 0.0-2.0 ft 11/5/1999 N C11-18-022N	C11-19-05 0.0-0.5 ft 11/18/1999 N C11-19-050.5N	C11-22-03 0.0-2.0 ft 11/9/1999 N C11-22-032N	C11-22-03 0.5-1.0 ft 11/9/1999 N C11-22-030.5N	C11-2233-01 0.0-1.0 ft 11/10/1999 N C11-2233-011N	C11-2233-01 0.0-2.0 ft 7/19/2000 N C11-2233-012N	C11-2233-02 0.0-1.0 ft 11/10/1999 N C11-2233-021N	C11-2233-03 0.0-2.0 ft 11/10/1999 N C11-2233-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2300	< 2000	NA	NA	< 2000	< 2300	< 2000	NA	< 1900	< 763	< 2000	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Acenaphthylene	208-96-8	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	76	< 380
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 460	< 410	< 398	< 394	< 400	40	< 410	NA	< 370	< 381	33	< 380
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	< 450	< 410	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	110	< 410	< 398	< 394	88	150	41	NA	< 370	90.4	170	80
Benzo[a]pyrene	50-32-8	ug/kg	2100	< 410	< 398	< 394	77	160	36	NA	< 370	60.3	190	45
Benzo[b]fluoranthene	205-99-2	ug/kg	300	< 410	< 398	< 394	150	150	< 410	NA	< 370	145	260	79
Benzo[g,h,i]perylene	191-24-2	ug/kg	890	< 410	< 398	< 394	< 400	NA	NA	NA	< 370	< 381	130	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	190	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 460	< 410	< 398	< 23	24	1100	< 410	NA	230	1840	< 390	860
Butylbenzylphthalate	85-68-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	210	< 410	< 398	< 394	130	160	38	NA	< 370	146	200	39
Dibenzo[a,h]anthracene	53-70-3	ug/kg	550	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Dimethylphthalate	131-11-3	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Di-n-butylphthalate	84-74-2	ug/kg	< 460	< 410	< 398	< 394	< 400	95	< 410	NA	54	307	61	67
Di-n-octylphthalate	117-84-0	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Fluoranthene	206-44-0	ug/kg	160	< 410	< 398	< 394	310	240	< 410	NA	< 370	291	300	94
Fluorene	86-73-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Hexachlorobenzene	118-74-1	ug/kg	< 460	< 410	NA	NA	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Hexachlorobutadiene	87-68-3	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Hexachloroethane	67-72-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 440	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	100	< 380
Isophorone	78-59-1	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C11-12-02 0.0-1.0 ft 11/10/1999 N C11-12-021N	C11-15-05 0.0-2.0 ft 11/10/1999 N C11-15-052N	C11-18-01 0.0-2.0 ft 6/30/2000 N C11-18-012N	C11-18-01 0.0-2.0 ft 6/30/2000 FD C11-18-012FD C11-18-012N	C11-18-02 0.0-2.0 ft 11/5/1999 N C11-18-022N	C11-19-05 0.0-0.5 ft 11/18/1999 N C11-19-050.5N	C11-22-03 0.0-2.0 ft 11/9/1999 N C11-22-032N	C11-22-03 0.5-1.0 ft 11/9/1999 N C11-22-030.5N	C11-2233-01 0.0-1.0 ft 11/10/1999 N C11-2233-011N	C11-2233-01 0.0-2.0 ft 7/19/2000 N C11-2233-012N	C11-2233-02 0.0-1.0 ft 11/10/1999 N C11-2233-021N	C11-2233-03 0.0-2.0 ft 11/10/1999 N C11-2233-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 410	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	59.1	< 390	< 380
Pentachlorophenol	87-86-5	ug/kg	< 2300	< 2000	< 796	< 789	< 2000	< 2300	< 2000	NA	< 1900	< 763	< 2000	< 1900
Phenanthrene	85-01-8	ug/kg	120	< 410	< 398	< 394	210	250	26	NA	< 370	92.3	230	27
Phenol	108-95-2	ug/kg	< 460	< 410	< 398	< 394	< 400	< 450	< 410	NA	< 370	< 381	< 390	< 380
Pyrene	129-00-0	ug/kg	< 460	< 410	< 398	< 394	230	510	< 410	NA	< 370	295	450	< 380
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-12-02	C11-15-05	C11-18-01	C11-18-01	C11-18-02	C11-19-05	C11-22-03	C11-22-03	C11-2233-01	C11-2233-01	C11-2233-02	C11-2233-03
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/10/1999	11/10/1999	6/30/2000	6/30/2000	11/5/1999	11/18/1999	11/9/1999	11/9/1999	11/10/1999	7/19/2000	11/10/1999	11/10/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C11-12-021N	C11-15-052N	C11-18-012N	C11-18-012FD	C11-18-022N	C11-19-050.5N	C11-22-032N	C11-22-030.5N	C11-2233-011N	C11-2233-012N	C11-2233-021N	C11-2233-032N
Parent Sample						C11-18-012N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 240	< 240	< 248	< 250	< 140	< 162	NA	NA	< 230	< 238	< 250	< 190
1,3-Dinitrobenzene	99-65-0	ug/kg	< 240	< 240	< 248	< 250	< 140	< 162	NA	NA	< 230	< 238	< 250	< 190
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 240	< 240	< 248	< 250	< 140	< 162	NA	NA	< 230	< 238	< 250	< 190
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 240	< 240	< 248	< 250	< 140	< 162	NA	NA	< 230	< 238	< 250	< 190
2-Nitrotoluene	88-72-2	ug/kg	< 480	< 480	< 495	< 500	< 280	< 323	NA	NA	< 450	< 476	< 500	< 370
3-Nitrotoluene	99-08-1	ug/kg	< 480	< 480	< 495	< 500	< 280	< 323	NA	NA	< 450	< 476	< 500	< 370
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 220	< 240	< 248	< 250	< 140	< 162	NA	NA	< 230	< 238	< 250	< 190
4-Nitrotoluene	99-99-0	ug/kg	< 480	< 480	< 495	< 500	< 280	< 323	NA	NA	< 450	< 476	< 500	< 370
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 240	620	< 248	< 250	< 140	< 162	NA	NA	< 230	< 238	< 250	< 190
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5000	< 4800	< 5940	< 5940	< 4700	< 6600	NA	NA	< 4900	7390	< 4700	< 5000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 480	< 480	< 495	< 500	< 280	< 323	NA	NA	< 450	< 476	< 500	< 370
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 480	< 480	< 495	< 500	< 280	< 323	NA	NA	< 450	< 476	< 500	< 370
Tetryl	479-45-8	ug/kg	< 480	< 480	< 495	< 500	< 280	< 323	NA	NA	< 450	< 476	< 500	< 370
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.4	< 0.56	< 0.547	< 0.664	< 0.48	0.7	NA	NA	< 0.48	< 0.621	< 0.45	< 0.46
Arsenic	7440-38-2	mg/kg	20.2	8.3	5.7	5.76	2.9	36.9	NA	NA	5.6	6.86	8.3	9.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.14	0.66	0.232	0.223	0.06	0.61	NA	NA	0.69	0.598	0.75	0.5
Cadmium	7440-43-9	mg/kg	0.11	< 0.33	0.436	0.46	< 0.29	0.59	NA	NA	< 0.29	0.716	< 0.27	0.14
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.2	22.5	12	12.2	2.4	18.1	NA	NA	14.2	15.9	16.1	13.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.9	27.3	12.5	12.9	2.9	29.4	NA	NA	20.5	17.3	23.5	13.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	2470	755	419	447	263	2110	NA	NA	660	961	246	297
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.61	0.16	0.095	0.105	4.5	0.58	NA	NA	0.09	0.086	0.08	0.06
Nickel	7440-02-0	mg/kg	3.1	8.9	5.13	4.92	0.87	10.5	NA	NA	8.2	9.36	9.1	6.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	5	< 0.56	0.707	1.14	< 0.48	1.1	NA	NA	< 0.48	0.744	0.64	< 0.46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C11-12-02 0.0-1.0 ft 11/10/1999 N C11-12-021N	C11-15-05 0.0-2.0 ft 11/10/1999 N C11-15-052N	C11-18-01 0.0-2.0 ft 6/30/2000 N C11-18-012N	C11-18-01 0.0-2.0 ft 6/30/2000 FD C11-18-012FD C11-18-012N	C11-18-02 0.0-2.0 ft 11/5/1999 N C11-18-022N	C11-19-05 0.0-0.5 ft 11/18/1999 N C11-19-050.5N	C11-22-03 0.0-2.0 ft 11/9/1999 N C11-22-032N	C11-22-03 0.5-1.0 ft 11/9/1999 N C11-22-030.5N	C11-2233-01 0.0-1.0 ft 11/10/1999 N C11-2233-011N	C11-2233-01 0.0-2.0 ft 7/19/2000 N C11-2233-012N	C11-2233-02 0.0-1.0 ft 11/10/1999 N C11-2233-021N	C11-2233-03 0.0-2.0 ft 11/10/1999 N C11-2233-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.47	< 0.33	< 0.274	< 0.332	0.13	0.15	NA	NA	0.13	< 0.31	< 0.27	< 0.28
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 1.1	< 0.912	< 1.11	< 0.96	< 0.99	NA	NA	< 0.96	< 1.03	0.58	< 0.93
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	32.6	66.7	34.1	33.3	11.8	194	NA	NA	179	361	71.2	70.5
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	8790	50500	NA	NA	3310	22900	8760	NA	NA	NA	NA	5460
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	11.4	NA	NA	2.8	4.9	14.4	NA	NA	NA	NA	13.1
Gravel	ARC-PGRAVEL	%	NA	17.5	NA	NA	16.3	30.1	15.8	NA	NA	NA	NA	15.2
Sand	ARC-PSAND	%	NA	38.9	NA	NA	68.8	52.4	44	NA	NA	NA	NA	53.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	32.2	NA	NA	12.1	12.6	25.9	NA	NA	NA	NA	18.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-23-02	C11-24-04	C11-27-02	C11-27-03	C11-30-01	C11-30-05	C11-4-02	C11-4-09	C11-4-13
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/9/1999	11/10/1999	11/9/1999	11/12/1999	11/12/1999	11/5/1999	11/5/1999	11/11/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-23-021N	C11-24-041N	C11-27-021N	C11-27-030.5N	C11-30-011N	C11-30-051N	C11-4-021N	C11-4-091.5N	C11-4-131N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-23-02	C11-24-04	C11-27-02	C11-27-03	C11-30-01	C11-30-05	C11-4-02	C11-4-09	C11-4-13
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/9/1999	11/10/1999	11/9/1999	11/12/1999	11/12/1999	11/5/1999	11/5/1999	11/11/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-23-021N	C11-24-041N	C11-27-021N	C11-27-030.5N	C11-30-011N	C11-30-051N	C11-4-021N	C11-4-091.5N	C11-4-131N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	< 1900	< 2300	< 1900	< 1900	< 1800	< 2000	NA	< 2000	< 2000	NA	< 2500	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 470	< 370	< 370	< 370	360	NA	< 400	< 410	NA	< 490	62
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 470	< 370	< 370	< 370	60	NA	< 400	< 410	NA	< 490	24
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2-Chlorophenol	95-57-8	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 740	< 940	< 750	< 750	< 730	< 810	NA	< 800	< 810	NA	< 980	< 850
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1900	< 2300	< 1900	< 1900	< 1800	< 2000	NA	< 2000	< 2000	NA	< 2500	< 2100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-23-02	C11-24-04	C11-27-02	C11-27-03	C11-30-01	C11-30-05	C11-4-02	C11-4-09	C11-4-13
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/9/1999	11/10/1999	11/9/1999	11/12/1999	11/12/1999	11/5/1999	11/5/1999	11/11/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-23-021N	C11-24-041N	C11-27-021N	C11-27-030.5N	C11-30-011N	C11-30-051N	C11-4-021N	C11-4-091.5N	C11-4-131N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1900	< 2300	< 1900	< 1900	< 1800	< 2000	NA	< 2000	< 2000	NA	< 2500	< 2100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Acenaphthylene	208-96-8	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 370	< 470	< 370	NA	< 370	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	87	72	< 370	< 370	36	92	NA	110	< 410	NA	< 490	120
Benzo[a]pyrene	50-32-8	ug/kg	92	85	< 370	< 370	37	80	NA	95	< 410	NA	56	130
Benzo[b]fluoranthene	205-99-2	ug/kg	120	110	< 370	< 370	< 370	150	NA	100	< 410	NA	< 490	300
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 370	NA	< 410	NA	< 400	< 410	NA	< 490	140
Benzo[k]fluoranthene	207-08-9	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	72
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	24	< 370	< 370	< 370	63	NA	< 400	< 410	NA	36	27
Butylbenzylphthalate	85-68-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	99	89	< 370	< 370	35	110	NA	96	< 410	NA	60	280
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Dimethylphthalate	131-11-3	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Di-n-butylphthalate	84-74-2	ug/kg	< 370	46	43	< 370	52	< 410	NA	< 400	< 410	NA	< 490	< 430
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Fluoranthene	206-44-0	ug/kg	160	110	< 370	< 370	< 370	130	NA	170	< 410	NA	< 490	100
Fluorene	86-73-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Hexachlorobenzene	118-74-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Hexachloroethane	67-72-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	120
Isophorone	78-59-1	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-23-02	C11-24-04	C11-27-02	C11-27-03	C11-30-01	C11-30-05	C11-4-02	C11-4-09	C11-4-13
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/9/1999	11/10/1999	11/9/1999	11/12/1999	11/12/1999	11/5/1999	11/5/1999	11/11/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-23-021N	C11-24-041N	C11-27-021N	C11-27-030.5N	C11-30-011N	C11-30-051N	C11-4-021N	C11-4-091.5N	C11-4-131N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Nitrobenzene	98-95-3	ug/kg	< 370	< 470	< 370	< 370	< 370	85	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Pentachlorophenol	87-86-5	ug/kg	< 1900	< 2300	< 1900	< 1900	< 1800	< 2000	NA	< 2000	< 2000	NA	< 2500	< 2100
Phenanthrene	85-01-8	ug/kg	47	43	< 370	< 370	< 370	72	NA	86	< 410	NA	< 490	41
Phenol	108-95-2	ug/kg	< 370	< 470	< 370	< 370	< 370	< 410	NA	< 400	< 410	NA	< 490	< 430
Pyrene	129-00-0	ug/kg	120	< 470	< 370	< 370	< 370	120	NA	160	< 410	NA	< 490	130
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-23-02	C11-24-04	C11-27-02	C11-27-03	C11-30-01	C11-30-05	C11-4-02	C11-4-09	C11-4-13
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/9/1999	11/10/1999	11/9/1999	11/12/1999	11/12/1999	11/5/1999	11/5/1999	11/11/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-23-021N	C11-24-041N	C11-27-021N	C11-27-030.5N	C11-30-011N	C11-30-051N	C11-4-021N	C11-4-091.5N	C11-4-131N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 210	< 150	< 150	< 240	< 230	< 240
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	240	< 150	< 150	510	< 230	< 240
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	< 210	< 150	< 150	< 240	< 230	< 240
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 210	NA	NA	< 240	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	180	< 150	< 150	< 240	< 230	< 240
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	130	< 300	< 310	< 480	< 450	< 480
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 300	< 310	< 480	< 450	< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	170	< 150	< 150	< 240	< 230	< 240
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 300	< 310	< 480	< 450	< 480
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	570	< 150	< 150	< 240	< 230	< 240
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	< 4700	< 4700	< 4900	< 4500	< 4800	< 4900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 300	< 310	< 480	< 450	< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 300	< 310	< 480	< 450	< 480
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 300	< 310	< 480	< 450	< 480
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.35	< 0.41	< 0.36	< 0.5	< 0.45	0.3	NA	< 0.48	< 0.49	NA	1.8	0.55
Arsenic	7440-38-2	mg/kg	8.9	7.4	9.3	6.6	5.7	7.3	NA	9.4	56.8	NA	11.5	11.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.61	0.61	0.63	0.63	0.61	0.27	NA	0.5	0.42	NA	0.49	0.21
Cadmium	7440-43-9	mg/kg	< 0.21	< 0.24	< 0.22	< 0.3	< 0.27	< 0.35	NA	< 0.29	< 0.29	NA	0.43	0.09
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.8	15.8	13.7	14.6	13.4	10.5	NA	16.4	16.2	NA	23.1	14.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	21.9	42.5	20.1	14.6	15.6	13.7	NA	18.6	20.7	NA	109	17.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	290	267	316	269	140	319	NA	126	176	NA	662	492
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.05	0.12	0.05	0.05	0.03	0.22	NA	0.12	0.05	NA	0.99	0.47
Nickel	7440-02-0	mg/kg	8.3	7.4	7.7	7.3	7.5	3.3	NA	7.9	5.9	NA	31.2	4.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.63	0.59	0.46	< 0.5	0.68	1	NA	1.8	17.3	NA	2.4	1.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-23-02	C11-24-04	C11-27-02	C11-27-03	C11-30-01	C11-30-05	C11-4-02	C11-4-09	C11-4-13
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			11/9/1999	11/9/1999	11/9/1999	11/10/1999	11/9/1999	11/12/1999	11/12/1999	11/5/1999	11/5/1999	11/11/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-23-021N	C11-24-041N	C11-27-021N	C11-27-030.5N	C11-30-011N	C11-30-051N	C11-4-021N	C11-4-091.5N	C11-4-131N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.21	< 0.24	0.08	< 0.3	< 0.27	0.13	NA	< 0.29	< 0.29	NA	0.6	0.12
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.69	< 0.82	< 0.72	< 1	< 0.91	< 1.2	NA	< 0.96	< 0.98	NA	< 1.2	< 1.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	66.4	139	119	58.8	52.9	26.5	NA	65	37.7	NA	235	67.8
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	5.84	7.38	7.38	NA	NA	NA	4.91	4.31	NA	5.99	5.85
Total Organic Carbon	ARC-TOC	mg/kg	9680	11600	NA	7670	8080	16900	NA	NA	33100	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	4.7	5.1	NA	11.8	6.1	12.2	NA	NA	7.8	NA	NA	NA
Gravel	ARC-PGRAVEL	%	25.2	30.6	NA	25.8	16.2	26	NA	NA	24.3	NA	NA	NA
Sand	ARC-PSAND	%	52.6	44.6	NA	43.7	58.9	39.6	NA	NA	36.5	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	17.5	19.7	NA	18.8	18.8	22.2	NA	NA	31.4	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-4-19	C11-4-20	C11-4A-01	C11-4A-02	C11-4B-01	C11-8-05	C11-9-04	C11-N3-02	C11-N3-03	C12-1-03	C12-1-04	C12-274-01	C12-274-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			11/11/1999	11/11/1999	11/5/1999	6/30/2000	11/5/1999	11/9/1999	11/18/1999	6/30/2000	11/10/1999	10/19/1999	10/19/1999	10/21/1999	10/21/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-4-192N	C11-4-201N	C11-4A-012N	C11-4A-022N	C11-4B-012N	C11-8-052N	C11-9-040.5N	C11-N3-021N	C11-N3-031N	C12-1-032N	C12-1-042N	C12-274-012N	C12-274-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-4-19	C11-4-20	C11-4A-01	C11-4A-02	C11-4B-01	C11-8-05	C11-9-04	C11-N3-02	C11-N3-03	C12-1-03	C12-1-04	C12-274-01	C12-274-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			11/11/1999	11/11/1999	11/5/1999	6/30/2000	11/5/1999	11/9/1999	11/18/1999	6/30/2000	11/10/1999	10/19/1999	10/19/1999	10/21/1999	10/21/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-4-192N	C11-4-201N	C11-4A-012N	C11-4A-022N	C11-4B-012N	C11-8-052N	C11-9-040.5N	C11-N3-021N	C11-N3-031N	C12-1-032N	C12-1-042N	C12-274-012N	C12-274-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
2,4-Dichlorophenol	120-83-2	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 1900	< 1900	< 782	< 2000	< 2100	< 2200	< 773	< 2000	< 1900	< 2100	< 2300	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 440	84	< 390	< 391	< 410	< 420	5100	< 387	< 410	< 370	< 420	< 450	60
2,6-Dinitrotoluene	606-20-2	ug/kg	< 440	73	< 390	< 391	< 410	< 420	720	< 387	< 410	< 370	< 420	< 450	< 430
2-Chloronaphthalene	91-58-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
2-Chlorophenol	95-57-8	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 440	< 390	< 390	NA	< 410	< 420	< 440	NA	< 410	< 370	< 420	< 450	< 430
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 391	NA	NA	NA	< 387	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 880	< 780	< 780	< 782	< 810	< 830	< 880	< 773	< 810	< 750	< 840	< 900	< 860
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2200	< 1900	< 1900	< 782	< 2000	< 2100	< 2200	< 773	< 2000	< 1900	< 2100	< 2300	< 2100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-4-19	C11-4-20	C11-4A-01	C11-4A-02	C11-4B-01	C11-8-05	C11-9-04	C11-N3-02	C11-N3-03	C12-1-03	C12-1-04	C12-274-01	C12-274-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			11/11/1999	11/11/1999	11/5/1999	6/30/2000	11/5/1999	11/9/1999	11/18/1999	6/30/2000	11/10/1999	10/19/1999	10/19/1999	10/21/1999	10/21/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-4-192N	C11-4-201N	C11-4A-012N	C11-4A-022N	C11-4B-012N	C11-8-052N	C11-9-040.5N	C11-N3-021N	C11-N3-031N	C12-1-032N	C12-1-042N	C12-274-012N	C12-274-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2200	< 1900	< 1900	NA	< 2000	< 2100	< 2200	NA	< 2000	< 1900	< 2100	< 2300	< 2100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 782	NA	NA	NA	< 773	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	180	< 387	< 410	< 370	< 420	< 450	< 430
Acenaphthylene	208-96-8	ug/kg	< 440	< 390	< 390	< 391	< 410	22	300	< 387	< 410	< 370	< 420	< 450	< 430
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 440	28	< 390	< 391	< 410	66	720	148	< 410	< 370	< 420	< 450	< 430
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	880	2200	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 440	180	< 390	< 391	< 410	640	3200	426	< 410	< 370	< 420	53	120
Benzo[a]pyrene	50-32-8	ug/kg	43	170	< 390	< 391	< 410	670	3200	320	< 410	< 370	< 420	55	120
Benzo[b]fluoranthene	205-99-2	ug/kg	< 440	210	< 390	< 391	< 410	810	3900	394	< 410	< 370	< 420	110	230
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 440	200	< 390	< 391	< 410	NA	NA	175	< 410	< 370	< 420	< 450	< 430
Benzo[k]fluoranthene	207-08-9	ug/kg	< 440	110	< 390	< 391	< 410	260	1200	111	< 410	< 370	< 420	< 450	100
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	30	35	< 390	< 391	210	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Butylbenzylphthalate	85-68-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	44	290	< 390	< 391	< 410	710	2800	384	< 410	< 370	< 420	81	190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 440	140	< 390	< 391	< 410	400	560	< 387	< 410	< 370	< 420	< 450	< 430
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Dimethylphthalate	131-11-3	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Di-n-butylphthalate	84-74-2	ug/kg	< 440	< 390	< 390	< 391	< 410	85	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Di-n-octylphthalate	117-84-0	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Fluoranthene	206-44-0	ug/kg	< 440	310	< 390	< 391	< 410	720	8500	786	< 410	< 370	< 420	< 450	130
Fluorene	86-73-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	190	< 387	< 410	< 370	< 420	< 450	< 430
Hexachlorobenzene	118-74-1	ug/kg	< 440	< 390	< 390	NA	< 410	< 420	< 440	NA	< 410	< 370	< 420	< 450	< 430
Hexachlorobutadiene	87-68-3	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Hexachloroethane	67-72-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 440	160	< 390	< 391	< 410	530	1900	150	< 410	< 370	< 420	< 450	< 430
Isophorone	78-59-1	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-4-19	C11-4-20	C11-4A-01	C11-4A-02	C11-4B-01	C11-8-05	C11-9-04	C11-N3-02	C11-N3-03	C12-1-03	C12-1-04	C12-274-01	C12-274-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			11/11/1999	11/11/1999	11/5/1999	6/30/2000	11/5/1999	11/9/1999	11/18/1999	6/30/2000	11/10/1999	10/19/1999	10/19/1999	10/21/1999	10/21/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-4-192N	C11-4-201N	C11-4A-012N	C11-4A-022N	C11-4B-012N	C11-8-052N	C11-9-040.5N	C11-N3-021N	C11-N3-031N	C12-1-032N	C12-1-042N	C12-274-012N	C12-274-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 440	52	< 390	< 391	< 410	< 420	83	< 387	< 410	< 370	< 420	< 450	41
Nitrobenzene	98-95-3	ug/kg	< 440	NA	< 390	< 391	< 410	< 420	5500	< 387	< 410	< 370	< 420	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Pentachlorophenol	87-86-5	ug/kg	< 2200	< 1900	< 1900	< 782	< 2000	< 2100	< 2200	< 773	< 2000	< 1900	< 2100	< 2300	< 2100
Phenanthrene	85-01-8	ug/kg	< 440	310	< 390	< 391	< 410	350	4800	565	< 410	< 370	< 420	< 450	56
Phenol	108-95-2	ug/kg	< 440	< 390	< 390	< 391	< 410	< 420	< 440	< 387	< 410	< 370	< 420	< 450	< 430
Pyrene	129-00-0	ug/kg	< 440	370	< 390	< 391	< 410	760	5800	783	< 410	< 370	< 420	< 450	370
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-4-19	C11-4-20	C11-4A-01	C11-4A-02	C11-4B-01	C11-8-05	C11-9-04	C11-N3-02	C11-N3-03	C12-1-03	C12-1-04	C12-274-01	C12-274-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			11/11/1999	11/11/1999	11/5/1999	6/30/2000	11/5/1999	11/9/1999	11/18/1999	6/30/2000	11/10/1999	10/19/1999	10/19/1999	10/21/1999	10/21/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-4-192N	C11-4-201N	C11-4A-012N	C11-4A-022N	C11-4B-012N	C11-8-052N	C11-9-040.5N	C11-N3-021N	C11-N3-031N	C12-1-032N	C12-1-042N	C12-274-012N	C12-274-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 220	< 200
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 220	< 200
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 220	< 200
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 220	< 200
2-Nitrotoluene	88-72-2	ug/kg	NA	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	< 400
3-Nitrotoluene	99-08-1	ug/kg	NA	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	< 400
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 220	< 200
4-Nitrotoluene	99-99-0	ug/kg	NA	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	< 400
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 220	< 200
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 4900	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4545.5	< 4878
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	< 400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	< 400
Tetryl	479-45-8	ug/kg	NA	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	< 400
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.8	0.58	< 0.47	< 0.697	0.85	3.2	27	< 0.497	< 0.5	< 0.43	2.3	< 0.46	< 0.43
Arsenic	7440-38-2	mg/kg	11.8	10.8	2.9	7.96	8.8	61.4	115	7.18	5.9	1.8	8.9	3.5	4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.32	0.28	0.2	0.104	0.24	0.12	0.45	0.496	0.73	0.6	0.65	0.58	0.58
Cadmium	7440-43-9	mg/kg	0.27	0.13	0.43	0.377	0.2	< 0.32	0.1	0.568	0.14	< 0.26	< 0.3	0.04	0.11
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	16.1	6.9	6.8	9.23	16.1	4.4	14.7	8.7	17.7	8.9	13.8	17.6	12.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	52.1	17.1	12.2	11.8	39.2	30.3	88.6	21.6	47.5	12.2	79.2	1930	19.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	2070	380	53.9	52	379	4930	11800	129	359	10.4	43.9	50.1	3770
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.24	0.21	0.03	0.323	0.17	1.5	10.3	0.099	0.11	< 0.03	0.08	0.13	0.09
Nickel	7440-02-0	mg/kg	36.7	6.9	8.4	9.68	11.9	2.6	6.3	5.4	10.8	7.3	12.5	7.7	15.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.4	1.1	0.64	0.767	1.7	9.2	5.9	0.724	< 0.5	< 0.43	< 0.5	0.16	0.48

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C11-4-19	C11-4-20	C11-4A-01	C11-4A-02	C11-4B-01	C11-8-05	C11-9-04	C11-N3-02	C11-N3-03	C12-1-03	C12-1-04	C12-274-01	C12-274-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			11/11/1999	11/11/1999	11/5/1999	6/30/2000	11/5/1999	11/9/1999	11/18/1999	6/30/2000	11/10/1999	10/19/1999	10/19/1999	10/21/1999	10/21/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C11-4-192N	C11-4-201N	C11-4A-012N	C11-4A-022N	C11-4B-012N	C11-8-052N	C11-9-040.5N	C11-N3-021N	C11-N3-031N	C12-1-032N	C12-1-042N	C12-274-012N	C12-274-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	0.46	0.28	< 0.28	< 0.349	< 0.33	0.7	1.6	< 0.249	0.11	< 0.26	< 0.3	< 0.27	0.1
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 1.2	< 0.94	< 1.16	< 1.1	< 1.1	< 0.97	< 0.829	0.61	< 0.87	< 1	< 0.92	< 0.85
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	142	42.9	123	101	117	13.8	266	33.1	124	47.8	106	43.4	144
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	7.68	5.84	5.11	NA	5.89	4.01	NA	NA	NA	5.51	5	5.96	7.59
Total Organic Carbon	ARC-TOC	mg/kg	44700	NA	99800	NA	108000	44600	42800	NA	147000	7430	NA	7960	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	7.6	NA	1.7	NA	2.2	8.7	7.3	NA	7.6	8	NA	11.9	NA
Gravel	ARC-PGRAVEL	%	41.2	NA	47.7	NA	34.5	27.6	18.7	NA	44.9	22.3	NA	19.2	NA
Sand	ARC-PSAND	%	34.8	NA	42	NA	46	30.6	49.6	NA	29.3	58.8	NA	36.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	16.5	NA	8.6	NA	17.3	33.1	24.4	NA	18.2	10.9	NA	32.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C12-275-01 0.0-2.0 ft 6/22/2000 N C12-275-012N	C12-275-02 0.0-2.0 ft 10/20/1999 N C12-275-022N	C12-275-02 0.0-2.0 ft 10/20/1999 FD C12-275-022FD C12-275-022N	C12-3-03 0.0-2.0 ft 10/19/1999 N C12-3-032N	C12-4-01 0.0-2.0 ft 10/19/1999 N C12-4-012N	C12-418-01 0.0-2.0 ft 9/27/2000 N C12-418-012N	C12-5-02 0.0-2.0 ft 10/20/1999 N C12-5-022N	C12-8229-01 0.0-2.0 ft 6/22/2000 N C12-8229-012N	C12-8229-03 0.0-2.0 ft 10/20/1999 N C12-8229-032N	C13-1-01 0.0-2.0 ft 11/2/1999 N C13-1-012N	C13-1-08 0.0-2.0 ft 11/2/1999 N C13-1-082N	C13-1-11 0.0-2.0 ft 11/2/1999 N C13-1-112N	C13-2-01 0.0-2.0 ft 10/29/1999 N C13-2-012N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C12-275-01 0.0-2.0 ft 6/22/2000 N C12-275-012N	C12-275-02 0.0-2.0 ft 10/20/1999 N C12-275-022N	C12-275-02 0.0-2.0 ft 10/20/1999 FD C12-275-022FD C12-275-022N	C12-3-03 0.0-2.0 ft 10/19/1999 N C12-3-032N	C12-4-01 0.0-2.0 ft 10/19/1999 N C12-4-012N	C12-418-01 0.0-2.0 ft 9/27/2000 N C12-418-012N	C12-5-02 0.0-2.0 ft 10/20/1999 N C12-5-022N	C12-8229-01 0.0-2.0 ft 6/22/2000 N C12-8229-012N	C12-8229-03 0.0-2.0 ft 10/20/1999 N C12-8229-032N	C13-1-01 0.0-2.0 ft 11/2/1999 N C13-1-012N	C13-1-08 0.0-2.0 ft 11/2/1999 N C13-1-082N	C13-1-11 0.0-2.0 ft 11/2/1999 N C13-1-112N	C13-2-01 0.0-2.0 ft 10/29/1999 N C13-2-012N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
2,4-Dichlorophenol	120-83-2	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	< 820.108	< 2200	< 2100	< 2200	< 1900	< 792	< 2000	< 766.458	< 2000	< 1900	< 2000	< 2000	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	56.59	< 440	53	< 430	< 390	< 396	< 390	< 383	< 400	< 390	< 400	< 410	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 440	< 420	< 430	< 390	< 396	< 390	< 383	< 400	< 390	< 400	< 410	< 390
2-Chloronaphthalene	91-58-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
2-Chlorophenol	95-57-8	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 440	< 420	< 430	< 390	< 396	< 390	NA	< 400	< 390	< 400	< 410	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 383.229	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 820.108	< 880	< 840	< 860	< 780	< 792	< 790	< 766.458	< 800	< 770	< 790	< 810	< 780
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 820.108	< 2200	< 2100	< 2200	< 1900	< 792	< 2000	< 766.458	< 2000	< 1900	< 2000	< 2000	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C12-275-01 0.0-2.0 ft 6/22/2000 N C12-275-012N	C12-275-02 0.0-2.0 ft 10/20/1999 N C12-275-022N	C12-275-02 0.0-2.0 ft 10/20/1999 FD C12-275-022FD C12-275-022N	C12-3-03 0.0-2.0 ft 10/19/1999 N C12-3-032N	C12-4-01 0.0-2.0 ft 10/19/1999 N C12-4-012N	C12-418-01 0.0-2.0 ft 9/27/2000 N C12-418-012N	C12-5-02 0.0-2.0 ft 10/20/1999 N C12-5-022N	C12-8229-01 0.0-2.0 ft 6/22/2000 N C12-8229-012N	C12-8229-03 0.0-2.0 ft 10/20/1999 N C12-8229-032N	C13-1-01 0.0-2.0 ft 11/2/1999 N C13-1-012N	C13-1-08 0.0-2.0 ft 11/2/1999 N C13-1-082N	C13-1-11 0.0-2.0 ft 11/2/1999 N C13-1-112N	C13-2-01 0.0-2.0 ft 10/29/1999 N C13-2-012N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2200	< 2100	< 2200	< 1900	< 792	< 2000	NA	< 2000	< 1900	< 2000	< 2000	< 2000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 766.458	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 410.054	< 440	< 420	33	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Acenaphthylene	208-96-8	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 410.054	< 440	< 420	91	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	28
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 410.054	< 440	< 420	440	< 390	< 396	< 390	262	< 400	< 390	< 400	< 410	110
Benzo[a]pyrene	50-32-8	ug/kg	< 410.054	< 440	< 420	380	< 390	< 396	< 390	243	< 400	< 390	< 400	< 410	130
Benzo[b]fluoranthene	205-99-2	ug/kg	< 410.054	< 440	< 420	530	< 390	< 396	< 390	626	< 400	< 390	< 400	< 410	130
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 410.054	< 440	< 420	170	< 390	< 396	< 390	121	< 400	< 390	< 400	< 410	< 390
Benzo[k]fluoranthene	207-08-9	ug/kg	< 410.054	< 440	< 420	240	< 390	< 396	< 390	169	< 400	< 390	< 400	< 410	46
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	25.8	< 390	< 383.229	< 400	150	30	< 410	44
Butylbenzylphthalate	85-68-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 410.054	< 440	< 420	420	< 390	< 396	< 390	506	< 400	< 390	< 400	< 410	78
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	37	41
Dimethylphthalate	131-11-3	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Di-n-butylphthalate	84-74-2	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	45	57	85	< 390
Di-n-octylphthalate	117-84-0	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Fluoranthene	206-44-0	ug/kg	< 410.054	< 440	< 420	1000	< 390	< 396	< 390	399	< 400	< 390	< 400	< 410	170
Fluorene	86-73-7	ug/kg	< 410.054	< 440	< 420	52	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Hexachlorobenzene	118-74-1	ug/kg	NA	< 440	< 420	< 430	< 390	< 396	< 390	NA	< 400	< 390	< 400	< 410	< 390
Hexachlorobutadiene	87-68-3	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Hexachloroethane	67-72-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 410.054	< 440	< 420	170	< 390	< 396	< 390	117	< 400	< 390	< 400	< 410	75
Isophorone	78-59-1	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C12-275-01	C12-275-02	C12-275-02	C12-3-03	C12-4-01	C12-418-01	C12-5-02	C12-8229-01	C12-8229-03	C13-1-01	C13-1-08	C13-1-11	C13-2-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/22/2000	10/20/1999	10/20/1999	10/19/1999	10/19/1999	9/27/2000	10/20/1999	6/22/2000	10/20/1999	11/2/1999	11/2/1999	11/2/1999	10/29/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			C12-275-012N	C12-275-022N	C12-275-022FD	C12-3-032N	C12-4-012N	C12-418-012N	C12-5-022N	C12-8229-012N	C12-8229-032N	C13-1-012N	C13-1-082N	C13-1-112N	C13-2-012N
Parent Sample					C12-275-022N										
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 430	< 390	NA	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Pentachlorophenol	87-86-5	ug/kg	< 820.108	< 2200	< 2100	< 2200	< 1900	< 792	< 2000	< 766.458	< 2000	< 1900	< 2000	< 2000	< 2000
Phenanthrene	85-01-8	ug/kg	< 410.054	< 440	< 420	740	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	99
Phenol	108-95-2	ug/kg	< 410.054	< 440	< 420	< 430	< 390	< 396	< 390	< 383.229	< 400	< 390	< 400	< 410	< 390
Pyrene	129-00-0	ug/kg	< 410.054	< 440	< 420	830	< 390	< 396	< 390	427	< 400	< 390	< 400	< 410	180
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C12-275-01	C12-275-02	C12-275-02	C12-3-03	C12-4-01	C12-418-01	C12-5-02	C12-8229-01	C12-8229-03	C13-1-01	C13-1-08	C13-1-11	C13-2-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/22/2000	10/20/1999	10/20/1999	10/19/1999	10/19/1999	9/27/2000	10/20/1999	6/22/2000	10/20/1999	11/2/1999	11/2/1999	11/2/1999	10/29/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			C12-275-012N	C12-275-022N	C12-275-022FD	C12-3-032N	C12-4-012N	C12-418-012N	C12-5-022N	C12-8229-012N	C12-8229-032N	C13-1-012N	C13-1-082N	C13-1-112N	C13-2-012N
Parent Sample					C12-275-022N										
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 238.1	< 220	< 230	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 238.1	< 220	< 230	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	162	760	< 230	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	328	560	< 230	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 476.2	< 430	< 450	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 476.2	< 430	< 450	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	104	< 180	< 230	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 476.2	< 430	< 450	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 238.1	< 220	< 230	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 6000.798	< 4651.2	< 4444.4	NA	NA	< 5700	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 476.2	< 430	< 450	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 476.2	< 430	< 450	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 476.2	< 430	< 450	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.488807	< 0.57	< 0.53	< 28.8	< 0.52	< 0.704	< 23.6	< 0.615905	< 0.52	< 0.46	< 0.51	< 0.5	< 0.44
Arsenic	7440-38-2	mg/kg	3.51	4	4.5	< 28.8	2.4	5.63	< 23.6	4.68	3.3	4.9	5.1	5	4.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.617	0.73	0.85	< 17.3	0.45	0.79	0.86	0.513	0.62	0.68	0.84	0.81	0.79
Cadmium	7440-43-9	mg/kg	0.318	1.8	1.7	2.2	< 0.31	0.155	1.9	< 0.307953	< 0.31	1	0.56	1	0.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.3	19.9	14.7	13.3	11.8	24.5	32	12.1	13.7	19	22	17.6	19.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	23.2	16.6	17	130	10.3	16.6	47000	16.4	10.9	438	54.3	13.3	19.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	61.2	42.8	70.5	93300	1360	56.1	1630	20.7	11.5	51.7	13.6	24	159
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.091	0.03	0.06	2.1	0.08	0.046	0.04	0.113	0.06	0.03	0.04	0.06	0.28
Nickel	7440-02-0	mg/kg	7.51	8.1	6.3	11.3	5.4	7.73	205	6.06	7.4	9.7	9.5	8	8.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.626	< 0.57	0.96	< 28.8	< 0.52	< 0.586	7	< 0.513254	< 0.52	0.7	0.88	0.52	0.46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C12-275-01	C12-275-02	C12-275-02	C12-3-03	C12-4-01	C12-418-01	C12-5-02	C12-8229-01	C12-8229-03	C13-1-01	C13-1-08	C13-1-11	C13-2-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/22/2000	10/20/1999	10/20/1999	10/19/1999	10/19/1999	9/27/2000	10/20/1999	6/22/2000	10/20/1999	11/2/1999	11/2/1999	11/2/1999	10/29/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			C12-275-012N	C12-275-022N	C12-275-022FD	C12-3-032N	C12-4-012N	C12-418-012N	C12-5-022N	C12-8229-012N	C12-8229-032N	C13-1-012N	C13-1-082N	C13-1-112N	C13-2-012N
Parent Sample					C12-275-022N										
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.244403	< 0.34	< 0.32	< 17.3	< 0.31	< 0.352	6.3	< 0.307953	< 0.31	< 0.28	< 0.3	< 0.3	< 0.26
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.814678	< 1.1	< 1.1	< 57.7	< 1	< 1.17	< 47.2	< 1.026509	< 1	< 0.93	< 1	< 1	< 0.88
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	384	444	282	2880	109	139	3000	49.5	48.6	960	189	196	196
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	6.57	5.42	NA	5.72	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	3340	NA	42400	13900	NA	7000	NA	10600	5390	NA	NA	23700
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	18.8	NA	12.5	10.3	NA	17.2	NA	9.8	10.9	NA	NA	14.4
Gravel	ARC-PGRAVEL	%	NA	7.5	NA	12.8	16.5	NA	15.4	NA	20.1	23.6	NA	NA	21.2
Sand	ARC-PSAND	%	NA	42.2	NA	48.6	59.8	NA	47.1	NA	52.5	34.9	NA	NA	36
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	31.4	NA	26.2	13.4	NA	20.3	NA	17.6	30.6	NA	NA	28.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-01	C13-2-02	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			10/29/1999	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C13-2-012FD	C13-2-022N	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N
Parent Sample			C13-2-012N													
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-01	C13-2-02	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			10/29/1999	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C13-2-012FD	C13-2-022N	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N
Parent Sample			C13-2-012N													
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds (cont.)																
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 81	< 2500	< 79	< 81	< 83	< 81	< 2000	< 20000	< 80	< 82	< 83	< 20000	< 81
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 410	< 510	< 400	< 410	< 420	< 410	< 400	< 4000	< 400	< 410	< 420	< 4100	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 410	< 510	< 400	< 410	< 420	< 410	< 400	< 4000	< 400	< 410	< 420	< 4100	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2-Chlorophenol	95-57-8	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 800	< 81	< 1000	< 79	< 81	< 83	< 81	< 790	< 7900	< 80	< 82	< 83	< 8100	< 81
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 81	< 2500	< 79	< 81	< 83	< 81	< 2000	< 20000	< 80	< 82	< 83	< 20000	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-01	C13-2-02	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			10/29/1999	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C13-2-012FD	C13-2-022N	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N
Parent Sample			C13-2-012N													
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 81	< 2500	< 79	< 81	< 83	< 81	< 2000	< 20000	< 80	< 82	< 83	< 20000	< 81
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Acenaphthylene	208-96-8	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	35	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	110	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	59
Benzo[a]pyrene	50-32-8	ug/kg	120	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	61
Benzo[b]fluoranthene	205-99-2	ug/kg	140	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Benzo[k]fluoranthene	207-08-9	ug/kg	47	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	35	< 41	26	< 40	< 41	20	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	43
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	99	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	41
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 41	< 510	< 40	48	< 42	55	< 400	1100	< 40	120	< 42	480	110
Dimethylphthalate	131-11-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Di-n-butylphthalate	84-74-2	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	130	< 400	370	81	150	100	< 4100	160
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Fluoranthene	206-44-0	ug/kg	220	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	80
Fluorene	86-73-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Hexachloroethane	67-72-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Isophorone	78-59-1	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-01	C13-2-02	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			10/29/1999	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C13-2-012FD	C13-2-022N	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N
Parent Sample			C13-2-012N													
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
Naphthalene	91-20-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Nitrobenzene	98-95-3	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	NA	< 40	< 41	< 42	NA	< 41
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	910	< 40	220	< 42	890	100
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 81	< 2500	< 79	< 81	< 83	< 81	< 2000	< 20000	< 80	< 82	< 83	< 20000	< 81
Phenanthrene	85-01-8	ug/kg	140	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Phenol	108-95-2	ug/kg	< 400	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Pyrene	129-00-0	ug/kg	230	< 41	< 510	< 40	< 41	< 42	< 41	< 400	< 4000	< 40	< 41	< 42	< 4100	< 41
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls																
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-01	C13-2-02	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			10/29/1999	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C13-2-012FD	C13-2-022N	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N
Parent Sample			C13-2-012N													
CONSTITUENT	***CAS NO.***	***UNITS***														
Explosives and Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	< 220	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	< 220	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	< 220	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	< 220	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 480	NA	NA	NA	< 430	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 480	NA	NA	NA	< 430	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	< 220	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 480	NA	NA	NA	< 430	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	< 220	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	3170000	NA	NA	NA	1100000	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	12000	NA	NA	NA	15000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 480	NA	NA	NA	< 430	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 480	NA	NA	NA	< 430	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 480	NA	NA	NA	< 430	NA
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.51	< 0.6	< 0.41	< 0.6	< 0.6	< 0.7	< 0.6	< 0.51	< 0.51	< 0.6	< 0.6	< 0.7	< 0.52	< 0.6
Arsenic	7440-38-2	mg/kg	4	3.7	4.1	4.7	3.1	4.4	4.3	3.8	3.7	4.3	4.2	3.5	4.5	4.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.83	0.89	0.89	0.8	0.59	0.79	0.63	0.78	0.81	0.89	0.81	0.79	0.75	0.71
Cadmium	7440-43-9	mg/kg	0.38	0.7	0.44	0.91	0.58	0.77	0.71	0.47	0.5	0.91	0.81	0.79	0.29	0.74
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.7	14	14.9	20	14.7	19.6	16.3	15	16.1	23.7	17.3	15.8	14.6	16.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	17.1	9.9	11.6	17.2	10.9	11.5	10.8	14.7	18	18.7	16.5	12.4	18.1	14.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	144	12.1	24.4	14.8	8.9	12.4	8.1	13	28.2	11.2	23.8	11	29.5	23.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.29	< 0	0.04	< 0	< 0	< 0	< 0	0.04	0.06	< 0	< 0	< 0	0.07	< 0
Nickel	7440-02-0	mg/kg	8.4	7.2	7.1	7.5	7.2	8.6	6.2	7	7.7	11.7	9.8	6.3	7.9	9.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.63	1	0.69	1.4	0.85	1.3	1.1	0.48	< 0.51	1.2	0.86	0.73	0.72	0.84

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-01	C13-2-02	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			10/29/1999	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C13-2-012FD	C13-2-022N	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N
Parent Sample			C13-2-012N													
CONSTITUENT	***CAS NO.***	***UNITS***														
Metals (cont.)																
Silver	7440-22-4	mg/kg	< 0.31	< 0.3	< 0.25	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.31	< 0.3	< 0.3	< 0.3	< 0.31	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 0.83	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	204	54.1	54.7	72.3	40.7	61.3	39.8	54.4	78.3	64	83.3	48.3	73.3	69.6
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	18300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution																
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD
Parent Sample														C13-742-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD
Parent Sample														C13-742-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	< 79	< 81	< 81	< 78	< 80	< 1700	< 1800	< 1800	< 37000	< 2300	< 2000	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 410	< 410	< 390	< 400	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 410	< 410	< 390	< 400	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2-Chlorophenol	95-57-8	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 79	< 81	< 81	< 78	< 80	< 690	< 710	< 710	< 15000	< 900	< 800	< 820
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 79	< 81	< 81	< 78	< 80	< 1700	< 1800	< 1800	< 37000	< 2300	< 2000	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD
Parent Sample														C13-742-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 79	< 81	< 81	< 78	< 80	< 1700	< 1800	< 1800	< 37000	< 2300	< 2000	< 2000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Acenaphthylene	208-96-8	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	1200	< 450	< 400	< 410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 40	< 41	< 41	38	< 40	< 350	< 350	< 350	13000	< 450	< 400	< 410
Benzo[a]pyrene	50-32-8	ug/kg	< 40	< 41	< 41	31	< 40	< 350	< 350	< 350	9700	< 450	< 400	< 410
Benzo[b]fluoranthene	205-99-2	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	14000	< 450	< 400	< 410
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	6100	< 450	< 400	< 410
Benzo[k]fluoranthene	207-08-9	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	4500	< 450	< 400	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 40	< 41	24	< 39	< 40	41	< 350	32	< 7400	< 450	26	26
Butylbenzylphthalate	85-68-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	9900	< 450	< 400	< 410
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	2200	< 450	< 400	< 410
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 40	< 41	110	< 39	120	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Dimethylphthalate	131-11-3	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Di-n-butylphthalate	84-74-2	ug/kg	< 40	< 41	78	< 39	< 40	110	110	< 350	< 7400	< 450	< 400	< 410
Di-n-octylphthalate	117-84-0	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Fluoranthene	206-44-0	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	17000	< 450	< 400	< 410
Fluorene	86-73-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Hexachlorobenzene	118-74-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Hexachlorobutadiene	87-68-3	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Hexachloroethane	67-72-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	6000	< 450	< 400	< 410
Isophorone	78-59-1	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD
Parent Sample														C13-742-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Nitrobenzene	98-95-3	ug/kg	< 40	< 41	< 41	< 39	< 40	NA	NA	< 350	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 40	< 41	210	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Pentachlorophenol	87-86-5	ug/kg	< 79	< 81	< 81	< 78	< 80	< 1700	< 1800	< 1800	< 37000	< 2300	< 2000	< 2000
Phenanthrene	85-01-8	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	4800	< 450	< 400	< 410
Phenol	108-95-2	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	< 7400	< 450	< 400	< 410
Pyrene	129-00-0	ug/kg	< 40	< 41	< 41	< 39	< 40	< 350	< 350	< 350	13000	< 450	< 400	< 410
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD
Parent Sample														C13-742-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 220	< 240	NA	< 220	< 250	< 230	< 220
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 220	< 240	NA	< 220	< 250	< 230	< 220
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	< 220	< 240	NA	< 220	< 250	< 230	< 220
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	< 220	< 240	NA	< 220	< 250	< 230	< 220
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 430	< 480	NA	< 430	< 500	< 450	< 430
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 430	< 480	NA	< 430	< 500	< 450	< 430
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	< 220	< 240	NA	< 220	< 250	< 230	< 220
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 430	< 480	NA	< 430	< 500	< 450	< 430
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 220	< 240	NA	< 220	< 250	< 230	< 220
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	< 4878	< 4651.2	NA	< 4878	< 4900	< 5000	< 4800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 430	< 480	NA	< 430	< 500	< 450	< 430
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 430	< 480	NA	< 430	< 500	< 450	< 430
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 430	< 480	NA	< 430	< 500	< 450	< 430
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.7	< 0.7	< 0.6	< 0.7	< 0.42	< 0.49	< 0.43	< 0.92	< 0.36	< 0.46	< 0.47
Arsenic	7440-38-2	mg/kg	3.6	4.5	2.9	3.9	4.3	22.7	2	2.5	11.4	3.8	4.3	4.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.7	0.81	0.76	0.68	0.73	0.39	0.77	0.46	0.92	0.69	0.8	0.81
Cadmium	7440-43-9	mg/kg	0.75	0.84	0.69	0.7	0.56	< 0.25	< 0.29	< 0.26	10.8	< 0.21	0.38	0.42
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.5	20.8	16	16.4	17.3	31.8	13.5	8.6	31.1	14.9	17.2	15.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.5	14.3	14.3	12.5	11.1	24.8	24.6	18.6	71.3	11.2	10.7	11.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	14.1	13.2	13.7	126	11.3	51.9	13.2	25.3	13500	14.5	11.2	16.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0	< 0	< 0	< 0	< 0	0.08	0.03	0.03	0.36	0.07	0.05	0.05
Nickel	7440-02-0	mg/kg	8.7	9.4	7.8	6.6	7.9	4.8	10.5	6.3	8	7.3	8.6	7.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.84	1	0.79	1.1	0.95	0.36	0.46	0.3	0.99	0.97	0.77	0.62

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD
Parent Sample														C13-742-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.25	< 0.29	< 0.26	0.81	< 0.21	< 0.27	< 0.28
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	< 1	< 1	< 0.84	< 0.97	< 0.87	< 1.8	< 0.71	< 0.91	< 0.93
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	48.6	63.7	67.7	50.8	56.1	132	77.9	101	986	54.8	51.1	53.6
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	6.88	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	13700	1190	12800	212000	9950	15600	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	2	0.2	0.2	0.2	12	21.4	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	61.8	41.7	34.6	51.1	29.9	18.8	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	32.7	55.8	62.5	43.5	35.7	37.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	3.4	2.3	2.6	5.2	22.4	22.7	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999
Parent Sample						C14-1-052N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999
Parent Sample						C14-1-052N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 750.878	< 1800	< 1900	< 2000	< 784.498	< 2000	< 760.772	< 2100	< 2000	< 858553.2	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	190	< 360	< 390	< 410	< 392	< 390	< 380	< 410	< 400	6250000	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	< 375	< 360	< 390	< 410	< 392	< 390	< 380	< 410	< 400	305000	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
2-Chlorophenol	95-57-8	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	NA	< 360	< 390	< 410	NA	< 390	NA	< 410	< 400	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 375.439	NA	NA	NA	< 392.249	NA	< 380.386	NA	NA	< 429276.6	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 750.878	< 720	< 780	< 810	< 784.498	< 780	< 760.772	< 820	< 800	< 858553.2	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 750.878	< 1800	< 1900	< 2000	< 784.498	< 2000	< 760.772	< 2100	< 2000	< 858553.2	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999
Parent Sample						C14-1-052N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	NA	< 1800	< 1900	< 2000	NA	< 2000	NA	< 2100	< 2000	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 750.878	NA	NA	NA	< 784.498	NA	< 760.772	NA	NA	< 858553.2	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Acenaphthylene	208-96-8	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	38	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Dimethylphthalate	131-11-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	105	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Fluoranthene	206-44-0	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Fluorene	86-73-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Hexachlorobenzene	118-74-1	ug/kg	< 390	NA	< 360	< 390	< 410	NA	< 390	NA	< 410	< 400	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Hexachloroethane	67-72-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Isophorone	78-59-1	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999
Parent Sample						C14-1-052N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	NA	< 360	< 390	< 410	NA	< 390	NA	< 410	< 400	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 750.878	< 1800	< 1900	< 2000	< 784.498	< 2000	< 760.772	< 2100	< 2000	< 858553.2	NA
Phenanthrene	85-01-8	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Phenol	108-95-2	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Pyrene	129-00-0	ug/kg	< 390	< 375.439	< 360	< 390	< 410	< 392.249	< 390	< 380.386	< 410	< 400	< 429276.6	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999
Parent Sample						C14-1-052N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
1,3-Dinitrobenzene	99-65-0	ug/kg	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
2-Nitrotoluene	88-72-2	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
3-Nitrotoluene	99-08-1	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
4-Nitrotoluene	99-99-0	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230000
Nitroglycerin	55-63-0	ug/kg	< 5000	< 375.439	NA	NA	NA	< 392.249	NA	< 380.386	NA	NA	< 429276.6	< 7905.1
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
Tetryl	479-45-8	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.5	< 0.627817	< 0.5	< 0.64	< 0.56	< 0.653749	< 0.52	< 0.669184	< 0.39	0.23	< 0.742979	NA
Arsenic	7440-38-2	mg/kg	3.8	5.29	2.4	4.6	3.3	2.14	3.3	4.1	4.1	5.1	4.35	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.78	0.567	0.56	0.49	0.65	0.546	0.58	0.678	0.61	0.63	0.426	NA
Cadmium	7440-43-9	mg/kg	0.39	1.11	< 0.32	< 0.38	< 0.34	0.851	< 0.31	0.835	0.83	< 0.3	0.718	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.5	17.4	10	9.4	13.5	14.6	10.9	14.9	11.3	16.3	14.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.7	20.1	11.7	11.4	14.2	12.9	13.3	15.3	16.7	18.6	134	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	18.2	30	19.2	208	48.6	8.38	220	20.9	311	67	86.9	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.106	0.03	0.04	2.7	0.054	1.2	0.08	0.18	0.75	0.124	NA
Nickel	7440-02-0	mg/kg	8.9	10.7	6.9	6.4	6.3	6.41	6.4	6.99	8.3	10.9	7.33	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.66	1.16	0.78	0.8	1.4	0.737	1.3	1.25	0.84	1.4	0.715	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999
Parent Sample						C14-1-052N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.313909	< 0.3	< 0.38	< 0.34	< 0.326874	< 0.31	< 0.334592	< 0.23	< 0.3	< 0.371489	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.99	< 1.046362	< 1	< 1.3	< 1.1	< 1.089581	< 1	< 1.115306	< 0.78	< 1	< 1.238298	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	54.3	63.5	47	75.6	50.8	69.8	54.9	84.1	145	44.9	42.2	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	6190	NA	16000	NA	20000	NA	62500	34200	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	5.4	NA	11.9	NA	21.8	NA	9	11.2	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	51.2	NA	24.7	NA	15.2	NA	42.9	36.8	NA	NA
Sand	ARC-PSAND	%	NA	NA	34.7	NA	43.9	NA	34.1	NA	35.6	33	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	8.8	NA	19.6	NA	28.8	NA	12.6	19	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03	D10-11-03	D10-14-03	D10-14-05	D10-15-03
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000	7/21/2000	6/29/2000	11/16/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N	D10-11-030.5N	D10-14-032N	D10-14-051N	D10-15-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	< 1106	NA	NA	< 1060	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	< 2212	NA	NA	< 2120	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 5300	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	< 1106	NA	NA	< 1060	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	< 1106	NA	NA	< 1060	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	< 1106	NA	NA	< 1060	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03	D10-11-03	D10-14-03	D10-14-05	D10-15-03
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000	7/21/2000	6/29/2000	11/16/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N	D10-11-030.5N	D10-14-032N	D10-14-051N	D10-15-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 2120	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	< 553	NA	NA	< 530	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	< 1106	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
1,2-Dichlorobenzene	95-50-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
1,4-Dichlorobenzene	106-46-7	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
2,4-Dichlorophenol	120-83-2	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
2,4-Dimethylphenol	105-67-9	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	< 2700	NA	< 1900	< 2000	< 1900	NA	< 2100	< 773	NA	< 743.304	< 1800	< 1800
2,4-Dinitrotoluene	121-14-2	ug/kg	< 550	NA	43	< 390	< 380	NA	< 420	< 386	NA	< 372	81	< 350
2,6-Dinitrotoluene	606-20-2	ug/kg	< 550	NA	190	< 390	< 380	NA	< 420	< 386	NA	< 372	55	< 350
2-Chloronaphthalene	91-58-7	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
2-Chlorophenol	95-57-8	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	NA	< 370	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 371.652	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 1100	NA	< 780	< 780	< 760	NA	< 830	< 773	NA	< 743.304	< 730	< 710
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2700	NA	< 1900	< 2000	< 1900	NA	< 2100	< 773	NA	< 743.304	< 1800	< 1800
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03	D10-11-03	D10-14-03	D10-14-05	D10-15-03
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000	7/21/2000	6/29/2000	11/16/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N	D10-11-030.5N	D10-14-032N	D10-14-051N	D10-15-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2700	NA	< 1900	< 2000	< 1900	NA	< 2100	< 773	NA	NA	< 1800	< 1800
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 743.304	NA	NA
Acenaphthene	83-32-9	ug/kg	30	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Acenaphthylene	208-96-8	ug/kg	50	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	68	NA	43	25	< 380	NA	< 420	< 386	NA	< 371.652	< 370	40
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	300	NA	240	200	< 380	NA	< 420	< 386	NA	< 371.652	< 370	96
Benzo[a]pyrene	50-32-8	ug/kg	280	NA	230	130	< 380	NA	< 420	< 386	NA	< 371.652	< 370	84
Benzo[b]fluoranthene	205-99-2	ug/kg	390	NA	300	140	< 380	NA	< 420	< 386	NA	< 371.652	< 370	110
Benzo[g,h,i]perylene	191-24-2	ug/kg	330	NA	110	130	< 380	NA	< 420	< 386	NA	< 371.652	< 370	97
Benzo[k]fluoranthene	207-08-9	ug/kg	100	NA	160	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	90	NA	37	130	52	NA	71	30.5	NA	140	45	700
Butylbenzylphthalate	85-68-7	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	310
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	310	NA	240	140	< 380	NA	< 420	< 386	NA	< 371.652	< 370	99
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	81
Dimethylphthalate	131-11-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Di-n-butylphthalate	84-74-2	ug/kg	< 550	NA	< 390	< 390	< 380	NA	45	< 386	NA	< 371.652	< 370	67
Di-n-octylphthalate	117-84-0	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Fluoranthene	206-44-0	ug/kg	570	NA	500	330	< 380	NA	< 420	< 386	NA	< 371.652	< 370	190
Fluorene	86-73-7	ug/kg	35	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Hexachlorobenzene	118-74-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	NA	< 370	< 350
Hexachlorobutadiene	87-68-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Hexachloroethane	67-72-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	210	NA	100	96	< 380	NA	< 420	< 386	NA	< 371.652	< 370	85
Isophorone	78-59-1	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03	D10-11-03	D10-14-03	D10-14-05	D10-15-03
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000	7/21/2000	6/29/2000	11/16/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N	D10-11-030.5N	D10-14-032N	D10-14-051N	D10-15-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Nitrobenzene	98-95-3	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
N-Nitrosodimethylamine	62-75-9	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	NA	< 370	< 350
Pentachlorophenol	87-86-5	ug/kg	< 2700	NA	< 1900	< 2000	< 1900	NA	< 2100	< 773	NA	< 743.304	< 1800	< 1800
Phenanthrene	85-01-8	ug/kg	410	NA	100	46	< 380	NA	37	< 386	NA	< 371.652	< 370	180
Phenol	108-95-2	ug/kg	< 550	NA	< 390	< 390	< 380	NA	< 420	< 386	NA	< 371.652	< 370	< 350
Pyrene	129-00-0	ug/kg	640	NA	420	370	< 380	NA	< 420	< 386	NA	< 371.652	< 370	230
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03	D10-11-03	D10-14-03	D10-14-05	D10-15-03
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000	7/21/2000	6/29/2000	11/16/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N	D10-11-030.5N	D10-14-032N	D10-14-051N	D10-15-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 371.652	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.3	NA	< 0.5	< 0.54	< 0.5	NA	NA	NA	NA	< 0.62004	< 0.49	0.17
Arsenic	7440-38-2	mg/kg	14.9	NA	4.6	3.6	4.7	NA	NA	NA	NA	2.74	2.9	4.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.23	NA	0.59	0.57	0.79	NA	NA	NA	NA	0.246	0.25	0.38
Cadmium	7440-43-9	mg/kg	0.41	NA	< 0.3	< 0.33	< 0.3	NA	NA	NA	NA	0.488	< 0.29	5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.3	NA	16.6	18.2	17.3	NA	NA	NA	NA	15.6	11	25
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	31.3	NA	14.6	16.7	16.7	NA	NA	NA	NA	145	118	183
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	10200	NA	53	29.8	1620	NA	NA	NA	NA	127	71.6	225
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.1	NA	0.13	0.03	0.05	NA	NA	NA	NA	0.038	0.04	0.06
Nickel	7440-02-0	mg/kg	7.2	NA	6.7	7.6	10	NA	NA	NA	NA	6.55	4.7	10.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.8	NA	1.1	< 0.54	< 0.5	NA	NA	NA	NA	0.55	< 0.49	0.32

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03	D10-11-03	D10-14-03	D10-14-05	D10-15-03
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000	7/21/2000	6/29/2000	11/16/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N	D10-11-030.5N	D10-14-032N	D10-14-051N	D10-15-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.32	NA	< 0.3	< 0.33	< 0.3	NA	NA	NA	NA	< 0.31002	< 0.29	< 0.27
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.5	NA	< 1	< 1.1	< 1	NA	NA	NA	NA	< 1.033399	< 0.98	< 0.89
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	112	NA	33.3	92.6	55.4	NA	NA	NA	NA	189	68.1	108
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	4.57	NA	NA	NA	NA	NA	4.58	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	60100	NA	11600	10300	NA	34700	NA	NA	NA	5290	10800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	4.9	NA	16.1	5.7	NA	8.3	NA	NA	NA	10.3	4.9
Gravel	ARC-PGRAVEL	%	NA	31.1	NA	21.4	12.8	NA	22.9	NA	NA	NA	37.3	28.2
Sand	ARC-PSAND	%	NA	40.6	NA	34.2	62.4	NA	52.1	NA	NA	NA	27.1	52.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	23.4	NA	28.3	19.2	NA	16.7	NA	NA	NA	25.3	14.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-16-02	D10-16-03	D10-164B-01	D10-164B-02	D10-165B-02	D10-2007-02	D10-2007-04	D10-2041-03	D10-2041-05	D10-2227-02	D10-2227E-01
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/29/2000	11/19/1999	11/30/1999	11/16/1999	11/16/1999	11/12/1999	6/29/2000	11/12/1999	11/12/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-16-021.25N	D10-16-031N	D10-164B-011N	D10-164B-021N	D10-165B-021N	D10-2007-021N	D10-2007-042N	D10-2041-031N	D10-2041-051N	D10-2227-021.5N	D10-2227E-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-16-02	D10-16-03	D10-164B-01	D10-164B-02	D10-165B-02	D10-2007-02	D10-2007-04	D10-2041-03	D10-2041-05	D10-2227-02	D10-2227E-01
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/29/2000	11/19/1999	11/30/1999	11/16/1999	11/16/1999	11/12/1999	6/29/2000	11/12/1999	11/12/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-16-021.25N	D10-16-031N	D10-164B-011N	D10-164B-021N	D10-165B-021N	D10-2007-021N	D10-2007-042N	D10-2041-031N	D10-2041-051N	D10-2227-021.5N	D10-2227E-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
1,2-Dichlorobenzene	95-50-1	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
1,4-Dichlorobenzene	106-46-7	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
2,4-Dichlorophenol	120-83-2	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
2,4-Dimethylphenol	105-67-9	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	< 730.264	< 1800	< 2000	< 2000	< 2000	< 1900	< 786.676	< 1800	< 1900	< 2000	< 1800
2,4-Dinitrotoluene	121-14-2	ug/kg	< 365	< 370	< 400	< 400	< 410	< 370	< 393	< 370	< 380	< 390	< 360
2,6-Dinitrotoluene	606-20-2	ug/kg	< 365	< 370	< 400	< 400	20	< 370	< 393	< 370	< 380	< 390	< 360
2-Chloronaphthalene	91-58-7	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
2-Chlorophenol	95-57-8	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 370	< 400	< 400	< 410	< 370	NA	< 370	< 380	< 390	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 730.264	< 740	< 800	< 790	< 810	< 750	< 786.676	< 730	< 770	< 780	< 720
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 730.264	< 1800	< 2000	< 2000	< 2000	< 1900	< 786.676	< 1800	< 1900	< 2000	< 1800
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			D10-16-02 0.0-1.3 ft 6/29/2000 N D10-16-021.25N	D10-16-03 0.0-1.0 ft 11/19/1999 N D10-16-031N	D10-164B-01 0.0-1.0 ft 11/30/1999 N D10-164B-011N	D10-164B-02 0.0-1.0 ft 11/16/1999 N D10-164B-021N	D10-165B-02 0.0-1.0 ft 11/16/1999 N D10-165B-021N	D10-2007-02 0.0-1.0 ft 11/12/1999 N D10-2007-021N	D10-2007-04 0.0-2.0 ft 6/29/2000 N D10-2007-042N	D10-2041-03 0.0-1.0 ft 11/12/1999 N D10-2041-031N	D10-2041-05 0.0-1.0 ft 11/12/1999 N D10-2041-051N	D10-2227-02 0.0-1.5 ft 11/11/1999 N D10-2227-021.5N	D10-2227E-01 0.0-2.0 ft 11/11/1999 N D10-2227E-012N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 1800	< 2000	< 2000	< 2000	< 1900	NA	< 1800	< 1900	< 2000	< 1800
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 365.132	< 370	< 400	21	140	< 370	< 393.338	51	< 380	< 390	< 360
Acenaphthylene	208-96-8	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	1080	520	51	< 390	< 360
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 365.132	< 370	< 400	54	310	< 370	752	360	51	< 390	< 360
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	43.8	< 370	< 400	260	1100	69	4800	2000	460	< 390	34
Benzo[a]pyrene	50-32-8	ug/kg	42.4	< 370	< 400	250	1100	31	8760	1500	310	< 390	38
Benzo[b]fluoranthene	205-99-2	ug/kg	< 365.132	< 370	< 400	710	1600	67	16100	6500	670	< 390	< 360
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 365.132	< 370	< 400	< 400	360	< 370	4380	1100	170	< 390	< 360
Benzo[k]fluoranthene	207-08-9	ug/kg	< 365.132	< 370	< 400	< 400	570	< 370	3090	2200	270	< 390	< 360
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	47.8	< 370	67	92	51	560	144	88	70	2500	41
Butylbenzylphthalate	85-68-7	ug/kg	< 365.132	< 370	41	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	40.9	< 370	53	330	1100	73	6760	5700	400	< 390	41
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 365.132	< 370	< 400	< 400	110	< 370	1630	280	< 380	< 390	< 360
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 365.132	< 370	41	< 400	< 410	< 370	250	< 370	51	< 390	< 360
Dimethylphthalate	131-11-3	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Di-n-butylphthalate	84-74-2	ug/kg	38.3	< 370	76	50	< 410	< 370	207	< 370	< 380	65	< 360
Di-n-octylphthalate	117-84-0	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Fluoranthene	206-44-0	ug/kg	< 365.132	< 370	< 400	390	2000	< 370	2170	15000	680	< 390	< 360
Fluorene	86-73-7	ug/kg	< 365.132	< 370	< 400	< 400	93	< 370	< 393.338	80	< 380	< 390	< 360
Hexachlorobenzene	118-74-1	ug/kg	NA	< 370	< 400	< 400	< 410	< 370	NA	< 370	< 380	< 390	< 360
Hexachlorobutadiene	87-68-3	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Hexachloroethane	67-72-1	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 365.132	< 370	< 400	< 400	350	< 370	4220	1100	170	< 390	< 360
Isophorone	78-59-1	ug/kg	< 365.132	200	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-16-02	D10-16-03	D10-164B-01	D10-164B-02	D10-165B-02	D10-2007-02	D10-2007-04	D10-2041-03	D10-2041-05	D10-2227-02	D10-2227E-01
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/29/2000	11/19/1999	11/30/1999	11/16/1999	11/16/1999	11/12/1999	6/29/2000	11/12/1999	11/12/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-16-021.25N	D10-16-031N	D10-164B-011N	D10-164B-021N	D10-165B-021N	D10-2007-021N	D10-2007-042N	D10-2041-031N	D10-2041-051N	D10-2227-021.5N	D10-2227E-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 365.132	< 370	< 400	< 400	41	< 370	< 393.338	49	< 380	< 390	< 360
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 360
N-Nitrosodimethylamine	62-75-9	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	159	< 370	< 380	< 390	< 360
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 370	< 400	< 400	73	< 370	NA	< 370	< 380	< 390	83
Pentachlorophenol	87-86-5	ug/kg	< 730.264	< 1800	< 2000	< 2000	< 2000	< 1900	< 786.676	< 1800	< 1900	< 2000	< 1800
Phenanthrene	85-01-8	ug/kg	< 365.132	970	59	300	1400	< 370	162	2500	90	< 390	29
Phenol	108-95-2	ug/kg	< 365.132	< 370	< 400	< 400	< 410	< 370	< 393.338	< 370	< 380	< 390	< 360
Pyrene	129-00-0	ug/kg	< 365.132	< 370	< 400	450	2200	< 370	6020	11000	570	< 390	< 360
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-16-02	D10-16-03	D10-164B-01	D10-164B-02	D10-165B-02	D10-2007-02	D10-2007-04	D10-2041-03	D10-2041-05	D10-2227-02	D10-2227E-01
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/29/2000	11/19/1999	11/30/1999	11/16/1999	11/16/1999	11/12/1999	6/29/2000	11/12/1999	11/12/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-16-021.25N	D10-16-031N	D10-164B-011N	D10-164B-021N	D10-165B-021N	D10-2007-021N	D10-2007-042N	D10-2041-031N	D10-2041-051N	D10-2227-021.5N	D10-2227E-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 250	< 240	< 200	< 240	< 190	< 250	< 220	< 200	< 220	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 250	< 240	< 200	< 240	< 190	< 250	< 220	< 200	< 220	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 250	< 240	< 200	< 240	< 190	< 250	< 220	< 200	< 220	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 250	< 240	< 200	< 240	< 190	< 250	< 220	< 200	< 220	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 500	< 480	< 400	< 480	< 380	< 500	< 430	< 400	< 430	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 500	< 480	< 400	< 480	< 380	< 500	< 430	< 400	< 430	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 250	< 240	< 200	< 240	< 190	< 250	< 220	< 200	< 220	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 500	< 480	< 400	< 480	< 380	< 500	< 430	< 400	< 430	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 250	< 240	< 200	< 240	< 190	< 250	< 220	< 200	< 220	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 365	< 4800	< 5900	< 4500	< 4400	< 4800	< 393	< 5000	< 4800	< 4500	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 500	< 480	< 400	< 480	< 380	< 500	< 430	< 400	< 430	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 500	< 480	< 400	< 480	< 380	< 500	< 430	< 400	< 430	NA
Tetryl	479-45-8	ug/kg	< 500	< 500	< 480	< 400	< 480	< 380	< 500	< 430	< 400	< 430	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.587406	< 0.4	< 0.47	0.21	< 0.53	< 0.47	0.737	< 0.44	< 0.45	< 0.52	< 0.48
Arsenic	7440-38-2	mg/kg	7.19	7.7	9	14.1	34.4	11.9	133	3.9	4	20.2	3.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.432	0.61	0.27	0.3	0.61	0.47	0.544	0.36	0.55	0.29	0.51
Cadmium	7440-43-9	mg/kg	0.294	< 0.24	0.36	0.84	0.25	< 0.28	0.565	< 0.26	< 0.27	0.28	< 0.29
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.6	19.3	14.3	19.4	20	13.4	8.83	12.7	15.4	75.8	8.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.6	17.7	20.2	21.5	42.2	24.4	37.9	73.5	240	29.7	13.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	169	176	908	4260	1350	71.4	71	681	213	314	15.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.091	0.08	0.2	0.16	0.21	0.06	0.066	0.5	0.11	0.92	0.03
Nickel	7440-02-0	mg/kg	8.81	8.4	6.7	9.1	9.7	7.4	5.8	6.3	7.3	5.8	6.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.38	0.5	1.3	1.2	1.6	< 0.47	0.615	< 0.44	< 0.45	0.44	0.31

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-16-02	D10-16-03	D10-164B-01	D10-164B-02	D10-165B-02	D10-2007-02	D10-2007-04	D10-2041-03	D10-2041-05	D10-2227-02	D10-2227E-01
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/29/2000	11/19/1999	11/30/1999	11/16/1999	11/16/1999	11/12/1999	6/29/2000	11/12/1999	11/12/1999	11/11/1999	11/11/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-16-021.25N	D10-16-031N	D10-164B-011N	D10-164B-021N	D10-165B-021N	D10-2007-021N	D10-2007-042N	D10-2041-031N	D10-2041-051N	D10-2227-021.5N	D10-2227E-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.293703	< 0.24	0.1	0.38	< 0.32	< 0.28	< 0.3251	< 0.26	< 0.27	< 0.31	< 0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.19	< 0.79	< 0.93	< 0.93	< 1.1	< 0.94	< 1.083665	< 0.88	< 0.91	< 1	< 0.96
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	90	105	57.7	211	100	28.2	40.1	50.3	45.4	82.3	174
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	5.56	5.21	4.57	NA	NA	5.08	4.35	6.83	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	15200	NA	17200	23900	69800	NA	NA	31500	7580	3960
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	12.5	NA	5	26.6	9.5	NA	NA	10.5	10.2	7
Gravel	ARC-PGRAVEL	%	NA	29.6	NA	22.1	6.7	34.7	NA	NA	27.7	31.2	21.1
Sand	ARC-PSAND	%	NA	41.9	NA	58.5	30.9	38.9	NA	NA	38.7	29.7	59.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	16	NA	14.3	35.8	17	NA	NA	23.1	28.9	12.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
Parent Sample			D10-2227E-012N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
Parent Sample			D10-2227E-012N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
1,2-Dichlorobenzene	95-50-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
1,4-Dichlorobenzene	106-46-7	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
2,4-Dichlorophenol	120-83-2	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
2,4-Dimethylphenol	105-67-9	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	< 717.828	< 1900	< 1800	< 1800	< 2000	< 762.014	< 19000	< 1900	< 774
2,4-Dinitrotoluene	121-14-2	ug/kg	< 420	< 359	< 370	< 370	< 370	< 400	< 381	< 3800	< 370	< 387
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 359	< 370	< 370	< 370	< 400	< 381	< 3800	< 370	< 387
2-Chloronaphthalene	91-58-7	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
2-Chlorophenol	95-57-8	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 420	NA	< 370	< 370	< 370	< 400	NA	< 3800	< 370	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 358.914	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 840	< 717.828	< 750	< 730	< 730	< 800	< 762.014	< 7600	< 750	< 774
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2100	< 717.828	< 1900	< 1800	< 1800	< 2000	< 762.014	< 19000	< 1900	< 774
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
Parent Sample			D10-2227E-012N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2100	NA	< 1900	< 1800	< 1800	< 2000	NA	< 19000	< 1900	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 717.828	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Acenaphthylene	208-96-8	ug/kg	< 420	< 358.914	< 370	< 370	24	40	< 381.007	< 3800	< 370	< 387
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 420	< 358.914	< 370	< 370	23	63	< 381.007	< 3800	< 370	< 387
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 370	NA	NA	220	NA	NA	< 370	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 420	< 358.914	71	81	170	460	< 381.007	< 3800	35	41
Benzo[a]pyrene	50-32-8	ug/kg	< 420	< 358.914	72	< 370	130	340	< 381.007	< 3800	< 370	< 387
Benzo[b]fluoranthene	205-99-2	ug/kg	< 420	< 358.914	99	120	210	560	< 381.007	< 3800	< 370	< 387
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 420	< 358.914	NA	< 370	< 370	NA	< 381.007	< 3800	NA	< 387
Benzo[k]fluoranthene	207-08-9	ug/kg	< 420	< 358.914	< 370	< 370	140	250	< 381.007	< 3800	< 370	< 387
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	42	19	420	22000	510	57000	< 381.007	1100	32	< 387
Butylbenzylphthalate	85-68-7	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 420	< 358.914	52	56	150	400	< 381.007	< 3800	< 370	< 387
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 420	< 358.914	< 370	110	< 370	< 400	< 381.007	< 3800	< 370	< 387
Dimethylphthalate	131-11-3	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Di-n-butylphthalate	84-74-2	ug/kg	< 420	< 358.914	< 370	1700	< 370	48	52.2	< 3800	< 370	< 387
Di-n-octylphthalate	117-84-0	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Fluoranthene	206-44-0	ug/kg	< 420	< 358.914	100	73	200	620	< 381.007	< 3800	< 370	< 387
Fluorene	86-73-7	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Hexachlorobenzene	118-74-1	ug/kg	< 420	NA	< 370	< 370	< 370	< 400	NA	< 3800	< 370	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Hexachloroethane	67-72-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 420	< 358.914	< 370	< 370	100	230	< 381.007	< 3800	< 370	< 387
Isophorone	78-59-1	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
Parent Sample			D10-2227E-012N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Nitrobenzene	98-95-3	ug/kg	< 420	< 358.914	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 420	79.3	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 420	NA	< 370	< 370	< 370	< 400	NA	< 3800	< 370	< 387
Pentachlorophenol	87-86-5	ug/kg	< 2100	< 717.828	< 1900	< 1800	< 1800	< 2000	< 762.014	< 19000	< 1900	< 774
Phenanthrene	85-01-8	ug/kg	26	< 358.914	46	23	47	95	< 381.007	1200	< 370	< 387
Phenol	108-95-2	ug/kg	< 420	< 358.914	< 370	< 370	< 370	< 400	< 381.007	< 3800	< 370	< 387
Pyrene	129-00-0	ug/kg	< 420	< 358.914	100	94	270	1000	< 381.007	< 3800	< 370	< 387
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
Parent Sample			D10-2227E-012N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 131	< 240	< 220	< 131	< 250	< 250	< 131	< 248
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 131	< 240	< 220	< 131	< 250	< 250	< 131	< 248
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 131	< 240	< 220	< 131	< 250	< 250	< 131	< 248
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 131	< 240	< 220	< 131	< 250	< 250	< 131	< 248
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 263	< 480	< 430	< 263	< 500	< 500	< 262	< 495
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 263	< 480	< 430	< 263	< 500	< 500	< 262	< 495
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 131	< 240	< 220	< 131	< 250	< 250	< 131	< 248
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 263	< 480	< 430	< 263	< 500	< 500	< 262	< 495
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 131	< 240	< 220	< 131	< 250	< 250	< 131	< 248
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 358.914	4100	< 4900	< 4800	3900	< 381	< 4500	< 5600	< 5770
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 263	< 480	< 430	< 263	< 500	< 500	< 262	< 495
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 263	< 480	< 430	< 263	< 500	< 500	< 262	< 495
Tetryl	479-45-8	ug/kg	NA	NA	< 263	< 480	< 430	< 263	< 500	< 500	< 262	< 495
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.21	< 0.627855	0.67	< 0.47	< 0.49	< 0.5	< 0.467006	< 0.35	0.16	< 0.516
Arsenic	7440-38-2	mg/kg	3.1	2.76	19.2	17.3	45.6	18.7	7.11	5.9	4.2	10.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.51	0.412	0.48	0.28	0.4	0.36	0.403	0.6	0.95	0.453
Cadmium	7440-43-9	mg/kg	< 0.22	0.488	1.5	0.77	< 0.29	0.16	0.272	< 0.21	< 0.23	0.329
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.2	8.18	43	68.1	13.9	31.8	18.6	18.9	15.7	18.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.2	13.7	114	117	19.3	72	13.8	17.8	14.7	13.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	17.7	11.3	782	1390	92	451	125	282	140	143
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.05	0.044	0.13	0.52	0.12	0.23	0.069	0.14	0.06	0.104
Nickel	7440-02-0	mg/kg	6.4	5.23	9.4	21.3	6.6	8	6.35	8.1	6.9	6.36
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.49	< 0.523213	0.52	< 0.47	< 0.49	0.59	0.381	0.44	0.61	0.565

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
Parent Sample			D10-2227E-012N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.07	< 0.313928	0.11	0.28	< 0.29	< 0.3	< 0.233503	< 0.21	< 0.23	< 0.258
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.73	< 1.046426	< 0.89	< 0.93	< 0.98	< 1	0.711	< 0.7	< 0.77	< 0.86
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	94.6	43.3	208	191	40.7	174	82.2	120	66.7	77.8
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	4.5	5.72	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	4770	47900	18500	17600	NA	5060	3930	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	8.5	4.4	5.2	8.9	NA	14.2	9.2	NA
Gravel	ARC-PGRAVEL	%	NA	NA	43.8	32.4	39.2	31.6	NA	15	16.6	NA
Sand	ARC-PSAND	%	NA	NA	30.9	52.4	45.9	37.6	NA	47.2	57.5	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	16.9	10.8	9.7	21.9	NA	23.6	16.7	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2233B-02	D10-2233B-03	D10-2233C-01	D10-2233C-02	D10-2233D-02	D10-2233D-03	D10-2233E-02	D10-2349-02	D10-241B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/29/2000	11/19/1999	11/18/1999	6/29/2000	6/29/2000	11/19/1999	11/18/1999	11/12/1999	11/19/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			D10-2233B-021N	D10-2233B-031N	D10-2233C-011N	D10-2233C-022N	D10-2233D-021.25N	D10-2233D-032N	D10-2233E-021N	D10-2349-021.5N	D10-241B-031.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2233B-02	D10-2233B-03	D10-2233C-01	D10-2233C-02	D10-2233D-02	D10-2233D-03	D10-2233E-02	D10-2349-02	D10-241B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/29/2000	11/19/1999	11/18/1999	6/29/2000	6/29/2000	11/19/1999	11/18/1999	11/12/1999	11/19/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			D10-2233B-021N	D10-2233B-031N	D10-2233C-011N	D10-2233C-022N	D10-2233D-021.25N	D10-2233D-032N	D10-2233E-021N	D10-2349-021.5N	D10-241B-031.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds (cont.)											
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	< 750	< 1800	< 1800	< 756	< 737	< 1900	< 1900	< 1900	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2-Chlorophenol	95-57-8	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 360	< 360	NA	NA	< 370	< 370	< 370	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 750	< 720	< 720	< 756	< 737	< 740	< 740	< 750	< 800
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 750	< 1800	< 1800	< 756	< 737	< 1900	< 1900	< 1900	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			D10-2233B-02 0.0-1.0 ft 6/29/2000 N D10-2233B-021N	D10-2233B-03 0.0-1.0 ft 11/19/1999 N D10-2233B-031N	D10-2233C-01 0.0-1.0 ft 11/18/1999 N D10-2233C-011N	D10-2233C-02 0.0-2.0 ft 6/29/2000 N D10-2233C-022N	D10-2233D-02 0.0-1.3 ft 6/29/2000 N D10-2233D-021.25N	D10-2233D-03 0.0-2.0 ft 11/19/1999 N D10-2233D-032N	D10-2233E-02 0.0-1.0 ft 11/18/1999 N D10-2233E-021N	D10-2349-02 0.0-1.5 ft 11/12/1999 N D10-2349-021.5N	D10-241B-03 0.0-1.5 ft 11/19/1999 N D10-241B-031.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 1800	< 1800	NA	NA	< 1900	< 1900	< 1900	< 2000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Acenaphthylene	208-96-8	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	360
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	360
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 360	NA	NA	NA	< 370	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 375	< 360	< 360	59.8	39.8	< 370	31	140	2600
Benzo[a]pyrene	50-32-8	ug/kg	< 375	< 360	< 360	49.5	< 369	< 370	< 370	96	2000
Benzo[b]fluoranthene	205-99-2	ug/kg	< 375	< 360	< 360	67.3	< 369	< 370	< 370	190	3400
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 375	< 360	NA	< 378	< 369	< 370	NA	< 370	1300
Benzo[k]fluoranthene	207-08-9	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	1500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 375	58	150	< 378	< 369	< 370	64	89	860
Butylbenzylphthalate	85-68-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	130	2600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	450
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Dimethylphthalate	131-11-3	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Di-n-butylphthalate	84-74-2	ug/kg	< 375	34	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Di-n-octylphthalate	117-84-0	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Fluoranthene	206-44-0	ug/kg	< 375	< 360	< 360	82.8	< 369	< 370	< 370	140	2200
Fluorene	86-73-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Hexachlorobenzene	118-74-1	ug/kg	NA	< 360	< 360	NA	NA	< 370	< 370	< 370	< 400
Hexachlorobutadiene	87-68-3	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Hexachloroethane	67-72-1	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	75	1500
Isophorone	78-59-1	ug/kg	< 375	< 360	< 360	< 378	< 369	300	< 370	< 370	3700

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2233B-02	D10-2233B-03	D10-2233C-01	D10-2233C-02	D10-2233D-02	D10-2233D-03	D10-2233E-02	D10-2349-02	D10-241B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/29/2000	11/19/1999	11/18/1999	6/29/2000	6/29/2000	11/19/1999	11/18/1999	11/12/1999	11/19/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			D10-2233B-021N	D10-2233B-031N	D10-2233C-011N	D10-2233C-022N	D10-2233D-021.25N	D10-2233D-032N	D10-2233E-021N	D10-2349-021.5N	D10-241B-031.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
Naphthalene	91-20-3	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	39
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Pentachlorophenol	87-86-5	ug/kg	< 750	< 1800	< 1800	< 756	< 737	< 1900	< 1900	< 1900	< 2000
Phenanthrene	85-01-8	ug/kg	< 375	< 360	< 360	< 378	< 369	860	< 370	40	790
Phenol	108-95-2	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	< 370	< 400
Pyrene	129-00-0	ug/kg	< 375	< 360	< 360	< 378	< 369	< 370	< 370	200	< 400
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls											
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-2233B-02	D10-2233B-03	D10-2233C-01	D10-2233C-02	D10-2233D-02	D10-2233D-03	D10-2233E-02	D10-2349-02	D10-241B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/29/2000	11/19/1999	11/18/1999	6/29/2000	6/29/2000	11/19/1999	11/18/1999	11/12/1999	11/19/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			D10-2233B-021N	D10-2233B-031N	D10-2233C-011N	D10-2233C-022N	D10-2233D-021.25N	D10-2233D-032N	D10-2233E-021N	D10-2349-021.5N	D10-241B-031.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Explosives and Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 246	< 210	< 126	< 245	< 248	< 230	< 123	< 230	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 246	< 210	< 126	< 245	< 248	< 230	< 123	< 230	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 246	< 210	< 126	< 245	< 248	< 230	< 123	< 230	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 246	< 210	< 126	< 245	< 248	< 230	< 123	< 230	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 493	< 420	< 252	< 490	< 495	< 450	< 247	< 430	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 493	< 420	< 252	< 490	< 495	< 450	< 247	< 430	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 246	< 210	< 126	< 245	< 248	< 230	< 123	< 230	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 493	< 420	< 252	< 490	< 495	< 450	< 247	< 430	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 246	< 210	< 126	< 245	< 248	< 230	< 123	< 230	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5590	< 5000	< 5200	< 5610	< 5460	< 4500	< 5000	< 4800	< 4900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 493	< 420	< 252	< 490	< 495	< 450	< 247	< 430	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 493	< 420	< 252	< 490	< 495	< 450	< 247	< 430	< 500
Tetryl	479-45-8	ug/kg	< 493	< 420	< 252	< 490	< 495	< 450	< 247	< 430	< 500
Metals											
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.545	< 0.42	< 0.39	< 0.942	< 0.506	< 0.43	0.73	< 0.46	< 0.54
Arsenic	7440-38-2	mg/kg	4.34	3.7	11.3	7.27	5.77	5.3	8.5	296	3.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.444	0.63	0.68	0.444	0.407	0.66	0.15	0.4	0.36
Cadmium	7440-43-9	mg/kg	0.329	< 0.25	< 0.24	0.372	0.429	< 0.26	0.05	< 0.27	< 0.32
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.2	13.5	23	15.7	11.5	15.3	13.7	14	20.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.9	< 0.42	15.8	14.7	13.2	< 0.43	19.5	20.3	75.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	386	28.4	47.8	187	68.6	58.5	2470	76.6	66.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.044	0.03	0.03	0.111	0.061	0.05	0.05	0.08	0.07
Nickel	7440-02-0	mg/kg	6.95	6.9	7.6	6.29	6.09	7.2	4.9	6.9	6.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.359	0.44	0.75	0.706	0.547	0.58	1.2	< 0.46	0.55

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			D10-2233B-02 0.0-1.0 ft 6/29/2000 N D10-2233B-021N	D10-2233B-03 0.0-1.0 ft 11/19/1999 N D10-2233B-031N	D10-2233C-01 0.0-1.0 ft 11/18/1999 N D10-2233C-011N	D10-2233C-02 0.0-2.0 ft 6/29/2000 N D10-2233C-022N	D10-2233D-02 0.0-1.3 ft 6/29/2000 N D10-2233D-021.25N	D10-2233D-03 0.0-2.0 ft 11/19/1999 N D10-2233D-032N	D10-2233E-02 0.0-1.0 ft 11/18/1999 N D10-2233E-021N	D10-2349-02 0.0-1.5 ft 11/12/1999 N D10-2349-021.5N	D10-241B-03 0.0-1.5 ft 11/19/1999 N D10-241B-031.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Metals (cont.)											
Silver	7440-22-4	mg/kg	< 0.272	< 0.25	< 0.24	< 0.471	< 0.253	< 0.26	0.24	0.11	< 0.32
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.908	< 0.83	< 0.79	< 1.57	< 0.844	< 0.85	< 0.77	< 0.92	< 1.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	52.3	< 1.2	60.8	81.8	54.4	59.1	28.4	30.3	< 1.6
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	1200	2590	NA	NA	11400	4560	27100	19200
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution											
Clay	ARC-PCLAY	%	NA	5.9	7.3	NA	NA	13.6	11.2	6.1	15.7
Gravel	ARC-PGRAVEL	%	NA	39.4	18.7	NA	NA	18.6	14.1	36	24.5
Sand	ARC-PSAND	%	NA	47	49.6	NA	NA	51.7	57.5	40.6	28.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	7.7	24.4	NA	NA	16.1	17.2	17.3	31.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-251-02	D10-3-01	D10-3-01	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02
Depths			0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/17/1999	11/12/1999	11/30/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			D10-251-020.75N	D10-3-011.25N	D10-3-011.5N	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N
Parent Sample										D10-8-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-251-02	D10-3-01	D10-3-01	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02
Depths			0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/17/1999	11/12/1999	11/30/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			D10-251-020.75N	D10-3-011.25N	D10-3-011.5N	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N
Parent Sample										D10-8-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
1,2-Dichlorobenzene	95-50-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
1,4-Dichlorobenzene	106-46-7	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
2,4-Dichlorophenol	120-83-2	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
2,4-Dimethylphenol	105-67-9	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	NA	NA	< 2100	< 2000	< 2500	< 1900	< 1900	< 19000	< 1900	< 1900	< 757.644
2,4-Dinitrotoluene	121-14-2	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	370	< 3800	39	< 370	< 379
2,6-Dinitrotoluene	606-20-2	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	92	< 370	< 379
2-Chloronaphthalene	91-58-7	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
2-Chlorophenol	95-57-8	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 860	NA	NA	< 820	< 780	980	< 760	< 750	< 7700	< 780	< 750	< 757.644
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2100	NA	NA	< 2100	< 2000	< 2500	< 1900	< 1900	< 19000	< 1900	< 1900	< 757.644
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-251-02	D10-3-01	D10-3-01	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02
Depths			0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/17/1999	11/12/1999	11/30/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			D10-251-020.75N	D10-3-011.25N	D10-3-011.5N	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N
Parent Sample										D10-8-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2100	NA	NA	< 2100	< 2000	< 2500	< 1900	< 1900	< 19000	< 1900	< 1900	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	59	< 370	< 378.822
Acenaphthylene	208-96-8	ug/kg	< 430	NA	NA	150	47	330	< 380	< 370	< 3800	430	< 370	< 378.822
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 430	NA	NA	120	53	810	< 380	< 370	< 3800	480	< 370	< 378.822
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	65	NA	NA	1100	230	2600	55	53	< 3800	4200	64	< 378.822
Benzo[a]pyrene	50-32-8	ug/kg	71	NA	NA	930	170	1900	67	69	< 3800	3800	45	< 378.822
Benzo[b]fluoranthene	205-99-2	ug/kg	110	NA	NA	2100	400	2500	180	140	< 3800	7000	140	< 378.822
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 430	NA	NA	610	< 390	890	< 380	< 370	< 3800	1200	83	< 378.822
Benzo[k]fluoranthene	207-08-9	ug/kg	< 430	NA	NA	610	190	710	< 380	< 370	< 3800	2200	< 370	< 378.822
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	67	NA	NA	130	120	320	96	93	< 3800	90	2500	230
Butylbenzylphthalate	85-68-7	ug/kg	< 430	NA	NA	< 410	< 390	490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	98	NA	NA	1200	260	1700	110	91	< 3800	4500	110	< 378.822
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 430	NA	NA	180	< 390	370	< 380	< 370	< 3800	510	< 370	< 378.822
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	62	< 370	< 378.822
Dimethylphthalate	131-11-3	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Di-n-butylphthalate	84-74-2	ug/kg	100	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	40	< 370	79.6
Di-n-octylphthalate	117-84-0	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	19	< 3800	< 390	< 370	< 378.822
Fluoranthene	206-44-0	ug/kg	97	NA	NA	1600	280	3700	110	99	< 3800	3900	79	< 378.822
Fluorene	86-73-7	ug/kg	< 430	NA	NA	< 410	< 390	160	< 380	< 370	< 3800	89	< 370	< 378.822
Hexachlorobenzene	118-74-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Hexachloroethane	67-72-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 430	NA	NA	550	130	880	< 380	< 370	< 3800	1300	< 370	< 378.822
Isophorone	78-59-1	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	110	< 378.822

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-251-02	D10-3-01	D10-3-01	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02
Depths			0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/17/1999	11/12/1999	11/30/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			D10-251-020.75N	D10-3-011.25N	D10-3-011.5N	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N
Parent Sample										D10-8-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	290	< 370	< 378.822
Nitrobenzene	98-95-3	ug/kg	< 430	NA	NA	NA	< 390	NA	NA	NA	< 3800	< 390	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	< 378.822
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 430	NA	NA	77	< 390	< 490	< 380	< 370	< 3800	62	< 370	NA
Pentachlorophenol	87-86-5	ug/kg	< 2100	NA	NA	< 2100	< 2000	< 2500	< 1900	< 1900	< 19000	< 1900	< 1900	< 757.644
Phenanthrene	85-01-8	ug/kg	60	NA	NA	280	64	2500	91	71	< 3800	840	780	< 378.822
Phenol	108-95-2	ug/kg	< 430	NA	NA	< 410	< 390	< 490	< 380	< 370	< 3800	< 390	< 370	33
Pyrene	129-00-0	ug/kg	< 430	NA	NA	1600	380	3600	220	160	< 3800	5000	97	< 378.822
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-251-02	D10-3-01	D10-3-01	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02
Depths			0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/17/1999	11/12/1999	11/30/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			D10-251-020.75N	D10-3-011.25N	D10-3-011.5N	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N
Parent Sample										D10-8-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 220	NA	< 250	< 220	< 210	NA	NA	< 230	< 248.75
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 220	NA	< 250	< 220	< 210	NA	NA	< 230	< 248.75
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 220	NA	< 250	< 220	< 210	NA	NA	< 230	< 248.75
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 220	NA	< 250	< 220	< 210	NA	NA	< 230	< 248.75
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 430	NA	< 500	< 430	< 420	NA	NA	< 450	< 497.5
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 430	NA	< 500	< 430	< 420	NA	NA	< 450	< 497.5
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 220	NA	< 250	< 220	< 210	NA	NA	< 230	< 248.75
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 430	NA	< 500	< 430	< 420	NA	NA	< 450	< 497.5
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 220	NA	< 250	< 220	< 210	NA	NA	< 230	< 248.75
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 4800	NA	< 5000	< 4700	< 4800	NA	NA	< 4800	< 379
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 430	NA	< 500	< 430	< 420	NA	NA	< 450	< 497.5
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 430	NA	< 500	< 430	< 420	NA	NA	< 450	< 497.5
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 430	NA	< 500	< 430	< 420	NA	NA	< 450	< 497.5
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.59	NA	NA	1.6	1.9	< 6.2	< 0.5	< 0.52	< 0.41	2.1	< 0.47	< 0.664679
Arsenic	7440-38-2	mg/kg	8.8	NA	NA	291	420	24.5	3.6	3.8	22.9	370	16.7	4.54
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.85	NA	NA	0.6	0.63	0.93	0.38	0.37	0.3	0.47	0.31	0.326
Cadmium	7440-43-9	mg/kg	0.43	NA	NA	3.4	< 0.28	7.8	< 0.3	< 0.12	2	0.37	0.34	0.517
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.6	NA	NA	19.9	16.4	22.8	14.9	13.1	9.9	8.6	33.7	19.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	22.1	NA	NA	52.9	48.9	253	22	21.2	36.1	38.9	50.7	21
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	589	NA	NA	1370	166	12900	126	110	1240	217	320	49.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.16	NA	NA	2.1	0.12	6.2	0.06	0.06	0.21	0.1	0.12	0.036
Nickel	7440-02-0	mg/kg	11.1	NA	NA	18.8	10.7	20.7	6.7	6.1	11.6	9.5	9	8.94
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.3	NA	NA	0.85	0.99	< 6.2	0.79	0.95	0.72	2.4	0.55	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-251-02	D10-3-01	D10-3-01	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02
Depths			0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/17/1999	11/12/1999	11/30/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			D10-251-020.75N	D10-3-011.25N	D10-3-011.5N	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N
Parent Sample										D10-8-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.35	NA	NA	0.55	0.16	1.8	< 0.3	< 0.31	0.15	< 0.32	< 0.28	< 0.332339
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.2	NA	NA	< 1.1	0.83	< 12.4	< 0.99	< 1	< 0.82	< 1.1	< 0.94	< 1.107798
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	116	NA	NA	937	33.6	4080	28.7	27.4	1310	43.4	128	30
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	5.99	NA	NA	NA	NA	NA	NA	7.82	NA
Total Organic Carbon	ARC-TOC	mg/kg	55500	NA	11600	77900	42300	52800	8890	NA	4100	41800	9370	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	11.3	NA	4	7.1	4.5	9	13.3	NA	3.4	9.8	5.1	NA
Gravel	ARC-PGRAVEL	%	26.7	NA	52.4	39.5	39.6	28.2	19.4	NA	47.1	46.9	52.4	NA
Sand	ARC-PSAND	%	60.9	NA	34.1	26.8	38.4	38.4	42.8	NA	39.7	39.9	32.2	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	1	NA	9.5	26.6	17.5	24.4	24.5	NA	9.7	3.4	10.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01	D11-218C-03	D11-3-02	D11-7-01	D11-7-02	D11-B232-06	D11-B232-07	D12-1-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999	11/4/1999	11/5/1999	10/27/1999	6/22/2000	6/22/2000	10/29/1999	6/22/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N	D11-218C-032N	D11-3-021N	D11-7-012N	D11-7-022N	D11-B232-062N	D11-B232-072N	D12-1-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01	D11-218C-03	D11-3-02	D11-7-01	D11-7-02	D11-B232-06	D11-B232-07	D12-1-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999	11/4/1999	11/5/1999	10/27/1999	6/22/2000	6/22/2000	10/29/1999	6/22/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N	D11-218C-032N	D11-3-021N	D11-7-012N	D11-7-022N	D11-B232-062N	D11-B232-072N	D12-1-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
2,4-Dinitrophenol	51-28-5	ug/kg	< 1900	< 711	< 687.094	< 1900	< 2300	< 2200	< 1800	< 3100	< 862.998	< 1094.33	< 2700	< 845.594
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 356	< 343	< 370	< 460	190	< 360	< 630	< 431	5210	< 550	< 423
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 356	< 343	< 370	< 460	< 430	< 360	< 630	< 431	273	< 550	< 423
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
2-Chlorophenol	95-57-8	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 370	< 356	NA	< 370	< 460	< 430	< 360	< 630	NA	NA	< 550	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 343.547	NA	NA	NA	NA	NA	NA	NA	NA	< 422.797
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 750	< 711	< 687.094	< 730	< 920	< 860	< 720	< 1300	< 862.998	< 1094.33	< 1100	< 845.594
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1900	< 711	< 687.094	< 1900	< 2300	< 2200	< 1800	< 3100	< 862.998	< 1094.33	< 2700	< 845.594
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01	D11-218C-03	D11-3-02	D11-7-01	D11-7-02	D11-B232-06	D11-B232-07	D12-1-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999	11/4/1999	11/5/1999	10/27/1999	6/22/2000	6/22/2000	10/29/1999	6/22/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N	D11-218C-032N	D11-3-021N	D11-7-012N	D11-7-022N	D11-B232-062N	D11-B232-072N	D12-1-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1900	< 711	NA	< 1900	< 2300	< 2200	< 1800	< 3100	NA	NA	< 2700	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 687.094	NA	NA	NA	NA	NA	NA	NA	NA	< 845.594
Acenaphthene	83-32-9	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Acenaphthylene	208-96-8	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	27	< 630	< 431.499	< 547.165	< 550	< 422.797
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	< 370	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	66	< 356	< 343.547	42	< 460	88	200	< 630	< 431.499	97.4	< 550	< 422.797
Benzo[a]pyrene	50-32-8	ug/kg	45	< 356	< 343.547	47	< 460	77	170	< 630	< 431.499	80.43	< 550	< 422.797
Benzo[b]fluoranthene	205-99-2	ug/kg	61	< 356	< 343.547	63	< 460	130	190	< 630	< 431.499	112	< 550	< 422.797
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 370	< 356	< 343.547	NA	< 460	< 430	110	< 630	< 431.499	< 547.165	< 550	< 422.797
Benzo[k]fluoranthene	207-08-9	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	110	< 630	< 431.499	< 547.165	< 550	< 422.797
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	820	23.8	51.19	25	< 460	< 430	3400	< 630	< 431.499	< 547.165	< 550	< 422.797
Butylbenzylphthalate	85-68-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	46	< 356	< 343.547	69	51	150	160	< 630	< 431.499	83.72	< 550	< 422.797
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Dimethylphthalate	131-11-3	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Di-n-butylphthalate	84-74-2	ug/kg	< 370	< 356	45.69	< 370	< 460	< 430	89	< 630	46.17	< 547.165	< 550	< 422.797
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Fluoranthene	206-44-0	ug/kg	< 370	< 356	< 343.547	66	< 460	110	310	< 630	< 431.499	< 547.165	< 550	< 422.797
Fluorene	86-73-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Hexachlorobenzene	118-74-1	ug/kg	< 370	< 356	NA	< 370	< 460	< 430	< 360	< 630	NA	NA	< 550	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Hexachloroethane	67-72-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	93	< 630	< 431.499	< 547.165	< 550	< 422.797
Isophorone	78-59-1	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01	D11-218C-03	D11-3-02	D11-7-01	D11-7-02	D11-B232-06	D11-B232-07	D12-1-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999	11/4/1999	11/5/1999	10/27/1999	6/22/2000	6/22/2000	10/29/1999	6/22/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N	D11-218C-032N	D11-3-021N	D11-7-012N	D11-7-022N	D11-B232-062N	D11-B232-072N	D12-1-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 370	< 356	< 343.547	< 370	< 460	76	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Nitrobenzene	98-95-3	ug/kg	NA	< 356	< 343.547	NA	< 460	< 430	NA	NA	NA	NA	NA	< 422.797
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Pentachlorophenol	87-86-5	ug/kg	< 1900	< 711	< 687.094	< 1900	< 2300	< 2200	< 1800	< 3100	< 862.998	< 1094.33	< 2700	< 845.594
Phenanthrene	85-01-8	ug/kg	23	< 356	< 343.547	41	31	220	130	< 630	< 431.499	< 547.165	< 550	< 422.797
Phenol	108-95-2	ug/kg	< 370	< 356	< 343.547	< 370	< 460	< 430	< 360	< 630	< 431.499	< 547.165	< 550	< 422.797
Pyrene	129-00-0	ug/kg	96	< 356	< 343.547	< 370	< 460	< 430	330	< 630	< 431.499	< 547.165	< 550	< 422.797
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01	D11-218C-03	D11-3-02	D11-7-01	D11-7-02	D11-B232-06	D11-B232-07	D12-1-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999	11/4/1999	11/5/1999	10/27/1999	6/22/2000	6/22/2000	10/29/1999	6/22/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N	D11-218C-032N	D11-3-021N	D11-7-012N	D11-7-022N	D11-B232-062N	D11-B232-072N	D12-1-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 220	NA	NA	< 131	NA	NA	< 130	< 210	< 250	< 238.1	< 240	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 220	NA	NA	< 131	NA	NA	< 130	< 210	< 250	< 238.1	< 240	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 220	NA	NA	< 131	NA	NA	< 130	< 210	< 250	< 238.1	< 240	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 131	NA	NA	< 130	< 210	< 250	1300	< 240	NA
2-Nitrotoluene	88-72-2	ug/kg	< 430	NA	NA	< 263	NA	NA	< 260	< 420	< 500	< 476.2	< 480	NA
3-Nitrotoluene	99-08-1	ug/kg	< 430	NA	NA	< 263	NA	NA	< 260	< 420	< 500	< 476.2	< 480	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 220	NA	NA	< 131	NA	NA	< 130	< 210	< 250	2200	< 240	NA
4-Nitrotoluene	99-99-0	ug/kg	< 430	NA	NA	< 263	NA	NA	< 260	< 420	< 500	< 476.2	< 480	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 220	NA	NA	< 131	NA	NA	< 130	< 210	< 250	< 238.1	< 240	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4700	NA	NA	< 4800	NA	NA	< 4700	< 4500	< 5753.326	< 8207.485	< 4700	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 430	NA	NA	< 263	NA	NA	< 260	< 420	< 500	< 476.2	< 480	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 430	NA	NA	< 263	NA	NA	< 260	< 420	< 500	< 476.2	< 480	NA
Tetryl	479-45-8	ug/kg	< 430	NA	NA	< 263	NA	NA	< 260	< 420	< 500	< 476.2	< 480	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.44	< 0.606	< 0.578508	< 0.46	< 0.66	0.65	0.2	< 0.79	< 0.494713	< 0.718904	< 0.74	< 0.731764
Arsenic	7440-38-2	mg/kg	5.5	2.2	2.95	6	14.9	17.2	5.5	3.4	1.57	33.5	4.1	10.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.41	0.704	0.493	0.91	0.63	0.37	0.57	0.45	0.282	0.371	0.66	0.278
Cadmium	7440-43-9	mg/kg	< 0.26	< 0.303	0.225	< 0.28	< 0.39	< 0.28	0.11	< 0.47	< 0.247356	< 0.359452	< 0.44	< 0.365882
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.9	9.37	12.4	26.5	8.8	12.8	12	14.4	9.54	13.5	11.6	11.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	18	12.3	12.5	33	56.7	22.3	37.8	9.5	4.21	20.4	16.2	83.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	81.1	4.34	14.9	762	553	452	433	260	32	175	32	149
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.06	< 0.035	< 0.021904	0.11	2.1	0.1	1.3	0.1	0.064	0.145	0.06	0.184
Nickel	7440-02-0	mg/kg	6	5.89	6.64	13.3	5.8	6.6	8.5	5.7	4.44	9.09	9.2	6.34
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.44	< 0.505	0.813	1.1	2	1.6	0.55	0.72	0.276	0.811	1.4	1.02

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01	D11-218C-03	D11-3-02	D11-7-01	D11-7-02	D11-B232-06	D11-B232-07	D12-1-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999	11/4/1999	11/5/1999	10/27/1999	6/22/2000	6/22/2000	10/29/1999	6/22/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N	D11-218C-032N	D11-3-021N	D11-7-012N	D11-7-022N	D11-B232-062N	D11-B232-072N	D12-1-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.26	< 0.303	< 0.289254	< 0.28	< 0.39	< 0.28	0.13	< 0.47	< 0.247356	< 0.359452	< 0.44	< 0.365882
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.87	< 1.01	< 0.96418	< 0.92	< 1.3	< 0.93	< 0.74	< 1.6	< 0.824521	< 1.198173	< 1.5	< 1.219607
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	32.2	36.4	43.9	108	40.1	50.5	46.4	75.3	56	59	42.4	89.6
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	6.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	21400	NA	8360	29200	70600	33700	17600	60800	NA	NA	24600	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	6.6	NA	NA	4.9	7.3	8.4	3.9	1.8	NA	NA	3.1	NA
Gravel	ARC-PGRAVEL	%	30.7	NA	NA	30.7	33.5	24.3	53.6	57.6	NA	NA	50.3	NA
Sand	ARC-PSAND	%	51	NA	NA	56.1	44.5	49.2	32.6	27.9	NA	NA	40.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	81	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	95.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	55.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	11.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	66.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	30.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	43.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	21.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	11.8	NA	NA	8.3	14.6	18.2	9.9	12.7	NA	NA	6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-1-02	D12-1-02	D12-2073-01	D12-2073-03	D12-208D-01	D12-208D-03	D12-209B-02	D12-282A-05	D12-286A-04	D12-289-03	D12-3-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			10/27/1999	10/27/1999	6/28/2000	10/22/1999	6/28/2000	10/22/1999	11/4/1999	10/27/1999	10/22/1999	10/22/1999	6/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			D12-1-022N	D12-1-022FD	D12-2073-012N	D12-2073-032N	D12-208D-012N	D12-208D-032N	D12-209B-022N	D12-282A-052N	D12-286A-042N	D12-289-031.25N	D12-3-022N
Parent Sample				D12-1-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			D12-1-02 0.0-2.0 ft 10/27/1999 N D12-1-022N	D12-1-02 0.0-2.0 ft 10/27/1999 FD D12-1-022FD D12-1-022N	D12-2073-01 0.0-2.0 ft 6/28/2000 N D12-2073-012N	D12-2073-03 0.0-2.0 ft 10/22/1999 N D12-2073-032N	D12-208D-01 0.0-2.0 ft 6/28/2000 N D12-208D-012N	D12-208D-03 0.0-2.0 ft 10/22/1999 N D12-208D-032N	D12-209B-02 0.0-2.0 ft 11/4/1999 N D12-209B-022N	D12-282A-05 0.0-2.0 ft 10/27/1999 N D12-282A-052N	D12-286A-04 0.0-2.0 ft 10/22/1999 N D12-286A-042N	D12-289-03 0.0-1.3 ft 10/22/1999 N D12-289-031.25N	D12-3-02 0.0-2.0 ft 6/28/2000 N D12-3-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
1,2-Dichlorobenzene	95-50-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
1,4-Dichlorobenzene	106-46-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
2,4-Dichlorophenol	120-83-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
2,4-Dimethylphenol	105-67-9	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2100	< 955.524	< 2200	< 943.342	< 2300	< 2300	< 3700	< 2000	< 2300	< 1790.322
2,4-Dinitrotoluene	121-14-2	ug/kg	< 450	510	< 478	< 440	< 472	< 460	< 450	< 740	< 400	320	< 895
2,6-Dinitrotoluene	606-20-2	ug/kg	< 450	48	< 478	< 440	< 472	< 460	< 450	< 740	< 400	140	< 895
2-Chloronaphthalene	91-58-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
2-Chlorophenol	95-57-8	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 450	< 410	NA	< 440	NA	< 460	< 450	< 740	< 400	< 460	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 900	< 820	< 955.524	< 890	< 943.342	< 910	< 900	< 1500	< 800	< 910	< 1790.322
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2300	< 2100	< 955.524	< 2200	< 943.342	< 2300	< 2300	< 3700	< 2000	< 2300	< 1790.322
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			D12-1-02 0.0-2.0 ft 10/27/1999 N D12-1-022N	D12-1-02 0.0-2.0 ft 10/27/1999 FD D12-1-022FD D12-1-022N	D12-2073-01 0.0-2.0 ft 6/28/2000 N D12-2073-012N	D12-2073-03 0.0-2.0 ft 10/22/1999 N D12-2073-032N	D12-208D-01 0.0-2.0 ft 6/28/2000 N D12-208D-012N	D12-208D-03 0.0-2.0 ft 10/22/1999 N D12-208D-032N	D12-209B-02 0.0-2.0 ft 11/4/1999 N D12-209B-022N	D12-282A-05 0.0-2.0 ft 10/27/1999 N D12-282A-052N	D12-286A-04 0.0-2.0 ft 10/22/1999 N D12-286A-042N	D12-289-03 0.0-1.3 ft 10/22/1999 N D12-289-031.25N	D12-3-02 0.0-2.0 ft 6/28/2000 N D12-3-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2300	< 2100	NA	< 2200	NA	< 2300	< 2300	< 3700	< 2000	< 2300	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	100	< 895.161
Acenaphthylene	208-96-8	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	98	< 895.161
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	36	< 740	< 400	1300	< 895.161
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	180	< 740	34	4000	< 895.161
Benzo[a]pyrene	50-32-8	ug/kg	< 450	< 410	< 477.762	26	< 471.671	< 460	150	< 740	27	2500	< 895.161
Benzo[b]fluoranthene	205-99-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	400	< 740	< 400	4800	< 895.161
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	120	< 740	< 400	630	< 895.161
Benzo[k]fluoranthene	207-08-9	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	1500	< 895.161
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Butylbenzylphthalate	85-68-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	310	< 740	41	3300	< 895.161
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	240	< 895.161
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Dimethylphthalate	131-11-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Di-n-butylphthalate	84-74-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Di-n-octylphthalate	117-84-0	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Fluoranthene	206-44-0	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	140	< 740	< 400	9100	< 895.161
Fluorene	86-73-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	170	< 895.161
Hexachlorobenzene	118-74-1	ug/kg	< 450	< 410	NA	< 440	NA	< 460	< 450	< 740	< 400	< 460	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Hexachloroethane	67-72-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	120	< 740	< 400	710	< 895.161
Isophorone	78-59-1	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-1-02	D12-1-02	D12-2073-01	D12-2073-03	D12-208D-01	D12-208D-03	D12-209B-02	D12-282A-05	D12-286A-04	D12-289-03	D12-3-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			10/27/1999	10/27/1999	6/28/2000	10/22/1999	6/28/2000	10/22/1999	11/4/1999	10/27/1999	10/22/1999	10/22/1999	6/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			D12-1-022N	D12-1-022FD	D12-2073-012N	D12-2073-032N	D12-208D-012N	D12-208D-032N	D12-209B-022N	D12-282A-052N	D12-286A-042N	D12-289-031.25N	D12-3-022N
Parent Sample				D12-1-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	72	< 895.161
Nitrobenzene	98-95-3	ug/kg	< 450	< 410	NA	NA	NA	NA	< 450	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 450	< 410	NA	< 440	NA	< 460	< 450	< 740	< 400	< 460	NA
Pentachlorophenol	87-86-5	ug/kg	< 2300	< 2100	< 955.524	< 2200	< 943.342	< 2300	< 2300	< 3700	< 2000	< 2300	< 1790.322
Phenanthrene	85-01-8	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	68	< 740	23	3300	< 895.161
Phenol	108-95-2	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	< 450	< 740	< 400	< 460	< 895.161
Pyrene	129-00-0	ug/kg	< 450	< 410	< 477.762	< 440	< 471.671	< 460	150	< 740	< 400	6900	< 895.161
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-1-02	D12-1-02	D12-2073-01	D12-2073-03	D12-208D-01	D12-208D-03	D12-209B-02	D12-282A-05	D12-286A-04	D12-289-03	D12-3-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			10/27/1999	10/27/1999	6/28/2000	10/22/1999	6/28/2000	10/22/1999	11/4/1999	10/27/1999	10/22/1999	10/22/1999	6/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			D12-1-022N	D12-1-022FD	D12-2073-012N	D12-2073-032N	D12-208D-012N	D12-208D-032N	D12-209B-022N	D12-282A-052N	D12-286A-042N	D12-289-031.25N	D12-3-022N
Parent Sample				D12-1-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 250	< 250	< 238.0952	< 240	NA	< 220	< 210	< 220	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 250	< 250	< 238.0952	< 240	NA	120	< 210	< 220	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 250	< 250	< 238.0952	< 240	NA	< 220	< 210	< 220	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 250	< 250	< 238.0952	< 240	NA	< 220	< 210	< 220	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 500	< 500	< 476.1904	< 480	NA	< 440	< 420	< 430	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 500	< 500	< 476.1904	< 480	NA	< 440	< 420	< 430	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 250	< 250	< 238.0952	< 240	NA	< 220	< 210	< 220	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 500	< 500	< 476.1904	< 480	NA	< 440	< 420	< 430	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 250	< 250	< 238.0952	< 240	NA	< 220	< 210	< 220	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 478	< 4651.2	< 472	< 4878	NA	< 5000	< 4761.9	< 5000	< 895
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 500	< 500	< 476.1904	< 480	NA	< 440	< 420	280	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 500	< 500	< 476.1904	< 480	NA	< 440	< 420	< 430	< 500
Tetryl	479-45-8	ug/kg	NA	NA	< 500	< 500	< 476.1904	< 480	NA	< 440	< 420	< 430	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.39	< 0.51	< 0.729519	0.4	< 0.708215	0.29	0.32	0.38	< 0.54	0.7	0.823
Arsenic	7440-38-2	mg/kg	5	3.3	8.28	6.8	2.78	1.6	53	12	5.2	188	7.23
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.51	0.53	0.313	0.18	0.29	0.25	0.41	1.4	0.51	0.27	0.454
Cadmium	7440-43-9	mg/kg	< 0.23	< 0.35	0.665	0.5	0.126	< 0.32	0.5	< 0.58	0.6	0.37	0.424
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.8	15.1	15.7	7.5	8.99	7.3	9.6	14.5	11.1	223	13.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	75.4	62.9	7.21	13.3	6.87	3.4	47.8	33.2	419	197	19.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	82.2	42.6	38.4	49	30	6.4	181	78.3	471	1590	125
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.11	0.17	0.05	0.1	0.05	0.05	0.35	0.11	0.08	3.8	0.237
Nickel	7440-02-0	mg/kg	7.1	7.9	5.19	6.6	3.78	3.9	8.2	7.6	10.7	23.4	5.42
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.88	0.49	0.477	0.37	1.19	0.4	2.7	0.44	0.39	0.76	1.27

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-1-02	D12-1-02	D12-2073-01	D12-2073-03	D12-208D-01	D12-208D-03	D12-209B-02	D12-282A-05	D12-286A-04	D12-289-03	D12-3-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			10/27/1999	10/27/1999	6/28/2000	10/22/1999	6/28/2000	10/22/1999	11/4/1999	10/27/1999	10/22/1999	10/22/1999	6/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			D12-1-022N	D12-1-022FD	D12-2073-012N	D12-2073-032N	D12-208D-012N	D12-208D-032N	D12-209B-022N	D12-282A-052N	D12-286A-042N	D12-289-031.25N	D12-3-022N
Parent Sample				D12-1-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.23	< 0.31	< 0.36476	0.1	< 0.354108	< 0.32	< 0.3	< 0.58	0.75	0.28	< 0.760803
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.78	< 1	0.781	< 0.94	< 1.180358	< 1.1	< 0.98	< 1.9	< 1.1	< 2	< 2.536011
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	121	90.7	89.8	109	18	30.3	78.3	174	469	1520	50.7
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	5600	NA	21100	NA	23900	2920	101000	12700	111000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	4.8	NA	4.1	NA	7.8	5.1	3.3	6.9	1.7	NA
Gravel	ARC-PGRAVEL	%	NA	9.6	NA	41.3	NA	13.3	44	68.3	23.6	76.5	NA
Sand	ARC-PSAND	%	NA	68.4	NA	44	NA	61.5	37.5	22.7	55.8	15.2	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	17.2	NA	10.6	NA	17.3	13.4	5.7	13.8	6.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02	D13-3-02	D13-303F-02	D13-3-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999	6/28/2000	11/4/1999	11/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N	D13-3-022N	D13-303F-022N	D13-3-042N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02	D13-3-02	D13-303F-02	D13-3-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999	6/28/2000	11/4/1999	11/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N	D13-3-022N	D13-303F-022N	D13-3-042N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
2,4-Dichlorophenol	120-83-2	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	< 2500	NA	< 819.188	< 2500	< 2000	< 2200	< 2200	< 2300	< 2400	< 831.46	< 3600	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 500	NA	< 410	< 490	410	< 440	< 440	< 460	< 480	< 416	< 720	< 430
2,6-Dinitrotoluene	606-20-2	ug/kg	< 500	NA	< 410	< 490	< 410	< 440	< 440	< 460	< 480	< 416	< 720	< 430
2-Chloronaphthalene	91-58-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
2-Chlorophenol	95-57-8	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 500	NA	NA	< 490	< 410	< 440	< 440	< 460	< 480	NA	< 720	< 430
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 1000	NA	< 819.188	< 980	< 810	< 890	< 880	< 910	< 970	< 831.46	< 1440	< 850
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2500	NA	< 819.188	< 2500	< 2000	< 2200	< 2200	< 2300	< 2400	< 831.46	< 3600	< 2100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02	D13-3-02	D13-303F-02	D13-3-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999	6/28/2000	11/4/1999	11/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N	D13-3-022N	D13-303F-022N	D13-3-042N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2500	NA	NA	< 2500	< 2000	< 2200	< 2200	< 2300	< 2400	NA	< 3600	< 2100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Acenaphthylene	208-96-8	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 500	NA	< 409.594	86	51	< 440	120	160	< 480	< 415.73	80	< 430
Benzo[a]pyrene	50-32-8	ug/kg	< 500	NA	< 409.594	75	78	< 440	100	410	< 480	< 415.73	61	< 430
Benzo[b]fluoranthene	205-99-2	ug/kg	< 500	NA	< 409.594	88	180	< 440	170	250	< 480	< 415.73	< 720	< 430
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 500	NA	< 409.594	< 490	120	< 440	< 440	620	< 480	< 415.73	< 720	< 430
Benzo[k]fluoranthene	207-08-9	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	31	< 415.73	< 720	< 430
Butylbenzylphthalate	85-68-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 500	NA	< 409.594	89	120	< 440	120	200	< 480	< 415.73	72	< 430
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	420	< 480	< 415.73	< 720	< 430
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 500	NA	< 409.594	< 490	36	< 440	< 440	< 460	53	< 415.73	< 720	< 430
Dimethylphthalate	131-11-3	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Di-n-butylphthalate	84-74-2	ug/kg	< 500	NA	< 409.594	< 490	39	37	< 440	< 460	54	< 415.73	< 720	< 430
Di-n-octylphthalate	117-84-0	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Fluoranthene	206-44-0	ug/kg	< 500	NA	< 409.594	96	< 410	< 440	170	< 460	< 480	< 415.73	140	< 430
Fluorene	86-73-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Hexachlorobenzene	118-74-1	ug/kg	< 500	NA	NA	< 490	< 410	< 440	< 440	< 460	< 480	NA	< 720	< 430
Hexachlorobutadiene	87-68-3	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Hexachloroethane	67-72-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 500	NA	< 409.594	< 490	100	< 440	< 440	320	< 480	< 415.73	< 720	< 430
Isophorone	78-59-1	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02	D13-3-02	D13-303F-02	D13-3-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999	6/28/2000	11/4/1999	11/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N	D13-3-022N	D13-303F-022N	D13-3-042N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 720	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 500	NA	NA	< 490	< 410	< 440	< 440	< 460	< 480	NA	< 720	< 430
Pentachlorophenol	87-86-5	ug/kg	< 2500	NA	< 819.188	< 2500	< 2000	< 2200	< 2200	< 2300	< 2400	< 831.46	< 3600	< 2100
Phenanthrene	85-01-8	ug/kg	< 500	NA	< 409.594	59	57	< 440	66	< 460	41	< 415.73	< 720	< 430
Phenol	108-95-2	ug/kg	< 500	NA	< 409.594	< 490	< 410	< 440	< 440	< 460	< 480	< 415.73	< 720	< 430
Pyrene	129-00-0	ug/kg	< 500	NA	< 409.594	140	< 410	< 440	170	< 460	< 480	< 415.73	< 720	< 430
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02	D13-3-02	D13-303F-02	D13-3-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999	6/28/2000	11/4/1999	11/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N	D13-3-022N	D13-303F-022N	D13-3-042N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 240	NA	< 250	< 250	< 220	< 200	< 230	< 230	< 250	< 250	NA	< 240
1,3-Dinitrobenzene	99-65-0	ug/kg	< 240	NA	< 250	< 250	< 220	< 200	< 230	< 230	< 250	< 250	NA	< 240
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 240	NA	< 250	< 250	< 220	< 200	< 230	< 230	< 250	462	NA	< 240
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 240	NA	< 250	< 250	< 220	< 200	< 230	< 230	< 250	563	NA	230
2-Nitrotoluene	88-72-2	ug/kg	< 480	NA	< 500	< 500	< 430	< 400	< 450	< 450	< 500	< 500	NA	< 480
3-Nitrotoluene	99-08-1	ug/kg	< 480	NA	< 500	< 500	< 430	< 400	< 450	< 450	< 500	< 500	NA	< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 240	NA	< 250	< 250	< 220	< 200	< 230	< 230	< 250	807	NA	280
4-Nitrotoluene	99-99-0	ug/kg	< 480	NA	< 500	< 500	< 430	< 400	< 450	< 450	< 500	< 500	NA	< 480
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 240	NA	< 250	< 250	< 220	< 200	< 230	< 230	< 250	< 250	NA	< 240
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5000	NA	< 410	< 4800	< 4900	< 4500	< 5000	< 4878	< 4800	< 416	NA	< 4761.9
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 480	NA	< 500	< 500	< 430	< 400	< 450	< 450	< 500	< 500	NA	< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 480	NA	< 500	< 500	< 430	< 400	< 450	< 450	< 500	< 500	NA	< 480
Tetryl	479-45-8	ug/kg	< 480	NA	< 500	< 500	< 430	< 400	< 450	< 450	< 500	< 500	NA	< 480
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.56	NA	< 0.604924	13.1	< 0.54	< 0.51	0.83	< 0.41	< 0.63	< 0.502727	1	< 0.4
Arsenic	7440-38-2	mg/kg	2.3	NA	13.9	12.5	8	6.6	10.8	25.6	14.6	3.57	40.3	7.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.47	NA	0.561	0.45	0.61	0.59	0.62	0.62	0.65	0.529	0.39	0.73
Cadmium	7440-43-9	mg/kg	< 0.34	NA	0.885	0.41	0.7	0.47	1.7	0.55	1.2	< 0.251364	0.79	0.45
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	7.9	NA	16.5	10.2	21.2	38.3	20	12.3	21.8	16.5	5.1	17
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	103	NA	18.9	219	102	153	29.4	54.7	389	10.7	17.1	17.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	35.8	NA	111	267	105	67.4	2100	3680	43.7	13.5	64.9	186
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.06	NA	0.118	0.37	1.4	0.09	0.32	0.62	0.06	0.057	0.2	0.05
Nickel	7440-02-0	mg/kg	3.1	NA	9.41	8.1	17.8	16.9	13.3	10	15.4	8.95	11.7	9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.86	NA	1.18	0.67	0.63	0.62	1.4	1.3	1.5	0.589	2.6	1.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02	D13-3-02	D13-303F-02	D13-3-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999	6/28/2000	11/4/1999	11/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N	D13-3-022N	D13-303F-022N	D13-3-042N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.34	NA	< 0.302462	< 0.32	< 0.32	< 0.31	0.15	0.24	< 0.38	< 0.251364	< 0.58	< 0.24
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	NA	2.18	< 1	< 1.1	< 1	< 0.99	< 0.82	< 1.3	2.27	< 1.9	< 0.79
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	19.5	NA	574	441	313	367	740	712	594	197	285	413
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	6.9	7.96	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	97000	7810	NA	NA	NA	32400	55400	90000	145000	NA	102000	10600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	13.5	9.2	NA	NA	NA	4.9	14.3	4.4	0.8	NA	7.3	13.2
Gravel	ARC-PGRAVEL	%	10.6	25.4	NA	NA	NA	40.5	31.9	55.4	81.1	NA	51.3	25.9
Sand	ARC-PSAND	%	51	38.6	NA	NA	NA	39.1	34.7	31.3	15.1	NA	31.6	38.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	25	26.9	NA	NA	NA	15.5	19.1	8.9	3	NA	9.7	22.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-120-03	D14-120-04	D14-129-03	D14-129-03	D14-129-05	D14-129-05	D14-204B-01	D14-204B-04	D14-360-01	D14-360-03	D14-6-01	D14-6-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/6/2000	11/3/1999	7/6/2000	7/6/2000	11/3/1999	11/3/1999	10/26/1999	10/26/1999	7/6/2000	11/3/1999	10/26/1999	7/6/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			D14-120-032N	D14-120-042N	D14-129-032N	D14-129-032FD	D14-129-052N	D14-129-052FD	D14-204B-012N	D14-204B-042N	D14-360-012N	D14-360-032N	D14-6-012N	D14-6-022N
Parent Sample						D14-129-032N		D14-129-052N						
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-120-03	D14-120-04	D14-129-03	D14-129-03	D14-129-05	D14-129-05	D14-204B-01	D14-204B-04	D14-360-01	D14-360-03	D14-6-01	D14-6-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/6/2000	11/3/1999	7/6/2000	7/6/2000	11/3/1999	11/3/1999	10/26/1999	10/26/1999	7/6/2000	11/3/1999	10/26/1999	7/6/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			D14-120-032N	D14-120-042N	D14-129-032N	D14-129-032FD	D14-129-052N	D14-129-052FD	D14-204B-012N	D14-204B-042N	D14-360-012N	D14-360-032N	D14-6-012N	D14-6-022N
Parent Sample						D14-129-032N		D14-129-052N						
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
1,2-Dichlorobenzene	95-50-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
1,4-Dichlorobenzene	106-46-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
2,4-Dichlorophenol	120-83-2	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
2,4-Dimethylphenol	105-67-9	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
2,4-Dinitrophenol	51-28-5	ug/kg	< 782.536	< 2000	< 956.616	< 980	< 2400	< 2500	< 2200	< 2000	< 798.306	< 2100	< 2300	< 801.378
2,4-Dinitrotoluene	121-14-2	ug/kg	83	< 400	89.4	< 490	< 480	< 490	< 440	< 410	< 399	180	< 460	95.4
2,6-Dinitrotoluene	606-20-2	ug/kg	< 391	< 400	< 478	< 490	< 480	< 490	< 440	< 410	< 399	< 420	< 460	< 401
2-Chloronaphthalene	91-58-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
2-Chlorophenol	95-57-8	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 400	NA	NA	< 480	< 490	< 440	< 410	NA	< 420	< 460	NA
2-Nitrotoluene	88-72-2	ug/kg	< 391.268	NA	< 478.308	< 490	NA	NA	NA	NA	< 399.153	NA	NA	< 400.689
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 782.536	< 800	< 956.616	< 980	< 950	< 980	< 880	< 820	< 798.306	< 840	< 920	< 801.378
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 782.536	< 2000	< 956.616	< 980	< 2400	< 2500	< 2200	< 2000	< 798.306	< 2100	< 2300	< 801.378
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-120-03	D14-120-04	D14-129-03	D14-129-03	D14-129-05	D14-129-05	D14-204B-01	D14-204B-04	D14-360-01	D14-360-03	D14-6-01	D14-6-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/6/2000	11/3/1999	7/6/2000	7/6/2000	11/3/1999	11/3/1999	10/26/1999	10/26/1999	7/6/2000	11/3/1999	10/26/1999	7/6/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			D14-120-032N	D14-120-042N	D14-129-032N	D14-129-032FD	D14-129-052N	D14-129-052FD	D14-204B-012N	D14-204B-042N	D14-360-012N	D14-360-032N	D14-6-012N	D14-6-022N
Parent Sample						D14-129-032N		D14-129-052N						
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	NA	NA	< 2400	< 2500	< 2200	< 2000	NA	< 2100	< 2300	NA
4-Nitrotoluene	99-99-0	ug/kg	< 782.536	NA	< 956.616	< 980	NA	NA	NA	NA	< 798.306	NA	NA	< 801.378
Acenaphthene	83-32-9	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Acenaphthylene	208-96-8	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	21	< 410	< 399.153	24	< 460	< 400.689
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	40	24	< 399.153	< 420	< 460	< 400.689
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	79	37	< 478.308	72.5	< 480	< 490	260	120	< 399.153	130	< 460	< 400.689
Benzo[a]pyrene	50-32-8	ug/kg	77.9	29	< 478.308	57.3	< 480	< 490	240	120	< 399.153	130	< 460	< 400.689
Benzo[b]fluoranthene	205-99-2	ug/kg	116	< 400	< 478.308	< 490	< 480	< 490	440	270	< 399.153	290	< 460	< 400.689
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	120	110	< 399.153	92	< 460	< 400.689
Benzo[k]fluoranthene	207-08-9	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	160	110	< 399.153	86	< 460	< 400.689
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	83.3	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Butylbenzylphthalate	85-68-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	154	< 400	< 478.308	64.7	< 480	< 490	300	200	78.6	200	< 460	< 400.689
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Dimethylphthalate	131-11-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Di-n-butylphthalate	84-74-2	ug/kg	140	< 400	< 478.308	< 490	< 480	< 490	< 440	58	< 399.153	< 420	< 460	< 400.689
Di-n-octylphthalate	117-84-0	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Fluoranthene	206-44-0	ug/kg	108	< 400	< 478.308	166	< 480	< 490	350	220	< 399.153	210	< 460	< 400.689
Fluorene	86-73-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Hexachlorobenzene	118-74-1	ug/kg	NA	< 400	NA	NA	< 480	< 490	< 440	< 410	NA	< 420	< 460	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Hexachloroethane	67-72-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	120	100	< 399.153	97	< 460	< 400.689
Isophorone	78-59-1	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-120-03	D14-120-04	D14-129-03	D14-129-03	D14-129-05	D14-129-05	D14-204B-01	D14-204B-04	D14-360-01	D14-360-03	D14-6-01	D14-6-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/6/2000	11/3/1999	7/6/2000	7/6/2000	11/3/1999	11/3/1999	10/26/1999	10/26/1999	7/6/2000	11/3/1999	10/26/1999	7/6/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			D14-120-032N	D14-120-042N	D14-129-032N	D14-129-032FD	D14-129-052N	D14-129-052FD	D14-204B-012N	D14-204B-042N	D14-360-012N	D14-360-032N	D14-6-012N	D14-6-022N
Parent Sample						D14-129-032N		D14-129-052N						
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Nitrobenzene	98-95-3	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	NA	NA	< 399.153	< 420	< 460	< 400.689
N-Nitrosodimethylamine	62-75-9	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 400	NA	NA	< 480	< 490	< 440	< 410	NA	< 420	< 460	NA
Pentachlorophenol	87-86-5	ug/kg	< 782.536	< 2000	< 956.616	< 980	< 2400	< 2500	< 2200	< 2000	< 798.306	< 2100	< 2300	< 801.378
Phenanthrene	85-01-8	ug/kg	111	33	< 478.308	104	< 480	< 490	140	110	90.2	65	< 460	< 400.689
Phenol	108-95-2	ug/kg	< 391.268	< 400	< 478.308	< 490	< 480	< 490	< 440	< 410	< 399.153	< 420	< 460	< 400.689
Pyrene	129-00-0	ug/kg	173	< 400	< 478.308	160	< 480	< 490	450	300	< 399.153	240	< 460	< 400.689
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-120-03	D14-120-04	D14-129-03	D14-129-03	D14-129-05	D14-129-05	D14-204B-01	D14-204B-04	D14-360-01	D14-360-03	D14-6-01	D14-6-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/6/2000	11/3/1999	7/6/2000	7/6/2000	11/3/1999	11/3/1999	10/26/1999	10/26/1999	7/6/2000	11/3/1999	10/26/1999	7/6/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			D14-120-032N	D14-120-042N	D14-129-032N	D14-129-032FD	D14-129-052N	D14-129-052FD	D14-204B-012N	D14-204B-042N	D14-360-012N	D14-360-032N	D14-6-012N	D14-6-022N
Parent Sample						D14-129-032N		D14-129-052N						
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 210	150	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	< 210	< 250	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	< 210	280	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	< 210	< 250	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 500	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 500	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	< 210	< 250	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 500	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 210	< 250	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 391.268	NA	< 478.308	< 490	NA	NA	< 5000	< 4800	< 399.153	NA	NA	< 400.689
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	300	1100	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 500	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 500	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.692775	< 0.45	0.828	< 0.816	< 0.58	< 0.6	2.4	1	0.4	< 0.45	< 0.64	< 0.7141
Arsenic	7440-38-2	mg/kg	7.32	8.6	3.33	3.35	3.7	4.5	335	140	5.37	1.6	3.1	1.35
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.423	0.62	0.417	0.402	0.54	0.57	0.34	0.38	0.508	0.71	0.16	0.12
Cadmium	7440-43-9	mg/kg	0.786	0.21	0.611	0.597	0.32	0.38	0.28	0.37	0.772	< 0.27	< 0.38	0.144
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.4	13.4	14.2	13.9	12	12.2	13.5	17.7	15.6	14.3	5.1	2.95
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	17.8	18.1	16.2	10.7	12.4	13.8	25.6	22.6	14.8	9.7	11	8.82
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	89.3	204	71.6	72.4	46.4	50.9	469	88	23.9	15.7	6.3	7.98
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.182	0.47	0.148	0.163	0.21	0.37	0.26	0.05	0.085	0.37	0.03	0.042
Nickel	7440-02-0	mg/kg	6.98	8.2	5.49	5.46	5	5.4	8.6	11.3	9.11	6.2	8.2	5.82
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.54	1.4	1.83	1.87	1.8	1.9	2.1	0.76	1.17	0.54	0.44	0.691

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-120-03	D14-120-04	D14-129-03	D14-129-03	D14-129-05	D14-129-05	D14-204B-01	D14-204B-04	D14-360-01	D14-360-03	D14-6-01	D14-6-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/6/2000	11/3/1999	7/6/2000	7/6/2000	11/3/1999	11/3/1999	10/26/1999	10/26/1999	7/6/2000	11/3/1999	10/26/1999	7/6/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	N	N
Sample Name			D14-120-032N	D14-120-042N	D14-129-032N	D14-129-032FD	D14-129-052N	D14-129-052FD	D14-204B-012N	D14-204B-042N	D14-360-012N	D14-360-032N	D14-6-012N	D14-6-022N
Parent Sample						D14-129-032N		D14-129-052N						
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.346388	< 0.27	< 0.413921	< 0.408	< 0.35	< 0.36	0.12	< 0.31	< 0.348775	< 0.27	< 0.38	< 0.35705
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.154625	< 0.91	< 1.379737	< 1.36	< 1.2	< 1.2	< 1.1	< 1	< 1.162584	< 0.91	< 1.3	< 1.190166
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	43.1	48	45.7	47.6	46.6	48.2	27.9	61.3	44.3	60.6	8.4	8.83
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	4.49	4.88	NA	NA	4.73	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	27200	NA	NA	43900	NA	39100	28600	NA	43000	18600	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	13.7	NA	NA	9.2	NA	5.7	5.9	NA	6.5	3.6	NA
Gravel	ARC-PGRAVEL	%	NA	22.9	NA	NA	22.2	NA	44.4	28.9	NA	33.7	28.9	NA
Sand	ARC-PSAND	%	NA	43.3	NA	NA	43.8	NA	39.9	48.2	NA	45.3	63.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	20	NA	NA	24.9	NA	10	17.1	NA	14.6	4.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000
Sample Type			N	FD	N	FD	N	FD	N	N	N	N	N	FD	N
Sample Name			D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N
Parent Sample				D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000
Sample Type			N	FD	N	FD	N	FD	N	N	N	N	N	FD	N
Sample Name			D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N
Parent Sample				D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 1900	< 729.624	< 727	< 1900	< 1900	< 1800	< 746.134	< 712.528	< 1800	< 1900	< 1900	< 817.078
2,4-Dinitrotoluene	121-14-2	ug/kg	150	130	< 365	< 364	< 370	< 370	< 360	< 373	< 356	< 360	< 380	< 380	< 409
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 380	< 365	< 364	< 370	< 370	< 360	< 373	< 356	< 360	< 380	< 380	< 409
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
2-Chlorophenol	95-57-8	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	< 380	NA	NA	< 370	< 370	< 360	NA	NA	< 360	< 380	< 380	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 364.812	< 364	NA	NA	NA	< 373.067	< 356.264	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 800	< 770	< 729.624	< 727	< 750	< 730	< 720	< 746.134	< 712.528	< 720	< 770	< 760	< 817.078
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 1900	< 729.624	< 727	< 1900	< 1900	< 1800	< 746.134	< 712.528	< 1800	< 1900	< 1900	< 817.078
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000
Sample Type			N	FD	N	FD	N	FD	N	N	N	N	N	FD	N
Sample Name			D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N
Parent Sample				D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 1900	NA	NA	< 1900	< 1900	< 1800	NA	NA	< 1800	< 1900	< 1900	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 729.624	< 727	NA	NA	NA	< 746.134	< 712.528	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Acenaphthylene	208-96-8	ug/kg	22	30	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 400	37	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	< 370	< 370	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	170	260	< 364.812	36.7	43	44	< 360	< 373.067	< 356.264	28	< 380	< 380	41.7
Benzo[a]pyrene	50-32-8	ug/kg	180	300	32.5	37.4	< 370	35	< 360	< 373.067	< 356.264	< 360	< 380	21	34.7
Benzo[b]fluoranthene	205-99-2	ug/kg	250	390	< 364.812	< 364	63	68	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Benzo[g,h,i]perylene	191-24-2	ug/kg	120	140	< 364.812	< 364	NA	NA	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Benzo[k]fluoranthene	207-08-9	ug/kg	130	170	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	30	< 380	33.6	24.4	780	900	48	28.7	150	110	< 380	< 380	31.5
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	170	270	< 364.812	< 364	54	40	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Dimethylphthalate	131-11-3	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Di-n-butylphthalate	84-74-2	ug/kg	230	210	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Fluoranthene	206-44-0	ug/kg	270	410	< 364.812	< 364	81	84	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Fluorene	86-73-7	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 380	NA	NA	< 370	< 370	< 360	NA	NA	< 360	< 380	< 380	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Hexachloroethane	67-72-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	110	140	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Isophorone	78-59-1	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000
Sample Type			N	FD	N	FD	N	FD	N	N	N	N	N	FD	N
Sample Name			D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N
Parent Sample				D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 380	144	133	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 380	NA	NA	< 370	66	< 360	NA	NA	< 360	< 380	< 380	NA
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 1900	< 729.624	< 727	< 1900	< 1900	< 1800	< 746.134	< 712.528	< 1800	< 1900	< 1900	< 817.078
Phenanthrene	85-01-8	ug/kg	63	98	< 364.812	< 364	42	33	< 360	< 373.067	< 356.264	33	< 380	< 380	< 408.539
Phenol	108-95-2	ug/kg	< 400	< 380	< 364.812	< 364	< 370	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Pyrene	129-00-0	ug/kg	230	350	< 364.812	< 364	96	< 370	< 360	< 373.067	< 356.264	< 360	< 380	< 380	< 408.539
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000
Sample Type			N	FD	N	FD	N	FD	N	N	N	N	N	FD	N
Sample Name			D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N
Parent Sample				D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	860	< 1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 247.525
1,3-Dinitrobenzene	99-65-0	ug/kg	< 2100	< 1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 247.525
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	32000	56000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 247.525
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	2700	860	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 247.525
2-Nitrotoluene	88-72-2	ug/kg	< 4200	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 495.05
3-Nitrotoluene	99-08-1	ug/kg	< 4200	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 495.05
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	2600	710	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 247.525
4-Nitrotoluene	99-99-0	ug/kg	< 4200	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 495.05
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 2100	< 1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 247.525
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4878	< 4545.5	< 364.812	< 364	NA	NA	NA	< 373.067	< 356.264	NA	NA	NA	< 409
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 4200	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 495.05
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 4200	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 495.05
Tetryl	479-45-8	ug/kg	< 4200	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 495.05
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.53	< 0.47	< 0.614316	< 0.618	< 0.37	0.35	< 0.5	< 0.665538	< 0.61135	< 0.46	< 0.46	< 0.57	< 0.728818
Arsenic	7440-38-2	mg/kg	5.3	3.7	4.25	3.29	4	4.6	3.1	3.85	5.7	4.8	4.1	4.3	4.59
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.7	0.73	0.44	0.518	0.33	0.37	0.38	0.352	0.285	0.27	0.7	0.73	0.318
Cadmium	7440-43-9	mg/kg	0.69	0.56	0.605	0.546	0.02	0.06	< 0.3	0.531	0.417	< 0.28	< 0.27	< 0.28	0.364
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	20	16.5	13.7	13.2	15	16.1	10.9	48.4	19.5	8.4	15.9	24	14.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	87.8	54	18	17.5	25	31	21.2	21.3	19.2	14	20	21.1	9.93
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	875	529	43.1	45.9	24.1	34.3	99.5	30.9	24.4	9.2	600	468	26.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.29	0.24	0.059	0.036	0.05	0.07	0.11	0.028	0.026	0.05	0.07	0.06	0.503
Nickel	7440-02-0	mg/kg	8.6	6.7	5.59	5.4	5.3	6.2	5.2	21.4	8.21	3	8	8.3	6.11
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.57	0.58	0.767	0.712	0.44	0.46	0.45	0.679	0.753	0.47	0.52	0.5	0.745

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000
Sample Type			N	FD	N	FD	N	FD	N	N	N	N	N	FD	N
Sample Name			D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N
Parent Sample				D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	0.1	< 0.28	< 0.307158	< 0.309	< 0.22	< 0.26	< 0.3	< 0.332769	< 0.305675	< 0.28	< 0.27	< 0.28	< 0.364409
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 0.94	< 1.02386	< 1.03	< 0.73	< 0.88	< 1	< 1.10923	< 1.018916	< 0.92	< 0.91	< 0.93	< 1.214696
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	235	196	74.5	73.6	48.9	63.6	24.6	25.2	23.7	14.3	42.3	42.3	26.5
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	26300	NA	NA	NA	10600	NA	2030	NA	NA	8980	17800	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	5.5	NA	NA	NA	6.4	NA	8.2	NA	NA	8.4	17.3	NA	NA
Gravel	ARC-PGRAVEL	%	39.2	NA	NA	NA	57.2	NA	30.3	NA	NA	29	24.4	NA	NA
Sand	ARC-PSAND	%	39.5	NA	NA	NA	26.9	NA	44	NA	NA	57.6	32.6	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	15.8	NA	NA	NA	9.4	NA	17.4	NA	NA	5	25.7	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D9-5-05	D9-8279-01	D9-8284-03	D9-8284-05	D9-8284-05	D9-9108-01	D9-9108-04	D9-9108-07	D9-9108-10	D9-N1-03	E10-1-05	E10-1-13
Depths			0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	11/19/1999	7/21/2000	11/22/1999	11/22/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/4/1999	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D9-5-051.5N	D9-8279-011N	D9-8284-030.5N	D9-8284-050.5N	D9-8284-052N	D9-9108-010.5N	D9-9108-041N	D9-9108-071N	D9-9108-100.5N	D9-N1-030.5N	E10-1-052N	E10-1-132N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1030	< 1025	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2070	< 2049	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 5170	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	< 1030	< 1025	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	< 1030	< 1025	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	< 1030	< 1025	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D9-5-05	D9-8279-01	D9-8284-03	D9-8284-05	D9-8284-05	D9-9108-01	D9-9108-04	D9-9108-07	D9-9108-10	D9-N1-03	E10-1-05	E10-1-13
Depths			0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	11/19/1999	7/21/2000	11/22/1999	11/22/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/4/1999	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D9-5-051.5N	D9-8279-011N	D9-8284-030.5N	D9-8284-050.5N	D9-8284-052N	D9-9108-010.5N	D9-9108-041N	D9-9108-071N	D9-9108-100.5N	D9-N1-030.5N	E10-1-052N	E10-1-132N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 2070	< 512	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 517	< 512	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1025	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 1800	NA	NA	NA	< 2100	< 1900	< 1900	< 1800	< 1900	< 2700	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	540	170
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2-Chlorophenol	95-57-8	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 800	< 720	NA	NA	NA	< 830	< 760	< 750	< 710	< 740	< 1080	< 820
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 1800	NA	NA	NA	< 2100	< 1900	< 1900	< 1800	< 1900	< 2700	< 2100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D9-5-05	D9-8279-01	D9-8284-03	D9-8284-05	D9-8284-05	D9-9108-01	D9-9108-04	D9-9108-07	D9-9108-10	D9-N1-03	E10-1-05	E10-1-13
Depths			0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	11/19/1999	7/21/2000	11/22/1999	11/22/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/4/1999	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D9-5-051.5N	D9-8279-011N	D9-8284-030.5N	D9-8284-050.5N	D9-8284-052N	D9-9108-010.5N	D9-9108-041N	D9-9108-071N	D9-9108-100.5N	D9-N1-030.5N	E10-1-052N	E10-1-132N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 1800	NA	NA	NA	< 2100	< 1900	< 1900	< 1800	< 1900	< 2700	< 2100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	41	NA	NA	NA	< 420	< 380	< 370	70	< 370	< 540	< 410
Acenaphthylene	208-96-8	ug/kg	< 400	91	NA	NA	NA	< 420	< 380	< 370	33	< 370	< 540	< 410
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 400	170	NA	NA	NA	< 420	< 380	< 370	250	< 370	< 540	< 410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 400	620	NA	NA	NA	61	62	120	1400	< 370	45	72
Benzo[a]pyrene	50-32-8	ug/kg	25	420	NA	NA	NA	40	1100	96	1300	< 370	< 540	61
Benzo[b]fluoranthene	205-99-2	ug/kg	< 400	990	NA	NA	NA	72	170	110	1800	< 370	< 540	110
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 400	250	NA	NA	NA	< 420	710	< 370	1000	< 370	< 540	< 410
Benzo[k]fluoranthene	207-08-9	ug/kg	< 400	340	NA	NA	NA	< 420	< 380	< 370	370	< 370	< 540	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	21	210	NA	NA	NA	2800	< 380	< 370	< 350	84	< 540	< 410
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 400	740	NA	NA	NA	54	110	110	1300	< 370	51	93
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	73	NA	NA	NA	< 420	420	< 370	300	< 370	< 540	< 410
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Dimethylphthalate	131-11-3	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Di-n-butylphthalate	84-74-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Fluoranthene	206-44-0	ug/kg	< 400	2500	NA	NA	NA	< 420	< 380	170	2300	< 370	< 540	98
Fluorene	86-73-7	ug/kg	< 400	89	NA	NA	NA	< 420	< 380	< 370	63	< 370	< 540	< 410
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Hexachloroethane	67-72-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 400	240	NA	NA	NA	< 420	320	77	870	< 370	< 540	< 410
Isophorone	78-59-1	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D9-5-05	D9-8279-01	D9-8284-03	D9-8284-05	D9-8284-05	D9-9108-01	D9-9108-04	D9-9108-07	D9-9108-10	D9-N1-03	E10-1-05	E10-1-13
Depths			0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	11/19/1999	7/21/2000	11/22/1999	11/22/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/4/1999	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D9-5-051.5N	D9-8279-011N	D9-8284-030.5N	D9-8284-050.5N	D9-8284-052N	D9-9108-010.5N	D9-9108-041N	D9-9108-071N	D9-9108-100.5N	D9-N1-030.5N	E10-1-052N	E10-1-132N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	52	< 370	< 540	< 410
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	NA	< 410
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 1800	NA	NA	NA	< 2100	< 1900	< 1900	< 1800	< 1900	< 2700	< 2100
Phenanthrene	85-01-8	ug/kg	26	1300	NA	NA	NA	28	22	99	1400	< 370	51	64
Phenol	108-95-2	ug/kg	< 400	< 360	NA	NA	NA	< 420	< 380	< 370	< 350	< 370	< 540	< 410
Pyrene	129-00-0	ug/kg	< 400	2700	NA	NA	NA	< 420	< 380	260	2900	< 370	< 540	< 410
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D9-5-05	D9-8279-01	D9-8284-03	D9-8284-05	D9-8284-05	D9-9108-01	D9-9108-04	D9-9108-07	D9-9108-10	D9-N1-03	E10-1-05	E10-1-13
Depths			0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	11/19/1999	7/21/2000	11/22/1999	11/22/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/4/1999	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D9-5-051.5N	D9-8279-011N	D9-8284-030.5N	D9-8284-050.5N	D9-8284-052N	D9-9108-010.5N	D9-9108-041N	D9-9108-071N	D9-9108-100.5N	D9-N1-030.5N	E10-1-052N	E10-1-132N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 240	< 220	NA	NA	NA	NA	NA	NA	NA	NA	< 230	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 240	< 220	NA	NA	NA	NA	NA	NA	NA	NA	< 230	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 240	< 220	NA	NA	NA	NA	NA	NA	NA	NA	< 230	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 240	< 220	NA	NA	NA	NA	NA	NA	NA	NA	< 230	NA
2-Nitrotoluene	88-72-2	ug/kg	< 480	< 430	NA	NA	NA	NA	NA	NA	NA	NA	< 450	NA
3-Nitrotoluene	99-08-1	ug/kg	< 480	< 430	NA	NA	NA	NA	NA	NA	NA	NA	< 450	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 240	< 220	NA	NA	NA	NA	NA	NA	NA	NA	< 230	NA
4-Nitrotoluene	99-99-0	ug/kg	< 480	< 430	NA	NA	NA	NA	NA	NA	NA	NA	< 450	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 240	< 220	NA	NA	NA	NA	NA	NA	NA	NA	< 230	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4800	< 4500	NA	NA	NA	NA	NA	NA	NA	NA	5200	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 480	< 430	NA	NA	NA	NA	NA	NA	NA	NA	< 450	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 480	< 430	NA	NA	NA	NA	NA	NA	NA	NA	< 450	NA
Tetryl	479-45-8	ug/kg	< 480	< 430	NA	NA	NA	NA	NA	NA	NA	NA	< 450	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.97	< 0.47	NA	NA	NA	< 0.33	< 0.41	< 0.46	< 0.5	< 0.55	< 0.48	< 0.32
Arsenic	7440-38-2	mg/kg	4.4	3.6	NA	NA	NA	5.4	4.9	3.1	3.5	4	10.3	5.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.32	0.39	NA	NA	NA	0.65	0.61	0.56	0.56	0.25	0.39	0.35
Cadmium	7440-43-9	mg/kg	< 0.32	< 0.28	NA	NA	NA	< 0.2	< 0.25	< 0.28	< 0.3	0.23	< 0.29	< 0.19
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.5	12.3	NA	NA	NA	14	15.9	14	13.4	9	10.3	8.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	10	17.2	NA	NA	NA	36.2	44.4	28	36.1	33.8	20.2	19
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	47.9	113	NA	NA	NA	41.8	60.8	27.6	42.7	66.5	81.5	176
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.11	0.24	NA	NA	NA	0.05	0.06	0.05	0.1	0.07	0.14	0.13
Nickel	7440-02-0	mg/kg	4.3	7	NA	NA	NA	6.7	6.5	6.2	6.2	7.7	7.5	7.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.97	0.36	NA	NA	NA	< 0.33	< 0.41	< 0.46	< 0.5	0.57	1.8	0.67

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			D9-5-05	D9-8279-01	D9-8284-03	D9-8284-05	D9-8284-05	D9-9108-01	D9-9108-04	D9-9108-07	D9-9108-10	D9-N1-03	E10-1-05	E10-1-13
Depths			0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/11/1999	11/19/1999	7/21/2000	11/22/1999	11/22/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/4/1999	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			D9-5-051.5N	D9-8279-011N	D9-8284-030.5N	D9-8284-050.5N	D9-8284-052N	D9-9108-010.5N	D9-9108-041N	D9-9108-071N	D9-9108-100.5N	D9-N1-030.5N	E10-1-052N	E10-1-132N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.11	< 0.28	NA	NA	NA	< 0.2	< 0.25	< 0.28	< 0.3	0.17	< 0.29	< 0.19
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 0.94	NA	NA	NA	0.38	< 0.82	< 0.93	< 0.99	< 1.1	< 0.97	< 0.64
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	29.1	61.7	NA	NA	NA	98.8	95.9	116	74.3	393	25.5	25.7
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	48500	14800	NA	NA	1060	NA	NA	8240	NA	269000	51500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	11.3	8.7	NA	NA	4.9	NA	NA	7	NA	3.6	5.8	NA
Gravel	ARC-PGRAVEL	%	36.9	36.7	NA	NA	37.3	NA	NA	20.9	NA	46.8	35.6	NA
Sand	ARC-PSAND	%	27.2	38.9	NA	NA	47.3	NA	NA	65.8	NA	37.8	43.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	24.6	15.6	NA	NA	10.5	NA	NA	6.3	NA	11.7	15.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-1-18	E10-2-03	E10-2031B-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/28/1999	6/30/2000	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N
Sample Name			E10-1-182N	E10-2-032N	E10-2031B-011.5N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N
Parent Sample								E10-2031C-011N			E10-2-042N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-1-18	E10-2-03	E10-2031B-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/28/1999	6/30/2000	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N
Sample Name			E10-1-182N	E10-2-032N	E10-2031B-011.5N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N
Parent Sample								E10-2031C-011N			E10-2-042N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 2000	< 787	< 1900	< 2100	< 1900	< 938	< 818.302	< 830	< 710	< 71
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409	< 415	< 3500	< 350
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409	< 415	< 3500	< 350
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
2-Chlorophenol	95-57-8	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 390	NA	< 390	< 420	< 380	NA	NA	NA	< 350	< 35
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 394	NA	NA	NA	< 469	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 780	< 787	< 780	< 830	< 760	< 938	< 818.302	< 830	< 710	< 71
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 2000	< 787	< 1900	< 2100	< 1900	< 938	< 818.302	< 830	< 710	< 71
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-1-18	E10-2-03	E10-2031B-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/28/1999	6/30/2000	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N
Sample Name			E10-1-182N	E10-2-032N	E10-2031B-011.5N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N
Parent Sample								E10-2031C-011N			E10-2-042N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	NA	< 1900	< 2100	< 1900	NA	NA	NA	< 710	< 71
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 787	NA	NA	NA	< 938	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Acenaphthylene	208-96-8	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 390	< 394	57	32	39	< 469	< 409.151	69.74	< 350	< 35
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 390	< 394	50	< 420	< 380	< 469	< 409.151	59.78	< 350	< 35
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 390	< 394	73	< 420	< 380	< 469	< 409.151	105	< 350	< 35
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 390	< 394	140	200	310	107	< 409.151	< 415	< 350	39
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 390	< 394	60	< 420	< 380	< 469	< 409.151	96.72	< 350	< 35
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 390	< 394	42	45	64	< 469	< 409.151	122	< 350	250
Dimethylphthalate	131-11-3	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 110	< 469	114	< 415	< 350	340
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Fluoranthene	206-44-0	ug/kg	NA	< 390	< 394	89	< 420	< 380	< 469	< 409.151	85.93	< 350	< 35
Fluorene	86-73-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Hexachlorobenzene	118-74-1	ug/kg	NA	< 390	NA	< 390	< 420	< 380	NA	NA	NA	< 350	< 35
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Hexachloroethane	67-72-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Isophorone	78-59-1	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-1-18	E10-2-03	E10-2031B-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/28/1999	6/30/2000	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N
Sample Name			E10-1-182N	E10-2-032N	E10-2031B-011.5N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N
Parent Sample								E10-2031C-011N			E10-2-042N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 394	< 390	< 420	< 380	< 469	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Pentachlorophenol	87-86-5	ug/kg	NA	< 2000	< 787	< 1900	< 2100	< 1900	< 938	< 818.302	< 830	< 710	< 71
Phenanthrene	85-01-8	ug/kg	NA	< 390	< 394	43	32	50	< 469	< 409.151	< 415	< 350	< 35
Phenol	108-95-2	ug/kg	NA	< 390	< 394	< 390	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Pyrene	129-00-0	ug/kg	NA	< 390	< 394	120	< 420	< 380	< 469	< 409.151	< 415	< 350	< 35
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-1-18	E10-2-03	E10-2031B-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/28/1999	6/30/2000	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N
Sample Name			E10-1-182N	E10-2-032N	E10-2031B-011.5N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N
Parent Sample								E10-2031C-011N			E10-2-042N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 220	< 240	NA	NA	NA	NA	NA	< 250	< 250	< 25	< 21
1,3-Dinitrobenzene	99-65-0	ug/kg	< 220	< 240	NA	NA	NA	NA	NA	< 250	< 250	< 25	< 21
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 220	< 240	NA	NA	NA	NA	NA	< 250	< 250	< 25	< 21
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 220	< 240	NA	NA	NA	NA	NA	< 250	< 250	< 25	< 21
2-Nitrotoluene	88-72-2	ug/kg	< 430	< 480	NA	NA	NA	NA	NA	< 500	< 500	< 50	< 42
3-Nitrotoluene	99-08-1	ug/kg	< 430	< 480	NA	NA	NA	NA	NA	< 500	< 500	< 50	< 42
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 220	< 240	NA	NA	NA	NA	NA	< 250	< 250	< 25	< 21
4-Nitrotoluene	99-99-0	ug/kg	< 430	< 480	NA	NA	NA	NA	NA	< 500	< 500	< 50	< 42
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 220	< 240	NA	NA	NA	NA	NA	287	345	< 25	< 21
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	538000	235000
Nitroglycerin	55-63-0	ug/kg	< 4800	6000	NA	NA	NA	NA	NA	< 6178.178	< 6250	< 530	< 530
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 430	< 480	NA	NA	NA	NA	NA	< 500	< 500	< 50	< 42
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 430	< 480	NA	NA	NA	NA	NA	< 500	< 500	< 50	< 42
Tetryl	479-45-8	ug/kg	< 430	< 480	NA	NA	NA	NA	NA	< 500	< 500	< 50	< 42
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.53	< 0.567	< 0.49	< 0.52	< 0.36	< 0.723	< 0.69288	< 0.663	< 0.5	< 0.6
Arsenic	7440-38-2	mg/kg	NA	2.5	4.28	4.2	8.3	8.7	3.99	3.45	3.39	5.3	2.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.59	0.618	0.32	0.49	0.52	0.48	0.378	0.369	0.41	0.43
Cadmium	7440-43-9	mg/kg	NA	< 0.32	0.701	0.56	0.44	0.36	0.563	< 0.34644	< 0.332	0.32	0.23
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	12.1	15.4	9.7	8.7	7.4	11.6	13.1	12.7	11.3	11
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	11.7	20.6	50.5	39.6	18.6	25.1	10.1	9.67	13.7	18.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	79.1	80.6	169	93.6	61.3	27.4	43.5	51.3	34.3	12.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.08	0.144	0.16	0.11	0.12	0.125	0.123	0.099	0.1	0.05
Nickel	7440-02-0	mg/kg	NA	5.4	9.93	10.3	12.4	12.3	11.7	6.44	6.28	9.3	9.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.81	0.852	0.61	0.8	0.85	0.87	0.678	0.45	< 0.4	0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-1-18	E10-2-03	E10-2031B-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			11/4/1999	10/28/1999	6/30/2000	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N
Sample Name			E10-1-182N	E10-2-032N	E10-2031B-011.5N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N
Parent Sample								E10-2031C-011N			E10-2-042N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	< 0.32	< 0.283	0.19	0.15	0.17	< 0.362	< 0.34644	< 0.332	< 0.2	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1.1	< 0.945	< 0.97	< 1	< 1	< 1.21	< 1.1548	< 1.11	< 0.9	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	83.2	71.8	83.6	71.4	56.2	68.6	85.9	89.4	64.3	63.3
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	21000	NA	70000	71800	NA	NA	NA	NA	20100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	0.3	NA	1.5	1.8	NA	NA	NA	NA	3.3	NA
Gravel	ARC-PGRAVEL	%	NA	9.4	NA	61.1	59	NA	NA	NA	NA	53.8	NA
Sand	ARC-PSAND	%	NA	86.7	NA	29.6	32.6	NA	NA	NA	NA	34.5	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	3.6	NA	7.8	6.6	NA	NA	NA	NA	8.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N
Parent Sample			E10-2097-072N		E10-2101-052N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N
Parent Sample			E10-2097-072N		E10-2101-052N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2,4-Dichlorophenol	120-83-2	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	< 720	< 79	< 800	< 84	< 72	< 73	< 770	< 78	< 80	< 75
2,4-Dinitrotoluene	121-14-2	ug/kg	< 360	< 400	< 400	220	< 360	< 370	< 3800	< 390	< 400	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 360	< 400	< 400	32	< 360	< 370	< 3800	< 390	< 400	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2-Chlorophenol	95-57-8	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 720	< 79	< 800	< 84	< 72	< 73	< 770	< 78	< 80	< 75
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 720	< 79	< 800	< 84	< 72	< 73	< 770	< 78	< 80	< 75
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N
Parent Sample			E10-2097-072N		E10-2101-052N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 720	< 79	< 800	< 84	< 72	< 73	< 770	< 78	< 80	< 75
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 360	< 40	< 400	130	< 36	< 37	< 380	< 39	< 40	< 37
Acenaphthylene	208-96-8	ug/kg	< 360	< 40	< 400	31	< 36	< 37	< 380	< 39	< 40	< 37
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 360	< 40	< 400	320	22	< 37	< 380	< 39	< 40	< 37
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 360	42	< 400	1500	71	< 37	< 380	< 39	< 40	< 37
Benzo[a]pyrene	50-32-8	ug/kg	< 360	38	< 400	1500	71	< 37	< 380	< 39	< 40	< 37
Benzo[b]fluoranthene	205-99-2	ug/kg	< 360	< 40	< 400	2300	120	< 37	< 380	< 39	< 40	< 37
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 360	< 40	< 400	1200	< 36	< 37	< 380	< 39	< 40	< 37
Benzo[k]fluoranthene	207-08-9	ug/kg	< 360	< 40	< 400	730	< 36	< 37	< 380	< 39	< 40	< 37
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	36	26	24	270	90	41	< 380	45	48	23
Butylbenzylphthalate	85-68-7	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 360	46	< 400	1700	85	< 37	< 380	< 39	< 40	< 37
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 360	< 40	< 400	250	< 36	< 37	< 380	< 39	< 40	< 37
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 360	68	< 400	560	< 36	< 37	< 380	< 39	44	< 37
Dimethylphthalate	131-11-3	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Di-n-butylphthalate	84-74-2	ug/kg	300	69	< 400	5500	250	91	430	200	49	< 37
Di-n-octylphthalate	117-84-0	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Fluoranthene	206-44-0	ug/kg	< 360	74	< 400	4400	150	< 37	< 380	< 39	< 40	< 37
Fluorene	86-73-7	ug/kg	< 360	< 40	< 400	160	< 36	< 37	< 380	< 39	< 40	< 37
Hexachlorobenzene	118-74-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Hexachlorobutadiene	87-68-3	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Hexachloroethane	67-72-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 360	< 40	< 400	1000	< 36	< 37	< 380	< 39	< 40	< 37
Isophorone	78-59-1	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N
Parent Sample			E10-2097-072N		E10-2101-052N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 360	< 40	< 400	39	< 36	< 37	< 380	< 39	< 40	< 37
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 37
N-Nitrosodimethylamine	62-75-9	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 360	230	190	2600	< 36	< 37	< 380	< 39	< 40	< 37
Pentachlorophenol	87-86-5	ug/kg	< 720	< 79	< 800	< 84	< 72	< 73	< 770	< 78	< 80	< 75
Phenanthrene	85-01-8	ug/kg	< 360	36	< 400	3000	93	24	< 380	< 39	< 40	< 37
Phenol	108-95-2	ug/kg	< 360	< 40	< 400	< 42	< 36	< 37	< 380	< 39	< 40	< 37
Pyrene	129-00-0	ug/kg	< 360	< 40	< 400	3100	130	< 37	< 380	< 39	< 40	< 37
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N
Parent Sample			E10-2097-072N		E10-2101-052N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 22	< 250	< 25	< 25	< 25	< 25	< 25	< 25	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 22	< 250	< 25	< 25	< 25	< 25	< 25	< 25	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 22	< 250	< 25	< 25	< 25	< 25	< 25	< 25	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 22	< 250	< 25	< 25	< 25	< 25	< 25	< 25	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 43	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 43	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 22	< 250	< 25	< 25	< 25	< 25	< 25	< 25	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 43	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 22	< 250	< 25	< 25	< 25	< 25	< 25	< 25	NA
Nitrocellulose	9004-70-0	ug/kg	285000	7240000	7160000	33200000	148000	211000	1030000	< 38000	2080000	NA
Nitroglycerin	55-63-0	ug/kg	< 5400	24000	17000	220000	< 540	< 550	3900	< 590	3800	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 43	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 43	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA
Tetryl	479-45-8	ug/kg	< 500	< 43	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.39	< 1	< 1.4	< 1	< 0.4	< 0.6	< 0.6	< 0.6	< 1	< 1
Arsenic	7440-38-2	mg/kg	3.1	7.7	9.1	6.6	3	6.2	4.4	1	5.9	5.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.48	0.43	0.51	0.51	0.65	0.55	0.33	0.12	0.35	0.33
Cadmium	7440-43-9	mg/kg	0.18	0.69	0.76	0.82	0.39	0.43	0.61	0.69	0.45	0.37
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13	14.7	14.7	23	9.8	13.3	11.6	4.4	12.6	11.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	20.8	48.6	57.6	39.2	15.5	13.1	16.5	111	77.6	43.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	25.7	199	215	309	27	30.3	75.7	31.6	96.8	16
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.07	0.15	2	0.14	0.09	0.09	0.07	0.16	0.03
Nickel	7440-02-0	mg/kg	9.2	7	7.5	10	6.5	6.9	9.1	8.7	7.8	6.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.63	0.93	< 1.2	< 1	0.82	0.51	0.51	0.42	1	< 1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N
Parent Sample			E10-2097-072N		E10-2101-052N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.2	< 0.7	< 0.71	< 0.7	< 0.2	< 0.3	< 0.3	0.33	< 0.6	< 0.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.65	< 2	< 2.4	< 2	< 0.8	< 1	< 1	< 1	< 2	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	66.8	126	161	209	91.1	74	289	189	86.7	37.2
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	24900	NA	NA	21000	NA	5020	NA	21100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	6.9	NA	NA	4.5	NA	5.5	NA	6.1	NA
Gravel	ARC-PGRAVEL	%	NA	32.2	NA	NA	60.2	NA	48	NA	45.3	NA
Sand	ARC-PSAND	%	NA	45.6	NA	NA	27.7	NA	35.8	NA	35.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	15.4	NA	NA	7.7	NA	10.6	NA	13.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E10-2169-03 0.0-1.0 ft 11/18/1999 N E10-2169-031N	E10-2169A-01 0.0-1.0 ft 11/18/1999 N E10-2169A-011N	E10-2169A-04 0.0-1.5 ft 6/30/2000 N E10-2169A-041.5N	E10-2177-06 0.0-0.8 ft 11/18/1999 N E10-2177-060.75N	E10-2288-03 0.0-0.5 ft 3/24/2000 N E10-2288-030.5N	E10-2288-05 0.0-1.0 ft 3/24/2000 N E10-2288-051N	E10-2314-01 0.0-2.0 ft 7/21/2000 N E10-2314-012N	E10-2314-01 0.5-1.0 ft 7/21/2000 N E10-2314-010.5N	E10-2314-02 0.0-0.5 ft 11/22/1999 N E10-2314-020.5N	E10-2314-02 0.0-2.0 ft 11/22/1999 N E10-2314-022N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 508	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1280	< 1016	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2550	< 2033	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 6380	< 508	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1280	< 1016	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1280	< 1016	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1280	< 1016	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2169-03	E10-2169A-01	E10-2169A-04	E10-2177-06	E10-2288-03	E10-2288-05	E10-2314-01	E10-2314-01	E10-2314-02	E10-2314-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			11/18/1999	11/18/1999	6/30/2000	11/18/1999	3/24/2000	3/24/2000	7/21/2000	7/21/2000	11/22/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E10-2169-031N	E10-2169A-011N	E10-2169A-041.5N	E10-2177-060.75N	E10-2288-030.5N	E10-2288-051N	E10-2314-012N	E10-2314-010.5N	E10-2314-020.5N	E10-2314-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2550	< 508	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 638	< 508	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1016	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 1800	< 808	NA	< 760	< 780	< 824	NA	NA	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	< 450	< 360	105	NA	< 3800	< 3900	< 412	NA	NA	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 450	< 360	< 21	NA	< 3800	< 3900	< 412	NA	NA	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
2-Chlorophenol	95-57-8	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 450	< 360	NA	NA	< 380	< 390	< 412	NA	NA	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 900	< 720	< 808	NA	< 760	< 780	< 824	NA	NA	< 810
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2300	< 1800	< 808	NA	< 760	< 780	< 824	NA	NA	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E10-2169-03 0.0-1.0 ft 11/18/1999 N E10-2169-031N	E10-2169A-01 0.0-1.0 ft 11/18/1999 N E10-2169A-011N	E10-2169A-04 0.0-1.5 ft 6/30/2000 N E10-2169A-041.5N	E10-2177-06 0.0-0.8 ft 11/18/1999 N E10-2177-060.75N	E10-2288-03 0.0-0.5 ft 3/24/2000 N E10-2288-030.5N	E10-2288-05 0.0-1.0 ft 3/24/2000 N E10-2288-051N	E10-2314-01 0.0-2.0 ft 7/21/2000 N E10-2314-012N	E10-2314-01 0.5-1.0 ft 7/21/2000 N E10-2314-010.5N	E10-2314-02 0.0-0.5 ft 11/22/1999 N E10-2314-020.5N	E10-2314-02 0.0-2.0 ft 11/22/1999 N E10-2314-022N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2300	< 1800	NA	NA	< 760	< 780	< 824	NA	NA	< 2000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Acenaphthylene	208-96-8	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	28	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 450	< 360	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	46	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Benzo[a]pyrene	50-32-8	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Benzo[b]fluoranthene	205-99-2	ug/kg	310	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Benzo[k]fluoranthene	207-08-9	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	11000	170	101	NA	< 380	400	537	NA	NA	200
Butylbenzylphthalate	85-68-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	270	< 360	50.5	NA	< 380	< 390	< 412	NA	NA	< 410
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	140	< 360	184	NA	< 380	< 390	< 412	NA	NA	< 410
Dimethylphthalate	131-11-3	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Di-n-butylphthalate	84-74-2	ug/kg	200	52	449	NA	< 380	< 390	53.2	NA	NA	57
Di-n-octylphthalate	117-84-0	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Fluoranthene	206-44-0	ug/kg	260	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Fluorene	86-73-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Hexachlorobenzene	118-74-1	ug/kg	< 450	< 360	NA	NA	< 380	< 390	< 412	NA	NA	< 410
Hexachlorobutadiene	87-68-3	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Hexachloroethane	67-72-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Isophorone	78-59-1	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2169-03	E10-2169A-01	E10-2169A-04	E10-2177-06	E10-2288-03	E10-2288-05	E10-2314-01	E10-2314-01	E10-2314-02	E10-2314-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			11/18/1999	11/18/1999	6/30/2000	11/18/1999	3/24/2000	3/24/2000	7/21/2000	7/21/2000	11/22/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E10-2169-031N	E10-2169A-011N	E10-2169A-041.5N	E10-2177-060.75N	E10-2288-030.5N	E10-2288-051N	E10-2314-012N	E10-2314-010.5N	E10-2314-020.5N	E10-2314-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Pentachlorophenol	87-86-5	ug/kg	< 2300	< 1800	< 808	NA	< 760	< 780	< 824	NA	NA	< 2000
Phenanthrene	85-01-8	ug/kg	140	< 360	49.3	NA	< 380	< 390	< 412	NA	NA	< 410
Phenol	108-95-2	ug/kg	< 450	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Pyrene	129-00-0	ug/kg	390	< 360	< 404	NA	< 380	< 390	< 412	NA	NA	< 410
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-2169-03	E10-2169A-01	E10-2169A-04	E10-2177-06	E10-2288-03	E10-2288-05	E10-2314-01	E10-2314-01	E10-2314-02	E10-2314-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			11/18/1999	11/18/1999	6/30/2000	11/18/1999	3/24/2000	3/24/2000	7/21/2000	7/21/2000	11/22/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E10-2169-031N	E10-2169A-011N	E10-2169A-041.5N	E10-2177-060.75N	E10-2288-030.5N	E10-2288-051N	E10-2314-012N	E10-2314-010.5N	E10-2314-020.5N	E10-2314-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 157	< 131	< 245	< 220	< 23	< 22	< 250	NA	NA	< 150
1,3-Dinitrobenzene	99-65-0	ug/kg	< 157	< 131	< 245	< 220	< 23	< 22	< 250	NA	NA	< 150
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 157	< 131	< 245	< 220	< 23	< 22	< 250	NA	NA	< 150
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 220	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 157	< 131	< 245	< 220	< 23	< 22	< 250	NA	NA	< 150
2-Nitrotoluene	88-72-2	ug/kg	< 313	< 261	< 490	< 430	< 45	< 43	< 500	NA	NA	< 290
3-Nitrotoluene	99-08-1	ug/kg	< 313	< 261	< 490	< 430	< 45	< 43	< 500	NA	NA	< 290
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 157	< 131	< 245	< 220	< 23	< 22	< 250	NA	NA	< 150
4-Nitrotoluene	99-99-0	ug/kg	< 313	< 261	< 490	< 430	< 45	< 43	< 500	NA	NA	< 290
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 157	< 131	< 245	< 220	< 23	< 22	< 250	NA	NA	< 150
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	2820000	4140000	349000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 6700	< 5200	< 6050	< 8600	14000	10000	< 5640	NA	NA	< 5900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 313	< 261	< 490	< 430	< 45	< 43	< 500	NA	NA	< 290
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 313	< 261	< 490	< 430	< 45	< 43	< 500	NA	NA	< 290
Tetryl	479-45-8	ug/kg	< 313	< 261	< 490	< 430	< 45	< 43	< 500	NA	NA	< 290
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 5.3	< 0.41	< 0.443	< 0.65	NA	NA	< 0.642	NA	NA	< 0.49
Arsenic	7440-38-2	mg/kg	146	4	11.9	9	NA	NA	5.62	NA	NA	5.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.58	0.55	0.512	0.69	NA	NA	0.726	NA	NA	0.73
Cadmium	7440-43-9	mg/kg	3.7	< 0.24	1.06	0.17	NA	NA	0.62	NA	NA	0.39
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	51.3	12.9	12.7	23.6	NA	NA	14	NA	NA	12.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	1190	26.3	34.5	33.9	NA	NA	14	NA	NA	11.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	1320	56.4	348	4630	NA	NA	26.5	NA	NA	32.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.2	0.05	0.859	0.1	NA	NA	0.064	NA	NA	0.04
Nickel	7440-02-0	mg/kg	29.1	8.3	7.92	10.5	NA	NA	6.77	NA	NA	6.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.4	0.65	0.783	1.5	NA	NA	1.19	NA	NA	< 0.49

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E10-2169-03 0.0-1.0 ft 11/18/1999 N E10-2169-031N	E10-2169A-01 0.0-1.0 ft 11/18/1999 N E10-2169A-011N	E10-2169A-04 0.0-1.5 ft 6/30/2000 N E10-2169A-041.5N	E10-2177-06 0.0-0.8 ft 11/18/1999 N E10-2177-060.75N	E10-2288-03 0.0-0.5 ft 3/24/2000 N E10-2288-030.5N	E10-2288-05 0.0-1.0 ft 3/24/2000 N E10-2288-051N	E10-2314-01 0.0-2.0 ft 7/21/2000 N E10-2314-012N	E10-2314-01 0.5-1.0 ft 7/21/2000 N E10-2314-010.5N	E10-2314-02 0.0-0.5 ft 11/22/1999 N E10-2314-020.5N	E10-2314-02 0.0-2.0 ft 11/22/1999 N E10-2314-022N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 3.2	< 0.24	< 0.222	< 0.39	NA	NA	< 0.321	NA	NA	< 0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 10.6	< 0.81	< 0.739	< 1.3	NA	NA	< 1.07	NA	NA	< 0.98
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	545	64.7	150	74.3	NA	NA	96.7	NA	NA	154
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	41500	14600	NA	26900	47500	NA	NA	NA	NA	8140
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	3.6	6.3	NA	13.7	4.6	NA	NA	NA	NA	12.9
Gravel	ARC-PGRAVEL	%	67.6	30	NA	8.6	47.6	NA	NA	NA	NA	18.2
Sand	ARC-PSAND	%	20.4	53.9	NA	31.9	36.2	NA	NA	NA	NA	43.8
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	8.4	9.8	NA	45.7	11.7	NA	NA	NA	NA	25.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E10-3-02 0.0-2.0 ft 10/28/1999 N E10-3-022N	E10-4-03 0.0-0.8 ft 11/17/1999 N E10-4-030.75N	E10-5-06 0.0-1.0 ft 11/17/1999 N E10-5-061N	E10-5-08 0.0-1.0 ft 11/17/1999 N E10-5-081N	E10-606-02 0.0-2.0 ft 3/23/2000 N E10-606-022N	E10-615-04 0.0-0.8 ft 3/23/2000 N E10-615-040.75N	E10-615-04 0.0-0.8 ft 3/23/2000 FD E10-615-040.75FD E10-615-040.75N	E10-618A-04 0.0-0.5 ft 11/12/1999 N E10-618A-040.5N	E10-8277-01 0.0-1.0 ft 11/12/1999 N E10-8277-011N	E10-8277-01 0.0-1.0 ft 11/12/1999 FD E10-8277-011FD E10-8277-011N	E10-A1-02 0.0-2.0 ft 3/16/2000 N E10-A1-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-3-02	E10-4-03	E10-5-06	E10-5-08	E10-606-02	E10-615-04	E10-615-04	E10-618A-04	E10-8277-01	E10-8277-01	E10-A1-02
Depths			0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			10/28/1999	11/17/1999	11/17/1999	11/17/1999	3/23/2000	3/23/2000	3/23/2000	11/12/1999	11/12/1999	11/12/1999	3/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	FD	N
Sample Name			E10-3-022N	E10-4-030.75N	E10-5-061N	E10-5-081N	E10-606-022N	E10-615-040.75N	E10-615-040.75FD	E10-618A-040.5N	E10-8277-011N	E10-8277-011FD	E10-A1-022N
Parent Sample									E10-615-040.75N			E10-8277-011N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 1900	< 2500	< 2600	< 75	< 83	< 840	< 19000	< 1900	< 1900	< 78
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	550	< 500	210	< 370	3800	5500	360	< 380	< 380	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	50	100	72	< 370	170	270	< 3800	< 380	< 380	< 390
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2-Chlorophenol	95-57-8	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 780	< 1000	< 1100	< 75	< 83	< 840	< 7600	< 770	< 770	< 78
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 1900	< 2500	< 2600	< 75	< 83	< 840	< 19000	< 1900	< 1900	< 78
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E10-3-02 0.0-2.0 ft 10/28/1999 N E10-3-022N	E10-4-03 0.0-0.8 ft 11/17/1999 N E10-4-030.75N	E10-5-06 0.0-1.0 ft 11/17/1999 N E10-5-061N	E10-5-08 0.0-1.0 ft 11/17/1999 N E10-5-081N	E10-606-02 0.0-2.0 ft 3/23/2000 N E10-606-022N	E10-615-04 0.0-0.8 ft 3/23/2000 N E10-615-040.75N	E10-615-04 0.0-0.8 ft 3/23/2000 FD E10-615-040.75FD E10-615-040.75N	E10-618A-04 0.0-0.5 ft 11/12/1999 N E10-618A-040.5N	E10-8277-01 0.0-1.0 ft 11/12/1999 N E10-8277-011N	E10-8277-01 0.0-1.0 ft 11/12/1999 FD E10-8277-011FD E10-8277-011N	E10-A1-02 0.0-2.0 ft 3/16/2000 N E10-A1-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 1900	< 2500	< 2600	< 75	< 83	< 840	< 19000	< 1900	< 1900	< 78
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Acenaphthylene	208-96-8	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 390	170	< 500	< 530	< 37	< 42	< 420	590	83	110	52
Benzo[a]pyrene	50-32-8	ug/kg	< 390	280	< 500	< 530	< 37	< 42	< 420	580	49	69	35
Benzo[b]fluoranthene	205-99-2	ug/kg	< 390	450	< 500	< 530	< 37	< 42	< 420	910	120	120	66
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	190	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	210	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	41	44	26	< 37	< 42	< 420	< 3800	230	220	35
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 390	200	< 500	< 530	< 37	< 42	< 420	630	78	88	90
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	55	69	< 39
Dimethylphthalate	131-11-3	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Di-n-butylphthalate	84-74-2	ug/kg	< 390	< 390	< 500	< 530	< 37	710	870	< 3800	430	< 370	69
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Fluoranthene	206-44-0	ug/kg	< 390	200	< 500	< 530	< 37	< 42	< 420	790	110	130	74
Fluorene	86-73-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Hexachlorobenzene	118-74-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Hexachloroethane	67-72-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	150	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Isophorone	78-59-1	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-3-02	E10-4-03	E10-5-06	E10-5-08	E10-606-02	E10-615-04	E10-615-04	E10-618A-04	E10-8277-01	E10-8277-01	E10-A1-02
Depths			0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			10/28/1999	11/17/1999	11/17/1999	11/17/1999	3/23/2000	3/23/2000	3/23/2000	11/12/1999	11/12/1999	11/12/1999	3/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	FD	N
Sample Name			E10-3-022N	E10-4-030.75N	E10-5-061N	E10-5-081N	E10-606-022N	E10-615-040.75N	E10-615-040.75FD	E10-618A-040.5N	E10-8277-011N	E10-8277-011FD	E10-A1-022N
Parent Sample									E10-615-040.75N			E10-8277-011N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 500	< 530	NA	NA	NA	NA	< 380	< 380	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	< 390	< 500	< 530	< 37	280	330	< 3800	< 380	< 380	< 39
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 1900	< 2500	< 2600	< 75	< 83	< 840	< 19000	< 1900	< 1900	< 78
Phenanthrene	85-01-8	ug/kg	28	90	35	30	< 37	< 42	< 420	280	39	40	61
Phenol	108-95-2	ug/kg	< 390	< 390	< 500	< 530	< 37	< 42	< 420	< 3800	< 380	< 380	< 39
Pyrene	129-00-0	ug/kg	< 390	140	< 500	< 530	< 37	< 42	< 420	< 3800	110	140	< 39
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E10-3-02	E10-4-03	E10-5-06	E10-5-08	E10-606-02	E10-615-04	E10-615-04	E10-618A-04	E10-8277-01	E10-8277-01	E10-A1-02
Depths			0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			10/28/1999	11/17/1999	11/17/1999	11/17/1999	3/23/2000	3/23/2000	3/23/2000	11/12/1999	11/12/1999	11/12/1999	3/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	FD	N
Sample Name			E10-3-022N	E10-4-030.75N	E10-5-061N	E10-5-081N	E10-606-022N	E10-615-040.75N	E10-615-040.75FD	E10-618A-040.5N	E10-8277-011N	E10-8277-011FD	E10-A1-022N
Parent Sample									E10-615-040.75N			E10-8277-011N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 220	< 230	NA	NA	< 25	< 25	< 250	< 230	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 220	< 230	NA	NA	< 25	< 25	< 250	< 230	NA	NA	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 220	180	NA	NA	< 25	< 25	< 250	< 230	NA	NA	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 220	120	NA	NA	< 25	< 25	< 250	< 230	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 430	< 450	NA	NA	< 50	< 50	< 500	< 450	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 430	< 450	NA	NA	< 50	< 50	< 500	< 450	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 220	150	NA	NA	< 25	< 25	< 250	< 230	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 430	< 450	NA	NA	< 50	< 50	< 500	< 450	NA	NA	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 220	< 230	NA	NA	< 25	< 25	< 250	< 230	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	139000	NA	NA	NA	< 39000	1850000	1360000	NA	NA	NA	466000
Nitroglycerin	55-63-0	ug/kg	< 5000	< 5000	NA	NA	< 560	4000	22000	< 4900	NA	NA	< 560
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 430	< 450	NA	NA	< 50	< 50	< 500	< 450	NA	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 430	< 450	NA	NA	< 50	< 50	< 500	< 450	NA	NA	< 50
Tetryl	479-45-8	ug/kg	< 430	< 450	NA	NA	< 50	< 50	< 500	< 450	NA	NA	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.51	< 0.48	< 0.41	< 0.43	< 0.6	< 0.6	< 0.7	0.37	< 0.49	< 0.46	< 1
Arsenic	7440-38-2	mg/kg	4	22	6	6.8	6.8	6.1	4.3	12.4	56.7	33.5	6.2
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.57	0.65	0.35	0.47	0.5	0.54	0.54	0.35	0.28	0.3	0.36
Cadmium	7440-43-9	mg/kg	< 0.3	0.71	< 0.25	0.31	< 0.3	< 0.3	< 0.35	< 0.26	0.26	< 0.04	0.36
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.7	14.5	7.5	10.7	16.8	12.3	12.8	11	17	14.5	16.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.6	48.1	14	18.6	14.7	11.5	11.6	72	20.1	19.4	25
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	36.5	363	3040	1810	14.5	40.3	41	670	635	353	31.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.08	0.58	0.15	0.25	0.03	0.07	0.07	2.8	4.8	3.6	0.21
Nickel	7440-02-0	mg/kg	7.2	11.6	4.9	6.6	7	6.9	7	10.4	6.7	6.4	10.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1	< 0.48	1.2	1.6	0.58	0.9	0.75	1	< 0.49	< 0.44	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E10-3-02 0.0-2.0 ft 10/28/1999 N E10-3-022N	E10-4-03 0.0-0.8 ft 11/17/1999 N E10-4-030.75N	E10-5-06 0.0-1.0 ft 11/17/1999 N E10-5-061N	E10-5-08 0.0-1.0 ft 11/17/1999 N E10-5-081N	E10-606-02 0.0-2.0 ft 3/23/2000 N E10-606-022N	E10-615-04 0.0-0.8 ft 3/23/2000 N E10-615-040.75N	E10-615-04 0.0-0.8 ft 3/23/2000 FD E10-615-040.75FD E10-615-040.75N	E10-618A-04 0.0-0.5 ft 11/12/1999 N E10-618A-040.5N	E10-8277-01 0.0-1.0 ft 11/12/1999 N E10-8277-011N	E10-8277-01 0.0-1.0 ft 11/12/1999 FD E10-8277-011FD E10-8277-011N	E10-A1-02 0.0-2.0 ft 3/16/2000 N E10-A1-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	0.1	0.14	< 0.26	< 0.3	< 0.3	< 0.35	0.11	0.19	0.12	< 0.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 0.96	< 0.82	< 0.87	1.9	1	1.6	< 0.86	< 0.98	< 0.93	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	47.4	186	35.1	54.9	69.3	69.5	66.5	84.4	132	78.5	44.4
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	35100	12100	NA	21600	8600	23800	NA	30400	30900	NA	9930
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	3.4	3.1	NA	5.6	7.6	6.6	NA	3.8	9.4	NA	5.5
Gravel	ARC-PGRAVEL	%	22.4	52.5	NA	13.2	30.8	40.5	NA	64	42.9	NA	48.5
Sand	ARC-PSAND	%	60.3	34.8	NA	49.6	48.8	36.3	NA	27.2	30.6	NA	35.8
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	14	9.7	NA	31.6	12.7	16.7	NA	5	17.1	NA	10.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N
Parent Sample										E11-2064-012N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1050	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2101	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1050	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1050	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1050	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N
Parent Sample										E11-2064-012N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1050	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 886.582	NA	< 2200	< 829.496	< 1900	< 1950	< 2000	< 2100	< 2300	NA	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 443	NA	< 440	< 415	< 390	< 390	37	< 430	< 460	NA	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 443	NA	< 440	< 415	< 390	< 390	< 400	< 430	< 460	NA	< 440
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
2-Chlorophenol	95-57-8	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	NA	NA	< 440	NA	< 390	< 390	< 400	< 430	< 460	NA	< 440
2-Nitrotoluene	88-72-2	ug/kg	NA	< 443.291	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 800	< 886.582	NA	< 880	< 829.496	< 780	< 780	< 800	< 860	< 920	NA	< 880
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 886.582	NA	< 2200	< 829.496	< 1900	< 1950	< 2000	< 2100	< 2300	NA	< 2200
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N
Parent Sample										E11-2064-012N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	NA	NA	< 2200	NA	< 1900	< 1950	< 2000	< 2100	< 2300	NA	< 2200
4-Nitrotoluene	99-99-0	ug/kg	NA	< 886.582	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	48	50	< 430	< 460	NA	< 440
Acenaphthylene	208-96-8	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	22	34	< 430	< 460	NA	< 440
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	170	270	< 430	< 460	NA	< 440
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	38	320	530	< 430	53	NA	< 440
Benzo[a]pyrene	50-32-8	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	36	230	350	< 430	65	NA	< 440
Benzo[b]fluoranthene	205-99-2	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	62	440	730	< 430	130	NA	< 440
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	140	220	< 430	< 460	NA	< 440
Benzo[k]fluoranthene	207-08-9	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	120	230	< 430	< 460	NA	< 440
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	20	< 443.291	NA	77	< 414.748	< 390	150	180	47	100	NA	71
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	73	350	570	< 430	76	NA	< 440
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 443.291	NA	< 440	219	98	8000	7500	58	120	NA	23000
Dimethylphthalate	131-11-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Di-n-butylphthalate	84-74-2	ug/kg	< 400	< 443.291	NA	< 440	2140	880	830	1300	120	240	NA	46
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Fluoranthene	206-44-0	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	530	1100	< 430	< 460	NA	< 440
Fluorene	86-73-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	43	62	< 430	< 460	NA	< 440
Hexachlorobenzene	118-74-1	ug/kg	< 400	NA	NA	< 440	NA	< 390	< 390	< 400	< 430	< 460	NA	< 440
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Hexachloroethane	67-72-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	130	230	< 430	< 460	NA	< 440
Isophorone	78-59-1	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N
Parent Sample										E11-2064-012N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Nitrobenzene	98-95-3	ug/kg	< 400	< 443.291	NA	< 440	NA	NA	NA	NA	NA	NA	NA	< 440
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	430	< 430	< 460	NA	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	150	360	< 400	< 430	79	NA	170
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 886.582	NA	< 2200	< 829.496	< 1900	< 1950	< 2000	< 2100	< 2300	NA	< 2200
Phenanthrene	85-01-8	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	43	250	470	< 430	< 460	NA	< 440
Phenol	108-95-2	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	< 390	< 400	< 430	< 460	NA	< 440
Pyrene	129-00-0	ug/kg	< 400	< 443.291	NA	< 440	< 414.748	< 390	440	940	< 430	< 460	NA	< 440
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N
Parent Sample										E11-2064-012N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 220	NA	< 250	< 250	< 200	< 230	< 220	< 240	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 220	NA	< 250	< 250	< 200	< 230	< 220	< 240	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 220	NA	< 250	< 250	250	3100	< 220	< 240	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 220	NA	< 250	< 250	< 200	< 230	< 220	< 240	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 430	NA	< 500	< 500	< 400	< 450	< 430	< 480	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 430	NA	< 500	< 500	< 400	< 450	< 430	< 480	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 220	NA	< 250	< 250	< 200	< 230	< 220	< 240	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 430	NA	< 500	< 500	< 400	< 450	< 430	< 480	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 220	NA	194	< 250	< 200	340	< 220	< 240	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	442000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 4195.1	NA	11400	22714.3	17000	130000	< 4400	20000	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 430	NA	< 500	< 500	< 400	< 450	< 430	< 480	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 430	NA	< 500	< 500	< 400	< 450	< 430	< 480	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	< 430	NA	< 500	< 500	< 400	< 450	< 430	< 480	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.45	< 0.732773	NA	< 0.48	< 0.497698	< 0.48	< 0.47	< 0.39	< 0.48	< 0.43	NA	< 0.41
Arsenic	7440-38-2	mg/kg	11.4	14.5	NA	338	7.42	7.7	25.1	5	22.1	36.4	NA	12.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.63	0.443	NA	0.56	0.413	0.57	0.6	0.12	1	0.7	NA	0.52
Cadmium	7440-43-9	mg/kg	< 0.27	0.2	NA	0.57	< 0.248849	0.36	< 0.28	< 0.03	0.23	< 0.26	NA	0.32
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.2	12	NA	16.8	8.96	14.1	10.9	10.3	18.4	14.4	NA	11.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.7	14.9	NA	16	28.3	18.6	13.9	2.9	25.1	14	NA	32.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	31.3	59.2	NA	93.3	36.8	155	31	6.4	35.5	17.4	NA	245
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.15	NA	0.07	0.863	0.21	0.07	0.12	0.15	0.05	NA	0.22
Nickel	7440-02-0	mg/kg	6.2	6.01	NA	7.9	6.21	10.4	6.3	4.6	10.9	8.4	NA	18.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1	2.76	NA	0.69	0.389	1.4	0.65	0.12	0.9	0.82	NA	< 0.41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N
Parent Sample										E11-2064-012N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.27	< 0.366386	NA	0.12	< 0.248849	< 0.29	< 0.28	< 0.23	< 0.29	< 0.26	NA	< 0.25
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.89	< 1.221288	NA	< 0.95	< 0.829497	< 0.97	< 0.94	< 0.77	< 0.96	< 0.86	NA	< 0.82
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	63.5	33	NA	652	54	86.8	60.2	11.6	121	88.9	NA	66.9
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	9880	76100	NA	11600	NA	24600	NA	NA	NA	41200	NA	16100
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	9.7	NA	NA	6.9	NA	7.1	NA	NA	NA	5.7	NA	6.7
Gravel	ARC-PGRAVEL	%	38.7	NA	NA	37.2	NA	31.3	NA	NA	NA	45	NA	19.2
Sand	ARC-PSAND	%	19.7	NA	NA	43.3	NA	47.9	NA	NA	NA	42.7	NA	59.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	92.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	80.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	87	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	56.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	32.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	70.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	31.9	NA	NA	12.6	NA	13.7	NA	NA	NA	6.6	NA	14.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-2083-03	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01
Depths			0.0-2.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/30/1999	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E11-2083-032.5N	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 638	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 638	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 637.7551	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 638	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 638	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1275.51	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2500	NA	< 2551.02	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1275.51	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	389	NA	730	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 638	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-2083-03	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01
Depths			0.0-2.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/30/1999	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E11-2083-032.5N	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	2630	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 625	NA	< 637.7551	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	260	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 2000	< 791.162	< 1390	< 1019.44	< 950.206	< 763.498	< 766.752	NA	< 783.438	NA	< 875.28	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 390	< 396	< 693	< 510	< 475	< 382	< 383	NA	< 392	NA	< 438	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 390	< 396	< 693	< 510	< 475	< 382	< 383	NA	< 392	NA	< 438	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 390	NA	< 693	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 475.103	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 780	< 791.162	< 1390	< 1019.44	< 950.206	< 763.498	< 766.752	NA	< 783.438	NA	< 875.28	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 2000	< 791.162	< 1390	< 1019.44	< 950.206	< 763.498	< 766.752	NA	< 783.438	NA	< 875.28	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-2083-03	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01
Depths			0.0-2.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/30/1999	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E11-2083-032.5N	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	NA	< 1390	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 950.206	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	78.26	< 383.376	NA	< 391.719	NA	< 437.64	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	38	43.51	< 693	< 509.72	< 475.103	437	< 383.376	NA	79.52	NA	< 437.64	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	32	< 395.581	< 693	< 509.72	< 475.103	425	< 383.376	NA	55.23	NA	< 437.64	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	1050	< 383.376	NA	119	NA	< 437.64	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	251	< 383.376	NA	< 391.719	NA	< 437.64	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	389	< 383.376	NA	< 391.719	NA	< 437.64	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 390	20.97	38.8	< 509.72	< 475.103	< 381.749	28.8	NA	< 391.719	NA	< 437.64	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	269	< 391.719	302	< 437.64	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	57	74.37	< 693	< 509.72	< 475.103	648	108	NA	72.08	NA	< 437.64	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	170	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	47	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	58.21	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Fluoranthene	206-44-0	ug/kg	NA	69	106	< 693	< 509.72	< 475.103	568	< 383.376	NA	< 391.719	NA	< 437.64	NA
Fluorene	86-73-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 390	NA	< 693	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	261	< 383.376	NA	< 391.719	NA	< 437.64	NA
Isophorone	78-59-1	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-2083-03	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01
Depths			0.0-2.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/30/1999	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E11-2083-032.5N	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 390	NA	NA	NA	< 475.103	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	61.3	NA	< 391.719	NA	< 437.64	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	NA	NA	< 391.719	NA	< 437.64	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 2000	< 791.162	< 1390	< 1019.44	< 950.206	< 763.498	< 766.752	NA	< 783.438	NA	< 875.28	NA
Phenanthrene	85-01-8	ug/kg	NA	47	58.94	< 693	< 509.72	< 475.103	138	67.1	NA	86.18	NA	< 437.64	NA
Phenol	108-95-2	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	< 381.749	< 383.376	NA	< 391.719	NA	< 437.64	NA
Pyrene	129-00-0	ug/kg	NA	< 390	< 395.581	< 693	< 509.72	< 475.103	422	92	NA	< 391.719	NA	< 437.64	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-2083-03	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01
Depths			0.0-2.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/30/1999	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E11-2083-032.5N	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 217.4	< 95.2	< 192.3	NA	< 227.275	< 250	NA	< 250	NA	< 208.325	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 217.4	< 95.2	< 192.3	NA	< 227.275	< 250	NA	< 250	NA	< 208.325	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 217.4	< 95.2	< 192.3	NA	< 227.275	< 250	NA	< 250	NA	< 208.325	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 217.4	< 95.2	< 192.3	NA	< 227.275	< 250	NA	< 250	NA	< 208.325	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 434.8	< 190	< 384.6	NA	< 454.55	< 500	NA	< 500	NA	< 416.65	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 434.8	< 190	< 384.6	NA	< 454.55	< 500	NA	< 500	NA	< 416.65	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 217.4	< 95.2	< 192.3	NA	< 227.275	< 250	NA	< 250	NA	< 208.325	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 434.8	< 190	< 384.6	NA	< 454.55	< 500	NA	< 500	NA	< 416.65	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 217.4	< 95.2	< 192.3	NA	< 227.275	< 250	NA	< 250	NA	< 208.325	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 5525.302	< 10100	< 7466.707	NA	< 4984.294	< 383	NA	3040	NA	2910	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 434.8	< 190	< 384.6	NA	< 454.55	< 500	NA	< 500	NA	< 416.65	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 434.8	< 190	< 384.6	NA	< 454.55	< 500	NA	< 500	NA	< 416.65	NA
Tetryl	479-45-8	ug/kg	NA	NA	< 434.8	< 190	< 384.6	NA	< 454.55	< 500	NA	< 500	NA	< 416.65	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.29	< 3.269534	< 1.25	< 0.850384	< 0.807587	< 0.681026	NA	NA	NA	NA	< 7.807326	NA
Arsenic	7440-38-2	mg/kg	NA	8.3	19.9	4.03	5.82	5.57	183	NA	NA	NA	NA	63.9	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.57	0.268	0.505	0.177	0.409	0.513	NA	NA	NA	NA	0.497	NA
Cadmium	7440-43-9	mg/kg	NA	0.52	< 1.634767	0.301	0.174	0.195	0.089	NA	NA	NA	NA	0.676	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	14.3	15.7	11	12.4	14.5	12.6	NA	NA	NA	NA	50.4	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	28.6	32.2	13.7	9.02	12.6	31.9	NA	NA	NA	NA	3590	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	72.8	944	239	54.5	237	242	NA	NA	NA	NA	61400	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.56	0.158	0.208	0.12	0.077	0.243	NA	NA	NA	NA	0.313	NA
Nickel	7440-02-0	mg/kg	NA	9.6	8.59	4.96	3.75	6.27	10.5	NA	NA	NA	NA	41.6	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.2	3.62	1.11	2.17	1.46	1.81	NA	NA	NA	NA	8.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-2083-03	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01
Depths			0.0-2.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/30/1999	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E11-2083-032.5N	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	< 0.29	< 1.634767	0.566	< 0.425192	< 0.403794	< 0.340513	NA	NA	NA	NA	2.53	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 0.98	< 5.449223	< 2.08	< 1.417306	< 1.345978	< 1.135044	NA	NA	NA	NA	< 13.0122	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	84.1	48.6	39.1	26.1	32.2	35.6	NA	NA	NA	NA	5980	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	5.37	5.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	26400	NA	77100	104000	64300	8920	NA	NA	NA	61200	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	92.7	NA	99	98.7	86.1	NA	95.5	NA	NA	61.5	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	100	NA	100	100	91.9	NA	100	NA	NA	84.6	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	88.4	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	74	NA	94	87.3	66.1	NA	67.9	NA	NA	43.2	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	29.7	NA	18.1	28.8	13.8	NA	17.3	NA	NA	15.6	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	84.6	NA	97.2	93	76.2	NA	82.6	NA	NA	51.5	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	61.7	NA	65.6	65.7	35.3	NA	39.3	NA	NA	29.5	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	37.8	NA	29.7	39.2	19.1	NA	22.6	NA	NA	19.4	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	71.8	NA	85.4	78.5	49.7	NA	52.4	NA	NA	35.9	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	48.6	NA	45.3	51.9	25.6	NA	28.9	NA	NA	24.2	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-8228-02	E11-8228-02	E11-8228-05	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			10/19/1999	10/19/1999	6/22/2000	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			E11-8228-022N	E11-8228-022FD	E11-8228-051.5N	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N
Parent Sample				E11-8228-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-8228-02	E11-8228-02	E11-8228-05	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			10/19/1999	10/19/1999	6/22/2000	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			E11-8228-022N	E11-8228-022FD	E11-8228-051.5N	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N
Parent Sample				E11-8228-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 2300	< 886.408	< 2400	< 2300	< 2200	< 2300	< 2000	< 2500	< 2100	< 781
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 460	< 443	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 460	< 443	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2-Chlorophenol	95-57-8	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	< 460	NA	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 443.204	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 800	< 920	< 886.408	< 960	< 900	< 890	< 920	< 810	< 1000	< 860	< 781
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 2300	< 886.408	< 2400	< 2300	< 2200	< 2300	< 2000	< 2500	< 2100	< 781
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-8228-02	E11-8228-02	E11-8228-05	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			10/19/1999	10/19/1999	6/22/2000	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			E11-8228-022N	E11-8228-022FD	E11-8228-051.5N	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N
Parent Sample				E11-8228-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 2300	NA	< 2400	< 2300	< 2200	< 2300	< 2000	< 2500	< 2100	< 781
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 886.408	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	< 460	< 443.204	290	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Acenaphthylene	208-96-8	ug/kg	< 400	< 460	< 443.204	59	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 400	< 460	< 443.204	530	< 450	< 440	< 460	< 410	< 500	< 430	116
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 400	< 460	< 443.204	1000	< 450	< 440	< 460	< 410	85	52	680
Benzo[a]pyrene	50-32-8	ug/kg	< 400	35	< 443.204	730	< 450	< 440	< 460	< 410	100	51	638
Benzo[b]fluoranthene	205-99-2	ug/kg	< 400	< 460	< 443.204	1100	< 450	< 440	< 460	< 410	180	69	1340
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 400	< 460	< 443.204	330	< 450	< 440	< 460	< 410	< 500	< 430	349
Benzo[k]fluoranthene	207-08-9	ug/kg	< 400	< 460	< 443.204	440	< 450	< 440	< 460	< 410	< 500	< 430	466
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 460	< 443.204	29	< 450	< 440	< 460	< 410	< 500	39	< 391
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 400	< 460	< 443.204	890	< 450	< 440	< 460	< 410	150	76	686
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 460	< 443.204	130	< 450	< 440	< 460	< 410	< 500	< 430	138
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Dimethylphthalate	131-11-3	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Di-n-butylphthalate	84-74-2	ug/kg	37	< 460	< 443.204	30	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Fluoranthene	206-44-0	ug/kg	< 400	< 460	< 443.204	2000	< 450	< 440	< 460	< 410	110	< 430	448
Fluorene	86-73-7	ug/kg	< 400	< 460	< 443.204	270	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 460	NA	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Hexachloroethane	67-72-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 400	< 460	< 443.204	330	< 450	< 440	< 460	< 410	< 500	< 430	355
Isophorone	78-59-1	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-8228-02	E11-8228-02	E11-8228-05	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			10/19/1999	10/19/1999	6/22/2000	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			E11-8228-022N	E11-8228-022FD	E11-8228-051.5N	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N
Parent Sample				E11-8228-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 400	< 460	< 443.204	76	< 450	< 440	< 460	< 410	< 500	< 430	20.7
Nitrobenzene	98-95-3	ug/kg	< 400	< 460	< 443.204	NA	< 450	< 440	< 460	< 410	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 2300	< 886.408	< 2400	< 2300	< 2200	< 2300	< 2000	< 2500	< 2100	< 781
Phenanthrene	85-01-8	ug/kg	< 400	< 460	< 443.204	2500	< 450	< 440	< 460	< 410	< 500	63	121
Phenol	108-95-2	ug/kg	< 400	< 460	< 443.204	< 480	< 450	< 440	< 460	< 410	< 500	< 430	< 391
Pyrene	129-00-0	ug/kg	< 400	< 460	< 443.204	1700	< 450	< 440	< 460	< 410	< 500	< 430	559
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-8228-02	E11-8228-02	E11-8228-05	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			10/19/1999	10/19/1999	6/22/2000	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			E11-8228-022N	E11-8228-022FD	E11-8228-051.5N	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N
Parent Sample				E11-8228-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 210	NA	NA	NA	NA	< 230	< 240	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 210	NA	NA	NA	NA	< 230	< 240	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 210	NA	NA	NA	NA	< 230	< 240	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 210	NA	NA	NA	NA	< 230	< 240	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 420	NA	NA	NA	NA	< 450	< 480	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 420	NA	NA	NA	NA	< 450	< 480	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 210	NA	NA	NA	NA	< 230	< 240	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 420	NA	NA	NA	NA	< 450	< 480	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 210	NA	NA	NA	NA	< 230	< 240	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	115000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 4900	NA	NA	NA	NA	< 5000	< 4651.2	< 5880
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 420	NA	NA	NA	NA	< 450	< 480	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 420	NA	NA	NA	NA	< 450	< 480	< 500
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 420	NA	NA	NA	NA	< 450	< 480	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.45	< 0.62	< 0.684126	0.22	< 0.61	< 0.43	< 0.46	< 0.53	< 0.44	1.6	0.954
Arsenic	7440-38-2	mg/kg	6.5	7.9	3.22	183	5.2	1.9	4	3.7	80.1	57.2	198
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.34	0.37	0.296	0.33	0.71	0.45	0.64	0.51	0.61	0.46	0.305
Cadmium	7440-43-9	mg/kg	0.71	0.79	< 0.342063	< 0.35	0.26	0.28	0.4	0.58	0.37	0.15	< 0.22
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.5	14.5	11.4	6.7	15.8	13.8	15.4	15.4	18.2	39.6	8.66
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	71.8	76.1	8.52	17.9	13	12.6	80.6	17.3	46.6	133	18.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	399	450	30.2	52.9	23.4	8.3	118	56.1	99.8	383	50.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.14	0.1	0.236	0.13	0.03	0.03	0.06	0.18	0.47	0.76	0.297
Nickel	7440-02-0	mg/kg	7.1	8.8	5.18	5.7	6.2	6	9.7	8.4	15	17.1	6.19
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.45	1.2	0.86	1.2	< 0.61	0.59	< 0.46	1.3	1.4	1.2	1.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E11-8228-02	E11-8228-02	E11-8228-05	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			10/19/1999	10/19/1999	6/22/2000	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			E11-8228-022N	E11-8228-022FD	E11-8228-051.5N	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N
Parent Sample				E11-8228-022N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.09	< 0.37	< 0.342063	< 0.35	< 0.36	< 0.26	< 0.28	< 0.32	< 0.26	0.38	< 0.22
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.89	< 1.2	< 1.140209	< 1.2	< 1.2	< 0.86	< 0.92	< 1.1	< 0.88	< 1.2	0.724
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	253	281	72.4	24.9	26.9	42	100	118	94.7	1160	74.5
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	5.58	5.59	NA	NA	NA	NA	NA	NA	5.31	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	29000	NA	NA	70100	15800	NA	27300	NA	56800	22100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	4.9	NA	NA	4.9	13.3	NA	6.5	NA	11	3.8	NA
Gravel	ARC-PGRAVEL	%	22	NA	NA	41.2	18.6	NA	21.8	NA	10.5	45.8	NA
Sand	ARC-PSAND	%	51.3	NA	NA	44.5	45.3	NA	51.4	NA	62.3	37.4	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	21.9	NA	NA	9.4	22.8	NA	20.3	NA	16.1	13	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999
Sample Type			FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N
Parent Sample			E12-286D-071N				E12-325B-022N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999
Sample Type			FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N
Parent Sample			E12-286D-071N				E12-325B-022N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
1,2-Dichlorobenzene	95-50-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
1,4-Dichlorobenzene	106-46-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
2,4-Dichlorophenol	120-83-2	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
2,4-Dimethylphenol	105-67-9	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
2,4-Dinitrophenol	51-28-5	ug/kg	< 775	< 922.912	< 2500	< 780.866	< 797	< 2400	< 823.238	< 2100	NA	< 2100	< 2700
2,4-Dinitrotoluene	121-14-2	ug/kg	< 388	< 461	< 510	< 390	< 398	< 480	< 412	< 430	NA	< 410	< 550
2,6-Dinitrotoluene	606-20-2	ug/kg	< 388	< 461	< 510	< 390	< 398	< 480	< 412	< 430	NA	< 410	< 550
2-Chloronaphthalene	91-58-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
2-Chlorophenol	95-57-8	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 388	NA	< 510	NA	NA	< 480	NA	< 430	NA	< 410	< 550
2-Nitrotoluene	88-72-2	ug/kg	NA	< 461.456	NA	NA	NA	NA	< 411.619	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 775	< 922.912	< 1000	< 780.866	< 797	< 950	< 823.238	< 860	NA	< 820	< 1100
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 775	< 922.912	< 2500	< 780.866	< 797	< 2400	< 823.238	< 2100	NA	< 2100	< 2700
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999
Sample Type			FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N
Parent Sample			E12-286D-071N				E12-325B-022N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 775	NA	< 2500	NA	NA	< 2400	NA	< 2100	NA	< 2100	< 2700
4-Nitrotoluene	99-99-0	ug/kg	NA	< 922.912	NA	NA	NA	NA	< 823.238	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 388	< 461.456	< 510	81.21	115	< 480	< 411.619	< 430	NA	< 410	< 550
Acenaphthylene	208-96-8	ug/kg	< 388	< 461.456	< 510	292	446	< 480	< 411.619	< 430	NA	59	< 550
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	124	< 461.456	< 510	424	661	< 480	< 411.619	< 430	NA	65	< 550
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	547	< 461.456	< 510	1780	3290	< 480	< 411.619	< 430	NA	210	< 550
Benzo[a]pyrene	50-32-8	ug/kg	560	< 461.456	31	1750	2840	< 480	< 411.619	< 430	NA	250	< 550
Benzo[b]fluoranthene	205-99-2	ug/kg	1260	< 461.456	< 510	2480	4540	< 480	< 411.619	< 430	NA	610	< 550
Benzo[g,h,i]perylene	191-24-2	ug/kg	339	< 461.456	< 510	1120	1990	< 480	< 411.619	< 430	NA	260	< 550
Benzo[k]fluoranthene	207-08-9	ug/kg	314	< 461.456	< 510	845	1340	< 480	< 411.619	< 430	NA	190	< 550
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	84	51
Butylbenzylphthalate	85-68-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	715	< 461.456	< 510	2250	3850	< 480	< 411.619	< 430	NA	420	< 550
Dibenzo[a,h]anthracene	53-70-3	ug/kg	140	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Dimethylphthalate	131-11-3	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Di-n-butylphthalate	84-74-2	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	50	< 411.619	< 430	NA	63	190
Di-n-octylphthalate	117-84-0	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Fluoranthene	206-44-0	ug/kg	467	< 461.456	< 510	3430	5500	< 480	< 411.619	< 430	NA	460	< 550
Fluorene	86-73-7	ug/kg	< 388	< 461.456	< 510	119	147	< 480	< 411.619	< 430	NA	< 410	< 550
Hexachlorobenzene	118-74-1	ug/kg	< 388	NA	< 510	NA	NA	< 480	NA	< 430	NA	< 410	< 550
Hexachlorobutadiene	87-68-3	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Hexachloroethane	67-72-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	338	< 461.456	< 510	950	1770	< 480	< 411.619	< 430	NA	230	< 550
Isophorone	78-59-1	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999
Sample Type			FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N
Parent Sample			E12-286D-071N				E12-325B-022N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 388	< 461.456	< 510	< 390.433	56.99	< 480	< 411.619	< 430	NA	< 410	< 550
Nitrobenzene	98-95-3	ug/kg	NA	< 461.456	< 510	NA	NA	< 480	< 411.619	< 430	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	< 411.619	< 430	NA	< 410	< 550
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 388	< 461.456	< 510	< 390.433	< 398	< 480	NA	< 430	NA	< 410	< 550
Pentachlorophenol	87-86-5	ug/kg	< 775	< 922.912	< 2500	< 780.866	< 797	< 2400	< 823.238	< 2100	NA	< 2050	< 2750
Phenanthrene	85-01-8	ug/kg	150	< 461.456	< 510	791	1040	< 480	< 411.619	< 430	NA	180	< 550
Phenol	108-95-2	ug/kg	< 388	< 461.456	< 510	< 390.433	37.46	< 480	< 411.619	< 430	NA	< 410	< 550
Pyrene	129-00-0	ug/kg	483	< 461.456	< 510	2470	4660	< 480	< 411.619	< 430	NA	520	< 550
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 45	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 45	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 45	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 45	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 45	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 45	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 88	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 88	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999
Sample Type			FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N
Parent Sample			E12-286D-071N				E12-325B-022N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	< 238.1	< 200	NA	NA	NA	NA	< 240	< 240
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	< 238.1	< 200	NA	NA	NA	NA	< 240	< 240
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	NA	< 238.1	< 200	NA	NA	NA	NA	< 240	< 240
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 238.1	< 200	NA	NA	NA	NA	< 240	< 240
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	< 476.2	< 400	NA	NA	NA	NA	< 480	< 480
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	< 476.2	< 400	NA	NA	NA	NA	< 480	< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	< 238.1	< 200	NA	NA	NA	NA	< 240	< 240
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	< 476.2	< 400	NA	NA	NA	NA	< 480	< 480
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	NA	< 238.1	< 200	NA	NA	NA	NA	< 240	< 240
Nitrocellulose	9004-70-0	ug/kg	75300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5770	NA	NA	< 5210.927	< 5984	NA	< 411.619	NA	NA	< 4800	< 4900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	< 476.2	< 400	NA	NA	NA	NA	< 480	< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	< 476.2	< 400	NA	NA	NA	NA	< 480	< 480
Tetryl	479-45-8	ug/kg	< 500	NA	NA	< 476.2	< 400	NA	NA	NA	NA	< 480	< 480
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.1	< 0.671141	< 0.6	< 0.676425	< 0.718	< 0.53	< 0.529755	< 0.45	NA	< 0.4	< 0.49
Arsenic	7440-38-2	mg/kg	76	2.84	17.9	36.1	54.1	2.6	13.2	4.3	NA	8.5	5.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.217	0.248	0.4	0.287	0.246	0.44	0.559	0.57	NA	0.42	0.6
Cadmium	7440-43-9	mg/kg	< 0.355	< 0.33557	0.42	0.054	0.121	< 0.32	0.51	< 0.27	NA	< 0.24	< 0.29
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	6.41	11.2	11.8	12.5	13.6	12.3	15.5	16.5	NA	10	12.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	20.9	12.8	8.7	10.5	13.5	84.1	17.4	12.7	NA	68.2	15.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	45	16.5	122	15	21.8	17.1	135	366	NA	98.8	28.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.547	0.16	0.11	0.09	0.05	0.03	0.052	0.06	NA	0.06	0.04
Nickel	7440-02-0	mg/kg	5.49	5.36	5	5.75	7.86	5.8	7.88	6.5	NA	9.7	8.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.93	0.728	1.4	1.49	1.19	< 0.53	0.693	1.4	NA	1	1.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999
Sample Type			FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N
Parent Sample			E12-286D-071N				E12-325B-022N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.355	< 0.33557	0.13	< 0.338213	< 0.359	< 0.32	< 0.264877	< 0.27	NA	0.11	< 0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.18	< 1.118568	< 1.2	< 1.127375	< 1.2	< 1.1	1.8	< 0.9	NA	< 0.8	< 0.98
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	84.4	46.4	51.4	43.2	51.3	75.4	384	258	NA	194	122
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	5.53	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	82200	29700	NA	9010	NA	25900	175000	5660	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	2.8	NA	NA	7.4	NA	6.8	2.8	5	NA
Gravel	ARC-PGRAVEL	%	NA	NA	35.5	NA	NA	11.4	NA	18.8	34.3	39.7	NA
Sand	ARC-PSAND	%	NA	NA	42.4	NA	NA	67	NA	53.3	56.3	45.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	90.9	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	72.9	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	16.5	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	83.1	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	41.8	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	21.5	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	57.7	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	29.1	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	19.3	NA	NA	14.2	NA	21.1	6.6	9.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999	10/28/1999	6/29/2000	10/25/1999	6/29/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N
Parent Sample								E13-2074A-052N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999	10/28/1999	6/29/2000	10/25/1999	6/29/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N
Parent Sample								E13-2074A-052N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
2,4-Dichlorophenol	120-83-2	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
2,4-Dimethylphenol	105-67-9	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 2000	< 2200	< 2500	< 790.036	< 800	< 2200	< 2100	< 798.562	< 3200	< 772.622
2,4-Dinitrotoluene	121-14-2	ug/kg	< 410	< 400	< 440	< 500	< 395	< 400	< 440	< 410	< 399	< 640	< 386
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 400	< 440	< 500	< 395	< 400	< 440	< 410	< 399	< 640	< 386
2-Chloronaphthalene	91-58-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
2-Chlorophenol	95-57-8	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 410	< 400	< 440	< 500	NA	NA	< 440	< 410	NA	< 640	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 399.281	NA	< 386.311
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 820	< 790	< 880	< 1000	< 790.036	< 800	< 880	< 820	< 798.562	< 1280	< 772.622
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 2000	< 2200	< 2500	< 790.036	< 800	< 2200	< 2100	< 798.562	< 3200	< 772.622
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999	10/28/1999	6/29/2000	10/25/1999	6/29/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N
Parent Sample								E13-2074A-052N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 2000	< 2200	< 2500	NA	NA	< 2200	< 2100	NA	< 3200	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 798.562	NA	< 772.622
Acenaphthene	83-32-9	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Acenaphthylene	208-96-8	ug/kg	36	< 400	< 440	< 500	112	168	< 440	43	68.3	< 640	< 386.311
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	81	< 400	< 440	< 500	92.8	160	< 440	44	53.9	< 640	< 386.311
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	430	< 400	< 440	< 500	609	867	62	170	306	< 640	195
Benzo[a]pyrene	50-32-8	ug/kg	410	< 400	< 440	< 500	477	720	48	180	286	< 640	153
Benzo[b]fluoranthene	205-99-2	ug/kg	650	< 400	< 440	< 500	794	1210	120	440	676	< 640	281
Benzo[g,h,i]perylene	191-24-2	ug/kg	300	< 400	< 440	< 500	203	325	< 440	150	171	< 640	< 386.311
Benzo[k]fluoranthene	207-08-9	ug/kg	190	< 400	< 440	< 500	285	506	< 440	110	185	< 640	< 386.311
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	130	< 400	< 440	130	< 395.018	< 400	26	45	< 399.281	< 640	< 386.311
Butylbenzylphthalate	85-68-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	430	< 400	< 440	< 500	519	747	71	260	416	< 640	177
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 410	< 400	< 440	< 500	< 395.018	144	< 440	< 410	< 399.281	< 640	< 386.311
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	41	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Dimethylphthalate	131-11-3	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Di-n-butylphthalate	84-74-2	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	160	< 399.281	< 640	< 386.311
Di-n-octylphthalate	117-84-0	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Fluoranthene	206-44-0	ug/kg	670	< 400	< 440	< 500	366	535	< 440	180	323	< 640	131
Fluorene	86-73-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Hexachlorobenzene	118-74-1	ug/kg	< 410	< 400	< 440	< 500	NA	NA	< 440	< 410	NA	< 640	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Hexachloroethane	67-72-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	290	< 400	< 440	< 500	226	390	< 440	120	178	< 640	74.9
Isophorone	78-59-1	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999	10/28/1999	6/29/2000	10/25/1999	6/29/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N
Parent Sample								E13-2074A-052N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 410	< 400	< 440	< 500	< 395.018	71.6	< 440	< 410	< 399.281	< 640	< 386.311
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 410	< 399.281	< 640	< 386.311
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410	< 400	< 440	< 500	NA	NA	< 440	< 410	NA	< 640	NA
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 2000	< 2200	< 2500	< 790.036	< 800	< 2200	< 2100	< 798.562	< 3200	< 772.622
Phenanthrene	85-01-8	ug/kg	120	< 400	< 440	< 500	174	259	31	120	137	< 640	51.4
Phenol	108-95-2	ug/kg	< 410	< 400	< 440	< 500	< 395.018	< 400	< 440	< 410	< 399.281	< 640	< 386.311
Pyrene	129-00-0	ug/kg	680	< 400	< 440	< 500	469	561	< 440	170	329	< 640	167
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999	10/28/1999	6/29/2000	10/25/1999	6/29/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N
Parent Sample								E13-2074A-052N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 230	< 230	< 220	< 238.0952	< 227	< 240	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 230	< 230	< 220	< 238.0952	< 227	< 240	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	250	< 230	< 230	370	< 238.0952	< 227	< 240	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	1200	< 230	< 230	< 220	< 238.0952	< 227	< 240	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 450	< 450	< 430	< 476.1904	< 455	< 480	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 450	< 450	< 430	< 476.1904	< 455	< 480	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	1000	< 230	< 230	< 220	< 238.0952	< 227	< 240	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 450	< 450	< 430	< 476.1904	< 455	< 480	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 230	< 230	470	< 238.0952	< 227	< 240	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4800	20000	< 4800	24000	< 395	< 400	< 5000	NA	< 399.281	NA	< 386.311
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 450	< 450	< 430	539	421	< 480	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	550	< 450	< 450	< 430	1250	731	< 480	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 500	< 450	< 450	< 430	< 476.1904	< 455	< 480	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.5	< 0.5	< 0.6	NA	NA	NA	1.2	< 0.48	< 0.464145	< 0.65	< 0.454939
Arsenic	7440-38-2	mg/kg	40.3	10.3	5.9	NA	NA	NA	253	11.1	8.7	8.2	14.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.56	0.58	0.56	NA	NA	NA	0.44	0.47	0.326	0.46	0.362
Cadmium	7440-43-9	mg/kg	0.51	0.39	0.28	NA	NA	NA	0.08	1.4	0.192	0.59	0.104
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	30.3	20.2	17.9	NA	NA	NA	21.1	10.1	6.6	18.4	13.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	45.7	20.7	11.6	NA	NA	NA	23.7	104	16.8	10.9	15.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	230	11.7	16.2	NA	NA	NA	107	155	44.3	98	18
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.08	0.03	0.02	NA	NA	NA	0.13	0.15	0.167	0.1	< 0.036887
Nickel	7440-02-0	mg/kg	8	8.9	8.2	NA	NA	NA	11.7	9.9	6.63	7.4	5.12
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.28	0.25	0.22	NA	NA	NA	1	1.2	0.873	1.5	0.343

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999	10/28/1999	6/29/2000	10/25/1999	6/29/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N
Parent Sample								E13-2074A-052N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.36	NA	NA	NA	< 0.32	0.17	< 0.232072	< 0.39	< 0.227469
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1.2	NA	NA	NA	< 1.1	< 0.96	0.88	< 1.3	1.14
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	421	55.5	69	NA	NA	NA	59	203	315	113	41.8
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.61	NA
Total Organic Carbon	ARC-TOC	mg/kg	25400	NA	NA	9000	NA	NA	70900	61700	NA	28000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	2.2	NA	NA	2.3	NA	NA	7.9	1	NA	11.1	NA
Gravel	ARC-PGRAVEL	%	28.8	NA	NA	25.6	NA	NA	21	56.9	NA	15.2	NA
Sand	ARC-PSAND	%	53.4	NA	NA	55.8	NA	NA	51.3	34.4	NA	44.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	15.7	NA	NA	16.4	NA	NA	19.8	7.8	NA	28.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E13-3-05 0.0-2.0 ft 10/26/1999 N E13-3-052N	E13-325-02 0.0-2.0 ft 10/25/1999 N E13-325-022N	E13-5-02 0.0-2.0 ft 10/28/1999 N E13-5-022N	E13-5-03 0.0-2.0 ft 6/29/2000 N E13-5-032N	E14-2020-03 0.0-2.0 ft 10/26/1999 N E14-2020-032N	E14-668-03 0.0-2.0 ft 10/27/1999 N E14-668-032N	E14-668-05 0.0-2.0 ft 10/26/1999 N E14-668-052N	E15-8560-01 0.0-0.5 ft 9/29/1999 N E15-8560-010.5N	E15-8560-01 0.0-1.5 ft 9/29/1999 N E15-8560-011.5N	E15-8560-02 0.0-0.5 ft 9/29/1999 N E15-8560-020.5N	E15-8560-02 0.0-1.5 ft 9/29/1999 N E15-8560-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1389	NA	< 1136	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2778	NA	< 2273	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1389	NA	< 1136	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1389	NA	< 1136	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1389	NA	< 1136	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-3-05	E13-325-02	E13-5-02	E13-5-03	E14-2020-03	E14-668-03	E14-668-05	E15-8560-01	E15-8560-01	E15-8560-02	E15-8560-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			10/26/1999	10/25/1999	10/28/1999	6/29/2000	10/26/1999	10/27/1999	10/26/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E13-3-052N	E13-325-022N	E13-5-022N	E13-5-032N	E14-2020-032N	E14-668-032N	E14-668-052N	E15-8560-010.5N	E15-8560-011.5N	E15-8560-020.5N	E15-8560-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 694	NA	< 568	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1389	NA	< 1136	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 1950	< 2400	< 942.008	< 2000	< 2000	< 2000	NA	< 1800	NA	< 1700
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	42	< 480	< 471	< 400	< 400	< 390	NA	< 350	NA	< 340
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	130	< 480	< 471	< 400	< 400	< 390	NA	< 350	NA	< 340
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
2-Chlorophenol	95-57-8	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	< 390	< 480	NA	< 400	< 400	< 390	NA	< 350	NA	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 800	< 780	< 960	< 942.008	< 800	< 790	< 780	NA	< 710	NA	< 690
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 1950	< 2400	< 942.008	< 2000	< 2000	< 2000	NA	< 1800	NA	< 1700
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E13-3-05 0.0-2.0 ft 10/26/1999 N E13-3-052N	E13-325-02 0.0-2.0 ft 10/25/1999 N E13-325-022N	E13-5-02 0.0-2.0 ft 10/28/1999 N E13-5-022N	E13-5-03 0.0-2.0 ft 6/29/2000 N E13-5-032N	E14-2020-03 0.0-2.0 ft 10/26/1999 N E14-2020-032N	E14-668-03 0.0-2.0 ft 10/27/1999 N E14-668-032N	E14-668-05 0.0-2.0 ft 10/26/1999 N E14-668-052N	E15-8560-01 0.0-0.5 ft 9/29/1999 N E15-8560-010.5N	E15-8560-01 0.0-1.5 ft 9/29/1999 N E15-8560-011.5N	E15-8560-02 0.0-0.5 ft 9/29/1999 N E15-8560-020.5N	E15-8560-02 0.0-1.5 ft 9/29/1999 N E15-8560-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 1950	< 2400	NA	< 2000	< 2000	< 2000	NA	< 1800	NA	< 1700
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Acenaphthylene	208-96-8	ug/kg	< 400	< 390	< 480	< 471.004	40	< 400	19	NA	< 350	NA	< 340
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 400	< 390	< 480	< 471.004	52	< 400	35	NA	< 350	NA	< 340
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	87	120	< 480	< 471.004	470	31	270	NA	< 350	NA	< 340
Benzo[a]pyrene	50-32-8	ug/kg	87	53	< 480	< 471.004	330	26	260	NA	< 350	NA	< 340
Benzo[b]fluoranthene	205-99-2	ug/kg	160	120	< 480	< 471.004	640	< 400	350	NA	< 350	NA	< 340
Benzo[g,h,i]perylene	191-24-2	ug/kg	62	< 390	< 480	< 471.004	140	< 400	150	NA	< 350	NA	< 340
Benzo[k]fluoranthene	207-08-9	ug/kg	51	< 390	< 480	< 471.004	230	< 400	93	NA	< 350	NA	< 340
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	62	< 390	270	< 471.004	< 400	< 400	< 390	NA	28	NA	20
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	98	150	< 480	< 471.004	450	< 400	240	NA	< 350	NA	< 340
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Dimethylphthalate	131-11-3	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Di-n-butylphthalate	84-74-2	ug/kg	< 400	< 390	130	< 471.004	< 400	< 400	< 390	NA	15	NA	77
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Fluoranthene	206-44-0	ug/kg	100	90	< 480	< 471.004	440	< 400	410	NA	< 350	NA	< 340
Fluorene	86-73-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 390	< 480	NA	< 400	< 400	< 390	NA	< 350	NA	< 340
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Hexachloroethane	67-72-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	58	< 390	< 480	< 471.004	150	< 400	140	NA	< 350	NA	< 340
Isophorone	78-59-1	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-3-05	E13-325-02	E13-5-02	E13-5-03	E14-2020-03	E14-668-03	E14-668-05	E15-8560-01	E15-8560-01	E15-8560-02	E15-8560-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			10/26/1999	10/25/1999	10/28/1999	6/29/2000	10/26/1999	10/27/1999	10/26/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E13-3-052N	E13-325-022N	E13-5-022N	E13-5-032N	E14-2020-032N	E14-668-032N	E14-668-052N	E15-8560-010.5N	E15-8560-011.5N	E15-8560-020.5N	E15-8560-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 400	20	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Nitrobenzene	98-95-3	ug/kg	< 400	NA	NA	NA	< 400	NA	NA	NA	< 350	NA	< 340
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 390	< 480	NA	< 400	< 400	< 390	NA	< 350	NA	< 340
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 1950	< 2400	< 942.008	< 2000	< 2000	< 2000	NA	< 1800	NA	< 1700
Phenanthrene	85-01-8	ug/kg	< 400	240	< 480	< 471.004	63	23	70	NA	< 350	NA	< 340
Phenol	108-95-2	ug/kg	< 400	< 390	< 480	< 471.004	< 400	< 400	< 390	NA	< 350	NA	< 340
Pyrene	129-00-0	ug/kg	100	< 390	< 480	< 471.004	370	< 400	370	NA	< 350	NA	< 340
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-3-05	E13-325-02	E13-5-02	E13-5-03	E14-2020-03	E14-668-03	E14-668-05	E15-8560-01	E15-8560-01	E15-8560-02	E15-8560-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			10/26/1999	10/25/1999	10/28/1999	6/29/2000	10/26/1999	10/27/1999	10/26/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E13-3-052N	E13-325-022N	E13-5-022N	E13-5-032N	E14-2020-032N	E14-668-032N	E14-668-052N	E15-8560-010.5N	E15-8560-011.5N	E15-8560-020.5N	E15-8560-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 240	< 210	< 250	NA	< 240	< 230	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 240	< 210	< 250	NA	< 240	< 230	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 240	< 210	< 250	NA	< 240	< 230	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 240	< 210	< 250	NA	< 240	< 230	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 480	< 420	< 500	NA	< 480	< 450	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 480	< 420	< 500	NA	< 480	< 450	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 240	< 210	< 250	NA	< 240	< 230	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 480	< 420	< 500	NA	< 480	< 450	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 240	< 210	< 250	NA	< 240	< 230	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 4761.9	< 4900	< 471	NA	< 5000	< 4900	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 480	< 420	< 500	NA	< 480	< 450	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 480	< 420	< 500	NA	< 480	< 450	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	< 480	< 420	< 500	NA	< 480	< 450	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.46	< 0.52	< 0.46	< 0.619457	1.5	< 0.52	< 0.45	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	18.7	22.9	2.8	2.35	237	7.6	5	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.4	0.39	0.5	0.222	0.39	0.54	0.61	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.3	0.79	< 0.28	0.182	0.26	< 0.31	0.23	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.2	8.2	13.9	9.46	12.3	15.2	16.3	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.7	17.5	8.3	6.21	16.6	12	10	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	43.5	77.5	18.6	26.6	21.5	202	71.2	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.23	0.07	0.065	0.06	0.26	0.1	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	6.5	7.7	5.7	3.53	9.9	6.6	6.7	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.29	1.5	1.2	1.23	0.63	0.4	0.17	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E13-3-05	E13-325-02	E13-5-02	E13-5-03	E14-2020-03	E14-668-03	E14-668-05	E15-8560-01	E15-8560-01	E15-8560-02	E15-8560-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			10/26/1999	10/25/1999	10/28/1999	6/29/2000	10/26/1999	10/27/1999	10/26/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E13-3-052N	E13-325-022N	E13-5-022N	E13-5-032N	E14-2020-032N	E14-668-032N	E14-668-052N	E15-8560-010.5N	E15-8560-011.5N	E15-8560-020.5N	E15-8560-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.27	0.15	< 0.28	< 0.309729	< 0.31	< 0.31	< 0.27	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.92	< 1	< 0.92	< 1.032429	< 1	< 1	0.51	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	48.1	128	44.6	30	32.3	35.8	34.1	NA	NA	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	4.83	NA	NA	NA	NA	5.37	5.29	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	47800	71800	NA	15400	19600	9840	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	2.2	6.5	NA	4	12.5	12.6	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	68.7	21.3	NA	36.8	23.6	22.8	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	23.5	46.9	NA	45.3	44.1	44.5	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	5.6	25.2	NA	13.9	19.9	20.1	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	FD	N	FD	N	N	N	N	N	N
Sample Name			E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N
Parent Sample				E15-8560-030.8N		E15-8560-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,1,2-Trichloroethane	79-00-5	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,1-Dichloroethene	75-35-4	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,2-Dichloroethane	107-06-2	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,2-Dichloropropane	78-87-5	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,3-Dichlorobenzene	541-73-1	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
1,4-Dichlorobenzene	106-46-7	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1042	< 1072	NA	NA	< 1042	NA	< 1042	NA	< 1250	< 1042
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2083	< 2143	NA	NA	< 2083	NA	< 2083	NA	< 2500	< 2083
Acrylonitrile	107-13-1	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Benzene	71-43-2	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Bromodichloromethane	75-27-4	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Bromoform	75-25-2	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Bromomethane	74-83-9	ug/kg	< 1042	< 1072	NA	NA	< 1042	NA	< 1042	NA	< 1250	< 1042
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Chlorobenzene	108-90-7	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	755	< 521
Chloroethane	75-00-3	ug/kg	< 1042	< 1072	NA	NA	< 1042	NA	< 1042	NA	< 1250	< 1042
Chloroform	67-66-3	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Chloromethane	74-87-3	ug/kg	< 1042	< 1072	NA	NA	< 1042	NA	< 1042	NA	< 1250	< 1042
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Hexachlorobutadiene	87-68-3	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	FD	N	FD	N	N	N	N	N	N
Sample Name			E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N
Parent Sample				E15-8560-030.8N		E15-8560-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 521	< 214	NA	NA	< 521	NA	< 521	NA	< 625	< 521
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 536	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Toluene	108-88-3	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 521	< 536	NA	NA	< 521	NA	< 521	NA	< 625	< 521
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1042	< 1072	NA	NA	< 1042	NA	< 1042	NA	< 1250	< 1042
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 2000	< 1800	NA	< 1700	NA	< 1700	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 780	< 710	NA	< 690	NA	< 690	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 2000	< 1800	NA	< 1700	NA	< 1700	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	FD	N	FD	N	N	N	N	N	N
Sample Name			E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N
Parent Sample				E15-8560-030.8N		E15-8560-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 2000	< 1800	NA	< 1700	NA	< 1700	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	19	64	NA	31	NA	22	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	140	150	NA	110	NA	< 350	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	FD	N	FD	N	N	N	N	N	N
Sample Name			E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N
Parent Sample				E15-8560-030.8N		E15-8560-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 2000	< 1800	NA	< 1700	NA	< 1700	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	< 390	< 360	NA	< 350	NA	< 350	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	FD	N	FD	N	N	N	N	N	N
Sample Name			E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N
Parent Sample				E15-8560-030.8N		E15-8560-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	FD	N	FD	N	N	N	N	N	N
Sample Name			E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N
Parent Sample				E15-8560-030.8N		E15-8560-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E15-8560-07 0.0-1.5 ft 9/29/1999 N E15-8560-071.5N	E15-8560-08 0.0-0.5 ft 9/29/1999 N E15-8560-080.5N	E15-8560-08 0.0-2.0 ft 9/29/1999 N E15-8560-082N	E15-8560-09 0.0-0.5 ft 9/29/1999 N E15-8560-090.5N	E15-8560-09 0.0-1.5 ft 9/29/1999 N E15-8560-091.5N	E15-8560-10 0.0-0.5 ft 9/29/1999 N E15-8560-100.5N	E15-8560-10 0.0-1.5 ft 9/29/1999 N E15-8560-101.5N	E15-8560-11 0.0-0.5 ft 9/29/1999 N E15-8560-110.5N	E15-8560-11 0.0-1.0 ft 9/29/1999 N E15-8560-111N	E15-8560-12 0.0-0.8 ft 9/29/1999 N E15-8560-120.8N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1042	NA	< 1042	NA	< 1085	NA	< 1042	NA	< 1042
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2083	NA	< 2083	NA	< 2170	NA	< 2083	NA	< 2083
Acrylonitrile	107-13-1	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Benzene	71-43-2	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Bromodichloromethane	75-27-4	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Bromoform	75-25-2	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Bromomethane	74-83-9	ug/kg	NA	< 1042	NA	< 1042	NA	< 1085	NA	< 1042	NA	< 1042
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Chlorobenzene	108-90-7	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Chloroethane	75-00-3	ug/kg	NA	< 1042	NA	< 1042	NA	< 1085	NA	< 1042	NA	< 1042
Chloroform	67-66-3	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Chloromethane	74-87-3	ug/kg	NA	< 1042	NA	< 1042	NA	< 1085	NA	< 1042	NA	< 1042
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-07	E15-8560-08	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-12
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.8 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-071.5N	E15-8560-080.5N	E15-8560-082N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-120.8N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Toluene	108-88-3	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 521	NA	< 521	NA	< 543	NA	< 521	NA	< 521
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1042	NA	< 1042	NA	< 1085	NA	< 1042	NA	< 1042
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	NA	< 1900	NA	< 1700	NA	< 1800	NA	< 1900	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2-Chlorophenol	95-57-8	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 910	NA	< 780	NA	< 690	NA	< 700	NA	< 770	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2300	NA	< 1900	NA	< 1700	NA	< 1800	NA	< 1900	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-07	E15-8560-08	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-12
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.8 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-071.5N	E15-8560-080.5N	E15-8560-082N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-120.8N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2300	NA	< 1900	NA	< 1700	NA	< 1800	NA	< 1900	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Acenaphthylene	208-96-8	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	30	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Dimethylphthalate	131-11-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Fluoranthene	206-44-0	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Fluorene	86-73-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Hexachlorobenzene	118-74-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Hexachloroethane	67-72-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Isophorone	78-59-1	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E15-8560-07 0.0-1.5 ft 9/29/1999 N E15-8560-071.5N	E15-8560-08 0.0-0.5 ft 9/29/1999 N E15-8560-080.5N	E15-8560-08 0.0-2.0 ft 9/29/1999 N E15-8560-082N	E15-8560-09 0.0-0.5 ft 9/29/1999 N E15-8560-090.5N	E15-8560-09 0.0-1.5 ft 9/29/1999 N E15-8560-091.5N	E15-8560-10 0.0-0.5 ft 9/29/1999 N E15-8560-100.5N	E15-8560-10 0.0-1.5 ft 9/29/1999 N E15-8560-101.5N	E15-8560-11 0.0-0.5 ft 9/29/1999 N E15-8560-110.5N	E15-8560-11 0.0-1.0 ft 9/29/1999 N E15-8560-111N	E15-8560-12 0.0-0.8 ft 9/29/1999 N E15-8560-120.8N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Nitrobenzene	98-95-3	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Pentachlorophenol	87-86-5	ug/kg	< 2300	NA	< 1900	NA	< 1700	NA	< 1800	NA	< 1900	NA
Phenanthrene	85-01-8	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	36	NA
Phenol	108-95-2	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	< 380	NA
Pyrene	129-00-0	ug/kg	< 460	NA	< 390	NA	< 350	NA	< 350	NA	84	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-07	E15-8560-08	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-12
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.8 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-071.5N	E15-8560-080.5N	E15-8560-082N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-120.8N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-07	E15-8560-08	E15-8560-08	E15-8560-09	E15-8560-09	E15-8560-10	E15-8560-10	E15-8560-11	E15-8560-11	E15-8560-12
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.8 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-071.5N	E15-8560-080.5N	E15-8560-082N	E15-8560-090.5N	E15-8560-091.5N	E15-8560-100.5N	E15-8560-101.5N	E15-8560-110.5N	E15-8560-111N	E15-8560-120.8N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-12	E15-8560-13	E15-8560-13	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-122N	E15-8560-130.5N	E15-8560-131N	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1042	NA	NA	< 2841	NA	< 2660	NA	< 2315	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2083	NA	NA	< 5682	NA	< 5320	NA	< 4629	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Benzene	71-43-2	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Bromoform	75-25-2	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Bromomethane	74-83-9	ug/kg	NA	< 1042	NA	NA	< 2841	NA	< 2660	NA	< 2315	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Chloroethane	75-00-3	ug/kg	NA	< 1042	NA	NA	< 2841	NA	< 2660	NA	< 2315	NA
Chloroform	67-66-3	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Chloromethane	74-87-3	ug/kg	NA	< 1042	NA	NA	< 2841	NA	< 2660	NA	< 2315	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-12	E15-8560-13	E15-8560-13	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-122N	E15-8560-130.5N	E15-8560-131N	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Toluene	108-88-3	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 521	NA	NA	< 1421	NA	< 1330	NA	< 1157	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1042	NA	NA	< 2841	NA	< 2660	NA	< 2315	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
1,2-Dichlorobenzene	95-50-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
1,4-Dichlorobenzene	106-46-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2,4-Dichlorophenol	120-83-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2,4-Dimethylphenol	105-67-9	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2,4-Dinitrophenol	51-28-5	ug/kg	< 1800	NA	< 1700	< 2000	NA	< 1800	NA	< 1800	NA	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2-Chloronaphthalene	91-58-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2-Chlorophenol	95-57-8	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 700	NA	< 690	< 810	NA	< 700	NA	< 710	NA	< 830
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1800	NA	< 1700	< 2000	NA	< 1800	NA	< 1800	NA	< 2100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-12	E15-8560-13	E15-8560-13	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-122N	E15-8560-130.5N	E15-8560-131N	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1800	NA	< 1700	< 2000	NA	< 1800	NA	< 1800	NA	< 2100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Acenaphthylene	208-96-8	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Benzo[a]pyrene	50-32-8	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Benzo[b]fluoranthene	205-99-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Benzo[k]fluoranthene	207-08-9	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 350	NA	17	< 410	NA	< 350	NA	< 350	NA	< 420
Butylbenzylphthalate	85-68-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 350	NA	< 340	39	NA	< 350	NA	< 350	NA	< 420
Dimethylphthalate	131-11-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Di-n-butylphthalate	84-74-2	ug/kg	< 350	NA	< 340	45	NA	< 350	NA	< 350	NA	< 420
Di-n-octylphthalate	117-84-0	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Fluoranthene	206-44-0	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Fluorene	86-73-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Hexachlorobenzene	118-74-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Hexachlorobutadiene	87-68-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Hexachloroethane	67-72-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Isophorone	78-59-1	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-12	E15-8560-13	E15-8560-13	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-122N	E15-8560-130.5N	E15-8560-131N	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Nitrobenzene	98-95-3	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
N-Nitrosodimethylamine	62-75-9	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Pentachlorophenol	87-86-5	ug/kg	< 1800	NA	< 1700	< 2000	NA	< 1800	NA	< 1800	NA	< 2100
Phenanthrene	85-01-8	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Phenol	108-95-2	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Pyrene	129-00-0	ug/kg	< 350	NA	< 340	< 410	NA	< 350	NA	< 350	NA	< 420
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-12	E15-8560-13	E15-8560-13	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-122N	E15-8560-130.5N	E15-8560-131N	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-12	E15-8560-13	E15-8560-13	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft
Collection Date			9/29/1999	9/29/1999	9/29/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			E15-8560-122N	E15-8560-130.5N	E15-8560-131N	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N
Sample Name			E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N
Parent Sample							E15-8560-190.5N		E15-8560-192N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,1,2-Trichloroethane	79-00-5	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,1-Dichloroethene	75-35-4	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,2-Dichloroethane	107-06-2	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,2-Dichloropropane	78-87-5	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,3-Dichlorobenzene	541-73-1	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
1,4-Dichlorobenzene	106-46-7	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 2500	< 3000	NA	< 2700	< 2900	NA	NA	< 2400	NA	< 2700
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 5000	< 6100	NA	< 5400	< 5800	NA	NA	< 4700	NA	< 5300
Acrylonitrile	107-13-1	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Benzene	71-43-2	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Bromodichloromethane	75-27-4	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Bromoform	75-25-2	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Bromomethane	74-83-9	ug/kg	< 2500	< 3000	NA	480	< 2900	NA	NA	< 2400	NA	< 2700
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Chlorobenzene	108-90-7	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Chloroethane	75-00-3	ug/kg	< 2500	< 3000	NA	< 2700	< 2900	NA	NA	< 2400	NA	< 2700
Chloroform	67-66-3	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Chloromethane	74-87-3	ug/kg	< 2500	< 3000	NA	1400	690	NA	NA	430	NA	< 2700
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Hexachlorobutadiene	87-68-3	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N
Sample Name			E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N
Parent Sample							E15-8560-190.5N		E15-8560-192N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 1250	< 1500	NA	< 1400	< 1300	NA	NA	< 1200	NA	< 1300
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 1500	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Toluene	108-88-3	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 1250	< 1500	NA	< 1400	< 1500	NA	NA	< 1200	NA	< 1300
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 2500	< 3000	NA	< 2700	< 2900	NA	NA	< 2400	NA	< 2700
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 1800	NA	NA	< 1800	< 1800	NA	< 1700	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 710	NA	NA	< 710	< 720	NA	< 690	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 1800	NA	NA	< 1800	< 1800	NA	< 1700	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N
Sample Name			E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N
Parent Sample							E15-8560-190.5N		E15-8560-192N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 1800	NA	NA	< 1800	< 1800	NA	< 1700	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 350	NA	NA	40	< 360	NA	26	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 350	NA	NA	76	80	NA	52	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 350	NA	NA	34	< 360	NA	< 340	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Fluorene	86-73-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Isophorone	78-59-1	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N
Sample Name			E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N
Parent Sample							E15-8560-190.5N		E15-8560-192N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 1800	NA	NA	< 1800	< 1800	NA	< 1700	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Phenol	108-95-2	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Pyrene	129-00-0	ug/kg	NA	NA	< 350	NA	NA	< 350	< 360	NA	< 340	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N
Sample Name			E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N
Parent Sample							E15-8560-190.5N		E15-8560-192N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	N	N	FD	N	FD	N	N	N
Sample Name			E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N
Parent Sample							E15-8560-190.5N		E15-8560-192N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N
Parent Sample					E15-8560-220.5N		E15-8560-222N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 3700	< 4200	NA	NA	< 2300	NA	< 2800	NA	< 2700
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 7400	< 8300	NA	NA	< 4600	NA	< 5700	NA	< 5400
Acrylonitrile	107-13-1	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Benzene	71-43-2	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Bromodichloromethane	75-27-4	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Bromoform	75-25-2	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Bromomethane	74-83-9	ug/kg	NA	< 3700	< 4200	NA	NA	< 2300	NA	< 2800	NA	< 2700
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Chlorobenzene	108-90-7	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Chloroethane	75-00-3	ug/kg	NA	< 3700	< 4200	NA	NA	< 2300	NA	< 2800	NA	< 2700
Chloroform	67-66-3	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Chloromethane	74-87-3	ug/kg	NA	< 3700	680	NA	NA	< 2300	NA	< 2800	NA	< 2700
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N
Parent Sample					E15-8560-220.5N		E15-8560-222N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 1800	< 5300	NA	NA	< 1200	NA	< 1400	NA	< 1400
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 2100	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Toluene	108-88-3	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 1800	< 2100	NA	NA	< 1200	NA	< 1400	NA	< 1400
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 3700	< 4200	NA	NA	< 2300	NA	< 2800	NA	< 2700
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 1700	NA	NA	< 1800	< 1800	NA	< 1800	NA	< 1800	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2-Chlorophenol	95-57-8	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 690	NA	NA	< 720	< 720	NA	< 700	NA	< 710	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1700	NA	NA	< 1800	< 1800	NA	< 1800	NA	< 1800	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N
Parent Sample					E15-8560-220.5N		E15-8560-222N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1700	NA	NA	< 1800	< 1800	NA	< 1800	NA	< 1800	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Acenaphthylene	208-96-8	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	31	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	39	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Dimethylphthalate	131-11-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Fluoranthene	206-44-0	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Fluorene	86-73-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Hexachlorobenzene	118-74-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Hexachloroethane	67-72-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Isophorone	78-59-1	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N
Parent Sample					E15-8560-220.5N		E15-8560-222N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Nitrobenzene	98-95-3	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Pentachlorophenol	87-86-5	ug/kg	< 1700	NA	NA	< 1800	< 1800	NA	< 1800	NA	< 1800	NA
Phenanthrene	85-01-8	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Phenol	108-95-2	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Pyrene	129-00-0	ug/kg	< 350	NA	NA	< 360	< 360	NA	< 350	NA	< 350	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N
Parent Sample					E15-8560-220.5N		E15-8560-222N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23	E15-8560-24	E15-8560-24	E15-8560-25
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N	E15-8560-240.5N	E15-8560-241.5N	E15-8560-250.5N
Parent Sample					E15-8560-220.5N		E15-8560-222N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	E9-2-01	E9-2-03	E9-2153-02	E9-2161-04	E9-2161-04	E9-2296-04
Depths			0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	6/16/2000	3/24/2000	3/23/2000	3/17/2000	3/17/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	E9-2-011.5N	E9-2-031N	E9-2153-021.5N	E9-2161-042N	E9-2161-042FD	E9-2296-042N
Parent Sample												E9-2161-042N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1700	NA	< 3100	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 3300	NA	< 6200	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 1700	NA	< 3100	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1700	NA	< 3100	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1700	NA	< 3100	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	E9-2-01	E9-2-03	E9-2153-02	E9-2161-04	E9-2161-04	E9-2296-04
Depths			0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	6/16/2000	3/24/2000	3/23/2000	3/17/2000	3/17/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	E9-2-011.5N	E9-2-031N	E9-2153-021.5N	E9-2161-042N	E9-2161-042FD	E9-2296-042N
Parent Sample												E9-2161-042N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 830	NA	< 1600	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1700	NA	< 3100	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2,4-Dichlorophenol	120-83-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2,4-Dimethylphenol	105-67-9	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	NA	< 2100	NA	< 1800	< 754	< 730	< 78	< 78	< 800	< 72
2,4-Dinitrotoluene	121-14-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 3700	< 390	8900	12000	< 360
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 3700	< 390	630	650	< 360
2-Chloronaphthalene	91-58-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2-Chlorophenol	95-57-8	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 820	NA	< 840	NA	< 710	< 754	< 730	< 78	< 78	< 800	< 72
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2100	NA	< 2100	NA	< 1800	< 754	< 730	< 78	< 78	< 800	< 72
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	E9-2-01	E9-2-03	E9-2153-02	E9-2161-04	E9-2161-04	E9-2296-04
Depths			0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	6/16/2000	3/24/2000	3/23/2000	3/17/2000	3/17/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	E9-2-011.5N	E9-2-031N	E9-2153-021.5N	E9-2161-042N	E9-2161-042FD	E9-2296-042N
Parent Sample												E9-2161-042N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2100	NA	< 2100	NA	< 1800	< 754	< 730	< 78	< 78	< 800	< 72
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Acenaphthylene	208-96-8	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 410	NA	< 420	NA	< 350	35.1	< 370	< 39	< 39	< 400	28
Benzo[a]pyrene	50-32-8	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	26
Benzo[b]fluoranthene	205-99-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Benzo[k]fluoranthene	207-08-9	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	NA	20	NA	< 350	23	< 370	32	26	34	26
Butylbenzylphthalate	85-68-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 410	NA	< 420	NA	< 350	35.4	< 370	< 39	< 39	< 400	33
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 410	NA	110	NA	70	108	370	300	< 39	< 400	100
Dimethylphthalate	131-11-3	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Di-n-butylphthalate	84-74-2	ug/kg	< 410	NA	< 420	NA	< 350	92	630	62	6100	5000	160
Di-n-octylphthalate	117-84-0	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Fluoranthene	206-44-0	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Fluorene	86-73-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Hexachlorobenzene	118-74-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Hexachlorobutadiene	87-68-3	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Hexachloroethane	67-72-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Isophorone	78-59-1	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	E9-2-01	E9-2-03	E9-2153-02	E9-2161-04	E9-2161-04	E9-2296-04
Depths			0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	6/16/2000	3/24/2000	3/23/2000	3/17/2000	3/17/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	E9-2-011.5N	E9-2-031N	E9-2153-021.5N	E9-2161-042N	E9-2161-042FD	E9-2296-042N
Parent Sample												E9-2161-042N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Nitrobenzene	98-95-3	ug/kg	< 410	NA	< 420	NA	< 350	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410	NA	< 420	NA	< 350	396	860	230	2300	1800	810
Pentachlorophenol	87-86-5	ug/kg	< 2100	NA	< 2100	NA	< 1800	< 754	< 730	< 78	< 78	< 800	< 72
Phenanthrene	85-01-8	ug/kg	< 410	NA	< 420	NA	< 350	24.9	< 370	< 39	< 39	< 400	< 36
Phenol	108-95-2	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Pyrene	129-00-0	ug/kg	< 410	NA	< 420	NA	< 350	< 377	< 370	< 39	< 39	< 400	< 36
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	E9-2-01	E9-2-03	E9-2153-02	E9-2161-04	E9-2161-04	E9-2296-04
Depths			0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	6/16/2000	3/24/2000	3/23/2000	3/17/2000	3/17/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	E9-2-011.5N	E9-2-031N	E9-2153-021.5N	E9-2161-042N	E9-2161-042FD	E9-2296-042N
Parent Sample												E9-2161-042N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 250	< 25	< 25	< 240	< 2300	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 250	< 25	< 25	< 240	< 2300	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	< 250	350	150	< 240	< 2300	636
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	< 250	< 25	< 25	< 240	< 2300	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 500	< 50	< 50	< 480	< 4500	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 500	< 50	< 50	< 480	< 4500	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	< 250	< 25	< 25	< 240	< 2300	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 500	< 50	< 50	< 480	< 4500	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	180	< 25	130	< 240	< 2300	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	320000	1260000	292000	4740000	4140000	808000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	18900	26000	28000	< 580	61000	56000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 500	< 50	< 50	< 480	< 4500	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 500	< 50	< 50	< 480	< 4500	< 50
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 500	< 50	< 50	< 480	< 4500	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	0.515	< 0.4	< 0.6	< 1	< 1.4	< 1
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	2.97	3.9	3.9	8.7	9.5	2.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	0.284	0.39	0.38	0.54	0.28	0.42
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	0.637	0.08	< 0.3	2.6	3	< 0.6
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	7.81	12.5	16	12.1	10.5	9.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	19.1	20.4	636	39.4	45	12.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	11.2	19.3	35.2	67.1	93.3	7.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	0.034	0.08	0.07	0.07	0.05	0.06
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	4.81	6.2	8.4	7.7	6.3	7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	< 0.534	0.52	< 0.5	< 1	1	< 1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E15-8560-25	E15-8560-26	E15-8560-26	E15-8560-27	E15-8560-27	E9-2-01	E9-2-03	E9-2153-02	E9-2161-04	E9-2161-04	E9-2296-04
Depths			0.0-1.2 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-0.5 ft	0.0-1.4 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	6/16/2000	3/24/2000	3/23/2000	3/17/2000	3/17/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			E15-8560-251.2N	E15-8560-260.5N	E15-8560-261.4N	E15-8560-270.5N	E15-8560-271.4N	E9-2-011.5N	E9-2-031N	E9-2153-021.5N	E9-2161-042N	E9-2161-042FD	E9-2296-042N
Parent Sample												E9-2161-042N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	< 0.32	< 0.2	< 0.3	< 0.6	< 0.72	< 0.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	< 1.07	< 0.8	0.94	< 2	< 2.4	1.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	47.6	58.2	260	136	147	43.1
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	5380	12700	21600	NA	35900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	8.3	0.8	6.1	NA	9.3
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	36.2	319	30.9	NA	35.4
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	45.3	60.5	52.2	NA	41.4
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	10.2	6.8	10.9	NA	14

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			E9-2296-05 0.0-1.0 ft 3/21/2000 N E9-2296-051N	E9-2296-06 0.0-1.0 ft 3/21/2000 N E9-2296-061N	E9-2296-07 0.0-2.0 ft 3/21/2000 N E9-2296-072N	E9-2296A-01 0.0-1.0 ft 3/31/2000 N E9-2296A-011N	E9-2296A-01 0.5-1.0 ft 3/31/2000 N E9-2296A-010.5N	E9-2296B-03 0.0-2.0 ft 3/21/2000 N E9-2296B-032N	E9-2296B-04 0.0-2.0 ft 6/16/2000 N E9-2296B-042N	E9-2296C-01 0.0-2.0 ft 3/31/2000 N E9-2296C-011.5N	E9-2296C-01 0.0-2.0 ft 6/16/2000 N E9-2296C-012N	E9-2296C-01 0.5-1.0 ft 3/31/2000 N E9-2296C-010.5N	E9-2296D-01 0.0-1.5 ft 3/21/2000 N E9-2296D-011.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 466	NA	NA	NA	NA	< 568	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 466	NA	NA	NA	NA	< 568	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 466	NA	NA	NA	NA	< 56	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 466	NA	NA	NA	NA	< 56	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 93	NA	NA	NA	NA	< 113	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 186	NA	NA	NA	NA	< 227	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	444	NA	NA	NA	NA	385	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 93	NA	NA	NA	NA	< 113	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	158	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	581	NA	NA	NA	NA	2213	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 466	NA	NA	NA	NA	< 56	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296-05	E9-2296-06	E9-2296-07	E9-2296A-01	E9-2296A-01	E9-2296B-03	E9-2296B-04	E9-2296C-01	E9-2296C-01	E9-2296C-01	E9-2296D-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/21/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-2296-051N	E9-2296-061N	E9-2296-072N	E9-2296A-011N	E9-2296A-010.5N	E9-2296B-032N	E9-2296B-042N	E9-2296C-011.5N	E9-2296C-012N	E9-2296C-010.5N	E9-2296D-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 46	NA	NA	NA	NA	< 56	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	< 93	NA	NA	NA	NA	< 113	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2,4-Dinitrophenol	51-28-5	ug/kg	< 730	< 72	< 79	< 74	NA	< 73	< 713	NA	< 7770	NA	< 69
2,4-Dinitrotoluene	121-14-2	ug/kg	< 3700	< 360	< 400	< 370	NA	< 370	< 357	NA	< 3880	NA	< 350
2,6-Dinitrotoluene	606-20-2	ug/kg	< 3700	< 360	< 400	< 370	NA	< 370	< 357	NA	< 3880	NA	< 350
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2-Chlorophenol	95-57-8	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 730	< 72	< 79	< 73	NA	< 73	< 713	NA	< 7770	NA	< 69
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 730	< 72	< 79	< 73	NA	< 73	< 713	NA	< 7770	NA	< 69
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296-05	E9-2296-06	E9-2296-07	E9-2296A-01	E9-2296A-01	E9-2296B-03	E9-2296B-04	E9-2296C-01	E9-2296C-01	E9-2296C-01	E9-2296D-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/21/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-2296-051N	E9-2296-061N	E9-2296-072N	E9-2296A-011N	E9-2296A-010.5N	E9-2296B-032N	E9-2296B-042N	E9-2296C-011.5N	E9-2296C-012N	E9-2296C-010.5N	E9-2296D-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 730	< 72	< 79	< 73	NA	< 73	< 713	NA	< 7770	NA	< 69
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Acenaphthylene	208-96-8	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Benzo[a]pyrene	50-32-8	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Benzo[b]fluoranthene	205-99-2	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Benzo[k]fluoranthene	207-08-9	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 36	< 40	47	NA	26	< 357	NA	575	NA	20
Butylbenzylphthalate	85-68-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 370	< 36	< 40	280	NA	130	< 357	NA	1340	NA	< 35
Dimethylphthalate	131-11-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Di-n-butylphthalate	84-74-2	ug/kg	< 370	< 36	37	550	NA	100	< 357	NA	18100	NA	52
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Fluoranthene	206-44-0	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Fluorene	86-73-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Hexachlorobenzene	118-74-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Hexachloroethane	67-72-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Isophorone	78-59-1	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296-05	E9-2296-06	E9-2296-07	E9-2296A-01	E9-2296A-01	E9-2296B-03	E9-2296B-04	E9-2296C-01	E9-2296C-01	E9-2296C-01	E9-2296D-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/21/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-2296-051N	E9-2296-061N	E9-2296-072N	E9-2296A-011N	E9-2296A-010.5N	E9-2296B-032N	E9-2296B-042N	E9-2296C-011.5N	E9-2296C-012N	E9-2296C-010.5N	E9-2296D-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 37	NA	< 37	< 357	NA	< 3880	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
N-Nitrosodiphenylamine	86-30-6	ug/kg	4200	< 36	710	160	NA	220	< 357	NA	2450	NA	< 35
Pentachlorophenol	87-86-5	ug/kg	< 730	< 72	< 79	< 73	NA	< 73	< 713	NA	< 7770	NA	< 69
Phenanthrene	85-01-8	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Phenol	108-95-2	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Pyrene	129-00-0	ug/kg	< 370	< 36	< 40	< 37	NA	< 37	< 357	NA	< 3880	NA	< 35
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296-05	E9-2296-06	E9-2296-07	E9-2296A-01	E9-2296A-01	E9-2296B-03	E9-2296B-04	E9-2296C-01	E9-2296C-01	E9-2296C-01	E9-2296D-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/21/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-2296-051N	E9-2296-061N	E9-2296-072N	E9-2296A-011N	E9-2296A-010.5N	E9-2296B-032N	E9-2296B-042N	E9-2296C-011.5N	E9-2296C-012N	E9-2296C-010.5N	E9-2296D-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 25	NA	NA	NA	NA	< 25	NA	NA	< 23
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 25	NA	NA	NA	NA	< 25	NA	NA	< 23
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1048	< 25	< 25	NA	NA	NA	NA	< 25	NA	NA	< 23
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 25	NA	NA	NA	NA	< 25	NA	NA	< 23
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 50	NA	NA	NA	NA	< 50	NA	NA	< 47
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 50	NA	NA	NA	NA	< 50	NA	NA	< 47
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 25	NA	NA	NA	NA	< 25	NA	NA	< 23
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 50	NA	NA	NA	NA	< 50	NA	NA	< 47
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 25	NA	NA	NA	NA	< 25	NA	NA	< 23
Nitrocellulose	9004-70-0	ug/kg	2070000	104000	99000	NA	NA	NA	NA	3510000	NA	NA	119000
Nitroglycerin	55-63-0	ug/kg	170000	< 520	8200	NA	NA	NA	NA	42000	NA	NA	< 470
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 50	NA	NA	NA	NA	< 50	NA	NA	< 47
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 50	NA	NA	NA	NA	< 50	NA	NA	< 47
Tetryl	479-45-8	ug/kg	< 50	< 50	< 50	NA	NA	NA	NA	< 50	NA	NA	< 47
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1	< 1	< 1	NA	NA	< 1	< 0.606	NA	NA	NA	< 1
Arsenic	7440-38-2	mg/kg	5.5	3.6	5.2	NA	NA	3.4	2.95	NA	NA	NA	3.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.51	0.4	0.88	NA	NA	0.38	0.224	NA	NA	NA	0.28
Cadmium	7440-43-9	mg/kg	< 0.6	< 0.5	< 0.6	NA	NA	< 0.6	0.16	NA	NA	NA	< 0.6
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.4	8.4	48.4	NA	NA	7.4	8.47	NA	NA	NA	10.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	17.7	40.6	33.4	NA	NA	6.3	7.17	NA	NA	NA	8.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	18.8	12	10.7	NA	NA	8.2	2.82	NA	NA	NA	9.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.06	0.05	0.05	NA	NA	0.06	< 0.031	NA	NA	NA	0.04
Nickel	7440-02-0	mg/kg	9	6.4	12.2	NA	NA	2.5	1.98	NA	NA	NA	4.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 1	< 1	< 1	NA	NA	< 1	0.356	NA	NA	NA	< 1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296-05	E9-2296-06	E9-2296-07	E9-2296A-01	E9-2296A-01	E9-2296B-03	E9-2296B-04	E9-2296C-01	E9-2296C-01	E9-2296C-01	E9-2296D-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/21/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-2296-051N	E9-2296-061N	E9-2296-072N	E9-2296A-011N	E9-2296A-010.5N	E9-2296B-032N	E9-2296B-042N	E9-2296C-011.5N	E9-2296C-012N	E9-2296C-010.5N	E9-2296D-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.6	< 0.5	< 0.6	NA	NA	< 0.6	< 0.303	NA	NA	NA	< 0.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2	< 2	1.6	NA	NA	< 2	< 1.01	NA	NA	NA	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	50.7	88.4	70.2	NA	NA	48.3	36.7	NA	NA	NA	77.4
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	4560	NA	4120	NA	6640	NA	NA	2600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	4.5	NA	5.1	NA	6.1	NA	NA	3.4
Gravel	ARC-PGRAVEL	%	NA	NA	NA	36.1	NA	19.7	NA	48.9	NA	NA	22.5
Sand	ARC-PSAND	%	NA	NA	NA	52	NA	64.2	NA	38.5	NA	NA	70.9
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	7.4	NA	10.9	NA	6.5	NA	NA	3.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296D-03	E9-2296D-03	E9-2297-02	E9-556-04	E9-558B-03	E9-560-03	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/16/2000	6/16/2000	7/12/2000	3/17/2000	3/23/2000	3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			E9-2296D-032N	E9-2296D-032FD	E9-2297-021N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N	E9-562-011N	E9-6-010.5N	E9-6-010.5FD	E9-6-030.5N	E9-6-041N	E9-610-041N
Parent Sample				E9-2296D-032N							E9-6-010.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296D-03	E9-2296D-03	E9-2297-02	E9-556-04	E9-558B-03	E9-560-03	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/16/2000	6/16/2000	7/12/2000	3/17/2000	3/23/2000	3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			E9-2296D-032N	E9-2296D-032FD	E9-2297-021N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N	E9-562-011N	E9-6-010.5N	E9-6-010.5FD	E9-6-030.5N	E9-6-041N	E9-610-041N
Parent Sample				E9-2296D-032N							E9-6-010.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2,4-Dichlorophenol	120-83-2	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	< 719	< 716	< 7056.08	< 76	< 78	< 84	< 79	< 76	< 740	< 76	< 78	< 78
2,4-Dinitrotoluene	121-14-2	ug/kg	< 359	< 358	< 3528	< 380	< 390	< 420	< 400	< 380	< 370	< 380	< 390	1800
2,6-Dinitrotoluene	606-20-2	ug/kg	< 359	< 358	< 3528	< 380	< 390	< 420	< 400	< 380	< 370	< 380	< 390	45
2-Chloronaphthalene	91-58-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2-Chlorophenol	95-57-8	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 359	< 358	NA	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 719	< 716	< 7056.08	< 76	< 78	< 84	< 79	< 76	< 740	< 76	< 78	< 78
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 719	< 716	< 7056.08	< 76	< 78	< 84	< 79	< 76	< 740	< 76	< 78	< 78
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296D-03	E9-2296D-03	E9-2297-02	E9-556-04	E9-558B-03	E9-560-03	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/16/2000	6/16/2000	7/12/2000	3/17/2000	3/23/2000	3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			E9-2296D-032N	E9-2296D-032FD	E9-2297-021N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N	E9-562-011N	E9-6-010.5N	E9-6-010.5FD	E9-6-030.5N	E9-6-041N	E9-610-041N
Parent Sample				E9-2296D-032N							E9-6-010.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 719	< 716	NA	< 76	< 78	< 84	< 79	< 76	< 740	< 76	< 78	< 78
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Acenaphthylene	208-96-8	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	22	31	< 39
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 359	< 358	< 3528.04	< 38	57	< 42	< 40	< 38	< 370	74	83	< 39
Benzo[a]pyrene	50-32-8	ug/kg	< 359	< 358	< 3528.04	< 38	45	27	< 40	< 38	< 370	67	73	< 39
Benzo[b]fluoranthene	205-99-2	ug/kg	< 359	59.1	< 3528.04	< 38	67	< 42	< 40	< 38	< 370	140	150	< 39
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Benzo[k]fluoranthene	207-08-9	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	24.1	80.2	< 3528.04	< 38	< 39	28	< 40	< 38	< 370	3000	69	20
Butylbenzylphthalate	85-68-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	12000	< 39	< 39
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 359	< 358	< 3528.04	< 38	67	< 42	< 40	< 38	< 370	110	85	< 39
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	526	539	< 3528.04	< 38	< 39	< 42	< 40	210	270	270	550	< 39
Dimethylphthalate	131-11-3	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Di-n-butylphthalate	84-74-2	ug/kg	117	358	2670	< 38	110	< 42	< 40	44	57	100	140	160
Di-n-octylphthalate	117-84-0	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	2700	< 39	< 39
Fluoranthene	206-44-0	ug/kg	< 359	< 358	< 3528.04	< 38	100	< 42	< 40	< 38	< 370	330	190	< 39
Fluorene	86-73-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Hexachlorobenzene	118-74-1	ug/kg	< 359	< 358	NA	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Hexachlorobutadiene	87-68-3	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Hexachloroethane	67-72-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Isophorone	78-59-1	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296D-03	E9-2296D-03	E9-2297-02	E9-556-04	E9-558B-03	E9-560-03	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/16/2000	6/16/2000	7/12/2000	3/17/2000	3/23/2000	3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			E9-2296D-032N	E9-2296D-032FD	E9-2297-021N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N	E9-562-011N	E9-6-010.5N	E9-6-010.5FD	E9-6-030.5N	E9-6-041N	E9-610-041N
Parent Sample				E9-2296D-032N							E9-6-010.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Nitrobenzene	98-95-3	ug/kg	< 359	< 358	NA	NA	NA	NA	NA	< 38	< 370	< 38	< 39	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	188	245	2490	< 38	< 39	< 42	< 40	160	150	210	560	< 39
Pentachlorophenol	87-86-5	ug/kg	< 719	< 716	< 7056.08	< 76	< 78	< 84	< 79	< 76	< 740	< 76	< 78	< 78
Phenanthrene	85-01-8	ug/kg	< 359	< 358	< 3528.04	< 38	40	37	< 40	< 38	< 370	64	83	< 39
Phenol	108-95-2	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	< 38	< 39	< 39
Pyrene	129-00-0	ug/kg	< 359	< 358	< 3528.04	< 38	< 39	< 42	< 40	< 38	< 370	180	120	< 39
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3	< 4	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 38	< 40	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296D-03	E9-2296D-03	E9-2297-02	E9-556-04	E9-558B-03	E9-560-03	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/16/2000	6/16/2000	7/12/2000	3/17/2000	3/23/2000	3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			E9-2296D-032N	E9-2296D-032FD	E9-2297-021N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N	E9-562-011N	E9-6-010.5N	E9-6-010.5FD	E9-6-030.5N	E9-6-041N	E9-610-041N
Parent Sample				E9-2296D-032N							E9-6-010.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 238.1	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 22
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 238.1	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 22
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	1270	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 22
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 238.1	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 22
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 476.2	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 43
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 476.2	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 43
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 238.1	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 22
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 476.2	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 43
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	139	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 22
Nitrocellulose	9004-70-0	ug/kg	NA	NA	3010000	276000	< 37000	1230000	< 41	NA	NA	NA	NA	1110000
Nitroglycerin	55-63-0	ug/kg	NA	NA	175000	< 540	< 540	< 630	< 600	NA	NA	NA	NA	47000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 476.2	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 43
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 476.2	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 43
Tetryl	479-45-8	ug/kg	NA	NA	< 476.2	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 43
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.332	0.293	< 0.617539	< 1	< 0.6	< 1	< 0.7	< 0.6	< 0.6	< 0.5	< 0.6	< 1
Arsenic	7440-38-2	mg/kg	5.37	5.56	24.5	3.5	5.2	9.7	4.2	2.3	2.6	7.7	4.7	4.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.148	0.182	0.289	0.41	0.71	0.8	0.6	0.36	0.38	0.43	0.37	0.57
Cadmium	7440-43-9	mg/kg	0.169	0.173	0.473	0.22	< 0.3	0.36	< 0.3	0.49	0.3	< 0.2	< 0.3	0.49
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.99	10	21.4	7.7	15	13.3	15.8	8.3	8.5	15.7	11.8	12
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	24.3	24.8	64	12.9	32.4	19	14.6	86.7	78.8	23.9	62.6	18.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	19.7	21	223	16	38.5	71.4	19.2	18.6	16.9	65.6	40.5	44.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.076	0.063	0.186	0.02	0.11	0.09	0.04	0.05	0.04	0.06	0.09	0.06
Nickel	7440-02-0	mg/kg	5.04	6.27	8.53	5.4	9.5	9.5	9.1	6.5	5.3	7.4	9.1	6.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.374	< 0.527	0.79	0.96	0.53	1	0.55	< 0.5	< 0.5	< 0.4	< 0.5	1.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-2296D-03	E9-2296D-03	E9-2297-02	E9-556-04	E9-558B-03	E9-560-03	E9-562-01	E9-6-01	E9-6-01	E9-6-03	E9-6-04	E9-610-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/16/2000	6/16/2000	7/12/2000	3/17/2000	3/23/2000	3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			E9-2296D-032N	E9-2296D-032FD	E9-2297-021N	E9-556-041N	E9-558B-031.5N	E9-560-030.8N	E9-562-011N	E9-6-010.5N	E9-6-010.5FD	E9-6-030.5N	E9-6-041N	E9-610-041N
Parent Sample				E9-2296D-032N							E9-6-010.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.308	< 0.316	< 0.308769	< 0.6	< 0.3	< 0.7	< 0.3	< 0.3	< 0.3	< 0.2	< 0.3	< 0.7
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.03	< 1.05	< 1.029231	< 2	2.1	< 2	2.7	< 0.9	0.79	1.1	0.57	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	38.3	45.2	292	60.3	147	84.2	50	67.3	75.8	84.7	66.1	152
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	23400	6560	37200	22100	16400	9150	NA	NA	NA	17700
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	5.7	7.4	10.4	11	8.8	NA	NA	NA	8.6
Gravel	ARC-PGRAVEL	%	NA	NA	NA	26.6	43.3	47.5	35.5	21.7	NA	NA	NA	27.1
Sand	ARC-PSAND	%	NA	NA	NA	59.9	34.5	24.6	36.8	58.6	NA	NA	NA	42.2
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	69.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	42.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	10.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	48.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	30.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	18.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	37.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	23.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	7.9	14.7	17.5	16.8	11	NA	NA	NA	22.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-A7-01	F10-1-01	F10-1-04	F10-1-06	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/23/2000	11/23/1999	11/23/1999	11/23/1999	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-A7-011N	F10-1-011N	F10-1-042N	F10-1-061N	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-A7-01	F10-1-01	F10-1-04	F10-1-06	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/23/2000	11/23/1999	11/23/1999	11/23/1999	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-A7-011N	F10-1-011N	F10-1-042N	F10-1-061N	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 78	NA	< 2000	< 4900	< 2400	NA	< 793.594	NA	< 790	< 770	< 760	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	NA	< 400	< 980	< 480	NA	< 397	NA	< 4000	< 3800	< 3800	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	NA	< 400	< 980	< 480	NA	< 397	NA	< 4000	< 3800	< 3800	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
2-Chlorophenol	95-57-8	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 39	NA	< 400	< 980	< 480	NA	NA	NA	< 400	< 380	< 380	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 396.797	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 78	NA	< 800	< 2000	< 970	NA	< 793.594	NA	< 790	< 770	< 760	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 78	NA	< 2000	< 4900	< 2400	NA	< 793.594	NA	< 790	< 770	< 760	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-A7-01	F10-1-01	F10-1-04	F10-1-06	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/23/2000	11/23/1999	11/23/1999	11/23/1999	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-A7-011N	F10-1-011N	F10-1-042N	F10-1-061N	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 78	NA	< 2000	< 4900	< 2400	NA	NA	NA	< 790	< 770	< 760	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 794	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Acenaphthylene	208-96-8	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	31	NA	< 400	< 980	< 480	NA	118	NA	1200	< 380	280	NA
Benzo[a]pyrene	50-32-8	ug/kg	28	NA	< 400	< 980	< 480	NA	94.04	NA	930	< 380	230	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	90	NA	< 400	< 980	< 480	NA	272	NA	1200	< 380	< 380	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 39	NA	< 400	< 980	< 480	NA	79.76	NA	< 400	< 380	< 380	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	120	NA	41	200	69	NA	< 396.797	NA	< 400	< 380	< 380	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	66	NA	< 400	110	< 480	NA	226	NA	1200	< 380	< 380	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	700	NA	100	690	58	NA	554	NA	< 400	< 380	< 380	NA
Dimethylphthalate	131-11-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Di-n-butylphthalate	84-74-2	ug/kg	130	NA	51	900	420	NA	< 396.797	NA	210	< 380	< 380	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Fluoranthene	206-44-0	ug/kg	83	NA	< 400	< 980	< 480	NA	307	NA	1800	< 380	< 380	NA
Fluorene	86-73-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Hexachlorobenzene	118-74-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	NA	NA	< 400	< 380	< 380	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Hexachloroethane	67-72-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Isophorone	78-59-1	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-A7-01	F10-1-01	F10-1-04	F10-1-06	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/23/2000	11/23/1999	11/23/1999	11/23/1999	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-A7-011N	F10-1-011N	F10-1-042N	F10-1-061N	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Nitrobenzene	98-95-3	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	280	NA	< 400	450	< 480	NA	185	NA	< 400	< 380	< 380	NA
Pentachlorophenol	87-86-5	ug/kg	< 78	NA	< 2000	< 4900	< 2400	NA	< 793.594	NA	< 790	< 770	< 760	NA
Phenanthrene	85-01-8	ug/kg	< 39	NA	< 400	62	< 480	NA	125	NA	580	< 380	290	NA
Phenol	108-95-2	ug/kg	< 39	NA	< 400	< 980	< 480	NA	< 396.797	NA	< 400	< 380	< 380	NA
Pyrene	129-00-0	ug/kg	< 39	NA	< 400	< 980	< 480	NA	157	NA	2000	< 380	< 380	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 21	< 51	< 25	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 21	< 51	< 25	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 21	< 51	< 25	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 21	< 51	< 25	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 21	< 51	< 25	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 21	< 51	< 25	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	< 41	< 100	15	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	< 41	< 100	15	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-A7-01	F10-1-01	F10-1-04	F10-1-06	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/23/2000	11/23/1999	11/23/1999	11/23/1999	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-A7-011N	F10-1-011N	F10-1-042N	F10-1-061N	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 190	NA	NA	NA	< 25	NA	< 238.1	< 25	< 25	< 23	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 190	NA	NA	NA	< 25	NA	< 238.1	< 25	< 25	< 23	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	370	NA	NA	NA	< 25	NA	< 238.1	< 25	< 25	< 23	1100
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 190	NA	NA	NA	< 250	NA	< 238.1	NA	NA	NA	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 190	NA	NA	NA	< 25	NA	< 238.1	< 25	< 25	< 23	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	< 370	NA	NA	NA	< 50	NA	< 476.2	< 50	< 50	< 47	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	< 370	NA	NA	NA	< 50	NA	800	< 50	< 50	< 47	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 190	NA	NA	NA	< 25	NA	< 238.1	< 25	< 25	< 23	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	< 370	NA	NA	NA	< 50	NA	< 476.2	< 50	< 50	< 47	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 190	NA	NA	NA	< 25	NA	< 238.1	< 25	< 25	< 23	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	399000	NA	NA	NA	382000	NA	444000	1090000	1520000	1680000	1300000
Nitroglycerin	55-63-0	ug/kg	NA	13000	NA	NA	NA	3900	NA	15000	< 590	< 580	9000	8400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 370	NA	NA	NA	< 50	NA	< 476.2	< 50	< 50	< 47	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 370	NA	NA	NA	< 50	NA	< 476.2	< 50	< 50	< 47	< 50
Tetryl	479-45-8	ug/kg	NA	< 370	NA	NA	NA	< 50	NA	< 476.2	< 50	< 50	< 47	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	NA	< 0.45	1.3	< 0.57	< 0.6	0.928	NA	< 1	< 1	< 1	NA
Arsenic	7440-38-2	mg/kg	7.8	NA	3.1	7.1	6.2	22.3	173	NA	12.3	3.8	9	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.35	NA	0.69	0.67	0.58	0.58	0.441	NA	0.46	0.42	0.41	NA
Cadmium	7440-43-9	mg/kg	< 0.3	NA	< 0.27	0.49	< 0.34	0.12	0.329	NA	0.44	0.93	0.18	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.5	NA	16.3	118	18.3	12.7	10.4	NA	11.1	13.4	11.5	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	127	NA	187	846	679	20.7	48.4	NA	22.3	32.8	524	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	34	NA	86.1	1370	146	56.7	201	NA	176	146	151	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.09	NA	0.06	1.3	0.15	0.11	0.704	NA	0.11	0.14	0.06	NA
Nickel	7440-02-0	mg/kg	7.3	NA	9.5	23.6	11.1	7.6	9.62	NA	9.1	14.3	7.9	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.48	NA	1.4	3.9	1.3	1	2.74	NA	< 1	< 1	< 1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			E9-A7-01	F10-1-01	F10-1-04	F10-1-06	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/23/2000	11/23/1999	11/23/1999	11/23/1999	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			E9-A7-011N	F10-1-011N	F10-1-042N	F10-1-061N	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	NA	0.14	0.75	0.24	< 0.3	< 0.348108	NA	< 0.6	< 0.6	< 0.6	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.94	NA	< 0.9	< 2.9	< 1.1	< 1	< 1.160361	NA	2.7	< 2	< 2	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	77.7	NA	96.7	248	248	69.7	72	NA	418	374	122	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	35600	NA	11100	NA	NA	33100	158000	NA	NA	NA	40900	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	5.8	NA	11.9	NA	NA	8.8	NA	NA	NA	NA	8.2	NA
Gravel	ARC-PGRAVEL	%	29.8	NA	34.4	NA	NA	41.4	NA	NA	NA	NA	43	NA
Sand	ARC-PSAND	%	56.7	NA	42.5	NA	NA	38.1	NA	NA	NA	NA	35.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	87.7	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	70.5	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	20.8	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	81.5	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	46.5	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	27.9	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	57.9	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	36.4	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	7.7	NA	21.2	NA	NA	11.7	NA	NA	NA	NA	13.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-2145-04 0.0-1.0 ft 3/23/2000 N F10-2145-041N	F10-2162-02 0.5-1.0 ft 6/23/2000 N F10-2162-020.5N	F10-2162-04 0.0-1.0 ft 3/30/2000 N F10-2162-041N	F10-2162-04 0.5-1.0 ft 3/30/2000 N F10-2162-040.5N	F10-2222-01 0.0-1.0 ft 3/30/2000 N F10-2222-011N	F10-2222-01 0.5-1.0 ft 3/30/2000 N F10-2222-010.5N	F10-2222-02 0.5-1.0 ft 3/30/2000 N F10-2222-020.5N	F10-2289-01 0.0-1.0 ft 3/16/2000 N F10-2289-011N	F10-2323-02 0.0-1.0 ft 3/17/2000 N F10-2323-021N	F10-2323-05 0.0-0.5 ft 3/17/2000 N F10-2323-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1033.057	NA	< 110	NA	< 120	< 110	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 5165.289	NA	< 220	NA	< 230	< 210	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 5165.289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 516.5289	NA	240	NA	8000	240	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 110	NA	< 120	< 110	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1033.057	NA	< 110	NA	< 120	< 110	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1033.057	NA	< 110	NA	< 120	< 110	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2145-04	F10-2162-02	F10-2162-04	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2145-041N	F10-2162-020.5N	F10-2162-041N	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 2066.115	NA	< 55	NA	< 58	< 53	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 516.5289	NA	1100	NA	260	< 53	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 516.5289	NA	< 55	NA	< 58	< 53	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 110	NA	< 120	< 110	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2,4-Dichlorophenol	120-83-2	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	< 85	NA	NA	NA	NA	NA	NA	< 78	< 88	< 79
2,4-Dinitrotoluene	121-14-2	ug/kg	< 430	NA	NA	NA	NA	NA	NA	< 390	< 440	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 430	NA	NA	NA	NA	NA	NA	< 390	< 440	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2-Chlorophenol	95-57-8	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 85	NA	NA	NA	NA	NA	NA	< 78	< 88	< 79
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 85	NA	NA	NA	NA	NA	NA	< 78	< 88	< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-2145-04 0.0-1.0 ft 3/23/2000 N F10-2145-041N	F10-2162-02 0.5-1.0 ft 6/23/2000 N F10-2162-020.5N	F10-2162-04 0.0-1.0 ft 3/30/2000 N F10-2162-041N	F10-2162-04 0.5-1.0 ft 3/30/2000 N F10-2162-040.5N	F10-2222-01 0.0-1.0 ft 3/30/2000 N F10-2222-011N	F10-2222-01 0.5-1.0 ft 3/30/2000 N F10-2222-010.5N	F10-2222-02 0.5-1.0 ft 3/30/2000 N F10-2222-020.5N	F10-2289-01 0.0-1.0 ft 3/16/2000 N F10-2289-011N	F10-2323-02 0.0-1.0 ft 3/17/2000 N F10-2323-021N	F10-2323-05 0.0-0.5 ft 3/17/2000 N F10-2323-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 85	NA	NA	NA	NA	NA	NA	< 78	< 88	< 79
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	150	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Acenaphthylene	208-96-8	ug/kg	220	< 20661.15	NA	NA	NA	NA	NA	< 39	< 44	< 40
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	800	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	2900	NA	NA	NA	NA	NA	NA	32	46	40
Benzo[a]pyrene	50-32-8	ug/kg	2500	NA	NA	NA	NA	NA	NA	< 39	42	32
Benzo[b]fluoranthene	205-99-2	ug/kg	2800	NA	NA	NA	NA	NA	NA	< 39	79	46
Benzo[g,h,i]perylene	191-24-2	ug/kg	1500	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Benzo[k]fluoranthene	207-08-9	ug/kg	1000	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	43	63
Butylbenzylphthalate	85-68-7	ug/kg	< 43	< 1033.057	NA	NA	NA	NA	NA	< 39	< 44	< 40
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	2700	NA	NA	NA	NA	NA	NA	< 39	47	45
Dibenzo[a,h]anthracene	53-70-3	ug/kg	480	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 43	NA	NA	NA	NA	NA	NA	33	< 44	< 40
Dimethylphthalate	131-11-3	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Di-n-butylphthalate	84-74-2	ug/kg	85	NA	NA	NA	NA	NA	NA	< 39	62	1500
Di-n-octylphthalate	117-84-0	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Fluoranthene	206-44-0	ug/kg	6200	NA	NA	NA	NA	NA	NA	< 39	< 44	87
Fluorene	86-73-7	ug/kg	600	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Hexachlorobenzene	118-74-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Hexachlorobutadiene	87-68-3	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Hexachloroethane	67-72-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	1200	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Isophorone	78-59-1	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2145-04	F10-2162-02	F10-2162-04	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2145-041N	F10-2162-020.5N	F10-2162-041N	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	40	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Nitrobenzene	98-95-3	ug/kg	< 43	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Pentachlorophenol	87-86-5	ug/kg	< 85	NA	NA	NA	NA	NA	NA	< 78	< 88	< 79
Phenanthrene	85-01-8	ug/kg	5200	NA	NA	NA	NA	NA	NA	32	26	42
Phenol	108-95-2	ug/kg	< 43	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Pyrene	129-00-0	ug/kg	7100	NA	NA	NA	NA	NA	NA	< 39	< 44	< 40
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-2145-04 0.0-1.0 ft 3/23/2000 N F10-2145-041N	F10-2162-02 0.5-1.0 ft 6/23/2000 N F10-2162-020.5N	F10-2162-04 0.0-1.0 ft 3/30/2000 N F10-2162-041N	F10-2162-04 0.5-1.0 ft 3/30/2000 N F10-2162-040.5N	F10-2222-01 0.0-1.0 ft 3/30/2000 N F10-2222-011N	F10-2222-01 0.5-1.0 ft 3/30/2000 N F10-2222-010.5N	F10-2222-02 0.5-1.0 ft 3/30/2000 N F10-2222-020.5N	F10-2289-01 0.0-1.0 ft 3/16/2000 N F10-2289-011N	F10-2323-02 0.0-1.0 ft 3/17/2000 N F10-2323-021N	F10-2323-05 0.0-0.5 ft 3/17/2000 N F10-2323-050.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 25	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 25	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	170	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 25	< 24
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 50	< 48
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 50	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 25	< 24
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 50	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 25	< 24
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	2490000	1340000	3420000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	6300	< 640	3800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 50	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 50	< 48
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 50	< 48
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	NA	< 0.5	NA	NA	NA	NA	NA	< 1	< 1
Arsenic	7440-38-2	mg/kg	4.5	NA	5.9	NA	NA	NA	NA	NA	7.4	158
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.6	NA	0.23	NA	NA	NA	NA	NA	0.64	0.43
Cadmium	7440-43-9	mg/kg	2.9	NA	0.82	NA	NA	NA	NA	NA	1.7	0.52
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	38.9	NA	20.2	NA	NA	NA	NA	NA	15.7	54.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	552	NA	46.3	NA	NA	NA	NA	NA	105	120
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	249	NA	223	NA	NA	NA	NA	NA	156	236
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.2	NA	0.42	NA	NA	NA	NA	NA	0.21	0.09
Nickel	7440-02-0	mg/kg	14.1	NA	6.3	NA	NA	NA	NA	NA	11.1	13.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.83	NA	0.57	NA	NA	NA	NA	NA	0.88	0.78

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2145-04	F10-2162-02	F10-2162-04	F10-2162-04	F10-2222-01	F10-2222-01	F10-2222-02	F10-2289-01	F10-2323-02	F10-2323-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/16/2000	3/17/2000	3/17/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2145-041N	F10-2162-020.5N	F10-2162-041N	F10-2162-040.5N	F10-2222-011N	F10-2222-010.5N	F10-2222-020.5N	F10-2289-011N	F10-2323-021N	F10-2323-050.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.23	NA	< 0.3	NA	NA	NA	NA	NA	< 0.7	< 0.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.7	NA	< 0.9	NA	NA	NA	NA	NA	< 2	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	255	NA	365	NA	NA	NA	NA	NA	512	119
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	25200	NA	118000	NA	40400	NA	NA	36500	21100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	9.6	NA	0.5	NA	4.4	NA	NA	10.9	8.9	NA
Gravel	ARC-PGRAVEL	%	43.5	NA	74.8	NA	44.9	NA	NA	38.7	24.2	NA
Sand	ARC-PSAND	%	28.6	NA	20.4	NA	42.3	NA	NA	37.7	54.8	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	18.3	NA	4.4	NA	8.4	NA	NA	12.7	12.1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2356-04	F10-2356-06	F10-2356-07	F10-3-01	F10-3-01	F10-3-07	F10-3-07	F10-3-07	F10-37B-02	F10-37B-03	F10-37B-03	F10-44-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/23/2000	3/23/2000	3/23/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/31/2000	12/10/1999	6/23/2000	6/23/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2356-040.5N	F10-2356-062N	F10-2356-071N	F10-3-011.5N	F10-3-010.5N	F10-3-071N	F10-3-072N	F10-3-070.5N	F10-37B-020.5N	F10-37B-031N	F10-37B-030.5N	F10-44-041.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 53	NA	NA	151	< 600	NA	< 548.2456	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	384	NA	NA	151	NA	NA	< 548	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	207	NA	NA	< 61	NA	NA	< 548	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	212	NA	NA	< 61	NA	NA	< 548	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	230	NA	NA	< 619	NA	NA	< 548	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 107	NA	NA	< 123	< 1200	NA	< 1096.491	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 215	NA	NA	< 247	< 2400	NA	< 5482.456	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	307	NA	NA	257	< 1200	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 123	< 600	NA	< 548.2456	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 107	NA	NA	< 123	< 1200	NA	< 1096.491	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	252	NA	NA	156	< 600	NA	< 548.2456	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	586	NA	NA	556	< 1200	NA	< 1096.491	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	NA	NA	< 548.2456	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 600	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	128	NA	NA	< 61	< 600	NA	< 548.2456	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	331	NA	NA	< 619	NA	NA	< 548	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2356-04	F10-2356-06	F10-2356-07	F10-3-01	F10-3-01	F10-3-07	F10-3-07	F10-3-07	F10-37B-02	F10-37B-03	F10-37B-03	F10-44-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/23/2000	3/23/2000	3/23/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/31/2000	12/10/1999	6/23/2000	6/23/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2356-040.5N	F10-2356-062N	F10-2356-071N	F10-3-011.5N	F10-3-010.5N	F10-3-071N	F10-3-072N	F10-3-070.5N	F10-37B-020.5N	F10-37B-031N	F10-37B-030.5N	F10-44-041.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	402	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	410	NA	NA	147	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	191	NA	NA	< 61	< 600	NA	< 548.2456	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 53	NA	NA	< 61	< 600	NA	< 548.2456	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	172	NA	NA	< 123	< 1200	NA	< 1096.491	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
2,4-Dichlorophenol	120-83-2	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	< 680	< 710	< 710	< 949	NA	< 9370	NA	NA	< 740	< 825.406	NA	< 81
2,4-Dinitrotoluene	121-14-2	ug/kg	< 3400	< 3500	< 3500	< 474	NA	< 4690	NA	NA	< 370	< 413	NA	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 3400	< 3500	< 3500	< 474	NA	< 4690	NA	NA	< 370	< 413	NA	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
2-Chlorophenol	95-57-8	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	NA	NA	< 41
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 412.703	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 680	< 710	< 710	< 949	NA	< 9370	NA	NA	< 740	< 825.406	NA	< 81
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 680	< 710	< 710	< 949	NA	< 9370	NA	NA	< 740	< 825.406	NA	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2356-04	F10-2356-06	F10-2356-07	F10-3-01	F10-3-01	F10-3-07	F10-3-07	F10-3-07	F10-37B-02	F10-37B-03	F10-37B-03	F10-44-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/23/2000	3/23/2000	3/23/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/31/2000	12/10/1999	6/23/2000	6/23/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2356-040.5N	F10-2356-062N	F10-2356-071N	F10-3-011.5N	F10-3-010.5N	F10-3-071N	F10-3-072N	F10-3-070.5N	F10-37B-020.5N	F10-37B-031N	F10-37B-030.5N	F10-44-041.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 680	< 710	< 710	< 949	NA	< 9370	NA	NA	< 740	NA	NA	< 81
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 825.406	NA	NA
Acenaphthene	83-32-9	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	46
Acenaphthylene	208-96-8	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	34	< 412.703	< 21929	92
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	53	66.03	NA	250
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 340	< 350	< 350	< 474	NA	853	NA	NA	140	339	NA	1500
Benzo[a]pyrene	50-32-8	ug/kg	< 340	< 350	< 350	< 474	NA	843	NA	NA	130	328	NA	1500
Benzo[b]fluoranthene	205-99-2	ug/kg	< 340	< 350	< 350	< 474	NA	1570	NA	NA	210	394	NA	1800
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	91	180	NA	870
Benzo[k]fluoranthene	207-08-9	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	139	NA	570
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	130	< 412.703	NA	49
Butylbenzylphthalate	85-68-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	< 1096	< 41
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 340	< 350	< 350	84.9	NA	1170	NA	NA	210	350	NA	1400
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	250
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	120	53.24	NA	< 41
Dimethylphthalate	131-11-3	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Di-n-butylphthalate	84-74-2	ug/kg	< 340	< 350	< 350	< 474	NA	656	NA	NA	88	45.4	NA	< 41
Di-n-octylphthalate	117-84-0	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Fluoranthene	206-44-0	ug/kg	< 340	< 350	< 350	< 474	NA	2720	NA	NA	330	599	NA	2800
Fluorene	86-73-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	96
Hexachlorobenzene	118-74-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	NA	NA	NA	< 41
Hexachlorobutadiene	87-68-3	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Hexachloroethane	67-72-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	77	159	NA	780
Isophorone	78-59-1	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2356-04	F10-2356-06	F10-2356-07	F10-3-01	F10-3-01	F10-3-07	F10-3-07	F10-3-07	F10-37B-02	F10-37B-03	F10-37B-03	F10-44-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/23/2000	3/23/2000	3/23/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/31/2000	12/10/1999	6/23/2000	6/23/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2356-040.5N	F10-2356-062N	F10-2356-071N	F10-3-011.5N	F10-3-010.5N	F10-3-071N	F10-3-072N	F10-3-070.5N	F10-37B-020.5N	F10-37B-031N	F10-37B-030.5N	F10-44-041.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	72
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 474	NA	NA	NA	NA	< 370	< 412.703	NA	< 41
N-Nitrosodimethylamine	62-75-9	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 340	< 350	< 350	418	NA	< 4690	NA	NA	140	< 412.703	NA	< 41
Pentachlorophenol	87-86-5	ug/kg	< 680	< 710	< 700	< 949	NA	< 9370	NA	NA	< 740	< 825.406	NA	< 81
Phenanthrene	85-01-8	ug/kg	< 340	< 350	< 350	101	NA	1580	NA	NA	200	287	NA	1300
Phenol	108-95-2	ug/kg	< 340	< 350	< 350	< 474	NA	< 4690	NA	NA	< 370	< 412.703	NA	< 41
Pyrene	129-00-0	ug/kg	< 340	< 350	< 350	< 474	NA	2170	NA	NA	440	573	NA	2900
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2356-04	F10-2356-06	F10-2356-07	F10-3-01	F10-3-01	F10-3-07	F10-3-07	F10-3-07	F10-37B-02	F10-37B-03	F10-37B-03	F10-44-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/23/2000	3/23/2000	3/23/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/31/2000	12/10/1999	6/23/2000	6/23/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2356-040.5N	F10-2356-062N	F10-2356-071N	F10-3-011.5N	F10-3-010.5N	F10-3-071N	F10-3-072N	F10-3-070.5N	F10-37B-020.5N	F10-37B-031N	F10-37B-030.5N	F10-44-041.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 25	NA	NA	< 250	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 25	NA	NA	< 250	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 25	NA	NA	106	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 25	NA	NA	< 250	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 50	NA	NA	< 500	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 50	NA	NA	< 500	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 25	NA	NA	< 250	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 50	NA	NA	< 500	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	130	< 25	NA	NA	758	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	389000	691000	357000	NA	NA	13600000	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 510	< 530	< 530	NA	NA	14100	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 50	NA	NA	1060	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 50	NA	NA	< 500	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	< 50	NA	NA	< 500	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.5	< 0.6	NA	NA	NA	NA	NA	0.32	< 0.677583	NA	0.36
Arsenic	7440-38-2	mg/kg	2.4	3.4	3.3	NA	NA	NA	NA	NA	4.2	9.05	NA	6.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.3	0.32	0.4	NA	NA	NA	NA	NA	0.24	0.666	NA	0.33
Cadmium	7440-43-9	mg/kg	0.35	0.48	0.54	NA	NA	NA	NA	NA	< 0.23	< 0.338792	NA	0.07
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	8.5	11.3	12	NA	NA	NA	NA	NA	26.7	26	NA	8.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.8	38.2	17.6	NA	NA	NA	NA	NA	23.3	70.8	NA	65.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6.1	23.7	22.7	NA	NA	NA	NA	NA	51.6	74.8	NA	255
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0	0.12	0.08	NA	NA	NA	NA	NA	1.2	0.483	NA	0.34
Nickel	7440-02-0	mg/kg	6.7	5.4	9.2	NA	NA	NA	NA	NA	5.5	12.7	NA	8.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	0.81	0.85	NA	NA	NA	NA	NA	0.61	0.379	NA	1.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-2356-04	F10-2356-06	F10-2356-07	F10-3-01	F10-3-01	F10-3-07	F10-3-07	F10-3-07	F10-37B-02	F10-37B-03	F10-37B-03	F10-44-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/23/2000	3/23/2000	3/23/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/31/2000	12/10/1999	6/23/2000	6/23/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-2356-040.5N	F10-2356-062N	F10-2356-071N	F10-3-011.5N	F10-3-010.5N	F10-3-071N	F10-3-072N	F10-3-070.5N	F10-37B-020.5N	F10-37B-031N	F10-37B-030.5N	F10-44-041.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	NA	NA	NA	NA	NA	0.13	< 0.338792	NA	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 0.9	< 1	NA	NA	NA	NA	NA	< 0.77	< 1.129305	NA	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	30.3	66.9	76.4	NA	NA	NA	NA	NA	49.4	129	NA	67.3
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	6870	NA	NA	NA	NA	NA	99400	NA	14200	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	5.1	NA	NA	NA	NA	NA	3.3	NA	4.7	NA	NA	NA
Gravel	ARC-PGRAVEL	%	49.6	NA	NA	NA	NA	NA	43.3	NA	41.8	NA	NA	NA
Sand	ARC-PSAND	%	38.2	NA	NA	NA	NA	NA	46.2	NA	42.5	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	7	NA	NA	NA	NA	NA	7.2	NA	11.1	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-44-05 0.0-2.0 ft 12/8/1999 N F10-44-052N	F10-460-01 0.0-1.0 ft 3/16/2000 N F10-460-011N	F10-462-01 0.0-2.0 ft 3/16/2000 N F10-462-012N	F10-464-01 0.0-1.0 ft 3/16/2000 N F10-464-011N	F10-464-05 0.0-1.0 ft 3/16/2000 N F10-464-051N	F10-5-01 0.0-1.5 ft 6/16/2000 N F10-5-011.5N	F10-5-01 0.5-1.0 ft 3/31/2000 N F10-5-010.5N	F10-7-03 0.0-1.5 ft 3/23/2000 N F10-7-031.5N	F10-8-01 0.0-1.0 ft 3/21/2000 N F10-8-011N	F10-8-01 0.0-1.0 ft 3/21/2000 FD F10-8-011FD F10-8-011N	F10-8-04 0.0-1.0 ft 6/16/2000 N F10-8-041N	F10-8237-04 0.0-1.0 ft 3/17/2000 N F10-8237-041N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	< 143	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	< 287	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	829	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	< 143	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	203	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	687	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-44-05 0.0-2.0 ft 12/8/1999 N F10-44-052N	F10-460-01 0.0-1.0 ft 3/16/2000 N F10-460-011N	F10-462-01 0.0-2.0 ft 3/16/2000 N F10-462-012N	F10-464-01 0.0-1.0 ft 3/16/2000 N F10-464-011N	F10-464-05 0.0-1.0 ft 3/16/2000 N F10-464-051N	F10-5-01 0.0-1.5 ft 6/16/2000 N F10-5-011.5N	F10-5-01 0.5-1.0 ft 3/31/2000 N F10-5-010.5N	F10-7-03 0.0-1.5 ft 3/23/2000 N F10-7-031.5N	F10-8-01 0.0-1.0 ft 3/21/2000 N F10-8-011N	F10-8-01 0.0-1.0 ft 3/21/2000 FD F10-8-011FD F10-8-011N	F10-8-04 0.0-1.0 ft 6/16/2000 N F10-8-041N	F10-8237-04 0.0-1.0 ft 3/17/2000 N F10-8237-041N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 71	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 143	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2,4-Dichlorophenol	120-83-2	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2,4-Dimethylphenol	105-67-9	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2,4-Dinitrophenol	51-28-5	ug/kg	< 810	< 83	< 87	< 98	< 110	NA	NA	< 82	< 79	< 780	< 729	< 93
2,4-Dinitrotoluene	121-14-2	ug/kg	< 410	< 420	< 430	< 490	< 540	NA	NA	< 410	< 400	< 390	< 364	< 460
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 420	< 430	< 490	< 540	NA	NA	< 410	< 400	< 390	< 364	< 460
2-Chloronaphthalene	91-58-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2-Chlorophenol	95-57-8	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 810	< 83	< 87	< 98	< 110	NA	NA	< 82	< 79	< 780	< 729	< 93
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 810	< 83	< 87	< 98	< 110	NA	NA	< 82	< 79	< 780	< 729	< 93
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-44-05	F10-460-01	F10-462-01	F10-464-01	F10-464-05	F10-5-01	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8-04	F10-8237-04
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/8/1999	3/16/2000	3/16/2000	3/16/2000	3/16/2000	6/16/2000	3/31/2000	3/23/2000	3/21/2000	3/21/2000	6/16/2000	3/17/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			F10-44-052N	F10-460-011N	F10-462-012N	F10-464-011N	F10-464-051N	F10-5-011.5N	F10-5-010.5N	F10-7-031.5N	F10-8-011N	F10-8-011FD	F10-8-041N	F10-8237-041N
Parent Sample												F10-8-011N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 810	< 83	< 87	< 98	< 110	NA	NA	< 82	< 79	< 780	< 729	< 93
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Acenaphthylene	208-96-8	ug/kg	24	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	41	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	250	< 42	< 43	100	110	NA	NA	65	< 40	< 390	< 364	61
Benzo[a]pyrene	50-32-8	ug/kg	240	< 42	< 43	95	120	NA	NA	35	< 40	< 390	< 364	62
Benzo[b]fluoranthene	205-99-2	ug/kg	400	< 42	< 43	130	170	NA	NA	71	< 40	< 390	< 364	< 46
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Benzo[k]fluoranthene	207-08-9	ug/kg	140	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	< 42	29	40	66	NA	NA	21	42	28	36.4	1400
Butylbenzylphthalate	85-68-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	6400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	330	< 42	< 43	130	160	NA	NA	76	< 40	< 390	< 364	72
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 410	< 42	< 43	170	560	NA	NA	< 41	< 40	< 390	< 364	270
Dimethylphthalate	131-11-3	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Di-n-butylphthalate	84-74-2	ug/kg	170	< 42	< 43	44	96	NA	NA	< 41	< 40	< 390	< 364	72
Di-n-octylphthalate	117-84-0	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Fluoranthene	206-44-0	ug/kg	480	< 42	< 43	200	250	NA	NA	83	< 40	< 390	< 364	110
Fluorene	86-73-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Hexachlorobenzene	118-74-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Hexachlorobutadiene	87-68-3	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Hexachloroethane	67-72-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	130	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Isophorone	78-59-1	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-44-05	F10-460-01	F10-462-01	F10-464-01	F10-464-05	F10-5-01	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8-04	F10-8237-04
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/8/1999	3/16/2000	3/16/2000	3/16/2000	3/16/2000	6/16/2000	3/31/2000	3/23/2000	3/21/2000	3/21/2000	6/16/2000	3/17/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			F10-44-052N	F10-460-011N	F10-462-012N	F10-464-011N	F10-464-051N	F10-5-011.5N	F10-5-010.5N	F10-7-031.5N	F10-8-011N	F10-8-011FD	F10-8-041N	F10-8237-041N
Parent Sample												F10-8-011N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Nitrobenzene	98-95-3	ug/kg	< 410	NA	NA	NA	NA	NA	NA	< 41	< 40	< 390	< 364	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410	< 42	< 43	110	290	NA	NA	< 41	< 40	< 390	< 364	820
Pentachlorophenol	87-86-5	ug/kg	< 810	< 83	< 87	< 98	< 110	NA	NA	< 82	< 79	< 780	< 729	< 93
Phenanthrene	85-01-8	ug/kg	230	< 42	28	120	140	NA	NA	< 41	< 40	< 390	< 364	56
Phenol	108-95-2	ug/kg	< 410	< 42	< 43	< 49	< 54	NA	NA	< 41	< 40	< 390	< 364	< 46
Pyrene	129-00-0	ug/kg	550	< 42	< 43	190	220	NA	NA	110	< 40	< 390	< 364	< 46
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-44-05	F10-460-01	F10-462-01	F10-464-01	F10-464-05	F10-5-01	F10-5-01	F10-7-03	F10-8-01	F10-8-01	F10-8-04	F10-8237-04
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/8/1999	3/16/2000	3/16/2000	3/16/2000	3/16/2000	6/16/2000	3/31/2000	3/23/2000	3/21/2000	3/21/2000	6/16/2000	3/17/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			F10-44-052N	F10-460-011N	F10-462-012N	F10-464-011N	F10-464-051N	F10-5-011.5N	F10-5-010.5N	F10-7-031.5N	F10-8-011N	F10-8-011FD	F10-8-041N	F10-8237-041N
Parent Sample												F10-8-011N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	< 25	< 25	< 25	< 230	NA	NA	NA	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	< 25	< 25	< 25	< 230	NA	NA	NA	NA	NA	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	< 25	< 25	< 25	< 230	NA	NA	NA	NA	NA	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 230	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	< 25	< 25	< 25	< 230	NA	NA	NA	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	< 50	< 50	< 50	< 450	NA	NA	NA	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	< 50	< 50	< 50	< 450	NA	NA	NA	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	< 25	< 25	< 25	< 230	NA	NA	NA	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	< 50	< 50	< 50	< 450	NA	NA	NA	NA	NA	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	< 25	< 25	< 25	< 230	NA	NA	NA	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	44200	70100	1650000	3000000	829000	NA	NA	NA	NA	NA	2960000
Nitroglycerin	55-63-0	ug/kg	NA	< 630	< 600	6100	18000	12000	NA	NA	NA	NA	NA	57000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	< 50	< 50	< 50	< 450	NA	NA	NA	NA	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	< 50	< 50	< 50	< 450	NA	NA	NA	NA	NA	< 50
Tetryl	479-45-8	ug/kg	NA	< 50	< 50	< 50	< 50	< 450	NA	NA	NA	NA	NA	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.3	< 1	< 1	< 1	< 1	NA	NA	0.36	< 1	< 1.3	< 0.607	< 1
Arsenic	7440-38-2	mg/kg	7	5	5.5	14.7	8.7	NA	NA	5.6	16.2	9.7	4.81	3.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.7	0.58	0.46	0.5	0.37	NA	NA	0.29	0.71	0.51	0.495	0.15
Cadmium	7440-43-9	mg/kg	< 0.33	0.46	0.37	0.87	0.71	NA	NA	< 0.3	0.22	0.16	0.369	1.2
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.9	15.3	16.2	15.4	19.9	NA	NA	5.4	20.4	13.4	11.1	29.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	134	17.4	15.9	33.6	38	NA	NA	10.3	47.5	32.5	23	32.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	128	3480	55.5	170	137	NA	NA	19.1	48.1	29.7	22.3	116
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.8	0.13	0.11	0.33	0.32	NA	NA	0.11	0.06	0.07	0.043	0.29
Nickel	7440-02-0	mg/kg	9.5	7.6	8	12.7	13.3	NA	NA	3.2	14.1	9.9	9.68	7.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.3	1.3	1.3	3.3	2.2	NA	NA	< 0.6	< 1	< 1.1	< 0.506	1.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-44-05 0.0-2.0 ft 12/8/1999 N F10-44-052N	F10-460-01 0.0-1.0 ft 3/16/2000 N F10-460-011N	F10-462-01 0.0-2.0 ft 3/16/2000 N F10-462-012N	F10-464-01 0.0-1.0 ft 3/16/2000 N F10-464-011N	F10-464-05 0.0-1.0 ft 3/16/2000 N F10-464-051N	F10-5-01 0.0-1.5 ft 6/16/2000 N F10-5-011.5N	F10-5-01 0.5-1.0 ft 3/31/2000 N F10-5-010.5N	F10-7-03 0.0-1.5 ft 3/23/2000 N F10-7-031.5N	F10-8-01 0.0-1.0 ft 3/21/2000 N F10-8-011N	F10-8-01 0.0-1.0 ft 3/21/2000 FD F10-8-011FD F10-8-011N	F10-8-04 0.0-1.0 ft 6/16/2000 N F10-8-041N	F10-8237-04 0.0-1.0 ft 3/17/2000 N F10-8237-041N
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.33	< 0.7	< 0.7	< 0.8	< 0.9	NA	NA	< 0.3	< 0.6	< 0.63	< 0.304	< 0.7
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 2	< 2	< 2	< 3	NA	NA	2.3	1.6	< 2.1	< 1.01	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	205	75	70.9	161	155	NA	NA	28.5	790	352	64.6	592
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	7540	21300	34100	245000	NA	39300	NA	1830	31000	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	13.9	6	10	14.6	NA	8.2	NA	7.7	8.7	NA	NA	NA
Gravel	ARC-PGRAVEL	%	27.2	38.7	36.5	18	NA	44	NA	15.1	47	NA	NA	NA
Sand	ARC-PSAND	%	29.8	36.5	35.3	55.4	NA	34.4	NA	46.6	31.8	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	62.5	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	78.6	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	83	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	33.1	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	10.7	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	42.3	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	21.4	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	14.1	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	25.8	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	17.8	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	29.1	18.8	18.3	12.1	NA	13.4	NA	30.6	12.5	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-8237-05	F10-8274-02	F10-8274-04	F10-8564-01	F10-8569-03	F10-8576-05	F10-9-01	F11-2016-01	F11-2016-06	F11-2016-07	F11-2-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/17/2000	3/17/2000	3/17/2000	3/17/2000	7/19/2000	12/16/1999	3/17/2000	3/24/2000	3/24/2000	3/24/2000	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-8237-052N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-8569-031N	F10-8576-051.5N	F10-9-011N	F11-2016-011.5N	F11-2016-062N	F11-2016-072N	F11-2-032N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-8237-05 0.0-2.0 ft 3/17/2000 N F10-8237-052N	F10-8274-02 0.0-0.5 ft 3/17/2000 N F10-8274-020.5N	F10-8274-04 0.0-0.5 ft 3/17/2000 N F10-8274-040.5N	F10-8564-01 0.0-0.5 ft 3/17/2000 N F10-8564-010.5N	F10-8569-03 0.0-1.0 ft 7/19/2000 N F10-8569-031N	F10-8576-05 0.0-1.5 ft 12/16/1999 N F10-8576-051.5N	F10-9-01 0.0-1.0 ft 3/17/2000 N F10-9-011N	F11-2016-01 0.0-1.5 ft 3/24/2000 N F11-2016-011.5N	F11-2016-06 0.0-2.0 ft 3/24/2000 N F11-2016-062N	F11-2016-07 0.0-2.0 ft 3/24/2000 N F11-2016-072N	F11-2-03 0.0-2.0 ft 12/10/1999 N F11-2-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2,4-Dichlorophenol	120-83-2	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2,4-Dimethylphenol	105-67-9	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	< 82	< 87	< 85	< 84	< 79	< 880	NA	< 810	< 810	< 84	< 750
2,4-Dinitrotoluene	121-14-2	ug/kg	< 410	< 430	< 430	< 420	< 400	< 440	NA	< 4100	480	< 420	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 430	< 430	< 420	< 400	< 440	NA	< 4100	< 4100	< 420	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2-Chlorophenol	95-57-8	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 82	< 87	< 85	< 84	< 79	< 880	NA	< 810	< 810	< 84	< 750
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 82	< 87	< 85	< 84	< 79	< 880	NA	< 810	< 810	< 84	< 750
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-8237-05 0.0-2.0 ft 3/17/2000 N F10-8237-052N	F10-8274-02 0.0-0.5 ft 3/17/2000 N F10-8274-020.5N	F10-8274-04 0.0-0.5 ft 3/17/2000 N F10-8274-040.5N	F10-8564-01 0.0-0.5 ft 3/17/2000 N F10-8564-010.5N	F10-8569-03 0.0-1.0 ft 7/19/2000 N F10-8569-031N	F10-8576-05 0.0-1.5 ft 12/16/1999 N F10-8576-051.5N	F10-9-01 0.0-1.0 ft 3/17/2000 N F10-9-011N	F11-2016-01 0.0-1.5 ft 3/24/2000 N F11-2016-011.5N	F11-2016-06 0.0-2.0 ft 3/24/2000 N F11-2016-062N	F11-2016-07 0.0-2.0 ft 3/24/2000 N F11-2016-072N	F11-2-03 0.0-2.0 ft 12/10/1999 N F11-2-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 82	< 87	< 85	< 84	< 79	< 880	NA	< 810	< 810	< 84	< 750
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 41	< 43	< 43	< 42	< 40	110	NA	< 410	< 410	< 42	< 370
Acenaphthylene	208-96-8	ug/kg	< 41	< 43	< 43	26	< 40	190	NA	< 410	< 410	< 42	18
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 41	< 43	77	41	< 40	520	NA	< 410	< 410	< 42	< 370
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	760	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	40	63	280	240	72	1900	NA	< 410	< 410	150	66
Benzo[a]pyrene	50-32-8	ug/kg	46	46	250	230	81	1800	NA	< 410	< 410	110	< 370
Benzo[b]fluoranthene	205-99-2	ug/kg	< 41	84	300	310	98	3500	NA	< 410	< 410	210	110
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 41	< 43	130	130	< 40	NA	NA	< 410	< 410	< 42	< 370
Benzo[k]fluoranthene	207-08-9	ug/kg	< 41	< 43	130	100	< 40	1300	NA	< 410	< 410	< 42	< 370
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	43	860	60	< 42	< 40	270	NA	750	< 410	30	< 370
Butylbenzylphthalate	85-68-7	ug/kg	120	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	52	72	290	220	80	2700	NA	< 410	< 410	120	180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 41	< 43	< 43	< 42	< 40	270	NA	< 410	< 410	< 42	< 370
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 41	120	91	< 42	< 40	190	NA	6000	3700	270	< 370
Dimethylphthalate	131-11-3	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Di-n-butylphthalate	84-74-2	ug/kg	< 41	170	< 43	44	< 40	39	NA	< 410	< 410	55	45
Di-n-octylphthalate	117-84-0	ug/kg	< 41	< 43	< 43	< 42	< 40	270	NA	< 410	< 410	< 42	< 370
Fluoranthene	206-44-0	ug/kg	< 41	87	590	410	110	3800	NA	< 410	< 410	190	120
Fluorene	86-73-7	ug/kg	< 41	< 43	< 43	< 42	< 40	240	NA	< 410	< 410	< 42	< 370
Hexachlorobenzene	118-74-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Hexachloroethane	67-72-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 41	< 43	110	110	< 40	750	NA	< 410	< 410	< 42	< 370
Isophorone	78-59-1	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-8237-05	F10-8274-02	F10-8274-04	F10-8564-01	F10-8569-03	F10-8576-05	F10-9-01	F11-2016-01	F11-2016-06	F11-2016-07	F11-2-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/17/2000	3/17/2000	3/17/2000	3/17/2000	7/19/2000	12/16/1999	3/17/2000	3/24/2000	3/24/2000	3/24/2000	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-8237-052N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-8569-031N	F10-8576-051.5N	F10-9-011N	F11-2016-011.5N	F11-2016-062N	F11-2016-072N	F11-2-032N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 41	< 43	< 43	< 42	< 40	120	NA	< 410	< 410	< 42	27
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 40	< 440	NA	NA	NA	NA	< 370
N-Nitrosodimethylamine	62-75-9	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	340	140	150	< 42	110	130	NA	2500	1100	340	< 370
Pentachlorophenol	87-86-5	ug/kg	< 82	< 87	< 85	< 84	< 79	< 880	NA	< 810	< 810	< 84	< 750
Phenanthrene	85-01-8	ug/kg	34	< 43	300	140	24	2500	NA	< 410	260	< 42	96
Phenol	108-95-2	ug/kg	< 41	< 43	< 43	< 42	< 40	< 440	NA	< 410	< 410	< 42	< 370
Pyrene	129-00-0	ug/kg	< 41	< 43	590	400	100	4600	NA	< 410	< 410	190	180
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	23	< 2	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	23	< 2	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	23	< 2	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	23	< 2	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	23	< 2	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	94	< 2	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	44	< 3	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	253	< 38	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F10-8237-05 0.0-2.0 ft 3/17/2000 N F10-8237-052N	F10-8274-02 0.0-0.5 ft 3/17/2000 N F10-8274-020.5N	F10-8274-04 0.0-0.5 ft 3/17/2000 N F10-8274-040.5N	F10-8564-01 0.0-0.5 ft 3/17/2000 N F10-8564-010.5N	F10-8569-03 0.0-1.0 ft 7/19/2000 N F10-8569-031N	F10-8576-05 0.0-1.5 ft 12/16/1999 N F10-8576-051.5N	F10-9-01 0.0-1.0 ft 3/17/2000 N F10-9-011N	F11-2016-01 0.0-1.5 ft 3/24/2000 N F11-2016-011.5N	F11-2016-06 0.0-2.0 ft 3/24/2000 N F11-2016-062N	F11-2016-07 0.0-2.0 ft 3/24/2000 N F11-2016-072N	F11-2-03 0.0-2.0 ft 12/10/1999 N F11-2-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 24	< 25	NA	NA	NA	< 24	< 25	< 25	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 24	< 25	NA	NA	NA	< 24	< 25	< 25	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 24	< 25	NA	NA	NA	< 24	1200	220	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 24	< 25	NA	NA	NA	< 24	< 25	< 25	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 48	< 50	NA	NA	NA	< 48	< 50	< 50	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 48	< 50	NA	NA	NA	< 48	< 50	< 50	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 24	< 25	NA	NA	NA	< 24	< 25	< 25	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 48	< 50	NA	NA	NA	< 48	< 50	< 50	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 24	< 25	NA	NA	NA	< 24	< 25	< 25	NA
Nitrocellulose	9004-70-0	ug/kg	932000	159000	221000	567000	NA	NA	NA	2090000	2530000	98600	NA
Nitroglycerin	55-63-0	ug/kg	8400	< 650	< 640	3700	NA	NA	NA	160000	130000	24000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 48	< 50	NA	NA	NA	< 48	< 50	< 50	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 48	< 50	NA	NA	NA	< 48	< 50	< 50	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	< 48	< 50	NA	NA	NA	< 48	< 50	< 50	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1	< 1	< 1	< 1	< 1	0.32	NA	< 0.7	< 0.5	< 0.5	1140
Arsenic	7440-38-2	mg/kg	5.6	8.4	7.7	7.3	4.6	11.8	NA	11.9	19.5	16.5	356
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.53	0.33	0.39	0.71	0.47	0.38	NA	0.47	0.43	0.68	0.24
Cadmium	7440-43-9	mg/kg	0.7	2.4	0.91	0.4	1.9	0.06	NA	0.97	0.66	0.18	2.5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.7	23.9	27.7	13.9	36.2	10.7	NA	15	10.2	15.5	7.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	331	84.1	83.8	22.9	227	344	NA	39.8	60.9	15.6	3350
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	70.8	235	126	68.8	78.6	64.1	NA	132	43	18.9	100000
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2.2	1.2	1.4	0.32	3.7	0.47	NA	0.91	0.27	0.17	2
Nickel	7440-02-0	mg/kg	11.6	14.5	8.9	11.2	21	9.1	NA	10	10.3	8.7	32.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.84	1.6	0.91	0.94	1	2.7	NA	1.3	1.5	1	3.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F10-8237-05	F10-8274-02	F10-8274-04	F10-8564-01	F10-8569-03	F10-8576-05	F10-9-01	F11-2016-01	F11-2016-06	F11-2016-07	F11-2-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/17/2000	3/17/2000	3/17/2000	3/17/2000	7/19/2000	12/16/1999	3/17/2000	3/24/2000	3/24/2000	3/24/2000	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F10-8237-052N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-8569-031N	F10-8576-051.5N	F10-9-011N	F11-2016-011.5N	F11-2016-062N	F11-2016-072N	F11-2-032N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.7	< 0.7	< 0.5	< 0.7	< 0.6	< 0.37	NA	< 0.3	0.27	< 0.2	13.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2	< 2	< 1	< 2	< 2	< 1.2	NA	< 1	< 0.8	< 0.9	< 9.7
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	223	697	172	98.6	322	25.9	NA	76.8	1160	71.8	397
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	27700	71400	NA	92800	76000	79900	11200	40800	NA	NA	16100
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	4.6	0.5	NA	5.3	3.9	4.9	7.1	8.6	NA	NA	6
Gravel	ARC-PGRAVEL	%	38.2	54.8	NA	31.6	39.3	30.7	39.7	32	NA	NA	34.2
Sand	ARC-PSAND	%	46.3	32.2	NA	45.3	47.3	51.9	42	38.7	NA	NA	49.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	10.9	9.8	NA	17.8	9.5	12.5	11.3	20.6	NA	NA	10.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N
Parent Sample						F11-2292-032N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 570	NA	NA	NA	NA	< 563	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 570	NA	NA	NA	NA	< 563	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 570	NA	NA	NA	NA	< 563	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 570	NA	NA	NA	NA	< 563	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1100	NA	NA	NA	NA	< 1126.126	< 1300	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2300	NA	NA	NA	NA	< 5630.63	< 2700	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 570	NA	NA	NA	NA	NA	< 670	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1100	NA	NA	NA	NA	NA	< 1300	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1100	NA	NA	NA	NA	< 1126.126	< 1300	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1100	NA	NA	NA	NA	< 1126.126	< 1300	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	< 563.063	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 570	NA	NA	NA	NA	NA	< 670	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 570	NA	NA	NA	NA	< 563	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N
Parent Sample						F11-2292-032N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 570	NA	NA	NA	NA	< 2252.252	< 670	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 570	NA	NA	NA	NA	< 563.063	< 670	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1100	NA	NA	NA	NA	< 1126.126	< 1300	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 97	< 830	< 800	< 770.98	NA	< 740	< 88	< 850	< 900	< 830	< 2800
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 480	< 420	< 400	< 385	NA	30	< 440	< 430	< 4500	< 420	< 560
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 480	< 420	< 400	< 385	NA	< 370	< 440	< 430	< 4500	< 420	< 560
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
2-Chlorophenol	95-57-8	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 48	< 420	< 400	NA	NA	< 370	< 44	< 430	< 450	< 420	< 560
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 385.49	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 97	< 830	< 800	< 770.98	NA	< 740	< 88	< 850	< 900	< 830	< 1100
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 97	< 830	< 800	< 770.98	NA	< 740	< 88	< 850	< 900	< 830	< 2800
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N
Parent Sample						F11-2292-032N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 97	< 830	< 800	NA	NA	< 740	< 88	< 850	< 900	< 830	< 2800
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 770.98	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	36	< 430	960	< 420	< 560
Acenaphthylene	208-96-8	ug/kg	NA	< 48	< 420	< 400	< 385.49	< 22522	37	46	18	730	50	< 560
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	32	89	44	2300	39	< 560
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 420	< 400	NA	NA	NA	NA	110	NA	130	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 48	< 420	< 400	66.3	NA	230	570	240	10000	150	81
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 48	< 420	< 400	67.46	NA	190	550	230	8800	160	61
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 48	< 420	< 400	135	NA	410	840	300	12000	250	< 560
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 48	NA	NA	< 385.49	NA	93	390	NA	4700	NA	< 560
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	150	260	170	4200	140	< 560
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	33	< 420	< 39	< 385.49	NA	< 370	28	< 430	< 450	< 420	< 560
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	< 1126	< 370	< 44	< 430	< 450	< 420	< 560
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 48	< 420	< 400	104	NA	370	640	260	11000	210	120
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 48	49	< 400	79.8	NA	120	< 44	< 430	< 450	< 420	61
Dimethylphthalate	131-11-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 48	38	< 400	54.35	NA	36	< 44	47	< 450	< 420	< 560
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Fluoranthene	206-44-0	ug/kg	NA	< 48	< 420	< 400	93.67	NA	370	1200	440	23000	310	98
Fluorene	86-73-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	71	< 430	2100	< 420	< 560
Hexachlorobenzene	118-74-1	ug/kg	NA	< 48	< 420	< 400	NA	NA	NA	< 44	< 430	< 450	< 420	< 560
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Hexachloroethane	67-72-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	93	330	110	3900	85	< 560
Isophorone	78-59-1	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N
Parent Sample						F11-2292-032N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	420	< 420	< 560
Nitrobenzene	98-95-3	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	76	< 44	< 430	< 450	< 420	< 560
Pentachlorophenol	87-86-5	ug/kg	NA	< 97	< 830	< 800	< 770.98	NA	< 740	< 88	< 850	< 900	< 830	< 2800
Phenanthrene	85-01-8	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	200	870	250	19000	190	130
Phenol	108-95-2	ug/kg	NA	< 48	< 420	< 400	< 385.49	NA	< 370	< 44	< 430	< 450	< 420	< 560
Pyrene	129-00-0	ug/kg	NA	< 48	< 420	< 400	77.1	NA	370	1600	600	24000	280	< 560
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	22	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	22	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	22	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	22	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	22	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	22	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4	43	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 46	175	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N
Parent Sample						F11-2292-032N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.8	< 0.36	< 0.92	< 0.608669	NA	< 0.49	< 0.7	0.29	< 0.7	0.89	< 0.64
Arsenic	7440-38-2	mg/kg	NA	3.8	4.8	6	12.6	NA	12.5	6.1	9.5	11.8	12	23.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.8	0.78	0.89	0.405	NA	0.44	0.56	0.7	0.23	0.52	0.55
Cadmium	7440-43-9	mg/kg	NA	< 0.4	< 0.22	< 0.55	< 0.304334	NA	< 0.29	< 0.3	< 0.37	0.11	0.22	0.07
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	14	15.3	17.2	104	NA	21.6	11.4	16	10.3	14.7	9.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	7.4	9.4	11.2	47.4	NA	55.3	18.4	28.4	20.3	42.5	20.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	14.8	12.5	12.3	201	NA	54.2	27.1	236	38.1	124	59.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.05	0.04	0.04	0.152	NA	0.08	0.21	0.74	0.32	0.58	0.11
Nickel	7440-02-0	mg/kg	NA	5.2	4.4	4.8	65.1	NA	14	7.5	13.8	6.6	11.7	10
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.84	1.5	1.7	< 0.507224	NA	1.3	1.2	1.9	1.9	2.3	1.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N
Parent Sample						F11-2292-032N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	< 0.4	< 0.22	< 0.55	< 0.304334	NA	< 0.29	< 0.3	< 0.37	< 0.3	< 0.31	< 0.38
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	< 0.73	< 1.8	< 1.014448	NA	< 0.98	< 1	< 1.2	< 1	0.82	< 1.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	39.8	35.7	43.9	261	NA	56.5	58.8	283	30.5	75.9	26.4
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	15100	NA	NA	NA	11800	NA	23700	NA	40400	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	7.9	NA	NA	NA	3.4	NA	7	NA	7.1	3
Gravel	ARC-PGRAVEL	%	NA	NA	39.6	NA	NA	NA	52.3	NA	22.3	NA	28.9	65.9
Sand	ARC-PSAND	%	NA	NA	34.4	NA	NA	NA	33.8	NA	42.7	NA	41.9	25
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	18.1	NA	NA	NA	10.5	NA	28	NA	22	6.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F11-6813-01 0.0-2.0 ft 12/8/1999 N F11-6813-012N	F11-79C-01 0.0-2.0 ft 10/21/1999 N F11-79C-012N	F11-8113-02 0.0-1.5 ft 12/10/1999 N F11-8113-021.5N	F11-8113-02 0.0-2.0 ft 12/10/1999 N F11-8113-022N	F11-8227-01 0.0-1.0 ft 12/8/1999 N F11-8227-011N	F11-A2-01 0.0-1.0 ft 12/10/1999 N F11-A2-011N	F12-191-01 0.0-1.5 ft 6/29/2000 N F12-191-011.5N	F12-191-02 0.0-2.0 ft 10/21/1999 N F12-191-022N	F12-2026A-05 0.0-2.0 ft 10/25/1999 N F12-2026A-052N	F12-2039-01 0.0-1.3 ft 6/29/2000 N F12-2039-011.25N	F12-2039-02 0.0-2.0 ft 10/28/1999 N F12-2039-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2600	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-6813-01	F11-79C-01	F11-8113-02	F11-8113-02	F11-8227-01	F11-A2-01	F12-191-01	F12-191-02	F12-2026A-05	F12-2039-01	F12-2039-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			12/8/1999	10/21/1999	12/10/1999	12/10/1999	12/8/1999	12/10/1999	6/29/2000	10/21/1999	10/25/1999	6/29/2000	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F11-6813-012N	F11-79C-012N	F11-8113-021.5N	F11-8113-022N	F11-8227-011N	F11-A2-011N	F12-191-011.5N	F12-191-022N	F12-2026A-052N	F12-2039-011.25N	F12-2039-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
2,4-Dichlorophenol	120-83-2	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	< 850	< 2300	NA	< 820	< 760	< 780	< 773.892	< 2100	< 2300	< 832.5	< 1950
2,4-Dinitrotoluene	121-14-2	ug/kg	850	< 470	NA	< 410	< 380	< 390	< 387	< 420	< 460	< 416	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	570	< 470	NA	< 410	< 380	< 390	< 387	< 420	< 460	< 416	< 390
2-Chloronaphthalene	91-58-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
2-Chlorophenol	95-57-8	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	NA	< 420	< 460	NA	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 386.946	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 850	< 940	NA	< 820	< 760	< 780	< 773.892	< 830	< 920	< 832.5	< 780
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 850	< 2300	NA	< 820	< 760	< 780	< 773.892	< 2100	< 2300	< 832.5	< 1950
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F11-6813-01	F11-79C-01	F11-8113-02	F11-8113-02	F11-8227-01	F11-A2-01	F12-191-01	F12-191-02	F12-2026A-05	F12-2039-01	F12-2039-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			12/8/1999	10/21/1999	12/10/1999	12/10/1999	12/8/1999	12/10/1999	6/29/2000	10/21/1999	10/25/1999	6/29/2000	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F11-6813-012N	F11-79C-012N	F11-8113-021.5N	F11-8113-022N	F11-8227-011N	F11-A2-011N	F12-191-011.5N	F12-191-022N	F12-2026A-052N	F12-2039-011.25N	F12-2039-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 850	< 2300	NA	< 820	< 760	< 780	NA	< 2100	< 2300	NA	< 1950
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 773.892	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Acenaphthylene	208-96-8	ug/kg	100	< 470	NA	< 410	30	17	< 386.946	< 420	24	< 416.25	< 390
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	71	< 470	NA	< 410	29	22	< 386.946	< 420	< 460	< 416.25	< 390
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	220	NA	NA	NA	97	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	500	< 470	NA	79	190	81	< 386.946	< 420	160	157	< 390
Benzo[a]pyrene	50-32-8	ug/kg	430	< 470	NA	79	150	76	< 386.946	30	140	157	< 390
Benzo[b]fluoranthene	205-99-2	ug/kg	900	< 470	NA	150	380	190	< 386.946	< 420	220	198	< 390
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 470	NA	< 410	NA	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Benzo[k]fluoranthene	207-08-9	ug/kg	240	< 470	NA	< 410	190	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	< 470	NA	< 410	< 380	47	< 386.946	< 420	200	< 416.25	45
Butylbenzylphthalate	85-68-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	700	< 470	NA	220	300	170	< 386.946	< 420	120	140	< 390
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	310	< 470	NA	430	< 380	120	63.5	< 420	700	< 416.25	< 390
Dimethylphthalate	131-11-3	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Di-n-butylphthalate	84-74-2	ug/kg	210	< 470	NA	< 410	36	< 390	155	< 420	< 460	< 416.25	43
Di-n-octylphthalate	117-84-0	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Fluoranthene	206-44-0	ug/kg	970	< 470	NA	< 410	350	190	< 386.946	< 420	130	174	< 390
Fluorene	86-73-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Hexachlorobenzene	118-74-1	ug/kg	< 430	< 470	NA	NA	< 380	NA	NA	< 420	< 460	NA	< 390
Hexachlorobutadiene	87-68-3	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Hexachloroethane	67-72-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	230	< 470	NA	< 410	97	< 390	< 386.946	< 420	< 460	96.2	< 390
Isophorone	78-59-1	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F11-6813-01 0.0-2.0 ft 12/8/1999 N F11-6813-012N	F11-79C-01 0.0-2.0 ft 10/21/1999 N F11-79C-012N	F11-8113-02 0.0-1.5 ft 12/10/1999 N F11-8113-021.5N	F11-8113-02 0.0-2.0 ft 12/10/1999 N F11-8113-022N	F11-8227-01 0.0-1.0 ft 12/8/1999 N F11-8227-011N	F11-A2-01 0.0-1.0 ft 12/10/1999 N F11-A2-011N	F12-191-01 0.0-1.5 ft 6/29/2000 N F12-191-011.5N	F12-191-02 0.0-2.0 ft 10/21/1999 N F12-191-022N	F12-2026A-05 0.0-2.0 ft 10/25/1999 N F12-2026A-052N	F12-2039-01 0.0-1.3 ft 6/29/2000 N F12-2039-011.25N	F12-2039-02 0.0-2.0 ft 10/28/1999 N F12-2039-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 430	< 470	NA	< 410	28	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Nitrobenzene	98-95-3	ug/kg	< 430	NA	NA	NA	< 380	< 390	< 386.946	< 420	< 460	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	190	< 470	NA	250	< 380	84	NA	< 420	93	NA	< 390
Pentachlorophenol	87-86-5	ug/kg	< 850	< 2300	NA	< 820	< 760	< 780	< 773.892	< 2100	< 2300	< 832.5	< 1950
Phenanthrene	85-01-8	ug/kg	340	< 470	NA	110	170	100	< 386.946	< 420	52	97.8	< 390
Phenol	108-95-2	ug/kg	< 430	< 470	NA	< 410	< 380	< 390	< 386.946	< 420	< 460	< 416.25	< 390
Pyrene	129-00-0	ug/kg	770	< 470	NA	< 410	390	180	< 386.946	< 420	180	212	< 390
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F11-6813-01 0.0-2.0 ft 12/8/1999 N F11-6813-012N	F11-79C-01 0.0-2.0 ft 10/21/1999 N F11-79C-012N	F11-8113-02 0.0-1.5 ft 12/10/1999 N F11-8113-021.5N	F11-8113-02 0.0-2.0 ft 12/10/1999 N F11-8113-022N	F11-8227-01 0.0-1.0 ft 12/8/1999 N F11-8227-011N	F11-A2-01 0.0-1.0 ft 12/10/1999 N F11-A2-011N	F12-191-01 0.0-1.5 ft 6/29/2000 N F12-191-011.5N	F12-191-02 0.0-2.0 ft 10/21/1999 N F12-191-022N	F12-2026A-05 0.0-2.0 ft 10/25/1999 N F12-2026A-052N	F12-2039-01 0.0-1.3 ft 6/29/2000 N F12-2039-011.25N	F12-2039-02 0.0-2.0 ft 10/28/1999 N F12-2039-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 220	NA	NA	NA	NA	NA	NA	NA	< 238.0952	< 220
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 220	NA	< 250	NA	NA	NA	NA	NA	< 238.0952	< 220
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 220	NA	< 250	NA	NA	NA	NA	NA	< 238.0952	< 220
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 220	NA	< 250	NA	NA	NA	NA	NA	< 238.0952	< 220
2-Nitrotoluene	88-72-2	ug/kg	NA	< 430	NA	< 500	NA	NA	NA	NA	NA	< 476.1904	< 430
3-Nitrotoluene	99-08-1	ug/kg	NA	< 430	NA	< 500	NA	NA	NA	NA	NA	< 476.1904	< 430
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 220	NA	< 250	NA	NA	NA	NA	NA	< 238.0952	< 220
4-Nitrotoluene	99-99-0	ug/kg	NA	< 430	NA	< 500	NA	NA	NA	NA	NA	< 476.1904	< 430
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 220	NA	< 250	NA	NA	NA	NA	NA	< 238.0952	< 220
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	194000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 4545.5	NA	6244	NA	NA	< 386.946	NA	NA	< 416	< 4800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 430	NA	< 500	NA	NA	NA	NA	NA	< 476.1904	< 430
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 430	NA	< 500	NA	NA	NA	NA	NA	< 476.1904	< 430
Tetryl	479-45-8	ug/kg	NA	< 430	NA	< 500	NA	NA	NA	NA	NA	< 476.1904	< 430
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	2	< 0.47	NA	0.61	0.39	0.97	< 0.451162	< 0.49	< 0.36	< 0.449102	< 0.44
Arsenic	7440-38-2	mg/kg	49.2	2.9	NA	12.1	29.3	239	3.83	4.3	47.2	3.39	2.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.29	0.42	NA	0.48	0.53	0.57	0.545	0.79	0.68	0.386	0.48
Cadmium	7440-43-9	mg/kg	< 0.34	0.05	NA	< 0.36	< 0.34	< 0.33	0.196	0.09	< 0.22	0.156	< 0.26
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.3	10.1	NA	13.4	13.1	12.6	15.8	17.4	17.3	16	11.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	54.3	14.8	NA	97.9	34.9	36.1	15.4	13.7	20.6	15.4	13.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	364	13.9	NA	481	66.6	168	19.1	16.3	36.5	4.28	2.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.2	0.1	NA	0.38	0.34	0.29	0.062	0.09	0.06	0.055	< 0.03
Nickel	7440-02-0	mg/kg	12.1	7.6	NA	14.5	8.3	9.5	8.08	8.2	8.4	9.33	6.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.8	0.29	NA	2.5	1.4	1.6	0.692	0.63	0.88	1.03	0.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F11-6813-01 0.0-2.0 ft 12/8/1999 N F11-6813-012N	F11-79C-01 0.0-2.0 ft 10/21/1999 N F11-79C-012N	F11-8113-02 0.0-1.5 ft 12/10/1999 N F11-8113-021.5N	F11-8113-02 0.0-2.0 ft 12/10/1999 N F11-8113-022N	F11-8227-01 0.0-1.0 ft 12/8/1999 N F11-8227-011N	F11-A2-01 0.0-1.0 ft 12/10/1999 N F11-A2-011N	F12-191-01 0.0-1.5 ft 6/29/2000 N F12-191-011.5N	F12-191-02 0.0-2.0 ft 10/21/1999 N F12-191-022N	F12-2026A-05 0.0-2.0 ft 10/25/1999 N F12-2026A-052N	F12-2039-01 0.0-1.3 ft 6/29/2000 N F12-2039-011.25N	F12-2039-02 0.0-2.0 ft 10/28/1999 N F12-2039-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.14	< 0.28	NA	< 0.36	< 0.34	< 0.33	< 0.225581	< 0.3	< 0.22	< 0.224551	< 0.26
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 0.95	NA	< 1.2	< 1.1	< 1.1	1.92	< 0.99	< 0.73	2.34	< 0.87
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	57.5	41	NA	55.6	230	36.4	64.8	68.2	65.1	37.9	39.6
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	35400	28100	NA	18200	25500	10700	NA	27200	14700	NA	4840
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	2.9	7.5	NA	3.1	4.6	5.8	NA	6	4.5	NA	3.6
Gravel	ARC-PGRAVEL	%	58.8	13.1	NA	69.6	48.8	36.3	NA	30.4	36.4	NA	15.5
Sand	ARC-PSAND	%	28.4	68.9	NA	21.6	33.2	42.7	NA	45.5	46.4	NA	69
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	9.9	10.4	NA	5.8	13.3	15.3	NA	18.1	12.7	NA	11.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-2075-03	F12-2075-05	F12-2075A-03	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F12-2075-030.5N	F12-2075-052N	F12-2075A-031N	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-2075-03	F12-2075-05	F12-2075A-03	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F12-2075-030.5N	F12-2075-052N	F12-2075A-031N	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
1,2-Dichlorobenzene	95-50-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
1,4-Dichlorobenzene	106-46-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
2,4-Dichlorophenol	120-83-2	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
2,4-Dimethylphenol	105-67-9	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
2,4-Dinitrophenol	51-28-5	ug/kg	< 18000	< 2200	< 19000	< 18000	< 2000	< 2000	< 2000	< 2000	< 78	< 740	< 844.214
2,4-Dinitrotoluene	121-14-2	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 390	< 370	< 422
2,6-Dinitrotoluene	606-20-2	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 390	< 370	< 422
2-Chloronaphthalene	91-58-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
2-Chlorophenol	95-57-8	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 7200	< 850	< 7800	< 7300	< 780	< 800	< 820	< 800	< 78	< 740	< 844.214
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 18000	< 2200	< 19000	< 18000	< 2000	< 2000	< 2000	< 2000	< 78	< 740	< 844.214
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-2075-03	F12-2075-05	F12-2075A-03	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F12-2075-030.5N	F12-2075-052N	F12-2075A-031N	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 18000	< 2200	< 19000	< 18000	< 2000	< 2000	< 2000	< 2000	< 78	< 740	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	18	< 410	< 400	< 39	< 370	< 422.107
Acenaphthylene	208-96-8	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	140	410	< 400	18	21	< 422.107
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 3600	32	< 3900	< 3700	< 390	150	170	< 400	< 39	33	< 422.107
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 3600	240	< 3900	< 3700	59	720	880	< 400	180	150	< 422.107
Benzo[a]pyrene	50-32-8	ug/kg	< 3600	220	< 3900	< 3700	60	620	810	< 400	180	150	< 422.107
Benzo[b]fluoranthene	205-99-2	ug/kg	< 3600	310	< 3900	< 3700	96	1100	1300	< 400	360	270	< 422.107
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 3600	130	< 3900	< 3700	< 390	480	580	< 400	110	NA	< 422.107
Benzo[k]fluoranthene	207-08-9	ug/kg	< 3600	120	< 3900	< 3700	36	350	280	< 400	< 39	< 370	< 422.107
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	190	< 430	< 3900	< 3700	24	170	50	60	24	< 370	< 422.107
Butylbenzylphthalate	85-68-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 3600	210	< 3900	< 3700	53	780	920	< 400	230	200	< 422.107
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	180	170	< 400	< 39	< 370	< 422.107
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 3600	< 430	1500	< 3700	< 390	< 400	170	< 400	< 39	< 370	< 422.107
Dimethylphthalate	131-11-3	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Di-n-butylphthalate	84-74-2	ug/kg	5500	< 430	< 3900	< 3700	85	170	57	< 400	22	< 370	< 422.107
Di-n-octylphthalate	117-84-0	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Fluoranthene	206-44-0	ug/kg	< 3600	280	< 3900	< 3700	< 390	920	890	< 400	450	360	< 422.107
Fluorene	86-73-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	26	< 410	< 400	< 39	< 370	< 422.107
Hexachlorobenzene	118-74-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Hexachloroethane	67-72-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 3600	130	< 3900	< 3700	< 390	430	480	< 400	92	76	< 422.107
Isophorone	78-59-1	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-2075-03	F12-2075-05	F12-2075A-03	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F12-2075-030.5N	F12-2075-052N	F12-2075A-031N	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 3900	< 3700	< 390	NA	NA	NA	< 39	< 370	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	160	< 400	< 39	< 370	< 422.107
Pentachlorophenol	87-86-5	ug/kg	< 18000	< 2200	< 19000	< 18000	< 2000	< 2000	< 2000	< 2000	< 78	< 740	< 844.214
Phenanthrene	85-01-8	ug/kg	< 3600	65	< 3900	< 3700	< 390	280	180	< 400	140	250	< 422.107
Phenol	108-95-2	ug/kg	< 3600	< 430	< 3900	< 3700	< 390	< 400	< 410	< 400	< 39	< 370	< 422.107
Pyrene	129-00-0	ug/kg	< 3600	310	< 3900	< 3700	< 390	1100	1400	< 400	310	360	< 422.107
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 19	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 19	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 19	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 19	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 19	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	41	< 19	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 3	42	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	41	42	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-2075-03	F12-2075-05	F12-2075A-03	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F12-2075-030.5N	F12-2075-052N	F12-2075A-031N	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 230	NA	NA	NA	< 240	< 220	< 210	NA	NA	< 217.4
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 230	NA	NA	NA	< 240	< 220	< 210	NA	NA	< 217.4
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 230	NA	NA	NA	< 240	< 220	< 210	NA	NA	< 217.4
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 230	NA	NA	NA	< 240	< 220	< 210	NA	NA	< 217.4
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 450	NA	NA	NA	< 480	< 430	< 420	NA	NA	< 434.8
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 450	NA	NA	NA	< 480	< 430	< 420	NA	NA	< 434.8
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 230	NA	NA	NA	< 240	< 220	< 210	NA	NA	< 217.4
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 450	NA	NA	NA	< 480	< 430	< 420	NA	NA	< 434.8
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 230	NA	NA	NA	< 240	< 220	< 210	NA	NA	< 217.4
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4800	< 5000	NA	NA	NA	< 5000	< 4800	< 5000	NA	NA	< 5761.82
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 450	NA	NA	NA	< 480	< 430	< 420	NA	NA	< 434.8
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 450	NA	NA	NA	< 480	< 430	< 420	NA	NA	< 434.8
Tetryl	479-45-8	ug/kg	< 500	< 450	NA	NA	NA	< 480	< 430	< 420	NA	NA	< 434.8
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.49	< 0.55	< 0.52	< 0.44	< 0.52	< 0.51	< 0.51	< 0.44	< 0.6	< 0.44	< 0.704215
Arsenic	7440-38-2	mg/kg	19	50.9	84.7	72	12.5	60.3	75.5	3.4	3.2	3	2.08
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.52	0.58	0.59	0.53	0.65	0.51	0.49	0.27	0.41	0.3	0.4
Cadmium	7440-43-9	mg/kg	< 0.3	0.23	< 0.31	< 0.27	< 0.31	< 0.3	0.48	1.2	0.09	< 0.27	0.128
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	20.2	34.9	22.2	18.5	16.2	21.9	25.5	11	11.7	10.6	11.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16	16.2	43.5	40.4	52.2	32.5	202	24.1	19.3	20	10.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	12.5	369	49.2	30.4	22.6	88	109	56.5	31.9	39	6.86
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.07	0.12	0.08	0.04	0.12	0.08	0.05	0.07	0.09	0.029
Nickel	7440-02-0	mg/kg	6.6	7.7	17.2	15.1	7.4	8.4	11.1	8.6	10.3	7.9	6.49
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.22	1.4	0.76	0.65	0.87	0.99	0.92	0.83	0.73	< 0.44	0.797

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-2075-03	F12-2075-05	F12-2075A-03	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F12-2075-030.5N	F12-2075-052N	F12-2075A-031N	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.33	< 0.31	< 0.27	< 0.31	< 0.3	0.1	0.09	< 0.3	< 0.27	< 0.352108
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.99	< 1.1	< 1	< 0.89	< 1	< 1	< 1	< 0.89	< 1	< 0.88	< 1.173692
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	70.2	185	72.2	44.9	78.7	181	386	503	60.9	41.1	43.7
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	7.29	6.69	5.99	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	17700	NA	NA	19100	NA	NA	33200	NA	6580	3720
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	4.6	NA	NA	2.9	NA	NA	2.8	NA	8.5	NA
Gravel	ARC-PGRAVEL	%	NA	27.2	NA	NA	32.7	NA	NA	35.4	NA	43.4	NA
Sand	ARC-PSAND	%	NA	50.8	NA	NA	46.9	NA	NA	55.4	NA	30	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	97.4
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	92.3
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.5
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	95.2
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.3
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	53.2
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87.7
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72.2
Silt	ARC-PSILT	%	NA	17.5	NA	NA	17.5	NA	NA	6.5	NA	18.1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	FD
Sample Name			F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD
Parent Sample											F13-2077-012N			F13-236B-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	FD
Sample Name			F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD
Parent Sample											F13-2077-012N			F13-236B-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	< 804.056	< 1800	< 80	< 790	< 1900	< 2000	< 2000	< 1900	< 2000	< 857.142	< 2200	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	< 402	< 370	< 400	< 400	< 380	< 390	< 410	< 380	< 410	< 429	< 410	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 402	< 370	< 400	< 400	< 380	< 390	< 410	< 380	< 410	< 429	< 410	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
2-Chlorophenol	95-57-8	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	NA	< 430	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 804.056	< 730	< 80	< 790	< 760	< 780	< 810	< 770	< 810	< 857.142	< 870	< 820
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 804.056	< 1800	< 80	< 790	< 1900	< 2000	< 2000	< 1900	< 2000	< 857.142	< 2200	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	FD
Sample Name			F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD
Parent Sample											F13-2077-012N			F13-236B-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 1800	< 80	< 790	< 1900	< 2000	< 2000	< 1900	< 2000	NA	< 2200	< 2000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 402.028	44	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Acenaphthylene	208-96-8	ug/kg	< 402.028	44	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 402.028	190	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 402.028	530	40	33	100	54	< 410	< 380	< 410	< 428.571	< 430	< 410
Benzo[a]pyrene	50-32-8	ug/kg	< 402.028	480	40	33	100	53	< 410	< 380	< 410	< 428.571	< 430	< 410
Benzo[b]fluoranthene	205-99-2	ug/kg	< 402.028	770	66	< 400	180	85	< 410	< 380	< 410	< 428.571	< 430	< 410
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 402.028	270	< 40	< 400	82	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Benzo[k]fluoranthene	207-08-9	ug/kg	< 402.028	360	< 40	< 400	53	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 402.028	51	26	30	26	< 390	< 410	< 380	< 410	< 428.571	33	27
Butylbenzylphthalate	85-68-7	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 402.028	610	54	43	120	120	< 410	< 380	< 410	< 428.571	< 430	< 410
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 402.028	41	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Dimethylphthalate	131-11-3	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Di-n-butylphthalate	84-74-2	ug/kg	< 402.028	40	< 40	< 400	< 380	< 390	< 410	53	88	< 428.571	160	100
Di-n-octylphthalate	117-84-0	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Fluoranthene	206-44-0	ug/kg	< 402.028	1200	97	79	96	100	< 410	< 380	< 410	< 428.571	< 430	< 410
Fluorene	86-73-7	ug/kg	< 402.028	74	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Hexachlorobenzene	118-74-1	ug/kg	NA	< 370	< 40	NA	< 380	< 390	< 410	< 380	< 410	NA	< 430	< 410
Hexachlorobutadiene	87-68-3	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Hexachloroethane	67-72-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 402.028	270	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Isophorone	78-59-1	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	FD
Sample Name			F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD
Parent Sample											F13-2077-012N			F13-236B-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 402.028	42	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Nitrobenzene	98-95-3	ug/kg	NA	< 370	< 40	< 400	< 380	< 390	< 410	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 402.028	120	< 40	< 400	< 380	< 390	< 410	< 380	< 410	NA	< 430	< 410
Pentachlorophenol	87-86-5	ug/kg	< 804.056	< 1800	< 80	< 790	< 1900	< 2000	< 2000	< 1900	< 2000	< 857.142	< 2200	< 2000
Phenanthrene	85-01-8	ug/kg	< 402.028	980	51	38	44	59	< 410	< 380	< 410	< 428.571	< 430	< 410
Phenol	108-95-2	ug/kg	< 402.028	< 370	< 40	< 400	< 380	< 390	< 410	< 380	< 410	< 428.571	< 430	< 410
Pyrene	129-00-0	ug/kg	< 402.028	1700	< 40	68	110	120	< 410	< 380	< 410	< 428.571	< 430	< 410
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	FD
Sample Name			F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD
Parent Sample											F13-2077-012N			F13-236B-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 200	NA	NA	NA	NA	NA	NA	< 200	< 220	< 208.3333	< 230	< 240
1,3-Dinitrobenzene	99-65-0	ug/kg	< 200	NA	NA	NA	NA	NA	NA	< 200	< 220	< 208.3333	< 230	< 240
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 200	NA	NA	NA	NA	NA	NA	< 200	< 220	< 208.3333	< 230	< 240
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 200	NA	NA	NA	NA	NA	NA	< 200	< 220	< 208.3333	< 230	< 240
2-Nitrotoluene	88-72-2	ug/kg	< 400	NA	NA	NA	NA	NA	NA	< 400	< 430	< 416.6666	< 450	< 480
3-Nitrotoluene	99-08-1	ug/kg	< 400	NA	NA	NA	NA	NA	NA	< 400	< 430	< 416.6666	< 450	< 480
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 200	NA	NA	NA	NA	NA	NA	< 200	< 220	< 208.3333	< 230	< 240
4-Nitrotoluene	99-99-0	ug/kg	< 400	NA	NA	NA	NA	NA	NA	< 400	< 430	< 416.6666	< 450	< 480
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 200	NA	NA	NA	NA	NA	NA	< 200	< 220	< 208.3333	< 230	< 240
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5365.688	NA	NA	NA	NA	NA	NA	< 5000	< 4347.8	< 429	< 5000	< 4800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 400	NA	NA	NA	NA	NA	NA	< 400	< 430	< 416.6666	< 450	< 480
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 400	NA	NA	NA	NA	NA	NA	< 400	< 430	< 416.6666	< 450	< 480
Tetryl	479-45-8	ug/kg	< 400	NA	NA	NA	NA	NA	NA	< 400	< 430	< 416.6666	< 450	< 480
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.683373	< 0.43	< 0.6	< 0.5	< 0.37	< 0.5	< 0.54	< 0.49	< 0.46	< 0.66569	< 0.48	< 0.52
Arsenic	7440-38-2	mg/kg	1.99	7.1	4.2	5.1	13.5	15.9	2.3	2.4	2.7	3.12	2.7	2.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.409	0.28	0.58	0.64	0.41	0.47	0.19	0.59	0.62	0.467	0.62	0.54
Cadmium	7440-43-9	mg/kg	0.194	0.33	< 0.3	< 0.3	< 0.22	< 0.3	6.8	< 0.3	< 0.28	0.063	< 0.29	< 0.31
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.2	12.3	18.5	16.3	27.1	9.1	7.5	12.3	13.4	14.3	15.4	12.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	10.1	24.5	17.6	13.3	21.2	25.4	60.8	12.9	11.2	9.73	11.1	8.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	4.75	614	26.4	14.8	31.8	118	299	7.1	6.4	12.5	10.6	7.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0.033865	0.41	0.26	0.09	0.05	0.11	0.22	0.04	0.04	0.04	0.04	0.04
Nickel	7440-02-0	mg/kg	5.81	6.9	10.5	7.4	18	11.1	10.7	6.2	6.8	5.52	6.7	5.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.572	0.68	0.53	1.1	0.78	0.99	0.48	0.77	0.92	0.831	0.89	0.97

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	FD
Sample Name			F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD
Parent Sample											F13-2077-012N			F13-236B-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.341686	0.11	< 0.3	< 0.3	< 0.22	< 0.3	0.18	< 0.3	< 0.28	< 0.332845	< 0.29	< 0.31
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.138955	< 0.86	< 1	< 1	< 0.75	< 1	< 1.1	< 0.99	< 0.93	1.43	< 0.97	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	31	192	72.2	71.2	29.4	29.4	415	41.5	42	46.5	57.6	41.6
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	65900	NA	7900	20200	NA	39800	11100	NA	NA	27800	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	3	NA	11.3	4.4	NA	0.2	1.8	NA	NA	2.6	NA
Gravel	ARC-PGRAVEL	%	NA	35.9	NA	28.6	30.5	NA	38	22.8	NA	NA	40.6	NA
Sand	ARC-PSAND	%	NA	47	NA	37.3	55.3	NA	58.1	63.1	NA	NA	39	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	14.1	NA	22.8	9.7	NA	3.7	12.4	NA	NA	17.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
Parent Sample				F13-8209-021.5N		F13-8209-031N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
Parent Sample				F13-8209-021.5N		F13-8209-031N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 791.914	< 800	< 1900	< 1900	< 1900	< 859.354	< 72	< 70	< 80	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 396	< 400	< 380	< 370	< 370	< 430	< 360	< 350	< 400	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 396	< 400	< 380	< 370	< 370	< 430	< 360	< 350	< 400	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 380	< 370	< 370	NA	< 36	< 35	< 40	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 429.677	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 791.914	< 800	< 770	< 750	< 740	< 859.354	< 72	< 70	< 80	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 791.914	< 800	< 1900	< 1900	< 1900	< 859.354	< 72	< 70	< 80	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
Parent Sample				F13-8209-021.5N		F13-8209-031N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 1900	< 1900	< 1900	NA	< 72	< 70	< 80	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 859.354	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	75	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	23	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	510	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	72.5	58	240	< 370	< 370	< 429.677	< 36	< 35	3400	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	52.7	56.4	120	< 370	< 370	< 429.677	20	< 35	2200	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	77.6	77.2	230	< 370	< 370	< 429.677	< 36	< 35	3200	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	1800	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 395.957	< 400	67	< 370	< 370	< 429.677	< 36	< 35	1200	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 395.957	< 400	< 380	30	18	63.6	< 36	< 35	< 40	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	58.6	60.8	150	< 370	< 370	< 429.677	< 36	< 35	4400	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	480	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	76	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 395.957	< 400	59	42	< 370	< 429.677	< 36	45	51	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Fluoranthene	206-44-0	ug/kg	82.8	76.4	270	< 370	< 370	< 429.677	< 36	< 35	2200	NA	NA
Fluorene	86-73-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	84	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 380	< 370	< 370	NA	< 36	< 35	< 40	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	1400	NA	NA
Isophorone	78-59-1	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
Parent Sample				F13-8209-021.5N		F13-8209-031N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 370	< 429.677	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 380	< 370	< 370	NA	290	< 35	300	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 791.914	< 800	< 1900	< 1900	< 1900	< 859.354	< 72	< 70	< 79	NA	NA
Phenanthrene	85-01-8	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	3000	NA	NA
Phenol	108-95-2	ug/kg	< 395.957	< 400	< 380	< 370	< 370	< 429.677	< 36	< 35	< 40	NA	NA
Pyrene	129-00-0	ug/kg	< 395.957	< 400	250	< 370	< 370	< 429.677	< 36	< 35	8900	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
Parent Sample				F13-8209-021.5N		F13-8209-031N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 250	< 210	< 220	NA	NA	< 24	< 25	< 25	< 25	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 250	< 210	< 220	NA	NA	< 24	< 25	< 25	< 25	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 250	< 210	< 220	NA	NA	< 24	< 25	< 25	3600	710
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 250	< 210	< 220	NA	NA	< 24	< 25	< 25	< 25	< 24
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 500	< 420	< 430	NA	NA	< 48	< 50	< 50	< 50	< 48
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 500	< 420	< 430	NA	NA	< 48	< 50	< 50	< 50	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 250	< 210	< 220	NA	NA	< 24	< 25	< 25	< 25	< 24
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 500	< 420	< 430	NA	NA	< 48	< 50	< 50	< 50	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 250	< 210	< 220	NA	NA	< 24	< 25	< 25	< 25	< 24
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	228000	< 34000	200000	9310000	2890000
Nitroglycerin	55-63-0	ug/kg	< 396	< 400	< 4500	< 4500	NA	< 429.677	< 540	< 500	6100	760000	220000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 500	< 420	< 430	NA	NA	< 48	< 50	< 50	< 50	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 500	< 420	< 430	NA	NA	< 48	< 50	< 50	860	500
Tetryl	479-45-8	ug/kg	< 500	< 500	< 420	< 430	NA	NA	< 48	< 50	< 50	< 50	< 48
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.427207	< 0.595	< 0.43	< 0.45	< 0.42	< 0.552996	< 0.5	< 0.6	< 0.6	NA	NA
Arsenic	7440-38-2	mg/kg	3.68	5.72	5.5	4	3.1	3.57	2.3	2.4	4	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.277	0.474	0.62	0.61	0.49	0.303	0.46	0.52	0.45	NA	NA
Cadmium	7440-43-9	mg/kg	0.081	0.128	< 0.26	< 0.28	0.08	0.173	< 0.3	< 0.3	0.87	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.35	18	17.6	14.5	10.6	11.1	6.8	8.4	13.2	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	6.91	14.3	12.9	10.2	15.5	13	13.4	15	56	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	8.34	14	10	8.7	34.2	27.7	24.3	5.3	68.6	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.042	0.038	0.03	0.03	0.05	0.06	0.03	< 0	0.46	NA	NA
Nickel	7440-02-0	mg/kg	3.55	7.73	8.5	7.7	7.6	5.11	5.4	6.6	11.6	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.373	0.907	0.35	0.47	0.75	1.3	< 0.4	< 0.5	1.2	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01	F8-2107-02	F8-2116-03	F8-2116-07
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000	3/21/2000	3/16/2000	3/16/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N	F8-2107-021N	F8-2116-030.5N	F8-2116-071N
Parent Sample				F13-8209-021.5N		F13-8209-031N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.213604	< 0.298	< 0.26	< 0.27	< 0.25	< 0.276498	< 0.3	< 0.3	< 0.3	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.13	1.84	< 0.86	< 0.91	< 0.84	1.4	0.78	1.5	< 1	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	44	48.5	48.7	46.1	48.9	47.5	52.1	39	297	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	9310	NA	33800	NA	8300	6160	43100	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	3.2	NA	2	NA	1.7	0.9	7.9	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	26.1	NA	59.6	NA	47.3	22.4	40.5	NA	NA
Sand	ARC-PSAND	%	NA	NA	55.9	NA	34.3	NA	47.9	72	38.1	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	14.8	NA	4	NA	3.2	4.7	13.5	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01	F8-2151-06
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N	F8-2151-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01	F8-2151-06
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N	F8-2151-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2,4-Dichlorophenol	120-83-2	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	< 82	< 75	< 79	NA	< 840	NA	< 84	< 79	< 87	< 72	< 74
2,4-Dinitrotoluene	121-14-2	ug/kg	260	< 370	< 400	NA	< 4200	NA	< 420	< 400	< 430	< 360	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 370	< 400	NA	< 4200	NA	< 420	< 400	< 430	< 360	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2-Chlorophenol	95-57-8	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 82	< 75	< 79	NA	< 840	NA	< 84	< 79	< 87	< 72	< 74
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 82	< 75	< 79	NA	< 840	NA	< 84	< 79	< 87	< 72	< 74
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01	F8-2151-06
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N	F8-2151-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 82	< 75	< 79	NA	< 840	NA	< 84	< 79	< 87	< 72	< 74
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Acenaphthylene	208-96-8	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	57	31	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	30
Benzo[a]pyrene	50-32-8	ug/kg	51	37	< 40	NA	< 420	NA	< 42	25	68	< 36	22
Benzo[b]fluoranthene	205-99-2	ug/kg	84	< 37	< 40	NA	< 420	NA	< 42	< 40	90	< 36	< 37
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Benzo[k]fluoranthene	207-08-9	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	98	26	530	NA	< 420	NA	< 42	35	< 43	< 36	< 37
Butylbenzylphthalate	85-68-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	52	37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	36
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	4300	81	< 40	NA	430	NA	< 42	410	< 43	< 36	< 37
Dimethylphthalate	131-11-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Di-n-butylphthalate	84-74-2	ug/kg	1300	64	120	NA	< 420	NA	< 42	85	< 43	< 36	< 37
Di-n-octylphthalate	117-84-0	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Fluoranthene	206-44-0	ug/kg	100	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Fluorene	86-73-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Hexachlorobenzene	118-74-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Hexachlorobutadiene	87-68-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Hexachloroethane	67-72-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Isophorone	78-59-1	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01	F8-2151-06
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N	F8-2151-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Nitrobenzene	98-95-3	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
N-Nitrosodimethylamine	62-75-9	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	3300	390	590	NA	2000	NA	< 42	520	< 43	< 36	< 37
Pentachlorophenol	87-86-5	ug/kg	< 82	< 75	< 79	NA	< 840	NA	< 84	< 79	< 87	< 72	< 74
Phenanthrene	85-01-8	ug/kg	63	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Phenol	108-95-2	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Pyrene	129-00-0	ug/kg	< 41	< 37	< 40	NA	< 420	NA	< 42	< 40	< 43	< 36	< 37
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01	F8-2151-06
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N	F8-2151-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 25	NA	< 22	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 25	NA	< 22	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	3100	NA	1562	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 250	NA	< 227	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 25	NA	< 22	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 50	NA	< 45	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 50	NA	< 45	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 25	NA	< 22	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 50	NA	< 45	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 25	NA	< 22	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	916000	NA	1910000	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	180000	NA	210000	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 50	NA	< 45	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 50	NA	< 45	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 50	NA	< 45	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1	< 1	< 0.7	NA	< 1	NA	< 1	< 1	< 1	< 0.5	< 0.5
Arsenic	7440-38-2	mg/kg	20.9	12.4	40.8	NA	6.1	NA	5.1	30	32.8	3.2	4.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.3	0.5	0.22	NA	0.49	NA	0.47	0.33	0.57	0.32	0.36
Cadmium	7440-43-9	mg/kg	0.95	0.98	0.38	NA	1.6	NA	< 0.7	0.38	0.98	< 0.3	< 0.2
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	56.3	48.5	13.2	NA	19.8	NA	22.3	21.8	16.2	7.1	9.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	723	49.9	28.4	NA	878	NA	36.6	100	372	509	521
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	256	166	31	NA	156	NA	241	193	1330	12.4	112
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.16	0.04	0.11	NA	0.29	NA	0.04	0.05	0.07	< 0	0.05
Nickel	7440-02-0	mg/kg	17.2	7.1	8.1	NA	12.1	NA	11.4	10.1	11.4	5.8	7.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.92	0.98	0.62	NA	< 1	NA	< 1	< 1	1.5	< 0.4	< 0.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01	F8-2151-06
Depths			0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000	3/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N	F8-2151-062N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.6	< 0.6	< 0.3	NA	0.66	NA	< 0.7	< 0.7	< 0.7	< 0.3	< 0.2
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2	< 2	< 1	NA	< 2	NA	< 2	< 2	< 2	0.87	0.86
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	434	621	125	NA	1300	NA	50	158	342	69.5	79.5
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	30400	NA	84000	NA	30100	NA	NA	NA	12700	1550	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	9.3	NA	3.1	NA	20.8	NA	NA	NA	12.2	1	NA
Gravel	ARC-PGRAVEL	%	35.5	NA	45.3	NA	29.1	NA	NA	NA	34.9	14.2	NA
Sand	ARC-PSAND	%	41.4	NA	44.3	NA	24.1	NA	NA	NA	32.7	76.2	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	13.7	NA	7.3	NA	26	NA	NA	NA	20.2	8.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2207-01	F8-2207-03	F8-2208-01	F8-2208-03	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-573-02	F8-573-02	F8-575-04
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			3/25/1999	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	7/14/2000	7/14/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			F8-2207-012N	F8-2207-030.5N	F8-2208-011.5N	F8-2208-032N	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5N	F8-567-050.5FD	F8-573-021N	F8-573-020.5N	F8-575-041N
Parent Sample											F8-567-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1024.59	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 3300	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2049.18	NA
Acrylonitrile	107-13-1	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Benzene	71-43-2	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Bromodichloromethane	75-27-4	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Bromoform	75-25-2	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Bromomethane	74-83-9	ug/kg	< 1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Chlorobenzene	108-90-7	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Chloroethane	75-00-3	ug/kg	< 1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1024.59	NA
Chloroform	67-66-3	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Chloromethane	74-87-3	ug/kg	< 1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	721	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2207-01	F8-2207-03	F8-2208-01	F8-2208-03	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-573-02	F8-573-02	F8-575-04
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			3/25/1999	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	7/14/2000	7/14/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			F8-2207-012N	F8-2207-030.5N	F8-2208-011.5N	F8-2208-032N	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5N	F8-567-050.5FD	F8-573-021N	F8-573-020.5N	F8-575-041N
Parent Sample											F8-567-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Toluene	108-88-3	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 840	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 512.295	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	< 74	< 79	< 77	< 73	< 81	< 81	< 85	< 81	< 810	< 756.474	NA	< 77
2,4-Dinitrotoluene	121-14-2	ug/kg	110	< 400	< 380	< 370	< 410	< 410	41	< 410	< 410	< 378	NA	66000
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 400	< 380	< 370	< 410	< 410	< 430	< 410	< 410	< 378	NA	3300
2-Chloronaphthalene	91-58-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
2-Chlorophenol	95-57-8	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	NA	NA	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 74	< 79	< 77	< 73	< 81	< 81	< 85	< 81	< 810	< 756.474	NA	< 77
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 74	< 79	< 77	< 73	< 81	< 81	< 85	< 81	< 810	< 756.474	NA	< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F8-2207-01 0.0-2.0 ft 3/25/1999 N F8-2207-012N	F8-2207-03 0.0-0.5 ft 3/23/2000 N F8-2207-030.5N	F8-2208-01 0.0-1.5 ft 3/23/2000 N F8-2208-011.5N	F8-2208-03 0.0-2.0 ft 3/23/2000 N F8-2208-032N	F8-3-01 0.0-0.5 ft 3/23/2000 N F8-3-010.5N	F8-4-02 0.0-0.5 ft 3/23/2000 N F8-4-020.5N	F8-563D-02 0.0-0.5 ft 3/23/2000 N F8-563D-020.5N	F8-567-05 0.0-0.5 ft 3/16/2000 N F8-567-050.5N	F8-567-05 0.0-0.5 ft 3/16/2000 FD F8-567-050.5FD F8-567-050.5N	F8-573-02 0.0-1.0 ft 7/14/2000 N F8-573-021N	F8-573-02 0.5-1.0 ft 7/14/2000 N F8-573-020.5N	F8-575-04 0.0-1.0 ft 4/18/2000 N F8-575-041N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 74	< 79	< 77	< 73	< 81	< 81	< 85	< 81	< 810	NA	NA	< 77
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	240	< 41	< 410	< 378.237	NA	< 38
Acenaphthylene	208-96-8	ug/kg	60	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	35	< 40	< 38	< 37	< 41	< 41	610	28	< 410	< 378.237	NA	< 38
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	890	< 40	< 38	< 37	29	48	1700	150	100	60.1	NA	95
Benzo[a]pyrene	50-32-8	ug/kg	1300	< 40	< 38	< 37	31	39	1400	130	95	45.4	NA	96
Benzo[b]fluoranthene	205-99-2	ug/kg	1900	< 40	< 38	< 37	< 41	< 41	1600	160	120	< 378.237	NA	< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	700	< 40	< 38	< 37	< 41	< 41	760	< 41	< 410	< 378.237	NA	< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	770	< 40	< 38	< 37	< 41	< 41	570	< 41	< 410	< 378.237	NA	180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 37	< 40	170	31	22	24	46	46	30	< 378.237	NA	25
Butylbenzylphthalate	85-68-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	217	< 38
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 37	< 40	< 38	< 37	39	< 41	1400	120	80	< 378.237	NA	74
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	200	< 41	< 410	< 378.237	NA	< 38
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 37	< 40	< 38	< 37	140	52	290	210	340	< 378.237	NA	120
Dimethylphthalate	131-11-3	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Di-n-butylphthalate	84-74-2	ug/kg	< 37	< 40	< 38	< 37	190	120	220	64	52	< 378.237	NA	45
Di-n-octylphthalate	117-84-0	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Fluoranthene	206-44-0	ug/kg	< 37	< 40	< 38	< 37	< 41	85	3400	260	160	97.6	NA	160
Fluorene	86-73-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	220	< 41	< 410	< 378.237	NA	< 38
Hexachlorobenzene	118-74-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	NA	NA	< 38
Hexachlorobutadiene	87-68-3	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Hexachloroethane	67-72-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	660	< 40	< 38	< 37	< 41	< 41	660	< 41	< 410	< 378.237	NA	< 38
Isophorone	78-59-1	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2207-01	F8-2207-03	F8-2208-01	F8-2208-03	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-573-02	F8-573-02	F8-575-04
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			3/25/1999	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	7/14/2000	7/14/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			F8-2207-012N	F8-2207-030.5N	F8-2208-011.5N	F8-2208-032N	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5N	F8-567-050.5FD	F8-573-021N	F8-573-020.5N	F8-575-041N
Parent Sample											F8-567-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	32	< 41	< 410	< 378.237	NA	< 38
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 41	NA	< 43	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	1500	NA	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	350	< 40	200	< 37	340	120	1200	130	160	NA	NA	1900
Pentachlorophenol	87-86-5	ug/kg	< 74	< 79	< 77	< 73	< 81	< 81	< 85	< 81	< 810	< 756.474	NA	< 77
Phenanthrene	85-01-8	ug/kg	51	< 40	< 38	< 37	33	31	2300	72	55	< 378.237	NA	83
Phenol	108-95-2	ug/kg	< 37	< 40	< 38	< 37	< 41	< 41	< 43	< 41	< 410	< 378.237	NA	< 38
Pyrene	129-00-0	ug/kg	390	< 40	< 38	< 37	< 41	< 41	3700	220	150	87	NA	180
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	< 2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	< 210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2207-01	F8-2207-03	F8-2208-01	F8-2208-03	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-573-02	F8-573-02	F8-575-04
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			3/25/1999	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	7/14/2000	7/14/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			F8-2207-012N	F8-2207-030.5N	F8-2208-011.5N	F8-2208-032N	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5N	F8-567-050.5FD	F8-573-021N	F8-573-020.5N	F8-575-041N
Parent Sample											F8-567-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 238.1	< 25	< 25	< 25	NA	< 25	NA	< 23	< 250	< 250	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 238.1	< 25	< 25	< 25	NA	< 25	NA	< 23	< 250	< 250	NA	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	248.8	< 25	< 25	< 25	NA	< 25	NA	< 23	160	< 250	NA	250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 238.1	< 25	< 25	< 25	NA	< 25	NA	< 23	< 250	< 250	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 476.2	< 50	< 50	< 50	NA	< 50	NA	< 45	< 500	< 500	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 476.2	< 50	< 50	< 50	NA	< 50	NA	< 45	< 500	< 500	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 238.1	< 25	< 25	< 25	NA	< 25	NA	< 23	< 250	< 250	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 476.2	< 50	< 50	< 50	NA	< 50	NA	< 45	< 500	< 500	NA	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 238.1	< 25	< 25	< 25	NA	< 25	NA	< 23	< 250	< 250	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	479000	< 37000	70000	< 35000	NA	< 42000	NA	374000	285000	1520000	NA	1410000
Nitroglycerin	55-63-0	ug/kg	< 550	< 590	33000	< 550	NA	6300	NA	< 610	17000	< 378	NA	61000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 476.2	< 50	< 50	< 50	NA	< 50	NA	< 45	< 500	< 500	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 476.2	< 50	< 50	< 50	NA	< 50	NA	< 45	< 500	< 500	NA	< 50
Tetryl	479-45-8	ug/kg	< 476.2	< 50	< 50	< 50	NA	< 50	NA	< 45	< 500	< 500	NA	< 50
Metals														
Aluminum	7429-90-5	mg/kg	4070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1.1	< 0.5	< 0.6	< 0.6	< 0.5	< 0.6	< 0.7	< 1	< 1.4	< 0.668145	NA	< 0.6
Arsenic	7440-38-2	mg/kg	46.3	3.7	7.3	2.4	8.5	5.4	7.5	4.3	4.9	5.59	NA	2.8
Barium	7440-39-3	mg/kg	198	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	< 0.64	0.56	0.53	0.42	0.61	0.78	0.51	0.46	0.51	0.548	NA	0.34
Cadmium	7440-43-9	mg/kg	< 0.64	0.77	< 0.3	< 0.3	0.14	< 0.3	0.31	0.32	0.4	0.695	NA	0.08
Calcium	7440-70-2	mg/kg	2590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	8.1	15	14.6	10.5	16.5	15.4	15.9	13.7	14.5	17.4	NA	11.4
Cobalt	7440-48-4	mg/kg	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	29.8	75.3	17.9	11.4	74.3	20.1	398	43.6	24.9	53.4	NA	31.1
Iron	7439-89-6	mg/kg	14800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	54	77.5	30	18.9	114	27.9	64.8	49.7	53.8	71	NA	24
Magnesium	7439-95-4	mg/kg	707	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	66.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.17	0.09	0.04	< 0	0.15	0.12	1.5	0.15	0.12	0.043	NA	0.04
Nickel	7440-02-0	mg/kg	9	11.8	8.3	6.2	16.6	11.4	12.4	9.1	9.3	9.99	NA	6.6
Potassium	7440-09-7	mg/kg	408	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.3	0.34	0.46	< 0.5	0.5	< 0.5	0.47	0.83	0.95	1.01	NA	< 0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-2207-01	F8-2207-03	F8-2208-01	F8-2208-03	F8-3-01	F8-4-02	F8-563D-02	F8-567-05	F8-567-05	F8-573-02	F8-573-02	F8-575-04
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			3/25/1999	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	3/16/2000	3/16/2000	7/14/2000	7/14/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			F8-2207-012N	F8-2207-030.5N	F8-2208-011.5N	F8-2208-032N	F8-3-010.5N	F8-4-020.5N	F8-563D-020.5N	F8-567-050.5N	F8-567-050.5FD	F8-573-021N	F8-573-020.5N	F8-575-041N
Parent Sample											F8-567-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.64	< 0.2	< 0.3	< 0.3	< 0.2	< 0.3	< 0.3	< 0.6	< 0.72	< 0.334073	NA	< 0.3
Sodium	7440-23-5	mg/kg	< 212	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.1	2	1.8	1	1.2	1.7	1.6	< 2	< 2.4	< 1.113576	NA	< 1
Vanadium	7440-62-2	mg/kg	15.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	40.1	162	95.2	53.3	115	74.4	125	74	85.7	194	NA	95.7
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	6.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	4150	NA	9500	NA	30100	9340	37600	12000	NA	13800	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	6.7	NA	5.8	NA	7.7	11.1	6.7	14.3	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	34.6	NA	37.6	NA	55.1	42.1	28.3	33.4	NA	NA	NA	NA
Sand	ARC-PSAND	%	48.9	NA	43.1	NA	23.7	28.3	46.6	28.8	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	93.7	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.7	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.3	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	90.1	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	57.7	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.2	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	61.9	NA	NA
Silt	ARC-PSILT	%	9.8	NA	13.6	NA	13.5	18.5	18.4	23.5	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-8-01	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/13/2000	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	FD	N
Sample Name			F8-8-011.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N
Parent Sample									F9-1-041N		F9-1-040.5N			F9-16-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 530	NA	NA	< 550	200	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 530	NA	NA	< 550	150	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	< 520	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 530	NA	NA	< 550	160	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 530	NA	NA	< 550	160	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 1059.322	NA	NA	< 110	< 1000	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 5296.61	NA	NA	< 220	< 2100	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 5296.61	NA	NA	< 55	< 520	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	340	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	< 1000	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 1059.322	NA	NA	< 110	< 1000	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 52	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	< 1059.322	NA	NA	290	170	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 530	NA	NA	< 550	< 520	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-8-01	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/13/2000	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	FD	N
Sample Name			F8-8-011.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N
Parent Sample									F9-1-041N		F9-1-040.5N			F9-16-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	987	NA	NA	< 55	< 52	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 520	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 529.661	NA	NA	< 55	< 520	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	< 1000	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 78	< 78	< 748.222	NA	< 78	< 780	NA	NA	< 840	< 750	< 740	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 390	< 390	270	NA	220	100	NA	NA	240	< 370	< 370	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 390	< 390	< 374	NA	< 390	< 390	NA	NA	< 420	< 370	< 370	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 39	< 39	NA	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 78	< 78	< 748.222	NA	< 78	< 780	NA	NA	< 840	< 750	< 740	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 78	< 78	< 748.222	NA	< 78	< 780	NA	NA	< 840	< 750	< 740	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-8-01	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/13/2000	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	FD	N
Sample Name			F8-8-011.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N
Parent Sample									F9-1-041N		F9-1-040.5N			F9-16-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 78	< 78	NA	NA	< 78	< 780	NA	NA	< 840	< 750	< 740	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 39	< 39	< 374.111	< 21186	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 39	< 39	< 374.111	NA	25	< 390	NA	NA	< 420	< 370	< 370	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 420	< 370	< 370	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	61	98	146	NA	77	75	NA	NA	64	< 370	< 370	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	56	88	162	NA	98	72	NA	NA	79	< 370	< 370	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	140	100	203	NA	220	130	NA	NA	170	< 370	< 370	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 39	< 39	112	NA	< 39	< 390	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 39	30	< 374.111	NA	< 39	< 390	NA	NA	80	< 370	21	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 39	< 39	< 374.111	< 1059	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	84	99	129	NA	120	89	NA	NA	76	< 370	< 370	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	730	47	1120	NA	97	76	NA	NA	660	< 370	< 370	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	61	44	1040	NA	< 39	< 390	NA	NA	< 420	< 370	< 33	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Fluoranthene	206-44-0	ug/kg	NA	170	140	213	NA	160	160	NA	NA	130	< 370	< 370	NA
Fluorene	86-73-7	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 39	< 39	NA	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 39	< 39	74.82	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Isophorone	78-59-1	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-8-01	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/13/2000	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	FD	N
Sample Name			F8-8-011.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N
Parent Sample									F9-1-041N		F9-1-040.5N			F9-16-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	1100	170	754	NA	2300	2900	NA	NA	1200	76	110	NA
Pentachlorophenol	87-86-5	ug/kg	NA	190	< 78	< 748.222	NA	< 78	< 780	NA	NA	< 840	< 750	< 740	NA
Phenanthrene	85-01-8	ug/kg	NA	56	66	77.82	NA	120	110	NA	NA	68	< 370	< 370	NA
Phenol	108-95-2	ug/kg	NA	< 39	< 39	< 374.111	NA	< 39	< 390	NA	NA	< 420	< 370	< 370	NA
Pyrene	129-00-0	ug/kg	NA	100	180	193	NA	150	130	NA	NA	110	< 370	< 370	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	< 17.70048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 17.70048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 17.70048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 17.70048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 17.70048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 17.70048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	30.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	30.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-8-01	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/13/2000	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	FD	N
Sample Name			F8-8-011.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N
Parent Sample									F9-1-041N		F9-1-040.5N			F9-16-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 23	NA	< 238.1	NA	< 25	< 250	NA	NA	< 250	< 250	< 250	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 23	NA	< 238.1	NA	< 25	< 250	NA	NA	< 250	< 250	< 250	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	710	NA	226	NA	< 25	< 250	NA	NA	838	< 250	< 250	490
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 23	NA	< 238.1	NA	< 25	< 250	NA	NA	< 250	< 250	< 250	< 24
2-Nitrotoluene	88-72-2	ug/kg	NA	< 45	NA	< 476.2	NA	< 50	< 500	NA	NA	< 500	< 500	< 500	< 48
3-Nitrotoluene	99-08-1	ug/kg	NA	< 45	NA	< 476.2	NA	< 50	< 500	NA	NA	< 500	< 500	< 500	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 23	NA	< 238.1	NA	< 25	< 250	NA	NA	< 250	< 250	< 250	< 24
4-Nitrotoluene	99-99-0	ug/kg	NA	< 45	NA	< 476.2	NA	< 50	< 500	NA	NA	< 500	< 500	< 500	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 23	NA	207	NA	290	330	NA	NA	< 250	< 250	< 250	< 24
Nitrocellulose	9004-70-0	ug/kg	NA	1360000	NA	1510000	NA	226000	4000000	NA	NA	4510000	99000	177000	660000
Nitroglycerin	55-63-0	ug/kg	NA	110000	NA	35100	NA	17000	34000	NA	NA	52208	2090	10125	30000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 45	NA	< 476.2	NA	< 50	< 500	NA	NA	< 500	< 500	< 500	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 45	NA	< 476.2	NA	< 50	< 500	NA	NA	< 500	< 500	< 500	< 48
Tetryl	479-45-8	ug/kg	NA	< 45	NA	< 476.2	NA	< 50	< 500	NA	NA	< 500	< 500	< 500	< 48
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.44	< 0.6	< 0.54748	NA	< 0.4	0.39	NA	NA	< 1.3	< 0.54	< 0.49	NA
Arsenic	7440-38-2	mg/kg	NA	50.3	4.6	3.97	NA	5.2	5.3	NA	NA	8.5	2.6	2.5	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.44	0.51	0.448	NA	0.7	0.6	NA	NA	0.64	0.54	0.53	NA
Cadmium	7440-43-9	mg/kg	NA	< 0.3	< 0.3	< 0.27374	NA	< 0.2	< 0.34	NA	NA	0.68	< 0.33	< 0.09	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	14.3	13.4	20.1	NA	13.9	12.2	NA	NA	16.2	11.2	11.5	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	53.7	39.5	75	NA	248	106	NA	NA	39	33.2	35.2	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	76.3	40.3	72.8	NA	89	65	NA	NA	116	15	16.9	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.11	0.1	0.148	NA	0.21	0.26	NA	NA	0.13	0.02	0.03	NA
Nickel	7440-02-0	mg/kg	NA	11	8.9	11	NA	10.1	9.8	NA	NA	10.5	5.9	7.2	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.61	0.66	< 0.456234	NA	1.1	1.3	NA	NA	1.3	1.1	1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F8-8-01	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03
Depths			0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/13/2000	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	FD	N
Sample Name			F8-8-011.5N	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N
Parent Sample									F9-1-041N		F9-1-040.5N			F9-16-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	< 0.3	< 0.3	< 0.27374	NA	< 0.2	< 0.34	NA	NA	< 0.76	< 0.33	< 0.09	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	1.2	1.6	< 0.912467	NA	0.64	< 1.1	NA	NA	< 2.5	< 1.1	< 0.97	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	100	70.4	143	NA	321	295	NA	NA	252	43.6	47.8	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	11700	11100	30400	NA	NA	25500	NA	NA	NA	33000	NA	NA	5410
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	1.6	6.3	NA	NA	3.3	NA	NA	NA	7.9	NA	NA	5.7
Gravel	ARC-PGRAVEL	%	NA	50.8	38.9	NA	NA	58.5	NA	NA	NA	39.4	NA	NA	59.5
Sand	ARC-PSAND	%	NA	36.8	38.5	NA	NA	26.9	NA	NA	NA	34.5	NA	NA	26.2
SIEVE 0.375 inch, % passing	ARC-	%	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	96.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	74.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	30.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	82.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	53.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	35.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	64.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	42.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	10.8	16.3	NA	NA	11.3	NA	NA	NA	18.2	NA	NA	8.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-2105-01	F9-2105-05	F9-2105A-01	F9-2105A-04	F9-2105B-01	F9-2109-05	F9-2251-01	F9-2251-03	F9-2276-03	F9-2279-02	F9-3-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			3/17/2000	3/17/2000	12/21/1999	4/18/2000	3/23/2000	7/12/2000	6/29/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F9-2105-011N	F9-2105-050.5N	F9-2105A-011N	F9-2105A-041N	F9-2105B-011N	F9-2109-051.5N	F9-2251-011N	F9-2251-030.5N	F9-2276-031.5N	F9-2279-022N	F9-3-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-2105-01	F9-2105-05	F9-2105A-01	F9-2105A-04	F9-2105B-01	F9-2109-05	F9-2251-01	F9-2251-03	F9-2276-03	F9-2279-02	F9-3-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			3/17/2000	3/17/2000	12/21/1999	4/18/2000	3/23/2000	7/12/2000	6/29/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F9-2105-011N	F9-2105-050.5N	F9-2105A-011N	F9-2105A-041N	F9-2105B-011N	F9-2109-051.5N	F9-2251-011N	F9-2251-030.5N	F9-2276-031.5N	F9-2279-022N	F9-3-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 78	< 78	< 780	< 750	< 78	< 7205.452	< 816.728	< 77	< 78	< 74	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	1500	< 390	160	370	< 390	976	250	< 380	< 390	< 370	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	57	< 390	< 390	< 3700	< 390	< 3603	< 408	< 380	< 390	< 370	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
2-Chlorophenol	95-57-8	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 39	< 39	< 390	< 370	< 39	NA	NA	< 38	< 39	< 37	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 408.364	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 78	< 78	< 780	< 750	< 78	< 7205.452	< 816.728	< 77	< 78	< 74	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 78	< 78	< 780	< 750	< 78	< 7205.452	< 816.728	< 77	< 78	< 74	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F9-2105-01 0.0-1.0 ft 3/17/2000 N F9-2105-011N	F9-2105-05 0.0-0.5 ft 3/17/2000 N F9-2105-050.5N	F9-2105A-01 0.0-1.0 ft 12/21/1999 N F9-2105A-011N	F9-2105A-04 0.0-1.0 ft 4/18/2000 N F9-2105A-041N	F9-2105B-01 0.0-1.0 ft 3/23/2000 N F9-2105B-011N	F9-2109-05 0.0-1.5 ft 7/12/2000 N F9-2109-051.5N	F9-2251-01 0.0-1.0 ft 6/29/2000 N F9-2251-011N	F9-2251-03 0.0-0.5 ft 3/24/2000 N F9-2251-030.5N	F9-2276-03 0.0-1.5 ft 3/16/2000 N F9-2276-031.5N	F9-2279-02 0.0-2.0 ft 3/16/2000 N F9-2279-022N	F9-3-01 0.0-1.5 ft 3/24/2000 N F9-3-011.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 78	< 78	< 780	< 750	< 78	NA	NA	< 77	< 78	< 74	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 816.728	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Acenaphthylene	208-96-8	ug/kg	< 39	< 39	20	< 370	< 39	< 3602.726	51.1	< 38	< 39	< 37	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 39	< 39	41	< 370	< 39	< 3602.726	70.2	< 38	< 39	< 37	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 390	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	44	< 39	130	< 370	56	< 3602.726	297	36	< 39	< 37	NA
Benzo[a]pyrene	50-32-8	ug/kg	37	< 39	180	< 370	56	< 3602.726	242	< 38	< 39	< 37	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 39	< 39	400	< 370	74	< 3602.726	423	< 38	< 39	< 37	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 39	< 39	NA	< 370	< 39	< 3602.726	217	< 38	< 39	< 37	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 39	< 39	100	< 370	< 39	< 3602.726	196	< 38	< 39	< 37	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	25	1100	280	< 370	48	667	< 408.364	130	< 39	31	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	83	< 39	< 37	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	40	< 39	170	< 370	67	< 3602.726	338	< 38	< 39	< 37	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	220	500	390	< 370	< 39	13300	58.8	470	< 39	< 37	NA
Dimethylphthalate	131-11-3	ug/kg	< 39	760	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Di-n-butylphthalate	84-74-2	ug/kg	40	2200	< 390	< 370	130	4090	163	120	< 39	< 37	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Fluoranthene	206-44-0	ug/kg	< 39	< 39	320	< 370	100	< 3602.726	562	< 38	< 39	< 37	NA
Fluorene	86-73-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Hexachlorobenzene	118-74-1	ug/kg	< 39	< 39	< 390	< 370	< 39	NA	NA	< 38	< 39	< 37	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Hexachloroethane	67-72-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 39	< 39	75	< 370	< 39	< 3602.726	208	< 38	< 39	< 37	NA
Isophorone	78-59-1	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-2105-01	F9-2105-05	F9-2105A-01	F9-2105A-04	F9-2105B-01	F9-2109-05	F9-2251-01	F9-2251-03	F9-2276-03	F9-2279-02	F9-3-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			3/17/2000	3/17/2000	12/21/1999	4/18/2000	3/23/2000	7/12/2000	6/29/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F9-2105-011N	F9-2105-050.5N	F9-2105A-011N	F9-2105A-041N	F9-2105B-011N	F9-2109-051.5N	F9-2251-011N	F9-2251-030.5N	F9-2276-031.5N	F9-2279-022N	F9-3-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 390	NA	NA	NA	< 408.364	< 38	< 39	< 37	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	128	< 38	< 39	< 37	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	750	1700	780	3200	71	814	NA	240	< 39	< 37	NA
Pentachlorophenol	87-86-5	ug/kg	< 78	< 78	< 780	< 750	< 78	< 7205.452	< 816.728	< 77	< 78	< 74	NA
Phenanthrene	85-01-8	ug/kg	26	22	220	< 370	50	< 3602.726	383	< 38	< 39	< 37	NA
Phenol	108-95-2	ug/kg	< 39	< 39	< 390	< 370	< 39	< 3602.726	< 408.364	< 38	< 39	< 37	NA
Pyrene	129-00-0	ug/kg	< 39	< 39	340	< 370	100	< 3602.726	719	< 38	< 39	< 37	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-2105-01	F9-2105-05	F9-2105A-01	F9-2105A-04	F9-2105B-01	F9-2109-05	F9-2251-01	F9-2251-03	F9-2276-03	F9-2279-02	F9-3-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			3/17/2000	3/17/2000	12/21/1999	4/18/2000	3/23/2000	7/12/2000	6/29/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F9-2105-011N	F9-2105-050.5N	F9-2105A-011N	F9-2105A-041N	F9-2105B-011N	F9-2109-051.5N	F9-2251-011N	F9-2251-030.5N	F9-2276-031.5N	F9-2279-022N	F9-3-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	NA	< 25	< 24	< 208.325	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	NA	< 25	< 24	< 208.325	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	550	11000	NA	470	< 24	3320	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	NA	< 25	< 24	< 208.325	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	NA	< 50	< 48	< 416.65	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	NA	< 50	< 48	< 416.65	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	NA	< 25	< 24	< 208.325	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	NA	< 50	< 48	< 416.65	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	NA	< 25	< 24	< 208.325	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	515000	2110000	NA	466000	210000	14000000	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	42000	140000	NA	29000	< 580	537000	< 408.364	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	NA	< 50	< 48	1740	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	4500	NA	< 50	< 48	177	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	NA	< 50	< 48	< 416.65	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1	< 1	< 0.57	< 0.5	< 0.7	< 0.606673	< 0.538692	< 0.6	< 1	< 1	NA
Arsenic	7440-38-2	mg/kg	5.1	4.4	5.4	4.5	7.9	4.37	5.98	2.7	5.8	2.2	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.44	0.48	0.74	0.63	0.5	0.418	0.424	0.87	0.49	0.52	NA
Cadmium	7440-43-9	mg/kg	0.28	1.2	< 0.34	0.22	0.26	0.574	0.91	0.67	0.41	0.29	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.5	25.1	47.9	13.6	31.9	15.4	50.2	11.7	13.4	11.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	111	1190	66.3	49.1	3130	32.1	157	111	212	17.2	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	37.8	140	63.3	63.7	194	216	119	10.8	34.5	3.8	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.26	0.3	2.2	0.16	0.8	2.03	2.92	0.12	0.09	< 0	NA
Nickel	7440-02-0	mg/kg	8.2	13.7	10.6	9.2	17.4	10.8	8.92	10.5	7.8	6.5	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.82	< 1	1.1	0.37	0.61	1.07	0.771	0.51	< 1	< 1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-2105-01	F9-2105-05	F9-2105A-01	F9-2105A-04	F9-2105B-01	F9-2109-05	F9-2251-01	F9-2251-03	F9-2276-03	F9-2279-02	F9-3-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			3/17/2000	3/17/2000	12/21/1999	4/18/2000	3/23/2000	7/12/2000	6/29/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			F9-2105-011N	F9-2105-050.5N	F9-2105A-011N	F9-2105A-041N	F9-2105B-011N	F9-2109-051.5N	F9-2251-011N	F9-2251-030.5N	F9-2276-031.5N	F9-2279-022N	F9-3-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.6	< 0.6	< 0.34	< 0.2	< 0.3	< 0.303336	0.243	< 0.3	< 0.6	< 0.6	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2	< 2	0.7	< 0.9	1.8	< 1.011121	1.63	< 1	< 2	< 2	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	88.1	291	141	119	160	250	278	381	392	46.2	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	11400	NA	17800	NA	54600	NA	NA	16200	11300	364	43800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	7.8	NA	9.3	NA	10.1	NA	NA	3.4	8.7	7.3	6.2
Gravel	ARC-PGRAVEL	%	33.5	NA	38.5	NA	40.9	NA	NA	59.2	40.2	10.2	39.9
Sand	ARC-PSAND	%	46.7	NA	33.8	NA	34.9	NA	NA	29.8	39.2	72.1	36.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	12	NA	18.5	NA	14.2	NA	NA	7.6	12	10.5	17.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01	F9-611-02	F9-7-03	F9-8-02	F9-8-05	F9-8188-01	F9-9-01	F9-9-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000	3/16/2000	12/21/1999	3/17/2000	3/17/2000	12/21/1999	3/17/2000	3/17/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N	F9-611-020.5N	F9-7-031N	F9-8-020.5N	F9-8-051N	F9-8188-011N	F9-9-010.5N	F9-9-050.5N
Parent Sample							F9-558B-031.5FD								
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01	F9-611-02	F9-7-03	F9-8-02	F9-8-05	F9-8188-01	F9-9-01	F9-9-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000	3/16/2000	12/21/1999	3/17/2000	3/17/2000	12/21/1999	3/17/2000	3/17/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N	F9-611-020.5N	F9-7-031N	F9-8-020.5N	F9-8-051N	F9-8188-011N	F9-9-010.5N	F9-9-050.5N
Parent Sample							F9-558B-031.5FD								
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2,4-Dinitrophenol	51-28-5	ug/kg	< 79	NA	< 780	< 79	< 780	< 81	< 79	< 780	< 81	< 85	< 780	< 80	< 91
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	NA	460	< 400	< 390	< 410	50	< 390	1100	410	< 390	3400	< 460
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	NA	< 390	< 400	< 390	< 410	< 400	< 390	43	< 430	< 390	98	< 460
2-Chloronaphthalene	91-58-7	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2-Chlorophenol	95-57-8	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 79	NA	< 780	< 79	< 780	< 81	< 79	< 780	< 81	< 85	< 780	< 80	< 91
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 79	NA	< 780	< 79	< 780	< 81	< 79	< 780	< 81	< 85	< 780	< 80	< 91
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01	F9-611-02	F9-7-03	F9-8-02	F9-8-05	F9-8188-01	F9-9-01	F9-9-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000	3/16/2000	12/21/1999	3/17/2000	3/17/2000	12/21/1999	3/17/2000	3/17/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N	F9-611-020.5N	F9-7-031N	F9-8-020.5N	F9-8-051N	F9-8188-011N	F9-9-010.5N	F9-9-050.5N
Parent Sample							F9-558B-031.5FD								
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 79	NA	< 780	< 79	< 780	< 81	< 79	< 780	< 81	< 85	< 780	< 80	< 91
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	18	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Acenaphthylene	208-96-8	ug/kg	24	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	52	NA	< 390	< 40	24	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 390	NA	NA	NA	NA	< 390	NA	NA	< 390	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	200	NA	69	35	79	39	100	< 390	36	< 43	48	58	58
Benzo[a]pyrene	50-32-8	ug/kg	180	NA	< 390	29	64	38	94	< 390	26	< 43	55	47	50
Benzo[b]fluoranthene	205-99-2	ug/kg	260	NA	190	< 40	110	< 41	130	< 390	< 41	< 43	81	65	75
Benzo[g,h,i]perylene	191-24-2	ug/kg	100	NA	NA	< 40	< 390	< 41	< 40	NA	< 41	< 43	NA	< 40	< 46
Benzo[k]fluoranthene	207-08-9	ug/kg	< 40	NA	98	< 40	33	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 40	NA	170	23	86	43	41	< 390	27	21	67	19	< 46
Butylbenzylphthalate	85-68-7	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	180	NA	83	< 40	110	39	92	< 390	52	< 43	50	48	48
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 40	NA	4200	< 40	< 390	200	65	< 390	< 41	< 43	240	< 40	< 46
Dimethylphthalate	131-11-3	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Di-n-butylphthalate	84-74-2	ug/kg	< 40	NA	3200	93	110	86	94	< 390	150	< 43	< 390	69	44
Di-n-octylphthalate	117-84-0	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Fluoranthene	206-44-0	ug/kg	500	NA	92	< 40	200	< 41	150	< 390	< 41	< 43	< 390	96	< 46
Fluorene	86-73-7	ug/kg	26	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Hexachlorobenzene	118-74-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Hexachlorobutadiene	87-68-3	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Hexachloroethane	67-72-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	100	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Isophorone	78-59-1	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01	F9-611-02	F9-7-03	F9-8-02	F9-8-05	F9-8188-01	F9-9-01	F9-9-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000	3/16/2000	12/21/1999	3/17/2000	3/17/2000	12/21/1999	3/17/2000	3/17/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N	F9-611-020.5N	F9-7-031N	F9-8-020.5N	F9-8-051N	F9-8188-011N	F9-9-010.5N	F9-9-050.5N
Parent Sample							F9-558B-031.5FD								
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Nitrobenzene	98-95-3	ug/kg	< 40	NA	NA	NA	NA	< 41	< 40	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 40	NA	< 390	120	< 390	120	83	< 390	110	< 43	2300	160	< 46
Pentachlorophenol	87-86-5	ug/kg	< 79	NA	< 780	< 79	< 780	< 81	< 79	< 780	< 81	< 85	< 780	< 80	< 91
Phenanthrene	85-01-8	ug/kg	350	NA	24	23	84	24	84	< 390	< 41	< 43	40	49	< 46
Phenol	108-95-2	ug/kg	< 40	NA	< 390	< 40	< 390	< 41	< 40	< 390	< 41	< 43	< 390	< 40	< 46
Pyrene	129-00-0	ug/kg	360	NA	< 390	< 40	180	< 41	130	< 390	< 41	< 43	< 390	< 40	< 46
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01	F9-611-02	F9-7-03	F9-8-02	F9-8-05	F9-8188-01	F9-9-01	F9-9-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000	3/16/2000	12/21/1999	3/17/2000	3/17/2000	12/21/1999	3/17/2000	3/17/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N	F9-611-020.5N	F9-7-031N	F9-8-020.5N	F9-8-051N	F9-8188-011N	F9-9-010.5N	F9-9-050.5N
Parent Sample							F9-558B-031.5FD								
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 250	< 25	< 250	NA	NA	< 250	< 25	< 25	< 250	< 25	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 250	< 25	< 250	NA	NA	< 250	< 25	< 25	< 250	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	1117	< 25	< 250	NA	NA	< 250	< 25	< 25	951	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 250	< 25	< 250	NA	NA	< 250	< 25	< 25	< 250	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 500	< 50	< 500	NA	NA	< 500	< 50	< 50	< 500	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 500	< 50	< 500	NA	NA	< 500	< 50	< 50	< 500	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 250	< 25	< 250	NA	NA	< 250	< 25	< 25	< 250	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 500	< 50	< 500	NA	NA	< 500	< 50	< 50	< 500	< 50	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 250	< 25	< 250	NA	NA	< 250	< 25	< 25	< 250	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	6550000	940000	< 38500	NA	NA	90100	225000	169000	1740000	180000	227000
Nitroglycerin	55-63-0	ug/kg	NA	NA	183465	< 590	< 5800	NA	NA	< 4988	25000	< 630	131692	< 580	< 690
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 500	< 50	< 500	NA	NA	< 500	< 50	< 50	< 500	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 500	< 50	< 500	NA	NA	< 500	< 50	< 50	< 500	< 50	< 50
Tetryl	479-45-8	ug/kg	NA	NA	< 500	< 50	< 500	NA	NA	< 500	< 50	< 50	< 500	< 50	< 50
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.56	< 0.6	< 0.68	< 1	< 1	< 0.55	< 1	< 1	< 0.54	< 1	< 1
Arsenic	7440-38-2	mg/kg	NA	NA	3.9	4.9	8	25	8.2	3.8	5	4.7	7.7	5.2	5.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.6	0.66	0.7	0.52	0.44	0.7	0.47	0.49	0.69	0.45	0.49
Cadmium	7440-43-9	mg/kg	NA	NA	< 0.34	< 0.3	< 0.34	0.47	0.56	< 0.33	0.42	0.43	0.39	0.36	0.45
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	15.1	16.2	15.4	17.6	11.5	14.5	13.3	13	20.5	11.7	14.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	46.9	27.5	30.5	32.4	190	21.2	34.3	22.3	74.3	32.4	38.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	81.7	312	34.7	811	67.3	15.8	53.3	29.5	66.1	47.7	63.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.07	0.12	0.07	0.09	0.07	0.02	0.13	0.24	0.13	0.12	0.16
Nickel	7440-02-0	mg/kg	NA	NA	7.9	9.6	9.7	11.3	11.6	9	7.1	8.7	11	7	8.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	1.4	0.63	0.71	1.1	1.3	1.3	< 1	1.2	1.3	0.86	0.99

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01	F9-611-02	F9-7-03	F9-8-02	F9-8-05	F9-8188-01	F9-9-01	F9-9-05
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000	3/16/2000	12/21/1999	3/17/2000	3/17/2000	12/21/1999	3/17/2000	3/17/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N	F9-611-020.5N	F9-7-031N	F9-8-020.5N	F9-8-051N	F9-8188-011N	F9-9-010.5N	F9-9-050.5N
Parent Sample							F9-558B-031.5FD								
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	NA	< 0.34	< 0.3	< 0.34	< 0.6	< 0.6	< 0.33	< 0.7	< 0.7	< 0.33	< 0.7	< 0.7
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	0.83	1.9	2.2	< 2	< 2	0.79	< 2	< 2	0.94	< 2	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	101	142	152	101	84.6	57.6	110	87.9	205	85.1	114
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	14300	NA	11900	18500	NA	19200	47000	2740	30700	NA	14700	19600	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	11.5	NA	10.1	9.8	NA	13.4	10.4	11.6	8.4	NA	7.7	6.3	NA
Gravel	ARC-PGRAVEL	%	27.5	NA	36.9	35.1	NA	34.8	43.9	23.1	34.4	NA	40.6	46.4	NA
Sand	ARC-PSAND	%	38.3	NA	33.4	40.6	NA	33.8	30.4	40.7	41.1	NA	38.6	33.5	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	22.7	NA	19.6	14.5	NA	18	15.3	24.6	16.2	NA	13.1	13.7	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-9-05	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	F9-C1-04	G10-1-02	G10-1-02	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	12/21/1999	11/23/1999	11/23/1999	11/22/1999	11/22/1999	7/13/2000	9/27/2000
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			F9-9-050.5FD	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	F9-C1-041.3N	G10-1-021N	G10-1-021FD	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N
Parent Sample			F9-9-050.5N							G10-1-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-9-05	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	F9-C1-04	G10-1-02	G10-1-02	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	12/21/1999	11/23/1999	11/23/1999	11/22/1999	11/22/1999	7/13/2000	9/27/2000
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			F9-9-050.5FD	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	F9-C1-041.3N	G10-1-021N	G10-1-021FD	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N
Parent Sample			F9-9-050.5N							G10-1-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 344.15	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
1,2-Dichlorobenzene	95-50-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
1,4-Dichlorobenzene	106-46-7	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
2,4-Dichlorophenol	120-83-2	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
2,4-Dimethylphenol	105-67-9	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
2,4-Dinitrophenol	51-28-5	ug/kg	< 900	< 81	< 83	< 84	< 82	< 760	< 1900	< 1900	< 1900	< 2300	< 688.3	< 723
2,4-Dinitrotoluene	121-14-2	ug/kg	69	< 410	690	< 420	250	120	< 380	< 380	< 380	< 460	< 344	< 361
2,6-Dinitrotoluene	606-20-2	ug/kg	< 450	< 410	23	< 420	< 410	< 380	< 380	< 380	< 380	< 460	< 344	< 361
2-Chloronaphthalene	91-58-7	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
2-Chlorophenol	95-57-8	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	NA	< 361
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 344.15	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 900	< 81	< 83	< 84	< 82	< 760	< 760	< 760	< 770	< 910	< 688.3	< 723
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 900	< 81	< 83	< 84	< 82	< 760	< 1900	< 1900	< 1900	< 2300	< 688.3	< 723
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-9-05	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	F9-C1-04	G10-1-02	G10-1-02	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	12/21/1999	11/23/1999	11/23/1999	11/22/1999	11/22/1999	7/13/2000	9/27/2000
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			F9-9-050.5FD	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	F9-C1-041.3N	G10-1-021N	G10-1-021FD	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N
Parent Sample			F9-9-050.5N							G10-1-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 900	< 81	< 83	< 84	< 82	< 760	< 1900	< 1900	< 1900	< 2300	NA	< 723
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 688.3	NA
Acenaphthene	83-32-9	ug/kg	< 450	< 41	240	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Acenaphthylene	208-96-8	ug/kg	< 450	< 41	24	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 450	66	530	34	49	< 380	< 380	< 380	< 380	< 460	81.56	< 361
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	< 380	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	38	320	2400	270	120	61	< 380	< 380	< 380	150	296	94.3
Benzo[a]pyrene	50-32-8	ug/kg	41	270	2200	250	110	69	< 380	< 380	< 380	100	282	110
Benzo[b]fluoranthene	205-99-2	ug/kg	< 450	350	3100	310	140	120	< 380	< 380	< 380	190	506	208
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 450	150	1100	180	< 41	NA	< 380	< 380	< 380	< 460	237	74.4
Benzo[k]fluoranthene	207-08-9	ug/kg	< 450	130	1100	< 42	< 41	< 380	< 380	< 380	< 380	65	133	69
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	22	< 41	100	24	29	68	24	52	44	56	39.58	< 361
Butylbenzylphthalate	85-68-7	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 450	260	2700	280	120	63	< 380	< 380	< 380	150	342	134
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 450	< 41	280	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 450	< 41	70	< 42	< 41	100	< 380	120	< 380	49	< 344.15	< 361
Dimethylphthalate	131-11-3	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Di-n-butylphthalate	84-74-2	ug/kg	52	78	670	54	47	< 380	75	200	41	68	< 344.15	< 361
Di-n-octylphthalate	117-84-0	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Fluoranthene	206-44-0	ug/kg	< 450	460	6300	390	270	< 380	< 380	< 380	< 380	340	368	85.3
Fluorene	86-73-7	ug/kg	< 450	< 41	280	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Hexachlorobenzene	118-74-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Hexachlorobutadiene	87-68-3	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Hexachloroethane	67-72-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 450	130	1000	150	< 41	< 380	< 380	< 380	< 380	< 460	202	69
Isophorone	78-59-1	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-9-05	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	F9-C1-04	G10-1-02	G10-1-02	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	12/21/1999	11/23/1999	11/23/1999	11/22/1999	11/22/1999	7/13/2000	9/27/2000
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			F9-9-050.5FD	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	F9-C1-041.3N	G10-1-021N	G10-1-021FD	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N
Parent Sample			F9-9-050.5N							G10-1-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 450	< 41	55	< 42	< 41	< 380	< 380	< 380	< 380	< 460	NA	< 361
Nitrobenzene	98-95-3	ug/kg	NA	< 41	< 42	< 42	NA	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
N-Nitrosodimethylamine	62-75-9	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 450	< 41	< 42	< 42	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 450	170	170	160	100	1800	< 380	< 380	< 380	< 460	< 344.15	< 361
Pentachlorophenol	87-86-5	ug/kg	< 900	< 81	< 83	< 84	< 82	< 760	< 1900	< 1900	< 1900	< 2300	< 688.3	< 723
Phenanthrene	85-01-8	ug/kg	< 450	150	4400	180	200	67	< 380	< 380	< 380	97	83.28	< 361
Phenol	108-95-2	ug/kg	< 450	< 41	< 42	580	< 41	< 380	< 380	< 380	< 380	< 460	< 344.15	< 361
Pyrene	129-00-0	ug/kg	< 450	460	6300	430	280	< 380	< 380	< 380	< 380	290	389	126
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 20	< 24	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 20	< 24	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 20	< 24	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 20	< 24	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 20	< 24	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 20	< 24	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	240	< 47	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	240	< 47	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-9-05	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	F9-C1-04	G10-1-02	G10-1-02	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	12/21/1999	11/23/1999	11/23/1999	11/22/1999	11/22/1999	7/13/2000	9/27/2000
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			F9-9-050.5FD	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	F9-C1-041.3N	G10-1-021N	G10-1-021FD	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N
Parent Sample			F9-9-050.5N							G10-1-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 230	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 230	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	610	NA	NA	NA	160	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 230	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 450	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 450	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 230	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 450	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 230	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	371000	NA	NA	NA	1160000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 6000	NA	NA	NA	< 620	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 450	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 450	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 450	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1.5	0.36	0.76	< 0.7	< 1	< 0.5	0.72	1.1	< 0.32	< 0.38	< 0.584991	< 0.633
Arsenic	7440-38-2	mg/kg	5.9	5.7	8.4	9.8	9	6.4	84.2	82.9	4	9.7	5.17	3.63
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.4	0.41	0.37	0.69	0.58	0.53	0.39	0.4	0.54	0.86	0.164	0.228
Cadmium	7440-43-9	mg/kg	0.32	< 0.3	< 0.3	< 0.3	0.66	< 0.3	0.21	0.26	0.34	0.19	0.085	0.071
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11	14.4	18.9	20.5	17.7	11.2	15.4	15.6	18.5	24.2	15.9	8.02
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	34.7	230	441	58.9	147	32.2	63.6	66.2	144	35.9	92.2	8.23
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	46.4	77.8	219	255	104	42.2	120	153	62.3	14.7	56.2	9.97
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.14	0.17	0.19	0.31	0.25	0.07	10.5	9.9	0.39	0.1	0.122	0.047
Nickel	7440-02-0	mg/kg	7	12.5	14.9	12.8	10.2	8.3	11.1	12.2	22.7	16.5	8.4	3.74
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 1.3	0.81	0.96	0.7	0.95	1.1	21.6	26.9	< 0.32	< 0.38	< 0.487493	< 0.528

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			F9-9-05	F9-A3-02	F9-A4-02	F9-A5-01	F9-A6-01	F9-C1-04	G10-1-02	G10-1-02	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			3/17/2000	3/23/2000	3/23/2000	3/23/2000	3/17/2000	12/21/1999	11/23/1999	11/23/1999	11/22/1999	11/22/1999	7/13/2000	9/27/2000
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			F9-9-050.5FD	F9-A3-021.5N	F9-A4-020.5N	F9-A5-010.5N	F9-A6-011N	F9-C1-041.3N	G10-1-021N	G10-1-021FD	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N
Parent Sample			F9-9-050.5N							G10-1-021N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.75	< 0.3	< 0.3	< 0.3	< 0.6	< 0.3	0.16	0.26	0.08	< 0.23	< 0.292496	< 0.317
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.5	1.3	3.2	2.2	< 2	< 0.99	< 0.99	< 1.1	< 0.64	< 0.77	< 0.974986	< 1.06
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	90.4	137	142	147	165	87.3	87.8	110	186	70.1	104	25.3
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	32600	39300	43600	18200	26600	256000	NA	31200	NA	11300	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	10.6	7.7	10.4	6.2	6.9	6	NA	5.2	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	44.5	29.9	35.2	51.2	42.4	31.6	NA	32.7	NA	NA	NA
Sand	ARC-PSAND	%	NA	27.2	47	34.1	28.5	35.1	54.2	NA	52.7	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90.3	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	97	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68.3	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.1	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.9	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42.9	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.3	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55.8	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.2	NA
Silt	ARC-PSILT	%	NA	17.8	15.4	20.3	14.2	15.5	8.2	NA	9.4	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03	G10-2-03	G10-269-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999	11/22/1999	9/27/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N
Sample Name			G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N	G10-2-031N	G10-269-021N
Parent Sample				G10-16-021N					G10-18-041.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1179	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2359	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	< 1179	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	< 1179	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	< 1179	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03	G10-2-03	G10-269-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999	11/22/1999	9/27/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N
Sample Name			G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N	G10-2-031N	G10-269-021N
Parent Sample				G10-16-021N					G10-18-041.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 590	NA	NA	< 355.655	< 356	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 590	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	195	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 1179	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
1,2-Dichlorobenzene	95-50-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
1,4-Dichlorobenzene	106-46-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
2,4-Dichlorophenol	120-83-2	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
2,4-Dimethylphenol	105-67-9	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	< 2000	NA	< 2100	NA	< 711.31	< 711	< 2000	< 1800	< 1900	< 787
2,4-Dinitrotoluene	121-14-2	ug/kg	< 420	< 400	NA	310	NA	< 356	< 356	< 390	< 360	< 390	< 394
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 400	NA	< 420	NA	< 356	< 356	< 390	< 360	< 390	< 394
2-Chloronaphthalene	91-58-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
2-Chlorophenol	95-57-8	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 420	< 400	NA	< 420	NA	NA	NA	< 390	< 360	< 390	< 394
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 355.655	< 356	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 830	< 790	NA	< 840	NA	< 711.31	< 711	< 780	< 720	< 780	< 787
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2100	< 2000	NA	< 2100	NA	< 711.31	< 711	< 2000	< 1800	< 1900	< 787
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03	G10-2-03	G10-269-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999	11/22/1999	9/27/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N
Sample Name			G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N	G10-2-031N	G10-269-021N
Parent Sample				G10-16-021N					G10-18-041.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2100	< 2000	NA	< 2100	NA	NA	NA	< 2000	< 1800	< 1900	< 787
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 711.31	< 711	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Acenaphthylene	208-96-8	ug/kg	63	40	NA	51	NA	168	144	< 390	97	< 390	< 394
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	51	29	NA	37	NA	303	430	< 390	74	< 390	< 394
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	160	110	NA	240	NA	1420	1500	< 390	160	< 390	167
Benzo[a]pyrene	50-32-8	ug/kg	150	92	NA	250	NA	882	930	< 390	220	< 390	135
Benzo[b]fluoranthene	205-99-2	ug/kg	300	180	NA	490	NA	1720	1640	< 390	430	< 390	184
Benzo[g,h,i]perylene	191-24-2	ug/kg	190	150	NA	180	NA	619	625	< 390	190	< 390	79.9
Benzo[k]fluoranthene	207-08-9	ug/kg	150	< 400	NA	140	NA	552	598	< 390	170	< 390	< 394
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 420	< 400	NA	< 420	NA	46.59	< 356	< 390	880	53	< 394
Butylbenzylphthalate	85-68-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	348	< 390	150	< 390	< 394
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	290	150	NA	310	NA	1400	1320	32	330	46	204
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 420	< 400	NA	51	NA	< 355.655	< 356	< 390	33	< 390	< 394
Dimethylphthalate	131-11-3	ug/kg	< 420	< 400	NA	38	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Di-n-butylphthalate	84-74-2	ug/kg	44	< 400	NA	5500	NA	< 355.655	15.29	< 390	34	< 390	< 394
Di-n-octylphthalate	117-84-0	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	1100	< 360	< 390	< 394
Fluoranthene	206-44-0	ug/kg	300	190	NA	370	NA	2980	3450	< 390	530	< 390	257
Fluorene	86-73-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	88.9	< 390	< 360	< 390	< 394
Hexachlorobenzene	118-74-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Hexachlorobutadiene	87-68-3	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Hexachloroethane	67-72-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	160	120	NA	160	NA	624	625	< 390	180	< 390	65.4
Isophorone	78-59-1	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03	G10-2-03	G10-269-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999	11/22/1999	9/27/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N
Sample Name			G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N	G10-2-031N	G10-269-021N
Parent Sample				G10-16-021N					G10-18-041.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 420	< 400	NA	39	NA	NA	NA	< 390	< 360	< 390	< 394
Nitrobenzene	98-95-3	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	NA	NA	< 390	< 394
N-Nitrosodimethylamine	62-75-9	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 420	< 400	NA	930	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Pentachlorophenol	87-86-5	ug/kg	< 2100	< 2000	NA	< 2100	NA	< 711.31	< 711	< 2000	< 1800	< 1900	< 787
Phenanthrene	85-01-8	ug/kg	190	75	NA	260	NA	1390	1890	< 390	230	42	157
Phenol	108-95-2	ug/kg	< 420	< 400	NA	< 420	NA	< 355.655	< 356	< 390	< 360	< 390	< 394
Pyrene	129-00-0	ug/kg	410	220	NA	440	NA	1850	2080	< 390	380	< 390	296
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 20	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	7600	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	7600	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03	G10-2-03	G10-269-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999	11/22/1999	9/27/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N
Sample Name			G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N	G10-2-031N	G10-269-021N
Parent Sample				G10-16-021N					G10-18-041.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 230	NA	NA	< 250	< 230	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 230	NA	NA	< 250	< 230	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 230	NA	NA	< 250	< 230	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 230	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 230	NA	NA	< 250	< 230	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 450	NA	NA	< 500	< 450	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 450	NA	NA	< 500	< 450	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 230	NA	NA	< 250	< 230	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 450	NA	NA	< 500	< 450	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 230	NA	NA	< 250	< 230	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	61200	NA	NA	287000	86400	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 5700	NA	NA	< 5400	< 5200	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 450	NA	NA	< 500	< 450	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 450	NA	NA	< 500	< 450	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 450	NA	NA	< 500	< 450	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.6	0.19	NA	5.9	NA	0.339	0.596	< 0.53	0.33	1.3	0.98
Arsenic	7440-38-2	mg/kg	115	10.7	NA	35.1	NA	48.5	52.9	3.3	20.4	15.7	26.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	1.1	0.34	NA	0.64	NA	0.059	0.108	0.06	0.27	0.86	0.398
Cadmium	7440-43-9	mg/kg	1.4	1.6	NA	4	NA	< 0.308087	< 0.305	0.13	1.6	1.8	0.175
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	22	20.2	NA	68.3	NA	8.43	15.5	5.4	25.9	56.5	10.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	40.6	36.8	NA	6000	NA	21.5	25	4.2	28.9	110	17.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	412	321	NA	3560	NA	438	455	23.4	556	341	88.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.38	0.27	NA	3.2	NA	0.216	0.259	0.09	0.22	0.93	0.47
Nickel	7440-02-0	mg/kg	11.2	10.6	NA	95.7	NA	5.16	8.83	2	19.6	1020	6.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.2	1.9	NA	5.8	NA	1.14	1.87	0.84	1.1	3.1	< 0.579

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03	G10-2-03	G10-269-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999	11/22/1999	9/27/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N
Sample Name			G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N	G10-2-031N	G10-269-021N
Parent Sample				G10-16-021N					G10-18-041.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.15	0.14	NA	5.5	NA	< 0.308087	< 0.305	< 0.32	0.16	0.37	0.283
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 0.92	NA	< 5.1	NA	< 1.026956	< 1.02	< 1.1	< 0.83	< 1.1	< 1.16
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	69.5	58.7	NA	623	NA	45.1	56.4	12.2	214	357	48.5
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	17100	NA	NA	30500	NA	38500	NA	18000	20400	114000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	4.7	NA	NA	6.1	NA	NA	NA	5.2	2.1	7.3	NA
Gravel	ARC-PGRAVEL	%	51.4	NA	NA	37.1	NA	NA	NA	46.8	73	32.2	NA
Sand	ARC-PSAND	%	29.3	NA	NA	45	NA	NA	NA	36.9	20.1	44.4	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	91.9	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	68.4	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	22.5	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	80.8	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	42.6	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	27.1	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	53.9	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	33.8	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	14.6	NA	NA	11.8	NA	NA	NA	11.2	4.9	16.1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-269-03	G10-271-01	G10-271-02	G10-3-01	G10-3-01	G10-4-02	G10-4-05	G10-459-04	G10-459-05	G10-5-02	G10-5-03
Depths			0.0-1.3 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/13/2000	7/13/2000	9/27/2000	12/15/1999	12/15/1999	12/14/1999	12/14/1999	4/18/2000	12/15/1999	12/15/1999	4/18/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			G10-269-031.25N	G10-271-010.5N	G10-271-022N	G10-3-010.5N	G10-3-010.5FD	G10-4-020.8N	G10-4-051N	G10-459-041N	G10-459-052N	G10-5-021N	G10-5-031.5N
Parent Sample							G10-3-010.5N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G10-269-03 0.0-1.3 ft 7/13/2000 N G10-269-031.25N	G10-271-01 0.0-0.5 ft 7/13/2000 N G10-271-010.5N	G10-271-02 0.0-2.0 ft 9/27/2000 N G10-271-022N	G10-3-01 0.0-0.5 ft 12/15/1999 N G10-3-010.5N	G10-3-01 0.0-0.5 ft 12/15/1999 FD G10-3-010.5FD G10-3-010.5N	G10-4-02 0.0-0.8 ft 12/14/1999 N G10-4-020.8N	G10-4-05 0.0-1.0 ft 12/14/1999 N G10-4-051N	G10-459-04 0.0-1.0 ft 4/18/2000 N G10-459-041N	G10-459-05 0.0-2.0 ft 12/15/1999 N G10-459-052N	G10-5-02 0.0-1.0 ft 12/15/1999 N G10-5-021N	G10-5-03 0.0-1.5 ft 4/18/2000 N G10-5-031.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 337.728	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2,4-Dichlorophenol	120-83-2	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	< 684.904	< 675.456	< 786	< 910	< 790	< 790	< 790	< 76	< 760	< 800	< 78
2,4-Dinitrotoluene	121-14-2	ug/kg	< 342	< 338	< 393	< 460	< 400	< 400	< 400	< 380	< 380	< 400	28
2,6-Dinitrotoluene	606-20-2	ug/kg	< 342	< 338	< 393	< 460	< 400	< 400	< 400	< 380	< 380	< 400	< 390
2-Chloronaphthalene	91-58-7	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2-Chlorophenol	95-57-8	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
2-Nitrotoluene	88-72-2	ug/kg	< 342.452	< 337.728	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 684.904	< 675.456	< 786	< 910	< 790	< 790	< 790	< 76	< 760	< 800	< 78
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 684.904	< 675.456	< 786	< 910	< 790	< 790	< 790	< 76	< 760	< 800	< 78
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-269-03	G10-271-01	G10-271-02	G10-3-01	G10-3-01	G10-4-02	G10-4-05	G10-459-04	G10-459-05	G10-5-02	G10-5-03
Depths			0.0-1.3 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/13/2000	7/13/2000	9/27/2000	12/15/1999	12/15/1999	12/14/1999	12/14/1999	4/18/2000	12/15/1999	12/15/1999	4/18/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			G10-269-031.25N	G10-271-010.5N	G10-271-022N	G10-3-010.5N	G10-3-010.5FD	G10-4-020.8N	G10-4-051N	G10-459-041N	G10-459-052N	G10-5-021N	G10-5-031.5N
Parent Sample							G10-3-010.5N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 786	< 910	< 790	< 790	< 790	< 76	< 760	< 800	< 78
4-Nitrotoluene	99-99-0	ug/kg	< 684.904	< 675.456	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	25	130	< 38	< 380	< 400	< 39
Acenaphthylene	208-96-8	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	51	69	< 38	< 380	19	31
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 342.452	103	< 393	< 460	< 400	150	290	< 38	< 380	29	36
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	< 460	< 400	NA	NA	NA	< 380	110	NA
Benzo[a]anthracene	56-55-3	ug/kg	44.86	350	103	< 460	< 400	190	600	99	45	120	570
Benzo[a]pyrene	50-32-8	ug/kg	< 342.452	232	57.8	< 460	< 400	170	510	80	28	130	500
Benzo[b]fluoranthene	205-99-2	ug/kg	92.8	514	163	< 460	< 400	370	930	120	66	240	780
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 342.452	174	< 393	NA	NA	110	340	< 38	NA	NA	310
Benzo[k]fluoranthene	207-08-9	ug/kg	< 342.452	139	< 393	< 460	< 400	< 400	350	< 38	< 380	98	240
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 342.452	130	< 393	250	300	< 400	< 400	< 38	83	580	210
Butylbenzylphthalate	85-68-7	ug/kg	< 342.452	312	< 393	< 460	< 400	< 400	< 400	< 38	< 380	870	790
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	90.06	642	193	< 460	< 400	250	650	86	65	140	810
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 342.452	115	< 393	< 460	< 400	< 400	120	< 38	< 380	< 400	220
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	40	< 380	660	430
Dimethylphthalate	131-11-3	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Di-n-butylphthalate	84-74-2	ug/kg	< 342.452	77.68	< 393	< 460	37	< 400	28	< 38	< 380	970	110
Di-n-octylphthalate	117-84-0	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Fluoranthene	206-44-0	ug/kg	166	698	261	< 460	< 400	390	1200	160	83	240	460
Fluorene	86-73-7	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	33	120	< 38	< 380	< 400	< 39
Hexachlorobenzene	118-74-1	ug/kg	NA	< 337.728	< 393	< 460	< 400	NA	NA	< 38	< 380	< 400	< 39
Hexachlorobutadiene	87-68-3	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Hexachloroethane	67-72-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 342.452	150	< 393	< 460	< 400	98	300	< 38	< 380	95	230
Isophorone	78-59-1	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-269-03	G10-271-01	G10-271-02	G10-3-01	G10-3-01	G10-4-02	G10-4-05	G10-459-04	G10-459-05	G10-5-02	G10-5-03
Depths			0.0-1.3 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/13/2000	7/13/2000	9/27/2000	12/15/1999	12/15/1999	12/14/1999	12/14/1999	4/18/2000	12/15/1999	12/15/1999	4/18/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			G10-269-031.25N	G10-271-010.5N	G10-271-022N	G10-3-010.5N	G10-3-010.5FD	G10-4-020.8N	G10-4-051N	G10-459-041N	G10-459-052N	G10-5-021N	G10-5-031.5N
Parent Sample							G10-3-010.5N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 342.452	NA	< 393	< 460	< 400	30	53	< 38	< 380	< 400	27
Nitrobenzene	98-95-3	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	NA	NA	< 38	< 380	< 400	< 39
N-Nitrosodimethylamine	62-75-9	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	720	85
Pentachlorophenol	87-86-5	ug/kg	< 684.904	< 675.456	< 786	< 910	< 790	< 790	< 790	< 76	< 760	< 800	< 78
Phenanthrene	85-01-8	ug/kg	54.45	275	122	< 460	< 400	300	940	52	41	97	200
Phenol	108-95-2	ug/kg	< 342.452	< 337.728	< 393	< 460	< 400	< 400	< 400	< 38	< 380	< 400	< 39
Pyrene	129-00-0	ug/kg	< 342.452	513	257	< 460	< 400	710	1500	150	< 380	260	620
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	< 2
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	< 2
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	< 2
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	< 2
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	< 2
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	340	160
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	41	< 4
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	486	160

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-269-03	G10-271-01	G10-271-02	G10-3-01	G10-3-01	G10-4-02	G10-4-05	G10-459-04	G10-459-05	G10-5-02	G10-5-03
Depths			0.0-1.3 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/13/2000	7/13/2000	9/27/2000	12/15/1999	12/15/1999	12/14/1999	12/14/1999	4/18/2000	12/15/1999	12/15/1999	4/18/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			G10-269-031.25N	G10-271-010.5N	G10-271-022N	G10-3-010.5N	G10-3-010.5FD	G10-4-020.8N	G10-4-051N	G10-459-041N	G10-459-052N	G10-5-021N	G10-5-031.5N
Parent Sample							G10-3-010.5N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 500	< 500	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 500	< 500	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 500	< 500	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	90900	103000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	< 5000	2900	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 500	< 500	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 500	< 500	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 500	< 500	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.582104	0.96	1.22	9.7	4.3	0.77	0.79	< 0.6	< 0.53	< 0.6	0.92
Arsenic	7440-38-2	mg/kg	13.3	13.6	11.1	90.6	89.4	22.7	41	3.2	6.6	9.5	9.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.417	0.241	0.566	5.2	5	0.54	0.62	0.42	0.24	0.43	0.36
Cadmium	7440-43-9	mg/kg	0.266	0.074	0.331	11.8	11.5	2.3	2.2	< 0.3	0.34	1.5	0.37
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.8	16.2	12.5	486	508	31.3	32.6	13	3.8	18.6	14.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	29.1	62.2	61.9	392	392	244	140	37.3	22.2	97.4	76.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	95.6	400	314	2910	3990	370	995	23	32.3	304	242
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.105	0.938	0.9	29.2	19.7	13.8	6.8	0.06	0.06	1.7	0.86
Nickel	7440-02-0	mg/kg	10.2	14.4	11.8	1070	1080	169	56.3	6.2	7.6	13.8	11.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.16	0.684	0.701	6.6	4.2	3.9	3.2	0.39	1.7	1.6	1.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-269-03	G10-271-01	G10-271-02	G10-3-01	G10-3-01	G10-4-02	G10-4-05	G10-459-04	G10-459-05	G10-5-02	G10-5-03
Depths			0.0-1.3 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/13/2000	7/13/2000	9/27/2000	12/15/1999	12/15/1999	12/14/1999	12/14/1999	4/18/2000	12/15/1999	12/15/1999	4/18/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			G10-269-031.25N	G10-271-010.5N	G10-271-022N	G10-3-010.5N	G10-3-010.5FD	G10-4-020.8N	G10-4-051N	G10-459-041N	G10-459-052N	G10-5-021N	G10-5-031.5N
Parent Sample							G10-3-010.5N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.291052	0.357	0.368	1.8	1.9	0.14	0.36	< 0.3	0.17	0.39	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.970173	< 0.913693	< 1.14	< 13.5	< 11.6	< 0.96	1.1	< 1	< 1.1	< 1.2	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	60.2	66	72.6	907	944	271	843	60.8	38.6	326	142
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	54000	24900	NA	37700	NA	38400	NA	NA	29700	41200	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	6	NA	4.2	NA	NA	5.5	5.4	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	45.7	NA	53.4	NA	NA	39.6	51.3	NA
Sand	ARC-PSAND	%	NA	NA	NA	33.1	NA	34	NA	NA	46.5	34.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	79.3	64	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	86.4	94.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	86.4	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	69.5	37.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	35.9	12.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	74.6	45.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	55.4	24.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	41.4	16.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	63	29.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	47.8	20.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	15.2	NA	8.4	NA	NA	8.5	8.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8106-01	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999
Sample Type			N	N	N	FD	N	FD	N	N	N	N
Sample Name			G10-8106-010.5N	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N
Parent Sample						G10-8106-020.5N		G10-8106-022N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1059	NA	< 1330	< 1025	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2119	NA	< 2660	< 2049	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	123	NA	< 1300	< 1025	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 530	NA	540	< 512	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1059	NA	< 1300	< 1025	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 530	NA	376	< 512	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1059	NA	< 1300	< 1025	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8106-01	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999
Sample Type			N	N	N	FD	N	FD	N	N	N	N
Sample Name			G10-8106-010.5N	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N
Parent Sample						G10-8106-020.5N		G10-8106-022N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 530	NA	< 665	< 2513	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 512	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 530	NA	< 665	< 512	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 530	NA	840	1897	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1059	NA	NA	< 1025	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 400	NA	NA	< 390	< 400	280	< 390	1700	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 2000	NA	NA	< 2000	< 2000	< 2100	< 1900	< 2000	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 400	NA	NA	58	50	< 410	54	96	300
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	60	NA	NA	< 390	< 400	< 410	< 390	< 400	85
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
2-Chlorophenol	95-57-8	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 800	NA	NA	< 780	< 790	< 820	< 780	< 790	< 750
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 2000	NA	NA	< 2000	< 2000	< 2100	< 1900	< 2000	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8106-01	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999
Sample Type			N	N	N	FD	N	FD	N	N	N	N
Sample Name			G10-8106-010.5N	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N
Parent Sample						G10-8106-020.5N		G10-8106-022N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	NA	NA	< 2000	< 2000	< 2100	< 1900	< 2000	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 400	NA	NA	< 390	< 400	37	50	< 400	< 370
Acenaphthylene	208-96-8	ug/kg	NA	66	NA	NA	110	39	660	< 390	140	< 370
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	53	NA	NA	120	50	600	73	200	28
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	380	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	470	NA	NA	1700	200	590	310	370	98
Benzo[a]pyrene	50-32-8	ug/kg	NA	480	NA	NA	1700	250	290	240	320	91
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	760	NA	NA	3700	620	920	360	510	180
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	840	150	290	200	220	< 370
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	440	NA	NA	1200	190	340	140	280	< 370
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 400	NA	NA	< 390	< 44	94	3000	< 400	52
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	570	NA	NA	1700	290	870	350	370	200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	130	NA	NA	380	< 400	< 410	81	< 400	< 370
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	460	< 400	< 370
Dimethylphthalate	131-11-3	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	49	< 400	< 370
Di-n-butylphthalate	84-74-2	ug/kg	NA	120	NA	NA	46	44	140	1400	< 400	75
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Fluoranthene	206-44-0	ug/kg	NA	1000	NA	NA	1700	580	5400	470	710	230
Fluorene	86-73-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	47	< 390	49	< 370
Hexachlorobenzene	118-74-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Hexachloroethane	67-72-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	340	NA	NA	800	130	310	160	210	< 370
Isophorone	78-59-1	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8106-01	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999
Sample Type			N	N	N	FD	N	FD	N	N	N	N
Sample Name			G10-8106-010.5N	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N
Parent Sample						G10-8106-020.5N		G10-8106-022N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	24	NA	NA	44	< 400	160	33	180	97
Nitrobenzene	98-95-3	ug/kg	NA	< 400	NA	NA	NA	NA	< 410	< 390	< 400	< 370
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	330	< 400	< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	< 400	86
Pentachlorophenol	87-86-5	ug/kg	NA	< 2000	NA	NA	< 2000	< 2000	< 2100	< 1900	< 2000	< 1900
Phenanthrene	85-01-8	ug/kg	NA	530	NA	NA	390	260	2600	240	710	230
Phenol	108-95-2	ug/kg	NA	< 400	NA	NA	< 390	< 400	< 410	< 390	230	< 370
Pyrene	129-00-0	ug/kg	NA	1500	NA	NA	3900	740	2900	640	510	200
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 38
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8106-01	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999
Sample Type			N	N	N	FD	N	FD	N	N	N	N
Sample Name			G10-8106-010.5N	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N
Parent Sample						G10-8106-020.5N		G10-8106-022N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 220	< 240	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 220	< 240	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 220	< 240	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 220	< 240	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 430	< 480	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 430	< 480	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 220	< 240	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 430	< 480	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 220	< 240	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	64300	553000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 5600	8700	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 430	< 480	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 430	< 480	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 430	< 480	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.17	NA	NA	0.8	0.46	< 0.52	179	< 0.44	0.73
Arsenic	7440-38-2	mg/kg	NA	14.3	NA	NA	13.7	16.5	15.9	41.7	10.9	8.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.32	NA	NA	0.48	0.44	0.38	0.44	0.74	0.51
Cadmium	7440-43-9	mg/kg	NA	0.74	NA	NA	0.92	1.1	0.69	8.6	0.99	< 0.31
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	23.1	NA	NA	17.6	16	40.3	186	19.2	18
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	206	NA	NA	90.5	75.6	91.6	1370	60.5	107
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	367	NA	NA	253	286	853	35300	436	298
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.62	NA	NA	0.32	0.38	2.3	0.88	33.7	0.55
Nickel	7440-02-0	mg/kg	NA	72.7	NA	NA	41.5	36	16.7	281	13.4	20.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	2.3	NA	NA	1.9	2.1	2.4	5.6	1.4	2.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8106-01	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999
Sample Type			N	N	N	FD	N	FD	N	N	N	N
Sample Name			G10-8106-010.5N	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N
Parent Sample						G10-8106-020.5N		G10-8106-022N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	0.67	NA	NA	0.18	0.15	0.21	22.6	< 0.26	< 0.31
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 0.87	NA	NA	< 0.96	< 0.83	< 1	< 8.8	< 0.88	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	304	NA	NA	228	248	168	892	200	160
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	26100	NA	NA	NA	NA	27200	13400	4430	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	4.8	NA	NA	NA	NA	3.9	5.4	18.3	NA
Gravel	ARC-PGRAVEL	%	NA	38.2	NA	NA	NA	NA	39.2	35.9	21.9	NA
Sand	ARC-PSAND	%	NA	47.9	NA	NA	NA	NA	25.3	49.7	32.4	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	9.1	NA	NA	NA	NA	31.6	9	27.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8108-07	G10-8108-08	G10-8114-03	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/23/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			G10-8108-071N	G10-8108-081N	G10-8114-032N	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1100	NA	< 1200	NA	< 1200	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	2300	NA	< 2300	NA	< 2300	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 1100	NA	< 1200	NA	< 1200	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1100	NA	< 1200	NA	< 1200	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	< 1100	NA	< 1200	NA	< 1200	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	290	NA	< 580	NA	< 580	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	260	NA	< 580	NA	< 580	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8108-07	G10-8108-08	G10-8114-03	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/23/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			G10-8108-071N	G10-8108-081N	G10-8114-032N	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	430	NA	< 580	NA	< 580	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	760	NA	< 580	NA	< 580	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 560	NA	< 580	NA	< 580	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1100	NA	< 1200	NA	< 1200	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
1,2-Dichlorobenzene	95-50-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
1,4-Dichlorobenzene	106-46-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2,4-Dichlorophenol	120-83-2	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2,4-Dimethylphenol	105-67-9	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2,4-Dinitrophenol	51-28-5	ug/kg	< 20000	< 1800	< 830	NA	NA	NA	NA	NA	NA	< 19000
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4100	52	< 420	NA	NA	NA	NA	NA	NA	< 3800
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2-Chloronaphthalene	91-58-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2-Chlorophenol	95-57-8	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 8100	< 720	< 830	NA	NA	NA	NA	NA	NA	< 7700
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 20000	< 1800	< 830	NA	NA	NA	NA	NA	NA	< 19000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8108-07	G10-8108-08	G10-8114-03	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/23/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			G10-8108-071N	G10-8108-081N	G10-8114-032N	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 20000	< 1800	< 830	NA	NA	NA	NA	NA	NA	< 19000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Acenaphthylene	208-96-8	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 420	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	660	130	52	NA	NA	NA	NA	NA	NA	< 3800
Benzo[a]pyrene	50-32-8	ug/kg	710	130	< 420	NA	NA	NA	NA	NA	NA	< 3800
Benzo[b]fluoranthene	205-99-2	ug/kg	1000	290	< 420	NA	NA	NA	NA	NA	NA	< 3800
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 4100	< 360	NA	NA	NA	NA	NA	NA	NA	< 3800
Benzo[k]fluoranthene	207-08-9	ug/kg	< 4100	91	< 420	NA	NA	NA	NA	NA	NA	< 3800
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	520	200	3100	NA	NA	NA	NA	NA	NA	< 3800
Butylbenzylphthalate	85-68-7	ug/kg	< 4100	< 360	190000	NA	NA	NA	NA	NA	NA	< 3800
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	840	290	61	NA	NA	NA	NA	NA	NA	< 3800
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 4100	67	< 420	NA	NA	NA	NA	NA	NA	< 3800
Dimethylphthalate	131-11-3	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Di-n-butylphthalate	84-74-2	ug/kg	< 4100	180	990	NA	NA	NA	NA	NA	NA	< 3800
Di-n-octylphthalate	117-84-0	ug/kg	< 4100	< 360	470	NA	NA	NA	NA	NA	NA	< 3800
Fluoranthene	206-44-0	ug/kg	990	220	< 420	NA	NA	NA	NA	NA	NA	< 3800
Fluorene	86-73-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Hexachlorobenzene	118-74-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Hexachlorobutadiene	87-68-3	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Hexachloroethane	67-72-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Isophorone	78-59-1	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8108-07	G10-8108-08	G10-8114-03	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/23/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			G10-8108-071N	G10-8108-081N	G10-8114-032N	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 4100	33	< 420	NA	NA	NA	NA	NA	NA	< 3800
Nitrobenzene	98-95-3	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
N-Nitrosodimethylamine	62-75-9	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 4100	190	< 420	NA	NA	NA	NA	NA	NA	< 3800
Pentachlorophenol	87-86-5	ug/kg	< 20500	< 1800	< 830	NA	NA	NA	NA	NA	NA	< 19000
Phenanthrene	85-01-8	ug/kg	620	200	< 420	NA	NA	NA	NA	NA	NA	< 3800
Phenol	108-95-2	ug/kg	< 4100	< 360	< 420	NA	NA	NA	NA	NA	NA	< 3800
Pyrene	129-00-0	ug/kg	1400	300	< 420	NA	NA	NA	NA	NA	NA	< 3800
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 210	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 210	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 210	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 210	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 210	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	1900	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	1500	130	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	3400	130	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8108-07	G10-8108-08	G10-8114-03	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/23/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			G10-8108-071N	G10-8108-081N	G10-8114-032N	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	10.7	1.3	< 0.63	NA	0.6	NA	< 0.57	NA	< 0.61	1.4
Arsenic	7440-38-2	mg/kg	99.7	7.5	11.7	NA	20.1	NA	4.9	NA	5.6	10.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.33	0.44	0.45	NA	0.35	NA	0.48	NA	0.75	0.5
Cadmium	7440-43-9	mg/kg	3.3	1.9	2.9	NA	0.88	NA	0.65	NA	0.7	0.5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	26.9	14.9	10.4	NA	24.1	NA	12.2	NA	21.1	13.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	317	232	1490	NA	116	NA	52.2	NA	21.7	184
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	7650	1120	183	NA	806	NA	84.1	NA	19.5	448
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.72	1.6	0.75	NA	1.1	NA	0.24	NA	0.08	1.2
Nickel	7440-02-0	mg/kg	19.7	12.5	11	NA	9	NA	7.4	NA	13.8	12.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2	1.2	1.1	NA	1.7	NA	< 0.57	NA	< 0.61	1.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8108-07	G10-8108-08	G10-8114-03	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			11/23/1999	11/23/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			G10-8108-071N	G10-8108-081N	G10-8114-032N	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	5	0.76	0.26	NA	0.29	NA	0.11	NA	< 0.36	0.15
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 3.9	< 0.77	< 1.3	NA	< 1.2	NA	< 1.1	NA	< 1.2	< 0.98
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	600	963	143	NA	254	NA	141	NA	72.5	143
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	30800	NA	41700	NA	34400	NA	NA	NA	NA	47700
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	4.2	NA	0.3	NA	6.1	NA	NA	NA	NA	5.6
Gravel	ARC-PGRAVEL	%	51.5	NA	66.4	NA	44.6	NA	NA	NA	NA	34.2
Sand	ARC-PSAND	%	36	NA	23.5	NA	36	NA	NA	NA	NA	51
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	8.2	NA	9.7	NA	13.3	NA	NA	NA	NA	9.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G10-8204-05 0.0-0.5 ft 11/22/1999 N G10-8204-050.5N	G10-8213-07 0.0-1.0 ft 11/30/1999 N G10-8213-071N	G10-8213-07 0.0-1.0 ft 11/30/1999 FD G10-8213-071FD G10-8213-071N	G10-8216-01 0.0-1.3 ft 7/13/2000 N G10-8216-011.25N	G10-8216-02 0.0-1.5 ft 9/27/2000 N G10-8216-021.5N	G10-8224-02 0.0-1.0 ft 11/30/1999 N G10-8224-021N	G10-8224-03 0.0-1.0 ft 11/30/1999 N G10-8224-031N	G10-8224-04 0.0-1.5 ft 11/30/1999 N G10-8224-041.5N	G10-8501-06 0.0-1.0 ft 12/16/1999 N G10-8501-061N	G10-8502-03 0.0-0.5 ft 12/15/1999 N G10-8502-030.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8204-05	G10-8213-07	G10-8213-07	G10-8216-01	G10-8216-02	G10-8224-02	G10-8224-03	G10-8224-04	G10-8501-06	G10-8502-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			11/22/1999	11/30/1999	11/30/1999	7/13/2000	9/27/2000	11/30/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			G10-8204-050.5N	G10-8213-071N	G10-8213-071FD	G10-8216-011.25N	G10-8216-021.5N	G10-8224-021N	G10-8224-031N	G10-8224-041.5N	G10-8501-061N	G10-8502-030.5N
Parent Sample					G10-8213-071N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 351.934	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	< 21000	< 1900	< 1900	< 703.868	< 754	< 1700	< 2000	< 2100	< 780	< 790
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4100	< 380	31	< 352	< 377	< 330	< 390	< 410	< 390	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4100	< 380	< 380	< 352	< 377	< 330	< 390	< 410	< 390	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
2-Chlorophenol	95-57-8	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 4100	< 380	< 380	NA	< 377	< 330	< 390	< 410	< 390	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 351.934	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 8200	< 770	< 760	< 703.868	< 754	< 670	< 780	< 820	< 780	< 790
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 21000	< 1900	< 1900	< 703.868	< 754	< 1700	< 2000	< 2100	< 780	< 790
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8204-05	G10-8213-07	G10-8213-07	G10-8216-01	G10-8216-02	G10-8224-02	G10-8224-03	G10-8224-04	G10-8501-06	G10-8502-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			11/22/1999	11/30/1999	11/30/1999	7/13/2000	9/27/2000	11/30/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			G10-8204-050.5N	G10-8213-071N	G10-8213-071FD	G10-8216-011.25N	G10-8216-021.5N	G10-8224-021N	G10-8224-031N	G10-8224-041.5N	G10-8501-061N	G10-8502-030.5N
Parent Sample					G10-8213-071N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 21000	< 1900	< 1900	NA	< 754	< 1700	< 2000	< 2100	< 780	< 790
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 703.868	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	330	< 390	< 410	< 390	< 400
Acenaphthylene	208-96-8	ug/kg	< 4100	36	30	< 351.934	< 377	20	< 390	< 410	21	< 400
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 4100	25	23	< 351.934	< 377	390	< 390	< 410	48	< 400
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	96
Benzo[a]anthracene	56-55-3	ug/kg	< 4100	50	41	192	105	1100	39	82	240	< 400
Benzo[a]pyrene	50-32-8	ug/kg	< 4100	43	42	156	60.3	1300	42	110	290	< 400
Benzo[b]fluoranthene	205-99-2	ug/kg	< 4100	130	91	305	119	1700	< 390	140	450	140
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 4100	< 380	< 380	86.93	< 377	1100	< 390	< 410	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 4100	< 380	< 380	95.37	< 377	610	< 390	< 410	140	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	6200	41	33	29.91	< 377	< 330	< 390	< 410	< 390	210
Butylbenzylphthalate	85-68-7	ug/kg	4500	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 4100	72	58	270	131	1500	58	170	230	< 400
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	690	< 390	< 410	< 390	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	1400	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	39
Dimethylphthalate	131-11-3	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Di-n-butylphthalate	84-74-2	ug/kg	1400	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Di-n-octylphthalate	117-84-0	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Fluoranthene	206-44-0	ug/kg	< 4100	74	< 380	432	195	2100	< 390	110	360	100
Fluorene	86-73-7	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	230	< 390	< 410	< 390	< 400
Hexachlorobenzene	118-74-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Hexachlorobutadiene	87-68-3	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Hexachloroethane	67-72-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 4100	72	< 380	83.06	< 377	810	< 390	< 410	< 390	< 400
Isophorone	78-59-1	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8204-05	G10-8213-07	G10-8213-07	G10-8216-01	G10-8216-02	G10-8224-02	G10-8224-03	G10-8224-04	G10-8501-06	G10-8502-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			11/22/1999	11/30/1999	11/30/1999	7/13/2000	9/27/2000	11/30/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			G10-8204-050.5N	G10-8213-071N	G10-8213-071FD	G10-8216-011.25N	G10-8216-021.5N	G10-8224-021N	G10-8224-031N	G10-8224-041.5N	G10-8501-061N	G10-8502-030.5N
Parent Sample					G10-8213-071N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 4100	< 380	< 380	NA	< 377	74	< 390	< 410	< 390	< 400
Nitrobenzene	98-95-3	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	850	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Pentachlorophenol	87-86-5	ug/kg	< 21000	< 1900	< 1900	< 703.868	< 754	< 1700	< 2000	< 2100	< 780	< 790
Phenanthrene	85-01-8	ug/kg	< 4100	< 380	22	147	73.9	2400	48	120	240	73
Phenol	108-95-2	ug/kg	< 4100	< 380	< 380	< 351.934	< 377	< 330	< 390	< 410	< 390	< 400
Pyrene	129-00-0	ug/kg	< 4100	< 380	< 380	258	232	2200	< 390	< 410	610	110
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 17.60727	< 37.7	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 17.60727	< 37.7	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 17.60727	< 37.7	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 17.60727	< 37.7	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 17.60727	< 37.7	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	219	110	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 35.21454	< 75.5	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	219	110	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G10-8204-05 0.0-0.5 ft 11/22/1999 N G10-8204-050.5N	G10-8213-07 0.0-1.0 ft 11/30/1999 N G10-8213-071N	G10-8213-07 0.0-1.0 ft 11/30/1999 FD G10-8213-071FD G10-8213-071N	G10-8216-01 0.0-1.3 ft 7/13/2000 N G10-8216-011.25N	G10-8216-02 0.0-1.5 ft 9/27/2000 N G10-8216-021.5N	G10-8224-02 0.0-1.0 ft 11/30/1999 N G10-8224-021N	G10-8224-03 0.0-1.0 ft 11/30/1999 N G10-8224-031N	G10-8224-04 0.0-1.5 ft 11/30/1999 N G10-8224-041.5N	G10-8501-06 0.0-1.0 ft 12/16/1999 N G10-8501-061N	G10-8502-03 0.0-0.5 ft 12/15/1999 N G10-8502-030.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.44	0.69	2	< 0.634115	< 0.667	< 0.5	< 0.43	< 0.5	0.64	< 4.9
Arsenic	7440-38-2	mg/kg	4	32.3	35.6	5.98	6.63	32.7	7.9	17.3	25.8	25.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.62	0.39	0.35	0.306	0.847	0.5	0.46	0.61	0.62	1.1
Cadmium	7440-43-9	mg/kg	1.4	0.66	0.63	0.08	0.271	0.53	0.64	0.59	< 0.31	4.7
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.7	16.5	17.3	18.1	22.9	14.2	13.7	16.9	16.7	94.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	122	86.9	126	60	43.4	44.8	55.5	60	185	164
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	103	3420	2730	107	53	309	83.2	226	361	2660
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.65	0.78	1.3	0.158	0.147	0.14	2.2	1.3	5.1	5.9
Nickel	7440-02-0	mg/kg	18.3	12.9	16.7	15.3	16.4	13.5	9.9	12.7	18.3	695
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.44	2.5	3.7	0.59	< 0.556	0.94	2.2	2.8	3.7	4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8204-05	G10-8213-07	G10-8213-07	G10-8216-01	G10-8216-02	G10-8224-02	G10-8224-03	G10-8224-04	G10-8501-06	G10-8502-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			11/22/1999	11/30/1999	11/30/1999	7/13/2000	9/27/2000	11/30/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			G10-8204-050.5N	G10-8213-071N	G10-8213-071FD	G10-8216-011.25N	G10-8216-021.5N	G10-8224-021N	G10-8224-031N	G10-8224-041.5N	G10-8501-061N	G10-8502-030.5N
Parent Sample					G10-8213-071N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.4	0.43	0.45	< 0.317058	< 0.334	< 0.3	< 0.26	< 0.3	< 0.31	< 2.9
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.88	< 0.92	< 2	< 1.056859	< 1.11	< 1	< 0.86	< 1	1.8	< 9.8
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	367	150	152	118	137	339	82.6	135	243	1010
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	12100	NA	94100	NA	26900	NA	NA	26000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	6.1	NA	NA	NA	4	NA	NA	7.1	NA
Gravel	ARC-PGRAVEL	%	NA	42.2	NA	NA	NA	48.4	NA	NA	35.7	NA
Sand	ARC-PSAND	%	NA	41.4	NA	NA	NA	39.4	NA	NA	41.8	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	81.7	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	89.7	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	67.2	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	10.5	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	75.7	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	34.2	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	14.1	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	51.1	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	21	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	10.4	NA	NA	NA	8.3	NA	NA	15.4	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8502-07	G10-8503-03	G10-8503-03	G10-8503-03	G10-8503-03	G10-8522-01	G10-8522-01	G10-8522-02	G10-8682-05	G10-9100-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/15/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/15/1999	12/15/1999	12/15/1999	12/2/1999	11/22/1999
Sample Type			N	N	FD	N	FD	N	FD	N	N	N
Sample Name			G10-8502-071N	G10-8503-030.5N	G10-8503-030.5FD	G10-8503-032N	G10-8503-032FD	G10-8522-011.5N	G10-8522-011.5FD	G10-8522-020.5N	G10-8682-052N	G10-9100-010.5N
Parent Sample					G10-8503-030.5N		G10-8503-032N		G10-8522-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1200	< 1400	NA	NA	NA	NA	NA	< 1100	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2400	< 2800	NA	NA	NA	NA	NA	< 2200	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Benzene	71-43-2	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Bromoform	75-25-2	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Bromomethane	74-83-9	ug/kg	NA	< 1200	< 1400	NA	NA	NA	NA	NA	< 1100	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Chloroethane	75-00-3	ug/kg	NA	< 1200	< 1400	NA	NA	NA	NA	NA	< 1100	NA
Chloroform	67-66-3	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Chloromethane	74-87-3	ug/kg	NA	< 1200	< 1400	NA	NA	NA	NA	NA	< 1100	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8502-07	G10-8503-03	G10-8503-03	G10-8503-03	G10-8503-03	G10-8522-01	G10-8522-01	G10-8522-02	G10-8682-05	G10-9100-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/15/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/15/1999	12/15/1999	12/15/1999	12/2/1999	11/22/1999
Sample Type			N	N	FD	N	FD	N	FD	N	N	N
Sample Name			G10-8502-071N	G10-8503-030.5N	G10-8503-030.5FD	G10-8503-032N	G10-8503-032FD	G10-8522-011.5N	G10-8522-011.5FD	G10-8522-020.5N	G10-8682-052N	G10-9100-010.5N
Parent Sample					G10-8503-030.5N		G10-8503-032N		G10-8522-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 600	< 1500	NA	NA	NA	NA	NA	< 560	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 140	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	470	570	NA	NA	NA	NA	NA	< 560	NA
Toluene	108-88-3	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	< 560	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 600	< 700	NA	NA	NA	NA	NA	400	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1200	< 1400	NA	NA	NA	NA	NA	< 1100	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	NA	NA	< 890	< 900	NA	NA	NA	< 7700	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2-Chlorophenol	95-57-8	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 7700	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	NA	NA	< 890	< 900	NA	NA	NA	< 7700	< 760
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	NA	NA	< 890	< 900	NA	NA	NA	< 7700	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G10-8502-07 0.0-1.0 ft 12/15/1999 N G10-8502-071N	G10-8503-03 0.0-0.5 ft 12/17/1999 N G10-8503-030.5N	G10-8503-03 0.0-0.5 ft 12/17/1999 FD G10-8503-030.5FD G10-8503-030.5N	G10-8503-03 0.0-2.0 ft 12/17/1999 N G10-8503-032N	G10-8503-03 0.0-2.0 ft 12/17/1999 FD G10-8503-032FD G10-8503-032N	G10-8522-01 0.0-1.5 ft 12/15/1999 N G10-8522-011.5N	G10-8522-01 0.0-1.5 ft 12/15/1999 FD G10-8522-011.5FD G10-8522-011.5N	G10-8522-02 0.0-0.5 ft 12/15/1999 N G10-8522-020.5N	G10-8682-05 0.0-2.0 ft 12/2/1999 N G10-8682-052N	G10-9100-01 0.0-0.5 ft 11/22/1999 N G10-9100-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 780	NA	NA	< 890	< 900	NA	NA	NA	< 3800	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	NA	NA	590	530	NA	NA	NA	< 3800	23
Acenaphthylene	208-96-8	ug/kg	< 390	NA	NA	86	430	NA	NA	NA	< 3800	65
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	35	NA	NA	1400	1400	NA	NA	NA	< 3800	110
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 390	NA	NA	1900	2200	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	80	NA	NA	3200	4100	NA	NA	NA	< 3800	490
Benzo[a]pyrene	50-32-8	ug/kg	< 390	NA	NA	2900	3500	NA	NA	NA	< 3800	470
Benzo[b]fluoranthene	205-99-2	ug/kg	110	NA	NA	4000	4600	NA	NA	NA	< 3800	860
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 3800	240
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	NA	NA	1900	2700	NA	NA	NA	< 3800	340
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	90	NA	NA	< 440	< 450	NA	NA	NA	< 3800	82
Butylbenzylphthalate	85-68-7	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	74	NA	NA	3100	3900	NA	NA	NA	< 3800	600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	NA	NA	520	590	NA	NA	NA	< 3800	< 380
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	41
Dimethylphthalate	131-11-3	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Di-n-butylphthalate	84-74-2	ug/kg	60	NA	NA	< 440	< 450	NA	NA	NA	< 3800	62
Di-n-octylphthalate	117-84-0	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Fluoranthene	206-44-0	ug/kg	110	NA	NA	3500	4000	NA	NA	NA	< 3800	960
Fluorene	86-73-7	ug/kg	< 390	NA	NA	590	850	NA	NA	NA	< 3800	40
Hexachlorobenzene	118-74-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	NA	< 380
Hexachlorobutadiene	87-68-3	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Hexachloroethane	67-72-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	NA	NA	1700	1900	NA	NA	NA	< 3800	240
Isophorone	78-59-1	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8502-07	G10-8503-03	G10-8503-03	G10-8503-03	G10-8503-03	G10-8522-01	G10-8522-01	G10-8522-02	G10-8682-05	G10-9100-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/15/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/15/1999	12/15/1999	12/15/1999	12/2/1999	11/22/1999
Sample Type			N	N	FD	N	FD	N	FD	N	N	N
Sample Name			G10-8502-071N	G10-8503-030.5N	G10-8503-030.5FD	G10-8503-032N	G10-8503-032FD	G10-8522-011.5N	G10-8522-011.5FD	G10-8522-020.5N	G10-8682-052N	G10-9100-010.5N
Parent Sample					G10-8503-030.5N		G10-8503-032N		G10-8522-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 390	NA	NA	420	460	NA	NA	NA	< 3800	< 380
Nitrobenzene	98-95-3	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Pentachlorophenol	87-86-5	ug/kg	< 780	NA	NA	< 890	< 900	NA	NA	NA	< 7700	< 1900
Phenanthrene	85-01-8	ug/kg	89	NA	NA	4100	4800	NA	NA	NA	< 3800	630
Phenol	108-95-2	ug/kg	< 390	NA	NA	< 440	< 450	NA	NA	NA	< 3800	< 380
Pyrene	129-00-0	ug/kg	160	NA	NA	6700	12000	NA	NA	NA	< 3800	880
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	110	< 220	40	< 2000	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	110	< 220	40	< 2000	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	110	< 220	40	< 2000	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	110	< 220	40	< 2000	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	110	< 220	40	< 2000	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	1800	< 220	670	< 2000	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	210	< 430	78	4400	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	2560	< 430	948	4400	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G10-8502-07 0.0-1.0 ft 12/15/1999 N G10-8502-071N	G10-8503-03 0.0-0.5 ft 12/17/1999 N G10-8503-030.5N	G10-8503-03 0.0-0.5 ft 12/17/1999 FD G10-8503-030.5FD G10-8503-030.5N	G10-8503-03 0.0-2.0 ft 12/17/1999 N G10-8503-032N	G10-8503-03 0.0-2.0 ft 12/17/1999 FD G10-8503-032FD G10-8503-032N	G10-8522-01 0.0-1.5 ft 12/15/1999 N G10-8522-011.5N	G10-8522-01 0.0-1.5 ft 12/15/1999 FD G10-8522-011.5FD G10-8522-011.5N	G10-8522-02 0.0-0.5 ft 12/15/1999 N G10-8522-020.5N	G10-8682-05 0.0-2.0 ft 12/2/1999 N G10-8682-052N	G10-9100-01 0.0-0.5 ft 11/22/1999 N G10-9100-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.94	NA	NA	1.3	1	NA	NA	2.6	< 0.47	1.1
Arsenic	7440-38-2	mg/kg	319	NA	NA	42.4	36.1	NA	NA	22.6	7	197
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.67	NA	NA	0.68	1.8	NA	NA	0.48	0.46	0.34
Cadmium	7440-43-9	mg/kg	2.7	NA	NA	< 0.37	< 0.4	NA	NA	2	< 0.28	0.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	72.6	NA	NA	51.7	61.7	NA	NA	113	13.9	13.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	164	NA	NA	112	127	NA	NA	370	76	76.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	495	NA	NA	211	164	NA	NA	1110	85.1	965
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	13	NA	NA	65.2	48.5	NA	NA	2.6	0.22	0.42
Nickel	7440-02-0	mg/kg	82.5	NA	NA	22.8	25.9	NA	NA	117	10	10.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	27.1	NA	NA	7.6	7.6	NA	NA	1.4	1.4	2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-8502-07	G10-8503-03	G10-8503-03	G10-8503-03	G10-8503-03	G10-8522-01	G10-8522-01	G10-8522-02	G10-8682-05	G10-9100-01
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/15/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/15/1999	12/15/1999	12/15/1999	12/2/1999	11/22/1999
Sample Type			N	N	FD	N	FD	N	FD	N	N	N
Sample Name			G10-8502-071N	G10-8503-030.5N	G10-8503-030.5FD	G10-8503-032N	G10-8503-032FD	G10-8522-011.5N	G10-8522-011.5FD	G10-8522-020.5N	G10-8682-052N	G10-9100-010.5N
Parent Sample					G10-8503-030.5N		G10-8503-032N		G10-8522-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.62	NA	NA	0.13	< 0.4	NA	NA	1.1	< 0.28	0.15
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.2	NA	NA	2	1.9	NA	NA	< 11	< 0.93	< 0.9
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	293	NA	NA	222	187	NA	NA	1250	149	88.8
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	33300	NA	NA	47000	NA	NA	NA	13700	7440	37000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	5.3	NA	NA	NA	NA	7.4	NA	NA	2.7	8.8
Gravel	ARC-PGRAVEL	%	51.8	NA	NA	NA	NA	43.1	NA	NA	52.3	37.6
Sand	ARC-PSAND	%	31.3	NA	NA	NA	NA	42.7	NA	NA	38.3	39.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	11.6	NA	NA	NA	NA	6.8	NA	NA	6.7	13.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06	G11-2017B-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999	12/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N	G11-2017B-010.5N
Parent Sample								G11-1-021N		G11-1-020.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 563	NA	NA	< 727	< 590	NA	NA	< 530
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 563	NA	NA	< 727	< 590	NA	NA	< 530
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 563	NA	NA	< 727	< 590	NA	NA	< 530
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1126.126	NA	NA	< 1450	< 1180	NA	NA	< 1100
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 2252.252	NA	NA	< 2910	< 2360	NA	NA	< 2100
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Benzene	71-43-2	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 1450	< 1180	NA	NA	< 1100
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1126.126	NA	NA	< 1450	< 1180	NA	NA	< 1100
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Chloromethane	74-87-3	ug/kg	NA	NA	NA	280	NA	NA	< 1450	< 1180	NA	NA	< 1100
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	< 563.063	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	< 727	< 590	NA	NA	< 530
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 563	NA	NA	< 727	< 590	NA	NA	< 530
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06	G11-2017B-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999	12/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N	G11-2017B-010.5N
Parent Sample								G11-1-021N		G11-1-020.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 341.154	NA	NA	1850	NA	NA	943	762	NA	NA	< 530
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 590	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	800
Toluene	108-88-3	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	120
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 563.063	NA	NA	< 727	< 590	NA	NA	< 530
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1126.126	NA	NA	< 1450	< 1180	NA	NA	< 1100
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 341.154	< 390	NA	NA	< 385	< 388	NA	NA	< 420	< 410	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 682.308	< 2000	< 710.93	NA	< 769	< 775	NA	NA	< 840	< 810	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 341	< 390	< 355	NA	< 385	< 388	NA	NA	< 420	3900	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 341	< 390	< 355	NA	< 385	< 388	NA	NA	< 420	950	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2-Chlorophenol	95-57-8	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 390	NA	NA	< 385	< 388	NA	NA	< 420	< 410	NA
2-Nitrotoluene	88-72-2	ug/kg	< 341.154	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 682.308	< 780	< 710.93	NA	< 769	< 775	NA	NA	< 840	< 810	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 682.308	< 2000	< 710.93	NA	< 769	< 775	NA	NA	< 840	< 810	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06	G11-2017B-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999	12/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N	G11-2017B-010.5N
Parent Sample								G11-1-021N		G11-1-020.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	NA	NA	< 769	< 775	NA	NA	< 840	< 820	NA
4-Nitrotoluene	99-99-0	ug/kg	< 682.308	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Acenaphthylene	208-96-8	ug/kg	< 341.154	170	< 355.465	NA	< 385	< 388	NA	NA	< 420	72	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 341.154	240	57.59	NA	57.7	< 388	NA	NA	57	130	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 420	200	NA
Benzo[a]anthracene	56-55-3	ug/kg	48.79	2000	287	NA	188	140	NA	NA	160	700	NA
Benzo[a]pyrene	50-32-8	ug/kg	45.71	1600	306	NA	173	114	NA	NA	140	450	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	105	2700	588	NA	324	229	NA	NA	280	1300	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 341.154	550	250	NA	159	109	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 341.154	990	192	NA	88.8	64.4	NA	NA	100	450	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	29.68	410	78.91	NA	< 385	33.3	NA	NA	< 420	57	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 341.154	< 390	< 355.465	< 1126	< 385	< 388	NA	NA	< 420	< 410	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	78.81	1800	376	NA	251	198	NA	NA	200	770	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 341.154	230	< 355.465	NA	< 385	< 388	NA	NA	< 420	89	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 341.154	76	< 355.465	NA	98.1	50.8	NA	NA	< 420	< 410	NA
Dimethylphthalate	131-11-3	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 341.154	270	99.89	NA	74.6	60.1	NA	NA	< 420	120	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Fluoranthene	206-44-0	ug/kg	103	2300	597	NA	358	248	NA	NA	320	930	NA
Fluorene	86-73-7	ug/kg	< 341.154	31	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Hexachlorobenzene	118-74-1	ug/kg	< 341.154	< 390	NA	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Hexachloroethane	67-72-1	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 341.154	660	233	NA	143	102	NA	NA	< 420	220	NA
Isophorone	78-59-1	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06	G11-2017B-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999	12/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N	G11-2017B-010.5N
Parent Sample								G11-1-021N		G11-1-020.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	50	< 355.465	NA	< 385	< 388	NA	NA	< 420	33	NA
Nitrobenzene	98-95-3	ug/kg	< 341.154	< 390	NA	NA	NA	NA	NA	NA	< 420	< 410	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 341.154	< 390	179	NA	266	120	NA	NA	< 420	990	NA
Pentachlorophenol	87-86-5	ug/kg	< 682.308	< 2000	< 710.93	NA	< 769	< 775	NA	NA	< 840	< 810	NA
Phenanthrene	85-01-8	ug/kg	< 341.154	380	162	NA	160	131	NA	NA	220	200	NA
Phenol	108-95-2	ug/kg	< 341.154	< 390	< 355.465	NA	< 385	< 388	NA	NA	< 420	< 410	NA
Pyrene	129-00-0	ug/kg	< 341.154	2400	479	NA	353	229	NA	NA	250	900	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 170.5767	NA	NA	NA	NA	NA	NA	NA	22	21	NA
Aroclor-1221	11104-28-2	ug/kg	< 170.5767	NA	NA	NA	NA	NA	NA	NA	22	21	NA
Aroclor-1232	11141-16-5	ug/kg	< 170.5767	NA	NA	NA	NA	NA	NA	NA	22	21	NA
Aroclor-1242	53469-21-9	ug/kg	< 170.5767	NA	NA	NA	NA	NA	NA	NA	22	21	NA
Aroclor-1248	12672-29-6	ug/kg	< 170.5767	NA	NA	NA	NA	NA	NA	NA	22	21	NA
Aroclor-1254	11097-69-1	ug/kg	1440	NA	NA	NA	NA	NA	NA	NA	22	21	NA
Aroclor-1260	11096-82-5	ug/kg	< 341.1535	NA	NA	NA	NA	NA	NA	NA	43	41	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	1440	NA	NA	NA	NA	NA	NA	NA	175	167	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06	G11-2017B-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999	12/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N	G11-2017B-010.5N
Parent Sample								G11-1-021N		G11-1-020.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 250	NA	< 100	< 100	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 250	NA	< 100	< 100	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 250	NA	< 100	< 100	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 250	NA	< 100	< 100	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 500	NA	< 200	< 200	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 500	NA	< 200	< 200	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 250	NA	< 100	< 100	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 500	NA	< 200	< 200	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 250	NA	< 100	< 100	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	48200	NA	56400	< 36000	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	3260	NA	6300	< 5830	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 500	NA	< 200	< 200	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 500	NA	< 200	< 200	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	< 500	NA	< 200	< 200	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.445428	20.5	< 0.609979	NA	< 0.69	< 0.686	NA	NA	< 0.57	0.33	NA
Arsenic	7440-38-2	mg/kg	4.36	13.1	11.7	NA	9.8	10.8	NA	NA	35.2	24.4	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.369	0.4	0.487	NA	0.613	0.67	NA	NA	0.46	0.48	NA
Cadmium	7440-43-9	mg/kg	< 0.222714	1.1	0.623	NA	0.135	0.134	NA	NA	< 0.34	< 0.27	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	16	27.3	21.4	NA	18.6	13.8	NA	NA	17.5	14	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	27	155	34.6	NA	40.5	36.7	NA	NA	67.3	23.2	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	12.5	709	50.9	NA	66.1	71.1	NA	NA	87.2	127	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.097	1.6	0.15	NA	0.253	0.253	NA	NA	0.09	0.07	NA
Nickel	7440-02-0	mg/kg	11.4	14.1	23.1	NA	15.5	12.2	NA	NA	9.2	8.6	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.488	1.5	1.11	NA	0.646	0.723	NA	NA	1.9	1.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06	G11-2017B-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999	12/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N	G11-2017B-010.5N
Parent Sample								G11-1-021N		G11-1-020.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.222714	0.26	< 0.30499	NA	< 0.345	< 0.343	NA	NA	< 0.34	< 0.27	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.742381	< 1	< 1.016632	NA	< 1.15	< 1.14	NA	NA	1.1	< 0.9	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	51.9	292	207	NA	55	71.4	NA	NA	71.4	63.1	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	7400	12600	45200	NA	NA	NA	NA	NA	NA	5730	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	8.4	NA	NA	NA	NA	NA	NA	NA	3.2	NA
Gravel	ARC-PGRAVEL	%	NA	28.3	NA	NA	NA	NA	NA	NA	NA	54.9	NA
Sand	ARC-PSAND	%	NA	44.6	NA	NA	NA	NA	NA	NA	NA	34.7	NA
SIEVE 0.375 inch, % passing	ARC-	%	99.4	NA	33.8	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	54.3	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	87.3	NA	27.6	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	17.2	NA	11.1	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	95.1	NA	29.9	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	52.7	NA	20.2	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	23.4	NA	14.1	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	72.2	NA	24	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	34.2	NA	16.9	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	18.6	NA	NA	NA	NA	NA	NA	NA	7.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-2017B-01 0.0-1.0 ft 12/15/1999 N G11-2017B-011N	G11-2017B-07 0.0-0.5 ft 12/15/1999 N G11-2017B-070.5N	G11-2017B-07 0.0-2.0 ft 12/15/1999 N G11-2017B-072N	G11-2017B-08 0.0-0.5 ft 12/15/1999 N G11-2017B-080.5N	G11-2017B-08 0.0-2.0 ft 12/15/1999 N G11-2017B-082N	G11-2259-01 0.0-1.5 ft 12/2/1999 N G11-2259-011.5N	G11-2259-06 0.0-1.0 ft 12/2/1999 N G11-2259-061N	G11-253-01 0.0-0.8 ft 4/18/2000 N G11-253-010.75N	G11-253-03 0.0-1.0 ft 12/2/1999 N G11-253-031N	G11-3-01 0.0-0.5 ft 12/9/1999 N G11-3-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1100	NA	< 1000	NA	NA	NA	NA	NA	< 1136
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2100	NA	< 2100	NA	NA	NA	NA	NA	< 2273
Acrylonitrile	107-13-1	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Benzene	71-43-2	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Bromodichloromethane	75-27-4	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Bromoform	75-25-2	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Bromomethane	74-83-9	ug/kg	NA	< 1100	NA	< 1000	NA	NA	NA	NA	NA	< 1136
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Chlorobenzene	108-90-7	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Chloroethane	75-00-3	ug/kg	NA	< 1100	NA	< 1000	NA	NA	NA	NA	NA	< 1136
Chloroform	67-66-3	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Chloromethane	74-87-3	ug/kg	NA	< 1100	NA	< 1000	NA	NA	NA	NA	NA	< 1136
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-2017B-01 0.0-1.0 ft 12/15/1999 N G11-2017B-011N	G11-2017B-07 0.0-0.5 ft 12/15/1999 N G11-2017B-070.5N	G11-2017B-07 0.0-2.0 ft 12/15/1999 N G11-2017B-072N	G11-2017B-08 0.0-0.5 ft 12/15/1999 N G11-2017B-080.5N	G11-2017B-08 0.0-2.0 ft 12/15/1999 N G11-2017B-082N	G11-2259-01 0.0-1.5 ft 12/2/1999 N G11-2259-011.5N	G11-2259-06 0.0-1.0 ft 12/2/1999 N G11-2259-061N	G11-253-01 0.0-0.8 ft 4/18/2000 N G11-253-010.75N	G11-253-03 0.0-1.0 ft 12/2/1999 N G11-253-031N	G11-3-01 0.0-0.5 ft 12/9/1999 N G11-3-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Toluene	108-88-3	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 520	NA	< 520	NA	NA	NA	NA	NA	< 568
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1100	NA	< 1000	NA	NA	NA	NA	NA	< 1136
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	NA	< 780	NA	< 810	< 790	< 830	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	NA	130	NA	< 410	< 400	1300	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	NA	49	NA	< 410	< 400	1100	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	NA	< 390	NA	< 410	< 790	< 420	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	NA	< 780	NA	< 810	< 790	< 830	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	NA	< 780	NA	< 810	< 790	< 830	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-2017B-01 0.0-1.0 ft 12/15/1999 N G11-2017B-011N	G11-2017B-07 0.0-0.5 ft 12/15/1999 N G11-2017B-070.5N	G11-2017B-07 0.0-2.0 ft 12/15/1999 N G11-2017B-072N	G11-2017B-08 0.0-0.5 ft 12/15/1999 N G11-2017B-080.5N	G11-2017B-08 0.0-2.0 ft 12/15/1999 N G11-2017B-082N	G11-2259-01 0.0-1.5 ft 12/2/1999 N G11-2259-011.5N	G11-2259-06 0.0-1.0 ft 12/2/1999 N G11-2259-061N	G11-253-01 0.0-0.8 ft 4/18/2000 N G11-253-010.75N	G11-253-03 0.0-1.0 ft 12/2/1999 N G11-253-031N	G11-3-01 0.0-0.5 ft 12/9/1999 N G11-3-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 780	NA	< 780	NA	< 810	< 400	< 830	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	NA	< 390	NA	< 410	< 400	22	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 390	NA	< 390	NA	< 410	< 400	69	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	170	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 390	NA	< 390	NA	< 410	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	59	NA	130	NA	< 410	73	390	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	44	NA	110	NA	< 410	58	260	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	97	NA	170	NA	< 410	130	650	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	< 400	200	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	NA	< 390	NA	< 410	< 400	240	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	170	NA	< 390	NA	< 410	52	85	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	94	NA	180	NA	< 410	120	540	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	NA	38	NA	< 410	< 400	< 420	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	100	NA	< 390	NA	< 410	< 400	86	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	100	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	98	NA	220	NA	< 410	170	780	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	26	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 390	NA	< 390	NA	< 410	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	NA	< 390	NA	< 410	< 400	200	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-2017B-01 0.0-1.0 ft 12/15/1999 N G11-2017B-011N	G11-2017B-07 0.0-0.5 ft 12/15/1999 N G11-2017B-070.5N	G11-2017B-07 0.0-2.0 ft 12/15/1999 N G11-2017B-072N	G11-2017B-08 0.0-0.5 ft 12/15/1999 N G11-2017B-080.5N	G11-2017B-08 0.0-2.0 ft 12/15/1999 N G11-2017B-082N	G11-2259-01 0.0-1.5 ft 12/2/1999 N G11-2259-011.5N	G11-2259-06 0.0-1.0 ft 12/2/1999 N G11-2259-061N	G11-253-01 0.0-0.8 ft 4/18/2000 N G11-253-010.75N	G11-253-03 0.0-1.0 ft 12/2/1999 N G11-253-031N	G11-3-01 0.0-0.5 ft 12/9/1999 N G11-3-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	47	NA	< 390	NA	< 410	< 400	35	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 400	< 420	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	NA	< 390	NA	< 410	< 400	520	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 780	NA	< 780	NA	< 810	< 790	< 830	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	120	NA	87	NA	< 410	86	290	NA	NA	NA
Phenol	108-95-2	ug/kg	< 390	NA	< 390	NA	< 410	< 400	< 420	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 390	NA	180	NA	< 410	150	870	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-2017B-01 0.0-1.0 ft 12/15/1999 N G11-2017B-011N	G11-2017B-07 0.0-0.5 ft 12/15/1999 N G11-2017B-070.5N	G11-2017B-07 0.0-2.0 ft 12/15/1999 N G11-2017B-072N	G11-2017B-08 0.0-0.5 ft 12/15/1999 N G11-2017B-080.5N	G11-2017B-08 0.0-2.0 ft 12/15/1999 N G11-2017B-082N	G11-2259-01 0.0-1.5 ft 12/2/1999 N G11-2259-011.5N	G11-2259-06 0.0-1.0 ft 12/2/1999 N G11-2259-061N	G11-253-01 0.0-0.8 ft 4/18/2000 N G11-253-010.75N	G11-253-03 0.0-1.0 ft 12/2/1999 N G11-253-031N	G11-3-01 0.0-0.5 ft 12/9/1999 N G11-3-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 120	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	< 250	NA	< 250	NA	NA	< 25	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	< 250	NA	< 250	NA	NA	< 25	< 120	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	< 250	NA	< 250	NA	NA	< 25	< 120	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 120	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	< 250	NA	< 250	NA	NA	< 25	< 120	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	< 500	NA	< 500	NA	NA	< 50	< 230	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	< 500	NA	< 500	NA	NA	< 50	< 230	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	< 250	NA	< 250	NA	NA	< 25	< 120	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	< 500	NA	< 500	NA	NA	< 50	< 230	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	< 250	NA	< 250	NA	NA	< 25	< 120	NA
Nitrocellulose	9004-70-0	ug/kg	96000	NA	64700	NA	46800	NA	NA	< 40000	34500	NA
Nitroglycerin	55-63-0	ug/kg	< 4878	NA	< 5000	NA	< 5000	NA	NA	< 590	< 4546	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	< 500	NA	< 500	NA	NA	< 50	< 230	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	< 500	NA	< 500	NA	NA	< 50	< 230	NA
Tetryl	479-45-8	ug/kg	< 500	NA	< 500	NA	< 500	NA	NA	< 50	230	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.51	NA	< 0.57	NA	< 0.57	0.79	1.3	NA	NA	NA
Arsenic	7440-38-2	mg/kg	10.9	NA	221	NA	2.6	120	78.7	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.42	NA	0.53	NA	0.4	0.6	0.99	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.6	NA	0.65	NA	0.48	0.38	0.15	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.4	NA	11.1	NA	11.6	18.1	13	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	31.2	NA	70.3	NA	58.5	30.2	69.6	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	85.1	NA	156	NA	15.6	77	138	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.5	NA	0.17	NA	0.05	0.84	0.42	NA	NA	NA
Nickel	7440-02-0	mg/kg	7.2	NA	8.5	NA	5	11.3	16.9	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.3	NA	1.3	NA	< 0.57	2.1	2	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-2017B-01 0.0-1.0 ft 12/15/1999 N G11-2017B-011N	G11-2017B-07 0.0-0.5 ft 12/15/1999 N G11-2017B-070.5N	G11-2017B-07 0.0-2.0 ft 12/15/1999 N G11-2017B-072N	G11-2017B-08 0.0-0.5 ft 12/15/1999 N G11-2017B-080.5N	G11-2017B-08 0.0-2.0 ft 12/15/1999 N G11-2017B-082N	G11-2259-01 0.0-1.5 ft 12/2/1999 N G11-2259-011.5N	G11-2259-06 0.0-1.0 ft 12/2/1999 N G11-2259-061N	G11-253-01 0.0-0.8 ft 4/18/2000 N G11-253-010.75N	G11-253-03 0.0-1.0 ft 12/2/1999 N G11-253-031N	G11-3-01 0.0-0.5 ft 12/9/1999 N G11-3-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.1	NA	0.12	NA	0.12	0.12	0.15	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	NA	< 1.1	NA	< 1.1	0.45	< 1.2	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	92.1	NA	128	NA	69.4	555	386	NA	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	38300	NA	NA	NA	NA	34000	NA	NA	7820	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	7.5	NA	NA	NA	NA	5.6	NA	NA	5.5	NA
Gravel	ARC-PGRAVEL	%	32.2	NA	NA	NA	NA	42.6	NA	NA	28.9	NA
Sand	ARC-PSAND	%	48.1	NA	NA	NA	NA	39.2	NA	NA	54.2	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	12.2	NA	NA	NA	NA	12.6	NA	NA	11.4	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-3-01	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999
Sample Type			FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			G11-3-010.5FD	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N
Parent Sample			G11-3-010.5N		G11-3-011.5N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1238	NA	NA	NA	< 1100	NA	< 1543	NA	< 1214	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2475	NA	NA	NA	< 2200	NA	< 3086	NA	< 2427	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Benzene	71-43-2	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Bromoform	75-25-2	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Bromomethane	74-83-9	ug/kg	< 1238	NA	NA	NA	< 1100	NA	< 1543	NA	< 1214	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Chloroethane	75-00-3	ug/kg	< 1238	NA	NA	NA	< 1100	NA	< 1543	NA	< 1214	NA	NA
Chloroform	67-66-3	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Chloromethane	74-87-3	ug/kg	< 1238	NA	NA	NA	190	NA	< 1543	NA	< 1214	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-3-01	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999
Sample Type			FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			G11-3-010.5FD	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N
Parent Sample			G11-3-010.5N		G11-3-011.5N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 1067	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 619	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Toluene	108-88-3	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 619	NA	NA	NA	< 560	NA	< 772	NA	< 607	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1238	NA	NA	NA	< 1100	NA	< 1543	NA	< 1214	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 857	< 880	NA	NA	< 7900	NA	< 830	< 840	< 800	< 810
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	250	< 420	< 400	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2-Chlorophenol	95-57-8	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 428	< 440	NA	NA	< 7900	NA	< 420	< 420	< 400	< 810
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 857	< 880	NA	NA	< 7900	NA	< 830	< 840	< 800	< 810
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 857	< 880	NA	NA	< 7900	NA	< 830	< 840	< 800	< 810
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-3-01	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999
Sample Type			FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			G11-3-010.5FD	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N
Parent Sample			G11-3-010.5N		G11-3-011.5N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 857	< 880	NA	NA	< 4000	NA	< 830	< 840	< 800	< 410
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	39	< 420	< 400	< 410
Acenaphthylene	208-96-8	ug/kg	NA	< 428	19	NA	NA	< 4000	NA	88	< 420	< 400	49
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	100	< 420	29	75
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 440	NA	NA	NA	NA	330	< 420	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	113	120	NA	NA	< 4000	NA	460	64	82	580
Benzo[a]pyrene	50-32-8	ug/kg	NA	102	85	NA	NA	< 4000	NA	360	51	120	430
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	166	210	NA	NA	< 4000	NA	690	120	340	1100
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 428	NA	NA	NA	< 4000	NA	NA	NA	95	260
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	310	< 420	< 400	420
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 428	53	NA	NA	< 4000	NA	< 420	< 420	< 400	48
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	157	180	NA	NA	< 4000	NA	700	88	270	920
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	110	< 420	< 400	110
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 428	44	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Dimethylphthalate	131-11-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 428	< 120	NA	NA	< 4000	NA	130	< 420	93	< 410
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Fluoranthene	206-44-0	ug/kg	NA	245	290	NA	NA	< 4000	NA	900	160	100	630
Fluorene	86-73-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	69	< 420	< 400	< 410
Hexachlorobenzene	118-74-1	ug/kg	NA	< 428	< 440	NA	NA	NA	NA	< 420	< 420	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Hexachloroethane	67-72-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	290	< 420	79	280
Isophorone	78-59-1	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-3-01	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999
Sample Type			FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			G11-3-010.5FD	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N
Parent Sample			G11-3-010.5N		G11-3-011.5N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	71	< 420	< 400	71
Nitrobenzene	98-95-3	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	27.9	< 440	NA	NA	< 4000	NA	500	< 420	< 400	< 410
Pentachlorophenol	87-86-5	ug/kg	NA	< 857	< 880	NA	NA	< 7900	NA	< 830	< 840	< 800	< 810
Phenanthrene	85-01-8	ug/kg	NA	138	160	NA	NA	< 4000	NA	750	87	150	300
Phenol	108-95-2	ug/kg	NA	< 428	< 440	NA	NA	< 4000	NA	< 420	< 420	< 400	< 410
Pyrene	129-00-0	ug/kg	NA	298	280	NA	NA	< 4000	NA	1600	120	120	1200
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 22	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 22	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 22	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 22	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 22	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	< 22	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	60	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	60	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-3-01	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999
Sample Type			FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			G11-3-010.5FD	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N
Parent Sample			G11-3-010.5N		G11-3-011.5N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.23	0.34	NA	NA	0.3	NA	< 0.54	0.36	< 0.58	1.4
Arsenic	7440-38-2	mg/kg	NA	27.6	30.9	NA	NA	46.2	NA	15.3	10.7	21.6	57.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.77	0.81	NA	NA	0.16	NA	0.4	0.58	0.44	0.4
Cadmium	7440-43-9	mg/kg	NA	< 0.37	< 0.32	NA	NA	0.13	NA	< 0.32	< 0.31	< 0.35	< 0.36
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	10.9	13.7	NA	NA	7.9	NA	14.5	15.2	10.5	33.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	91.5	111	NA	NA	10.8	NA	106	1070	27.7	33.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	327	375	NA	NA	30.2	NA	120	86.7	62.4	79.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	1.7	1.8	NA	NA	0.07	NA	2.2	0.54	0.64	0.34
Nickel	7440-02-0	mg/kg	NA	10.2	16.1	NA	NA	4.6	NA	11.1	9.7	11	11.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	3.3	3.8	NA	NA	0.42	NA	2.2	2.3	2.1	2.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-3-01	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999
Sample Type			FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			G11-3-010.5FD	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N
Parent Sample			G11-3-010.5N		G11-3-011.5N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	< 0.37	0.24	NA	NA	< 0.33	NA	< 0.32	0.25	< 0.35	< 0.36
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1.2	0.6	NA	NA	< 1.1	NA	< 1.1	< 1	< 1.2	< 1.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	44.6	81.3	NA	NA	31.4	NA	52.3	107	36.2	24.2
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	52000	NA	48900	NA	9750	NA	34400	NA	35100	55800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	3.1	NA	5	NA	2.3	NA	11.2	NA	2.5	0.8
Gravel	ARC-PGRAVEL	%	NA	39.1	NA	29.4	NA	38.2	NA	25.4	NA	57.8	53.1
Sand	ARC-PSAND	%	NA	48.1	NA	45.9	NA	53.3	NA	44	NA	31.6	36.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	9.7	NA	19.8	NA	6.2	NA	19.4	NA	8	9.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-8257-03	G11-8257-03	G11-9300-03	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01
Depths			0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/7/1999	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N
Parent Sample									G11-9304-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1191	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2381	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 1191	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1191	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1191	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-8257-03	G11-8257-03	G11-9300-03	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01
Depths			0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/7/1999	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N
Parent Sample									G11-9304-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1191	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	NA	< 780	< 790	< 780	< 770	< 7200	< 91	< 760	< 8400
2,4-Dinitrotoluene	121-14-2	ug/kg	42	NA	< 390	58	120	< 380	< 3600	180	< 380	2200
2,6-Dinitrotoluene	606-20-2	ug/kg	59	NA	< 390	37	150	< 380	< 3600	270	< 380	2300
2-Chloronaphthalene	91-58-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
2-Chlorophenol	95-57-8	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	NA	< 390	< 400	< 780	< 380	< 7200	< 46	< 380	< 4200
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	NA	< 780	< 790	< 780	< 760	< 7200	< 91	< 760	< 8400
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	NA	< 780	< 790	< 780	< 770	< 7200	< 91	< 760	< 8400
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-8257-03	G11-8257-03	G11-9300-03	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01
Depths			0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/7/1999	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N
Parent Sample									G11-9304-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 780	NA	< 780	< 790	< 390	< 770	< 3600	< 91	< 760	< 8400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Acenaphthylene	208-96-8	ug/kg	17	NA	< 390	< 400	74	< 380	< 3600	160	< 380	420
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	25	NA	< 390	< 400	70	< 380	< 3600	140	< 380	320
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	120	NA	< 390	< 400	NA	NA	NA	NA	< 380	920
Benzo[a]anthracene	56-55-3	ug/kg	150	NA	< 390	< 400	570	< 380	< 3600	1700	73	2500
Benzo[a]pyrene	50-32-8	ug/kg	140	NA	< 390	< 400	340	28	< 3600	1500	56	2000
Benzo[b]fluoranthene	205-99-2	ug/kg	230	NA	< 390	< 400	780	< 380	< 3600	4000	140	4200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	190	< 380	< 3600	610	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	120	NA	< 390	< 400	310	< 380	< 3600	930	< 380	2200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	NA	< 390	< 400	100	350	390	86	< 380	670
Butylbenzylphthalate	85-68-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	180	NA	< 390	46	720	< 380	< 3600	2000	140	3000
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	270	< 380	< 4200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	84	33	< 4200
Dimethylphthalate	131-11-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Di-n-butylphthalate	84-74-2	ug/kg	97	NA	64	130	42	830	< 3600	< 46	180	< 4200
Di-n-octylphthalate	117-84-0	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Fluoranthene	206-44-0	ug/kg	320	NA	< 390	< 400	970	< 380	< 3600	1400	140	2800
Fluorene	86-73-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	28	< 380	< 4200
Hexachlorobenzene	118-74-1	ug/kg	< 390	NA	< 390	< 400	NA	NA	NA	< 46	< 380	< 4200
Hexachlorobutadiene	87-68-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Hexachloroethane	67-72-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	95	NA	< 390	< 400	200	< 380	< 3600	660	< 380	1100
Isophorone	78-59-1	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-8257-03	G11-8257-03	G11-9300-03	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01
Depths			0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/7/1999	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N
Parent Sample									G11-9304-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	99	< 380	< 4200
Nitrobenzene	98-95-3	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	NA	< 390	200	330	560	< 3600	90	83	< 4200
Pentachlorophenol	87-86-5	ug/kg	< 780	NA	< 780	< 790	< 780	< 770	< 7200	< 91	< 760	< 8400
Phenanthrene	85-01-8	ug/kg	180	NA	< 390	23	150	< 380	< 3600	370	120	820
Phenol	108-95-2	ug/kg	< 390	NA	< 390	< 400	< 390	< 380	< 3600	< 46	< 380	< 4200
Pyrene	129-00-0	ug/kg	350	NA	< 390	< 400	820	< 380	< 3600	1500	160	3300
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	660	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	660	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-8257-03	G11-8257-03	G11-9300-03	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01
Depths			0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/7/1999	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N
Parent Sample									G11-9304-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.48	NA	0.84	0.93	< 0.51	0.25	0.26	0.83	< 0.49	2.4
Arsenic	7440-38-2	mg/kg	28.8	NA	5.2	7.1	53.1	8	8.3	221	10.1	587
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.62	NA	0.51	0.59	0.36	0.42	0.38	0.15	0.29	0.54
Cadmium	7440-43-9	mg/kg	< 0.29	NA	< 0.29	< 0.31	< 0.31	< 0.29	0.04	< 0.3	< 0.29	22.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.2	NA	10.4	17	10.7	17.1	17.5	10	16.2	24.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	32.1	NA	553	69.4	18.6	37.6	348	22.3	51.5	73.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	104	NA	901	6590	50.9	27.3	42.7	83.3	34.3	199
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.2	NA	132	2.4	0.14	0.04	0.03	0.28	0.05	0.57
Nickel	7440-02-0	mg/kg	12.3	NA	7.7	9.9	6.8	11.3	11	15.5	9	25
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.6	NA	1	1.9	1.1	0.42	0.44	1.7	1	2.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-8257-03	G11-8257-03	G11-9300-03	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01
Depths			0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			12/9/1999	12/9/1999	12/7/1999	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N
Parent Sample									G11-9304-050.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.29	NA	0.22	1.2	< 0.31	< 0.29	< 0.29	< 0.3	< 0.29	0.23
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.96	NA	< 0.96	< 1	< 1	< 0.95	< 0.97	< 1	< 0.97	< 1.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	102	NA	152	214	350	140	309	101	127	391
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	10600	NA	NA	33800	NA	2710	NA	NA	14900	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	0.6	NA	NA	4.3	NA	3.6	NA	NA	4.5	NA
Gravel	ARC-PGRAVEL	%	47.1	NA	NA	28	NA	53.9	NA	NA	50.3	NA
Sand	ARC-PSAND	%	40.7	NA	NA	56.1	NA	32.4	NA	NA	34.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	11.6	NA	NA	11.5	NA	10.2	NA	NA	10.9	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-9309-05 0.0-1.0 ft 12/3/1999 N G11-9309-051N	G11-B86-01 0.0-1.0 ft 12/3/1999 N G11-B86-011N	G11-B86-03 0.0-0.5 ft 12/3/1999 N G11-B86-030.5N	G12-12-01 0.0-1.0 ft 12/2/1999 N G12-12-011N	G12-12-03 0.0-1.5 ft 4/18/2000 N G12-12-031.5N	G12-252-02 0.0-1.5 ft 4/18/2000 N G12-252-021.5N	G12-252-03 0.0-2.0 ft 12/10/1999 N G12-252-032N	G12-6-03 0.0-1.0 ft 6/15/2000 N G12-6-031N	G12-6-04 0.0-0.5 ft 12/1/1999 N G12-6-040.5N	G12-7-01 0.0-2.0 ft 12/1/1999 N G12-7-012N	G12-7-01 0.0-2.0 ft 12/1/1999 FD G12-7-012FD G12-7-012N	G12-775-03 0.0-1.0 ft 12/1/1999 N G12-775-031N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G12-12-03	G12-252-02	G12-252-03	G12-6-03	G12-6-04	G12-7-01	G12-7-01	G12-775-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/3/1999	12/3/1999	12/3/1999	12/2/1999	4/18/2000	4/18/2000	12/10/1999	6/15/2000	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G12-12-031.5N	G12-252-021.5N	G12-252-032N	G12-6-031N	G12-6-040.5N	G12-7-012N	G12-7-012FD	G12-775-031N
Parent Sample													G12-7-012N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	< 790	< 780	< 820	< 84	NA	NA	< 805	< 2000	NA	NA	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	860	64	< 390	< 410	< 420	NA	NA	< 402	< 400	NA	NA	60
2,6-Dinitrotoluene	606-20-2	ug/kg	830	110	< 390	< 410	< 420	NA	NA	< 402	< 400	NA	NA	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2-Chlorophenol	95-57-8	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	< 400	< 390	< 820	< 42	NA	NA	< 402	< 400	NA	NA	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 790	< 780	< 820	< 84	NA	NA	< 805	< 800	NA	NA	< 770
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	< 790	< 780	< 820	< 84	NA	NA	< 805	< 2000	NA	NA	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G12-12-03	G12-252-02	G12-252-03	G12-6-03	G12-6-04	G12-7-01	G12-7-01	G12-775-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/3/1999	12/3/1999	12/3/1999	12/2/1999	4/18/2000	4/18/2000	12/10/1999	6/15/2000	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G12-12-031.5N	G12-252-021.5N	G12-252-032N	G12-6-031N	G12-6-040.5N	G12-7-012N	G12-7-012FD	G12-775-031N
Parent Sample													G12-7-012N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 780	< 790	< 780	< 410	< 84	NA	NA	< 805	< 2000	NA	NA	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Acenaphthylene	208-96-8	ug/kg	61	40	< 390	21	< 42	NA	NA	17.7	< 400	NA	NA	< 380
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	60	31	110	37	< 42	NA	NA	28.2	< 400	NA	NA	32
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	180	< 400	< 390	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	380	160	35	100	< 42	NA	NA	110	110	NA	NA	130
Benzo[a]pyrene	50-32-8	ug/kg	290	130	28	95	< 42	NA	NA	99.4	450	NA	NA	130
Benzo[b]fluoranthene	205-99-2	ug/kg	760	240	66	160	< 42	NA	NA	155	780	NA	NA	200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 410	< 42	NA	NA	130	460	NA	NA	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	280	170	< 390	< 410	< 42	NA	NA	< 402	150	NA	NA	60
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	48	52	32	66	32	NA	NA	45.9	< 400	NA	NA	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	630	260	130	140	< 42	NA	NA	102	330	NA	NA	160
Dibenzo[a,h]anthracene	53-70-3	ug/kg	51	< 400	< 390	< 410	< 42	NA	NA	< 402	340	NA	NA	< 380
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	20	< 400	< 390	< 410	< 42	NA	NA	141	210	NA	NA	820
Dimethylphthalate	131-11-3	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Di-n-butylphthalate	84-74-2	ug/kg	48	46	< 390	< 410	< 42	NA	NA	116	230	NA	NA	810
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Fluoranthene	206-44-0	ug/kg	650	400	70	200	< 42	NA	NA	171	130	NA	NA	210
Fluorene	86-73-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Hexachlorobenzene	118-74-1	ug/kg	< 390	< 400	< 390	NA	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Hexachloroethane	67-72-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	170	< 400	< 390	< 410	< 42	NA	NA	95.8	310	NA	NA	< 380
Isophorone	78-59-1	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G12-12-03	G12-252-02	G12-252-03	G12-6-03	G12-6-04	G12-7-01	G12-7-01	G12-775-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/3/1999	12/3/1999	12/3/1999	12/2/1999	4/18/2000	4/18/2000	12/10/1999	6/15/2000	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G12-12-031.5N	G12-252-021.5N	G12-252-032N	G12-6-031N	G12-6-040.5N	G12-7-012N	G12-7-012FD	G12-775-031N
Parent Sample													G12-7-012N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	81
Nitrobenzene	98-95-3	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	NA	NA	NA	NA	< 380
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	183	390	NA	NA	1100
Pentachlorophenol	87-86-5	ug/kg	< 780	< 790	< 780	< 820	< 84	NA	NA	< 805	< 2000	NA	NA	< 1900
Phenanthrene	85-01-8	ug/kg	310	260	110	120	< 42	NA	NA	81.3	82	NA	NA	110
Phenol	108-95-2	ug/kg	< 390	< 400	< 390	< 410	< 42	NA	NA	< 402	< 400	NA	NA	< 380
Pyrene	129-00-0	ug/kg	610	330	< 390	240	< 42	NA	NA	165	180	NA	NA	280
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	< 21	< 20	NA	NA	NA	NA	NA	NA	< 20	< 21	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 21	< 20	NA	NA	NA	NA	NA	NA	< 20	< 21	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 21	< 20	NA	NA	NA	NA	NA	NA	< 20	< 21	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 21	< 20	NA	NA	NA	NA	NA	NA	< 20	< 21	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 21	< 20	NA	NA	NA	NA	NA	NA	< 20	< 21	NA
Aroclor-1254	11097-69-1	ug/kg	NA	180	< 20	NA	NA	NA	NA	NA	NA	160	100	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 40	< 40	NA	NA	NA	NA	NA	NA	150	97	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	180	< 40	NA	NA	NA	NA	NA	NA	310	197	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G11-9309-05 0.0-1.0 ft 12/3/1999 N G11-9309-051N	G11-B86-01 0.0-1.0 ft 12/3/1999 N G11-B86-011N	G11-B86-03 0.0-0.5 ft 12/3/1999 N G11-B86-030.5N	G12-12-01 0.0-1.0 ft 12/2/1999 N G12-12-011N	G12-12-03 0.0-1.5 ft 4/18/2000 N G12-12-031.5N	G12-252-02 0.0-1.5 ft 4/18/2000 N G12-252-021.5N	G12-252-03 0.0-2.0 ft 12/10/1999 N G12-252-032N	G12-6-03 0.0-1.0 ft 6/15/2000 N G12-6-031N	G12-6-04 0.0-0.5 ft 12/1/1999 N G12-6-040.5N	G12-7-01 0.0-2.0 ft 12/1/1999 N G12-7-012N	G12-7-01 0.0-2.0 ft 12/1/1999 FD G12-7-012FD G12-7-012N	G12-775-03 0.0-1.0 ft 12/1/1999 N G12-775-031N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 24	NA	< 248	< 210	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 24	< 250	< 248	< 210	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	< 24	< 250	< 248	< 210	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 240	< 250	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	< 24	< 250	< 248	< 210	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 48	< 500	< 495	< 420	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 48	< 500	< 495	< 420	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	< 24	< 250	< 248	< 210	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 48	< 500	< 495	< 420	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 24	< 250	281	< 210	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	104000	108000	419000	281000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	< 770	< 5000	8830	< 5800	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 48	< 500	< 495	< 420	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 48	< 500	< 495	< 420	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 48	< 500	< 495	< 420	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.36	0.8	7.6	< 0.55	< 0.6	NA	NA	< 0.69	< 0.46	NA	NA	< 0.47
Arsenic	7440-38-2	mg/kg	53.7	156	1150	10.9	5.9	NA	NA	7.25	6.7	NA	NA	20.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.57	0.32	0.6	0.65	0.46	NA	NA	0.503	0.47	NA	NA	0.56
Cadmium	7440-43-9	mg/kg	0.08	0.04	< 0.26	< 0.33	0.12	NA	NA	0.309	0.51	NA	NA	0.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.5	9.5	9.9	15.5	16.1	NA	NA	20.9	23.5	NA	NA	12.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	29.4	23.9	29.2	17.9	16.6	NA	NA	33.2	40.3	NA	NA	44
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	87.6	83.8	31.5	44.3	80.2	NA	NA	115	145	NA	NA	40.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.24	0.18	0.21	0.13	0.14	NA	NA	0.601	1.5	NA	NA	0.26
Nickel	7440-02-0	mg/kg	12.9	8.2	13.4	7.5	6.7	NA	NA	9.8	9.5	NA	NA	8.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.6	1.4	2.7	1.5	0.79	NA	NA	0.866	1.1	NA	NA	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G12-12-03	G12-252-02	G12-252-03	G12-6-03	G12-6-04	G12-7-01	G12-7-01	G12-775-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			12/3/1999	12/3/1999	12/3/1999	12/2/1999	4/18/2000	4/18/2000	12/10/1999	6/15/2000	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G12-12-031.5N	G12-252-021.5N	G12-252-032N	G12-6-031N	G12-6-040.5N	G12-7-012N	G12-7-012FD	G12-775-031N
Parent Sample													G12-7-012N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.13	0.12	0.11	< 0.33	< 0.3	NA	NA	< 0.345	0.09	NA	NA	< 0.28
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.97	< 0.94	< 0.88	< 1.1	< 1	NA	NA	< 1.15	< 0.92	NA	NA	< 0.94
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	58.4	37.8	44.5	86.2	124	NA	NA	119	113	NA	NA	85.8
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	20800	12900	NA	5330	NA	NA	16100	NA	8430	18500	NA	16300
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	4	6.1	NA	5.7	NA	NA	9.9	NA	9.9	5.9	NA	5.9
Gravel	ARC-PGRAVEL	%	30.1	30.4	NA	42	NA	NA	23.9	NA	37.4	33	NA	39.3
Sand	ARC-PSAND	%	56.6	53.6	NA	36.1	NA	NA	34.2	NA	33.5	42.6	NA	38.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	9.3	9.9	NA	16.2	NA	NA	32	NA	19.2	18.6	NA	16.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N
Parent Sample								G13-1-032N					G6-2-021.25N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N
Parent Sample								G13-1-032N					G6-2-021.25N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
1,2-Dichlorobenzene	95-50-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
1,4-Dichlorobenzene	106-46-7	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
2,4-Dichlorophenol	120-83-2	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
2,4-Dimethylphenol	105-67-9	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
2,4-Dinitrophenol	51-28-5	ug/kg	< 797	< 780	< 2100	< 2000	< 790	< 794	< 797	NA	NA	< 8960.564	< 818	< 110
2,4-Dinitrotoluene	121-14-2	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480	< 409	< 550
2,6-Dinitrotoluene	606-20-2	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480	< 409	< 550
2-Chloronaphthalene	91-58-7	ug/kg	< 398	< 390	NA	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
2-Chlorophenol	95-57-8	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	NA	NA	< 55
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 797	< 780	< 840	< 810	< 790	< 794	< 797	NA	NA	< 8960.564	< 818	< 110
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 797	< 780	< 2100	< 2000	< 790	< 794	< 797	NA	NA	< 8960.564	< 818	< 110
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N
Parent Sample								G13-1-032N					G6-2-021.25N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 797	< 780	< 2100	< 2000	< 790	< 794	< 797	NA	NA	NA	NA	< 110
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	31.1	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	2390	76	< 55
Acenaphthylene	208-96-8	ug/kg	108	17	64	< 410	< 395	< 397	< 398	NA	NA	5970	123	60
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	179	48	29	26	79.4	162	< 398	NA	NA	8790	203	93
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1000	180	310	130	290	542	86.8	NA	NA	27500	1000	260
Benzo[a]pyrene	50-32-8	ug/kg	939	160	330	150	260	442	78.1	NA	NA	18800	898	250
Benzo[b]fluoranthene	205-99-2	ug/kg	1300	220	560	310	382	512	94.8	NA	NA	28300	1190	340
Benzo[g,h,i]perylene	191-24-2	ug/kg	595	95	NA	< 410	177	271	< 398	NA	NA	7190	498	200
Benzo[k]fluoranthene	207-08-9	ug/kg	680	< 390	240	97	< 395	238	< 398	NA	NA	9320	556	160
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 398	< 390	< 420	200	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	27
Butylbenzylphthalate	85-68-7	ug/kg	< 398	< 390	< 420	< 410	310	158	164	NA	NA	< 4480.282	< 409	< 55
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	1310	200	430	170	269	429	105	NA	NA	24600	806	300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	155	< 390	< 420	< 410	< 395	82.6	< 398	NA	NA	2890	151	< 55
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 398	< 390	55	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Dimethylphthalate	131-11-3	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Di-n-butylphthalate	84-74-2	ug/kg	< 398	< 390	240	180	< 395	122	< 398	NA	NA	< 4480.282	67	72
Di-n-octylphthalate	117-84-0	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Fluoranthene	206-44-0	ug/kg	2600	390	410	260	550	1010	148	NA	NA	61600	2420	710
Fluorene	86-73-7	ug/kg	40.6	< 390	< 420	< 410	< 395	67.5	< 398	NA	NA	8520	130	45
Hexachlorobenzene	118-74-1	ug/kg	< 398	NA	< 420	< 410	< 395	< 397	< 398	NA	NA	NA	NA	< 55
Hexachlorobutadiene	87-68-3	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Hexachloroethane	67-72-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	563	89	160	< 410	140	235	< 398	NA	NA	7440	474	180
Isophorone	78-59-1	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N
Parent Sample								G13-1-032N					G6-2-021.25N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	14900	84	< 55
Nitrobenzene	98-95-3	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 398	< 390	140	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Pentachlorophenol	87-86-5	ug/kg	< 797	< 780	< 2100	< 2000	< 790	< 794	< 797	NA	NA	< 8960.564	< 818	< 110
Phenanthrene	85-01-8	ug/kg	896	270	120	140	305	689	177	NA	NA	71800	1500	480
Phenol	108-95-2	ug/kg	< 398	< 390	< 420	< 410	< 395	< 397	< 398	NA	NA	< 4480.282	< 409	< 55
Pyrene	129-00-0	ug/kg	1980	390	870	360	502	1010	253	NA	NA	54200	1480	530
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N
Parent Sample								G13-1-032N					G6-2-021.25N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250	< 238	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250	< 238	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250	< 238	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250	< 238	< 24
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500	< 476	< 48
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500	< 476	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250	< 238	< 24
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500	< 476	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250	< 238	< 24
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	66200	86100	< 479.839	< 439	153000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 6142.506	< 710	< 6637.461	< 6100	15000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500	< 476	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500	< 476	< 48
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500	< 476	< 48
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.428	< 0.48	< 0.51	< 0.47	< 0.704	< 0.708	< 0.71	NA	NA	< 0.582522	< 0.583	< 0.9
Arsenic	7440-38-2	mg/kg	106	5.5	6.6	10.8	4.55	4.92	9.54	NA	NA	3.62	3.33	3.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.428	0.65	0.39	0.51	0.443	0.488	0.68	NA	NA	0.221	0.226	0.21
Cadmium	7440-43-9	mg/kg	0.262	< 0.29	2	1.1	0.268	0.309	0.219	NA	NA	0.358	0.284	0.08
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.1	25.1	18.5	15	20.6	15.3	20.1	NA	NA	6.04	6.1	5.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	24.2	14.7	38.4	54.4	22	26.9	55.8	NA	NA	92.2	83.6	12.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	45.3	18.5	215	165	350	408	516	NA	NA	186	182	49
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.14	0.05	0.2	0.24	0.148	0.183	0.478	NA	NA	1.41	1.3	1.1
Nickel	7440-02-0	mg/kg	9.33	14	11.2	8.9	9.85	7.62	7.27	NA	NA	7.26	7.42	5.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.03	0.99	0.96	1.4	0.573	1.05	0.63	NA	NA	0.976	0.577	0.84

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N
Parent Sample								G13-1-032N					G6-2-021.25N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.342	< 0.29	< 0.31	0.09	< 0.352	< 0.354	0.727	NA	NA	< 0.291261	< 0.291	< 0.4
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.14	0.89	< 1	< 0.95	< 1.17	1.11	< 1.18	NA	NA	< 0.97087	< 0.971	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	38.5	75.6	638	371	176	240	159	NA	NA	36.4	34.3	20.4
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	11300	11600	NA	38000	NA	NA	NA	57400	NA	NA	67800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	10.3	4.5	NA	NA	NA	NA	NA	14.2	NA	NA	5.8
Gravel	ARC-PGRAVEL	%	NA	20.8	41.7	NA	NA	NA	NA	NA	17.7	NA	NA	24.7
Sand	ARC-PSAND	%	NA	51.5	42.9	NA	NA	NA	NA	NA	31.9	NA	NA	61.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	90.3	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	73.2	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	26.4	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	80.8	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	49.1	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	32.4	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	61.6	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	39.1	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	17.4	10.9	NA	NA	NA	NA	NA	36.2	NA	NA	7.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03	G6-8243-03	G6-8244-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000	3/30/2000	3/31/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 579	NA	NA	NA	NA	NA	NA	< 580	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 579	NA	NA	NA	NA	NA	NA	< 580	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 579	NA	NA	NA	NA	NA	NA	< 580	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 579	NA	NA	NA	NA	NA	NA	< 580	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 115	NA	NA	NA	NA	NA	NA	< 120	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 231	NA	NA	NA	NA	NA	NA	< 230	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	159	NA	NA	NA	NA	NA	NA	< 120	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 115	NA	NA	NA	NA	NA	NA	< 120	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	129	NA	NA	NA	NA	NA	NA	< 58	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	432	NA	NA	NA	NA	NA	NA	< 120	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 579	NA	NA	NA	NA	NA	NA	< 580	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03	G6-8243-03	G6-8244-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000	3/30/2000	3/31/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 57	NA	NA	NA	NA	NA	NA	< 58	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 115	NA	NA	NA	NA	NA	NA	< 120	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	< 396.353	< 48	NA	< 53	110	< 560	< 53	< 42	< 45	NA	< 43
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2,4-Dinitrophenol	51-28-5	ug/kg	< 80	< 792.706	< 95	NA	< 110	< 85	< 1100	< 110	< 83	< 90	NA	< 85
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	37	< 480	NA	84	87	< 5600	400	< 420	140	NA	< 430
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 396	< 480	NA	< 530	< 430	< 5600	48	< 420	< 450	NA	< 430
2-Chloronaphthalene	91-58-7	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2-Chlorophenol	95-57-8	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 40	NA	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
2-Nitrotoluene	88-72-2	ug/kg	NA	< 396.353	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 80	< 792.706	< 95	NA	< 110	< 85	< 1100	< 110	< 83	< 90	NA	< 85
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 80	< 792.706	< 95	NA	< 110	< 85	< 1100	< 110	< 83	< 90	NA	< 85
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03	G6-8243-03	G6-8244-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000	3/30/2000	3/31/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 80	NA	< 95	NA	< 110	< 85	< 1100	< 110	< 83	< 90	NA	< 85
4-Nitrotoluene	99-99-0	ug/kg	NA	< 792.706	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 40	< 396.353	< 48	NA	47	< 43	< 560	< 53	< 42	32	NA	< 43
Acenaphthylene	208-96-8	ug/kg	80	91	35	NA	180	< 43	< 560	26	31	57	NA	19
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	65	183	30	NA	200	< 43	< 560	75	39	85	NA	< 43
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	540	554	180	NA	710	100	440	200	220	360	NA	82
Benzo[a]pyrene	50-32-8	ug/kg	380	392	210	NA	920	94	800	260	240	420	NA	110
Benzo[b]fluoranthene	205-99-2	ug/kg	570	615	490	NA	1500	170	< 560	460	320	600	NA	150
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 40	157	210	NA	910	< 43	1700	260	150	370	NA	120
Benzo[k]fluoranthene	207-08-9	ug/kg	200	208	170	NA	630	< 43	< 560	200	< 42	230	NA	< 43
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 40	< 396.353	70	NA	250	46	< 560	140	50	< 45	NA	63
Butylbenzylphthalate	85-68-7	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	440	463	340	NA	980	170	1100	280	280	450	NA	150
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	< 396.353	< 48	NA	270	< 43	< 560	< 53	< 42	100	NA	< 43
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 40	< 396.353	40	NA	92	190	< 560	130	< 42	130	NA	< 43
Dimethylphthalate	131-11-3	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	38
Di-n-butylphthalate	84-74-2	ug/kg	< 40	< 396.353	52	NA	340	< 43	< 560	< 53	< 42	< 45	NA	220
Di-n-octylphthalate	117-84-0	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Fluoranthene	206-44-0	ug/kg	630	1350	630	NA	1400	170	770	330	520	890	NA	230
Fluorene	86-73-7	ug/kg	< 40	50	< 48	NA	92	< 43	< 560	< 53	< 42	47	NA	< 43
Hexachlorobenzene	118-74-1	ug/kg	< 40	NA	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Hexachlorobutadiene	87-68-3	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Hexachloroethane	67-72-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 40	172	170	NA	750	< 43	< 560	230	130	330	NA	84
Isophorone	78-59-1	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03	G6-8243-03	G6-8244-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000	3/30/2000	3/31/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 40	< 396.353	< 48	NA	56	< 43	< 560	37	< 42	< 45	NA	< 43
Nitrobenzene	98-95-3	ug/kg	< 40	< 396.353	< 48	NA	NA	< 43	< 560	< 53	< 42	< 45	NA	< 43
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 40	< 396.353	< 48	NA	< 53	330	< 560	< 53	< 42	< 45	NA	85
Pentachlorophenol	87-86-5	ug/kg	< 80	< 792.706	< 95	NA	< 110	< 85	< 1100	< 110	< 83	< 90	NA	< 85
Phenanthrene	85-01-8	ug/kg	310	1070	300	NA	960	270	620	260	310	630	NA	220
Phenol	108-95-2	ug/kg	< 40	< 396.353	< 48	NA	< 53	< 43	< 560	< 53	< 42	< 45	NA	< 43
Pyrene	129-00-0	ug/kg	540	663	490	NA	1300	160	< 560	410	500	800	NA	180
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03	G6-8243-03	G6-8244-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000	3/30/2000	3/31/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	390000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	5200	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.588234	< 4	NA	1.4	1.5	4.3	9.1	< 0.7	< 1	NA	< 0.7
Arsenic	7440-38-2	mg/kg	3.9	4.83	12.9	NA	70	12.1	13.1	17.8	4.5	22.4	NA	15.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.67	0.482	1.2	NA	0.82	0.6	0.53	0.78	0.19	0.58	NA	0.58
Cadmium	7440-43-9	mg/kg	0.07	0.334	2.2	NA	5.9	1.4	7.6	10.1	0.44	20.8	NA	3.2
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.2	14.4	23.6	NA	24.4	26.5	49.7	18.2	6.8	31.9	NA	11.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	63.5	21	114	NA	86	29.2	211	43.2	15.8	41.4	NA	30.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	241	194	330	NA	1010	300	1050	928	76.1	4710	NA	274
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2.7	1.96	10.1	NA	9.9	4.4	32.1	42.7	36.9	5.6	NA	6.8
Nickel	7440-02-0	mg/kg	7.8	10.2	17.8	NA	20.1	22.2	15.7	15.9	6.7	16	NA	11.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.8	0.621	< 3	NA	3.3	1.4	2.3	4.9	0.4	2.3	NA	2.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03	G6-8243-03	G6-8244-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft
Collection Date			3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000	3/30/2000	3/31/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N	G6-8243-030.5N	G6-8244-011.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.294117	< 2	NA	0.95	< 0.3	0.66	1	< 0.3	1.7	NA	0.25
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 0.98039	< 7	NA	1.6	< 1	< 1	< 3	< 1	< 2	NA	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	177	115	329	NA	493	648	2150	3320	219	5120	NA	802
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	12800	NA	58200	NA	23000	12300	NA	NA	119000	45800	NA	12800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	7.9	NA	4.8	NA	3.3	1.1	NA	NA	0.6	3.2	NA	3.1
Gravel	ARC-PGRAVEL	%	38.3	NA	31.5	NA	57.4	70.7	NA	NA	51.8	45.1	NA	67
Sand	ARC-PSAND	%	36	NA	40.6	NA	27.4	21.2	NA	NA	39.9	36.6	NA	22.2
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	17.9	NA	23	NA	11.9	7	NA	NA	7.7	15	NA	7.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G6-8244-01 0.5-1.0 ft 3/31/2000 N G6-8244-010.5N	G6-8244-03 0.0-1.0 ft 7/14/2000 N G6-8244-031N	G6-8244-03 0.5-1.0 ft 7/14/2000 N G6-8244-030.5N	G6-8261-03 0.0-1.0 ft 3/30/2000 N G6-8261-031N	G6-8261-03 0.5-1.0 ft 3/30/2000 N G6-8261-030.5N	G6-8261-05 0.5-1.0 ft 3/30/2000 N G6-8261-050.5N	G6-906-02 0.0-2.0 ft 8/17/2000 N G6-906-022N	G6-906-02 0.5-1.0 ft 9/13/2000 N G6-906-020.5N	G6-9219-04 0.0-1.5 ft 6/22/2000 N G6-9219-041.5N	G6-9219-05 0.0-1.5 ft 3/30/2000 N G6-9219-051.5N	G7-1-01 0.0-1.0 ft 12/16/1999 N G7-1-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 481	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 481	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 48	NA	NA	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 481	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 481	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 96	NA	< 1201.923	NA	< 100	< 100	NA	< 1080	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 539	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 192	NA	< 2403.846	NA	< 210	< 210	NA	< 2160	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 96	NA	NA	NA	< 100	< 100	NA	< 1080	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 48	NA	< 600.9615	NA	420	< 52	NA	574	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 96	NA	< 1201.923	NA	< 100	< 100	NA	< 1080	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 96	NA	< 1201.923	NA	< 100	< 100	NA	< 1080	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 539	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 481	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-8244-01	G6-8244-03	G6-8244-03	G6-8261-03	G6-8261-03	G6-8261-05	G6-906-02	G6-906-02	G6-9219-04	G6-9219-05	G7-1-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/31/2000	7/14/2000	7/14/2000	3/30/2000	3/30/2000	3/30/2000	8/17/2000	9/13/2000	6/22/2000	3/30/2000	12/16/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-8244-010.5N	G6-8244-031N	G6-8244-030.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-906-022N	G6-906-020.5N	G6-9219-041.5N	G6-9219-051.5N	G7-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	440	< 52	NA	< 539	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Toluene	108-88-3	ug/kg	< 48	NA	220	NA	170	< 52	NA	< 539	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 48	NA	< 600.9615	NA	< 52	< 52	NA	< 539	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 48	NA	< 600.9615	NA	< 52	520	NA	< 539	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 96	NA	NA	NA	< 100	< 100	NA	< 1080	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 772.094	NA	NA	NA	NA	< 780.742	NA	< 874.086	< 77	< 770
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	1670	NA	NA	NA	NA	< 390	NA	< 437	< 380	69
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	627	NA	NA	NA	NA	< 390	NA	< 437	< 380	< 380
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
2-Chlorophenol	95-57-8	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 38	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 772.094	NA	NA	NA	NA	< 780.742	NA	< 874.086	< 77	< 770
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 772.094	NA	NA	NA	NA	< 780.742	NA	< 874.086	< 77	< 770
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-8244-01	G6-8244-03	G6-8244-03	G6-8261-03	G6-8261-03	G6-8261-05	G6-906-02	G6-906-02	G6-9219-04	G6-9219-05	G7-1-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/31/2000	7/14/2000	7/14/2000	3/30/2000	3/30/2000	3/30/2000	8/17/2000	9/13/2000	6/22/2000	3/30/2000	12/16/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-8244-010.5N	G6-8244-031N	G6-8244-030.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-906-022N	G6-906-020.5N	G6-9219-041.5N	G6-9219-051.5N	G7-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 77	< 760
4-Nitrotoluene	99-99-0	ug/kg	NA	< 772.094	NA	NA	NA	NA	< 780.742	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Acenaphthylene	208-96-8	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	31
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	104	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	28
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 380
Benzo[a]anthracene	56-55-3	ug/kg	NA	412	NA	NA	NA	NA	< 390.371	NA	46.33	< 38	220
Benzo[a]pyrene	50-32-8	ug/kg	NA	371	NA	NA	NA	NA	< 390.371	NA	51.13	< 38	200
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	628	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	300
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	381	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	226	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	120
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	79.1	NA	NA	NA	NA	< 390.371	NA	68.18	22	51
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 386.047	643	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	603	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	114	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	330
Dimethylphthalate	131-11-3	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Di-n-butylphthalate	84-74-2	ug/kg	NA	79.9	NA	NA	NA	NA	49.6	NA	69.49	< 38	200
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Fluoranthene	206-44-0	ug/kg	NA	884	NA	NA	NA	NA	< 390.371	NA	79.1	< 38	340
Fluorene	86-73-7	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 38	< 380
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Hexachloroethane	67-72-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	334	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Isophorone	78-59-1	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-8244-01	G6-8244-03	G6-8244-03	G6-8261-03	G6-8261-03	G6-8261-05	G6-906-02	G6-906-02	G6-9219-04	G6-9219-05	G7-1-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/31/2000	7/14/2000	7/14/2000	3/30/2000	3/30/2000	3/30/2000	8/17/2000	9/13/2000	6/22/2000	3/30/2000	12/16/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-8244-010.5N	G6-8244-031N	G6-8244-030.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-906-022N	G6-906-020.5N	G6-9219-041.5N	G6-9219-051.5N	G7-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Nitrobenzene	98-95-3	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	462	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 437.043	< 38	480
Pentachlorophenol	87-86-5	ug/kg	NA	< 772.094	NA	NA	NA	NA	< 780.742	NA	< 874.086	< 77	< 770
Phenanthrene	85-01-8	ug/kg	NA	494	NA	NA	NA	NA	< 390.371	NA	54.63	< 38	94
Phenol	108-95-2	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	< 380
Pyrene	129-00-0	ug/kg	NA	1180	NA	NA	NA	NA	< 390.371	NA	< 437.043	< 38	310
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-8244-01	G6-8244-03	G6-8244-03	G6-8261-03	G6-8261-03	G6-8261-05	G6-906-02	G6-906-02	G6-9219-04	G6-9219-05	G7-1-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/31/2000	7/14/2000	7/14/2000	3/30/2000	3/30/2000	3/30/2000	8/17/2000	9/13/2000	6/22/2000	3/30/2000	12/16/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-8244-010.5N	G6-8244-031N	G6-8244-030.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-906-022N	G6-906-020.5N	G6-9219-041.5N	G6-9219-051.5N	G7-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 25	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 468.074	< 40000	126000
Nitroglycerin	55-63-0	ug/kg	NA	< 386.047	NA	NA	NA	NA	< 390.371	NA	< 6243.483	5800	14750
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 50	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.653	NA	NA	NA	NA	< 0.006838	NA	< 0.538821	< 0.6	< 0.47
Arsenic	7440-38-2	mg/kg	NA	34.7	NA	NA	NA	NA	4.03	NA	3.07	2.3	23.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.622	NA	NA	NA	NA	0.675	NA	0.462	0.75	0.6
Cadmium	7440-43-9	mg/kg	NA	20.2	NA	NA	NA	NA	< 0.003419	NA	< 0.269411	< 0.3	< 0.28
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	26.8	NA	NA	NA	NA	18.9	NA	46.1	19.2	29.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	88.3	NA	NA	NA	NA	11.1	NA	16.5	16.5	27.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	4360	NA	NA	NA	NA	9.43	NA	30.2	6.3	24.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	7.78	NA	NA	NA	NA	0.061	NA	0.087	< 0	0.06
Nickel	7440-02-0	mg/kg	NA	35	NA	NA	NA	NA	9.63	NA	22	10.4	10.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	6.37	NA	NA	NA	NA	1.18	NA	< 0.449018	< 0.5	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G6-8244-01	G6-8244-03	G6-8244-03	G6-8261-03	G6-8261-03	G6-8261-05	G6-906-02	G6-906-02	G6-9219-04	G6-9219-05	G7-1-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/31/2000	7/14/2000	7/14/2000	3/30/2000	3/30/2000	3/30/2000	8/17/2000	9/13/2000	6/22/2000	3/30/2000	12/16/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G6-8244-010.5N	G6-8244-031N	G6-8244-030.5N	G6-8261-031N	G6-8261-030.5N	G6-8261-050.5N	G6-906-022N	G6-906-020.5N	G6-9219-041.5N	G6-9219-051.5N	G7-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	1.84	NA	NA	NA	NA	< 0.003419	NA	< 0.269411	< 0.3	< 0.28
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 2.257846	NA	NA	NA	NA	< 0.011397	NA	< 0.898035	< 1	< 0.94
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	3200	NA	NA	NA	NA	58.5	NA	41.6	125	68.7
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	20100	NA	NA	NA	NA	NA	22400	3190
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	3.5	NA	NA	NA	NA	NA	5.5	8.9
Gravel	ARC-PGRAVEL	%	NA	NA	NA	60.9	NA	NA	NA	NA	NA	28.7	32.1
Sand	ARC-PSAND	%	NA	NA	NA	24.5	NA	NA	NA	NA	NA	58.4	36
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	11.1	NA	NA	NA	NA	NA	7.4	23.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-2-01	G7-2115-04	G7-2115-06	G7-2115-07	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G7-2164-07	G7-58-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	9/27/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			G7-2-011N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N	G7-2149-010.5N	G7-2149-041N	G7-2149-041FD	G7-2164-011.5N	G7-2164-050.5N	G7-2164-072N	G7-58-011N
Parent Sample									G7-2149-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-2-01	G7-2115-04	G7-2115-06	G7-2115-07	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G7-2164-07	G7-58-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	9/27/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			G7-2-011N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N	G7-2149-010.5N	G7-2149-041N	G7-2149-041FD	G7-2164-011.5N	G7-2164-050.5N	G7-2164-072N	G7-58-011N
Parent Sample									G7-2149-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 88	< 870	< 1000	< 880	< 840	< 830	< 760	< 810	< 790	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 440	240	1000	150	540	< 420	< 380	130	600	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 440	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 88	< 870	< 1000	< 880	< 840	< 830	< 760	< 810	< 790	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 88	< 870	< 1000	< 880	< 840	< 830	< 760	< 810	< 790	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-2-01	G7-2115-04	G7-2115-06	G7-2115-07	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G7-2164-07	G7-58-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	9/27/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			G7-2-011N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N	G7-2149-010.5N	G7-2149-041N	G7-2149-041FD	G7-2164-011.5N	G7-2164-050.5N	G7-2164-072N	G7-58-011N
Parent Sample									G7-2149-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 88	< 870	< 1000	< 880	< 840	< 830	< 760	< 810	< 790	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	31	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	30	49	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	65	36	43	< 440	110	71	< 380	130	250	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	68	< 430	< 500	< 440	120	< 420	< 380	95	250	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	110	< 430	< 500	< 440	380	200	< 380	150	1800	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 44	< 430	< 500	< 440	120	120	< 380	< 410	530	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 44	150	150	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	87	< 430	< 500	< 440	190	130	< 380	120	350	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	57	1000	3900	200	54	< 420	< 380	< 410	490	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 44	5100	6200	670	< 420	< 420	< 380	680	7600	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Fluoranthene	206-44-0	ug/kg	170	< 430	< 500	< 440	240	180	< 380	280	490	NA	NA
Fluorene	86-73-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	340	NA	NA
Isophorone	78-59-1	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-2-01	G7-2115-04	G7-2115-06	G7-2115-07	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G7-2164-07	G7-58-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	9/27/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			G7-2-011N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N	G7-2149-010.5N	G7-2149-041N	G7-2149-041FD	G7-2164-011.5N	G7-2164-050.5N	G7-2164-072N	G7-58-011N
Parent Sample									G7-2149-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 420	< 420	< 380	NA	< 400	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 44	700	3700	1600	290	360	< 380	210	580	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 88	< 870	< 1000	< 880	< 840	< 830	< 760	< 810	< 790	NA	NA
Phenanthrene	85-01-8	ug/kg	120	< 430	< 500	< 440	78	62	< 380	180	82	NA	NA
Phenol	108-95-2	ug/kg	< 44	< 430	< 500	< 440	< 420	< 420	< 380	< 410	< 400	NA	NA
Pyrene	129-00-0	ug/kg	150	< 430	< 500	< 440	220	140	< 380	300	430	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-2-01	G7-2115-04	G7-2115-06	G7-2115-07	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G7-2164-07	G7-58-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	9/27/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			G7-2-011N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N	G7-2149-010.5N	G7-2149-041N	G7-2149-041FD	G7-2164-011.5N	G7-2164-050.5N	G7-2164-072N	G7-58-011N
Parent Sample									G7-2149-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 250	< 250	< 250	NA	NA	NA	< 250	NA	< 250	< 100
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 250	< 250	< 250	NA	NA	NA	< 250	NA	< 250	< 100
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	4657	14175	13727	NA	NA	NA	< 250	NA	< 250	< 100
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 100
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 250	< 250	< 250	NA	NA	NA	< 250	NA	< 250	< 100
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 500	< 500	< 500	NA	NA	NA	< 500	NA	< 500	< 200
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 500	< 500	< 500	NA	NA	NA	< 500	NA	< 500	< 200
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 250	< 250	< 250	NA	NA	NA	< 250	NA	< 250	< 100
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 500	< 500	< 500	NA	NA	NA	< 500	NA	< 500	< 200
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 250	< 250	< 250	NA	NA	NA	< 250	NA	< 250	< 100
Nitrocellulose	9004-70-0	ug/kg	65400	9560000	23400000	33700000	NA	NA	NA	105000	NA	< 33.1	261000
Nitroglycerin	55-63-0	ug/kg	< 660	232903	1320000	1670000	NA	NA	NA	5985	NA	3682	20400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 500	< 500	< 500	NA	NA	NA	< 500	NA	< 500	< 200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 500	< 500	< 500	NA	NA	NA	< 500	NA	< 500	< 200
Tetryl	479-45-8	ug/kg	< 500	< 500	< 500	< 500	NA	NA	NA	< 500	NA	< 500	< 200
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 1.2	0.46	< 0.66	< 0.62	< 0.58	< 0.46	< 0.59	< 0.55	NA	NA
Arsenic	7440-38-2	mg/kg	3.9	244	97.7	189	383	378	10.7	162	266	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.23	0.68	0.59	0.56	0.45	0.56	0.3	0.55	0.41	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.3	5.5	1.1	< 0.4	0.6	0.7	< 0.08	1.4	< 0.33	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13	21	41	83.2	13.5	12.2	13.9	39.5	27.4	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	8.8	115	452	376	61.1	41.5	142	28.8	84.8	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	46.4	419	563	582	218	192	242	302	229	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.28	0.24	1.4	5.1	0.61	0.44	0.1	0.04	0.39	NA	NA
Nickel	7440-02-0	mg/kg	7.2	13.9	12.3	10	9	9	7.7	9.9	16.4	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.59	1.4	1.6	1.9	1.5	1.5	1.3	1.1	1.9	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-2-01	G7-2115-04	G7-2115-06	G7-2115-07	G7-2149-01	G7-2149-04	G7-2149-04	G7-2164-01	G7-2164-05	G7-2164-07	G7-58-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	12/21/1999	9/27/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			G7-2-011N	G7-2115-041N	G7-2115-060.5N	G7-2115-071N	G7-2149-010.5N	G7-2149-041N	G7-2149-041FD	G7-2164-011.5N	G7-2164-050.5N	G7-2164-072N	G7-58-011N
Parent Sample									G7-2149-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.74	< 0.45	< 0.4	< 0.37	< 0.35	< 0.29	< 0.35	< 0.33	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 2.5	< 1.5	< 1.3	< 1.2	< 1.2	< 0.98	0.78	0.65	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	31.7	1050	469	160	142	173	57	289	95.1	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	10600	NA	NA	NA	55400	NA	12700	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	29.6	NA	NA	NA	10.6	NA	15.1	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	15.4	NA	NA	NA	37.8	NA	20.7	NA	NA	NA
Sand	ARC-PSAND	%	NA	21.1	NA	NA	NA	31.7	NA	35.7	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	33.8	NA	NA	NA	19.9	NA	28.6	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-58-04	G7-8139-02	G7-8139-05	G7-8139-08	G7-8140-02	G7-8140-02	G7-8249-02	G7-E49-02	G7-E49-05	G8-2114-03	G8-2114-06
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	6/21/2000	12/17/1999	12/17/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			G7-58-040.75N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8140-022N	G7-8140-022FD	G7-8249-020.5N	G7-E49-021N	G7-E49-051N	G8-2114-031N	G8-2114-061N
Parent Sample								G7-8140-022N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G7-58-04 0.0-0.8 ft 7/13/2000 N G7-58-040.75N	G7-8139-02 0.0-1.0 ft 3/28/2000 N G7-8139-021N	G7-8139-05 0.0-1.0 ft 3/28/2000 N G7-8139-051N	G7-8139-08 0.0-0.5 ft 3/28/2000 N G7-8139-080.5N	G7-8140-02 0.0-2.0 ft 3/28/2000 N G7-8140-022N	G7-8140-02 0.0-2.0 ft 3/28/2000 FD G7-8140-022FD G7-8140-022N	G7-8249-02 0.0-0.5 ft 3/28/2000 N G7-8249-020.5N	G7-E49-02 0.0-1.0 ft 4/4/2000 N G7-E49-021N	G7-E49-05 0.0-1.0 ft 6/21/2000 N G7-E49-051N	G8-2114-03 0.0-1.0 ft 12/17/1999 N G8-2114-031N	G8-2114-06 0.0-1.0 ft 12/17/1999 N G8-2114-061N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 90	NA	< 77	< 780	< 83	NA	NA	< 730	< 850
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 450	NA	< 380	< 390	800	NA	NA	960	840
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 450	NA	< 380	< 390	73	NA	NA	55	< 430
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 90	NA	< 77	< 780	< 83	NA	NA	< 730	< 850
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 90	NA	< 77	< 780	< 83	NA	NA	< 730	< 850
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G7-58-04 0.0-0.8 ft 7/13/2000 N G7-58-040.75N	G7-8139-02 0.0-1.0 ft 3/28/2000 N G7-8139-021N	G7-8139-05 0.0-1.0 ft 3/28/2000 N G7-8139-051N	G7-8139-08 0.0-0.5 ft 3/28/2000 N G7-8139-080.5N	G7-8140-02 0.0-2.0 ft 3/28/2000 N G7-8140-022N	G7-8140-02 0.0-2.0 ft 3/28/2000 FD G7-8140-022FD G7-8140-022N	G7-8249-02 0.0-0.5 ft 3/28/2000 N G7-8249-020.5N	G7-E49-02 0.0-1.0 ft 4/4/2000 N G7-E49-021N	G7-E49-05 0.0-1.0 ft 6/21/2000 N G7-E49-051N	G8-2114-03 0.0-1.0 ft 12/17/1999 N G8-2114-031N	G8-2114-06 0.0-1.0 ft 12/17/1999 N G8-2114-061N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 90	NA	< 77	< 780	< 83	NA	NA	< 730	< 850
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 45	NA	< 38	< 390	110	NA	NA	< 370	< 430
Acenaphthylene	208-96-8	ug/kg	NA	NA	120	NA	< 38	< 390	120	NA	NA	< 370	< 430
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	45	NA	< 38	< 390	180	NA	NA	< 370	< 430
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 370	< 430
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	240	NA	83	120	1300	NA	NA	< 370	< 430
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	530	NA	< 38	120	1600	NA	NA	< 370	< 430
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	880	NA	< 38	240	3300	NA	NA	59	160
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	860	NA	< 38	84	1200	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	360	NA	< 38	< 390	1300	NA	NA	< 370	< 430
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	52	NA	72	120	320	NA	NA	190	< 430
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	300	NA	120	130	1600	NA	NA	< 370	140
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	200	NA	< 38	< 390	410	NA	NA	< 370	< 430
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	2900	NA	160	110	2500	NA	NA	2600	280
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 45	NA	< 38	< 390	200	NA	NA	< 370	< 430
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	95	NA	67	< 390	2000	NA	NA	940	< 430
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Fluoranthene	206-44-0	ug/kg	NA	NA	250	NA	130	180	2400	NA	NA	< 370	< 430
Fluorene	86-73-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	68	NA	NA	< 370	< 430
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	740	NA	< 38	74	1200	NA	NA	< 370	< 430
Isophorone	78-59-1	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	130

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-58-04	G7-8139-02	G7-8139-05	G7-8139-08	G7-8140-02	G7-8140-02	G7-8249-02	G7-E49-02	G7-E49-05	G8-2114-03	G8-2114-06
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	6/21/2000	12/17/1999	12/17/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			G7-58-040.75N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8140-022N	G7-8140-022FD	G7-8249-020.5N	G7-E49-021N	G7-E49-051N	G8-2114-031N	G8-2114-061N
Parent Sample								G7-8140-022N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	19	NA	< 38	< 390	68	NA	NA	< 370	< 430
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	140	NA	< 38	< 390	110	NA	NA	310	670
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 90	NA	< 77	< 780	< 83	NA	NA	< 730	< 850
Phenanthrene	85-01-8	ug/kg	NA	NA	79	NA	67	65	1200	NA	NA	< 370	140
Phenol	108-95-2	ug/kg	NA	NA	< 45	NA	< 38	< 390	< 42	NA	NA	< 370	< 430
Pyrene	129-00-0	ug/kg	NA	NA	290	NA	120	160	2300	NA	NA	< 370	< 430
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 3	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	< 34	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-58-04	G7-8139-02	G7-8139-05	G7-8139-08	G7-8140-02	G7-8140-02	G7-8249-02	G7-E49-02	G7-E49-05	G8-2114-03	G8-2114-06
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	6/21/2000	12/17/1999	12/17/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			G7-58-040.75N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8140-022N	G7-8140-022FD	G7-8249-020.5N	G7-E49-021N	G7-E49-051N	G8-2114-031N	G8-2114-061N
Parent Sample								G7-8140-022N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 24	NA	NA	NA	NA	NA	< 25	< 250	< 238	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 24	NA	NA	NA	NA	NA	< 25	< 250	< 238	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	435	220	NA	NA	NA	NA	NA	< 25	< 250	< 238	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 240	NA	NA	NA	NA	NA	< 250	< 250	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 24	NA	NA	NA	NA	NA	< 25	< 250	< 238	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 48	NA	NA	NA	NA	NA	< 50	< 500	< 476	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 48	NA	NA	NA	NA	NA	< 50	< 500	< 476	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 24	NA	NA	NA	NA	NA	< 25	< 250	< 238	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 48	NA	NA	NA	NA	NA	< 50	< 500	< 476	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	222	460	NA	NA	NA	NA	NA	170	< 250	< 238	< 250
Nitrocellulose	9004-70-0	ug/kg	557000	1290000	NA	NA	NA	NA	NA	250000	60700	454000	1030000
Nitroglycerin	55-63-0	ug/kg	8830	42000	NA	NA	NA	NA	NA	6100	< 6321.112	88800	40195
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 48	NA	NA	NA	NA	NA	< 50	< 500	< 476	849
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 48	NA	NA	NA	NA	NA	< 50	< 500	< 476	< 500
Tetryl	479-45-8	ug/kg	< 500	< 48	NA	NA	NA	NA	NA	< 50	< 500	476	500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.7	NA	< 0.6	< 0.56	4.4	< 0.8	NA	< 0.47	< 3.1
Arsenic	7440-38-2	mg/kg	NA	NA	72.4	NA	5.5	4.3	31.7	11.4	NA	18.1	17
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.94	NA	0.48	0.53	0.41	0.63	NA	0.41	0.4
Cadmium	7440-43-9	mg/kg	NA	NA	0.39	NA	< 0.3	< 0.34	< 0.3	0.14	NA	< 0.28	< 1.8
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	25.9	NA	9.8	10.5	29.8	18	NA	28	23.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	969	NA	17.6	16.6	108	384	NA	95.7	4780
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	510	NA	64	38.9	996	148	NA	28.7	90.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	11.6	NA	0.56	0.31	11.7	1.2	NA	0.08	0.45
Nickel	7440-02-0	mg/kg	NA	NA	19.6	NA	6.1	7.7	14.2	13.5	NA	6.1	19.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	1.8	NA	0.58	0.93	3.3	0.96	NA	< 0.47	1.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G7-58-04	G7-8139-02	G7-8139-05	G7-8139-08	G7-8140-02	G7-8140-02	G7-8249-02	G7-E49-02	G7-E49-05	G8-2114-03	G8-2114-06
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	6/21/2000	12/17/1999	12/17/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			G7-58-040.75N	G7-8139-021N	G7-8139-051N	G7-8139-080.5N	G7-8140-022N	G7-8140-022FD	G7-8249-020.5N	G7-E49-021N	G7-E49-051N	G8-2114-031N	G8-2114-061N
Parent Sample								G7-8140-022N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	0.45	NA	< 0.3	< 0.34	0.8	< 0.4	NA	< 0.28	< 1.8
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	2	NA	0.53	< 1.1	2.2	< 1	NA	0.72	< 6.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	527	NA	183	144	186	242	NA	120	111
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	57400	NA	12300	NA	10900	NA	38900	53000	NA	16100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	1.5	NA	2.5	NA	5.6	9.7	NA	4	NA
Gravel	ARC-PGRAVEL	%	NA	NA	61.3	NA	33.7	NA	42.2	32.9	NA	42.7	NA
Sand	ARC-PSAND	%	NA	NA	21	NA	55.9	NA	37.2	22	NA	42.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	77.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	33.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	67.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	48.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	37.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	55.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	42.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	16.3	NA	8	NA	15	35.4	NA	10.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G8-2148-02 0.0-1.0 ft 12/17/1999 N G8-2148-021N	G8-2204-03 0.0-1.0 ft 6/16/2000 N G8-2204-031N	G8-2204-05 0.0-1.0 ft 12/17/1999 N G8-2204-051N	G8-2209-01 0.0-1.0 ft 3/23/2000 N G8-2209-011N	G8-2209-05 0.0-1.0 ft 3/23/2000 N G8-2209-051N	G8-2210-02 0.0-2.0 ft 12/17/1999 N G8-2210-022N	G8-2210-03 0.0-1.5 ft 12/17/1999 N G8-2210-031.5N	G8-2210-03 0.0-1.5 ft 12/17/1999 FD G8-2210-031.5FD G8-2210-031.5N	G8-2249-01 0.0-1.0 ft 12/17/1999 N G8-2249-011N	G8-2260-01 0.0-1.0 ft 12/17/1999 N G8-2260-011N	G8-2293-02 0.0-0.5 ft 4/4/2000 N G8-2293-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-2148-02	G8-2204-03	G8-2204-05	G8-2209-01	G8-2209-05	G8-2210-02	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-2293-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			12/17/1999	6/16/2000	12/17/1999	3/23/2000	3/23/2000	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	4/4/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			G8-2148-021N	G8-2204-031N	G8-2204-051N	G8-2209-011N	G8-2209-051N	G8-2210-022N	G8-2210-031.5N	G8-2210-031.5FD	G8-2249-011N	G8-2260-011N	G8-2293-020.5N
Parent Sample										G8-2210-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	< 768	< 720	< 79	< 73	< 770	< 740	< 740	< 773	< 720	< 94
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	< 384	< 360	< 400	< 370	43	< 370	< 370	< 387	< 360	< 470
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	< 384	< 360	< 400	< 370	< 380	< 370	< 370	< 387	< 360	< 470
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2-Chlorophenol	95-57-8	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 768	< 720	< 79	< 73	< 770	< 740	< 740	< 773	< 720	< 94
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	< 768	< 720	< 79	< 73	< 770	< 740	< 740	< 773	< 720	< 94
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G8-2148-02 0.0-1.0 ft 12/17/1999 N G8-2148-021N	G8-2204-03 0.0-1.0 ft 6/16/2000 N G8-2204-031N	G8-2204-05 0.0-1.0 ft 12/17/1999 N G8-2204-051N	G8-2209-01 0.0-1.0 ft 3/23/2000 N G8-2209-011N	G8-2209-05 0.0-1.0 ft 3/23/2000 N G8-2209-051N	G8-2210-02 0.0-2.0 ft 12/17/1999 N G8-2210-022N	G8-2210-03 0.0-1.5 ft 12/17/1999 N G8-2210-031.5N	G8-2210-03 0.0-1.5 ft 12/17/1999 FD G8-2210-031.5FD G8-2210-031.5N	G8-2249-01 0.0-1.0 ft 12/17/1999 N G8-2249-011N	G8-2260-01 0.0-1.0 ft 12/17/1999 N G8-2260-011N	G8-2293-02 0.0-0.5 ft 4/4/2000 N G8-2293-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 780	< 768	< 720	< 79	< 73	< 770	< 740	< 740	< 773	< 720	< 94
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Acenaphthylene	208-96-8	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	48
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	57
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 390	NA	< 360	NA	NA	< 380	< 370	< 370	NA	< 360	NA
Benzo[a]anthracene	56-55-3	ug/kg	57	61.1	< 360	< 40	36	< 380	< 370	32	40.6	34	550
Benzo[a]pyrene	50-32-8	ug/kg	59	76.8	< 360	< 40	35	< 380	< 370	< 370	27.5	< 360	640
Benzo[b]fluoranthene	205-99-2	ug/kg	130	192	< 360	< 40	< 37	63	< 370	< 370	< 387	61	1000
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 384	NA	< 40	< 37	NA	NA	NA	< 387	NA	520
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	310
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	< 384	< 360	27	27	< 380	< 370	79	< 387	< 360	52
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	110	102	< 360	< 40	< 37	< 380	< 370	< 370	< 387	44	780
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	150
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	< 384	< 360	< 40	47	< 380	< 370	< 370	< 387	< 360	< 47
Dimethylphthalate	131-11-3	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Di-n-butylphthalate	84-74-2	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	57
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	190	< 370	< 387	< 360	< 47
Fluoranthene	206-44-0	ug/kg	190	79.5	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	1200
Fluorene	86-73-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Hexachlorobenzene	118-74-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Hexachloroethane	67-72-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	480
Isophorone	78-59-1	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G8-2148-02 0.0-1.0 ft 12/17/1999 N G8-2148-021N	G8-2204-03 0.0-1.0 ft 6/16/2000 N G8-2204-031N	G8-2204-05 0.0-1.0 ft 12/17/1999 N G8-2204-051N	G8-2209-01 0.0-1.0 ft 3/23/2000 N G8-2209-011N	G8-2209-05 0.0-1.0 ft 3/23/2000 N G8-2209-051N	G8-2210-02 0.0-2.0 ft 12/17/1999 N G8-2210-022N	G8-2210-03 0.0-1.5 ft 12/17/1999 N G8-2210-031.5N	G8-2210-03 0.0-1.5 ft 12/17/1999 FD G8-2210-031.5FD G8-2210-031.5N	G8-2249-01 0.0-1.0 ft 12/17/1999 N G8-2249-011N	G8-2260-01 0.0-1.0 ft 12/17/1999 N G8-2260-011N	G8-2293-02 0.0-0.5 ft 4/4/2000 N G8-2293-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 40	< 37	NA	NA	NA	NA	NA	< 47
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	< 47
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	< 384	< 360	< 40	700	< 380	68	78	80	< 360	< 47
Pentachlorophenol	87-86-5	ug/kg	< 780	< 768	< 720	< 79	< 73	< 770	< 740	< 740	< 773	< 720	< 94
Phenanthrene	85-01-8	ug/kg	84	49.6	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	440
Phenol	108-95-2	ug/kg	< 390	< 384	< 360	< 40	< 37	< 380	< 370	< 370	18.6	< 360	< 47
Pyrene	129-00-0	ug/kg	130	< 384	< 360	< 40	< 37	< 380	< 370	< 370	< 387	< 360	810
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-2148-02	G8-2204-03	G8-2204-05	G8-2209-01	G8-2209-05	G8-2210-02	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-2293-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			12/17/1999	6/16/2000	12/17/1999	3/23/2000	3/23/2000	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	4/4/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			G8-2148-021N	G8-2204-031N	G8-2204-051N	G8-2209-011N	G8-2209-051N	G8-2210-022N	G8-2210-031.5N	G8-2210-031.5FD	G8-2249-011N	G8-2260-011N	G8-2293-020.5N
Parent Sample										G8-2210-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 238	< 250	< 238	NA	NA	< 250	< 250	< 238	< 244	< 250	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 238	< 250	< 238	NA	NA	< 250	< 250	< 238	< 244	< 250	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 238	< 250	< 238	NA	NA	< 250	< 250	< 238	< 244	< 250	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 238	< 250	< 238	NA	NA	< 250	< 250	< 238	< 244	< 250	NA
2-Nitrotoluene	88-72-2	ug/kg	< 476	< 500	< 476	NA	NA	< 500	< 500	< 476	< 488	< 500	NA
3-Nitrotoluene	99-08-1	ug/kg	< 476	< 500	< 476	NA	NA	< 500	< 500	< 476	< 488	< 500	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 238	< 250	< 238	NA	NA	< 250	< 250	< 238	< 244	< 250	NA
4-Nitrotoluene	99-99-0	ug/kg	< 476	< 500	< 476	NA	NA	< 500	< 500	< 476	< 488	< 500	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 238	< 250	< 238	NA	NA	< 250	< 250	< 238	< 244	< 250	NA
Nitrocellulose	9004-70-0	ug/kg	72800	43500	86400	NA	NA	163000	261000	338000	494000	76900	NA
Nitroglycerin	55-63-0	ug/kg	< 4878	< 5730	< 4878	NA	NA	4200	1800	5950	49400	< 4878	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 476	< 500	< 476	NA	NA	< 500	< 500	< 476	7150	< 500	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 476	< 500	< 476	NA	NA	< 500	< 500	< 476	< 488	< 500	NA
Tetryl	479-45-8	ug/kg	476	< 500	476	NA	NA	500	500	< 476	500	500	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.51	< 0.646	< 0.51	< 0.6	< 0.6	< 0.53	< 0.51	< 0.52	< 0.56	< 0.52	< 0.8
Arsenic	7440-38-2	mg/kg	4.8	9.71	4.1	3.6	3.1	11.9	3.2	5	34.6	4.2	13.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.74	0.681	0.55	0.59	0.52	0.68	0.46	0.68	0.59	0.53	0.84
Cadmium	7440-43-9	mg/kg	< 0.31	0.203	< 0.31	< 0.3	< 0.3	< 0.32	< 0.31	< 0.31	0.19	< 0.31	< 0.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.4	19.8	14	14.6	15.7	12.5	9.6	11.8	26.5	14.7	22.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	337	20.8	29.8	20.6	23.4	18.1	13.2	21.6	59.8	71.7	89.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	58.9	66.7	35.6	32.1	28.1	32.2	25.9	26.2	424	26.1	141
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.06	0.08	0.22	0.06	0.05	0.2	0.1	0.06	0.29	0.39	0.22
Nickel	7440-02-0	mg/kg	9.7	11.1	9.9	11.9	6.5	12.2	7.1	10.5	9.6	10.4	14.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.74	0.897	< 0.51	0.68	< 0.5	1.4	0.52	< 0.37	0.66	0.68	1.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-2148-02	G8-2204-03	G8-2204-05	G8-2209-01	G8-2209-05	G8-2210-02	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-2293-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			12/17/1999	6/16/2000	12/17/1999	3/23/2000	3/23/2000	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	4/4/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			G8-2148-021N	G8-2204-031N	G8-2204-051N	G8-2209-011N	G8-2209-051N	G8-2210-022N	G8-2210-031.5N	G8-2210-031.5FD	G8-2249-011N	G8-2260-011N	G8-2293-020.5N
Parent Sample										G8-2210-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.31	< 0.323	< 0.31	< 0.3	< 0.3	< 0.32	< 0.31	< 0.31	< 0.34	< 0.31	< 0.4
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.7	0.749	1.2	2.1	1.7	1.4	0.92	1.4	1.3	1.3	1.6
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	65.1	58.9	65.7	51.2	117	59.4	83.3	114	209	97.4	150
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	13800	NA	5750	26400	NA	NA	4980	NA	9300	6900	49800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	11.3	NA	4.4	5.5	NA	NA	6.4	NA	8.1	5.5	9.4
Gravel	ARC-PGRAVEL	%	33.7	NA	51.3	40.9	NA	NA	29.2	NA	37.9	39.4	15.9
Sand	ARC-PSAND	%	43.1	NA	35.6	40.1	NA	NA	51.6	NA	40.4	44.2	34.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	11.9	NA	8.8	13.4	NA	NA	12.7	NA	13.7	10.9	40.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02
Depths			0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999	12/17/1999	12/17/1999	12/10/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N
Parent Sample														G9-1-021N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1136.363	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2272.727	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2500	NA
Acrylonitrile	107-13-1	ug/kg	NA	1370	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Benzene	71-43-2	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	290	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Bromoform	75-25-2	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Chloroethane	75-00-3	ug/kg	NA	< 1136.363	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	NA
Chloroform	67-66-3	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Chloromethane	74-87-3	ug/kg	NA	1490	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02
Depths			0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999	12/17/1999	12/17/1999	12/10/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N
Parent Sample														G9-1-021N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Toluene	108-88-3	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 568.1818	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
2,4-Dichlorophenol	120-83-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	< 736.97	NA	NA	NA	< 80	< 74	< 718.854	< 840	< 780	< 780	NA	NA	< 880
2,4-Dinitrotoluene	121-14-2	ug/kg	< 368	NA	NA	NA	< 400	< 370	< 359	< 420	< 390	< 390	NA	NA	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	< 368	NA	NA	NA	< 400	< 370	< 359	< 420	< 390	< 390	NA	NA	< 440
2-Chloronaphthalene	91-58-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
2-Chlorophenol	95-57-8	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 40	< 37	NA	< 420	< 390	< 390	NA	NA	< 440
2-Nitrotoluene	88-72-2	ug/kg	< 368.485	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 736.97	NA	NA	NA	< 80	< 74	< 718.854	< 840	< 780	< 780	NA	NA	< 880
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 736.97	NA	NA	NA	< 80	< 74	< 718.854	< 840	< 780	< 780	NA	NA	< 880
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02
Depths			0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999	12/17/1999	12/17/1999	12/10/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N
Parent Sample														G9-1-021N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 80	< 74	NA	< 840	< 780	< 780	NA	NA	< 880
4-Nitrotoluene	99-99-0	ug/kg	< 736.97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Acenaphthylene	208-96-8	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	< 390	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	59	37	NA	NA	46
Benzo[a]pyrene	50-32-8	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	59	< 390	NA	NA	40
Benzo[b]fluoranthene	205-99-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	110	< 390	NA	NA	< 440
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	NA	NA	NA	NA	< 440
Benzo[k]fluoranthene	207-08-9	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 368.485	NA	NA	NA	39	27	53.2	< 420	38	< 390	NA	NA	< 440
Butylbenzylphthalate	85-68-7	ug/kg	< 368.485	356	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	62	< 390	NA	NA	51
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Dimethylphthalate	131-11-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Di-n-butylphthalate	84-74-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	208	< 420	< 390	81	NA	NA	100
Di-n-octylphthalate	117-84-0	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Fluoranthene	206-44-0	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	93	< 390	NA	NA	< 440
Fluorene	86-73-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 40	< 37	NA	< 420	< 390	< 390	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Hexachloroethane	67-72-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Isophorone	78-59-1	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02
Depths			0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999	12/17/1999	12/17/1999	12/10/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N
Parent Sample														G9-1-021N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Nitrobenzene	98-95-3	ug/kg	< 368.485	NA	NA	NA	< 40	NA	NA	< 420	< 390	< 390	NA	NA	< 440
N-Nitrosodimethylamine	62-75-9	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	< 40	< 37	NA	< 420	< 390	410	NA	NA	160
Pentachlorophenol	87-86-5	ug/kg	< 736.97	NA	NA	NA	< 80	< 74	< 718.854	< 840	< 780	< 780	NA	NA	< 880
Phenanthrene	85-01-8	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	31	< 390	NA	NA	50
Phenol	108-95-2	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Pyrene	129-00-0	ug/kg	< 368.485	NA	NA	NA	< 40	< 37	< 359.427	< 420	< 390	< 390	NA	NA	< 440
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 21	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 21	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 21	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 21	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 21	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 21	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	< 41	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	< 41	< 42	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02
Depths			0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999	12/17/1999	12/17/1999	12/10/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N
Parent Sample														G9-1-021N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 24	< 500	NA	NA	NA	< 250	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 24	< 500	NA	NA	NA	< 250	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	< 24	< 500	NA	NA	NA	< 250	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	< 24	< 500	NA	NA	NA	< 250	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 48	< 1000	NA	NA	NA	< 500	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 48	< 1000	NA	NA	NA	< 500	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	< 24	< 500	NA	NA	NA	< 250	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 48	< 1000	NA	NA	NA	< 500	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 24	< 500	NA	NA	NA	< 250	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	40200	32600	NA	NA	NA	79100	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 368.485	NA	NA	NA	NA	< 520	< 359	NA	NA	NA	< 5000	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 48	< 1000	NA	NA	NA	< 500	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 48	< 1000	NA	NA	NA	< 500	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 48	< 1000	NA	NA	NA	500	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	< 0.5	< 0.4	< 0.622087	< 0.675	0.16	< 0.56	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	4.2	1.8	1.37	3.62	3.9	5.3	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	0.55	0.57	0.82	0.614	0.56	0.63	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	< 0.2	< 0.2	0.311	< 0.337	< 0.25	< 0.33	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	18	9.3	7.86	18.3	19.5	13.9	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	15.8	11.8	7.39	25.9	287	20.7	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	7.2	4.8	4.14	24.7	41.3	45.5	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	0.05	< 0	< 0.031621	0.046	0.04	0.11	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	10.3	6.9	3.86	9.05	7.9	8.9	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	0.4	< 0.4	< 0.518405	0.629	< 0.41	0.65	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02
Depths			0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999	12/17/1999	12/17/1999	12/10/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N
Parent Sample														G9-1-021N	
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	< 0.2	< 0.2	< 0.311043	< 0.337	< 0.25	< 0.33	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	1	0.63	< 1.036811	0.899	0.57	1.1	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	40.8	47.7	30.1	62.4	137	94.7	NA	NA	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	6380	NA	11100	NA	5940	1740	NA	NA	1820	7260	7470	NA	7740
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	16.1	NA	13.6	6.7	NA	NA	9.9	6.9	9	NA	7.7
Gravel	ARC-PGRAVEL	%	NA	NA	15.4	NA	41.5	18	NA	NA	24.3	31.5	40	NA	41.1
Sand	ARC-PSAND	%	NA	NA	39.7	NA	30.3	66.2	NA	NA	49.1	43.1	35.4	NA	35.9
SIEVE 0.375 inch, % passing	ARC-	%	87.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	68.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	15.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	79.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	45.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	22.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	59.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	31.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	28.8	NA	14.6	9	NA	NA	16.6	18.5	15.6	NA	15.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N
Parent Sample					G9-15-011N		G9-15-022N							
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	< 1100	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2100	NA	< 2200	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	< 1100	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	< 1100	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	< 1100	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N
Parent Sample					G9-15-011N		G9-15-022N							
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 530	NA	< 550	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	< 1100	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 790	< 820	< 1030	< 842	< 2000	< 850	< 780	NA	< 850	NA	< 790
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 400	< 410	< 513	< 421	80	< 430	120	NA	2100	NA	8800
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 400	< 410	< 513	< 421	29	< 430	< 390	NA	170	NA	520
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2-Chlorophenol	95-57-8	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 790	< 820	< 1030	< 842	< 810	< 850	< 780	NA	< 850	NA	< 790
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 790	< 820	< 1030	< 842	< 2000	< 850	< 780	NA	< 850	NA	< 800
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N
Parent Sample					G9-15-011N		G9-15-022N							
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 790	< 820	< 1030	< 842	< 2000	< 850	< 780	NA	< 850	NA	< 790
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Acenaphthylene	208-96-8	ug/kg	NA	< 400	23	55.4	< 421	53	< 430	< 390	NA	< 430	NA	450
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 400	29	30.3	< 421	38	< 430	< 390	NA	33	NA	510
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 390	NA	< 430	NA	920
Benzo[a]anthracene	56-55-3	ug/kg	NA	44	83	163	47.6	110	< 430	42	NA	170	NA	3000
Benzo[a]pyrene	50-32-8	ug/kg	NA	35	68	199	55.2	86	< 430	< 390	NA	120	NA	2700
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 400	110	277	76.6	190	< 430	< 390	NA	340	NA	5700
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 400	< 410	149	< 421	< 410	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	110	NA	2200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 400	28	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 400	< 410	< 513	< 421	270	< 430	< 390	NA	74	NA	440
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	79	NA	< 430	NA	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	66	110	251	66.1	160	< 430	87	NA	290	NA	2400
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 400	< 410	< 513	< 421	39	< 430	48	NA	< 430	NA	2500
Dimethylphthalate	131-11-3	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 400	100	< 513	< 421	420	50	190	NA	< 430	NA	1000
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Fluoranthene	206-44-0	ug/kg	NA	100	170	341	92.2	190	< 430	96	NA	200	NA	2300
Fluorene	86-73-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Hexachloroethane	67-72-1	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 400	< 410	127	< 421	< 410	< 430	< 390	NA	< 430	NA	1100
Isophorone	78-59-1	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N
Parent Sample					G9-15-011N		G9-15-022N							
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	< 400	< 410	< 513	< 421	31	< 430	< 390	NA	39	NA	67
Nitrobenzene	98-95-3	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 400	< 410	< 513	< 421	130	240	< 390	NA	440	NA	< 400
Pentachlorophenol	87-86-5	ug/kg	NA	< 790	< 820	< 1030	< 842	< 2000	< 850	< 780	NA	< 850	NA	< 790
Phenanthrene	85-01-8	ug/kg	NA	70	120	173	43.4	130	< 430	42	NA	100	NA	160
Phenol	108-95-2	ug/kg	NA	< 400	< 410	< 513	< 421	< 410	< 430	< 390	NA	< 430	NA	< 400
Pyrene	129-00-0	ug/kg	NA	140	230	367	< 421	280	< 430	110	NA	160	NA	2400
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	< 1	NA	NA	NA	NA	< 210	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 1	NA	NA	NA	NA	< 210	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 1	NA	NA	NA	NA	< 210	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 1	NA	NA	NA	NA	< 210	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 1	NA	NA	NA	NA	< 210	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 1	NA	NA	NA	NA	3200	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	< 3	NA	NA	NA	NA	3000	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	< 38	NA	NA	NA	NA	6200	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N
Parent Sample					G9-15-011N		G9-15-022N							
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.53	1.6	< 0.684	0.409	10.7	< 1.2	< 0.57	NA	0.44	NA	6.2
Arsenic	7440-38-2	mg/kg	NA	6.9	6.1	3.93	4.53	19.2	12.8	84.1	NA	83.1	NA	91.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.34	0.36	0.846	0.407	0.65	0.41	0.31	NA	0.36	NA	0.39
Cadmium	7440-43-9	mg/kg	NA	0.19	0.16	< 0.342	0.409	0.19	< 0.7	0.85	NA	< 0.34	NA	0.82
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	8.1	9.3	20.1	9.07	45	120	9.3	NA	9.4	NA	13.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	33.4	44.7	19.3	41.3	4170	114	80.5	NA	47.7	NA	67.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	61.8	305	20.4	74.6	496	187	79.6	NA	92.8	NA	153
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.14	0.29	0.308	0.152	< 0.07	0.32	0.42	NA	0.31	NA	1.2
Nickel	7440-02-0	mg/kg	NA	10	10	11.9	10.1	38.1	258	6.3	NA	5.6	NA	9.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.1	1.1	< 0.57	1.16	1.3	5.6	1.3	NA	1.4	NA	0.58

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05	G9-2123-05
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N	G9-2123-051.5N
Parent Sample					G9-15-011N		G9-15-022N							
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	< 0.3	0.12	< 0.342	< 0.372	1.7	< 0.7	0.64	NA	< 0.34	NA	0.28
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	< 1.1	2.31	0.881	< 5.9	1.6	< 1.1	NA	1.1	NA	< 1.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	104	116	88.2	161	317	266	76.1	NA	99.2	NA	503
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	12000	24400	NA	NA	NA	41300	17300	NA	NA	97800	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	3.1	4.4	NA	NA	NA	9.3	7.5	NA	NA	5.4	NA	NA
Gravel	ARC-PGRAVEL	%	30.3	27.2	NA	NA	NA	30.8	17	NA	NA	39.9	NA	NA
Sand	ARC-PSAND	%	60.1	56	NA	NA	NA	39.8	60.5	NA	NA	33	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	6.5	12.4	NA	NA	NA	20.1	14.9	NA	NA	21.6	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G9-3-03 0.0-0.5 ft 12/17/1999 N G9-3-030.5N	G9-3-03 0.0-1.0 ft 12/17/1999 N G9-3-031N	G9-7-05 0.0-1.0 ft 3/24/2000 N G9-7-051N	G9-7-05 0.0-1.0 ft 3/24/2000 FD G9-7-051FD G9-7-051N	G9-7-11 0.0-1.0 ft 3/24/2000 N G9-7-111N	G9-8105-05 0.0-1.0 ft 6/23/2000 N G9-8105-051N	G9-8105-05 0.5-1.0 ft 6/23/2000 N G9-8105-050.5N	G9-8107-02 0.0-1.0 ft 11/23/1999 N G9-8107-021N	G9-8107-05 0.0-2.0 ft 11/23/1999 N G9-8107-052N	G9-8182-01 0.0-0.5 ft 11/22/1999 N G9-8182-010.5N	G9-8182-05 0.0-1.0 ft 11/22/1999 N G9-8182-051N	G9-8187-01 0.0-1.0 ft 12/9/1999 N G9-8187-011N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 530	NA	NA	NA	NA	NA	< 584	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 530	NA	NA	NA	NA	NA	< 584	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 530	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 530	NA	NA	NA	NA	NA	< 584	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 530	NA	NA	NA	NA	NA	< 584	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1100	NA	NA	NA	NA	NA	< 1168.224	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2100	NA	NA	NA	NA	NA	< 5841.121	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 530	NA	NA	NA	NA	NA	< 5841.121	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	640	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1060	NA	NA	NA	NA	NA	< 1168.224	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1060	NA	NA	NA	NA	NA	1250	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 530	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 530	NA	NA	NA	NA	NA	< 584	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G9-3-03 0.0-0.5 ft 12/17/1999 N G9-3-030.5N	G9-3-03 0.0-1.0 ft 12/17/1999 N G9-3-031N	G9-7-05 0.0-1.0 ft 3/24/2000 N G9-7-051N	G9-7-05 0.0-1.0 ft 3/24/2000 FD G9-7-051FD G9-7-051N	G9-7-11 0.0-1.0 ft 3/24/2000 N G9-7-111N	G9-8105-05 0.0-1.0 ft 6/23/2000 N G9-8105-051N	G9-8105-05 0.5-1.0 ft 6/23/2000 N G9-8105-050.5N	G9-8107-02 0.0-1.0 ft 11/23/1999 N G9-8107-021N	G9-8107-05 0.0-2.0 ft 11/23/1999 N G9-8107-052N	G9-8182-01 0.0-0.5 ft 11/22/1999 N G9-8182-010.5N	G9-8182-05 0.0-1.0 ft 11/22/1999 N G9-8182-051N	G9-8187-01 0.0-1.0 ft 12/9/1999 N G9-8187-011N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 530	NA	NA	NA	NA	NA	< 2336.448	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 530	NA	NA	NA	NA	NA	< 584.1121	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 790	< 78	< 780	< 83	< 780.548	NA	< 2100	< 2200	< 1900	< 2000	< 830
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	150	84	< 390	< 420	< 390	NA	< 410	< 430	47	41	88
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 400	< 390	< 390	< 420	< 390	NA	< 410	< 430	16	28	< 420
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
2-Chlorophenol	95-57-8	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 400	< 39	< 390	< 42	NA	NA	< 410	< 430	< 370	< 400	< 420
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 390.274	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 790	< 78	< 780	< 83	< 780.548	NA	< 820	< 870	< 750	< 790	< 830
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 790	< 78	< 780	< 83	< 780.548	NA	< 2100	< 2200	< 1900	< 2000	< 830
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-3-03	G9-3-03	G9-7-05	G9-7-05	G9-7-11	G9-8105-05	G9-8105-05	G9-8107-02	G9-8107-05	G9-8182-01	G9-8182-05	G9-8187-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/17/1999	12/17/1999	3/24/2000	3/24/2000	3/24/2000	6/23/2000	6/23/2000	11/23/1999	11/23/1999	11/22/1999	11/22/1999	12/9/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			G9-3-030.5N	G9-3-031N	G9-7-051N	G9-7-051FD	G9-7-111N	G9-8105-051N	G9-8105-050.5N	G9-8107-021N	G9-8107-052N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N
Parent Sample						G9-7-051N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 790	< 78	< 780	< 83	NA	NA	< 2100	< 2200	< 1900	< 2000	< 830
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 780.548	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	5200	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Acenaphthylene	208-96-8	ug/kg	NA	48	< 39	< 390	< 42	< 390.274	< 23364	< 410	< 430	< 370	< 400	45
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	17000	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	29	29
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	5500	NA	NA	NA	NA	NA	NA	NA	NA	NA	120
Benzo[a]anthracene	56-55-3	ug/kg	NA	19000	84	66	97	79.23	NA	59	< 430	32	81	210
Benzo[a]pyrene	50-32-8	ug/kg	NA	14000	71	71	95	84.69	NA	55	< 430	< 370	83	230
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	19000	120	120	120	108	NA	110	< 430	72	120	440
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	6100	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	40	170
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	300	33	33	56	< 390.274	NA	59	54	51	440	< 420
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	< 1168	< 410	< 430	< 370	< 400	< 420
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	16000	78	73	81	94.06	NA	99	< 430	96	120	340
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	1600	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 400	< 39	< 390	120	< 390.274	NA	< 410	< 430	< 370	< 400	72
Dimethylphthalate	131-11-3	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	160	120	46	100	< 420
Di-n-octylphthalate	117-84-0	ug/kg	NA	270	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Fluoranthene	206-44-0	ug/kg	NA	39000	110	130	180	117	NA	120	< 430	72	150	460
Fluorene	86-73-7	ug/kg	NA	5200	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Hexachlorobenzene	118-74-1	ug/kg	NA	< 400	< 39	< 390	< 42	NA	NA	< 410	< 430	< 370	< 400	< 420
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Hexachloroethane	67-72-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	5600	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	97
Isophorone	78-59-1	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-3-03	G9-3-03	G9-7-05	G9-7-05	G9-7-11	G9-8105-05	G9-8105-05	G9-8107-02	G9-8107-05	G9-8182-01	G9-8182-05	G9-8187-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/17/1999	12/17/1999	3/24/2000	3/24/2000	3/24/2000	6/23/2000	6/23/2000	11/23/1999	11/23/1999	11/22/1999	11/22/1999	12/9/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			G9-3-030.5N	G9-3-031N	G9-7-051N	G9-7-051FD	G9-7-111N	G9-8105-051N	G9-8105-050.5N	G9-8107-021N	G9-8107-052N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N
Parent Sample						G9-7-051N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	5200	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Nitrobenzene	98-95-3	ug/kg	NA	< 400	NA	NA	NA	< 390.274	NA	< 410	< 430	< 370	< 400	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 400	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 400	110	1200	94	< 390.274	NA	< 410	< 430	< 370	< 400	110
Pentachlorophenol	87-86-5	ug/kg	NA	< 790	< 78	< 780	< 83	< 780.548	NA	< 2100	< 2200	< 1900	< 2000	< 830
Phenanthrene	85-01-8	ug/kg	NA	38000	46	55	82	45.7	NA	27	< 430	100	110	280
Phenol	108-95-2	ug/kg	NA	85	< 39	< 390	< 42	< 390.274	NA	< 410	< 430	< 370	< 400	< 420
Pyrene	129-00-0	ug/kg	NA	31000	90	110	150	114	NA	130	< 430	< 370	220	600
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			G9-3-03 0.0-0.5 ft 12/17/1999 N G9-3-030.5N	G9-3-03 0.0-1.0 ft 12/17/1999 N G9-3-031N	G9-7-05 0.0-1.0 ft 3/24/2000 N G9-7-051N	G9-7-05 0.0-1.0 ft 3/24/2000 FD G9-7-051FD G9-7-051N	G9-7-11 0.0-1.0 ft 3/24/2000 N G9-7-111N	G9-8105-05 0.0-1.0 ft 6/23/2000 N G9-8105-051N	G9-8105-05 0.5-1.0 ft 6/23/2000 N G9-8105-050.5N	G9-8107-02 0.0-1.0 ft 11/23/1999 N G9-8107-021N	G9-8107-05 0.0-2.0 ft 11/23/1999 N G9-8107-052N	G9-8182-01 0.0-0.5 ft 11/22/1999 N G9-8182-010.5N	G9-8182-05 0.0-1.0 ft 11/22/1999 N G9-8182-051N	G9-8187-01 0.0-1.0 ft 12/9/1999 N G9-8187-011N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 25	< 250	< 24	NA	NA	NA	NA	NA	NA	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 25	< 250	< 24	NA	NA	NA	NA	NA	NA	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 25	< 250	< 24	NA	NA	NA	NA	NA	NA	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 25	< 250	< 24	NA	NA	NA	NA	NA	NA	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 50	< 500	< 48	NA	NA	NA	NA	NA	NA	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 50	< 500	< 48	NA	NA	NA	NA	NA	NA	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 25	< 250	< 24	NA	NA	NA	NA	NA	NA	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 50	< 500	< 48	NA	NA	NA	NA	NA	NA	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 25	< 250	< 24	NA	NA	NA	NA	NA	NA	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 37000	47200	79100	NA	NA	NA	NA	NA	NA	99500
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 590	85000	15000	NA	NA	NA	NA	NA	NA	7854
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 50	< 500	< 48	NA	NA	NA	NA	NA	NA	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 50	< 500	< 48	NA	NA	NA	NA	NA	NA	< 500
Tetryl	479-45-8	ug/kg	NA	NA	< 50	< 500	< 48	NA	NA	NA	NA	NA	NA	< 500
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.5	< 0.49	1.3	2.58	NA	7.2	1	11	7.4	0.19
Arsenic	7440-38-2	mg/kg	NA	NA	6.8	6.3	86.9	4.4	NA	169	67.3	20.8	10.8	11.2
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.52	0.52	0.63	0.462	NA	0.5	0.97	0.58	0.46	0.64
Cadmium	7440-43-9	mg/kg	NA	NA	0.19	0.23	0.29	< 0.218166	NA	0.49	1.1	1	0.65	< 0.29
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	13.1	11.2	16.3	14.9	NA	40.6	17.3	89.4	17.4	13.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	55.2	37.9	24.5	45.8	NA	171	89.4	361	81.8	52
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	41.1	46.4	93.4	342	NA	745	265	2860	528	109
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.14	0.13	0.19	0.99	NA	1.7	0.41	1	0.44	0.21
Nickel	7440-02-0	mg/kg	NA	NA	7.5	7	9.1	7.68	NA	19.9	14.2	51.3	12.7	18.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	1	0.83	1.3	0.265	NA	2	1.9	2.5	< 0.49	1.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-3-03	G9-3-03	G9-7-05	G9-7-05	G9-7-11	G9-8105-05	G9-8105-05	G9-8107-02	G9-8107-05	G9-8182-01	G9-8182-05	G9-8187-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/17/1999	12/17/1999	3/24/2000	3/24/2000	3/24/2000	6/23/2000	6/23/2000	11/23/1999	11/23/1999	11/22/1999	11/22/1999	12/9/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			G9-3-030.5N	G9-3-031N	G9-7-051N	G9-7-051FD	G9-7-111N	G9-8105-051N	G9-8105-050.5N	G9-8107-021N	G9-8107-052N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N
Parent Sample						G9-7-051N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	< 0.2	< 0.25	< 0.3	< 0.218166	NA	0.61	0.15	1.5	0.47	< 0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 0.9	< 0.82	< 1	< 0.727219	NA	< 1.2	< 1.2	< 1.8	< 0.99	< 0.96
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	70.2	74.4	80.7	115	NA	290	216	459	186	109
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	34600	46700	NA	NA	22600	NA	NA	57800	8700	NA	15600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	5.4	7.4	NA	NA	NA	NA	NA	8	3.3	NA	4.7
Gravel	ARC-PGRAVEL	%	NA	33.3	28.7	NA	NA	NA	NA	NA	44.5	57.9	NA	33.6
Sand	ARC-PSAND	%	NA	40.6	48.4	NA	NA	NA	NA	NA	28.6	32.8	NA	47.1
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	93	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	83.9	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	44.6	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	89	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	64.8	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	50.4	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	75.4	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	56.5	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	20.7	15.5	NA	NA	NA	NA	NA	18.9	6	NA	14.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-8187-02	G9-8205-02	G9-8205-05	G9-8207-04	G9-8207-04	G9-8207-05	G9-8207-05	G9-8267-04	G9-9321-02	G9-9321-08	G9-9322-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			6/15/2000	6/15/2000	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	11/23/1999	12/9/1999	12/9/1999	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-8187-021N	G9-8205-021.25N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-042N	G9-8207-050.5N	G9-8207-051N	G9-8267-042N	G9-9321-021N	G9-9321-081N	G9-9322-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1100	NA	< 1100	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 2100	NA	< 2200	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 1100	NA	< 1100	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1100	NA	< 1100	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	< 1100	NA	< 1100	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-8187-02	G9-8205-02	G9-8205-05	G9-8207-04	G9-8207-04	G9-8207-05	G9-8207-05	G9-8267-04	G9-9321-02	G9-9321-08	G9-9322-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			6/15/2000	6/15/2000	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	11/23/1999	12/9/1999	12/9/1999	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-8187-021N	G9-8205-021.25N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-042N	G9-8207-050.5N	G9-8207-051N	G9-8267-042N	G9-9321-021N	G9-9321-081N	G9-9322-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 530	NA	< 540	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 530	NA	2100	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1100	NA	< 1100	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	< 765	< 771	< 740	NA	< 770	NA	< 740	< 2000	< 830	< 780	< 77
2,4-Dinitrotoluene	121-14-2	ug/kg	< 383	< 385	< 370	NA	40	NA	< 370	290	87	< 390	73
2,6-Dinitrotoluene	606-20-2	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	38	37	< 390	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
2-Chlorophenol	95-57-8	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 383	< 385	< 370	NA	< 770	NA	< 740	< 400	< 420	< 390	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 765	< 771	< 740	NA	< 760	NA	< 740	< 800	< 830	< 780	< 77
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 765	< 771	< 740	NA	< 770	NA	< 740	< 2000	< 830	< 780	< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-8187-02	G9-8205-02	G9-8205-05	G9-8207-04	G9-8207-04	G9-8207-05	G9-8207-05	G9-8267-04	G9-9321-02	G9-9321-08	G9-9322-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			6/15/2000	6/15/2000	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	11/23/1999	12/9/1999	12/9/1999	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-8187-021N	G9-8205-021.25N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-042N	G9-8207-050.5N	G9-8207-051N	G9-8267-042N	G9-9321-021N	G9-9321-081N	G9-9322-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 765	< 771	< 740	NA	< 380	NA	< 370	< 2000	< 830	< 780	< 77
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 383	< 385	< 370	NA	21	NA	< 370	< 400	< 420	< 390	< 38
Acenaphthylene	208-96-8	ug/kg	< 383	< 385	< 370	NA	150	NA	< 370	22	23	< 390	57
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 383	34.7	< 370	NA	160	NA	< 370	33	< 420	< 390	44
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	< 370	NA	NA	NA	NA	NA	< 420	< 390	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 383	159	< 370	NA	540	NA	< 370	210	110	46	350
Benzo[a]pyrene	50-32-8	ug/kg	< 383	141	< 370	NA	340	NA	27	200	77	40	320
Benzo[b]fluoranthene	205-99-2	ug/kg	< 383	183	< 370	NA	620	NA	< 370	270	240	85	790
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 383	< 385	NA	NA	290	NA	< 370	< 400	NA	NA	190
Benzo[k]fluoranthene	207-08-9	ug/kg	< 383	< 385	< 370	NA	180	NA	< 370	100	< 420	< 390	210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	24.5	< 385	< 370	NA	370	NA	37	78	< 420	< 390	< 38
Butylbenzylphthalate	85-68-7	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 383	147	< 370	NA	590	NA	< 370	190	240	72	490
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 383	< 385	< 370	NA	83	NA	< 370	< 400	< 420	< 390	< 38
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 383	< 385	< 370	NA	69	NA	< 370	< 400	< 420	< 390	< 38
Dimethylphthalate	131-11-3	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Di-n-butylphthalate	84-74-2	ug/kg	< 383	< 385	< 370	NA	340	NA	260	190	< 420	< 390	46
Di-n-octylphthalate	117-84-0	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Fluoranthene	206-44-0	ug/kg	< 383	405	< 370	NA	980	NA	< 370	340	260	130	900
Fluorene	86-73-7	ug/kg	< 383	< 385	< 370	NA	45	NA	< 370	< 400	< 420	< 390	26
Hexachlorobenzene	118-74-1	ug/kg	< 383	< 385	< 370	NA	NA	NA	NA	< 400	< 420	< 390	< 38
Hexachlorobutadiene	87-68-3	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Hexachloroethane	67-72-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 383	< 385	< 370	NA	220	NA	< 370	< 400	< 420	< 390	180
Isophorone	78-59-1	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-8187-02	G9-8205-02	G9-8205-05	G9-8207-04	G9-8207-04	G9-8207-05	G9-8207-05	G9-8267-04	G9-9321-02	G9-9321-08	G9-9322-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			6/15/2000	6/15/2000	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	11/23/1999	12/9/1999	12/9/1999	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-8187-021N	G9-8205-021.25N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-042N	G9-8207-050.5N	G9-8207-051N	G9-8267-042N	G9-9321-021N	G9-9321-081N	G9-9322-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 383	< 385	< 370	NA	38	NA	< 370	< 400	29	< 390	< 38
Nitrobenzene	98-95-3	ug/kg	NA	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
N-Nitrosodimethylamine	62-75-9	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	97	< 390	< 38
Pentachlorophenol	87-86-5	ug/kg	< 765	< 771	< 740	NA	< 770	NA	< 740	< 2000	< 830	< 780	< 77
Phenanthrene	85-01-8	ug/kg	< 383	305	< 370	NA	470	NA	< 370	< 400	140	47	540
Phenol	108-95-2	ug/kg	< 383	< 385	< 370	NA	< 380	NA	< 370	< 400	< 420	< 390	< 38
Pyrene	129-00-0	ug/kg	< 383	351	< 370	NA	1400	NA	< 370	290	240	120	740
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	< 38.5	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 38.5	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 38.5	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 38.5	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 38.5	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 38.5	< 19	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 77	340	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 77	340	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-8187-02	G9-8205-02	G9-8205-05	G9-8207-04	G9-8207-04	G9-8207-05	G9-8207-05	G9-8267-04	G9-9321-02	G9-9321-08	G9-9322-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			6/15/2000	6/15/2000	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	11/23/1999	12/9/1999	12/9/1999	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-8187-021N	G9-8205-021.25N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-042N	G9-8207-050.5N	G9-8207-051N	G9-8267-042N	G9-9321-021N	G9-9321-081N	G9-9322-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 495	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 495	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	60200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 495	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 495	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 495	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.348	< 0.538	< 0.43	NA	NA	NA	NA	2.4	0.26	< 0.42	< 0.6
Arsenic	7440-38-2	mg/kg	2.66	2.78	2.7	NA	NA	NA	NA	49	16.8	3.9	6.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.428	0.543	0.44	NA	NA	NA	NA	0.33	0.19	0.91	0.33
Cadmium	7440-43-9	mg/kg	< 0.334	< 0.269	< 0.26	NA	NA	NA	NA	0.54	< 0.37	0.86	< 0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.2	13.1	7.1	NA	NA	NA	NA	43.5	9.8	7.7	12
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	18.3	15.1	11.3	NA	NA	NA	NA	193	30.7	40	16.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	23	16.8	5.2	NA	NA	NA	NA	1070	287	53.6	60.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.457	0.069	0.02	NA	NA	NA	NA	0.76	0.46	0.08	0.11
Nickel	7440-02-0	mg/kg	8.42	8.1	5.8	NA	NA	NA	NA	10.2	11.4	8.2	6.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.557	< 0.448	< 0.43	NA	NA	NA	NA	1.9	2	0.88	0.37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-8187-02	G9-8205-02	G9-8205-05	G9-8207-04	G9-8207-04	G9-8207-05	G9-8207-05	G9-8267-04	G9-9321-02	G9-9321-08	G9-9322-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			6/15/2000	6/15/2000	12/9/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	11/23/1999	12/9/1999	12/9/1999	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-8187-021N	G9-8205-021.25N	G9-8205-050.5N	G9-8207-040.5N	G9-8207-042N	G9-8207-050.5N	G9-8207-051N	G9-8267-042N	G9-9321-021N	G9-9321-081N	G9-9322-021.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.334	< 0.269	< 0.26	NA	NA	NA	NA	0.56	< 0.37	0.16	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.36	1.54	< 0.86	NA	NA	NA	NA	< 1.1	< 1.2	< 0.84	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	130	68.2	32	NA	NA	NA	NA	182	26.1	625	52.8
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	520	NA	8660	NA	NA	83600	40000	NA	33800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	4.3	NA	1.1	NA	NA	5.5	1.5	NA	0.3
Gravel	ARC-PGRAVEL	%	NA	NA	14.8	NA	37.6	NA	NA	29.4	50.6	NA	31.2
Sand	ARC-PSAND	%	NA	NA	72.4	NA	52.6	NA	NA	50.5	37	NA	58.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	8.5	NA	8.7	NA	NA	14.6	10.9	NA	10.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-9322-02	G9-9322-04	G9-9322-04	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 590	NA	< 595	NA	NA	NA	NA	< 558	NA	< 613	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 590	NA	< 595	NA	NA	NA	NA	< 558	NA	< 613	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 590	NA	< 595	NA	NA	NA	NA	< 558	NA	< 613	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 590	NA	< 595	NA	NA	NA	NA	< 558	NA	< 613	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 117	NA	< 119	NA	NA	NA	NA	< 1116	NA	< 1226	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 235	NA	< 238	NA	NA	NA	NA	< 2232	NA	< 2451	NA
Acrylonitrile	107-13-1	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Benzene	71-43-2	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Bromodichloromethane	75-27-4	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Bromoform	75-25-2	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Bromomethane	74-83-9	ug/kg	< 117	NA	< 119	NA	NA	NA	NA	493	NA	< 1226	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Chlorobenzene	108-90-7	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Chloroethane	75-00-3	ug/kg	< 117	NA	< 119	NA	NA	NA	NA	< 1116	NA	< 1226	NA
Chloroform	67-66-3	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Chloromethane	74-87-3	ug/kg	189	NA	154	NA	NA	NA	NA	< 1116	NA	< 1226	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 558	NA	< 613	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 590	NA	< 595	NA	NA	NA	NA	< 558	NA	< 613	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-9322-02	G9-9322-04	G9-9322-04	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 558	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Toluene	108-88-3	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 59	NA	< 59	NA	NA	NA	NA	< 558	NA	< 613	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 117	NA	< 119	NA	NA	NA	NA	< 1116	NA	< 1226	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 200	NA	< 740	< 7800	< 760	< 8300	NA	< 940	NA	< 820
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	110	NA	140	< 3900	< 380	< 4200	NA	590	NA	3800
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	43	NA	< 370	< 3900	< 380	< 4200	NA	180	NA	1200
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2-Chlorophenol	95-57-8	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 80	NA	< 740	< 7800	< 760	< 8300	NA	< 940	NA	< 820
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 200	NA	< 740	< 7800	< 760	< 8300	NA	< 940	NA	< 820
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-9322-02	G9-9322-04	G9-9322-04	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 200	NA	< 740	< 7800	< 760	< 8300	NA	< 940	NA	< 820
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	25	NA	< 410
Acenaphthylene	208-96-8	ug/kg	NA	39	NA	< 370	170	43	< 4200	NA	200	NA	< 410
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	65	NA	< 370	< 3900	< 380	< 4200	NA	240	NA	< 410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	< 370	< 3900	190	< 4200	NA	560	NA	< 410
Benzo[a]anthracene	56-55-3	ug/kg	NA	280	NA	< 370	870	62	350	NA	1600	NA	240
Benzo[a]pyrene	50-32-8	ug/kg	NA	250	NA	20	770	82	460	NA	1200	NA	170
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	700	NA	< 370	1600	130	790	NA	3700	NA	310
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	210	NA	< 370	930	55	< 4200	NA	1100	NA	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	64	NA	21	620	30	750	NA	< 470	NA	< 410
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	4500	NA	< 470	NA	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	480	NA	< 370	1500	120	470	NA	2400	NA	470
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	220	NA	< 410
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 40	NA	< 370	410	< 380	< 4200	NA	67	NA	< 410
Dimethylphthalate	131-11-3	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 40	NA	< 370	1100	< 380	1100	NA	< 470	NA	< 410
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Fluoranthene	206-44-0	ug/kg	NA	440	NA	< 370	1400	160	< 4200	NA	2600	NA	230
Fluorene	86-73-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Hexachlorobenzene	118-74-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Hexachloroethane	67-72-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 40	NA	< 370	< 3900	150	< 4200	NA	590	NA	< 410
Isophorone	78-59-1	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-9322-02	G9-9322-04	G9-9322-04	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	28	NA	< 370	< 3900	< 380	< 4200	NA	60	NA	36
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 370	NA	< 380	< 4200	NA	< 470	NA	< 410
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 40	NA	230	1300	< 380	2800	NA	< 470	NA	< 410
Pentachlorophenol	87-86-5	ug/kg	NA	< 200	NA	< 740	< 7800	< 760	< 8300	NA	< 940	NA	< 820
Phenanthrene	85-01-8	ug/kg	NA	190	NA	< 370	410	80	< 4200	NA	630	NA	350
Phenol	108-95-2	ug/kg	NA	< 40	NA	< 370	< 3900	< 380	< 4200	NA	< 470	NA	< 410
Pyrene	129-00-0	ug/kg	NA	410	NA	< 370	1500	130	< 4200	NA	2900	NA	170
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	< 990	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	< 990	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	< 990	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	< 990	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	< 990	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	8900	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	4900	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	13800	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-9322-02	G9-9322-04	G9-9322-04	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 238	NA	NA	< 227	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 238	NA	NA	224	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 238	NA	NA	< 227	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 238	NA	NA	< 227	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 476	NA	NA	< 455	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 476	NA	NA	< 455	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 238	NA	NA	< 227	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 476	NA	NA	< 455	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 238	NA	NA	< 227	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	588000	NA	NA	98800	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	4338.6	NA	NA	19591	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 476	NA	NA	< 455	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 476	NA	NA	< 455	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	810	NA	NA	< 455	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.35	NA	< 0.55	0.67	NA	0.37	NA	0.82	NA	0.66
Arsenic	7440-38-2	mg/kg	NA	281	NA	3.5	88.7	NA	4.7	NA	10.9	NA	8.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.33	NA	0.54	0.45	NA	0.79	NA	0.35	NA	0.28
Cadmium	7440-43-9	mg/kg	NA	0.49	NA	< 0.33	0.75	NA	8	NA	0.16	NA	< 0.29
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	12.2	NA	10.7	21.2	NA	119	NA	35.5	NA	17.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	42	NA	14.7	62.3	NA	95.9	NA	65.7	NA	< 0.49
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	174	NA	8.5	1040	NA	181	NA	852	NA	2370
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.41	NA	0.1	0.5	NA	0.32	NA	0.27	NA	1.4
Nickel	7440-02-0	mg/kg	NA	8.3	NA	9.2	13.9	NA	62.4	NA	17.8	NA	9.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.3	NA	1	2	NA	0.85	NA	2.6	NA	2.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			G9-9322-02	G9-9322-04	G9-9322-04	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			G9-9322-020.5N	G9-9322-041N	G9-9322-040.5N	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	< 0.3	NA	< 0.33	0.15	NA	0.23	NA	0.26	NA	0.18
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	NA	< 1.1	< 0.94	NA	< 1	NA	< 0.89	NA	< 0.98
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	65.8	NA	67.6	134	NA	953	NA	376	NA	24.5
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	4050	101000	22300	18500	NA	32400	NA	29900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	11.3	8.8	5.7	5.4	NA	5.8	NA	3.6
Gravel	ARC-PGRAVEL	%	NA	NA	NA	13.5	50.6	15	44.8	NA	27.8	NA	48.5
Sand	ARC-PSAND	%	NA	NA	NA	61.4	28.1	65.4	41.4	NA	46.9	NA	34.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	13.8	12.5	13.8	8.4	NA	19.5	NA	13.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-12-01 0.5-1.0 ft 12/9/1999 N H10-12-010.5N	H10-14-01 0.0-1.0 ft 12/3/1999 N H10-14-011N	H10-14-02 0.0-2.0 ft 12/3/1999 N H10-14-022N	H10-154B-03 0.0-1.0 ft 12/3/1999 N H10-154B-031N	H10-16-02 0.0-0.8 ft 12/2/1999 N H10-16-020.75N	H10-17-03 0.0-1.0 ft 7/13/2000 N H10-17-031N	H10-2003-01 0.0-1.3 ft 12/10/1999 N H10-2003-011.3N	H10-2003-01 0.5-1.0 ft 12/10/1999 N H10-2003-010.5N	H10-2092-03 0.0-0.5 ft 12/1/1999 N H10-2092-030.5N	H10-262-02 0.5-1.0 ft 12/14/1999 N H10-262-020.5N	H10-267-01 0.0-1.0 ft 12/10/1999 N H10-267-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1276	NA	NA	NA	NA	NA	NA	< 1100	< 1202	< 1400	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2551	NA	NA	NA	NA	NA	NA	< 2200	< 2404	< 710	NA
Acrylonitrile	107-13-1	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Benzene	71-43-2	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Bromodichloromethane	75-27-4	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Bromoform	75-25-2	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Bromomethane	74-83-9	ug/kg	< 1276	NA	NA	NA	NA	NA	NA	< 1100	151	< 1400	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Chlorobenzene	108-90-7	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Chloroethane	75-00-3	ug/kg	< 1276	NA	NA	NA	NA	NA	NA	< 1100	< 1202	< 1400	NA
Chloroform	67-66-3	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Chloromethane	74-87-3	ug/kg	< 1276	NA	NA	NA	NA	NA	NA	< 1100	< 1202	< 1400	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-12-01 0.5-1.0 ft 12/9/1999 N H10-12-010.5N	H10-14-01 0.0-1.0 ft 12/3/1999 N H10-14-011N	H10-14-02 0.0-2.0 ft 12/3/1999 N H10-14-022N	H10-154B-03 0.0-1.0 ft 12/3/1999 N H10-154B-031N	H10-16-02 0.0-0.8 ft 12/2/1999 N H10-16-020.75N	H10-17-03 0.0-1.0 ft 7/13/2000 N H10-17-031N	H10-2003-01 0.0-1.3 ft 12/10/1999 N H10-2003-011.3N	H10-2003-01 0.5-1.0 ft 12/10/1999 N H10-2003-010.5N	H10-2092-03 0.0-0.5 ft 12/1/1999 N H10-2092-030.5N	H10-262-02 0.5-1.0 ft 12/14/1999 N H10-262-020.5N	H10-267-01 0.0-1.0 ft 12/10/1999 N H10-267-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 638	NA	NA	NA	NA	< 353.804	NA	< 550	< 601	< 710	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Toluene	108-88-3	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 638	NA	NA	NA	NA	NA	NA	< 550	< 601	< 710	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1276	NA	NA	NA	NA	NA	NA	< 1100	< 1202	< 1400	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 780	< 800	< 8800	< 820	< 707.608	< 780	NA	< 1900	< 780	< 810
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	7800	79000	< 4400	310	< 354	< 390	NA	< 380	29	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	1600	1400	< 4400	120	< 354	< 390	NA	< 380	< 390	< 410
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
2-Chlorophenol	95-57-8	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 390	< 400	< 4400	< 410	NA	< 390	NA	< 380	< 390	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 353.804	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 780	< 800	< 8800	< 820	< 707.608	< 780	NA	< 770	< 780	< 810
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 780	< 800	< 8800	< 820	< 707.608	< 780	NA	< 1900	< 780	< 810
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-12-01	H10-14-01	H10-14-02	H10-154B-03	H10-16-02	H10-17-03	H10-2003-01	H10-2003-01	H10-2092-03	H10-262-02	H10-267-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			12/9/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	7/13/2000	12/10/1999	12/10/1999	12/1/1999	12/14/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H10-12-010.5N	H10-14-011N	H10-14-022N	H10-154B-031N	H10-16-020.75N	H10-17-031N	H10-2003-011.3N	H10-2003-010.5N	H10-2092-030.5N	H10-262-020.5N	H10-267-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 780	< 800	< 8800	< 820	NA	< 780	NA	< 1900	< 780	< 810
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 707.608	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Acenaphthylene	208-96-8	ug/kg	NA	75	65	< 4400	37	< 353.804	< 390	NA	31	31	< 410
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	64	55	< 4400	31	< 353.804	< 390	NA	27	40	< 410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	210	< 400	< 4400	NA	NA	NA	NA	100	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	480	210	620	170	125	76	NA	130	350	75
Benzo[a]pyrene	50-32-8	ug/kg	NA	210	330	610	150	119	61	NA	180	270	60
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	1200	620	1300	350	271	170	NA	430	630	120
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	130	89.87	< 390	NA	NA	150	< 410
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	350	510	< 4400	120	89.87	< 390	NA	150	250	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	780	52	< 4400	94	25.47	180	NA	4100	1200	74
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	1800	< 410
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	950	700	890	280	264	130	NA	250	410	120
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	120	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	36	< 410
Dimethylphthalate	131-11-3	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Di-n-butylphthalate	84-74-2	ug/kg	NA	240	49	1200	53	49.53	190	NA	490	1300	94
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Fluoranthene	206-44-0	ug/kg	NA	970	740	950	380	525	100	NA	190	570	150
Fluorene	86-73-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Hexachlorobenzene	118-74-1	ug/kg	NA	< 390	< 400	< 4400	NA	< 353.804	NA	NA	< 380	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Hexachloroethane	67-72-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	230	110	< 4400	120	84.91	< 390	NA	95	150	< 410
Isophorone	78-59-1	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-12-01 0.5-1.0 ft 12/9/1999 N H10-12-010.5N	H10-14-01 0.0-1.0 ft 12/3/1999 N H10-14-011N	H10-14-02 0.0-2.0 ft 12/3/1999 N H10-14-022N	H10-154B-03 0.0-1.0 ft 12/3/1999 N H10-154B-031N	H10-16-02 0.0-0.8 ft 12/2/1999 N H10-16-020.75N	H10-17-03 0.0-1.0 ft 7/13/2000 N H10-17-031N	H10-2003-01 0.0-1.3 ft 12/10/1999 N H10-2003-011.3N	H10-2003-01 0.5-1.0 ft 12/10/1999 N H10-2003-010.5N	H10-2092-03 0.0-0.5 ft 12/1/1999 N H10-2092-030.5N	H10-262-02 0.5-1.0 ft 12/14/1999 N H10-262-020.5N	H10-267-01 0.0-1.0 ft 12/10/1999 N H10-267-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	29	45	< 4400	< 410	NA	< 390	NA	< 380	< 390	< 410
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 4400	NA	< 353.804	< 390	NA	NA	< 390	< 410
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	< 390	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 390	< 400	580	< 410	< 353.804	< 390	NA	< 380	71	< 410
Pentachlorophenol	87-86-5	ug/kg	NA	< 780	< 790	< 8800	< 820	< 707.608	< 780	NA	< 1900	< 780	< 810
Phenanthrene	85-01-8	ug/kg	NA	690	660	390	170	310	45	NA	86	210	72
Phenol	108-95-2	ug/kg	NA	< 390	< 400	< 4400	< 410	< 353.804	< 390	NA	< 380	240	< 410
Pyrene	129-00-0	ug/kg	NA	720	1100	< 4400	320	236	< 390	NA	290	620	130
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 23	NA	< 176.583	NA	NA	NA	< 20000	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 23	NA	< 176.583	NA	NA	NA	< 20000	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 23	NA	< 176.583	NA	NA	NA	< 20000	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 23	NA	< 176.583	NA	NA	NA	< 20000	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 23	NA	< 176.583	NA	NA	NA	< 20000	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	620	NA	1650	NA	NA	NA	150000	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	390	NA	< 353.1661	NA	NA	NA	< 40000	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	1010	NA	1650	NA	NA	NA	150000	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-12-01 0.5-1.0 ft 12/9/1999 N H10-12-010.5N	H10-14-01 0.0-1.0 ft 12/3/1999 N H10-14-011N	H10-14-02 0.0-2.0 ft 12/3/1999 N H10-14-022N	H10-154B-03 0.0-1.0 ft 12/3/1999 N H10-154B-031N	H10-16-02 0.0-0.8 ft 12/2/1999 N H10-16-020.75N	H10-17-03 0.0-1.0 ft 7/13/2000 N H10-17-031N	H10-2003-01 0.0-1.3 ft 12/10/1999 N H10-2003-011.3N	H10-2003-01 0.5-1.0 ft 12/10/1999 N H10-2003-010.5N	H10-2092-03 0.0-0.5 ft 12/1/1999 N H10-2092-030.5N	H10-262-02 0.5-1.0 ft 12/14/1999 N H10-262-020.5N	H10-267-01 0.0-1.0 ft 12/10/1999 N H10-267-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	< 150	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 476	< 11905	NA	NA	NA	NA	NA	< 230	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	2524	4941	NA	< 150	NA	NA	NA	< 230	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 476	< 4762	NA	< 150	NA	NA	NA	< 230	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 476	NA	NA	< 150	NA	NA	NA	< 230	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 952	< 23810	NA	< 290	NA	NA	NA	< 450	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 952	< 9524	NA	< 290	NA	NA	NA	< 450	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 476	< 11905	NA	< 150	NA	NA	NA	< 230	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 952	< 23810	NA	< 290	NA	NA	NA	< 450	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 476	< 11905	NA	< 150	NA	NA	NA	< 230	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	77700	101000	NA	81200	NA	NA	NA	103000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 4762	6732	NA	< 4762	NA	NA	NA	< 5100	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 952	< 23810	NA	< 290	NA	NA	NA	< 450	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 952	< 9524	NA	< 290	NA	NA	NA	< 450	NA	NA
Tetryl	479-45-8	ug/kg	NA	< 952	< 9524	NA	290	NA	NA	NA	< 450	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	15.9	7.8	1.6	0.85	NA	0.39	NA	3.3	1.1	2.1
Arsenic	7440-38-2	mg/kg	NA	16	8.4	20.9	12.1	NA	6.9	NA	14.6	11.7	12.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.37	0.42	0.94	0.26	NA	0.29	NA	0.22	0.25	0.31
Cadmium	7440-43-9	mg/kg	NA	< 0.29	< 0.3	0.33	< 0.34	NA	< 0.3	NA	0.92	0.25	< 0.66
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	17.2	10.5	24.2	8	NA	9.9	NA	23.1	24.6	15.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	36.7	38	51.5	31.2	NA	23.9	NA	73.2	50.6	97.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	9820	8330	538	4280	NA	12600	NA	4510	1650	880
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.86	1.8	1.6	0.42	0.134	0.48	NA	4.3	52.9	0.63
Nickel	7440-02-0	mg/kg	NA	8.9	7.5	12.1	7.4	NA	5	NA	11	18.3	14.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	2.7	2	2.6	1.6	NA	0.79	NA	0.99	1.5	3.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-12-01	H10-14-01	H10-14-02	H10-154B-03	H10-16-02	H10-17-03	H10-2003-01	H10-2003-01	H10-2092-03	H10-262-02	H10-267-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			12/9/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	7/13/2000	12/10/1999	12/10/1999	12/1/1999	12/14/1999	12/10/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H10-12-010.5N	H10-14-011N	H10-14-022N	H10-154B-031N	H10-16-020.75N	H10-17-031N	H10-2003-011.3N	H10-2003-010.5N	H10-2092-030.5N	H10-262-020.5N	H10-267-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	0.67	0.86	0.24	0.71	NA	< 0.3	NA	0.31	0.15	< 0.66
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 0.98	< 0.91	< 1.2	< 1.1	NA	< 1	NA	< 0.87	0.42	< 2.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	44.9	56.6	345	26.9	NA	113	NA	165	109	70.2
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	7.84	8.29	6.17
Total Organic Carbon	ARC-TOC	mg/kg	NA	34400	NA	35100	129000	32100	26800	NA	12700	30200	25900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	7.2	NA	11.3	12	NA	6.1	NA	5.4	6.1	3.7
Gravel	ARC-PGRAVEL	%	NA	47.5	NA	32.4	23.7	NA	44.7	NA	44.8	32.7	27
Sand	ARC-PSAND	%	NA	35.2	NA	35.8	59.7	NA	39.2	NA	35.1	49.1	57.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	93.7	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	74.4	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	25.6	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	84.4	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	48.7	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	31.5	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	61.7	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	38.6	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	10.1	NA	20.5	4.6	NA	10	NA	14.7	12.1	11.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-267-01 0.5-1.0 ft 12/10/1999 N H10-267-010.5N	H10-269-03 0.0-1.0 ft 12/8/1999 N H10-269-031N	H10-502-01 0.0-1.0 ft 12/10/1999 N H10-502-011N	H10-502-01 0.5-1.0 ft 12/10/1999 N H10-502-010.5N	H10-503-02 0.0-1.5 ft 12/14/1999 N H10-503-021.5N	H10-503-02 0.5-1.0 ft 12/14/1999 N H10-503-020.5N	H10-68-03 0.0-1.0 ft 12/9/1999 N H10-68-031N	H10-68-03 0.5-1.0 ft 12/9/1999 N H10-68-030.5N	H10-8225-03 0.0-1.0 ft 12/9/1999 N H10-8225-031N	H10-8225-03 0.0-1.0 ft 12/9/1999 FD H10-8225-031FD H10-8225-031N	H10-8264-01 0.0-1.0 ft 7/13/2000 N H10-8264-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1200	NA	NA	< 1100	NA	< 710	NA	< 1330	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2500	NA	NA	< 2300	NA	< 710	NA	< 2660	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Benzene	71-43-2	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1200	NA	NA	< 1100	NA	< 1400	NA	< 1330	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1200	NA	NA	< 1100	NA	< 1400	NA	< 1330	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1200	NA	NA	< 1100	NA	< 1400	NA	< 1330	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-267-01 0.5-1.0 ft 12/10/1999 N H10-267-010.5N	H10-269-03 0.0-1.0 ft 12/8/1999 N H10-269-031N	H10-502-01 0.0-1.0 ft 12/10/1999 N H10-502-011N	H10-502-01 0.5-1.0 ft 12/10/1999 N H10-502-010.5N	H10-503-02 0.0-1.5 ft 12/14/1999 N H10-503-021.5N	H10-503-02 0.5-1.0 ft 12/14/1999 N H10-503-020.5N	H10-68-03 0.0-1.0 ft 12/9/1999 N H10-68-031N	H10-68-03 0.5-1.0 ft 12/9/1999 N H10-68-030.5N	H10-8225-03 0.0-1.0 ft 12/9/1999 N H10-8225-031N	H10-8225-03 0.0-1.0 ft 12/9/1999 FD H10-8225-031FD H10-8225-031N	H10-8264-01 0.0-1.0 ft 7/13/2000 N H10-8264-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	< 363.022
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Toluene	108-88-3	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 620	NA	NA	< 570	NA	< 710	NA	< 665	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1200	NA	NA	< 1100	NA	< 1400	NA	< 1330	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 810	< 810	NA	< 780	NA	< 790	NA	< 770	< 780	< 726.044
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 410	550	NA	3900	NA	60	NA	< 380	< 390	< 363
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 410	110	NA	840	NA	< 400	NA	< 380	< 390	< 363
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
2-Chlorophenol	95-57-8	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 363.022
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 810	< 810	NA	< 780	NA	< 790	NA	< 770	< 780	< 726.044
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 810	< 810	NA	< 780	NA	< 790	NA	< 770	< 780	< 726.044
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-267-01	H10-269-03	H10-502-01	H10-502-01	H10-503-02	H10-503-02	H10-68-03	H10-68-03	H10-8225-03	H10-8225-03	H10-8264-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/8/1999	12/10/1999	12/10/1999	12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	7/13/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			H10-267-010.5N	H10-269-031N	H10-502-011N	H10-502-010.5N	H10-503-021.5N	H10-503-020.5N	H10-68-031N	H10-68-030.5N	H10-8225-031N	H10-8225-031FD	H10-8264-011N
Parent Sample												H10-8225-031N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 810	< 810	NA	< 780	NA	< 790	NA	< 770	< 780	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 726.044
Acenaphthene	83-32-9	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Acenaphthylene	208-96-8	ug/kg	NA	45	33	NA	18	NA	< 400	NA	22	25	< 363.022
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	30	36	NA	< 390	NA	< 400	NA	< 380	< 390	63.53
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	140	NA	NA	NA	NA	< 400	NA	< 380	< 390	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	260	500	NA	150	NA	61	NA	150	110	411
Benzo[a]pyrene	50-32-8	ug/kg	NA	230	550	NA	110	NA	41	NA	130	89	242
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	440	730	NA	280	NA	110	NA	350	250	516
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	530	NA	< 390	NA	NA	NA	NA	NA	146
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	130	190	NA	< 390	NA	< 400	NA	96	< 390	187
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 36	44.29
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	430	990	NA	320	NA	110	NA	240	200	361
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 410	460	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 410	< 410	NA	93	NA	< 400	NA	< 380	< 390	< 363.022
Dimethylphthalate	131-11-3	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Di-n-butylphthalate	84-74-2	ug/kg	NA	130	200	NA	56	NA	< 400	NA	< 380	< 390	< 363.022
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Fluoranthene	206-44-0	ug/kg	NA	480	220	NA	180	NA	150	NA	270	250	570
Fluorene	86-73-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Hexachlorobenzene	118-74-1	ug/kg	NA	< 410	NA	NA	NA	NA	< 400	NA	< 380	< 390	< 363.022
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Hexachloroethane	67-72-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	130	310	NA	< 390	NA	< 400	NA	76	< 390	145
Isophorone	78-59-1	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-267-01	H10-269-03	H10-502-01	H10-502-01	H10-503-02	H10-503-02	H10-68-03	H10-68-03	H10-8225-03	H10-8225-03	H10-8264-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/8/1999	12/10/1999	12/10/1999	12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	7/13/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			H10-267-010.5N	H10-269-031N	H10-502-011N	H10-502-010.5N	H10-503-021.5N	H10-503-020.5N	H10-68-031N	H10-68-030.5N	H10-8225-031N	H10-8225-031FD	H10-8264-011N
Parent Sample												H10-8225-031N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	30	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 410	NA	< 390	NA	NA	NA	NA	NA	< 363.022
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 410	< 410	NA	82	NA	< 400	NA	< 380	< 390	< 363.022
Pentachlorophenol	87-86-5	ug/kg	NA	< 810	< 810	NA	< 780	NA	< 790	NA	< 770	< 780	< 726.044
Phenanthrene	85-01-8	ug/kg	NA	160	150	NA	110	NA	87	NA	100	100	70.79
Phenol	108-95-2	ug/kg	NA	< 410	< 410	NA	< 390	NA	< 400	NA	< 380	< 390	< 363.022
Pyrene	129-00-0	ug/kg	NA	420	270	NA	160	NA	140	NA	250	230	529
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	< 21	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	< 21	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	< 21	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	< 21	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	< 21	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	< 21	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	120	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	120	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-267-01	H10-269-03	H10-502-01	H10-502-01	H10-503-02	H10-503-02	H10-68-03	H10-68-03	H10-8225-03	H10-8225-03	H10-8264-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/8/1999	12/10/1999	12/10/1999	12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	7/13/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			H10-267-010.5N	H10-269-031N	H10-502-011N	H10-502-010.5N	H10-503-021.5N	H10-503-020.5N	H10-68-031N	H10-68-030.5N	H10-8225-031N	H10-8225-031FD	H10-8264-011N
Parent Sample												H10-8225-031N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 238	NA	NA	NA	NA	< 250	NA	< 238	< 250	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 238	NA	NA	NA	NA	187	NA	< 238	< 250	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 238	NA	NA	NA	NA	< 250	NA	< 238	< 250	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 238	NA	NA	NA	NA	< 250	NA	< 238	< 250	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 476	NA	NA	NA	NA	< 500	NA	< 476	< 500	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 476	NA	NA	NA	NA	< 500	NA	< 476	< 500	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 238	NA	NA	NA	NA	< 250	NA	< 238	< 250	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 476	NA	NA	NA	NA	< 500	NA	< 476	< 500	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 238	NA	NA	NA	NA	< 250	NA	< 238	< 250	NA
Nitrocellulose	9004-70-0	ug/kg	NA	118000	NA	NA	NA	NA	NA	NA	80000	68500	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 4546	NA	NA	NA	NA	< 5000	NA	< 5000	< 5000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 476	NA	NA	NA	NA	< 500	NA	< 476	< 500	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 476	NA	NA	NA	NA	< 500	NA	< 476	< 500	NA
Tetryl	479-45-8	ug/kg	NA	< 476	NA	NA	NA	NA	< 500	NA	< 476	< 500	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	2.2	2.5	NA	< 7.6	NA	< 2	NA	0.32	0.47	0.676
Arsenic	7440-38-2	mg/kg	NA	93	7.4	NA	10.1	NA	15	NA	54.4	54.3	18.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.36	0.36	NA	0.29	NA	0.4	NA	0.48	0.46	0.622
Cadmium	7440-43-9	mg/kg	NA	< 0.31	< 0.24	NA	< 4.5	NA	< 1.2	NA	< 0.24	< 0.21	2.01
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	14.7	9.9	NA	8.4	NA	14.9	NA	12.9	15.4	20.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	30.6	48.6	NA	16	NA	48.4	NA	75.8	76.9	270
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	190	4210	NA	9330	NA	2790	NA	284	473	728
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.3	2.6	NA	7.3	NA	0.51	NA	0.18	0.27	0.325
Nickel	7440-02-0	mg/kg	NA	9.2	11.3	NA	4.8	NA	11.1	NA	14.1	13.7	19.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.6	1.4	NA	5.1	NA	3.7	NA	1.7	1.4	1.62

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-267-01	H10-269-03	H10-502-01	H10-502-01	H10-503-02	H10-503-02	H10-68-03	H10-68-03	H10-8225-03	H10-8225-03	H10-8264-01
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/8/1999	12/10/1999	12/10/1999	12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	7/13/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			H10-267-010.5N	H10-269-031N	H10-502-011N	H10-502-010.5N	H10-503-021.5N	H10-503-020.5N	H10-68-031N	H10-68-030.5N	H10-8225-031N	H10-8225-031FD	H10-8264-011N
Parent Sample												H10-8225-031N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	0.12	0.28	NA	< 4.5	NA	< 1.2	NA	< 0.24	0.07	< 0.305651
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	0.52	NA	< 15.1	NA	< 4	NA	< 0.82	< 0.72	< 1.018837
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	73	114	NA	33.4	NA	87.4	NA	177	178	848
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	7.85	NA	5.75	NA	5.65	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	14200	30800	NA	41100	NA	34500	NA	19000	NA	161000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	7	7.4	NA	8.3	NA	6.1	NA	6.3	NA	NA
Gravel	ARC-PGRAVEL	%	NA	36.7	26.2	NA	36.5	NA	32.6	NA	58.3	NA	NA
Sand	ARC-PSAND	%	NA	32.2	49.4	NA	34.9	NA	47.8	NA	22.9	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93.8
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70.8
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.9
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.3
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.9
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.3
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56.3
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.2
Silt	ARC-PSILT	%	NA	24	17	NA	20.3	NA	13.5	NA	12.5	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD
Sample Name			H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N	H10-9101-020.5FD
Parent Sample										H10-9101-021N		H10-9101-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595	< 618
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595	< 618
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595	< 618
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595	< 618
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1200	NA	< 1100	NA	NA	NA	< 1190.476	< 1237
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2500	NA	< 2200	NA	NA	NA	< 5952.381	< 6188
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 5952.381	< 6188
Benzene	71-43-2	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Bromoform	75-25-2	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Bromomethane	74-83-9	ug/kg	NA	NA	< 1200	NA	< 1100	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Chloroethane	75-00-3	ug/kg	NA	NA	< 1200	NA	< 1100	NA	NA	NA	< 1190.476	< 1237
Chloroform	67-66-3	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Chloromethane	74-87-3	ug/kg	NA	NA	< 1200	NA	< 1100	NA	NA	NA	< 1190.476	< 1237
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 595.2381	< 618
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595	< 618
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD
Sample Name			H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N	H10-9101-020.5FD
Parent Sample										H10-9101-021N		H10-9101-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 2380.952	< 2475.247
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 618
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Toluene	108-88-3	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 620	NA	< 550	NA	NA	NA	< 595.2381	< 618
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	270	NA	180	NA	NA	NA	< 595.2381	< 618
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 1200	NA	< 1100	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 750	< 853	NA	< 930	NA	< 9000	< 771.248	< 761	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	84	113	NA	130	NA	400	< 386	< 381	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	46	< 426	NA	31	NA	< 4500	< 386	< 381	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 385.624	< 381	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 750	< 853	NA	< 930	NA	< 9000	< 771.248	< 761	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 750	< 853	NA	< 930	NA	< 9000	< 771.248	< 761	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD
Sample Name			H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N	H10-9101-020.5FD
Parent Sample										H10-9101-021N		H10-9101-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 750	< 853	NA	< 930	NA	< 9000	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 771.248	< 761	NA	NA
Acenaphthene	83-32-9	ug/kg	42	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Acenaphthylene	208-96-8	ug/kg	100	178	NA	25	NA	210	< 385.624	< 381	< 23809	< 24752
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	130	176	NA	36	NA	< 4500	< 385.624	< 381	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	850	NA	NA	< 460	NA	< 4500	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	2100	628	NA	160	NA	950	109	106	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	1700	445	NA	160	NA	720	99.11	57.12	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	4000	1180	NA	360	NA	2400	151	92.91	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	349	NA	NA	NA	NA	< 385.624	< 381	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	1400	366	NA	120	NA	< 4500	< 385.624	< 381	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	43.9	NA	39	NA	< 4500	< 385.624	< 381	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	130	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	< 1190	< 1237
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	2200	981	NA	270	NA	2000	115	68.16	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	280	113	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	34	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	61	52.9	NA	96	NA	< 4500	< 385.624	< 381	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Fluoranthene	206-44-0	ug/kg	2100	1240	NA	450	NA	2800	152	124	NA	NA
Fluorene	86-73-7	ug/kg	35	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	170	< 426	NA	< 460	NA	< 4500	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	880	327	NA	89	NA	< 4500	< 385.624	< 381	NA	NA
Isophorone	78-59-1	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD
Sample Name			H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N	H10-9101-020.5FD
Parent Sample										H10-9101-021N		H10-9101-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	77	37.5	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 750	< 853	NA	< 930	NA	< 9000	< 771.248	< 761	NA	NA
Phenanthrene	85-01-8	ug/kg	820	317	NA	210	NA	780	70.95	70.44	NA	NA
Phenol	108-95-2	ug/kg	< 370	< 426	NA	< 460	NA	< 4500	< 385.624	< 381	NA	NA
Pyrene	129-00-0	ug/kg	3100	1020	NA	380	NA	2800	131	111	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 24	NA	< 1200	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 24	NA	< 1200	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 24	NA	< 1200	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 24	NA	< 1200	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 24	NA	< 1200	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	480	NA	15000	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	320	NA	6700	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	800	NA	21700	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD
Sample Name			H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N	H10-9101-020.5FD
Parent Sample										H10-9101-021N		H10-9101-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	214	< 250	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	451	564	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	315	< 250	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 250	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 500	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 500	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 250	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	154	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	171000	427000	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5000	< 6400	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 500	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	3.5	11.6	NA	0.27	NA	1.6	0.577	< 0.591	NA	NA
Arsenic	7440-38-2	mg/kg	53.5	641	NA	9.9	NA	28	16.4	9.79	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.24	0.275	NA	0.44	NA	0.35	0.413	0.149	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.27	0.493	NA	0.4	NA	0.24	< 0.284477	< 0.295	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19	41.8	NA	14.5	NA	17.4	13.1	6.45	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	151	52.9	NA	38.6	NA	54	23.5	12.3	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	464	368	NA	1070	NA	1100	128	62.5	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.2	3.22	NA	0.39	NA	0.61	0.291	0.258	NA	NA
Nickel	7440-02-0	mg/kg	13.2	14.7	NA	12.5	NA	16.2	6.94	3.43	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.6	4.99	NA	1.5	NA	3.3	0.408	< 0.492	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD
Sample Name			H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N	H10-9101-020.5FD
Parent Sample										H10-9101-021N		H10-9101-020.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.23	0.244	NA	0.17	NA	0.38	< 0.284477	< 0.295	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.9	0.681	NA	< 1	NA	< 1	< 0.948256	< 0.985	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	95.3	43.2	NA	219	NA	59.5	55.1	37.6	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	26300	60500	NA	NA	NA	59700	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	3.6	NA	NA	NA	NA	4.3	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	64.1	NA	NA	NA	NA	26.1	NA	NA	NA	NA
Sand	ARC-PSAND	%	24.8	NA	NA	NA	NA	48	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	97	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	79.2	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	19.3	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	88.4	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	48.6	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	25.4	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	64.6	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	34.8	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	7.5	NA	NA	NA	NA	21.6	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H10-9101-03 0.0-1.0 ft 12/14/1999 N H10-9101-031N	H10-9101-03 0.5-1.0 ft 12/14/1999 N H10-9101-030.5N	H10-9102-03 0.0-1.5 ft 12/9/1999 N H10-9102-031.5N	H10-9102-03 0.5-1.0 ft 12/9/1999 N H10-9102-030.5N	H10-9103-01 0.0-0.5 ft 12/1/1999 N H10-9103-010.5N	H10-9103-01 0.0-1.0 ft 12/1/1999 N H10-9103-011N	H10-9103-03 0.0-0.5 ft 12/1/1999 N H10-9103-030.5N	H10-9103-03 0.0-1.0 ft 12/1/1999 N H10-9103-031N	H10-9103-04 0.0-0.5 ft 12/1/1999 N H10-9103-040.5N	H10-9103-04 0.0-2.0 ft 12/1/1999 N H10-9103-042N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1500	NA	< 1147	< 1238	NA	< 1263	NA	< 1087	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2900	NA	< 2294	< 2475	NA	< 2525	NA	< 2174	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Benzene	71-43-2	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Bromoform	75-25-2	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Bromomethane	74-83-9	ug/kg	NA	< 1500	NA	< 1147	< 1238	NA	< 1263	NA	< 4087	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Chloroethane	75-00-3	ug/kg	NA	< 1500	NA	< 1147	< 1238	NA	< 1263	NA	< 1087	NA
Chloroform	67-66-3	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Chloromethane	74-87-3	ug/kg	NA	< 1500	NA	< 1147	126	NA	145	NA	< 1087	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03	H10-9103-01	H10-9103-01	H10-9103-03	H10-9103-03	H10-9103-04	H10-9103-04
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N	H10-9103-010.5N	H10-9103-011N	H10-9103-030.5N	H10-9103-031N	H10-9103-040.5N	H10-9103-042N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	2861	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Toluene	108-88-3	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 730	NA	< 573	< 619	NA	< 631	NA	< 544	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 730	NA	< 573	< 619	NA	277	NA	< 544	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1500	NA	< 1147	< 1238	NA	< 1263	NA	< 1087	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
2,4-Dichlorophenol	120-83-2	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	NA	NA	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	< 810	NA	< 780	NA	NA	< 1800	NA	< 1900	NA	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	< 410	NA	< 390	NA	NA	140	NA	310	NA	2700
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	NA	< 390	NA	NA	26	NA	72	NA	730
2-Chloronaphthalene	91-58-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
2-Chlorophenol	95-57-8	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 810	NA	< 780	NA	NA	< 730	NA	< 780	NA	< 780
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 810	NA	< 780	NA	NA	< 1800	NA	< 1900	NA	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03	H10-9103-01	H10-9103-01	H10-9103-03	H10-9103-03	H10-9103-04	H10-9103-04
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N	H10-9103-010.5N	H10-9103-011N	H10-9103-030.5N	H10-9103-031N	H10-9103-040.5N	H10-9103-042N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 810	NA	< 780	NA	NA	< 1800	NA	< 1900	NA	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	38
Acenaphthylene	208-96-8	ug/kg	20	NA	39	NA	NA	16	NA	57	NA	140
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 410	NA	24	NA	NA	29	NA	98	NA	160
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	110	NA	180	NA	NA	130	NA	560	NA	1100
Benzo[a]pyrene	50-32-8	ug/kg	89	NA	160	NA	NA	120	NA	630	NA	800
Benzo[b]fluoranthene	205-99-2	ug/kg	230	NA	420	NA	NA	280	NA	1200	NA	1700
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 410	NA	NA	NA	NA	< 370	NA	410	NA	320
Benzo[k]fluoranthene	207-08-9	ug/kg	< 410	NA	100	NA	NA	97	NA	620	NA	770
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	240	NA	310	NA	NA	200	NA	720	NA	1000
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	160	NA	130
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 410	NA	< 390	NA	NA	300	NA	< 390	NA	< 390
Dimethylphthalate	131-11-3	ug/kg	< 410	NA	< 390	NA	NA	26	NA	< 390	NA	< 390
Di-n-butylphthalate	84-74-2	ug/kg	< 410	NA	< 390	NA	NA	180	NA	130	NA	98
Di-n-octylphthalate	117-84-0	ug/kg	140	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Fluoranthene	206-44-0	ug/kg	300	NA	410	NA	NA	200	NA	850	NA	1300
Fluorene	86-73-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	28	NA	36
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Hexachlorobutadiene	87-68-3	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Hexachloroethane	67-72-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 410	NA	93	NA	NA	75	NA	390	NA	350
Isophorone	78-59-1	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03	H10-9103-01	H10-9103-01	H10-9103-03	H10-9103-03	H10-9103-04	H10-9103-04
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N	H10-9103-010.5N	H10-9103-011N	H10-9103-030.5N	H10-9103-031N	H10-9103-040.5N	H10-9103-042N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 410	NA	28	NA	NA	< 370	NA	33	NA	110
Nitrobenzene	98-95-3	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410	NA	< 390	NA	NA	190	NA	< 390	NA	< 390
Pentachlorophenol	87-86-5	ug/kg	< 810	NA	< 780	NA	NA	< 1800	NA	< 1900	NA	< 1900
Phenanthrene	85-01-8	ug/kg	310	NA	240	NA	NA	89	NA	310	NA	300
Phenol	108-95-2	ug/kg	< 410	NA	< 390	NA	NA	< 370	NA	< 390	NA	< 390
Pyrene	129-00-0	ug/kg	260	NA	330	NA	NA	240	NA	1600	NA	1500
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03	H10-9103-01	H10-9103-01	H10-9103-03	H10-9103-03	H10-9103-04	H10-9103-04
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N	H10-9103-010.5N	H10-9103-011N	H10-9103-030.5N	H10-9103-031N	H10-9103-040.5N	H10-9103-042N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.21	NA	NA	NA	NA	< 0.44	NA	0.58	NA	0.28
Arsenic	7440-38-2	mg/kg	14.5	NA	NA	NA	NA	8.4	NA	18.7	NA	14.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.3	NA	NA	NA	NA	0.31	NA	0.26	NA	0.06
Cadmium	7440-43-9	mg/kg	< 0.3	NA	NA	NA	NA	0.38	NA	0.54	NA	0.21
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.3	NA	NA	NA	NA	23.1	NA	22.5	NA	6.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	22.2	NA	NA	NA	NA	36.7	NA	40.8	NA	9.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	288	NA	NA	NA	NA	121	NA	2630	NA	2930
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.17	NA	NA	NA	NA	0.07	NA	1	NA	0.2
Nickel	7440-02-0	mg/kg	12	NA	NA	NA	NA	13.4	NA	11.4	NA	3.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.9	NA	NA	NA	NA	0.86	NA	1.5	NA	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03	H10-9103-01	H10-9103-01	H10-9103-03	H10-9103-03	H10-9103-04	H10-9103-04
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft
Collection Date			12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N	H10-9103-010.5N	H10-9103-011N	H10-9103-030.5N	H10-9103-031N	H10-9103-040.5N	H10-9103-042N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.12	NA	NA	NA	NA	< 0.26	NA	0.25	NA	< 0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	NA	NA	NA	NA	< 0.88	NA	< 0.96	NA	< 0.96
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	22.8	NA	NA	NA	NA	44.4	NA	84.2	NA	18.4
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	8.24	NA	7.65	NA	7.24
Total Organic Carbon	ARC-TOC	mg/kg	29800	NA	9540	NA	NA	5130	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	6.9	NA	6.4	NA	NA	3.1	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	47.1	NA	29.1	NA	NA	59.8	NA	NA	NA	NA
Sand	ARC-PSAND	%	30.1	NA	44.7	NA	NA	29.6	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	15.9	NA	19.9	NA	NA	7.5	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9104-02	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			12/1/1999	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD
Sample Name			H10-9104-020.5N	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD
Parent Sample								H10-9320-031N					H11-2-021.3N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1126	NA	NA	NA	NA	NA	NA	< 1033	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2252	NA	NA	NA	NA	NA	NA	< 2066	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Benzene	71-43-2	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1126	NA	NA	NA	NA	NA	NA	< 1033	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1126	NA	NA	NA	NA	NA	NA	< 1033	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1126	NA	NA	NA	NA	NA	NA	< 1033	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9104-02	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			12/1/1999	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD
Sample Name			H10-9104-020.5N	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD
Parent Sample								H10-9320-031N					H11-2-021.3N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Toluene	108-88-3	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 563	NA	NA	NA	NA	NA	NA	< 517	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1226	NA	NA	NA	NA	NA	NA	< 1033	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 2000	< 750	< 781	< 780	< 760	< 780	NA	NA	< 810	< 800
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 390	< 370	< 390	1800	1500	< 390	NA	NA	< 410	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 390	< 370	< 390	210	160	< 390	NA	NA	< 410	< 400
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2-Chlorophenol	95-57-8	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 780	< 750	< 781	< 780	< 760	< 780	NA	NA	< 810	< 800
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 2000	< 750	< 781	< 780	< 760	< 780	NA	NA	< 810	< 800
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9104-02	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			12/1/1999	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD
Sample Name			H10-9104-020.5N	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD
Parent Sample								H10-9320-031N					H11-2-021.3N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	< 750	< 781	< 780	< 760	< 780	NA	NA	< 810	< 800
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Acenaphthylene	208-96-8	ug/kg	NA	27	< 370	207	33	31	28	NA	NA	< 410	< 400
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	67	< 370	199	58	68	< 390	NA	NA	< 410	< 400
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	240	< 370	NA	550	550	100	NA	NA	< 410	< 400
Benzo[a]anthracene	56-55-3	ug/kg	NA	700	< 370	1450	900	980	130	NA	NA	50	70
Benzo[a]pyrene	50-32-8	ug/kg	NA	410	< 370	1240	820	810	120	NA	NA	53	63
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	1500	< 370	1820	1600	1500	220	NA	NA	130	170
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 390	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	310	< 370	642	330	420	< 390	NA	NA	< 410	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	2400	36	< 390	130	310	< 390	NA	NA	< 410	< 150
Butylbenzylphthalate	85-68-7	ug/kg	NA	590	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	690	< 370	1420	2000	1900	190	NA	NA	120	140
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 390	< 370	< 390	460	410	< 390	NA	NA	< 410	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 390	< 370	< 390	160	37	< 390	NA	NA	< 410	< 400
Dimethylphthalate	131-11-3	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Di-n-butylphthalate	84-74-2	ug/kg	NA	170	< 370	< 390	310	180	< 390	NA	NA	130	130
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Fluoranthene	206-44-0	ug/kg	NA	1800	< 370	1920	400	390	280	NA	NA	85	110
Fluorene	86-73-7	ug/kg	NA	< 390	< 370	80.8	< 390	< 380	< 390	NA	NA	< 410	< 400
Hexachlorobenzene	118-74-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Hexachloroethane	67-72-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	240	< 370	< 390	410	390	94	NA	NA	< 410	< 400
Isophorone	78-59-1	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9104-02	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			12/1/1999	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD
Sample Name			H10-9104-020.5N	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD
Parent Sample								H10-9320-031N					H11-2-021.3N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Nitrobenzene	98-95-3	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 390	< 370	< 390	450	390	< 390	NA	NA	< 410	< 400
Pentachlorophenol	87-86-5	ug/kg	NA	< 2000	< 750	< 781	< 780	< 760	< 780	NA	NA	< 810	< 800
Phenanthrene	85-01-8	ug/kg	NA	180	< 370	1130	220	220	140	NA	NA	83	100
Phenol	108-95-2	ug/kg	NA	< 390	< 370	< 390	< 390	< 380	< 390	NA	NA	< 410	< 400
Pyrene	129-00-0	ug/kg	NA	2400	< 370	1890	480	490	280	NA	NA	< 410	120
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 19	< 39	NA	NA	NA	NA	< 21	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 19	< 39	NA	NA	NA	NA	< 21	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 19	< 39	NA	NA	NA	NA	< 21	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 19	< 39	NA	NA	NA	NA	< 21	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 19	< 39	NA	NA	NA	NA	< 21	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 19	< 39	NA	NA	NA	NA	97	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	280	595	NA	NA	NA	NA	75	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	280	595	NA	NA	NA	NA	172	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9104-02	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			12/1/1999	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD
Sample Name			H10-9104-020.5N	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD
Parent Sample								H10-9320-031N					H11-2-021.3N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 227	< 208
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 227	< 208
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 227	< 208
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 227	< 208
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 455	< 417
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 455	< 417
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 227	< 208
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 455	< 417
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 227	< 208
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	91000	137000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4762	< 4546
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 455	< 417
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 455	< 417
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 455	< 417
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	7.1	< 0.42	< 0.576	1.3	1.3	NA	NA	NA	0.23	0.39
Arsenic	7440-38-2	mg/kg	NA	35.2	8.1	8.57	16.1	15.9	NA	NA	NA	3.7	9.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.22	0.87	0.7	0.4	0.35	NA	NA	NA	0.12	0.52
Cadmium	7440-43-9	mg/kg	NA	1.4	1.9	0.789	< 0.31	0.13	NA	NA	NA	0.14	< 0.34
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	59.6	16.4	16.3	29.8	24.2	NA	NA	NA	3.4	13.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	93.2	19.5	22.4	22	30	NA	NA	NA	18.1	43.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	16800	244	621	2040	1840	NA	NA	NA	162	943
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.83	0.03	0.153	2	1.9	NA	NA	NA	0.18	0.17
Nickel	7440-02-0	mg/kg	NA	17.9	10.2	9.95	7.1	9.9	NA	NA	NA	3.8	10.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.2	1.2	0.594	2.6	2.6	NA	NA	NA	0.28	1.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H10-9104-02	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			12/1/1999	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD
Sample Name			H10-9104-020.5N	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD
Parent Sample								H10-9320-031N					H11-2-021.3N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	0.74	0.11	< 0.288	0.34	0.39	NA	NA	NA	< 0.25	< 0.24
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	< 0.85	1.13	< 1	< 1	NA	NA	NA	< 0.85	< 0.79
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	224	1360	727	138	328	NA	NA	NA	87.4	116
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	7.72	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	14500	7320	NA	26400	NA	12200	NA	26400	33000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	3.5	8	NA	4.8	NA	5.4	NA	8.5	3.8	NA
Gravel	ARC-PGRAVEL	%	NA	54.7	49.4	NA	50.8	NA	39.9	NA	34.8	62.1	NA
Sand	ARC-PSAND	%	NA	32.4	29.8	NA	31	NA	37.9	NA	37.1	23.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	9.4	12.8	NA	13.4	NA	16.8	NA	19.6	11	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-2-03	H11-2295-01	H11-2295-02	H11-2319-02	H11-2319-02	H11-2319-04	H11-2319-04	H11-3-02	H11-3-02	H11-3-03	H11-3-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/15/2000	6/15/2000	12/3/1999	6/23/2000	6/23/2000	12/9/1999	12/9/1999	12/10/1999	12/10/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-2-031.5N	H11-2295-011N	H11-2295-021N	H11-2319-021.25N	H11-2319-020.5N	H11-2319-041.3N	H11-2319-040.5N	H11-3-021.3N	H11-3-020.5N	H11-3-031N	H11-3-030.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 590	NA	< 539	NA	< 610	NA	< 753
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 590	NA	< 539	NA	< 610	NA	< 753
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 539	NA	< 610	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 590	NA	< 539	NA	< 610	NA	< 753
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 590	NA	< 539	NA	< 610	NA	< 753
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 1179.245	NA	< 1078	NA	< 1200	NA	< 1506.024
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 5896.226	NA	< 2155	NA	< 610	NA	< 7530.12
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 5896.226	NA	< 539	NA	< 610	NA	< 7530.12
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 1078	NA	< 1200	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 1179.245	NA	< 1078	NA	< 1200	NA	< 1506.024
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	< 1179.245	NA	< 1078	NA	< 1200	NA	< 1506.024
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	< 589.6226	NA	NA	NA	NA	NA	< 753.012
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	< 539	NA	< 610	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 590	NA	< 539	NA	< 610	NA	< 753
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-2-03	H11-2295-01	H11-2295-02	H11-2319-02	H11-2319-02	H11-2319-04	H11-2319-04	H11-3-02	H11-3-02	H11-3-03	H11-3-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/15/2000	6/15/2000	12/3/1999	6/23/2000	6/23/2000	12/9/1999	12/9/1999	12/10/1999	12/10/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-2-031.5N	H11-2295-011N	H11-2295-021N	H11-2319-021.25N	H11-2319-020.5N	H11-2319-041.3N	H11-2319-040.5N	H11-3-021.3N	H11-3-020.5N	H11-3-031N	H11-3-030.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 2358.49	NA	< 539	NA	< 610	NA	< 3012.048
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 589.6226	NA	< 539	NA	< 610	NA	< 753.012
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 1078	NA	< 1200	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 807	< 823	< 830	< 854.416	NA	< 770	NA	< 810	NA	< 865.962	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 404	< 412	< 420	< 427	NA	< 380	NA	44	NA	< 433	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 404	< 412	< 420	< 427	NA	< 380	NA	< 410	NA	< 433	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
2-Chlorophenol	95-57-8	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 404	< 412	< 420	NA	NA	< 380	NA	< 410	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 427.208	NA	NA	NA	NA	NA	< 432.981	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 807	< 823	< 830	< 854.416	NA	< 770	NA	< 810	NA	< 865.962	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 807	< 823	< 830	< 854.416	NA	< 770	NA	< 810	NA	< 865.962	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-2-03	H11-2295-01	H11-2295-02	H11-2319-02	H11-2319-02	H11-2319-04	H11-2319-04	H11-3-02	H11-3-02	H11-3-03	H11-3-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/15/2000	6/15/2000	12/3/1999	6/23/2000	6/23/2000	12/9/1999	12/9/1999	12/10/1999	12/10/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-2-031.5N	H11-2295-011N	H11-2295-021N	H11-2319-021.25N	H11-2319-020.5N	H11-2319-041.3N	H11-2319-040.5N	H11-3-021.3N	H11-3-020.5N	H11-3-031N	H11-3-030.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 807	< 823	< 830	NA	NA	< 770	NA	< 810	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 854.416	NA	NA	NA	NA	NA	< 865.962	NA
Acenaphthene	83-32-9	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Acenaphthylene	208-96-8	ug/kg	< 404	< 412	33	< 427.208	< 23585	18	NA	30	NA	< 432.981	< 30120
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 404	< 412	28	< 427.208	NA	< 380	NA	43	NA	< 432.981	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	110	NA	NA	< 380	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 404	< 412	200	< 427.208	NA	80	NA	150	NA	201	NA
Benzo[a]pyrene	50-32-8	ug/kg	40.4	< 412	180	< 427.208	NA	57	NA	140	NA	202	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	69	< 412	440	< 427.208	NA	140	NA	320	NA	432	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 404	< 412	NA	< 427.208	NA	NA	NA	110	NA	127	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 404	< 412	110	< 427.208	NA	< 380	NA	110	NA	129	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 404	< 412	190	< 427.208	NA	< 380	NA	62	NA	< 432.981	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 404	< 412	< 420	< 427.208	< 1179	< 380	NA	< 410	NA	< 432.981	< 1506
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	116	< 412	260	< 427.208	NA	100	NA	320	NA	342	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Dimethylphthalate	131-11-3	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Di-n-butylphthalate	84-74-2	ug/kg	158	< 412	140	< 427.208	NA	180	NA	64	NA	< 432.981	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Fluoranthene	206-44-0	ug/kg	< 404	< 412	260	< 427.208	NA	150	NA	290	NA	369	NA
Fluorene	86-73-7	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Hexachlorobenzene	118-74-1	ug/kg	< 404	< 412	< 420	NA	NA	< 380	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Hexachloroethane	67-72-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 404	< 412	110	< 427.208	NA	< 380	NA	100	NA	110	NA
Isophorone	78-59-1	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-2-03	H11-2295-01	H11-2295-02	H11-2319-02	H11-2319-02	H11-2319-04	H11-2319-04	H11-3-02	H11-3-02	H11-3-03	H11-3-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/15/2000	6/15/2000	12/3/1999	6/23/2000	6/23/2000	12/9/1999	12/9/1999	12/10/1999	12/10/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-2-031.5N	H11-2295-011N	H11-2295-021N	H11-2319-021.25N	H11-2319-020.5N	H11-2319-041.3N	H11-2319-040.5N	H11-3-021.3N	H11-3-020.5N	H11-3-031N	H11-3-030.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 404	< 412	48	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 404	< 412	97	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Pentachlorophenol	87-86-5	ug/kg	< 807	< 823	< 830	< 854.416	NA	< 770	NA	< 810	NA	< 865.962	NA
Phenanthrene	85-01-8	ug/kg	81.5	< 412	130	< 427.208	NA	100	NA	220	NA	141	NA
Phenol	108-95-2	ug/kg	< 404	< 412	< 420	< 427.208	NA	< 380	NA	< 410	NA	< 432.981	NA
Pyrene	129-00-0	ug/kg	< 404	< 412	400	< 427.208	NA	180	NA	260	NA	315	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-2-03	H11-2295-01	H11-2295-02	H11-2319-02	H11-2319-02	H11-2319-04	H11-2319-04	H11-3-02	H11-3-02	H11-3-03	H11-3-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/15/2000	6/15/2000	12/3/1999	6/23/2000	6/23/2000	12/9/1999	12/9/1999	12/10/1999	12/10/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-2-031.5N	H11-2295-011N	H11-2295-021N	H11-2319-021.25N	H11-2319-020.5N	H11-2319-041.3N	H11-2319-040.5N	H11-3-021.3N	H11-3-020.5N	H11-3-031N	H11-3-030.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 249	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	63800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 6030	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.387	0.334	0.42	0.525	NA	0.23	NA	1.5	NA	2.36	NA
Arsenic	7440-38-2	mg/kg	8.67	12.6	13.5	15.9	NA	12	NA	17.3	NA	112	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.276	0.507	0.67	0.515	NA	0.64	NA	0.34	NA	0.271	NA
Cadmium	7440-43-9	mg/kg	< 0.336	< 0.367	0.28	0.745	NA	< 0.28	NA	< 0.3	NA	< 0.36885	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	8.77	14	19.2	19.1	NA	14.5	NA	10.7	NA	13	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	18.4	22.5	32.3	48	NA	30.5	NA	25.9	NA	45.7	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	193	114	226	563	NA	307	NA	399	NA	179	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.095	0.24	0.31	0.635	NA	0.37	NA	1.9	NA	0.798	NA
Nickel	7440-02-0	mg/kg	8.36	10.5	12	11.5	NA	12.2	NA	8.6	NA	8.46	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.4	1.63	1.9	2.37	NA	1.9	NA	1.9	NA	2.04	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-2-03	H11-2295-01	H11-2295-02	H11-2319-02	H11-2319-02	H11-2319-04	H11-2319-04	H11-3-02	H11-3-02	H11-3-03	H11-3-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/15/2000	6/15/2000	12/3/1999	6/23/2000	6/23/2000	12/9/1999	12/9/1999	12/10/1999	12/10/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-2-031.5N	H11-2295-011N	H11-2295-021N	H11-2319-021.25N	H11-2319-020.5N	H11-2319-041.3N	H11-2319-040.5N	H11-3-021.3N	H11-3-020.5N	H11-3-031N	H11-3-030.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.336	< 0.367	0.2	< 0.3663	NA	< 0.28	NA	0.1	NA	< 0.36885	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.33	1.34	< 1.1	1.06	NA	1.1	NA	0.58	NA	< 1.229501	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	33.9	320	259	292	NA	297	NA	66	NA	36.5	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	6.9	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	16500	NA	NA	8570	NA	47100	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	8.7	NA	NA	0.6	NA	5.8	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	36.8	NA	NA	41	NA	42.3	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	38.5	NA	NA	47.7	NA	38.6	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	16	NA	NA	10.6	NA	13.3	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-4-03	H11-4-03	H11-510-01	H11-510-01	H11-510-03	H11-6-01	H11-696-01	H11-696-02	H11-697-01	H11-697-02	H11-761-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	6/15/2000	6/15/2000	12/3/1999	12/3/1999	7/13/2000	9/27/2000	12/8/1999	6/15/2000	12/7/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H11-4-031N	H11-4-030.5N	H11-510-011.25N	H11-510-011.25FD	H11-510-031N	H11-6-011N	H11-696-010.5N	H11-696-020.5N	H11-697-012N	H11-697-021N	H11-761-031N
Parent Sample						H11-510-011.25N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-4-03	H11-4-03	H11-510-01	H11-510-01	H11-510-03	H11-6-01	H11-696-01	H11-696-02	H11-697-01	H11-697-02	H11-761-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	6/15/2000	6/15/2000	12/3/1999	12/3/1999	7/13/2000	9/27/2000	12/8/1999	6/15/2000	12/7/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H11-4-031N	H11-4-030.5N	H11-510-011.25N	H11-510-011.25FD	H11-510-031N	H11-6-011N	H11-696-010.5N	H11-696-020.5N	H11-697-012N	H11-697-021N	H11-761-031N
Parent Sample						H11-510-011.25N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 700	NA	NA	NA	NA	< 346.442	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
2,4-Dichlorophenol	120-83-2	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	< 810	NA	< 809	< 832	< 780	< 810	< 692.884	< 861	< 880	< 758	< 780
2,4-Dinitrotoluene	121-14-2	ug/kg	1100	NA	< 405	< 416	< 390	< 410	< 346	< 431	< 440	< 379	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	230	NA	< 405	< 416	< 390	< 410	< 346	< 431	< 440	< 379	< 390
2-Chloronaphthalene	91-58-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
2-Chlorophenol	95-57-8	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	NA	< 431	< 440	< 379	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 810	NA	< 809	< 832	< 780	< 810	< 692.884	< 861	< 880	< 758	< 780
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 810	NA	< 809	< 832	< 780	< 810	< 692.884	< 861	< 880	< 758	< 780
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-4-03	H11-4-03	H11-510-01	H11-510-01	H11-510-03	H11-6-01	H11-696-01	H11-696-02	H11-697-01	H11-697-02	H11-761-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	6/15/2000	6/15/2000	12/3/1999	12/3/1999	7/13/2000	9/27/2000	12/8/1999	6/15/2000	12/7/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H11-4-031N	H11-4-030.5N	H11-510-011.25N	H11-510-011.25FD	H11-510-031N	H11-6-011N	H11-696-010.5N	H11-696-020.5N	H11-697-012N	H11-697-021N	H11-761-031N
Parent Sample						H11-510-011.25N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 810	NA	< 809	< 832	< 780	< 810	NA	< 861	< 880	< 758	< 780
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Acenaphthylene	208-96-8	ug/kg	120	NA	< 405	< 416	20	110	< 346.442	< 431	18	< 379	77
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	170	NA	< 405	< 416	23	96	< 346.442	< 431	< 440	< 379	59
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	< 390	400	NA	NA	< 440	NA	340
Benzo[a]anthracene	56-55-3	ug/kg	890	NA	144	136	76	890	88.34	190	110	65.6	420
Benzo[a]pyrene	50-32-8	ug/kg	530	NA	142	156	77	700	62.36	68	100	80.8	500
Benzo[b]fluoranthene	205-99-2	ug/kg	1600	NA	250	259	190	1700	165	180	220	146	1100
Benzo[g,h,i]perylene	191-24-2	ug/kg	370	NA	87.8	91.5	NA	NA	< 346.442	< 431	NA	< 379	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	520	NA	< 405	< 416	65	760	< 346.442	34	< 440	< 379	290
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	NA	23.5	< 416	120	56	35.34	35.7	< 440	19	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	1400	NA	193	228	220	1300	207	158	200	100	670
Dibenzo[a,h]anthracene	53-70-3	ug/kg	150	NA	< 405	< 416	< 390	180	< 346.442	< 431	< 440	< 379	91
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Dimethylphthalate	131-11-3	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Di-n-butylphthalate	84-74-2	ug/kg	100	NA	< 405	< 416	44	36	73.1	< 431	140	< 379	57
Di-n-octylphthalate	117-84-0	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Fluoranthene	206-44-0	ug/kg	1200	NA	196	212	180	1500	328	193	300	112	1100
Fluorene	86-73-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	24
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Hexachlorobutadiene	87-68-3	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Hexachloroethane	67-72-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	370	NA	81.7	83.2	< 390	410	< 346.442	< 431	< 440	< 379	330
Isophorone	78-59-1	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-4-03	H11-4-03	H11-510-01	H11-510-01	H11-510-03	H11-6-01	H11-696-01	H11-696-02	H11-697-01	H11-697-02	H11-761-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	6/15/2000	6/15/2000	12/3/1999	12/3/1999	7/13/2000	9/27/2000	12/8/1999	6/15/2000	12/7/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H11-4-031N	H11-4-030.5N	H11-510-011.25N	H11-510-011.25FD	H11-510-031N	H11-6-011N	H11-696-010.5N	H11-696-020.5N	H11-697-012N	H11-697-021N	H11-761-031N
Parent Sample						H11-510-011.25N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	41	NA	< 405	< 416	32	54	NA	< 431	34	< 379	29
Nitrobenzene	98-95-3	ug/kg	< 410	NA	< 405	< 416	< 390	NA	NA	< 431	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Pentachlorophenol	87-86-5	ug/kg	< 810	NA	< 809	< 832	< 780	< 810	< 692.884	< 861	< 880	< 758	< 780
Phenanthrene	85-01-8	ug/kg	570	NA	79.3	94	110	350	210	276	180	72.8	500
Phenol	108-95-2	ug/kg	< 410	NA	< 405	< 416	< 390	< 410	< 346.442	< 431	< 440	< 379	< 390
Pyrene	129-00-0	ug/kg	1100	NA	199	208	140	2100	157	128	310	126	1200
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	370	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-4-03	H11-4-03	H11-510-01	H11-510-01	H11-510-03	H11-6-01	H11-696-01	H11-696-02	H11-697-01	H11-697-02	H11-761-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	6/15/2000	6/15/2000	12/3/1999	12/3/1999	7/13/2000	9/27/2000	12/8/1999	6/15/2000	12/7/1999
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H11-4-031N	H11-4-030.5N	H11-510-011.25N	H11-510-011.25FD	H11-510-031N	H11-6-011N	H11-696-010.5N	H11-696-020.5N	H11-697-012N	H11-697-021N	H11-761-031N
Parent Sample						H11-510-011.25N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 238	< 217.3913	NA	< 227	< 246	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 238	< 217.3913	NA	< 227	< 246	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	< 238	< 217.3913	NA	< 227	< 246	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	< 238	< 217.3913	NA	< 227	< 246	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 476	< 434.7826	NA	< 455	< 493	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 476	< 434.7826	NA	< 455	< 493	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	< 238	< 217.3913	NA	< 227	< 246	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 476	< 434.7826	NA	< 455	< 246	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 238	< 217.3913	NA	< 227	< 246	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	59100	109000	NA	119000	125000	83500
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	< 5000	< 5074.906	NA	< 4878	< 5660	< 5000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 476	< 434.7826	NA	< 455	< 493	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 476	< 434.7826	NA	< 455	388	< 500
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 476	< 434.7826	NA	< 455	< 493	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	4.6	NA	< 0.593	< 0.595	< 0.45	1.5	< 0.495412	0.848	1.1	0.71	6.3
Arsenic	7440-38-2	mg/kg	208	NA	11.1	9.43	10.2	168	13.1	15.9	18.7	9.27	33.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.26	NA	0.615	0.691	0.62	0.41	0.231	0.521	0.37	0.627	0.39
Cadmium	7440-43-9	mg/kg	< 0.35	NA	< 0.296	< 0.297	< 0.27	< 0.34	0.154	0.564	< 0.36	< 0.244	< 0.35
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	8.4	NA	20.6	22.6	16.3	10.1	8.93	9.8	14.8	18.5	22.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	46	NA	20.6	19	17.7	28.1	32.6	119	45.3	26.1	57.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	998	NA	57.8	50	40	109	107	151	345	362	554
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	10.7	NA	0.586	0.529	0.9	0.23	0.21	0.307	0.28	0.216	6.4
Nickel	7440-02-0	mg/kg	8.1	NA	10.8	11.1	9.3	7.3	8.36	15.2	9.5	12.7	15.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	5.3	NA	0.654	0.824	1.9	4	1.96	2.83	2.2	1.46	5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H11-4-03 0.0-1.0 ft 12/10/1999 N H11-4-031N	H11-4-03 0.5-1.0 ft 12/10/1999 N H11-4-030.5N	H11-510-01 0.0-1.3 ft 6/15/2000 N H11-510-011.25N	H11-510-01 0.0-1.3 ft 6/15/2000 FD H11-510-011.25FD H11-510-011.25N	H11-510-03 0.0-1.0 ft 12/3/1999 N H11-510-031N	H11-6-01 0.0-1.0 ft 12/3/1999 N H11-6-011N	H11-696-01 0.0-0.5 ft 7/13/2000 N H11-696-010.5N	H11-696-02 0.0-0.5 ft 9/27/2000 N H11-696-020.5N	H11-697-01 0.0-2.0 ft 12/8/1999 N H11-697-012N	H11-697-02 0.0-1.0 ft 6/15/2000 N H11-697-021N	H11-761-03 0.0-1.0 ft 12/7/1999 N H11-761-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.11	NA	< 0.296	< 0.297	0.11	0.2	< 0.247706	0.441	0.14	< 0.244	0.21
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.73	NA	1.37	1.18	< 0.91	< 1.1	< 0.825687	< 1.25	< 1.2	1.88	< 1.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	18.8	NA	52.4	56.3	48	31.8	45.6	92.8	57.5	93.8	351
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	5.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	31300	NA	NA	NA	41600	16500	181000	NA	39500	NA	18400
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	4	NA	NA	NA	11.7	4.3	NA	NA	5.6	NA	3.9
Gravel	ARC-PGRAVEL	%	63.4	NA	NA	NA	30.2	45	NA	NA	38.1	NA	56.4
Sand	ARC-PSAND	%	23.7	NA	NA	NA	37	40.1	NA	NA	44	NA	30.9
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	91.4	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	65.2	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	29	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	72.7	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	47.3	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	31.9	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	55.9	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	38.9	NA	NA	NA	NA
Silt	ARC-PSILT	%	8.8	NA	NA	NA	21.1	10.6	NA	NA	12.4	NA	8.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-762-02	H11-762-03	H11-763-03	H11-8-01	H11-8-01	H11-8-02	H11-8-02	H11-9-02	H11-9-04	H11-9307-01	H11-9307-02	H11-9310-03
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.4 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/10/1999	6/15/2000	6/15/2000	12/9/1999	12/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-762-021.5N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-012N	H11-8-020.4N	H11-8-020N	H11-9-021.5N	H11-9-041N	H11-9307-011N	H11-9307-021N	H11-9310-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1000	NA	NA	< 1100	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 2000	NA	NA	< 2100	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 1000	NA	NA	< 1100	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1000	NA	NA	< 1100	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	< 1000	NA	NA	< 1100	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H11-762-02 0.0-1.5 ft 6/15/2000 N H11-762-021.5N	H11-762-03 0.0-1.5 ft 12/7/1999 N H11-762-031.5N	H11-763-03 0.0-1.0 ft 12/8/1999 N H11-763-031N	H11-8-01 0.0-0.5 ft 12/15/1999 N H11-8-010.5N	H11-8-01 0.0-2.0 ft 12/15/1999 N H11-8-012N	H11-8-02 0.0-0.4 ft 12/15/1999 N H11-8-020.4N	H11-8-02 0.0-2.0 ft 12/15/1999 N H11-8-020N	H11-9-02 0.0-1.5 ft 12/10/1999 N H11-9-021.5N	H11-9-04 0.0-1.0 ft 6/15/2000 N H11-9-041N	H11-9307-01 0.0-1.0 ft 6/15/2000 N H11-9307-011N	H11-9307-02 0.0-1.0 ft 12/9/1999 N H11-9307-021N	H11-9310-03 0.0-1.0 ft 12/3/1999 N H11-9310-031N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 510	NA	NA	< 530	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1000	NA	NA	< 1100	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	< 767	< 780	< 940	NA	< 740	< 760	NA	< 910	< 893	< 801	< 780	< 800
2,4-Dinitrotoluene	121-14-2	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2-Chlorophenol	95-57-8	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 767	< 780	< 940	NA	< 740	< 760	NA	< 910	< 893	< 801	< 780	< 800
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 767	< 780	< 940	NA	< 740	< 760	NA	< 910	< 893	< 801	< 780	< 800
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H11-762-02 0.0-1.5 ft 6/15/2000 N H11-762-021.5N	H11-762-03 0.0-1.5 ft 12/7/1999 N H11-762-031.5N	H11-763-03 0.0-1.0 ft 12/8/1999 N H11-763-031N	H11-8-01 0.0-0.5 ft 12/15/1999 N H11-8-010.5N	H11-8-01 0.0-2.0 ft 12/15/1999 N H11-8-012N	H11-8-02 0.0-0.4 ft 12/15/1999 N H11-8-020.4N	H11-8-02 0.0-2.0 ft 12/15/1999 N H11-8-020N	H11-9-02 0.0-1.5 ft 12/10/1999 N H11-9-021.5N	H11-9-04 0.0-1.0 ft 6/15/2000 N H11-9-041N	H11-9307-01 0.0-1.0 ft 6/15/2000 N H11-9307-011N	H11-9307-02 0.0-1.0 ft 12/9/1999 N H11-9307-021N	H11-9310-03 0.0-1.0 ft 12/3/1999 N H11-9310-031N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 767	< 780	< 940	NA	< 740	< 760	NA	< 910	< 893	< 801	< 780	< 800
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Acenaphthylene	208-96-8	ug/kg	51.4	< 390	99	NA	110	150	NA	78	< 447	< 401	51	< 400
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	67.1	< 390	120	NA	100	78	NA	120	31.7	< 401	46	86
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	< 390	800	NA	200	< 380	NA	NA	NA	NA	100	< 400
Benzo[a]anthracene	56-55-3	ug/kg	< 383	110	520	NA	450	300	NA	480	147	37.7	230	68
Benzo[a]pyrene	50-32-8	ug/kg	< 383	91	830	NA	330	310	NA	370	125	23.6	230	45
Benzo[b]fluoranthene	205-99-2	ug/kg	515	170	1000	NA	960	560	NA	770	208	< 401	360	150
Benzo[g,h,i]perylene	191-24-2	ug/kg	216	NA	NA	NA	NA	NA	NA	200	< 447	< 401	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	246	< 390	500	NA	410	190	NA	280	< 447	< 401	150	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	22.6	< 390	< 470	NA	820	< 380	NA	< 460	46	60.5	< 390	33
Butylbenzylphthalate	85-68-7	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 383	150	700	NA	600	370	NA	500	183	68.5	310	170
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 383	< 390	270	NA	85	< 380	NA	< 460	< 447	< 401	< 390	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 383	60	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Dimethylphthalate	131-11-3	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Di-n-butylphthalate	84-74-2	ug/kg	< 383	55	200	NA	< 370	< 380	NA	180	< 447	< 401	< 390	81
Di-n-octylphthalate	117-84-0	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Fluoranthene	206-44-0	ug/kg	805	210	760	NA	560	660	NA	520	188	< 401	370	220
Fluorene	86-73-7	ug/kg	24.5	< 390	53	NA	< 370	28	NA	< 460	< 447	< 401	< 390	< 400
Hexachlorobenzene	118-74-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	NA	< 447	< 401	< 390	< 400
Hexachlorobutadiene	87-68-3	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Hexachloroethane	67-72-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	207	< 390	720	NA	210	< 380	NA	220	< 447	< 401	90	< 400
Isophorone	78-59-1	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-762-02	H11-762-03	H11-763-03	H11-8-01	H11-8-01	H11-8-02	H11-8-02	H11-9-02	H11-9-04	H11-9307-01	H11-9307-02	H11-9310-03
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.4 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/10/1999	6/15/2000	6/15/2000	12/9/1999	12/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-762-021.5N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-012N	H11-8-020.4N	H11-8-020N	H11-9-021.5N	H11-9-041N	H11-9307-011N	H11-9307-021N	H11-9310-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 383	< 390	54	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Pentachlorophenol	87-86-5	ug/kg	< 767	< 780	< 940	NA	< 740	< 760	NA	< 910	< 893	< 801	< 780	< 800
Phenanthrene	85-01-8	ug/kg	377	120	750	NA	83	370	NA	140	245	28.9	230	82
Phenol	108-95-2	ug/kg	< 383	< 390	< 470	NA	< 370	< 380	NA	< 460	< 447	< 401	< 390	< 400
Pyrene	129-00-0	ug/kg	699	270	1700	NA	520	590	NA	480	400	< 401	460	200
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	< 20	NA	NA	NA	NA	NA	NA	NA	< 40.1	< 20	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 20	NA	NA	NA	NA	NA	NA	NA	< 40.1	< 20	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 20	NA	NA	NA	NA	NA	NA	NA	< 40.1	< 20	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 20	NA	NA	NA	NA	NA	NA	NA	< 40.1	< 20	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 20	NA	NA	NA	NA	NA	NA	NA	< 40.1	< 20	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 20	NA	NA	NA	NA	NA	NA	NA	< 40.1	< 20	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 39	NA	NA	NA	NA	NA	NA	NA	20.4	37	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 39	NA	NA	NA	NA	NA	NA	NA	20.4	37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-762-02	H11-762-03	H11-763-03	H11-8-01	H11-8-01	H11-8-02	H11-8-02	H11-9-02	H11-9-04	H11-9307-01	H11-9307-02	H11-9310-03
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.4 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/10/1999	6/15/2000	6/15/2000	12/9/1999	12/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-762-021.5N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-012N	H11-8-020.4N	H11-8-020N	H11-9-021.5N	H11-9-041N	H11-9307-011N	H11-9307-021N	H11-9310-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 249	< 238	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 249	< 238	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 249	< 238	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 249	< 238	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 498	< 476	< 476	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 498	< 476	< 476	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 249	< 238	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 249	< 476	< 476	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 249	< 238	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	70200	63100	96600	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5720	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 498	< 476	< 476	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 498	< 476	< 476	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 498	< 476	< 476	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.551	0.15	0.69	NA	< 0.55	NA	NA	0.46	2.13	0.593	< 0.5	< 0.48
Arsenic	7440-38-2	mg/kg	5.15	4.3	8.8	NA	22.3	NA	NA	11.5	317	6.92	9.5	42.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.188	0.2	0.3	NA	0.32	NA	NA	0.72	0.98	0.672	0.67	0.25
Cadmium	7440-43-9	mg/kg	< 0.261	< 0.25	0.66	NA	0.35	NA	NA	< 0.32	0.106	< 0.338	< 0.3	< 0.29
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.9	8.4	8.5	NA	6.7	NA	NA	103	23	27.9	17.8	18.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.5	13.3	52.2	NA	30.4	NA	NA	31.8	58.9	16.4	19.1	15
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	95.6	105	289	NA	95.8	NA	NA	112	243	23.1	25	190
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.288	0.35	0.26	NA	0.06	NA	NA	0.31	0.653	0.097	0.29	0.46
Nickel	7440-02-0	mg/kg	5.8	5.4	10	NA	7	NA	NA	51.2	20.5	16.3	10.3	3.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.758	1	0.71	NA	< 0.55	NA	NA	1.2	2.62	0.89	1.2	2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-762-02	H11-762-03	H11-763-03	H11-8-01	H11-8-01	H11-8-02	H11-8-02	H11-9-02	H11-9-04	H11-9307-01	H11-9307-02	H11-9310-03
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.4 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			6/15/2000	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/10/1999	6/15/2000	6/15/2000	12/9/1999	12/3/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H11-762-021.5N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-012N	H11-8-020.4N	H11-8-020N	H11-9-021.5N	H11-9-041N	H11-9307-011N	H11-9307-021N	H11-9310-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.261	< 0.25	< 0.38	NA	< 0.33	NA	NA	0.11	0.516	< 0.338	< 0.3	0.26
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.648	< 0.83	< 1.3	NA	< 1.1	NA	NA	0.97	8.88	0.811	< 0.99	< 0.96
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	25.9	26.5	280	NA	57.3	NA	NA	864	164	44.8	47.2	128
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	34900	46900	NA	42700	NA	NA	39400	NA	NA	15100	9520
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	2.4	4	NA	0.6	NA	NA	12.5	NA	NA	5.1	8.6
Gravel	ARC-PGRAVEL	%	NA	20.8	55.7	NA	39.9	NA	NA	26.6	NA	NA	43.6	37.7
Sand	ARC-PSAND	%	NA	59.4	28.8	NA	48.1	NA	NA	30.1	NA	NA	40	35.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	17.4	11.5	NA	11.4	NA	NA	30.8	NA	NA	11.3	18.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02	H12-1-02	H12-1-06
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999	5/25/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-1-021N	H12-1-061N
Parent Sample				H11-9312-021N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 400	< 420
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02	H12-1-02	H12-1-06
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999	5/25/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-1-021N	H12-1-061N
Parent Sample				H11-9312-021N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 400	< 420
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
1,2-Dichlorobenzene	95-50-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
2,4-Dichlorophenol	120-83-2	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
2,4-Dimethylphenol	105-67-9	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
2,4-Dinitrophenol	51-28-5	ug/kg	< 850	< 830	< 790	< 810	< 800	< 870	< 800	< 830	< 810	< 800	190
2,4-Dinitrotoluene	121-14-2	ug/kg	< 430	< 420	< 400	< 410	< 400	56	170	44	< 410	< 400	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
2-Chlorophenol	95-57-8	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 850	< 830	< 790	< 810	< 800	< 870	< 800	< 830	< 810	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 850	< 830	< 790	< 810	< 800	< 870	< 800	< 830	< 810	< 800	< 830
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02	H12-1-02	H12-1-06
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999	5/25/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-1-021N	H12-1-061N
Parent Sample				H11-9312-021N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 850	< 830	< 790	< 810	< 800	< 870	< 800	< 830	< 810	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	42.08	116
Acenaphthylene	208-96-8	ug/kg	19	< 420	280	< 410	< 400	49	22	180	78	51.03	17.61
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 430	< 420	180	< 410	< 400	29	38	160	140	81.91	422
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	< 410	< 400	370	150	480	450	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	130	110	1300	90	76	210	260	950	770	537	1550
Benzo[a]pyrene	50-32-8	ug/kg	130	100	1300	60	50	330	200	740	640	554	1250
Benzo[b]fluoranthene	205-99-2	ug/kg	240	170	2400	160	180	1200	560	2900	1800	966	1610
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 430	< 420	1100	NA	NA	NA	NA	NA	NA	252	543
Benzo[k]fluoranthene	207-08-9	ug/kg	< 430	< 420	840	48	< 400	360	180	930	580	264	927
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	76	830	39.84	31.44
Butylbenzylphthalate	85-68-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	160	< 400	< 420
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	190	140	1700	160	130	510	460	2000	950	666	1380
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 430	< 420	240	< 410	< 400	130	< 400	140	200	< 400	< 420
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	38	< 420	96	< 400	< 420
Dimethylphthalate	131-11-3	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Di-n-butylphthalate	84-74-2	ug/kg	130	< 420	190	< 410	< 400	130	250	40	68	41.63	< 420
Di-n-octylphthalate	117-84-0	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Fluoranthene	206-44-0	ug/kg	330	240	3800	110	180	240	410	2200	850	1270	2040
Fluorene	86-73-7	ug/kg	< 430	< 420	73	< 410	< 400	< 430	< 400	< 420	< 410	84.6	107
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Hexachlorobutadiene	87-68-3	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Hexachloroethane	67-72-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 430	< 420	1000	< 410	< 400	340	100	490	430	254	559
Isophorone	78-59-1	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02	H12-1-02	H12-1-06
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999	5/25/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-1-021N	H12-1-061N
Parent Sample				H11-9312-021N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	49	51	< 410	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	171
Pentachlorophenol	87-86-5	ug/kg	< 850	< 830	< 790	< 810	< 800	< 870	< 800	< 830	< 810	< 800	< 830
Phenanthrene	85-01-8	ug/kg	120	100	2400	74	83	85	250	510	220	915	1550
Phenol	108-95-2	ug/kg	< 430	< 420	< 400	< 410	< 400	< 430	< 400	< 420	< 410	< 400	< 420
Pyrene	129-00-0	ug/kg	240	180	3000	< 410	170	160	470	2500	1600	1570	2820
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 21	< 21	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 21	< 21	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 21	< 21	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 21	< 21	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 21	< 21	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	110	310	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	94	240	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	204	550	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02	H12-1-02	H12-1-06
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999	5/25/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-1-021N	H12-1-061N
Parent Sample				H11-9312-021N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.56	< 0.94	6.8	< 0.59	0.38	1.3	0.77	1.9	4	< 0.798	2.88
Arsenic	7440-38-2	mg/kg	11.6	10.5	20.6	4.1	121	45.4	129	135	789	6.12	9.23
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.31	0.34	0.23	0.08	0.15	0.64	1	0.56	0.58	0.38	0.428
Cadmium	7440-43-9	mg/kg	< 0.33	< 0.57	< 0.61	< 0.36	< 0.31	0.31	0.05	0.3	0.22	0.28	1.96
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	34.1	42.5	15.5	4	7.7	16.3	29.6	12.7	18.8	14.9	25.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	52.8	59.1	65	15.4	17.9	760	48.6	36.2	36.9	16.3	694
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	265	266	1350	43.7	65.1	320	317	92.2	176	43.8	1060
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.27	0.15	0.53	0.29	0.12	0.16	0.32	0.39	0.23	0.275	1.02
Nickel	7440-02-0	mg/kg	11.3	12.8	9.5	2.6	7.6	10.5	14.2	10	14.1	6.79	24
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2	2.6	2.9	< 0.59	1.3	1.1	2.2	3.4	6.7	1.37	1.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02	H12-1-02	H12-1-06
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999	5/25/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N	H12-1-021N	H12-1-061N
Parent Sample				H11-9312-021N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.33	< 0.57	0.21	< 0.36	< 0.31	0.91	0.1	0.37	0.6	< 0.399	0.813
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	2.5	< 1.9	< 2	< 1.2	< 1	< 1.1	< 1.1	< 1.1	< 0.97	< 1.33	< 1.23
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	127	145	559	27.4	19.6	171	217	86.4	103	65.3	2060
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	34400	NA	66900	75400	NA	NA	25900	79400	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	8.6	NA	3.4	4.8	NA	NA	11.2	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	22.1	NA	51.4	52	NA	NA	37.1	NA	NA
Sand	ARC-PSAND	%	NA	NA	53.8	NA	37.4	30.2	NA	NA	23.2	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	15.6	NA	7.8	13	NA	NA	28.5	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H12-1-07 0.0-2.0 ft 5/25/2000 N H12-1-072N	H12-120-02 0.0-1.0 ft 9/12/2000 N H12-120-021N	H12-120-03 0.0-1.0 ft 5/25/2000 N H12-120-031N	H12-2-03 0.0-1.5 ft 12/14/1999 N H12-2-031.5N	H12-3-01 0.0-1.5 ft 12/14/1999 N H12-3-011.5N	H12-3-02 0.0-0.8 ft 6/15/2000 N H12-3-020.75N	H12-4-01 0.0-1.0 ft 12/10/1999 N H12-4-011N	H12-5-03 0.0-2.0 ft 12/14/1999 N H12-5-032N	H12-689-01 0.0-1.3 ft 6/15/2000 N H12-689-011.25N	H12-689-03 0.0-1.0 ft 12/15/1999 N H12-689-031N	H12-8563-01 0.0-1.0 ft 6/23/2000 N H12-8563-011N	H12-8563-01 0.5-1.0 ft 6/23/2000 N H12-8563-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
1,1-Dichloroethene	75-35-4	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1179.245
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5896.226
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5896.226
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1179.245
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1179.245
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-1-07	H12-120-02	H12-120-03	H12-2-03	H12-3-01	H12-3-02	H12-4-01	H12-5-03	H12-689-01	H12-689-03	H12-8563-01	H12-8563-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2000	9/12/2000	5/25/2000	12/14/1999	12/14/1999	6/15/2000	12/10/1999	12/14/1999	6/15/2000	12/15/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H12-1-072N	H12-120-021N	H12-120-031N	H12-2-031.5N	H12-3-011.5N	H12-3-020.75N	H12-4-011N	H12-5-032N	H12-689-011.25N	H12-689-031N	H12-8563-011N	H12-8563-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 589.6226
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 900	NA	NA	< 800	< 950	< 955	< 880	< 840	< 917	< 850	< 720.72	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
2-Chlorophenol	95-57-8	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 400	< 480	< 477	< 440	< 820	< 459	< 430	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 360.36	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	< 800	< 950	< 955	< 880	< 820	< 917	< 850	< 720.72	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 900	NA	NA	< 800	< 950	< 955	< 880	< 820	< 917	< 850	< 720.72	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-1-07	H12-120-02	H12-120-03	H12-2-03	H12-3-01	H12-3-02	H12-4-01	H12-5-03	H12-689-01	H12-689-03	H12-8563-01	H12-8563-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2000	9/12/2000	5/25/2000	12/14/1999	12/14/1999	6/15/2000	12/10/1999	12/14/1999	6/15/2000	12/15/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H12-1-072N	H12-120-021N	H12-120-031N	H12-2-031.5N	H12-3-011.5N	H12-3-020.75N	H12-4-011N	H12-5-032N	H12-689-011.25N	H12-689-031N	H12-8563-011N	H12-8563-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 800	< 950	< 955	< 880	NA	< 917	< 850	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 720.72	NA
Acenaphthene	83-32-9	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	28	< 360.36	NA
Acenaphthylene	208-96-8	ug/kg	< 450	NA	NA	180	< 480	20.5	< 440	< 420	< 459	< 430	< 360.36	< 23585
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 450	NA	NA	140	< 480	< 477	< 440	< 420	< 459	58	< 360.36	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	53.07	NA	NA	1400	< 480	116	63	52	117	94	< 360.36	NA
Benzo[a]pyrene	50-32-8	ug/kg	98.55	NA	NA	1400	31	125	57	91	87.2	77	< 360.36	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	196	NA	NA	2000	< 480	160	69	110	133	100	< 360.36	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 450	NA	NA	780	< 480	149	< 440	< 420	< 459	NA	< 360.36	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 450	NA	NA	890	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	22.36	NA	NA	< 400	< 480	< 477	< 440	< 420	45	< 430	< 360.36	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	< 1179
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	119	NA	NA	1300	< 480	139	66	86	110	120	39	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 450	NA	NA	210	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Dimethylphthalate	131-11-3	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Di-n-butylphthalate	84-74-2	ug/kg	46.24	NA	NA	< 400	< 480	< 477	160	< 420	< 459	< 430	< 360.36	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 450	NA	NA	70	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Fluoranthene	206-44-0	ug/kg	151	NA	NA	1900	< 480	254	110	180	255	240	< 360.36	NA
Fluorene	86-73-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Hexachlorobenzene	118-74-1	ug/kg	< 450	NA	NA	NA	NA	< 477	NA	NA	< 459	< 430	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Hexachloroethane	67-72-1	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 450	NA	NA	710	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Isophorone	78-59-1	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-1-07	H12-120-02	H12-120-03	H12-2-03	H12-3-01	H12-3-02	H12-4-01	H12-5-03	H12-689-01	H12-689-03	H12-8563-01	H12-8563-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2000	9/12/2000	5/25/2000	12/14/1999	12/14/1999	6/15/2000	12/10/1999	12/14/1999	6/15/2000	12/15/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H12-1-072N	H12-120-021N	H12-120-031N	H12-2-031.5N	H12-3-011.5N	H12-3-020.75N	H12-4-011N	H12-5-032N	H12-689-011.25N	H12-689-031N	H12-8563-011N	H12-8563-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 410	< 459	< 430	< 360.36	NA
Pentachlorophenol	87-86-5	ug/kg	< 900	NA	NA	< 800	< 950	< 955	< 880	< 840	< 917	< 850	< 720.72	NA
Phenanthrene	85-01-8	ug/kg	108	NA	NA	320	37	117	58	95	154	220	< 360.36	NA
Phenol	108-95-2	ug/kg	< 450	NA	NA	< 400	< 480	< 477	< 440	< 420	< 459	< 430	< 360.36	NA
Pyrene	129-00-0	ug/kg	139	NA	NA	2400	< 480	236	< 440	200	221	220	< 360.36	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 23	22	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 23	22	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 23	22	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 23	22	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 23	22	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 23	27	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 46	33	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 46	170	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-1-07	H12-120-02	H12-120-03	H12-2-03	H12-3-01	H12-3-02	H12-4-01	H12-5-03	H12-689-01	H12-689-03	H12-8563-01	H12-8563-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2000	9/12/2000	5/25/2000	12/14/1999	12/14/1999	6/15/2000	12/10/1999	12/14/1999	6/15/2000	12/15/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H12-1-072N	H12-120-021N	H12-120-031N	H12-2-031.5N	H12-3-011.5N	H12-3-020.75N	H12-4-011N	H12-5-032N	H12-689-011.25N	H12-689-031N	H12-8563-011N	H12-8563-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	267	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.705	< 0.641	< 0.657	< 0.53	< 0.69	< 0.819	1.1	< 0.53	< 0.726	0.95	< 0.63593	NA
Arsenic	7440-38-2	mg/kg	14.9	5.83	6.75	9.8	3.3	10.8	4.4	11.1	6.31	3	1.57	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.346	0.496	0.518	0.57	0.55	0.589	0.59	0.58	0.497	0.31	0.476	NA
Cadmium	7440-43-9	mg/kg	0.559	0.67	0.481	0.48	< 0.41	0.766	< 0.38	0.03	0.436	0.38	0.134	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.2	38	107	16	12.3	15.2	15.7	13.2	20.2	17.6	13.7	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	78.5	27.4	29	27.1	8.9	33.2	23.3	37.8	65.6	15.4	20.4	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	211	67.1	60.6	165	91.5	150	204	215	210	186	2.85	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.464	3.48	5.04	0.23	0.15	0.408	0.28	0.56	0.238	0.3	0.081	NA
Nickel	7440-02-0	mg/kg	7.77	7.13	7.9	11.7	5.6	9.94	6.2	8.3	11.5	10	9.53	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.19	1.28	0.764	1.7	1.2	1.98	1.1	2.1	1	< 0.57	0.61	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-1-07	H12-120-02	H12-120-03	H12-2-03	H12-3-01	H12-3-02	H12-4-01	H12-5-03	H12-689-01	H12-689-03	H12-8563-01	H12-8563-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2000	9/12/2000	5/25/2000	12/14/1999	12/14/1999	6/15/2000	12/10/1999	12/14/1999	6/15/2000	12/15/1999	6/23/2000	6/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H12-1-072N	H12-120-021N	H12-120-031N	H12-2-031.5N	H12-3-011.5N	H12-3-020.75N	H12-4-011N	H12-5-032N	H12-689-011.25N	H12-689-031N	H12-8563-011N	H12-8563-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.221	0.217	0.326	< 0.32	< 0.41	< 0.41	< 0.38	< 0.32	< 0.363	< 0.34	< 0.317965	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.1	< 1.07	< 1.1	0.6	< 1.4	< 1.37	0.9	< 1.1	< 1.21	< 1.1	1.09	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	103	105	129	318	76.2	267	89.4	118	212	106	9.26	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	45800	47900	42000	NA	27500	41300	NA	18900	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	5.1	5.9	NA	8.9	3.8	NA	11.6	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	43.8	16.4	NA	19.2	58	NA	32.2	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	36.5	45.9	NA	41.2	27.3	NA	30.5	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	14.6	31.8	NA	30.7	10.9	NA	25.8	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H12-8563-03 0.0-0.5 ft 12/15/1999 N H12-8563-030.5N	H12-8563-03 0.0-1.0 ft 12/15/1999 N H12-8563-031N	H12-8607-01 0.0-2.0 ft 6/23/2000 N H12-8607-012N	H12-8607-01 0.5-1.0 ft 6/23/2000 N H12-8607-010.5N	H12-8607-04 0.0-1.5 ft 12/14/1999 N H12-8607-041.5N	H12-8607-04 0.5-1.0 ft 12/14/1999 N H12-8607-040.5N	H13-2-01 0.0-1.0 ft 5/25/2000 N H13-2-011N	H13-2014-01 0.0-1.5 ft 6/2/2000 N H13-2014-011.5N	H13-2-02 0.0-1.0 ft 5/25/2000 N H13-2-021N	H13-2-03 0.0-1.0 ft 5/25/2000 N H13-2-031N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 570	NA	NA	< 512	NA	< 700	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 570	NA	NA	< 512	NA	< 700	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 570	NA	NA	< 512	NA	< 700	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	280	NA	NA	< 512	NA	< 700	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1100	NA	NA	< 1024.59	NA	< 1400	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2300	NA	NA	< 5122.95	NA	< 2800	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 570	NA	NA	NA	NA	< 700	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1100	NA	NA	NA	NA	< 1400	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1100	NA	NA	< 1024.59	NA	< 1400	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1100	NA	NA	< 1024.59	NA	< 1400	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	< 512.295	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 570	NA	NA	NA	NA	< 700	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 570	NA	NA	< 512	NA	< 700	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-8563-03	H12-8563-03	H12-8607-01	H12-8607-01	H12-8607-04	H12-8607-04	H13-2-01	H13-2014-01	H13-2-02	H13-2-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/15/1999	12/15/1999	6/23/2000	6/23/2000	12/14/1999	12/14/1999	5/25/2000	6/2/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H12-8563-030.5N	H12-8563-031N	H12-8607-012N	H12-8607-010.5N	H12-8607-041.5N	H12-8607-040.5N	H13-2-011N	H13-2014-011.5N	H13-2-021N	H13-2-031N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 570	NA	NA	< 2049.18	NA	< 700	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 570	NA	NA	< 512.295	NA	< 700	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1100	NA	NA	< 1024.59	NA	< 1400	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 730	< 777.906	NA	< 800	NA	NA	< 1570	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	110	< 389	NA	< 400	NA	NA	3480	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	58	< 389	NA	< 400	NA	NA	303	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 370	NA	NA	< 400	NA	NA	< 786	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 388.953	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 730	< 777.906	NA	< 800	NA	NA	< 1570	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 730	< 777.906	NA	< 800	NA	NA	< 1570	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-8563-03	H12-8563-03	H12-8607-01	H12-8607-01	H12-8607-04	H12-8607-04	H13-2-01	H13-2014-01	H13-2-02	H13-2-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/15/1999	12/15/1999	6/23/2000	6/23/2000	12/14/1999	12/14/1999	5/25/2000	6/2/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H12-8563-030.5N	H12-8563-031N	H12-8607-012N	H12-8607-010.5N	H12-8607-041.5N	H12-8607-040.5N	H13-2-011N	H13-2014-011.5N	H13-2-021N	H13-2-031N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 730	NA	NA	< 800	NA	NA	< 1570	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 777.906	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 370	< 388.953	< 20491	< 400	NA	NA	589	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	110	< 388.953	NA	65	NA	NA	803	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	110	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	160	89.07	NA	240	NA	NA	6290	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	150	92.96	NA	200	NA	NA	4620	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	220	108	NA	320	NA	NA	7840	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 388.953	NA	130	NA	NA	1840	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 370	< 388.953	NA	130	NA	NA	3000	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 370	< 388.953	NA	NA	NA	NA	< 786	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 370	< 388.953	< 1024	NA	NA	NA	< 786	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	120	92.57	NA	250	NA	NA	6010	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	728	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	760	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 370	< 388.953	NA	NA	NA	NA	< 786	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	390	< 388.953	NA	< 400	NA	NA	12400	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	330	137	NA	470	NA	NA	7470	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 370	NA	NA	NA	NA	NA	< 786	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	98	< 388.953	NA	100	NA	NA	2050	NA	NA
Isophorone	78-59-1	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-8563-03	H12-8563-03	H12-8607-01	H12-8607-01	H12-8607-04	H12-8607-04	H13-2-01	H13-2014-01	H13-2-02	H13-2-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/15/1999	12/15/1999	6/23/2000	6/23/2000	12/14/1999	12/14/1999	5/25/2000	6/2/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H12-8563-030.5N	H12-8563-031N	H12-8607-012N	H12-8607-010.5N	H12-8607-041.5N	H12-8607-040.5N	H13-2-011N	H13-2014-011.5N	H13-2-021N	H13-2-031N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	116	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	260	< 388.953	NA	< 400	NA	NA	653	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 730	< 777.906	NA	< 800	NA	NA	< 1570	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	190	88.29	NA	280	NA	NA	825	NA	NA
Phenol	108-95-2	ug/kg	NA	< 370	< 388.953	NA	< 400	NA	NA	< 786	NA	NA
Pyrene	129-00-0	ug/kg	NA	290	190	NA	590	NA	NA	6060	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	< 2
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	< 2
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	< 2
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	< 2
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	< 2	< 2
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	62	NA	< 2	< 2
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	< 3	NA	< 4	< 4
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	62	NA	< 42	< 45

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-8563-03	H12-8563-03	H12-8607-01	H12-8607-01	H12-8607-04	H12-8607-04	H13-2-01	H13-2014-01	H13-2-02	H13-2-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/15/1999	12/15/1999	6/23/2000	6/23/2000	12/14/1999	12/14/1999	5/25/2000	6/2/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H12-8563-030.5N	H12-8563-031N	H12-8607-012N	H12-8607-010.5N	H12-8607-041.5N	H12-8607-040.5N	H13-2-011N	H13-2014-011.5N	H13-2-021N	H13-2-031N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	641	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	185	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	470000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	9020	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	470	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 500	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.5	< 0.603549	NA	< 0.52	NA	NA	3.57	NA	NA
Arsenic	7440-38-2	mg/kg	NA	5.5	4.86	NA	5.4	NA	NA	199	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.5	0.369	NA	0.51	NA	NA	0.343	NA	NA
Cadmium	7440-43-9	mg/kg	NA	0.41	< 0.301774	NA	0.11	NA	NA	0.867	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	14	13.7	NA	11.9	NA	NA	33.3	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	28.6	23.2	NA	21.7	NA	NA	679	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	26	73.6	NA	148	NA	NA	2630	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.04	0.357	NA	0.4	NA	NA	1.69	NA	NA
Nickel	7440-02-0	mg/kg	NA	8.8	8.76	NA	6.9	NA	NA	17.7	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	< 0.5	0.376	NA	1.5	NA	NA	2.45	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H12-8563-03	H12-8563-03	H12-8607-01	H12-8607-01	H12-8607-04	H12-8607-04	H13-2-01	H13-2014-01	H13-2-02	H13-2-03
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/15/1999	12/15/1999	6/23/2000	6/23/2000	12/14/1999	12/14/1999	5/25/2000	6/2/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			H12-8563-030.5N	H12-8563-031N	H12-8607-012N	H12-8607-010.5N	H12-8607-041.5N	H12-8607-040.5N	H13-2-011N	H13-2014-011.5N	H13-2-021N	H13-2-031N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	NA	< 0.3	< 0.301774	NA	< 0.31	NA	NA	0.992	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	< 1.005915	NA	< 1	NA	NA	2.49	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	48.2	191	NA	485	NA	NA	1060	NA	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	7.45	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	34500	NA	NA	33200	NA	NA	44800	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	8.1	NA	NA	7.1	NA	2.8	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	26.6	NA	NA	35.4	NA	46.8	NA	NA	NA
Sand	ARC-PSAND	%	NA	40.4	NA	NA	42	NA	27.1	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	94	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	75.3	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	31.5	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	84.8	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	54.1	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	37.8	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	64.2	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	45.2	NA	NA
Silt	ARC-PSILT	%	NA	25	NA	NA	15.5	NA	23.3	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-408-02	H13-408-03	H13-5-01	H13-6-01	H13-6-04	H13-8158-04	H13-8164-02
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/25/2000	5/25/2000	12/14/1999	6/15/2000	12/8/1999	5/25/2000	9/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-408-021.3N	H13-408-031N	H13-5-012N	H13-6-011N	H13-6-041N	H13-8158-042N	H13-8164-021N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 420	< 400
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-408-02	H13-408-03	H13-5-01	H13-6-01	H13-6-04	H13-8158-04	H13-8164-02
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/25/2000	5/25/2000	12/14/1999	6/15/2000	12/8/1999	5/25/2000	9/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-408-021.3N	H13-408-031N	H13-5-012N	H13-6-011N	H13-6-041N	H13-8158-042N	H13-8164-021N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.1	80.69
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 420	< 400
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	< 74	NA	NA	NA	< 820	< 791	NA	< 87	< 738	< 830	< 790
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	NA	NA	NA	< 410	43.9	NA	< 430	< 369	< 420	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	NA	NA	NA	< 410	< 396	NA	< 430	< 369	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
2-Chlorophenol	95-57-8	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 420	< 400
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 74	NA	NA	NA	< 820	< 791	NA	< 87	< 738	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 830	< 790
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 74	NA	NA	NA	< 820	< 791	NA	< 87	< 738	< 830	< 790
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H13-2031A-02 0.0-1.3 ft 5/25/2000 N H13-2031A-021.25N	H13-3-01 0.0-1.5 ft 5/25/2000 N H13-3-011.5N	H13-3-02 0.0-1.0 ft 5/25/2000 N H13-3-021N	H13-3-03 0.0-1.5 ft 5/25/2000 N H13-3-031.5N	H13-408-02 0.0-1.3 ft 12/14/1999 N H13-408-021.3N	H13-408-03 0.0-1.0 ft 6/15/2000 N H13-408-031N	H13-5-01 0.0-2.0 ft 12/8/1999 N H13-5-012N	H13-6-01 0.0-1.0 ft 5/25/2000 N H13-6-011N	H13-6-04 0.0-1.0 ft 9/12/2000 N H13-6-041N	H13-8158-04 0.0-2.0 ft 5/25/2000 N H13-8158-042N	H13-8164-02 0.0-1.0 ft 5/25/2000 N H13-8164-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 74	NA	NA	NA	< 820	< 791	NA	< 87	< 738	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 830	< 790
Acenaphthene	83-32-9	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	26.13	176
Acenaphthylene	208-96-8	ug/kg	27	NA	NA	NA	< 410	< 396	NA	< 43	< 369	149	121
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	34	NA	NA	NA	< 410	< 396	NA	< 43	< 369	164	317
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	140	NA	NA	NA	55	129	NA	47	88.9	1740	1770
Benzo[a]pyrene	50-32-8	ug/kg	140	NA	NA	NA	63	124	NA	40	85.2	2380	1970
Benzo[b]fluoranthene	205-99-2	ug/kg	210	NA	NA	NA	95	185	NA	70	121	3390	3160
Benzo[g,h,i]perylene	191-24-2	ug/kg	110	NA	NA	NA	< 410	< 396	NA	< 43	< 369	1010	933
Benzo[k]fluoranthene	207-08-9	ug/kg	91	NA	NA	NA	< 410	< 396	NA	< 43	< 369	1190	1080
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	26	NA	NA	NA	< 410	23.7	NA	21	< 369	48.52	60.42
Butylbenzylphthalate	85-68-7	ug/kg	95	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	190	NA	NA	NA	86	158	NA	90	122	1550	1960
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	61	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Dimethylphthalate	131-11-3	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Di-n-butylphthalate	84-74-2	ug/kg	41	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Di-n-octylphthalate	117-84-0	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Fluoranthene	206-44-0	ug/kg	290	NA	NA	NA	160	333	NA	82	202	1790	3170
Fluorene	86-73-7	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	50.59	370
Hexachlorobenzene	118-74-1	ug/kg	< 37	NA	NA	NA	NA	< 396	NA	< 43	< 369	< 420	< 400
Hexachlorobutadiene	87-68-3	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Hexachloroethane	67-72-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	110	NA	NA	NA	< 410	< 396	NA	< 43	< 369	1000	963
Isophorone	78-59-1	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H13-2031A-02 0.0-1.3 ft 5/25/2000 N H13-2031A-021.25N	H13-3-01 0.0-1.5 ft 5/25/2000 N H13-3-011.5N	H13-3-02 0.0-1.0 ft 5/25/2000 N H13-3-021N	H13-3-03 0.0-1.5 ft 5/25/2000 N H13-3-031.5N	H13-408-02 0.0-1.3 ft 12/14/1999 N H13-408-021.3N	H13-408-03 0.0-1.0 ft 6/15/2000 N H13-408-031N	H13-5-01 0.0-2.0 ft 12/8/1999 N H13-5-012N	H13-6-01 0.0-1.0 ft 5/25/2000 N H13-6-011N	H13-6-04 0.0-1.0 ft 9/12/2000 N H13-6-041N	H13-8158-04 0.0-2.0 ft 5/25/2000 N H13-8158-042N	H13-8164-02 0.0-1.0 ft 5/25/2000 N H13-8164-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	30	NA	NA	NA	< 410	< 396	NA	< 43	< 369	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 37	NA	NA	NA	NA	NA	NA	< 43	< 369	< 420	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Pentachlorophenol	87-86-5	ug/kg	< 74	NA	NA	NA	< 820	< 791	NA	< 87	< 738	< 830	< 790
Phenanthrene	85-01-8	ug/kg	160	NA	NA	NA	100	207	NA	95	118	407	2560
Phenol	108-95-2	ug/kg	< 37	NA	NA	NA	< 410	< 396	NA	< 43	< 369	< 420	< 400
Pyrene	129-00-0	ug/kg	350	NA	NA	NA	150	296	NA	< 43	204	2650	4830
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	< 2	< 2	< 2	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 2	< 2	< 2	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 2	< 2	< 2	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 2	< 2	< 2	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 2	< 2	< 2	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 2	< 2	< 2	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 3	< 4	< 4	NA	NA	< 43	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 38	< 40	< 47	NA	NA	< 43	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-408-02	H13-408-03	H13-5-01	H13-6-01	H13-6-04	H13-8158-04	H13-8164-02
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/25/2000	5/25/2000	12/14/1999	6/15/2000	12/8/1999	5/25/2000	9/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-408-021.3N	H13-408-031N	H13-5-012N	H13-6-011N	H13-6-041N	H13-8158-042N	H13-8164-021N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 248	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 250	< 248	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 250	< 248	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 250	< 248	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 500	< 495	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 500	< 495	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 250	< 248	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 500	< 248	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 250	< 248	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	68500	49500	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 4878	< 5650	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 500	< 495	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 500	< 495	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 500	< 495	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	NA	NA	NA	0.22	< 0.636	NA	< 0.7	< 0.664	< 0.711	< 0.675
Arsenic	7440-38-2	mg/kg	76.5	NA	NA	NA	3.9	4.21	NA	8.3	11.8	6.23	10.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.32	NA	NA	NA	0.65	0.406	NA	0.54	0.491	0.431	0.445
Cadmium	7440-43-9	mg/kg	0.43	NA	NA	NA	0.04	< 0.318	NA	< 0.3	0.069	0.311	1.22
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.9	NA	NA	NA	8.7	9.3	NA	9.7	8.6	13.1	35.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.1	NA	NA	NA	53.8	18	NA	12.2	18	15.6	86.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	103	NA	NA	NA	2010	42.1	NA	51.4	16.2	68.9	5350
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.14	NA	NA	NA	0.08	0.267	NA	0.12	0.04	0.191	0.27
Nickel	7440-02-0	mg/kg	10.8	NA	NA	NA	7.7	7.23	NA	5	5.73	7.48	8.55
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	NA	NA	NA	1.8	1.23	NA	1	0.551	0.895	0.916

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-2031A-02	H13-3-01	H13-3-02	H13-3-03	H13-408-02	H13-408-03	H13-5-01	H13-6-01	H13-6-04	H13-8158-04	H13-8164-02
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/25/2000	5/25/2000	12/14/1999	6/15/2000	12/8/1999	5/25/2000	9/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-2031A-021.25N	H13-3-011.5N	H13-3-021N	H13-3-031.5N	H13-408-021.3N	H13-408-031N	H13-5-012N	H13-6-011N	H13-6-041N	H13-8158-042N	H13-8164-021N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	NA	NA	NA	0.13	< 0.318	NA	< 0.3	< 0.332	< 0.355	0.23
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.92	NA	NA	NA	< 1.1	< 1.06	NA	0.9	< 1.11	< 1.19	< 1.13
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	104	NA	NA	NA	57.1	51	NA	27.7	60	94.3	726
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	34900	NA	NA	NA	48700	NA	9650	77300	NA	25700	26900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	2.6	NA	NA	3.1	5.8	NA	6.8	1.7	NA	NA	NA
Gravel	ARC-PGRAVEL	%	76.8	NA	NA	40.3	35.5	NA	25.2	45.4	NA	NA	NA
Sand	ARC-PSAND	%	16	NA	NA	44.8	40.6	NA	45.6	36.5	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	4.6	NA	NA	11.8	18.1	NA	22.4	16.3	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H13-8164-05 0.0-2.0 ft 5/25/2000 N H13-8164-052N	H13-8214-02 0.0-1.0 ft 6/1/2000 N H13-8214-021N	H13-8226-01 0.0-0.5 ft 9/12/2000 N H13-8226-010.5N	H13-8226-02 0.0-1.3 ft 6/1/2000 N H13-8226-021.25N	H13-9329-02 0.0-1.0 ft 12/14/1999 N H13-9329-021N	H5-2-01 0.0-1.0 ft 7/13/2000 N H5-2-011N	H5-4-03 0.0-1.0 ft 4/13/2000 N H5-4-031N	H5-8126-06 0.0-1.0 ft 7/13/2000 N H5-8126-061N	H5-8126-07 0.0-0.8 ft 7/13/2000 N H5-8126-070.75N	H5-8126-11 0.0-1.0 ft 7/13/2000 N H5-8126-111N	H5-8254-01 0.0-1.0 ft 9/27/2000 N H5-8254-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-8164-05	H13-8214-02	H13-8226-01	H13-8226-02	H13-9329-02	H5-2-01	H5-4-03	H5-8126-06	H5-8126-07	H5-8126-11	H5-8254-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	6/1/2000	9/12/2000	6/1/2000	12/14/1999	7/13/2000	4/13/2000	7/13/2000	7/13/2000	7/13/2000	9/27/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-8164-052N	H13-8214-021N	H13-8226-010.5N	H13-8226-021.25N	H13-9329-021N	H5-2-011N	H5-4-031N	H5-8126-061N	H5-8126-070.75N	H5-8126-111N	H5-8254-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
2,4-Dinitrophenol	51-28-5	ug/kg	< 790	< 753	< 788	< 787	< 810	NA	< 88	< 733.076	< 698.992	NA	< 797
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	165	110	< 393	< 410	NA	240	160	< 349	NA	< 399
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 377	< 394	< 393	< 410	NA	46	< 367	< 349	NA	< 399
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
2-Chlorophenol	95-57-8	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 377	< 394	< 393	< 410	NA	< 44	NA	NA	NA	< 399
2-Nitrotoluene	88-72-2	ug/kg	< 400	NA	NA	NA	NA	< 18.86034	NA	< 366.538	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 753	< 788	< 787	< 810	NA	< 88	< 733.076	< 698.992	NA	< 797
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 790	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 790	< 753	< 788	< 787	< 810	NA	< 88	< 733.076	< 698.992	NA	< 797
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-8164-05	H13-8214-02	H13-8226-01	H13-8226-02	H13-9329-02	H5-2-01	H5-4-03	H5-8126-06	H5-8126-07	H5-8126-11	H5-8254-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	6/1/2000	9/12/2000	6/1/2000	12/14/1999	7/13/2000	4/13/2000	7/13/2000	7/13/2000	7/13/2000	9/27/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-8164-052N	H13-8214-021N	H13-8226-010.5N	H13-8226-021.25N	H13-9329-021N	H5-2-011N	H5-4-031N	H5-8126-061N	H5-8126-070.75N	H5-8126-111N	H5-8254-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 753	< 788	< 787	< 810	NA	< 88	NA	NA	NA	< 797
4-Nitrotoluene	99-99-0	ug/kg	< 790	NA	NA	NA	NA	NA	NA	< 733.076	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	21.64	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Acenaphthylene	208-96-8	ug/kg	23.24	< 377	< 394	< 393	29	NA	< 44	< 366.538	< 349.496	NA	< 399
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	51.29	< 377	82.8	< 393	37	NA	< 44	< 366.538	< 349.496	NA	< 399
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	283	169	350	60.2	320	NA	< 44	49.1	< 349.496	NA	92.1
Benzo[a]pyrene	50-32-8	ug/kg	266	147	339	47.2	310	NA	< 44	< 366.538	< 349.496	NA	105
Benzo[b]fluoranthene	205-99-2	ug/kg	477	292	827	80.6	580	NA	< 44	107	< 349.496	NA	158
Benzo[g,h,i]perylene	191-24-2	ug/kg	109	94.9	300	< 393	150	NA	< 44	95.7	< 349.496	NA	< 399
Benzo[k]fluoranthene	207-08-9	ug/kg	149	129	282	< 393	210	NA	< 44	62.7	< 349.496	NA	< 399
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	58.5	< 377	< 394	< 393	< 410	NA	45	658	< 349.496	NA	316
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	280	< 349.496	NA	< 399
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	343	220	498	< 393	450	NA	61	99.7	< 349.496	NA	117
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 377	105	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	380	< 349.496	NA	< 399
Dimethylphthalate	131-11-3	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Di-n-butylphthalate	84-74-2	ug/kg	< 400	632	< 394	44.4	< 410	NA	110	206	< 349.496	NA	< 399
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Fluoranthene	206-44-0	ug/kg	652	222	577	81	610	NA	< 44	88	< 349.496	NA	149
Fluorene	86-73-7	ug/kg	32.06	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 377	< 394	< 393	NA	NA	< 44	NA	NA	NA	< 399
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Hexachloroethane	67-72-1	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	108	91.9	290	< 393	130	NA	< 44	74	< 349.496	NA	< 399
Isophorone	78-59-1	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-8164-05	H13-8214-02	H13-8226-01	H13-8226-02	H13-9329-02	H5-2-01	H5-4-03	H5-8126-06	H5-8126-07	H5-8126-11	H5-8254-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	6/1/2000	9/12/2000	6/1/2000	12/14/1999	7/13/2000	4/13/2000	7/13/2000	7/13/2000	7/13/2000	9/27/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-8164-052N	H13-8214-021N	H13-8226-010.5N	H13-8226-021.25N	H13-9329-021N	H5-2-011N	H5-4-031N	H5-8126-061N	H5-8126-070.75N	H5-8126-111N	H5-8254-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Nitrobenzene	98-95-3	ug/kg	< 400	< 377	< 394	NA	< 410	NA	< 44	< 366.538	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	1300	< 349.496	NA	< 399
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 400	< 377	38.2	< 393	< 410	NA	< 44	NA	NA	NA	< 399
Pentachlorophenol	87-86-5	ug/kg	< 790	< 753	< 788	< 787	< 810	NA	< 88	< 733.076	< 698.992	NA	250
Phenanthrene	85-01-8	ug/kg	432	65.5	214	< 393	370	NA	34	61.6	< 349.496	NA	72.6
Phenol	108-95-2	ug/kg	< 400	< 377	< 394	< 393	< 410	NA	< 44	< 366.538	< 349.496	NA	< 399
Pyrene	129-00-0	ug/kg	691	159	592	< 393	640	NA	< 44	152	< 349.496	NA	173
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	< 18.86034	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	< 18.86034	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	< 18.86034	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	< 18.86034	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	89.6	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	89.6	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H13-8164-05	H13-8214-02	H13-8226-01	H13-8226-02	H13-9329-02	H5-2-01	H5-4-03	H5-8126-06	H5-8126-07	H5-8126-11	H5-8254-01
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	6/1/2000	9/12/2000	6/1/2000	12/14/1999	7/13/2000	4/13/2000	7/13/2000	7/13/2000	7/13/2000	9/27/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H13-8164-052N	H13-8214-021N	H13-8226-010.5N	H13-8226-021.25N	H13-9329-021N	H5-2-011N	H5-4-031N	H5-8126-061N	H5-8126-070.75N	H5-8126-111N	H5-8254-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 192.3	< 250	< 95.2
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 192.3	< 250	< 95.2
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 192.3	< 250	< 95.2
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 192.3	< 250	< 95.2
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	< 384.6	< 500	< 190
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	< 384.6	< 500	< 190
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 192.3	< 250	< 95.2
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 384.6	< 500	< 190
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	< 192.3	< 250	< 95.2
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 36271.55	< 43688.34	< 38.2
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 366.538	< 349	3800	< 5980
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	< 384.6	< 500	< 190
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	< 384.6	< 500	< 190
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	< 384.6	< 500	< 190
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.707	1.23	1.53	0.544	0.26	NA	0.76	59.4	1.12	NA	< 0.684
Arsenic	7440-38-2	mg/kg	8.75	14.9	28.5	14.2	20.9	NA	24.1	26.8	10	NA	4.95
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.328	0.279	0.494	0.374	0.51	NA	1.2	0.311	0.28	NA	0.91
Cadmium	7440-43-9	mg/kg	5.28	0.512	0.41	0.353	0.56	NA	0.68	0.449	0.481	NA	0.466
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.7	19.9	18	15.2	13.4	NA	14.6	22	14.2	NA	18.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	62.8	88.4	155	43.3	19.7	NA	478	186	326	NA	32.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	350	291	646	154	85.6	NA	235	4980	288	NA	230
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.27	0.728	1.06	0.296	0.2	NA	12.4	137	< 0.030823	NA	0.488
Nickel	7440-02-0	mg/kg	9.29	10.1	10.9	8.82	9.2	NA	12.9	18.6	25.2	NA	11.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.683	0.992	0.729	1.4	2.1	NA	1.1	0.921	2.59	NA	< 0.57

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H13-8164-05 0.0-2.0 ft 5/25/2000 N H13-8164-052N	H13-8214-02 0.0-1.0 ft 6/1/2000 N H13-8214-021N	H13-8226-01 0.0-0.5 ft 9/12/2000 N H13-8226-010.5N	H13-8226-02 0.0-1.3 ft 6/1/2000 N H13-8226-021.25N	H13-9329-02 0.0-1.0 ft 12/14/1999 N H13-9329-021N	H5-2-01 0.0-1.0 ft 7/13/2000 N H5-2-011N	H5-4-03 0.0-1.0 ft 4/13/2000 N H5-4-031N	H5-8126-06 0.0-1.0 ft 7/13/2000 N H5-8126-061N	H5-8126-07 0.0-0.8 ft 7/13/2000 N H5-8126-070.75N	H5-8126-11 0.0-1.0 ft 7/13/2000 N H5-8126-111N	H5-8254-01 0.0-1.0 ft 9/27/2000 N H5-8254-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.354	0.137	0.273	< 0.34	< 0.3	NA	0.66	1.13	< 0.311744	NA	0.872
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.18	1.2	< 1.12	0.848	< 1	NA	< 1	< 1.05838	< 1.039147	NA	< 1.14
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	364	472	338	161	84.3	NA	151	295	92.2	NA	207
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	45200	NA	82400	35000	86700	56600	29000	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	2.5	NA	8.4	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	64.6	NA	2.5	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	25.1	NA	30.6	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	92.5	NA	86.9	NA	77.9	NA	95	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	100	NA	100	NA	100	NA	100	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	76.8	NA	71.4	NA	61.5	NA	74.5	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	29.5	NA	32.5	NA	22.4	NA	13.9	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	83.1	NA	79	NA	71.9	NA	86.1	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	60.4	NA	59	NA	38.5	NA	39.1	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	38.4	NA	40.9	NA	27.5	NA	18.1	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	70.4	NA	66.3	NA	47.5	NA	57	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	49.7	NA	50.3	NA	32.5	NA	25.4	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	7.8	NA	58.5	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H5-8254-04	H5-8254-04	H5-938-01	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			7/13/2000	7/13/2000	4/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H5-8254-041.25N	H5-8254-041.25FD	H5-938-011N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N
Parent Sample				H5-8254-041.25N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 120
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 120
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 120
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 120
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 590
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H5-8254-04	H5-8254-04	H5-938-01	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			7/13/2000	7/13/2000	4/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H5-8254-041.25N	H5-8254-041.25FD	H5-938-011N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N
Parent Sample				H5-8254-041.25N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 59
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 120
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 754.418	< 754	< 84	< 89	< 1066.666	NA	NA	NA	< 82	< 924.024	< 81	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 377	< 377	< 420	< 450	< 533	NA	NA	NA	120	< 462	< 410	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 377	< 377	< 420	< 450	< 533	NA	NA	NA	< 410	< 462	< 410	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
2-Chlorophenol	95-57-8	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 42	< 45	NA	NA	NA	NA	< 41	NA	< 41	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 533.333	NA	NA	NA	NA	< 462.012	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 754.418	< 754	< 84	< 89	< 1066.666	NA	NA	NA	< 82	< 924.024	< 81	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 754.418	< 754	< 84	< 89	< 1066.666	NA	NA	NA	< 82	< 924.024	< 81	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H5-8254-04	H5-8254-04	H5-938-01	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			7/13/2000	7/13/2000	4/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H5-8254-041.25N	H5-8254-041.25FD	H5-938-011N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N
Parent Sample				H5-8254-041.25N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 84	< 89	NA	NA	NA	NA	< 82	NA	< 81	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 1066.666	NA	NA	NA	NA	< 924.024	NA	NA
Acenaphthene	83-32-9	ug/kg	< 377.209	< 377	47	< 45	< 533.333	NA	NA	NA	50	66	86	NA
Acenaphthylene	208-96-8	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	51	27	< 41	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 377.209	< 377	130	< 45	< 533.333	NA	NA	NA	180	163	210	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	160	199	1700	37	125	NA	NA	NA	450	510	620	NA
Benzo[a]pyrene	50-32-8	ug/kg	188	181	1700	40	110	NA	NA	NA	400	419	620	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	257	286	2200	< 45	255	NA	NA	NA	620	501	830	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	157	167	890	< 45	< 533.333	NA	NA	NA	< 41	228	390	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	74.7	80.3	760	< 45	< 533.333	NA	NA	NA	220	210	380	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	868	1310	< 42	24	31	NA	NA	NA	1900	97	< 41	NA
Butylbenzylphthalate	85-68-7	ug/kg	115	228	< 42	< 45	< 533.333	NA	NA	NA	690	< 462.012	< 41	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	237	239	1700	42	158	NA	NA	NA	440	432	620	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 377.209	< 377	250	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	120	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	520	< 462.012	34	NA
Dimethylphthalate	131-11-3	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Di-n-butylphthalate	84-74-2	ug/kg	149	146	< 42	< 45	< 533.333	NA	NA	NA	2300	< 462.012	< 41	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Fluoranthene	206-44-0	ug/kg	326	305	2800	88	277	NA	NA	NA	1100	1040	1300	NA
Fluorene	86-73-7	ug/kg	< 377.209	< 377	30	< 45	< 533.333	NA	NA	NA	88	76	93	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 42	< 45	NA	NA	NA	NA	< 41	NA	< 41	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Hexachloroethane	67-72-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	140	154	800	< 45	< 533.333	NA	NA	NA	< 41	196	350	NA
Isophorone	78-59-1	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H5-8254-04	H5-8254-04	H5-938-01	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			7/13/2000	7/13/2000	4/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H5-8254-041.25N	H5-8254-041.25FD	H5-938-011N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N
Parent Sample				H5-8254-041.25N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 42	< 45	< 533.333	NA	NA	NA	NA	< 462.012	< 41	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	49.8	67.9	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 42	< 45	< 533.333	NA	NA	NA	650	< 462.012	110	NA
Pentachlorophenol	87-86-5	ug/kg	1880	2150	< 84	< 89	< 1066.666	NA	NA	NA	< 82	< 924.024	< 81	NA
Phenanthrene	85-01-8	ug/kg	190	174	700	47	102	NA	NA	NA	870	965	880	NA
Phenol	108-95-2	ug/kg	< 377.209	< 377	< 42	< 45	< 533.333	NA	NA	NA	< 41	< 462.012	< 41	NA
Pyrene	129-00-0	ug/kg	559	551	3000	< 45	199	NA	NA	NA	910	919	990	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	< 4	< 4	< 4	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	< 41	< 41	< 48	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H5-8254-04	H5-8254-04	H5-938-01	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			7/13/2000	7/13/2000	4/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H5-8254-041.25N	H5-8254-041.25FD	H5-938-011N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N
Parent Sample				H5-8254-041.25N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 238.1	< 250	NA	NA	NA	NA	NA	NA	< 25	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 238.1	< 250	NA	NA	NA	NA	NA	NA	< 25	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 238.1	< 250	NA	NA	NA	NA	NA	NA	420	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 238.1	< 250	NA	NA	NA	NA	NA	NA	< 25	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 476.2	< 500	NA	NA	NA	NA	NA	NA	< 50	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 476.2	< 500	NA	NA	NA	NA	NA	NA	< 50	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 238.1	< 250	NA	NA	NA	NA	NA	NA	< 25	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 476.2	< 500	NA	NA	NA	NA	NA	NA	< 50	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 238.1	< 250	NA	NA	NA	NA	NA	NA	< 25	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 39514.86	< 39700	NA	NA	NA	NA	NA	NA	334000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 377	< 377	NA	NA	NA	NA	NA	NA	16000	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 476.2	< 500	NA	NA	NA	NA	NA	NA	< 50	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 476.2	< 500	NA	NA	NA	NA	NA	NA	< 50	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 476.2	< 500	NA	NA	NA	NA	NA	NA	< 50	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.65986	0.666	< 0.7	< 0.8	< 0.576924	NA	NA	NA	< 0.6	< 0.535716	< 0.7	NA
Arsenic	7440-38-2	mg/kg	4.67	5.75	27.7	5.7	10.1	NA	NA	NA	3.4	5.54	8.9	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.527	0.473	1.3	1.1	1.07	NA	NA	NA	0.51	0.759	0.82	NA
Cadmium	7440-43-9	mg/kg	0.853	0.847	1.7	2.2	0.755	NA	NA	NA	0.1	0.919	1	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	16.6	19.4	21.6	21.6	20.4	NA	NA	NA	13.6	16.7	23.2	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	60.2	58.1	799	18.8	182	NA	NA	NA	25.1	24.7	175	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	392	460	147	177	158	NA	NA	NA	78.2	114	248	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.604	0.485	45.7	0.26	0.285	NA	NA	NA	0.5	6.73	138	NA
Nickel	7440-02-0	mg/kg	10.7	11.1	19.1	13.4	15.6	NA	NA	NA	9.3	12	14.6	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.1	1.04	0.88	0.86	1.59	NA	NA	NA	0.69	< 0.44643	1.9	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H5-8254-04	H5-8254-04	H5-938-01	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			7/13/2000	7/13/2000	4/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H5-8254-041.25N	H5-8254-041.25FD	H5-938-011N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N
Parent Sample				H5-8254-041.25N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	2.11	2.01	0.34	< 0.4	< 0.288462	NA	NA	NA	< 0.3	< 0.267858	1.1	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.099766	< 1.11	< 1	< 1	< 0.96154	NA	NA	NA	< 1	< 0.89286	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	262	294	746	887	125	NA	NA	NA	67.1	234	966	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	40000	NA	35000	28000	NA	20300	17100	11800	38900	NA	23700	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	7.2	19.2	NA	7.2	13.8	9.8	4.1	NA	8.3	NA
Gravel	ARC-PGRAVEL	%	NA	NA	31.9	17.2	NA	30.8	28.3	16.7	54	NA	48.1	NA
Sand	ARC-PSAND	%	NA	NA	35	23.3	NA	45.5	23	34.6	28.9	NA	27.4	NA
SIEVE 0.375 inch, % passing	ARC-	%	73.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	60.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	20.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	66.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	37.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	24.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	48.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	29.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	25.9	40.4	NA	16.4	34.9	38.9	13	NA	16.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8120-05	H6-8120-05	H6-8120-06	H6-8120-06	H6-8122-01	H6-8123B-04	H6-8123B-06	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04
Depths			0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8120-052N	H6-8120-050.5N	H6-8120-062N	H6-8120-060.5N	H6-8122-010.75N	H6-8123B-042N	H6-8123B-061N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 540	NA	< 570	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 540	NA	< 570	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 540	NA	< 570	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 540	NA	< 570	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 110	NA	< 110	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 220	NA	< 230	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 110	NA	< 110	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	230	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 110	NA	< 110	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 110	NA	< 110	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 540	NA	< 570	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8120-05	H6-8120-05	H6-8120-06	H6-8120-06	H6-8122-01	H6-8123B-04	H6-8123B-06	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04
Depths			0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8120-052N	H6-8120-050.5N	H6-8120-062N	H6-8120-060.5N	H6-8122-010.75N	H6-8123B-042N	H6-8123B-061N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 54	NA	< 57	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 110	NA	< 110	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
1,2-Dichlorobenzene	95-50-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
1,4-Dichlorobenzene	106-46-7	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2,4-Dichlorophenol	120-83-2	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2,4-Dimethylphenol	105-67-9	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2,4-Dinitrophenol	51-28-5	ug/kg	< 81	NA	< 90	NA	< 91	< 84	< 90	< 78	< 94	< 880	< 440
2,4-Dinitrotoluene	121-14-2	ug/kg	< 410	NA	< 450	NA	< 460	< 420	< 450	81	250	9300	< 2200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	NA	< 450	NA	< 460	< 420	< 450	< 390	39	550	< 2200
2-Chloronaphthalene	91-58-7	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2-Chlorophenol	95-57-8	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 81	NA	< 90	NA	< 91	< 84	< 90	< 78	< 94	< 880	< 440
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 81	NA	< 90	NA	< 91	< 84	< 90	< 78	< 94	< 880	< 440
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8120-05	H6-8120-05	H6-8120-06	H6-8120-06	H6-8122-01	H6-8123B-04	H6-8123B-06	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04
Depths			0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8120-052N	H6-8120-050.5N	H6-8120-062N	H6-8120-060.5N	H6-8122-010.75N	H6-8123B-042N	H6-8123B-061N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 81	NA	< 90	NA	< 91	< 84	< 90	< 78	< 94	< 880	< 440
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 41	NA	96	NA	160	< 42	< 45	98	< 47	< 440	< 220
Acenaphthylene	208-96-8	ug/kg	< 41	NA	48	NA	29	< 42	< 45	< 39	72	< 440	< 220
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 41	NA	300	NA	570	< 42	< 45	190	97	< 440	220
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	70	NA	1000	NA	1200	97	< 45	450	240	< 440	480
Benzo[a]pyrene	50-32-8	ug/kg	61	NA	980	NA	1100	68	< 45	400	340	< 440	390
Benzo[b]fluoranthene	205-99-2	ug/kg	110	NA	1300	NA	1400	93	< 45	560	860	< 440	520
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 41	NA	700	NA	870	< 42	< 45	190	510	< 440	< 220
Benzo[k]fluoranthene	207-08-9	ug/kg	< 41	NA	480	NA	590	< 42	< 45	190	170	< 440	< 220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 41	NA	< 45	NA	180	57	< 45	< 39	< 47	< 440	1700
Butylbenzylphthalate	85-68-7	ug/kg	< 41	NA	< 45	NA	< 46	140	< 45	< 39	< 47	< 440	< 220
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	51	NA	900	NA	920	73	< 45	370	380	< 440	290
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 41	NA	210	NA	210	< 42	< 45	< 39	130	< 440	< 220
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 41	NA	2100	NA	< 46	< 42	< 45	< 39	1200	6600	< 220
Dimethylphthalate	131-11-3	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Di-n-butylphthalate	84-74-2	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	1600	< 440	770
Di-n-octylphthalate	117-84-0	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Fluoranthene	206-44-0	ug/kg	100	NA	1800	NA	3700	140	< 45	1100	660	< 440	1000
Fluorene	86-73-7	ug/kg	< 41	NA	110	NA	230	< 42	< 45	93	< 47	< 440	< 220
Hexachlorobenzene	118-74-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Hexachlorobutadiene	87-68-3	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Hexachloroethane	67-72-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 41	NA	560	NA	750	< 42	< 45	190	380	< 440	< 220
Isophorone	78-59-1	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H6-8120-05 0.0-2.0 ft 3/30/2000 N H6-8120-052N	H6-8120-05 0.5-1.0 ft 3/30/2000 N H6-8120-050.5N	H6-8120-06 0.0-2.0 ft 3/30/2000 N H6-8120-062N	H6-8120-06 0.5-1.0 ft 3/30/2000 N H6-8120-060.5N	H6-8122-01 0.0-0.8 ft 3/30/2000 N H6-8122-010.75N	H6-8123B-04 0.0-2.0 ft 4/4/2000 N H6-8123B-042N	H6-8123B-06 0.0-1.0 ft 4/4/2000 N H6-8123B-061N	H6-8127-02 0.0-1.5 ft 3/30/2000 N H6-8127-021.5N	H6-8130-03 0.0-1.0 ft 3/30/2000 N H6-8130-031N	H6-8130-06 0.0-1.5 ft 3/30/2000 N H6-8130-061.5N	H6-8152-04 0.0-1.0 ft 3/30/2000 N H6-8152-041N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 41	NA	110	NA	76	< 42	< 45	46	< 47	< 440	< 220
Nitrobenzene	98-95-3	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	NA	NA	NA	< 220
N-Nitrosodimethylamine	62-75-9	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
N-Nitrosodiphenylamine	86-30-6	ug/kg	1400	NA	150	NA	< 46	< 42	< 45	< 39	590	3800	< 220
Pentachlorophenol	87-86-5	ug/kg	< 81	NA	< 90	NA	< 91	< 84	< 90	< 78	< 94	< 880	< 440
Phenanthrene	85-01-8	ug/kg	24	NA	1000	NA	2600	70	< 45	770	310	< 440	1000
Phenol	108-95-2	ug/kg	< 41	NA	< 45	NA	< 46	< 42	< 45	< 39	< 47	< 440	< 220
Pyrene	129-00-0	ug/kg	< 41	NA	1600	NA	2200	140	< 45	600	560	< 440	800
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8120-05	H6-8120-05	H6-8120-06	H6-8120-06	H6-8122-01	H6-8123B-04	H6-8123B-06	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04
Depths			0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8120-052N	H6-8120-050.5N	H6-8120-062N	H6-8120-060.5N	H6-8122-010.75N	H6-8123B-042N	H6-8123B-061N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	320	1400	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 25	< 24	< 25	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40000	713000	5080000	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	5400	33000	29000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	300	< 50	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	44000	< 50	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	300	1800	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 50	< 48	< 50	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	NA	< 0.7	NA	< 0.8	< 0.7	< 0.7	< 0.5	3.8	0.42	< 0.7
Arsenic	7440-38-2	mg/kg	5.6	NA	5.9	NA	7.1	6.2	11	4.9	10.1	10	8.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.2	NA	0.7	NA	0.7	0.58	0.92	0.83	0.78	0.75	0.87
Cadmium	7440-43-9	mg/kg	< 0.3	NA	< 0.3	NA	< 0.4	0.85	0.38	< 0.2	1.9	< 0.4	< 0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	5.6	NA	24.1	NA	27.3	25.5	23	14.2	21.7	17.8	19.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	7.6	NA	2260	NA	136	270	258	345	236	148	86.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	32	NA	541	NA	186	349	376	30.5	797	364	432
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.7	NA	52	NA	5.8	31.5	9.8	44.7	57.6	6.2	44.6
Nickel	7440-02-0	mg/kg	2	NA	25.9	NA	14	14.1	10.6	9.6	17.1	13	12.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.58	NA	1.2	NA	0.89	0.59	2	0.77	1.5	1.3	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8120-05	H6-8120-05	H6-8120-06	H6-8120-06	H6-8122-01	H6-8123B-04	H6-8123B-06	H6-8127-02	H6-8130-03	H6-8130-06	H6-8152-04
Depths			0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8120-052N	H6-8120-050.5N	H6-8120-062N	H6-8120-060.5N	H6-8122-010.75N	H6-8123B-042N	H6-8123B-061N	H6-8127-021.5N	H6-8130-031N	H6-8130-061.5N	H6-8152-041N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	NA	0.99	NA	< 0.4	0.47	< 0.3	< 0.2	0.72	< 0.4	0.56
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	NA	< 1	NA	< 1	< 1	< 1	< 0.8	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	21.4	NA	207	NA	132	277	234	258	1020	467	457
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	22800	20100	NA	5980	79600	NA	43800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	14.8	17.5	NA	11.3	1.2	NA	6.2
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	25.1	8.8	NA	29.2	69.8	NA	47.4
Sand	ARC-PSAND	%	NA	NA	NA	NA	22.1	35.4	NA	37.4	20.8	NA	30.4
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	38	38.3	NA	22.2	8.2	NA	16

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H6-8152-05 0.0-2.0 ft 3/30/2000 N H6-8152-052N	H6-8152-07 0.0-1.5 ft 3/30/2000 N H6-8152-071.5N	H6-8245-01 0.0-1.0 ft 4/6/2000 N H6-8245-011N	H6-8246-01 0.0-1.0 ft 4/6/2000 N H6-8246-011N	H6-8246-01 0.0-1.0 ft 4/6/2000 FD H6-8246-011FD H6-8246-011N	H6-8247-02 0.0-2.0 ft 4/13/2000 N H6-8247-022N	H6-8247-02 0.5-1.0 ft 4/13/2000 N H6-8247-020.5N	H6-8247-05 0.0-2.0 ft 4/13/2000 N H6-8247-052N	H6-8247-05 0.5-1.0 ft 4/13/2000 N H6-8247-050.5N	H6-8250-01 0.0-1.0 ft 4/6/2000 N H6-8250-011N	H6-8250-04 0.0-1.0 ft 4/6/2000 N H6-8250-041N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 563	NA	< 539	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 563	NA	< 539	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 563	NA	< 539	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 563	NA	< 539	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	< 112	NA	< 107	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	< 225	NA	< 215	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 112	NA	< 107	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	< 112	NA	< 107	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	< 112	NA	< 107	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 563	NA	< 539	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8152-05	H6-8152-07	H6-8245-01	H6-8246-01	H6-8246-01	H6-8247-02	H6-8247-02	H6-8247-05	H6-8247-05	H6-8250-01	H6-8250-04
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	4/6/2000	4/6/2000	4/6/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			H6-8152-052N	H6-8152-071.5N	H6-8245-011N	H6-8246-011N	H6-8246-011FD	H6-8247-022N	H6-8247-020.5N	H6-8247-052N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N
Parent Sample							H6-8246-011N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	232	NA	< 53	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 56	NA	< 53	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 112	NA	< 107	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
1,2-Dichlorobenzene	95-50-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
1,4-Dichlorobenzene	106-46-7	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2,4-Dichlorophenol	120-83-2	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2,4-Dimethylphenol	105-67-9	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2,4-Dinitrophenol	51-28-5	ug/kg	< 88	< 87	< 81	< 430	< 890	< 78	NA	< 80	NA	< 88	< 93
2,4-Dinitrotoluene	121-14-2	ug/kg	< 440	< 430	350	5700	15000	< 390	NA	< 400	NA	78	9600
2,6-Dinitrotoluene	606-20-2	ug/kg	< 440	< 430	< 410	280	840	< 390	NA	< 400	NA	< 440	420
2-Chloronaphthalene	91-58-7	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2-Chlorophenol	95-57-8	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 88	< 87	< 81	< 430	< 890	< 78	NA	< 80	NA	< 88	< 93
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 88	< 87	< 81	< 430	< 890	< 78	NA	< 80	NA	< 88	< 93
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8152-05	H6-8152-07	H6-8245-01	H6-8246-01	H6-8246-01	H6-8247-02	H6-8247-02	H6-8247-05	H6-8247-05	H6-8250-01	H6-8250-04
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	4/6/2000	4/6/2000	4/6/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			H6-8152-052N	H6-8152-071.5N	H6-8245-011N	H6-8246-011N	H6-8246-011FD	H6-8247-022N	H6-8247-020.5N	H6-8247-052N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N
Parent Sample							H6-8246-011N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 88	< 87	< 81	< 430	< 890	< 78	NA	< 80	NA	< 88	< 93
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	68	< 43	22	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Acenaphthylene	208-96-8	ug/kg	< 44	< 43	27	93	62	< 39	NA	< 40	NA	< 44	57
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	150	< 43	54	260	110	< 39	NA	< 40	NA	< 44	83
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	280	81	200	740	420	49	NA	< 40	NA	110	300
Benzo[a]pyrene	50-32-8	ug/kg	250	81	240	650	480	35	NA	< 40	NA	110	330
Benzo[b]fluoranthene	205-99-2	ug/kg	320	130	390	900	990	< 39	NA	< 40	NA	140	500
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	< 43	120	< 220	230	< 39	NA	< 40	NA	< 44	220
Benzo[k]fluoranthene	207-08-9	ug/kg	160	< 43	140	< 220	340	< 39	NA	< 40	NA	< 44	160
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	64	58	64	< 220	29	27	NA	< 40	NA	42	53
Butylbenzylphthalate	85-68-7	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	240	46	320	790	510	< 39	NA	< 40	NA	140	370
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 44	< 43	570	2000	840	51	NA	< 40	NA	< 44	42
Dimethylphthalate	131-11-3	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Di-n-butylphthalate	84-74-2	ug/kg	< 44	< 43	110	790	1300	37	NA	< 40	NA	< 44	1500
Di-n-octylphthalate	117-84-0	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Fluoranthene	206-44-0	ug/kg	740	110	520	1400	780	< 39	NA	< 40	NA	270	780
Fluorene	86-73-7	ug/kg	71	< 43	29	< 220	32	< 39	NA	< 40	NA	< 44	30
Hexachlorobenzene	118-74-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Hexachlorobutadiene	87-68-3	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Hexachloroethane	67-72-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	140	< 43	110	< 220	230	< 39	NA	< 40	NA	< 44	210
Isophorone	78-59-1	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8152-05	H6-8152-07	H6-8245-01	H6-8246-01	H6-8246-01	H6-8247-02	H6-8247-02	H6-8247-05	H6-8247-05	H6-8250-01	H6-8250-04
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	4/6/2000	4/6/2000	4/6/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			H6-8152-052N	H6-8152-071.5N	H6-8245-011N	H6-8246-011N	H6-8246-011FD	H6-8247-022N	H6-8247-020.5N	H6-8247-052N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N
Parent Sample							H6-8246-011N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	64	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Nitrobenzene	98-95-3	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
N-Nitrosodimethylamine	62-75-9	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 44	< 43	190	2600	2300	120	NA	< 40	NA	270	1300
Pentachlorophenol	87-86-5	ug/kg	< 88	< 87	< 81	< 430	< 890	< 78	NA	< 80	NA	< 88	< 93
Phenanthrene	85-01-8	ug/kg	690	39	320	700	370	29	NA	< 40	NA	160	340
Phenol	108-95-2	ug/kg	< 44	< 43	< 41	< 220	< 440	< 39	NA	< 40	NA	< 44	< 46
Pyrene	129-00-0	ug/kg	410	< 43	510	1100	770	< 39	NA	< 40	NA	270	530
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8152-05	H6-8152-07	H6-8245-01	H6-8246-01	H6-8246-01	H6-8247-02	H6-8247-02	H6-8247-05	H6-8247-05	H6-8250-01	H6-8250-04
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	4/6/2000	4/6/2000	4/6/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			H6-8152-052N	H6-8152-071.5N	H6-8245-011N	H6-8246-011N	H6-8246-011FD	H6-8247-022N	H6-8247-020.5N	H6-8247-052N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N
Parent Sample							H6-8246-011N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.7	0.96	0.86	0.52	< 0.6	NA	< 0.6	NA	1.4	< 0.8
Arsenic	7440-38-2	mg/kg	7.7	9.3	9	14.2	13.6	4.4	NA	2.8	NA	5.3	8.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	1.1	0.59	0.25	0.63	0.39	0.52	NA	0.64	NA	0.53	0.75
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.3	0.4	0.09	0.1	0.64	NA	0.37	NA	1.5	3.2
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.7	17.5	32.4	15.5	9.8	18.2	NA	13.8	NA	11.4	31.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	85	75.8	21.6	36.2	34.8	34	NA	9.3	NA	36.3	49.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	252	444	405	375	323	93.2	NA	20.2	NA	324	915
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	8.4	2.2	0.22	0.66	1.1	5.5	NA	0.41	NA	0.52	0.44
Nickel	7440-02-0	mg/kg	15.6	11.8	12.5	8.6	6.5	7.2	NA	6.6	NA	6.4	12.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.63	0.85	1.8	0.72	0.76	0.7	NA	0.69	NA	0.61	0.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8152-05	H6-8152-07	H6-8245-01	H6-8246-01	H6-8246-01	H6-8247-02	H6-8247-02	H6-8247-05	H6-8247-05	H6-8250-01	H6-8250-04
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	4/6/2000	4/6/2000	4/6/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			H6-8152-052N	H6-8152-071.5N	H6-8245-011N	H6-8246-011N	H6-8246-011FD	H6-8247-022N	H6-8247-020.5N	H6-8247-052N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N
Parent Sample							H6-8246-011N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.35	< 0.3	< 0.3	< 0.3	< 0.38	< 0.3	NA	< 0.3	NA	< 0.3	0.26
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	0.88	0.65	< 1	NA	< 1	NA	< 1	1.4
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	792	163	146	95.6	68.8	109	NA	55.4	NA	449	843
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	25500	123000	NA	17800	NA	NA	NA	44300	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	2	5.8	NA	4.4	NA	NA	NA	15.1	NA
Gravel	ARC-PGRAVEL	%	NA	NA	76.4	44.9	NA	43.4	NA	NA	NA	26.1	NA
Sand	ARC-PSAND	%	NA	NA	17.3	32.8	NA	43.2	NA	NA	NA	24.8	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	4.2	16.5	NA	9.1	NA	NA	NA	34	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H6-8251-02 0.0-1.5 ft 6/21/2000 N H6-8251-021.5N	H6-8251-03 0.0-1.0 ft 4/4/2000 N H6-8251-031N	H6-8275-02 0.0-1.3 ft 4/4/2000 N H6-8275-021.25N	H6-8275-04 0.0-1.5 ft 6/21/2000 N H6-8275-041.5N	H6-8285-05 0.0-0.8 ft 7/13/2000 N H6-8285-050.75N	H6-8285-07 0.0-1.0 ft 7/13/2000 N H6-8285-071N	H6-8285-08 0.0-1.0 ft 7/13/2000 N H6-8285-081N	H6-8520-01 0.0-1.0 ft 3/30/2000 N H6-8520-011N	H6-8520-02 0.0-1.0 ft 3/30/2000 N H6-8520-021N	H6-8520-03 0.0-2.0 ft 3/30/2000 N H6-8520-032N	H6-8520-03 0.0-2.0 ft 3/30/2000 FD H6-8520-032FD H6-8520-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8251-02	H6-8251-03	H6-8275-02	H6-8275-04	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-02	H6-8520-03	H6-8520-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/21/2000	4/4/2000	4/4/2000	6/21/2000	7/13/2000	7/13/2000	7/13/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			H6-8251-021.5N	H6-8251-031N	H6-8275-021.25N	H6-8275-041.5N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N	H6-8520-011N	H6-8520-021N	H6-8520-032N	H6-8520-032FD
Parent Sample													H6-8520-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	< 727.392	< 813.186	< 7135.518	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	103	< 407	< 3570	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	55.7	< 407	< 3570	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	< 727.392	< 813.186	< 7135.518	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	< 727.392	< 813.186	< 7135.518	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8251-02	H6-8251-03	H6-8275-02	H6-8275-04	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-02	H6-8520-03	H6-8520-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/21/2000	4/4/2000	4/4/2000	6/21/2000	7/13/2000	7/13/2000	7/13/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			H6-8251-021.5N	H6-8251-031N	H6-8275-021.25N	H6-8275-041.5N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N	H6-8520-011N	H6-8520-021N	H6-8520-032N	H6-8520-032FD
Parent Sample													H6-8520-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 727.392	< 813.186	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	189	127	< 3567.759	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	184	161	< 3567.759	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	263	235	< 3567.759	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	214	151	< 3567.759	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	107	84.6	< 3567.759	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	354	83	< 3567.759	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	615	98	< 3567.759	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	290	266	< 3567.759	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	72.4	141	10300	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	534	1120	9120	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	347	265	< 3567.759	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	171	121	< 3567.759	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8251-02	H6-8251-03	H6-8275-02	H6-8275-04	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-02	H6-8520-03	H6-8520-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/21/2000	4/4/2000	4/4/2000	6/21/2000	7/13/2000	7/13/2000	7/13/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			H6-8251-021.5N	H6-8251-031N	H6-8275-021.25N	H6-8275-041.5N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N	H6-8520-011N	H6-8520-021N	H6-8520-032N	H6-8520-032FD
Parent Sample													H6-8520-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	209	< 406.593	2840	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	< 727.392	< 813.186	< 7135.518	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	218	152	< 3567.759	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	< 363.696	< 406.593	< 3567.759	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	504	420	< 3567.759	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 8	< 59	< 2	< 22
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 8	< 59	< 2	< 22
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 8	< 59	< 2	< 22
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 8	< 59	< 2	< 22
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 8	< 59	< 2	< 22
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	1100	9800	< 2	< 22
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 16	< 120	< 4	< 43
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	1100	9800	< 44	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8251-02	H6-8251-03	H6-8275-02	H6-8275-04	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-02	H6-8520-03	H6-8520-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/21/2000	4/4/2000	4/4/2000	6/21/2000	7/13/2000	7/13/2000	7/13/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			H6-8251-021.5N	H6-8251-031N	H6-8275-021.25N	H6-8275-041.5N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N	H6-8520-011N	H6-8520-021N	H6-8520-032N	H6-8520-032FD
Parent Sample													H6-8520-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 238.1	< 25	< 25	< 250	NA	NA	< 208.325	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 238.1	< 25	< 25	< 250	NA	NA	< 208.325	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 238.1	< 25	< 25	< 250	NA	NA	< 208.325	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 238	< 250	< 250	< 250	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 238.1	< 25	< 25	< 250	NA	NA	< 208.325	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 476.2	< 50	< 50	< 500	NA	NA	< 416.65	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 476.2	< 50	< 50	< 500	NA	NA	< 416.65	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 238.1	< 25	< 25	< 250	NA	NA	< 208.325	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 476.2	< 50	< 50	< 500	NA	NA	< 416.65	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 238.1	< 25	< 25	< 250	NA	NA	< 208.325	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 410.817	52700	5010000	58000	NA	NA	4290000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5753.739	< 610	< 660	< 5910.864	< 363.696	< 406.593	< 3570	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 476.2	< 50	< 50	< 500	NA	NA	< 416.65	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 476.2	< 50	< 50	< 500	NA	NA	< 416.65	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 476.2	< 50	< 50	< 500	NA	NA	< 416.65	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	< 0.642459	< 0.691133	< 0.623554	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	36.2	31.2	6.26	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	0.515	0.531	0.273	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	0.597	0.7	0.378	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	14.6	17.9	13.7	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	57.3	496	56	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	165	608	108	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	2940	7.82	103	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	14.3	16.3	8.35	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	2.67	2.96	0.854	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8251-02	H6-8251-03	H6-8275-02	H6-8275-04	H6-8285-05	H6-8285-07	H6-8285-08	H6-8520-01	H6-8520-02	H6-8520-03	H6-8520-03
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			6/21/2000	4/4/2000	4/4/2000	6/21/2000	7/13/2000	7/13/2000	7/13/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			H6-8251-021.5N	H6-8251-031N	H6-8275-021.25N	H6-8275-041.5N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N	H6-8520-011N	H6-8520-021N	H6-8520-032N	H6-8520-032FD
Parent Sample													H6-8520-032N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	0.344	0.367	0.52	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	< 1.070765	< 1.151888	< 1.039257	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	243	261	150	NA	NA	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	21900	31700	NA	119000	NA	NA	18200	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	8.4	6.8	NA	NA	NA	NA	9.8	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	36.1	25.9	NA	NA	NA	NA	45.5	NA	NA	NA
Sand	ARC-PSAND	%	NA	33.1	39.1	NA	NA	NA	NA	27.7	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	84.6	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	53.6	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	16.4	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	68	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	31.4	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	20.6	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	40.6	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	25.1	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	22.4	28.2	NA	NA	NA	NA	17.1	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8520-04	H6-8520-04	H6-8520-05	H6-862-01	H6-862-04	H6-9-01	H6-918-01	H6-918-03	H6-941C-02	H6-941C-03	H7-10-01	H7-13-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	6/21/2000	3/28/2000	3/30/2000	4/14/2000	6/21/2000	4/14/2000	6/21/2000	7/19/2000	3/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8520-042N	H6-8520-042FD	H6-8520-052N	H6-862-011.5N	H6-862-041N	H6-9-012N	H6-918-010.5N	H6-918-031N	H6-941C-021N	H6-941C-031N	H7-10-011.5N	H7-13-051N
Parent Sample				H6-8520-042N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H6-8520-04 0.0-2.0 ft 3/30/2000 N H6-8520-042N	H6-8520-04 0.0-2.0 ft 3/30/2000 FD H6-8520-042FD H6-8520-042N	H6-8520-05 0.0-2.0 ft 3/30/2000 N H6-8520-052N	H6-862-01 0.0-1.5 ft 6/21/2000 N H6-862-011.5N	H6-862-04 0.0-1.0 ft 3/28/2000 N H6-862-041N	H6-9-01 0.0-2.0 ft 3/30/2000 N H6-9-012N	H6-918-01 0.0-0.5 ft 4/14/2000 N H6-918-010.5N	H6-918-03 0.0-1.0 ft 6/21/2000 N H6-918-031N	H6-941C-02 0.0-1.0 ft 4/14/2000 N H6-941C-021N	H6-941C-03 0.0-1.0 ft 6/21/2000 N H6-941C-031N	H7-10-01 0.0-1.5 ft 7/19/2000 N H7-10-011.5N	H7-13-05 0.0-1.0 ft 3/28/2000 N H7-13-051N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	< 869.742	< 81	NA	< 82	< 839.63	< 79	< 842.814	NA	< 81
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 434	< 410	NA	< 410	< 419	< 390	< 421	NA	110
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 434	< 410	NA	< 410	< 419	< 390	< 421	NA	< 410
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 41	NA	< 41	NA	< 39	NA	NA	< 41
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	< 869.742	< 81	NA	< 82	< 839.63	< 79	< 842.814	NA	< 81
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	< 869.742	< 81	NA	< 82	< 839.63	< 79	< 842.814	NA	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8520-04	H6-8520-04	H6-8520-05	H6-862-01	H6-862-04	H6-9-01	H6-918-01	H6-918-03	H6-941C-02	H6-941C-03	H7-10-01	H7-13-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	6/21/2000	3/28/2000	3/30/2000	4/14/2000	6/21/2000	4/14/2000	6/21/2000	7/19/2000	3/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8520-042N	H6-8520-042FD	H6-8520-052N	H6-862-011.5N	H6-862-041N	H6-9-012N	H6-918-010.5N	H6-918-031N	H6-941C-021N	H6-941C-031N	H7-10-011.5N	H7-13-051N
Parent Sample				H6-8520-042N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 81	NA	< 82	NA	< 79	NA	NA	< 81
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 434.871	< 41	NA	22	< 419.815	< 39	< 421.407	NA	< 41
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	40	< 419.815	< 39	< 421.407	NA	< 41
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	46	48	NA	180	47	80	< 421.407	NA	200
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	33	< 41	NA	180	40	84	< 421.407	NA	170
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	< 434.871	< 41	NA	270	< 419.815	120	< 421.407	NA	290
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	< 434.871	< 41	NA	100	< 419.815	< 39	< 421.407	NA	< 41
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	21	48	NA	36	< 419.815	41	< 421.407	NA	270
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	< 434.871	80	NA	190	40	110	< 421.407	NA	360
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	590
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	< 434.871	42	NA	38	< 419.815	< 39	< 421.407	NA	240
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	< 434.871	130	NA	460	89	140	< 421.407	NA	340
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 41	NA	< 41	NA	< 39	NA	NA	< 41
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	< 434.871	< 41	NA	78	< 419.815	< 39	< 421.407	NA	< 41
Isophorone	78-59-1	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8520-04	H6-8520-04	H6-8520-05	H6-862-01	H6-862-04	H6-9-01	H6-918-01	H6-918-03	H6-941C-02	H6-941C-03	H7-10-01	H7-13-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	6/21/2000	3/28/2000	3/30/2000	4/14/2000	6/21/2000	4/14/2000	6/21/2000	7/19/2000	3/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8520-042N	H6-8520-042FD	H6-8520-052N	H6-862-011.5N	H6-862-041N	H6-9-012N	H6-918-010.5N	H6-918-031N	H6-941C-021N	H6-941C-031N	H7-10-011.5N	H7-13-051N
Parent Sample				H6-8520-042N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	< 869.742	< 81	NA	< 82	< 839.63	< 79	< 842.814	NA	< 81
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	34	69	NA	280	57	59	< 421.407	NA	360
Phenol	108-95-2	ug/kg	NA	NA	NA	< 434.871	< 41	NA	< 41	< 419.815	< 39	< 421.407	NA	< 41
Pyrene	129-00-0	ug/kg	NA	NA	NA	< 434.871	< 41	NA	310	< 419.815	110	< 421.407	NA	300
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	< 2	< 25	< 2	NA	NA	< 2	NA	NA	NA	NA	< 2	NA
Aroclor-1221	11104-28-2	ug/kg	< 2	< 25	< 2	NA	NA	< 2	NA	NA	NA	NA	< 2	NA
Aroclor-1232	11141-16-5	ug/kg	< 2	< 25	< 2	NA	NA	< 2	NA	NA	NA	NA	< 2	NA
Aroclor-1242	53469-21-9	ug/kg	< 2	< 25	< 2	NA	NA	< 2	NA	NA	NA	NA	< 2	NA
Aroclor-1248	12672-29-6	ug/kg	< 2	< 25	< 2	NA	NA	< 2	NA	NA	NA	NA	< 2	NA
Aroclor-1254	11097-69-1	ug/kg	< 2	< 25	< 2	NA	NA	< 2	NA	NA	NA	NA	< 2	NA
Aroclor-1260	11096-82-5	ug/kg	< 4	< 49	< 5	NA	NA	< 4	NA	NA	NA	NA	< 4	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	< 47	< 47	< 50	NA	NA	< 47	NA	NA	NA	NA	< 42	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H6-8520-04 0.0-2.0 ft 3/30/2000 N H6-8520-042N	H6-8520-04 0.0-2.0 ft 3/30/2000 FD H6-8520-042FD H6-8520-042N	H6-8520-05 0.0-2.0 ft 3/30/2000 N H6-8520-052N	H6-862-01 0.0-1.5 ft 6/21/2000 N H6-862-011.5N	H6-862-04 0.0-1.0 ft 3/28/2000 N H6-862-041N	H6-9-01 0.0-2.0 ft 3/30/2000 N H6-9-012N	H6-918-01 0.0-0.5 ft 4/14/2000 N H6-918-010.5N	H6-918-03 0.0-1.0 ft 6/21/2000 N H6-918-031N	H6-941C-02 0.0-1.0 ft 4/14/2000 N H6-941C-021N	H6-941C-03 0.0-1.0 ft 6/21/2000 N H6-941C-031N	H7-10-01 0.0-1.5 ft 7/19/2000 N H7-10-011.5N	H7-13-05 0.0-1.0 ft 3/28/2000 N H7-13-051N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 250	< 25	NA	< 25	< 250	< 25	< 238.1	NA	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 250	< 25	NA	< 25	< 250	< 25	< 238.1	NA	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 250	< 25	NA	< 25	< 250	< 25	< 238.1	NA	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 250	< 25	NA	< 25	< 250	< 25	< 238.1	NA	< 24
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 500	< 50	NA	< 50	< 500	< 50	< 476.2	NA	< 48
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 500	< 50	NA	< 50	< 500	< 50	< 476.2	NA	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 250	< 25	NA	< 25	< 250	< 25	< 238.1	NA	< 24
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 500	< 50	NA	< 50	< 500	< 50	< 476.2	NA	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 250	< 25	NA	< 25	< 250	< 25	< 238.1	NA	< 24
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	< 466.057	< 43	NA	83000	< 449.622	72900	57400	NA	66100
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 6527.415	< 610	NA	< 610	< 6297.229	< 590	< 6020.107	NA	< 580
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 500	< 50	NA	< 50	< 500	< 50	< 476.2	NA	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 500	< 50	NA	< 50	< 500	< 50	< 476.2	NA	< 48
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 500	< 50	NA	< 50	< 500	< 50	< 476.2	NA	< 48
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	< 0.582522	< 0.6	NA	< 0.6	< 0.59406	0.73	< 0.6	NA	55
Arsenic	7440-38-2	mg/kg	NA	NA	NA	4.97	4.6	NA	5.6	6.53	2	1.94	NA	51.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	1	0.67	NA	0.82	0.925	0.22	0.125	NA	0.67
Cadmium	7440-43-9	mg/kg	NA	NA	NA	0.532	0.65	NA	0.7	0.371	0.25	< 0.3	NA	< 3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	16	13.2	NA	17.2	18.1	7.1	5.05	NA	40.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	23.1	21.2	NA	16.5	17.8	22.9	12	NA	404
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	45.8	63.7	NA	52.3	40.2	25.5	9.47	NA	17900
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	0.159	0.1	NA	2.9	1.34	0.5	0.101	NA	3.8
Nickel	7440-02-0	mg/kg	NA	NA	NA	11.4	9.2	NA	10.2	11.3	7.4	7.32	NA	34.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	1.29	0.83	NA	0.99	0.972	0.5	0.589	NA	5.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H6-8520-04	H6-8520-04	H6-8520-05	H6-862-01	H6-862-04	H6-9-01	H6-918-01	H6-918-03	H6-941C-02	H6-941C-03	H7-10-01	H7-13-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			3/30/2000	3/30/2000	3/30/2000	6/21/2000	3/28/2000	3/30/2000	4/14/2000	6/21/2000	4/14/2000	6/21/2000	7/19/2000	3/28/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H6-8520-042N	H6-8520-042FD	H6-8520-052N	H6-862-011.5N	H6-862-041N	H6-9-012N	H6-918-010.5N	H6-918-031N	H6-941C-021N	H6-941C-031N	H7-10-011.5N	H7-13-051N
Parent Sample				H6-8520-042N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	NA	< 0.291261	< 0.3	NA	< 0.3	< 0.29703	< 0.3	< 0.3	NA	2.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	< 0.97087	< 1	NA	< 1	< 0.9901	< 1	< 1	NA	< 12
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	117	440	NA	154	97.9	43.2	11.7	NA	587
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	21800	14100	29000	NA	77700	NA	13100	34600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	9.8	7.4	10.2	NA	3.8	NA	10.6	4
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	50.5	31.3	22.7	NA	47.8	NA	43.3	40.8
Sand	ARC-PSAND	%	NA	NA	NA	NA	16.9	37	46.4	NA	39.7	NA	25.1	43.9
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	22.8	24.3	20.7	NA	8.7	NA	21	11.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-02	H7-4-04	H7-5-01	H7-5-02	H7-6-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft
Collection Date			3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N
Parent Sample			H7-13-051N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-02	H7-4-04	H7-5-01	H7-5-02	H7-6-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft
Collection Date			3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N
Parent Sample			H7-13-051N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
1,2-Dichlorobenzene	95-50-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
1,4-Dichlorobenzene	106-46-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
2,4-Dichlorophenol	120-83-2	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
2,4-Dimethylphenol	105-67-9	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
2,4-Dinitrophenol	51-28-5	ug/kg	< 810	< 97	NA	< 81	< 83	< 762.974	< 800.384	< 931.098	< 89	< 80	< 762.776	< 100
2,4-Dinitrotoluene	121-14-2	ug/kg	120	< 480	NA	< 410	< 430	< 381	< 400	< 465	< 440	< 400	< 381	< 510
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 480	NA	< 410	< 420	< 381	< 400	< 465	< 440	< 400	< 381	< 510
2-Chloronaphthalene	91-58-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
2-Chlorophenol	95-57-8	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 410	< 48	NA	< 41	< 42	NA	NA	NA	< 44	< 40	NA	< 51
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 381.487	< 400.192	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 810	< 97	NA	< 81	< 83	< 762.974	< 800.384	< 931.098	< 89	< 80	< 762.776	< 100
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 810	< 97	NA	< 81	< 83	< 762.974	< 800.384	< 931.098	< 89	< 80	< 762.776	< 100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-02	H7-4-04	H7-5-01	H7-5-02	H7-6-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft
Collection Date			3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N
Parent Sample			H7-13-051N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 810	< 97	NA	< 81	< 83	NA	NA	NA	< 89	< 80	NA	< 100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 762.974	< 800.384	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Acenaphthylene	208-96-8	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	50
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	70
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	200	58	NA	< 41	66	< 381.487	< 400.192	< 465.549	65	80	< 381.388	270
Benzo[a]pyrene	50-32-8	ug/kg	170	62	NA	< 41	39	< 381.487	< 400.192	< 465.549	69	< 40	< 381.388	310
Benzo[b]fluoranthene	205-99-2	ug/kg	320	99	NA	< 41	86	< 381.487	< 400.192	< 465.549	96	< 40	< 381.388	430
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	250
Benzo[k]fluoranthene	207-08-9	ug/kg	100	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	40	NA	95	< 42	< 381.487	76.8	< 465.549	56	39	< 381.388	210
Butylbenzylphthalate	85-68-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	410	83	NA	< 41	42	< 381.487	< 400.192	< 465.549	80	120	< 381.388	360
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 410	< 48	NA	330	< 42	< 381.487	< 400.192	< 465.549	< 44	230	< 381.388	70
Dimethylphthalate	131-11-3	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Di-n-butylphthalate	84-74-2	ug/kg	230	69	NA	190	< 42	< 381.487	< 400.192	< 465.549	53	39	< 381.388	120
Di-n-octylphthalate	117-84-0	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	84.4	< 465.549	< 44	< 40	< 381.388	< 51
Fluoranthene	206-44-0	ug/kg	340	130	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	150	170	< 381.388	670
Fluorene	86-73-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	36
Hexachlorobenzene	118-74-1	ug/kg	< 410	< 48	NA	< 41	< 42	NA	NA	NA	< 44	< 40	NA	< 51
Hexachlorobutadiene	87-68-3	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Hexachloroethane	67-72-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	210
Isophorone	78-59-1	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-02	H7-4-04	H7-5-01	H7-5-02	H7-6-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft
Collection Date			3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N
Parent Sample			H7-13-051N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Nitrobenzene	98-95-3	ug/kg	NA	< 48	NA	NA	NA	< 381.487	< 400.192	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	74.8	< 465.549	< 44	< 40	< 381.388	< 51
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 410	< 48	NA	660	< 42	NA	NA	< 465.549	< 44	< 40	< 381.388	< 51
Pentachlorophenol	87-86-5	ug/kg	< 810	< 97	NA	< 81	< 83	< 762.974	< 800.384	< 931.098	< 89	< 80	< 762.776	< 100
Phenanthrene	85-01-8	ug/kg	350	98	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	100	120	< 381.388	470
Phenol	108-95-2	ug/kg	< 410	< 48	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	< 44	< 40	< 381.388	< 51
Pyrene	129-00-0	ug/kg	310	160	NA	< 41	< 42	< 381.487	< 400.192	< 465.549	150	140	< 381.388	890
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	< 45	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-02	H7-4-04	H7-5-01	H7-5-02	H7-6-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft
Collection Date			3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N
Parent Sample			H7-13-051N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	< 25	< 25	NA	NA	< 250	< 25	< 25	< 250	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	< 25	< 25	NA	NA	< 250	< 25	< 25	< 250	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	NA	< 25	< 25	NA	NA	< 250	< 25	< 25	< 250	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 25	< 25	NA	NA	< 250	< 25	< 25	< 250	< 24
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	< 50	< 50	NA	NA	< 500	< 50	< 50	< 500	< 48
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	< 50	< 50	NA	NA	< 500	< 50	< 50	< 500	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	< 25	< 25	NA	NA	< 250	< 25	< 25	< 250	< 24
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	< 50	< 50	NA	NA	< 500	< 50	< 50	< 500	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	NA	< 25	< 25	NA	NA	< 250	150	< 25	< 250	< 24
Nitrocellulose	9004-70-0	ug/kg	63400	NA	NA	233000	39100	NA	NA	72900	180000	57600	< 408.467	90400
Nitroglycerin	55-63-0	ug/kg	< 6100	NA	NA	83000	< 580	< 381.487	< 400.192	< 6812.917	< 670	< 600	< 5448.403	< 730
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	< 50	< 50	NA	NA	< 500	< 50	< 50	< 500	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	< 50	< 50	NA	NA	< 500	< 50	< 50	< 500	< 48
Tetryl	479-45-8	ug/kg	< 500	NA	NA	< 50	< 50	NA	NA	< 500	< 50	< 50	< 500	< 48
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	126	< 0.8	NA	< 0.7	< 0.7	< 0.660927	< 0.693334	< 0.576924	< 0.7	0.43	< 0.588234	< 0.8
Arsenic	7440-38-2	mg/kg	59.8	20.3	NA	6.2	6.8	3.02	7.61	4.41	6.8	6.4	3.99	9.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.78	0.65	NA	0.51	0.59	0.572	0.533	1.11	0.85	0.54	0.594	1.3
Cadmium	7440-43-9	mg/kg	< 7.1	< 0.4	NA	< 0.3	0.08	0.127	0.747	0.423	0.13	< 0.3	0.246	< 0.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	42.6	13.8	NA	43.4	87.5	24.2	66.8	16	14.8	12	13.1	21.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	476	21.9	NA	26.3	13.8	14.4	452	11.6	15.5	16.1	16.3	26.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	53100	104	NA	28.4	8.5	7.2	47.2	58.1	77	39	28	97.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	4.9	0.52	NA	0.06	0.05	0.028	1.48	0.177	0.53	0.82	1.09	7.4
Nickel	7440-02-0	mg/kg	52	7.3	NA	7.6	8.8	8.96	12.6	10.2	9.2	7.1	8.66	14.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 11.9	0.66	NA	0.47	0.84	1.08	1.18	1.38	1	0.95	0.483	1.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-02	H7-4-04	H7-5-01	H7-5-02	H7-6-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft
Collection Date			3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000
Sample Type			FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-021N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N
Parent Sample			H7-13-051N											
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	5.4	< 0.4	NA	< 0.3	< 0.3	< 0.330463	0.298	< 0.288462	< 0.3	< 0.3	< 0.294117	0.76
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 23.8	< 1	NA	< 1	0.59	< 1.101545	< 1.155556	< 0.96154	< 1	< 1	< 0.98039	0.86
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	684	55.3	NA	215	133	148	246	188	127	62.2	141	161
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	37500	16100	17600	NA	5070	NA	NA	45800	8670	NA	65000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	18	16.8	9.4	NA	NA	NA	NA	12	3.5	NA	12.3
Gravel	ARC-PGRAVEL	%	NA	19.1	20.6	34.9	NA	NA	NA	NA	9.3	39.1	NA	10.4
Sand	ARC-PSAND	%	NA	23.9	26.6	41	NA	NA	NA	NA	37.7	42.8	NA	30.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	85.4	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	67.5	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	27.5	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	74.2	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	46.9	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	31.2	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	58.4	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	36.9	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	39	36	14.8	NA	NA	NA	NA	41.1	14.6	NA	46.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-606L-01	H7-642B-03	H7-8123A-03	H7-8123A-05	H7-8124-01	H7-8131-04	H7-8131-04	H7-8131-06	H7-8134-02	H7-8134-04	H7-8142-05
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			3/28/2000	4/18/2000	4/4/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	6/21/2000	7/19/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			H7-606L-011N	H7-642B-032N	H7-8123A-032N	H7-8123A-051N	H7-8124-011N	H7-8131-041N	H7-8131-041FD	H7-8131-062N	H7-8134-021.5N	H7-8134-041.25N	H7-8142-051N
Parent Sample									H7-8131-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-606L-01	H7-642B-03	H7-8123A-03	H7-8123A-05	H7-8124-01	H7-8131-04	H7-8131-04	H7-8131-06	H7-8134-02	H7-8134-04	H7-8142-05
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			3/28/2000	4/18/2000	4/4/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	6/21/2000	7/19/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			H7-606L-011N	H7-642B-032N	H7-8123A-032N	H7-8123A-051N	H7-8124-011N	H7-8131-041N	H7-8131-041FD	H7-8131-062N	H7-8134-021.5N	H7-8134-041.25N	H7-8142-051N
Parent Sample									H7-8131-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	< 83	< 84	< 91	3200	< 83	< 70	< 710	< 88	< 810	< 849.256	< 790
2,4-Dinitrotoluene	121-14-2	ug/kg	47	< 420	< 460	< 6000	< 420	47	< 350	< 440	< 4100	< 424	< 4000
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 420	< 460	< 6000	< 420	< 350	< 350	< 440	< 4100	< 424	< 4000
2-Chloronaphthalene	91-58-7	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
2-Chlorophenol	95-57-8	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	NA	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 424.628	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 83	< 84	< 91	< 1200	< 83	< 70	< 710	< 88	< 810	< 849.256	< 790
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 83	< 84	< 91	< 1200	< 83	< 70	< 710	< 88	< 810	< 849.256	< 790
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H7-606L-01 0.0-1.0 ft 3/28/2000 N H7-606L-011N	H7-642B-03 0.0-2.0 ft 4/18/2000 N H7-642B-032N	H7-8123A-03 0.0-2.0 ft 4/4/2000 N H7-8123A-032N	H7-8123A-05 0.0-1.0 ft 4/4/2000 N H7-8123A-051N	H7-8124-01 0.0-1.0 ft 4/4/2000 N H7-8124-011N	H7-8131-04 0.0-1.0 ft 3/30/2000 N H7-8131-041N	H7-8131-04 0.0-1.0 ft 3/30/2000 FD H7-8131-041FD H7-8131-041N	H7-8131-06 0.0-2.0 ft 3/30/2000 N H7-8131-062N	H7-8134-02 0.0-1.5 ft 3/28/2000 N H7-8134-021.5N	H7-8134-04 0.0-1.3 ft 6/21/2000 N H7-8134-041.25N	H7-8142-05 0.0-1.0 ft 7/19/2000 N H7-8142-051N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 83	< 84	< 91	< 1200	< 83	< 70	< 710	< 88	< 810	NA	< 790
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 849.256	NA
Acenaphthene	83-32-9	ug/kg	22	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Acenaphthylene	208-96-8	ug/kg	140	< 42	< 46	1200	18	< 35	< 350	< 44	< 410	< 424.628	< 400
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	140	< 42	< 46	1500	40	< 35	< 350	< 44	< 410	< 424.628	< 400
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	880	41	38	7000	200	34	28	< 44	< 410	82	330
Benzo[a]pyrene	50-32-8	ug/kg	1700	27	26	5600	130	34	36	< 44	< 410	< 424.628	370
Benzo[b]fluoranthene	205-99-2	ug/kg	4800	< 42	< 46	11000	130	< 35	56	< 44	< 410	134	< 400
Benzo[g,h,i]perylene	191-24-2	ug/kg	1100	< 42	< 46	3300	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Benzo[k]fluoranthene	207-08-9	ug/kg	1400	< 42	< 46	4100	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	33	46	26	690	34	45	6300	32	< 410	109	8100
Butylbenzylphthalate	85-68-7	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	1400	< 42	54	5700	200	45	48	< 44	< 410	100	390
Dibenzo[a,h]anthracene	53-70-3	ug/kg	420	< 42	< 46	1400	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	190	< 44	2100	211	< 400
Dimethylphthalate	131-11-3	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Di-n-butylphthalate	84-74-2	ug/kg	170	< 42	< 46	1000	< 42	190	2200	44	16000	< 424.628	18000
Di-n-octylphthalate	117-84-0	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	110	< 44	< 410	< 424.628	< 400
Fluoranthene	206-44-0	ug/kg	550	89	< 46	15000	300	68	< 350	< 44	< 410	169	780
Fluorene	86-73-7	ug/kg	< 42	< 42	< 46	< 600	50	< 35	< 350	< 44	< 410	< 424.628	< 400
Hexachlorobenzene	118-74-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	NA	< 400
Hexachlorobutadiene	87-68-3	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Hexachloroethane	67-72-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	1200	< 42	< 46	3800	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Isophorone	78-59-1	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-606L-01	H7-642B-03	H7-8123A-03	H7-8123A-05	H7-8124-01	H7-8131-04	H7-8131-04	H7-8131-06	H7-8134-02	H7-8134-04	H7-8142-05
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			3/28/2000	4/18/2000	4/4/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	6/21/2000	7/19/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			H7-606L-011N	H7-642B-032N	H7-8123A-032N	H7-8123A-051N	H7-8124-011N	H7-8131-041N	H7-8131-041FD	H7-8131-062N	H7-8134-021.5N	H7-8134-041.25N	H7-8142-051N
Parent Sample									H7-8131-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	92	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 42	NA	NA	NA	< 410	< 424.628	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	1400	187	4800
Pentachlorophenol	87-86-5	ug/kg	< 83	< 84	< 91	< 1200	< 83	< 70	< 710	< 88	< 810	< 849.256	< 790
Phenanthrene	85-01-8	ug/kg	270	60	32	4200	440	53	30	< 44	< 410	101	470
Phenol	108-95-2	ug/kg	< 42	< 42	< 46	< 600	< 42	< 35	< 350	< 44	< 410	< 424.628	< 400
Pyrene	129-00-0	ug/kg	580	< 42	< 46	7200	430	< 35	110	< 44	< 410	122	< 400
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H7-606L-01 0.0-1.0 ft 3/28/2000 N H7-606L-011N	H7-642B-03 0.0-2.0 ft 4/18/2000 N H7-642B-032N	H7-8123A-03 0.0-2.0 ft 4/4/2000 N H7-8123A-032N	H7-8123A-05 0.0-1.0 ft 4/4/2000 N H7-8123A-051N	H7-8124-01 0.0-1.0 ft 4/4/2000 N H7-8124-011N	H7-8131-04 0.0-1.0 ft 3/30/2000 N H7-8131-041N	H7-8131-04 0.0-1.0 ft 3/30/2000 FD H7-8131-041FD H7-8131-041N	H7-8131-06 0.0-2.0 ft 3/30/2000 N H7-8131-062N	H7-8134-02 0.0-1.5 ft 3/28/2000 N H7-8134-021.5N	H7-8134-04 0.0-1.3 ft 6/21/2000 N H7-8134-041.25N	H7-8142-05 0.0-1.0 ft 7/19/2000 N H7-8142-051N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	< 25	< 25	< 25	NA	< 25	< 250	< 25	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	< 25	< 25	< 25	NA	< 25	< 250	< 25	NA	NA	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 24	< 25	< 25	< 25	NA	< 25	250	< 25	NA	NA	2200
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	< 25	< 25	< 25	NA	< 25	< 250	< 25	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 48	< 50	< 50	< 50	NA	< 50	< 500	< 50	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 48	< 50	< 50	< 50	NA	< 50	< 500	< 50	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	< 25	< 25	< 25	NA	< 25	< 250	< 25	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 48	< 50	< 50	< 50	NA	< 50	< 500	< 50	NA	NA	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 24	< 25	< 25	260	NA	< 25	< 250	< 25	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	46700	< 22000	70900	3870000	NA	2630000	239000	< 40000	NA	NA	7510000
Nitroglycerin	55-63-0	ug/kg	< 630	< 630	< 680	2400	NA	< 520	14000	< 660	NA	NA	150000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 48	< 50	< 50	< 50	NA	1400	67000	< 50	NA	NA	110000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 48	< 50	< 50	< 50	NA	4900	2300	< 50	NA	NA	10000
Tetryl	479-45-8	ug/kg	< 48	< 50	< 50	< 50	NA	< 50	< 500	< 50	NA	NA	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.7	< 0.7	2.9	< 0.7	< 0.5	< 0.59	< 0.7	< 0.6	< 0.550458	< 0.7
Arsenic	7440-38-2	mg/kg	20	3.1	6.3	6.2	6.3	3.1	2.3	3.9	8.1	5.81	4.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.56	0.6	0.57	0.3	0.69	0.25	0.22	0.64	0.57	0.486	0.47
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.3	1.6	6.6	0.1	< 0.2	< 0.29	< 0.3	< 0.3	0.471	0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.4	14.5	14.5	39.6	21.6	7.3	11.7	15.7	13.7	12.1	43.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	22.8	7.6	33.4	595	17.7	18.5	23.2	1720	< 0.5	38.1	47.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	29.6	10.5	500	44000	65.8	48.7	46.9	157	309	56.4	248
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.23	0.11	0.77	324	1.4	0.09	0.14	0.11	2.5	2	82.7
Nickel	7440-02-0	mg/kg	9	8.1	7.2	33.6	8.1	5.2	7.9	7.6	9.6	8.07	29.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.3	0.65	1	16	0.69	< 0.4	< 0.51	0.48	1.2	0.733	0.75

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-606L-01	H7-642B-03	H7-8123A-03	H7-8123A-05	H7-8124-01	H7-8131-04	H7-8131-04	H7-8131-06	H7-8134-02	H7-8134-04	H7-8142-05
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			3/28/2000	4/18/2000	4/4/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	6/21/2000	7/19/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			H7-606L-011N	H7-642B-032N	H7-8123A-032N	H7-8123A-051N	H7-8124-011N	H7-8131-041N	H7-8131-041FD	H7-8131-062N	H7-8134-021.5N	H7-8134-041.25N	H7-8142-051N
Parent Sample									H7-8131-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	26.2	< 0.3	< 0.2	< 0.29	0.37	< 0.3	< 0.275229	7.5
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.1	< 1	< 1	< 1	< 1	< 0.9	< 0.98	< 1	< 1	< 0.91743	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	68.3	49.1	284	681	68.1	55.9	54.4	64.2	87.6	84	229
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	4360	12000	34600	NA	14700	20800	NA	NA	32700	NA	44400
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	7.3	19.6	12.4	NA	6.1	1.1	NA	NA	6	NA	6
Gravel	ARC-PGRAVEL	%	47	14	27.9	NA	28.1	74.5	NA	NA	38.9	NA	49.8
Sand	ARC-PSAND	%	28.8	28.8	23.6	NA	42.3	22.8	NA	NA	39.3	NA	38.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	17	37.5	36	NA	23.5	1.3	NA	NA	15.9	NA	5.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H7-8143-03 0.0-1.3 ft 6/21/2000 N H7-8143-031.25N	H7-8143-04 0.0-2.0 ft 3/30/2000 N H7-8143-042N	H7-8144-01 0.0-1.0 ft 6/21/2000 N H7-8144-011N	H7-8144-05 0.0-1.5 ft 3/30/2000 N H7-8144-051.5N	H7-8145-01 0.0-2.0 ft 3/30/2000 N H7-8145-012N	H7-8145-03 0.0-1.5 ft 3/30/2000 N H7-8145-031.5N	H7-8146-03 0.0-1.5 ft 3/30/2000 N H7-8146-031.5N	H7-8146-04 0.0-1.5 ft 6/21/2000 N H7-8146-041.5N	H7-8176-01 0.0-1.5 ft 4/4/2000 FD H7-8176-011.5FD H7-8176-011.5N	H7-8176-01 0.0-1.5 ft 6/16/2000 N H7-8176-011.5N	H7-8176-02 0.0-2.0 ft 6/21/2000 N H7-8176-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8143-03	H7-8143-04	H7-8144-01	H7-8144-05	H7-8145-01	H7-8145-03	H7-8146-03	H7-8146-04	H7-8176-01	H7-8176-01	H7-8176-02
Depths			0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/21/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	4/4/2000	6/16/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			H7-8143-031.25N	H7-8143-042N	H7-8144-011N	H7-8144-051.5N	H7-8145-012N	H7-8145-031.5N	H7-8146-031.5N	H7-8146-041.5N	H7-8176-011.5FD	H7-8176-011.5N	H7-8176-022N
Parent Sample											H7-8176-011.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
1,2-Dichlorobenzene	95-50-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
1,4-Dichlorobenzene	106-46-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
2,4-Dichlorophenol	120-83-2	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
2,4-Dimethylphenol	105-67-9	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
2,4-Dinitrophenol	51-28-5	ug/kg	< 8795.074	< 83	NA	NA	< 80	< 79	< 91	< 845.742	< 930	< 94	< 792.706
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4397	< 420	NA	NA	< 400	< 400	< 460	< 422	< 460	< 470	< 396
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4397	< 420	NA	NA	< 400	< 400	< 460	< 422	< 460	< 470	< 396
2-Chloronaphthalene	91-58-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
2-Chlorophenol	95-57-8	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 42	NA	NA	< 40	< 40	< 46	NA	< 460	< 47	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 422.871	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 8795.074	< 83	NA	NA	< 80	< 79	< 91	< 845.742	< 930	< 94	< 792.706
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 8795.074	< 83	NA	NA	< 80	< 79	< 91	< 845.742	< 930	< 94	< 792.706
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 40	< 422.871	< 460	< 47	< 396.353

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8143-03	H7-8143-04	H7-8144-01	H7-8144-05	H7-8145-01	H7-8145-03	H7-8146-03	H7-8146-04	H7-8176-01	H7-8176-01	H7-8176-02
Depths			0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/21/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	4/4/2000	6/16/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			H7-8143-031.25N	H7-8143-042N	H7-8144-011N	H7-8144-051.5N	H7-8145-012N	H7-8145-031.5N	H7-8146-031.5N	H7-8146-041.5N	H7-8176-011.5FD	H7-8176-011.5N	H7-8176-022N
Parent Sample											H7-8176-011.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 83	NA	NA	< 80	< 79	< 91	NA	< 930	< 94	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 845.742	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	207	60	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Acenaphthylene	208-96-8	ug/kg	< 4397.537	38	NA	NA	< 40	< 40	< 46	< 422.871	80	< 47	< 396.353
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	756	170	NA	NA	< 40	< 40	< 46	< 422.871	57	< 47	< 396.353
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1930	540	NA	NA	57	130	< 46	< 422.871	260	< 47	< 396.353
Benzo[a]pyrene	50-32-8	ug/kg	1620	570	NA	NA	67	170	34	< 422.871	280	< 47	< 396.353
Benzo[b]fluoranthene	205-99-2	ug/kg	1970	850	NA	NA	100	220	< 46	< 422.871	390	< 47	< 396.353
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 4397.537	410	NA	NA	< 40	140	< 46	< 422.871	280	< 47	< 396.353
Benzo[k]fluoranthene	207-08-9	ug/kg	< 4397.537	290	NA	NA	< 40	120	< 46	< 422.871	< 460	< 47	< 396.353
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	95	51	23	87	< 47	< 396.353
Butylbenzylphthalate	85-68-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	100	< 47	< 396.353
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	1910	600	NA	NA	73	170	< 46	< 422.871	310	< 47	< 396.353
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 4397.537	120	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 4397.537	< 42	NA	NA	540	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Dimethylphthalate	131-11-3	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Di-n-butylphthalate	84-74-2	ug/kg	< 4397.537	< 42	NA	NA	< 40	500	150	< 422.871	130	< 47	< 396.353
Di-n-octylphthalate	117-84-0	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Fluoranthene	206-44-0	ug/kg	3740	1200	NA	NA	150	380	< 46	< 422.871	470	< 47	< 396.353
Fluorene	86-73-7	ug/kg	< 4397.537	62	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Hexachlorobenzene	118-74-1	ug/kg	NA	< 42	NA	NA	< 40	< 40	< 46	NA	< 460	< 47	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Hexachloroethane	67-72-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 4397.537	370	NA	NA	< 40	110	< 46	< 422.871	230	< 47	< 396.353
Isophorone	78-59-1	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8143-03	H7-8143-04	H7-8144-01	H7-8144-05	H7-8145-01	H7-8145-03	H7-8146-03	H7-8146-04	H7-8176-01	H7-8176-01	H7-8176-02
Depths			0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/21/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	4/4/2000	6/16/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			H7-8143-031.25N	H7-8143-042N	H7-8144-011N	H7-8144-051.5N	H7-8145-012N	H7-8145-031.5N	H7-8146-031.5N	H7-8146-041.5N	H7-8176-011.5FD	H7-8176-011.5N	H7-8176-022N
Parent Sample											H7-8176-011.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 46	< 422.871	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
N-Nitrosodiphenylamine	86-30-6	ug/kg	5940	12000	NA	NA	99	230	< 46	< 422.871	< 460	140	< 396.353
Pentachlorophenol	87-86-5	ug/kg	< 8795.074	< 83	NA	NA	< 80	< 79	< 91	< 845.742	< 930	< 94	< 792.706
Phenanthrene	85-01-8	ug/kg	2770	760	NA	NA	65	180	49	< 422.871	220	< 47	< 396.353
Phenol	108-95-2	ug/kg	< 4397.537	< 42	NA	NA	< 40	< 40	< 46	< 422.871	< 460	< 47	< 396.353
Pyrene	129-00-0	ug/kg	2960	1000	NA	NA	< 40	310	< 46	< 422.871	440	< 47	< 396.353
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8143-03	H7-8143-04	H7-8144-01	H7-8144-05	H7-8145-01	H7-8145-03	H7-8146-03	H7-8146-04	H7-8176-01	H7-8176-01	H7-8176-02
Depths			0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/21/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	4/4/2000	6/16/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			H7-8143-031.25N	H7-8143-042N	H7-8144-011N	H7-8144-051.5N	H7-8145-012N	H7-8145-031.5N	H7-8146-031.5N	H7-8146-041.5N	H7-8176-011.5FD	H7-8176-011.5N	H7-8176-022N
Parent Sample											H7-8176-011.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 25	< 238.1	< 25	< 24	< 25	NA	NA	< 250	< 248	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 25	< 238.1	< 25	< 24	< 25	NA	NA	< 250	< 248	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 25	< 238.1	< 25	< 24	< 25	NA	NA	< 250	< 248	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 238	< 250	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 25	< 238.1	< 25	< 24	< 25	NA	NA	< 250	< 248	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 50	< 476.2	< 50	< 48	< 50	NA	NA	< 500	< 495	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 50	< 476.2	< 50	< 48	< 50	NA	NA	< 500	< 495	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 25	< 238.1	660	< 24	< 25	NA	NA	< 250	< 248	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 50	< 476.2	< 50	< 48	< 50	NA	NA	< 500	< 495	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 25	< 238.1	< 25	< 24	< 25	NA	NA	< 250	< 248	< 250
Nitrocellulose	9004-70-0	ug/kg	140000	41700	96200	183000	137000	3500000	NA	NA	107000	145000	< 424.495
Nitroglycerin	55-63-0	ug/kg	5740	50000	6020	5500	9800	52000	NA	NA	< 7000	< 7000	< 5800.295
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 50	1410	7100	350	8500000	NA	NA	< 500	6580	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 50	4030	9300	2500	2800	NA	NA	< 500	< 495	< 500
Tetryl	479-45-8	ug/kg	< 500	< 50	< 476.2	< 50	< 48	< 50	NA	NA	< 500	< 495	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.22	< 0.7	NA	NA	< 0.6	< 0.6	< 0.8	< 0.576924	< 0.83	< 0.8	< 0.560748
Arsenic	7440-38-2	mg/kg	7.25	6.4	NA	NA	6.1	5.9	6.4	3.39	5.8	8.1	3.13
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.747	0.75	NA	NA	0.84	0.81	0.93	0.824	0.33	0.35	0.786
Cadmium	7440-43-9	mg/kg	1.93	0.36	NA	NA	< 0.3	< 0.3	< 0.4	0.319	< 0.41	< 0.4	1.18
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	50.7	17.1	NA	NA	19.2	19.6	17	17.1	11.4	12.3	10.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	389	238	NA	NA	52.3	103	23.6	35.2	19.6	22	14.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	197	123	NA	NA	94.8	149	69.8	27.8	24.7	34.3	12.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.4	0.44	NA	NA	0.2	0.4	0.27	0.598	0.22	0.08	0.183
Nickel	7440-02-0	mg/kg	18.5	10.6	NA	NA	8.3	11.8	9.5	9.06	5	5.6	5.71
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.13	1	NA	NA	0.98	0.54	0.98	0.957	0.51	0.57	< 0.46729

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8143-03	H7-8143-04	H7-8144-01	H7-8144-05	H7-8145-01	H7-8145-03	H7-8146-03	H7-8146-04	H7-8176-01	H7-8176-01	H7-8176-02
Depths			0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			6/21/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	4/4/2000	6/16/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			H7-8143-031.25N	H7-8143-042N	H7-8144-011N	H7-8144-051.5N	H7-8145-012N	H7-8145-031.5N	H7-8146-031.5N	H7-8146-041.5N	H7-8176-011.5FD	H7-8176-011.5N	H7-8176-022N
Parent Sample											H7-8176-011.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.373	< 0.3	NA	NA	< 0.3	< 0.3	< 0.4	< 0.288462	< 0.41	< 0.4	< 0.280374
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	NA	NA	< 1	< 1	< 1	< 0.96154	< 1.4	< 1	< 0.93458
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	330	211	NA	NA	197	309	169	108	40.3	44.2	57.9
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	23600	NA	9670	19700	NA	31400	NA	NA	40500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	4.1	NA	1	6.3	NA	12.7	NA	NA	4.8	NA
Gravel	ARC-PGRAVEL	%	NA	53.7	NA	49.8	47.3	NA	16.6	NA	NA	33.4	NA
Sand	ARC-PSAND	%	NA	26.3	NA	48.6	27.8	NA	27.9	NA	NA	28.5	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	15.9	NA	0.6	18.6	NA	42.7	NA	NA	33.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			6/21/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000
Sample Type			FD	N	FD	N	FD	N	N	N	FD	N	N
Sample Name			H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N
Parent Sample			H7-8176-022N		H7-8248-021N		H7-8248-020.5N				H7-8255-021N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 558	< 631	NA	< 517	NA	NA	< 579	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 558	< 631	NA	< 517	NA	NA	< 579	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 558	< 631	NA	< 517	NA	NA	< 579	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 558	< 631	NA	< 517	NA	NA	< 579	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 111	< 1263	NA	< 103	NA	NA	< 115	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 223	< 2525	NA	< 206	NA	NA	< 231	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	907	< 1263	NA	220	NA	NA	< 115	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 111	< 1263	NA	< 103	NA	NA	< 115	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 55	< 631	NA	141	NA	NA	< 57	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	1411	< 1263	NA	315	NA	NA	< 115	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 558	< 631	NA	< 517	NA	NA	< 579	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			6/21/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000
Sample Type			FD	N	FD	N	FD	N	N	N	FD	N	N
Sample Name			H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N
Parent Sample			H7-8176-022N		H7-8248-021N		H7-8248-020.5N				H7-8255-021N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 55	< 63	NA	< 51	NA	NA	< 57	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 631	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 55	< 631	NA	< 51	NA	NA	< 57	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 113	< 1263	NA	< 103	NA	NA	< 115	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	< 80	< 800	NA	NA	< 81	NA	< 79	< 760	NA	< 861.038
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	< 400	< 400	NA	NA	44	NA	< 400	< 380	NA	< 430
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	< 400	< 400	NA	NA	< 410	NA	< 400	< 380	NA	< 430
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
2-Chlorophenol	95-57-8	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 430.519
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 80	< 800	NA	NA	< 81	NA	< 79	< 760	NA	< 861.038
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	< 80	< 800	NA	NA	< 81	NA	< 79	< 760	NA	< 861.038
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			6/21/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000
Sample Type			FD	N	FD	N	FD	N	N	N	FD	N	N
Sample Name			H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N
Parent Sample			H7-8176-022N		H7-8248-021N		H7-8248-020.5N				H7-8255-021N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 80	< 800	NA	NA	< 81	NA	< 79	< 760	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 861.038
Acenaphthene	83-32-9	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	26	< 380	NA	< 430.519
Acenaphthylene	208-96-8	ug/kg	< 390	< 40	< 400	NA	NA	24	NA	17	< 380	NA	< 430.519
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 390	31	< 400	NA	NA	< 41	NA	180	42	NA	< 430.519
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 390	< 40	190	NA	NA	83	NA	910	250	NA	< 430.519
Benzo[a]pyrene	50-32-8	ug/kg	< 390	< 40	52	NA	NA	87	NA	930	290	NA	< 430.519
Benzo[b]fluoranthene	205-99-2	ug/kg	< 390	78	82	NA	NA	140	NA	1400	480	NA	< 430.519
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	< 40	< 400	NA	NA	96	NA	580	190	NA	< 430.519
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	< 40	< 400	NA	NA	110	NA	470	150	NA	< 430.519
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	63	53	NA	NA	< 41	NA	26	< 380	NA	56
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 390	100	190	NA	NA	140	NA	960	280	NA	< 430.519
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	170	< 380	NA	< 430.519
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 390	< 40	< 400	NA	NA	140	NA	31	< 380	NA	< 430.519
Dimethylphthalate	131-11-3	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Di-n-butylphthalate	84-74-2	ug/kg	< 390	< 40	< 400	NA	NA	910	NA	< 40	< 380	NA	< 430.519
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Fluoranthene	206-44-0	ug/kg	< 390	84	90	NA	NA	230	NA	1900	440	NA	< 430.519
Fluorene	86-73-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	50	< 380	NA	< 430.519
Hexachlorobenzene	118-74-1	ug/kg	NA	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Hexachloroethane	67-72-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	< 40	< 400	NA	NA	77	NA	570	170	NA	< 430.519
Isophorone	78-59-1	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			6/21/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000
Sample Type			FD	N	FD	N	FD	N	N	N	FD	N	N
Sample Name			H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N
Parent Sample			H7-8176-022N		H7-8248-021N		H7-8248-020.5N				H7-8255-021N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Nitrobenzene	98-95-3	ug/kg	NA	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	< 40	< 400	NA	NA	330	NA	< 40	< 380	NA	< 430.519
Pentachlorophenol	87-86-5	ug/kg	< 780	< 80	< 800	NA	NA	< 81	NA	< 79	< 760	NA	< 861.038
Phenanthrene	85-01-8	ug/kg	< 390	180	200	NA	NA	120	NA	830	190	NA	< 430.519
Phenol	108-95-2	ug/kg	< 390	< 40	< 400	NA	NA	< 41	NA	< 40	< 380	NA	< 430.519
Pyrene	129-00-0	ug/kg	< 390	< 40	< 400	NA	NA	160	NA	1400	420	NA	< 430.519
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			6/21/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000
Sample Type			FD	N	FD	N	FD	N	N	N	FD	N	N
Sample Name			H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N
Parent Sample			H7-8176-022N		H7-8248-021N		H7-8248-020.5N				H7-8255-021N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 227	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 227	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 227	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 227	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 227	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 227	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 418	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5850	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.577	< 0.6	< 0.66	NA	NA	< 0.7	NA	< 0.7	< 0.64	NA	< 0.56604
Arsenic	7440-38-2	mg/kg	2.96	9.5	15.6	NA	NA	9.7	NA	5.5	3.5	NA	5.55
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.815	0.61	0.69	NA	NA	0.76	NA	0.69	0.64	NA	0.583
Cadmium	7440-43-9	mg/kg	1.19	< 0.3	< 0.33	NA	NA	< 0.3	NA	2.4	2.4	NA	0.435
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.1	38.1	41.7	NA	NA	49	NA	1010	811	NA	19.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.9	15	19.8	NA	NA	34.8	NA	23.7	20	NA	23.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	11.5	55.8	67.5	NA	NA	136	NA	2160	2540	NA	43.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.167	3.9	5.7	NA	NA	1.5	NA	55.5	59.5	NA	0.408
Nickel	7440-02-0	mg/kg	5.99	15.9	16.9	NA	NA	14.2	NA	11.8	9.4	NA	9.29
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.785	0.62	2.3	NA	NA	0.5	NA	0.57	0.68	NA	0.777

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			6/21/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000
Sample Type			FD	N	FD	N	FD	N	N	N	FD	N	N
Sample Name			H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N
Parent Sample			H7-8176-022N		H7-8248-021N		H7-8248-020.5N				H7-8255-021N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.288	< 0.3	< 0.33	NA	NA	< 0.3	NA	0.29	0.27	NA	< 0.28302
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.962	< 1	< 1.1	NA	NA	< 1	NA	< 1	< 1.1	NA	< 0.9434
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	61.7	102	115	NA	NA	570	NA	1150	1060	NA	72.4
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	12400	NA	NA	NA	53500	NA	46900	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	4.3	NA	NA	NA	2.2	NA	4.3	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	45.2	NA	NA	NA	61.6	NA	55.5	NA	NA	NA
Sand	ARC-PSAND	%	NA	37.2	NA	NA	NA	30.7	NA	33	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	13.4	NA	NA	NA	5.5	NA	7.1	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H7-8282-03 0.0-1.0 ft 3/30/2000 N H7-8282-031N	H7-9-04 0.0-1.0 ft 3/28/2000 N H7-9-041N	H7-916-01 0.0-1.5 ft 3/30/2000 N H7-916-011.5N	H7-916-01 0.5-1.0 ft 3/30/2000 N H7-916-010.5N	H8-2-03 0.0-1.0 ft 3/28/2000 N H8-2-031N	H8-2171-01 0.0-1.0 ft 4/18/2000 N H8-2171-011N	H8-2171-03 0.0-2.0 ft 4/18/2000 N H8-2171-032N	H8-2171-05 0.0-1.3 ft 3/23/1999 N H8-2171-051.25N	H8-2181-01 0.0-1.0 ft 6/2/2000 N H8-2181-011N	H8-2181-05 0.0-1.5 ft 6/2/2000 N H8-2181-051.5N	H8-2291-02 0.0-1.3 ft 4/18/2000 N H8-2291-021.25N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 110	NA	NA	NA	< 1200	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 220	NA	NA	NA	< 2500	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 110	NA	NA	NA	< 1200	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 110	NA	NA	NA	< 1200	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	230	NA	NA	NA	< 620	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	< 110	NA	NA	NA	< 1200	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	< 56	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 620	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H7-8282-03 0.0-1.0 ft 3/30/2000 N H7-8282-031N	H7-9-04 0.0-1.0 ft 3/28/2000 N H7-9-041N	H7-916-01 0.0-1.5 ft 3/30/2000 N H7-916-011.5N	H7-916-01 0.5-1.0 ft 3/30/2000 N H7-916-010.5N	H8-2-03 0.0-1.0 ft 3/28/2000 N H8-2-031N	H8-2171-01 0.0-1.0 ft 4/18/2000 N H8-2171-011N	H8-2171-03 0.0-2.0 ft 4/18/2000 N H8-2171-032N	H8-2171-05 0.0-1.3 ft 3/23/1999 N H8-2171-051.25N	H8-2181-01 0.0-1.0 ft 6/2/2000 N H8-2181-011N	H8-2181-05 0.0-1.5 ft 6/2/2000 N H8-2181-051.5N	H8-2291-02 0.0-1.3 ft 4/18/2000 N H8-2291-021.25N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	1100	NA	NA	NA	280	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 56	NA	NA	NA	< 620	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 110	NA	NA	NA	< 1200	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
1,2-Dichlorobenzene	95-50-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
1,4-Dichlorobenzene	106-46-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2,4-Dichlorophenol	120-83-2	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2,4-Dimethylphenol	105-67-9	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2,4-Dinitrophenol	51-28-5	ug/kg	< 91	< 82	< 78	NA	< 77	< 89	< 89	< 1800	< 735	< 873	< 90
2,4-Dinitrotoluene	121-14-2	ug/kg	< 460	120	< 390	NA	190	< 440	< 440	< 370	< 368	< 437	< 450
2,6-Dinitrotoluene	606-20-2	ug/kg	< 460	37	< 390	NA	< 380	< 440	< 440	< 370	< 368	< 437	< 450
2-Chloronaphthalene	91-58-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2-Chlorophenol	95-57-8	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 91	< 82	< 78	NA	< 77	< 89	< 89	< 740	< 735	< 873	< 90
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 91	< 82	< 78	NA	< 77	< 89	< 89	< 1800	< 735	< 873	< 90
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-2171-01	H8-2171-03	H8-2171-05	H8-2181-01	H8-2181-05	H8-2291-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	4/18/2000	4/18/2000	3/23/1999	6/2/2000	6/2/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-2171-011N	H8-2171-032N	H8-2171-051.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-021.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 91	< 82	< 78	NA	< 77	< 89	< 89	< 1800	< 735	< 873	< 90
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Acenaphthylene	208-96-8	ug/kg	< 46	< 41	32	NA	59	< 44	< 44	< 370	< 368	< 437	< 45
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 46	44	90	NA	54	< 44	< 44	< 370	< 368	< 437	< 45
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	42	98	780	NA	190	< 44	< 44	260	34.6	< 437	< 45
Benzo[a]pyrene	50-32-8	ug/kg	42	91	600	NA	180	< 44	< 44	260	< 368	< 437	< 45
Benzo[b]fluoranthene	205-99-2	ug/kg	< 46	150	1000	NA	580	< 44	< 44	490	< 368	< 437	< 45
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 46	< 41	290	NA	150	< 44	< 44	150	< 368	< 437	< 45
Benzo[k]fluoranthene	207-08-9	ug/kg	< 46	< 41	400	NA	240	< 44	< 44	160	< 368	< 437	< 45
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	50	41	< 39	NA	38	37	38	< 370	< 368	< 437	27
Butylbenzylphthalate	85-68-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	47	160	630	NA	370	< 44	< 44	270	< 368	< 437	< 45
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 46	< 41	100	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 46	120	47	NA	25	320	< 44	< 370	< 368	< 437	100
Dimethylphthalate	131-11-3	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Di-n-butylphthalate	84-74-2	ug/kg	70	95	< 39	NA	150	< 44	< 44	< 370	< 368	< 437	67
Di-n-octylphthalate	117-84-0	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Fluoranthene	206-44-0	ug/kg	82	170	1600	NA	490	< 44	< 44	78	< 368	< 437	< 45
Fluorene	86-73-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Hexachlorobenzene	118-74-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Hexachlorobutadiene	87-68-3	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Hexachloroethane	67-72-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 46	< 41	270	NA	160	< 44	< 44	120	< 368	< 437	< 45
Isophorone	78-59-1	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-2171-01	H8-2171-03	H8-2171-05	H8-2181-01	H8-2181-05	H8-2291-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	4/18/2000	4/18/2000	3/23/1999	6/2/2000	6/2/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-2171-011N	H8-2171-032N	H8-2171-051.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-021.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 46	53	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Nitrobenzene	98-95-3	ug/kg	< 46	NA	< 39	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 46	360	< 39	NA	120	< 44	< 44	58	< 368	< 437	< 45
Pentachlorophenol	87-86-5	ug/kg	< 91	< 82	< 78	NA	< 77	< 89	< 89	< 1800	< 735	< 873	< 90
Phenanthrene	85-01-8	ug/kg	56	200	340	NA	95	< 44	< 44	< 370	< 368	< 437	< 45
Phenol	108-95-2	ug/kg	< 46	< 41	< 39	NA	< 38	< 44	< 44	< 370	< 368	< 437	< 45
Pyrene	129-00-0	ug/kg	< 46	180	1300	NA	460	< 44	< 44	160	< 368	< 437	< 45
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 190	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 37	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 37	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-2171-01	H8-2171-03	H8-2171-05	H8-2181-01	H8-2181-05	H8-2291-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	4/18/2000	4/18/2000	3/23/1999	6/2/2000	6/2/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-2171-011N	H8-2171-032N	H8-2171-051.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-021.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	NA	NA	< 25	< 25	< 22	< 250	< 250	< 238	< 23
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	NA	NA	< 25	< 25	< 22	< 250	< 250	< 238	< 23
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	NA	NA	< 25	< 25	< 22	< 250	< 250	< 238	< 23
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	NA	NA	< 25	< 25	< 22	< 250	< 250	< 238	< 23
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	NA	NA	< 50	< 50	< 43	< 500	< 500	< 476	< 45
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	NA	NA	< 50	< 50	< 43	< 500	< 500	< 476	< 45
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	NA	NA	< 25	< 25	< 23	< 250	< 250	< 238	< 23
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	NA	NA	< 50	< 50	< 43	< 500	< 250	< 238	< 45
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 476	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	NA	NA	< 25	< 25	< 23	< 250	< 250	< 238	< 23
Nitrocellulose	9004-70-0	ug/kg	NA	1350000	NA	NA	48000	< 40000	< 43000	< 30200	NA	NA	< 45000
Nitroglycerin	55-63-0	ug/kg	NA	< 600	NA	NA	< 570	< 650	< 670	< 640	NA	NA	< 680
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	NA	NA	< 50	< 50	< 43	< 500	< 500	< 476	< 45
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	NA	NA	< 50	< 50	< 43	< 500	< 500	< 476	< 45
Tetryl	479-45-8	ug/kg	NA	< 50	NA	NA	< 50	< 50	< 43	< 500	< 500	< 476	< 45
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	8410	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.6	NA	NA	0.41	< 0.7	< 0.6	< 0.92	< 0.642	< 0.75	< 0.6
Arsenic	7440-38-2	mg/kg	9.6	17.2	NA	NA	106	4.5	4.6	2.7	6.91	6.98	4.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	50.6	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.76	0.57	NA	NA	0.36	0.79	0.67	0.83	0.637	0.544	0.76
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.3	NA	NA	< 0.3	0.24	0.36	< 0.55	0.456	0.328	0.15
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	2430	NA	NA	NA
Chromium	7440-47-3	mg/kg	16.5	27	NA	NA	29	18.6	19.6	11.1	20	17.1	17.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	6	NA	NA	NA
Copper	7440-50-8	mg/kg	21.1	35.6	NA	NA	15.6	10.1	28	14.1	32.1	53	25.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	20700	NA	NA	NA
Lead	7439-92-1	mg/kg	49.8	128	NA	NA	58.4	16.5	51.3	27.4	194	49.2	37.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	1910	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	307	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.88	7.4	NA	NA	0.04	0.14	0.09	0.05	1.68	0.217	0.07
Nickel	7440-02-0	mg/kg	8.4	11.8	NA	NA	5.6	9	11.7	6.4	11	26.8	8.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	547	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.73	1.3	NA	NA	0.7	0.91	0.57	< 0.92	0.776	1.95	0.68

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-2171-01	H8-2171-03	H8-2171-05	H8-2181-01	H8-2181-05	H8-2291-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	4/18/2000	4/18/2000	3/23/1999	6/2/2000	6/2/2000	4/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-2171-011N	H8-2171-032N	H8-2171-051.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-021.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	NA	NA	< 0.3	< 0.3	< 0.3	< 0.55	0.076	< 0.375	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 183	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	1.1	NA	NA	0.85	< 1	< 1	< 1.8	1.15	< 1.25	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	26.4	NA	NA	NA
Zinc	7440-66-6	mg/kg	82.4	172	NA	NA	166	158	158	49.2	329	64.9	132
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	7.73	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	25900	13700	19100	NA	8370	NA	32000	NA	NA	33300	29500
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 4760	< 4900	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	18.9	4.2	8.9	NA	3.2	NA	19.1	NA	NA	NA	25.9
Gravel	ARC-PGRAVEL	%	18.7	45.7	25	NA	44.6	NA	16.3	NA	NA	NA	3.5
Sand	ARC-PSAND	%	24	33.8	51.6	NA	41.2	NA	24.7	NA	NA	NA	22.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	96.6	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	90.2	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.6	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	94.3	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	47.6	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.6	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	58.6	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	42.5	NA
Silt	ARC-PSILT	%	38.4	16.3	14.5	NA	11.1	NA	39.9	NA	NA	NA	47.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-2291-04	H8-558-03	H8-558-03	H8-558-04	H8-564-02	H8-585-01	H8-585-01	H8-69E-01	H8-69F-01	H8-69F-02	H8-8102-02	H8-8177-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	12/2/1999	12/2/1999	12/1/1999	6/2/2000	9/12/2000	4/6/2000	4/14/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H8-2291-041.5N	H8-558-031.25N	H8-558-031.25FD	H8-558-041N	H8-564-021N	H8-585-010.5N	H8-585-011N	H8-69E-012N	H8-69F-011N	H8-69F-021N	H8-8102-022N	H8-8177-012N
Parent Sample					H8-558-031.25N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	< 1200	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	< 2300	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	< 1200	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	< 1200	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	130	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H8-2291-04 0.0-1.5 ft 7/20/2000 N H8-2291-041.5N	H8-558-03 0.0-1.3 ft 4/20/2000 N H8-558-031.25N	H8-558-03 0.0-1.3 ft 4/20/2000 FD H8-558-031.25FD H8-558-031.25N	H8-558-04 0.0-1.0 ft 7/20/2000 N H8-558-041N	H8-564-02 0.0-1.0 ft 4/20/2000 N H8-564-021N	H8-585-01 0.0-0.5 ft 12/2/1999 N H8-585-010.5N	H8-585-01 0.0-1.0 ft 12/2/1999 N H8-585-011N	H8-69E-01 0.0-2.0 ft 12/1/1999 N H8-69E-012N	H8-69F-01 0.0-1.0 ft 6/2/2000 N H8-69F-011N	H8-69F-02 0.0-1.0 ft 9/12/2000 N H8-69F-021N	H8-8102-02 0.0-2.0 ft 4/6/2000 N H8-8102-022N	H8-8177-01 0.0-2.0 ft 4/14/2000 N H8-8177-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	200	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	< 580	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	930	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	< 1200	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2,4-Dichlorophenol	120-83-2	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	< 768	< 84	< 830	< 801	NA	NA	< 7800	< 2100	< 717	< 717	< 88	< 74
2,4-Dinitrotoluene	121-14-2	ug/kg	< 384	< 420	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 440	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 384	< 420	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 440	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2-Chlorophenol	95-57-8	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 768	< 84	< 830	< 801	NA	NA	< 7800	< 850	< 717	< 717	< 88	< 74
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 768	< 84	< 830	< 801	NA	NA	< 7800	< 2100	< 717	< 717	< 88	< 74
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-2291-04	H8-558-03	H8-558-03	H8-558-04	H8-564-02	H8-585-01	H8-585-01	H8-69E-01	H8-69F-01	H8-69F-02	H8-8102-02	H8-8177-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	12/2/1999	12/2/1999	12/1/1999	6/2/2000	9/12/2000	4/6/2000	4/14/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H8-2291-041.5N	H8-558-031.25N	H8-558-031.25FD	H8-558-041N	H8-564-021N	H8-585-010.5N	H8-585-011N	H8-69E-012N	H8-69F-011N	H8-69F-021N	H8-8102-022N	H8-8177-012N
Parent Sample					H8-558-031.25N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 768	< 84	< 830	< 801	NA	NA	< 7800	< 2100	< 717	< 717	< 88	< 74
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	44	< 359	< 358	< 44	< 37
Acenaphthylene	208-96-8	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	510	53.1	< 358	< 44	< 37
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 384	< 42	< 420	65.3	NA	NA	< 3900	1400	50.6	< 358	< 44	< 37
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 384	98	120	327	NA	NA	< 3900	13000	318	39.4	33	< 37
Benzo[a]pyrene	50-32-8	ug/kg	< 384	99	100	331	NA	NA	220	16000	291	36.6	29	< 37
Benzo[b]fluoranthene	205-99-2	ug/kg	< 384	160	130	465	NA	NA	< 3900	40000	403	< 358	< 44	< 37
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 384	< 42	< 420	228	NA	NA	< 3900	8700	198	< 358	< 44	< 37
Benzo[k]fluoranthene	207-08-9	ug/kg	< 384	< 42	< 420	156	NA	NA	< 3900	12000	134	< 358	< 44	< 37
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	41.5	27	< 420	210	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Butylbenzylphthalate	85-68-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 384	110	120	415	NA	NA	410	15000	311	58.4	< 44	< 37
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	3900	< 359	< 358	< 44	< 37
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 384	< 42	71	489	NA	NA	< 3900	< 430	< 359	< 358	160	< 37
Dimethylphthalate	131-11-3	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Di-n-butylphthalate	84-74-2	ug/kg	< 384	< 42	< 420	264	NA	NA	< 3900	180	< 359	< 358	< 44	< 37
Di-n-octylphthalate	117-84-0	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Fluoranthene	206-44-0	ug/kg	< 384	200	200	816	NA	NA	< 3900	11000	550	114	< 44	< 37
Fluorene	86-73-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	150	< 359	< 358	< 44	< 37
Hexachlorobenzene	118-74-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	NA	< 430	< 359	< 358	< 44	< 37
Hexachlorobutadiene	87-68-3	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Hexachloroethane	67-72-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 384	< 42	< 420	183	NA	NA	< 3900	7600	169	< 358	< 44	< 37
Isophorone	78-59-1	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-2291-04	H8-558-03	H8-558-03	H8-558-04	H8-564-02	H8-585-01	H8-585-01	H8-69E-01	H8-69F-01	H8-69F-02	H8-8102-02	H8-8177-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	12/2/1999	12/2/1999	12/1/1999	6/2/2000	9/12/2000	4/6/2000	4/14/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H8-2291-041.5N	H8-558-031.25N	H8-558-031.25FD	H8-558-041N	H8-564-021N	H8-585-010.5N	H8-585-011N	H8-69E-012N	H8-69F-011N	H8-69F-021N	H8-8102-022N	H8-8177-012N
Parent Sample					H8-558-031.25N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	140	< 359	< 358	< 44	< 37
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 3900	< 430	< 359	< 358	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	NA	< 359	< 358	< 44	< 37
Pentachlorophenol	87-86-5	ug/kg	< 768	< 84	< 830	< 801	NA	NA	< 7800	< 2100	< 717	< 717	< 88	< 74
Phenanthrene	85-01-8	ug/kg	< 384	150	140	484	NA	NA	< 3900	1200	290	72.4	< 44	< 37
Phenol	108-95-2	ug/kg	< 384	< 42	< 420	< 401	NA	NA	< 3900	< 430	< 359	< 358	< 44	< 37
Pyrene	129-00-0	ug/kg	< 384	270	310	999	NA	NA	< 3900	26000	651	93.2	< 44	< 37
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 22	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	82	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	82	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-2291-04	H8-558-03	H8-558-03	H8-558-04	H8-564-02	H8-585-01	H8-585-01	H8-69E-01	H8-69F-01	H8-69F-02	H8-8102-02	H8-8177-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	12/2/1999	12/2/1999	12/1/1999	6/2/2000	9/12/2000	4/6/2000	4/14/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H8-2291-041.5N	H8-558-031.25N	H8-558-031.25FD	H8-558-041N	H8-564-021N	H8-585-010.5N	H8-585-011N	H8-69E-012N	H8-69F-011N	H8-69F-021N	H8-8102-022N	H8-8177-012N
Parent Sample					H8-558-031.25N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 25	< 240	< 238	< 25	NA	NA	NA	NA	NA	< 25	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 25	< 240	< 238	< 25	NA	NA	NA	NA	NA	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 25	< 240	< 238	< 25	NA	NA	NA	NA	NA	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 25	< 240	< 238	< 25	NA	NA	NA	NA	NA	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 50	< 480	< 476	< 50	NA	NA	NA	NA	NA	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 50	< 480	< 476	< 50	NA	NA	NA	NA	NA	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 25	< 240	< 238	< 25	NA	NA	NA	NA	NA	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 50	< 480	< 476	< 50	NA	NA	NA	NA	NA	< 50	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 25	< 240	< 238	< 25	NA	NA	NA	NA	NA	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg	92100	< 38000	64700	< 42.2	< 45000	NA	NA	NA	NA	NA	NA	< 39
Nitroglycerin	55-63-0	ug/kg	< 5780	8400	< 6300	3690	< 670	NA	NA	NA	NA	NA	NA	< 540
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 50	< 480	< 476	< 50	NA	NA	NA	NA	NA	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 50	< 480	< 476	< 50	NA	NA	NA	NA	NA	< 50	< 50
Tetryl	479-45-8	ug/kg	< 500	< 50	< 480	< 476	< 50	NA	NA	NA	NA	NA	< 50	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.788	< 0.7	< 0.71	< 0.668	NA	NA	1.9	< 0.53	< 0.633	< 0.621	0.39	< 0.6
Arsenic	7440-38-2	mg/kg	11.7	4.2	4.5	6.72	NA	NA	152	31.8	3.89	4.48	25.6	1.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.862	0.67	0.72	0.586	NA	NA	0.35	0.56	0.542	0.478	0.84	0.54
Cadmium	7440-43-9	mg/kg	0.692	0.49	0.63	0.769	NA	NA	< 0.32	0.72	0.157	0.492	0.15	0.6
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	26.6	16	16.5	16	NA	NA	20.7	10.8	12.3	11.3	18.6	11.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	22.2	18.4	17.6	26.7	NA	NA	105	43	35.4	37	17.2	12.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	19	44.9	49.6	57.5	NA	NA	599	165	45.2	72.2	24.6	8.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.061	0.35	0.26	1.09	NA	NA	0.44	0.27	0.103	0.064	0.05	0.02
Nickel	7440-02-0	mg/kg	13.8	10.5	10.1	10.7	NA	NA	13.4	13.5	8.66	7.68	9.9	6.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.29	0.66	1.1	1.19	NA	NA	1.8	1.7	0.63	1.21	1	0.44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-2291-04	H8-558-03	H8-558-03	H8-558-04	H8-564-02	H8-585-01	H8-585-01	H8-69E-01	H8-69F-01	H8-69F-02	H8-8102-02	H8-8177-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	12/2/1999	12/2/1999	12/1/1999	6/2/2000	9/12/2000	4/6/2000	4/14/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			H8-2291-041.5N	H8-558-031.25N	H8-558-031.25FD	H8-558-041N	H8-564-021N	H8-585-010.5N	H8-585-011N	H8-69E-012N	H8-69F-011N	H8-69F-021N	H8-8102-022N	H8-8177-012N
Parent Sample					H8-558-031.25N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.394	< 0.3	< 0.35	< 0.334	NA	NA	0.17	0.12	< 0.316	< 0.31	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.31	< 1	< 1.2	< 1.11	NA	NA	< 1.1	< 1.1	0.91	< 1.03	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	121	127	132	94	NA	NA	182	121	65.3	94.6	108	42.3
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	37700	NA	NA	47900	NA	9670	23700	41700	NA	25100	5990
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	14.8	NA	NA	14.9	NA	6.5	5.7	NA	NA	13.2	2.8
Gravel	ARC-PGRAVEL	%	NA	16.5	NA	NA	5.6	NA	33.1	25.9	NA	NA	41.3	11.7
Sand	ARC-PSAND	%	NA	11.9	NA	NA	41.8	NA	47	51.5	NA	NA	13.8	76
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	91.5	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	66.9	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	23.2	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	79.2	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	39.5	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	27.5	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	50.6	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	32.3	NA	NA	NA
Silt	ARC-PSILT	%	NA	56.8	NA	NA	37.8	NA	13.4	16.8	NA	NA	31.7	9.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02	H8-9328-05	H8-9328-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999	6/2/2000	6/2/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N	H8-9328-051.5N	H8-9328-061.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02	H8-9328-05	H8-9328-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999	6/2/2000	6/2/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N	H8-9328-051.5N	H8-9328-061.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 75	< 75	< 73	< 810	< 737	< 717	< 78	< 79	< 2000	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 380	< 380	< 370	70	< 368	< 358	< 390	26000	< 400	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 380	< 380	< 370	67	< 368	< 358	< 390	910	< 400	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 75	< 75	< 73	< 810	< 737	< 717	< 78	< 79	< 800	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 75	< 75	< 73	< 810	< 737	< 717	< 78	< 79	< 2000	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02	H8-9328-05	H8-9328-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999	6/2/2000	6/2/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N	H8-9328-051.5N	H8-9328-061.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 75	< 75	< 73	< 810	< 737	< 717	< 78	< 79	< 2000	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 38	< 38	< 37	110	< 368	< 358	< 39	< 40	< 400	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 38	< 38	< 37	150	54.2	< 358	< 39	< 40	31	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	31	< 38	< 37	590	228	55.5	< 39	< 40	270	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	32	< 38	< 37	510	160	46.6	< 39	< 40	420	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 38	< 38	< 37	1200	295	86.7	< 39	< 40	1000	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 38	< 38	< 37	350	81.8	< 358	< 39	< 40	230	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 38	< 38	< 37	490	95.8	< 358	< 39	< 40	380	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	17	< 38	< 37	56	< 368	< 358	57	26	< 400	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	41	< 38	< 37	820	221	91	< 39	< 40	400	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	82	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 38	< 38	< 37	92	< 368	< 358	4900	2000	150	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Fluoranthene	206-44-0	ug/kg	< 38	< 38	< 37	1100	349	117	< 39	< 40	320	NA	NA
Fluorene	86-73-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 38	< 38	< 37	NA	< 368	< 358	< 39	< 40	< 400	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 38	< 38	< 37	340	91.4	< 358	< 39	< 40	240	NA	NA
Isophorone	78-59-1	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02	H8-9328-05	H8-9328-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999	6/2/2000	6/2/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N	H8-9328-051.5N	H8-9328-061.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 410	< 368	< 358	NA	NA	< 400	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	5600	6300	< 400	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 75	< 75	< 73	< 810	< 737	< 717	< 78	< 79	< 2000	NA	NA
Phenanthrene	85-01-8	ug/kg	< 38	< 38	< 37	170	203	51.6	< 39	< 40	56	NA	NA
Phenol	108-95-2	ug/kg	< 38	< 38	< 37	< 410	< 368	< 358	< 39	< 40	< 400	NA	NA
Pyrene	129-00-0	ug/kg	< 38	< 38	< 37	1000	249	116	< 39	< 40	520	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02	H8-9328-05	H8-9328-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999	6/2/2000	6/2/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N	H8-9328-051.5N	H8-9328-061.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 24	NA	NA	NA	< 24	< 25	NA	< 250	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 24	NA	NA	NA	< 24	< 25	NA	< 250	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 24	NA	NA	NA	< 24	< 25	NA	< 250	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 24	NA	NA	NA	< 24	< 25	NA	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 48	NA	NA	NA	< 48	< 50	NA	< 500	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 48	NA	NA	NA	< 48	< 50	NA	< 500	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 24	NA	NA	NA	< 24	< 25	NA	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 48	NA	NA	NA	< 48	< 50	NA	< 250	< 250
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 24	NA	NA	NA	< 24	< 25	NA	< 250	< 250
Nitrocellulose	9004-70-0	ug/kg	< 39000	< 40	49200	NA	NA	NA	40900	3430000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 560	< 550	< 550	NA	NA	NA	< 590	< 600	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 48	NA	NA	NA	< 48	< 50	NA	< 500	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 48	NA	NA	NA	< 48	< 50	NA	< 500	< 500
Tetryl	479-45-8	ug/kg	< 50	< 50	< 48	NA	NA	NA	< 48	< 50	NA	< 500	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.5	< 0.5	1.9	< 0.62	0.387	< 0.6	< 0.7	< 0.43	1.36	1.98
Arsenic	7440-38-2	mg/kg	10.9	1.9	1.6	38.9	5.12	5.42	5.5	5.3	4.9	10.4	22.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.78	0.76	0.78	0.41	0.579	0.539	0.67	0.73	0.83	0.708	0.889
Cadmium	7440-43-9	mg/kg	0.45	0.52	0.38	2.3	0.199	0.277	1.5	2.2	0.41	0.595	0.982
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.2	10.3	10.4	44.3	13.5	14.2	23.2	38.2	20.4	31.8	18.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	10.3	9.3	9.2	290	27.7	34.6	134	261	18.7	94.9	138
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	153	4.2	7.5	496	343	163	119	179	14.9	450	3520
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.1	< 0	0.04	2	2.33	7.25	0.15	0.07	0.08	1.19	0.385
Nickel	7440-02-0	mg/kg	5.2	5.3	5.8	38.5	7.99	8.79	16.1	16.4	12	13.2	17.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.69	0.43	0.54	2.7	0.733	0.403	0.85	1.1	0.85	1.42	1.03

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02	H8-9328-05	H8-9328-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999	6/2/2000	6/2/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N	H8-9328-051.5N	H8-9328-061.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.2	< 0.2	1.1	< 0.31	0.245	< 0.3	< 0.3	< 0.26	0.228	0.218
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 0.9	< 0.9	< 3.9	0.755	< 1.06	1.6	1.3	< 0.86	2.29	1.46
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	48.3	44.6	44	598	102	137	864	961	65.7	437	297
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	3070	NA	9680	58800	NA	10400	NA	3490	108000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4950	< 5000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	0.2	NA	4.8	NA	NA	7.8	NA	14.2	NA	NA
Gravel	ARC-PGRAVEL	%	NA	11.5	NA	38.2	NA	NA	43.1	NA	28	NA	NA
Sand	ARC-PSAND	%	NA	74.4	NA	44.7	NA	NA	30.8	NA	24.1	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	89.5	NA	NA	NA	NA	97.4	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	100	NA	NA	NA	NA	100	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	70.1	NA	NA	NA	NA	85.7	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	23.8	NA	NA	NA	NA	41.2	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	80	NA	NA	NA	NA	92.7	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	45.8	NA	NA	NA	NA	65.3	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	28.9	NA	NA	NA	NA	48	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	57.7	NA	NA	NA	NA	75.6	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	35.8	NA	NA	NA	NA	55.7	NA
Silt	ARC-PSILT	%	NA	13.9	NA	12.4	NA	NA	18.2	NA	33.6	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
Parent Sample				H9-10-051N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 610	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 610	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1100	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 2200	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 1100	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1100	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	170	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	180	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
Parent Sample				H9-10-051N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
1,2-Dichlorobenzene	95-50-1	ug/kg	< 420	< 430	< 420	NA	NA	< 390	< 410	< 408	< 400	< 420	< 390	< 400
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
1,4-Dichlorobenzene	106-46-7	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2,4-Dichlorophenol	120-83-2	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2,4-Dimethylphenol	105-67-9	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	< 830	< 870	< 840	NA	< 820	< 780	< 810	< 815	< 801	< 2100	< 1900	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	60	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	39	< 390	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2-Chlorophenol	95-57-8	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 420	< 430	< 840	NA	< 820	< 780	< 810	< 408	< 400	< 420	< 390	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 830	< 870	< 840	NA	< 820	< 780	< 810	< 815	< 801	< 840	< 780	< 790
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 830	< 870	< 840	NA	< 820	< 780	< 810	< 815	< 801	< 2100	< 1900	< 2000
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
Parent Sample				H9-10-051N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 830	< 870	< 420	NA	< 410	< 390	< 410	< 815	< 801	< 2100	< 1900	< 2000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	35	47	< 420	NA	< 410	< 390	< 410	18.8	< 400	< 420	< 390	< 400
Acenaphthylene	208-96-8	ug/kg	160	290	< 420	NA	< 410	19	50	60.3	18.8	19	< 390	< 400
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	160	290	< 420	NA	< 410	24	51	46.9	24.4	48	< 390	< 400
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	670	1200	34	NA	35	130	180	368	129	230	< 390	< 400
Benzo[a]pyrene	50-32-8	ug/kg	670	1100	30	NA	39	140	180	375	137	250	< 390	< 400
Benzo[b]fluoranthene	205-99-2	ug/kg	970	1500	< 420	NA	< 410	250	230	556	167	380	< 390	< 400
Benzo[g,h,i]perylene	191-24-2	ug/kg	450	780	< 420	NA	< 410	170	110	169	< 400	110	< 390	< 400
Benzo[k]fluoranthene	207-08-9	ug/kg	310	610	< 420	NA	< 410	95	< 410	127	< 400	180	< 390	< 400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	47	48	65	NA	35	44	50	45.2	45.7	< 420	< 390	< 400
Butylbenzylphthalate	85-68-7	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	910	1300	68	NA	55	130	230	538	191	300	< 390	46
Dibenzo[a,h]anthracene	53-70-3	ug/kg	120	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	44	95.7	140	47	< 400
Dimethylphthalate	131-11-3	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Di-n-butylphthalate	84-74-2	ug/kg	76	96	< 420	NA	42	< 390	< 410	104	50.5	200	71	85
Di-n-octylphthalate	117-84-0	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Fluoranthene	206-44-0	ug/kg	1700	2500	83	NA	110	140	400	704	274	580	< 390	< 400
Fluorene	86-73-7	ug/kg	120	160	< 420	NA	< 410	< 390	< 410	42.4	< 400	39	< 390	< 400
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 408	< 400	< 420	< 390	< 400
Hexachlorobutadiene	87-68-3	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Hexachloroethane	67-72-1	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	NA	< 390	< 400
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	380	660	< 420	NA	< 410	130	100	150	< 400	100	< 390	< 400
Isophorone	78-59-1	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
Parent Sample				H9-10-051N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 420	37	< 420	NA	< 410	< 390	< 410	< 408	111	< 420	< 390	< 400
Nitrobenzene	98-95-3	ug/kg	< 420	< 430	< 420	NA	< 410	NA	NA	NA	< 400	< 420	< 390	< 400
N-Nitrosodimethylamine	62-75-9	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	NA
Pentachlorophenol	87-86-5	ug/kg	< 830	< 870	< 840	NA	< 820	< 780	< 810	< 815	< 801	< 2100	< 1900	< 2000
Phenanthrene	85-01-8	ug/kg	1200	1900	130	NA	74	76	300	602	334	450	< 390	66
Phenol	108-95-2	ug/kg	< 420	< 430	< 420	NA	< 410	< 390	< 410	< 408	< 400	< 420	< 390	< 400
Pyrene	129-00-0	ug/kg	1800	2700	< 420	NA	< 410	150	480	1110	382	850	< 390	< 400
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
Parent Sample				H9-10-051N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	< 11000	< 280	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 244	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 11000	< 280	< 244	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	350000	< 280	< 244	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	290000	< 280	< 244	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 5700	< 140	< 488	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 5700	< 140	< 488	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	200000	< 140	< 244	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 5700	< 140	< 244	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 11000	< 280	< 244	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	54300	61300	80000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	< 4878	< 4651	< 6030	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 5700	< 140	< 488	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	37000	< 140	< 488	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	5700	140	< 488	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.59	0.33	NA	NA	NA	1.3	0.23	1.76	0.357	< 0.51	< 0.41	< 0.48
Arsenic	7440-38-2	mg/kg	18.1	16.2	NA	NA	NA	26.8	14.9	6.13	16.9	15.4	20.1	22.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.97	0.9	NA	NA	NA	1.1	1	0.655	0.445	0.69	0.48	0.41
Cadmium	7440-43-9	mg/kg	< 0.36	< 0.34	NA	NA	NA	5.1	< 0.31	< 0.262	< 0.279	0.78	0.41	0.41
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.2	18.8	NA	NA	NA	16.2	27	16.6	49.3	112	24.5	17.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	30.1	29.1	NA	NA	NA	191	32.4	23.7	28.9	38.7	18.2	13.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	128	110	NA	NA	NA	521	348	53.9	91.6	155	97.9	36.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.21	0.28	NA	NA	NA	0.21	0.14	0.133	5.22	13.8	0.05	0.27
Nickel	7440-02-0	mg/kg	10.5	10.5	NA	NA	NA	16.5	16.9	11	11.5	13.7	12.1	7.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.4	1.7	NA	NA	NA	3.1	1.9	0.44	1.77	1.9	1.4	1.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
Parent Sample				H9-10-051N										
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.36	< 0.34	NA	NA	NA	0.21	< 0.31	< 0.262	0.903	2.5	< 0.25	< 0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.2	< 1.1	NA	NA	NA	< 1	0.65	1.46	0.846	< 1	0.5	< 0.96
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	108	102	NA	NA	NA	1620	184	83.9	65.8	151	68.8	63.9
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	5.05	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	9920	NA	17300	NA	NA	9750	8240	NA	NA	20200	9140	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	15.6	NA	15.2	NA	NA	5.5	13.4	NA	NA	6.2	13.7	NA
Gravel	ARC-PGRAVEL	%	12.1	NA	30	NA	NA	43.5	24.8	NA	NA	19.6	23	NA
Sand	ARC-PSAND	%	31.8	NA	22.6	NA	NA	37.4	33.3	NA	NA	39.8	33.5	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	40.4	NA	32.2	NA	NA	13.6	28.6	NA	NA	34.4	29.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-8238-03	I10-1-03	I10-2-02	I10-2-02	I10-2079-02	I10-2079-05	I10-2080-01	I10-2080-02	I10-2121-02	I10-2122-03	I10-2155-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			12/1/1999	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H9-8238-031N	I10-1-031N	I10-2-022N	I10-2-022FD	I10-2079-021N	I10-2079-051.25N	I10-2080-011N	I10-2080-021N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N
Parent Sample						I10-2-022N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-8238-03	I10-1-03	I10-2-02	I10-2-02	I10-2079-02	I10-2079-05	I10-2080-01	I10-2080-02	I10-2121-02	I10-2122-03	I10-2155-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			12/1/1999	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H9-8238-031N	I10-1-031N	I10-2-022N	I10-2-022FD	I10-2079-021N	I10-2079-051.25N	I10-2080-011N	I10-2080-021N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N
Parent Sample						I10-2-022N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 1800	< 82	< 84	< 910	< 76	< 761	< 73	< 772	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 350	< 410	< 420	< 460	< 380	< 381	49	< 386	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 350	< 410	< 420	< 460	< 380	< 381	< 370	< 386	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 710	< 82	< 84	< 910	< 76	< 761	< 73	< 772	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1800	< 82	< 84	< 910	< 76	< 761	< 73	< 772	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H9-8238-03 0.0-1.0 ft 12/1/1999 N H9-8238-031N	I10-1-03 0.0-1.0 ft 4/27/2000 N I10-1-031N	I10-2-02 0.0-2.0 ft 4/27/2000 N I10-2-022N	I10-2-02 0.0-2.0 ft 4/27/2000 FD I10-2-022FD I10-2-022N	I10-2079-02 0.0-1.0 ft 4/27/2000 N I10-2079-021N	I10-2079-05 0.0-1.3 ft 7/20/2000 N I10-2079-051.25N	I10-2080-01 0.0-1.0 ft 4/27/2000 N I10-2080-011N	I10-2080-02 0.0-1.0 ft 7/20/2000 N I10-2080-021N	I10-2121-02 0.0-1.5 ft 4/28/2000 N I10-2121-021.5N	I10-2122-03 0.0-1.5 ft 4/28/2000 N I10-2122-031.5N	I10-2155-02 0.0-1.0 ft 4/28/2000 N I10-2155-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 1800	< 82	< 84	< 910	< 76	< 761	< 73	< 772	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	49	42	46	64	30	< 381	39	42.1	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	43	44	56	86	38	< 381	43	40.9	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	66	< 41	78	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 350	21	260	67	170	25.5	41	36.3	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	48	< 41	84	91	48	< 381	46	< 386	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	55	< 41	< 42	< 460	36	< 381	< 37	230	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	87	58	76	50	100	123	45	287	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	76	< 41	100	140	< 38	< 381	< 37	90	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H9-8238-03 0.0-1.0 ft 12/1/1999 N H9-8238-031N	I10-1-03 0.0-1.0 ft 4/27/2000 N I10-1-031N	I10-2-02 0.0-2.0 ft 4/27/2000 N I10-2-022N	I10-2-02 0.0-2.0 ft 4/27/2000 FD I10-2-022FD I10-2-022N	I10-2079-02 0.0-1.0 ft 4/27/2000 N I10-2079-021N	I10-2079-05 0.0-1.3 ft 7/20/2000 N I10-2079-051.25N	I10-2080-01 0.0-1.0 ft 4/27/2000 N I10-2080-011N	I10-2080-02 0.0-1.0 ft 7/20/2000 N I10-2080-021N	I10-2121-02 0.0-1.5 ft 4/28/2000 N I10-2121-021.5N	I10-2122-03 0.0-1.5 ft 4/28/2000 N I10-2122-031.5N	I10-2155-02 0.0-1.0 ft 4/28/2000 N I10-2155-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 350	< 41	NA	NA	NA	NA	< 37	< 386	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 350	< 41	< 42	< 460	< 38	60.5	150	434	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 1800	< 82	< 84	< 910	< 76	< 761	< 73	< 772	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	38	39	62	110	23	< 381	22	< 386	NA	NA	NA
Phenol	108-95-2	ug/kg	< 350	< 41	< 42	< 460	< 38	< 381	< 37	< 386	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 350	< 41	120	180	< 38	< 381	< 37	104	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			H9-8238-03 0.0-1.0 ft 12/1/1999 N H9-8238-031N	I10-1-03 0.0-1.0 ft 4/27/2000 N I10-1-031N	I10-2-02 0.0-2.0 ft 4/27/2000 N I10-2-022N	I10-2-02 0.0-2.0 ft 4/27/2000 FD I10-2-022FD I10-2-022N	I10-2079-02 0.0-1.0 ft 4/27/2000 N I10-2079-021N	I10-2079-05 0.0-1.3 ft 7/20/2000 N I10-2079-051.25N	I10-2080-01 0.0-1.0 ft 4/27/2000 N I10-2080-011N	I10-2080-02 0.0-1.0 ft 7/20/2000 N I10-2080-021N	I10-2121-02 0.0-1.5 ft 4/28/2000 N I10-2121-021.5N	I10-2122-03 0.0-1.5 ft 4/28/2000 N I10-2122-031.5N	I10-2155-02 0.0-1.0 ft 4/28/2000 N I10-2155-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 24	< 250	< 25	< 217	NA	NA	< 25	< 25	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 24	< 250	< 25	< 217	NA	NA	< 25	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 24	< 250	< 25	1010	NA	NA	< 25	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 24	< 250	< 25	176	NA	NA	< 25	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 48	< 500	< 50	< 435	NA	NA	< 50	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 48	< 500	< 50	< 435	NA	NA	< 50	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 24	< 250	< 25	247	NA	NA	< 25	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 48	< 500	< 50	< 435	NA	NA	< 50	< 50	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 24	< 250	< 25	< 217	NA	NA	< 25	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 42000	< 47900	133000	1330000	NA	NA	< 38000	< 42000	< 38
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 630	8900	< 570	22000	NA	NA	< 540	< 590	1800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 48	< 500	< 50	< 435	NA	NA	< 50	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 48	< 500	< 50	547	NA	NA	< 50	< 50	< 50
Tetryl	479-45-8	ug/kg	NA	NA	< 48	< 500	< 50	< 435	NA	NA	< 50	< 50	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.37	< 0.6	17	35.6	0.38	< 0.529	< 0.6	< 0.572	NA	NA	NA
Arsenic	7440-38-2	mg/kg	3.5	3.8	5.4	7	5.8	8.81	2.8	4.16	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.43	0.55	0.59	0.67	0.5	0.526	0.29	0.488	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.28	0.61	2.4	2.6	0.92	1.26	0.5	0.809	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.2	14.8	15.1	17.1	16.2	24.2	15.7	12.6	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	12.7	23.5	61.8	85.7	28.5	107	23.4	21.9	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	14.7	55.9	5700	10400	49.5	64.1	20.8	26.3	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.12	0.13	0.14	0.23	0.14	0.1	0.06	0.101	NA	NA	NA
Nickel	7440-02-0	mg/kg	6	9	9.6	10.8	7.9	10.9	10.3	8.3	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.64	0.59	0.83	1.3	0.53	0.964	0.45	0.983	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			H9-8238-03	I10-1-03	I10-2-02	I10-2-02	I10-2079-02	I10-2079-05	I10-2080-01	I10-2080-02	I10-2121-02	I10-2122-03	I10-2155-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			12/1/1999	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N
Sample Name			H9-8238-031N	I10-1-031N	I10-2-022N	I10-2-022FD	I10-2079-021N	I10-2079-051.25N	I10-2080-011N	I10-2080-021N	I10-2121-021.5N	I10-2122-031.5N	I10-2155-021N
Parent Sample						I10-2-022N							
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.22	< 0.3	< 0.3	< 0.38	< 0.3	< 0.264	< 0.3	< 0.286	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.74	< 1	< 1	< 1.3	< 1	< 0.881	< 1	< 0.953	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	56.7	176	1000	881	138	326	52.3	93.2	NA	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	36000	54200	NA	22700	NA	19500	NA	31700	34500	4570
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	11.2	15.7	NA	6.6	NA	1.4	NA	0	13	7.9
Gravel	ARC-PGRAVEL	%	NA	30.8	32.5	NA	49.9	NA	56.1	NA	17.5	34.7	27.9
Sand	ARC-PSAND	%	NA	29.6	22.1	NA	29.5	NA	31.1	NA	76.6	29.3	56.8
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	28.4	29.7	NA	14	NA	11.4	NA	5.9	23	7.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I10-2155-03 0.0-1.0 ft 7/20/2000 N I10-2155-031N	I10-2156-03 0.0-2.0 ft 4/27/2000 N I10-2156-032N	I10-3-02 0.0-1.0 ft 4/27/2000 N I10-3-021N	I10-550-02 0.0-1.0 ft 4/27/2000 N I10-550-021N	I10-552-04 0.0-0.5 ft 4/27/2000 N I10-552-040.5N	I10-E50-01 0.0-1.0 ft 7/20/2000 N I10-E50-011N	I10-E50-05 0.0-1.3 ft 4/28/2000 N I10-E50-051.25N	I11-1-03 0.0-1.0 ft 7/19/2000 N I11-1-031N	I11-2326-01 0.0-1.0 ft 9/12/2000 N I11-2326-011N	I11-2326-04 0.0-1.0 ft 6/1/2000 N I11-2326-041N	I11-7-01 0.0-1.0 ft 8/2/2000 N I11-7-011N	I11-7-03 0.0-2.0 ft 5/25/2000 N I11-7-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I10-2155-03 0.0-1.0 ft 7/20/2000 N I10-2155-031N	I10-2156-03 0.0-2.0 ft 4/27/2000 N I10-2156-032N	I10-3-02 0.0-1.0 ft 4/27/2000 N I10-3-021N	I10-550-02 0.0-1.0 ft 4/27/2000 N I10-550-021N	I10-552-04 0.0-0.5 ft 4/27/2000 N I10-552-040.5N	I10-E50-01 0.0-1.0 ft 7/20/2000 N I10-E50-011N	I10-E50-05 0.0-1.3 ft 4/28/2000 N I10-E50-051.25N	I11-1-03 0.0-1.0 ft 7/19/2000 N I11-1-031N	I11-2326-01 0.0-1.0 ft 9/12/2000 N I11-2326-011N	I11-2326-04 0.0-1.0 ft 6/1/2000 N I11-2326-041N	I11-7-01 0.0-1.0 ft 8/2/2000 N I11-7-011N	I11-7-03 0.0-2.0 ft 5/25/2000 N I11-7-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 77	< 83	< 88	< 778	< 72	< 82	< 725	< 748	< 825.92	< 91
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 380	< 420	< 440	< 389	< 360	100	< 363	< 374	< 412	38
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 380	< 420	< 440	< 389	< 360	< 410	< 363	< 374	< 412	< 460
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	NA	< 46
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 77	< 83	< 88	< 778	< 72	< 82	< 725	< 748	< 825.92	< 91
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 77	< 83	< 88	< 778	< 72	< 82	< 725	< 748	< 825.92	< 91
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I10-2155-03 0.0-1.0 ft 7/20/2000 N I10-2155-031N	I10-2156-03 0.0-2.0 ft 4/27/2000 N I10-2156-032N	I10-3-02 0.0-1.0 ft 4/27/2000 N I10-3-021N	I10-550-02 0.0-1.0 ft 4/27/2000 N I10-550-021N	I10-552-04 0.0-0.5 ft 4/27/2000 N I10-552-040.5N	I10-E50-01 0.0-1.0 ft 7/20/2000 N I10-E50-011N	I10-E50-05 0.0-1.3 ft 4/28/2000 N I10-E50-051.25N	I11-1-03 0.0-1.0 ft 7/19/2000 N I11-1-031N	I11-2326-01 0.0-1.0 ft 9/12/2000 N I11-2326-011N	I11-2326-04 0.0-1.0 ft 6/1/2000 N I11-2326-041N	I11-7-01 0.0-1.0 ft 8/2/2000 N I11-7-011N	I11-7-03 0.0-2.0 ft 5/25/2000 N I11-7-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 77	< 83	< 88	< 778	< 72	< 82	< 725	< 748	NA	< 91
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 38	120	< 44	< 389	< 36	< 41	< 363	58.3	< 412.96	22
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 38	71	< 44	75.1	< 36	< 41	< 363	67.3	< 412.96	45
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	48	440	54	500	43	< 41	81.6	341	180	140
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	52	500	51	372	40	27	65.6	311	185	130
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	85	710	< 44	793	67	< 41	115	638	313	200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 38	310	< 44	182	< 36	< 41	< 363	259	99	< 46
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 38	210	< 44	276	< 36	< 41	< 363	244	94	< 46
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	24	23	39	< 389	< 36	670	< 363	< 374	42	36
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	23000	< 363	< 374	< 412.96	< 46
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	63	470	59	528	< 36	< 41	125	433	223	230
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 38	110	< 44	< 389	< 36	< 41	< 363	89	< 412.96	< 46
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 38	< 42	< 44	< 389	58	< 41	< 363	< 374	< 412.96	< 46
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 38	39	68	225	120	< 41	< 363	233	443	120
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	87	< 363	< 374	< 412.96	< 46
Fluoranthene	206-44-0	ug/kg	NA	NA	85	760	87	984	< 36	< 41	212	622	295	320
Fluorene	86-73-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	NA	< 46
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 38	290	< 44	196	< 36	< 41	< 363	236	87	< 46
Isophorone	78-59-1	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I10-2155-03 0.0-1.0 ft 7/20/2000 N I10-2155-031N	I10-2156-03 0.0-2.0 ft 4/27/2000 N I10-2156-032N	I10-3-02 0.0-1.0 ft 4/27/2000 N I10-3-021N	I10-550-02 0.0-1.0 ft 4/27/2000 N I10-550-021N	I10-552-04 0.0-0.5 ft 4/27/2000 N I10-552-040.5N	I10-E50-01 0.0-1.0 ft 7/20/2000 N I10-E50-011N	I10-E50-05 0.0-1.3 ft 4/28/2000 N I10-E50-051.25N	I11-1-03 0.0-1.0 ft 7/19/2000 N I11-1-031N	I11-2326-01 0.0-1.0 ft 9/12/2000 N I11-2326-011N	I11-2326-04 0.0-1.0 ft 6/1/2000 N I11-2326-041N	I11-7-01 0.0-1.0 ft 8/2/2000 N I11-7-011N	I11-7-03 0.0-2.0 ft 5/25/2000 N I11-7-032N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 38	NA	NA	NA	NA	NA	< 363	< 374	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 38	< 42	< 44	137	98	< 41	54.4	< 374	54	< 46
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 77	< 83	< 88	< 778	< 72	< 82	< 725	< 748	< 825.92	< 91
Phenanthrene	85-01-8	ug/kg	NA	NA	49	250	64	117	< 36	< 41	116	196	240	290
Phenol	108-95-2	ug/kg	NA	NA	< 38	< 42	< 44	< 389	< 36	< 41	< 363	< 374	< 412.96	< 46
Pyrene	129-00-0	ug/kg	NA	NA	140	560	< 44	839	< 36	< 41	221	770	384	300
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I10-2155-03	I10-2156-03	I10-3-02	I10-550-02	I10-552-04	I10-E50-01	I10-E50-05	I11-1-03	I11-2326-01	I11-2326-04	I11-7-01	I11-7-03
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000	4/28/2000	7/19/2000	9/12/2000	6/1/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I10-2155-031N	I10-2156-032N	I10-3-021N	I10-550-021N	I10-552-040.5N	I10-E50-011N	I10-E50-051.25N	I11-1-031N	I11-2326-011N	I11-2326-041N	I11-7-011N	I11-7-032N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 208	< 25	NA	< 25	< 25	< 238	< 25	< 238	NA	NA	< 178.575	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 208	< 25	NA	< 25	< 25	< 238	< 25	< 238	NA	NA	< 178.575	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 208	< 25	NA	< 25	< 25	< 238	< 25	< 238	NA	NA	< 178.575	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 208	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 208	< 25	NA	< 25	< 25	< 238	< 25	< 238	NA	NA	< 178.575	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 417	< 50	NA	< 50	< 50	< 476	< 50	< 476	NA	NA	< 357.15	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 417	< 50	NA	< 50	< 50	< 476	< 50	< 476	NA	NA	< 357.15	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 208	< 25	NA	< 25	< 25	< 238	< 25	< 238	NA	NA	< 178.575	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 417	< 50	NA	< 50	< 50	< 476	< 50	< 476	NA	NA	< 357.15	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 208	< 25	NA	< 25	< 25	< 238	< 25	< 238	NA	NA	67	< 25
Nitrocellulose	9004-70-0	ug/kg	< 36.9	< 41000	NA	157000	< 44000	222000	104000	125000	NA	NA	207000	346000
Nitroglycerin	55-63-0	ug/kg	4060	< 620	NA	3800	16000	15700	9500	56300	NA	NA	< 5524.48	< 690
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 417	< 50	NA	< 50	< 50	< 476	< 50	< 476	NA	NA	< 357.15	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 417	< 50	NA	< 50	< 50	< 476	< 50	< 476	NA	NA	< 357.15	< 50
Tetryl	479-45-8	ug/kg	< 417	< 50	NA	< 50	< 50	< 476	< 50	< 476	NA	NA	< 357.15	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.6	1.3	< 0.7	< 0.536	< 0.6	< 0.7	< 0.616	< 0.661	< 0.578143	< 0.7
Arsenic	7440-38-2	mg/kg	NA	NA	4.9	14.6	21.9	25.5	4.7	6.9	6.9	17.8	10.6	8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.58	0.7	0.73	0.446	0.35	0.36	0.516	0.453	0.274	0.2
Cadmium	7440-43-9	mg/kg	NA	NA	1.3	0.89	0.67	0.588	< 0.3	1.3	0.139	0.168	0.475	< 0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	28.7	18.2	20.5	12.1	9.1	29.9	12.3	16.5	14.9	8.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	8590	202	17.1	9.66	12.7	60.5	26.8	26.7	17.1	19
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	53.3	803	129	11.2	11	133	51.3	61.9	46	43.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.07	0.54	0.16	0.059	0.03	0.28	0.113	0.07	0.243	0.14
Nickel	7440-02-0	mg/kg	NA	NA	24	15.9	10.7	5.67	5.2	15.3	8.61	10.4	10.7	9.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	< 0.5	803	1.7	0.787	< 0.5	0.68	0.382	0.874	1.04	1.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I10-2155-03	I10-2156-03	I10-3-02	I10-550-02	I10-552-04	I10-E50-01	I10-E50-05	I11-1-03	I11-2326-01	I11-2326-04	I11-7-01	I11-7-03
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000	4/28/2000	7/19/2000	9/12/2000	6/1/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I10-2155-031N	I10-2156-032N	I10-3-021N	I10-550-021N	I10-552-040.5N	I10-E50-011N	I10-E50-051.25N	I11-1-031N	I11-2326-011N	I11-2326-041N	I11-7-011N	I11-7-032N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	0.19	< 0.7	< 0.3	< 0.268	< 0.3	0.13	< 0.308	< 0.33	< 0.289072	0.12
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1	< 2	< 1	< 0.894	< 1	< 1	< 1.03	1.15	< 0.963572	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	131	1660	78	40.2	186	280	58.7	58.4	40.2	16.1
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	19800	24600	30600	36800	NA	6720	41400	NA	50700	NA	42600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	13.8	4.4	11.7	15.3	NA	9.1	0	NA	NA	NA	0
Gravel	ARC-PGRAVEL	%	NA	20	38.5	26.4	24.4	NA	42.6	58.4	NA	NA	NA	77
Sand	ARC-PSAND	%	NA	26.2	44.8	43.7	29.3	NA	24.6	30.3	NA	NA	NA	19
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.4	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	69.3	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.5	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.4	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.9	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.3	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	56.5	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.3	NA	NA
Silt	ARC-PSILT	%	NA	40	12.3	18.2	31	NA	23.7	11.3	NA	NA	NA	3.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-8260-02	I11-8260-03	I11-8278-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			7/19/2000	8/2/2000	5/4/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			I11-8260-021N	I11-8260-031.25N	I11-8278-031.5N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 1320	NA	< 1070	< 1080	NA	< 1100
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 2630	NA	< 2140	< 2160	NA	< 2200
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	< 1320	NA	< 1070	< 1080	NA	< 1100
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 1320	NA	< 1070	< 1080	NA	< 1000
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	< 1320	NA	< 1070	< 1080	NA	< 1100
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-8260-02	I11-8260-03	I11-8278-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			7/19/2000	8/2/2000	5/4/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			I11-8260-021N	I11-8260-031.25N	I11-8278-031.5N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 658	NA	< 534	< 539	NA	< 540
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	500	NA	< 534	< 539	NA	< 540
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	< 1320	NA	< 1070	< 1080	NA	< 1100
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 890	< 850.448	< 80	< 8660	NA	< 762	NA	NA	< 872	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4400	< 425	< 400	< 4330	NA	< 381	NA	NA	< 436	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4400	< 425	< 400	< 4330	NA	< 381	NA	NA	< 436	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2-Chlorophenol	95-57-8	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 440	NA	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 890	< 850.448	< 80	< 8660	NA	< 762	NA	NA	< 872	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 890	< 850.448	< 80	< 8660	NA	< 762	NA	NA	< 872	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-8260-02	I11-8260-03	I11-8278-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			7/19/2000	8/2/2000	5/4/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			I11-8260-021N	I11-8260-031.25N	I11-8278-031.5N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 890	NA	< 80	< 8660	NA	< 762	NA	NA	< 872	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Acenaphthylene	208-96-8	ug/kg	< 440	< 425.224	< 40	268	NA	60.6	NA	NA	< 436	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 440	< 425.224	26	< 4330	NA	56.4	NA	NA	< 436	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	530	241	270	< 4330	NA	175	NA	NA	62.8	NA
Benzo[a]pyrene	50-32-8	ug/kg	550	279	380	< 4330	NA	185	NA	NA	< 436	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	900	532	1200	< 4330	NA	319	NA	NA	89	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 440	193	1100	2430	NA	166	NA	NA	< 436	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 440	128	380	< 4330	NA	137	NA	NA	< 436	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	4800	80	55	< 4330	NA	< 381	NA	NA	< 436	NA
Butylbenzylphthalate	85-68-7	ug/kg	16000	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	640	318	330	< 4330	NA	310	NA	NA	88.6	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 440	< 425.224	210	1630	NA	89.6	NA	NA	< 436	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 440	< 425.224	< 40	424	NA	< 381	NA	NA	< 436	NA
Dimethylphthalate	131-11-3	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Di-n-butylphthalate	84-74-2	ug/kg	21000	192	410	7870	NA	419	NA	NA	146	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Fluoranthene	206-44-0	ug/kg	1100	463	460	< 4330	NA	476	NA	NA	120	NA
Fluorene	86-73-7	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Hexachlorobenzene	118-74-1	ug/kg	< 440	NA	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Hexachloroethane	67-72-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 440	191	760	1790	NA	128	NA	NA	< 436	NA
Isophorone	78-59-1	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-8260-02	I11-8260-03	I11-8278-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			7/19/2000	8/2/2000	5/4/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			I11-8260-021N	I11-8260-031.25N	I11-8278-031.5N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 4330	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	5200	194	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Pentachlorophenol	87-86-5	ug/kg	< 890	< 850.448	< 80	< 8660	NA	< 762	NA	NA	< 872	NA
Phenanthrene	85-01-8	ug/kg	410	229	250	< 4330	NA	226	NA	NA	86.8	NA
Phenol	108-95-2	ug/kg	< 440	< 425.224	< 40	< 4330	NA	< 381	NA	NA	< 436	NA
Pyrene	129-00-0	ug/kg	< 440	646	480	< 4330	NA	428	NA	NA	< 436	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-8260-02	I11-8260-03	I11-8278-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			7/19/2000	8/2/2000	5/4/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			I11-8260-021N	I11-8260-031.25N	I11-8278-031.5N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 238	< 208.325	< 25	NA	NA	< 250	NA	NA	< 250	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 238	< 208.325	< 25	NA	NA	< 250	NA	NA	< 250	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	336	< 208.325	< 25	NA	NA	< 250	NA	NA	< 250	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 238	< 208.325	< 25	NA	NA	< 250	NA	NA	< 250	NA
2-Nitrotoluene	88-72-2	ug/kg	< 476	< 416.65	< 50	NA	NA	< 500	NA	NA	< 500	NA
3-Nitrotoluene	99-08-1	ug/kg	< 476	< 416.65	< 50	NA	NA	< 500	NA	NA	< 500	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 238	< 208.325	< 25	NA	NA	< 250	NA	NA	< 250	NA
4-Nitrotoluene	99-99-0	ug/kg	< 476	< 416.65	< 50	NA	NA	< 250	NA	NA	< 250	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 238	108	< 25	NA	NA	126	NA	NA	130	NA
Nitrocellulose	9004-70-0	ug/kg	2480000	283000	144000	NA	NA	231000	NA	NA	359000	NA
Nitroglycerin	55-63-0	ug/kg	157000	4860	< 570	NA	NA	3690	NA	NA	< 6550	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 476	< 416.65	< 50	NA	NA	< 500	NA	NA	< 500	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 476	< 416.65	< 50	NA	NA	< 500	NA	NA	< 500	NA
Tetryl	479-45-8	ug/kg	< 476	< 416.65	< 50	NA	NA	< 500	NA	NA	< 500	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.695822	< 0.6	0.696	NA	< 0.66	NA	NA	< 0.763	NA
Arsenic	7440-38-2	mg/kg	6.7	17.1	8.1	16.3	NA	28.1	NA	NA	227	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.36	0.303	0.41	0.464	NA	0.421	NA	NA	0.466	NA
Cadmium	7440-43-9	mg/kg	1.6	0.475	0.58	3.28	NA	0.866	NA	NA	0.287	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	110	17.2	16.6	38.4	NA	26.1	NA	NA	13.4	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	58.7	36	46	486	NA	110	NA	NA	31.7	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	924	141	58.3	1030	NA	465	NA	NA	51	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.72	0.379	0.4	2.2	NA	1.09	NA	NA	0.422	NA
Nickel	7440-02-0	mg/kg	19.8	9.97	8.4	20	NA	10.5	NA	NA	11.3	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.39	1.73	2.7	2.82	NA	1.89	NA	NA	11.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-8260-02	I11-8260-03	I11-8278-03	I11-8504-03	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			7/19/2000	8/2/2000	5/4/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			I11-8260-021N	I11-8260-031.25N	I11-8278-031.5N	I11-8504-031N	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.28	0.587	< 0.3	0.837	NA	< 0.33	NA	NA	0.243	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1.159703	< 1	2.87	NA	1.29	NA	NA	3.58	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	705	192	56.8	2120	NA	338	NA	NA	72.7	NA
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	62800	NA	42400	308000	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	1.1	NA	10.3	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	66.2	NA	32	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	25.3	NA	35.9	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	7.4	NA	21.7	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I11-9117-02 0.0-1.0 ft 12/15/1999 N I11-9117-021N	I11-9301-02 0.0-1.0 ft 7/25/2000 N I11-9301-021N	I11-9301-05 0.0-1.0 ft 5/9/2000 N I11-9301-051N	I11-9303-02 0.0-1.0 ft 6/1/2000 N I11-9303-021N	I11-B5-04 0.0-1.5 ft 6/1/2000 N I11-B5-041.5N	I12-10-01 0.0-1.5 ft 9/12/2000 N I12-10-011.5N	I12-10-03 0.0-2.0 ft 6/1/2000 N I12-10-032N	I12-1-02 0.0-0.5 ft 9/12/2000 N I12-1-020.5N	I12-1-04 0.0-1.0 ft 6/2/2000 N I12-1-041N	I12-1-04 0.0-1.0 ft 6/2/2000 FD I12-1-041FD I12-1-041N	I12-11-02 0.0-0.5 ft 9/12/2000 N I12-11-020.5N	I12-11-04 0.0-0.5 ft 9/12/2000 N I12-11-040.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I11-9117-02 0.0-1.0 ft 12/15/1999 N I11-9117-021N	I11-9301-02 0.0-1.0 ft 7/25/2000 N I11-9301-021N	I11-9301-05 0.0-1.0 ft 5/9/2000 N I11-9301-051N	I11-9303-02 0.0-1.0 ft 6/1/2000 N I11-9303-021N	I11-B5-04 0.0-1.5 ft 6/1/2000 N I11-B5-041.5N	I12-10-01 0.0-1.5 ft 9/12/2000 N I12-10-011.5N	I12-10-03 0.0-2.0 ft 6/1/2000 N I12-10-032N	I12-1-02 0.0-0.5 ft 9/12/2000 N I12-1-020.5N	I12-1-04 0.0-1.0 ft 6/2/2000 N I12-1-041N	I12-1-04 0.0-1.0 ft 6/2/2000 FD I12-1-041FD I12-1-041N	I12-11-02 0.0-0.5 ft 9/12/2000 N I12-11-020.5N	I12-11-04 0.0-0.5 ft 9/12/2000 N I12-11-040.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
1,2-Dichlorobenzene	95-50-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
1,4-Dichlorobenzene	106-46-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2,4-Dichlorophenol	120-83-2	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2,4-Dimethylphenol	105-67-9	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2,4-Dinitrophenol	51-28-5	ug/kg	< 850	< 792	< 75	< 743	< 855	< 3730	< 803	< 825	< 872	< 886	< 688	< 717
2,4-Dinitrotoluene	121-14-2	ug/kg	< 430	88.7	84	328	< 428	< 1870	< 401	< 413	< 436	2200	< 344	114
2,6-Dinitrotoluene	606-20-2	ug/kg	< 430	< 396	< 370	334	< 428	< 1870	< 401	< 413	< 436	77.6	< 344	126
2-Chloronaphthalene	91-58-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2-Chlorophenol	95-57-8	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 850	< 792	< 75	< 743	< 855	< 3730	< 803	< 825	< 872	< 886	< 688	< 717
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 850	< 792	< 75	< 743	< 855	< 3730	< 803	< 825	< 872	< 886	< 688	< 717
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I11-9117-02 0.0-1.0 ft 12/15/1999 N I11-9117-021N	I11-9301-02 0.0-1.0 ft 7/25/2000 N I11-9301-021N	I11-9301-05 0.0-1.0 ft 5/9/2000 N I11-9301-051N	I11-9303-02 0.0-1.0 ft 6/1/2000 N I11-9303-021N	I11-B5-04 0.0-1.5 ft 6/1/2000 N I11-B5-041.5N	I12-10-01 0.0-1.5 ft 9/12/2000 N I12-10-011.5N	I12-10-03 0.0-2.0 ft 6/1/2000 N I12-10-032N	I12-1-02 0.0-0.5 ft 9/12/2000 N I12-1-020.5N	I12-1-04 0.0-1.0 ft 6/2/2000 N I12-1-041N	I12-1-04 0.0-1.0 ft 6/2/2000 FD I12-1-041FD I12-1-041N	I12-11-02 0.0-0.5 ft 9/12/2000 N I12-11-020.5N	I12-11-04 0.0-0.5 ft 9/12/2000 N I12-11-040.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 850	< 792	< 75	< 743	< 855	< 3730	< 803	< 825	< 872	< 886	< 688	< 717
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Acenaphthylene	208-96-8	ug/kg	35	< 396	54	190	< 428	< 1870	56.2	< 413	< 436	< 443	< 344	< 358
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	47	102	110	172	< 428	< 1870	51.8	< 413	< 436	< 443	< 344	< 358
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	220	527	540	980	328	940	408	67.7	122	112	54.7	183
Benzo[a]pyrene	50-32-8	ug/kg	210	555	440	792	402	808	393	66.9	122	129	45.1	142
Benzo[b]fluoranthene	205-99-2	ug/kg	340	1220	810	2400	848	1440	659	110	280	288	86.7	309
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	464	340	475	249	582	289	< 413	< 436	< 443	< 344	126
Benzo[k]fluoranthene	207-08-9	ug/kg	130	266	310	469	370	524	278	< 413	< 436	< 443	< 344	109
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	43.2	47	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	38
Butylbenzylphthalate	85-68-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	280	608	670	1380	468	1140	469	94.9	226	207	62.3	214
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 430	132	110	178	< 428	< 1870	91.9	< 413	< 436	< 443	< 344	< 358
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 430	< 396	250	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Dimethylphthalate	131-11-3	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Di-n-butylphthalate	84-74-2	ug/kg	< 430	196	220	81	< 428	< 1870	< 401	< 413	101	81.6	< 344	< 358
Di-n-octylphthalate	117-84-0	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Fluoranthene	206-44-0	ug/kg	530	887	850	1290	355	1620	551	156	338	345	86	252
Fluorene	86-73-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Hexachlorobenzene	118-74-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Hexachlorobutadiene	87-68-3	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Hexachloroethane	67-72-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	150	433	310	490	243	560	277	< 413	< 436	< 443	< 344	121
Isophorone	78-59-1	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-9117-02	I11-9301-02	I11-9301-05	I11-9303-02	I11-B5-04	I12-10-01	I12-10-03	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			12/15/1999	7/25/2000	5/9/2000	6/1/2000	6/1/2000	9/12/2000	6/1/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			I11-9117-021N	I11-9301-021N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-10-011.5N	I12-10-032N	I12-1-020.5N	I12-1-041N	I12-1-041FD	I12-11-020.5N	I12-11-040.5N
Parent Sample												I12-1-041N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 430	< 396	< 37	423	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Nitrobenzene	98-95-3	ug/kg	< 430	< 396	< 37	NA	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
N-Nitrosodimethylamine	62-75-9	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 430	662	1600	< 372	< 428	< 1870	< 401	< 413	< 436	298	< 344	< 358
Pentachlorophenol	87-86-5	ug/kg	< 850	< 792	< 75	< 743	< 855	< 3730	< 803	< 825	< 872	< 886	< 688	< 717
Phenanthrene	85-01-8	ug/kg	250	317	320	446	94.5	817	210	94.9	151	158	< 344	55.6
Phenol	108-95-2	ug/kg	< 430	< 396	< 37	< 372	< 428	< 1870	< 401	< 413	< 436	< 443	< 344	< 358
Pyrene	129-00-0	ug/kg	520	904	910	1230	449	1450	434	185	250	246	72.3	256
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-9117-02	I11-9301-02	I11-9301-05	I11-9303-02	I11-B5-04	I12-10-01	I12-10-03	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			12/15/1999	7/25/2000	5/9/2000	6/1/2000	6/1/2000	9/12/2000	6/1/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			I11-9117-021N	I11-9301-021N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-10-011.5N	I12-10-032N	I12-1-020.5N	I12-1-041N	I12-1-041FD	I12-11-020.5N	I12-11-040.5N
Parent Sample												I12-1-041N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	239	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	292000	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	5850	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 500	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.986	< 0.6	1.55	0.506	10.2	< 0.715	0.899	0.859	0.96	< 0.596	< 0.645
Arsenic	7440-38-2	mg/kg	57.1	20.7	18.7	84	81.9	10.2	9.19	7.83	13.2	13.8	3.83	7.24
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.41	0.367	0.34	0.313	0.413	0.244	0.257	0.503	0.308	0.306	0.093	0.259
Cadmium	7440-43-9	mg/kg	1	1.57	0.27	0.887	0.277	0.707	0.446	0.251	0.182	0.184	0.57	1.63
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	56.8	17.7	13.2	17.3	20.9	33.3	19.1	13.1	21.8	22.1	9.26	18.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	31.4	33.7	22.3	59.6	46	133	68	26.1	41.4	41.4	66.6	511
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	204	92.2	109	313	51.4	256	272	67.9	125	123	75.7	176
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.47	4.13	1.1	0.392	0.108	0.957	1.37	0.25	0.349	0.316	0.139	0.235
Nickel	7440-02-0	mg/kg	29.6	13.3	7.9	12.4	10.7	11.2	7.75	8.5	12.2	11.1	6.36	12
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.1	3.2	0.98	1.5	1.29	1.37	1.23	0.462	1.42	1.73	0.507	1.71

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I11-9117-02	I11-9301-02	I11-9301-05	I11-9303-02	I11-B5-04	I12-10-01	I12-10-03	I12-1-02	I12-1-04	I12-1-04	I12-11-02	I12-11-04
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			12/15/1999	7/25/2000	5/9/2000	6/1/2000	6/1/2000	9/12/2000	6/1/2000	9/12/2000	6/2/2000	6/2/2000	9/12/2000	9/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			I11-9117-021N	I11-9301-021N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-10-011.5N	I12-10-032N	I12-1-020.5N	I12-1-041N	I12-1-041FD	I12-11-020.5N	I12-11-040.5N
Parent Sample												I12-1-041N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.17	< 0.493	< 0.3	0.091	< 0.374	0.253	0.352	0.453	0.139	0.113	< 0.298	< 0.323
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.2	< 1.64	< 1	1.51	0.784	< 1.1	1.36	< 1.23	< 1.27	< 1.28	< 0.993	< 1.08
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	180	131	119	285	107	457	1390	84.1	118	127	129	650
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	25900	NA	73100	21400	82700	NA	29700	NA	116000	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	14.5	NA	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	24.1	NA	32.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	35.6	NA	44.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	76.2	87.2	NA	68.4	NA	77.1	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	100	100	NA	96.9	NA	81.8	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	100	NA	81.8	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	46.9	64.6	NA	47.8	NA	63	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	11.5	26	NA	8.5	NA	29.1	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	58.2	75.6	NA	57.9	NA	69.2	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	27.4	46.5	NA	24.8	NA	45.8	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	16.6	33.1	NA	11.6	NA	34.5	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	35.7	54.2	NA	36.3	NA	53.1	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	21.5	39.6	NA	16.8	NA	39.7	NA	NA	NA
Silt	ARC-PSILT	%	25.8	NA	14.8	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-09	I12-11-11	I12-11-13	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/12/2000	5/31/2000	5/31/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			I12-11-061N	I12-11-081N810	I12-11-081N815	I12-11-081FD	I12-11-091N	I12-11-111N	I12-11-130.5N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
Parent Sample						I12-11-081N815								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 508	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1050	NA	< 1020	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2100	NA	< 2030	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	144	NA	< 508	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1020	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1020	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1020	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-09	I12-11-11	I12-11-13	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/12/2000	5/31/2000	5/31/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			I12-11-061N	I12-11-081N810	I12-11-081N815	I12-11-081FD	I12-11-091N	I12-11-111N	I12-11-130.5N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
Parent Sample						I12-11-081N815								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	< 508	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 525	NA	401	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1020	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2,4-Dichlorophenol	120-83-2	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2,4-Dimethylphenol	105-67-9	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	< 748.058	< 758.794	NA	< 860	< 709	< 757.608	< 758.53	< 706	NA	< 756	NA	< 739
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 380	NA	< 430	< 355	< 380	< 380	< 353	NA	< 378	NA	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 380	NA	< 430	< 355	< 380	< 380	< 353	NA	< 378	NA	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2-Chlorophenol	95-57-8	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 748.058	< 758.794	NA	< 860	< 709	< 757.608	< 758.53	< 706	NA	< 756	NA	< 739
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 748.058	< 758.794	NA	< 860	< 709	< 757.608	< 758.53	< 706	NA	< 756	NA	< 739
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-09	I12-11-11	I12-11-13	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/12/2000	5/31/2000	5/31/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			I12-11-061N	I12-11-081N810	I12-11-081N815	I12-11-081FD	I12-11-091N	I12-11-111N	I12-11-130.5N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
Parent Sample						I12-11-081N815								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 748.058	< 758.794	NA	< 860	< 709	< 757.608	< 758.53	< 706	NA	< 756	NA	< 739
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 374.029	< 379.397	NA	21	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Acenaphthylene	208-96-8	ug/kg	20	16	NA	< 430	< 355	30	38	< 353	NA	< 378	NA	< 370
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 374.029	< 379.397	NA	67	< 355	38	33	< 353	NA	< 378	NA	< 370
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	140	160	NA	200	116	260	230	46.6	NA	82	NA	69.5
Benzo[a]pyrene	50-32-8	ug/kg	110	150	NA	160	108	300	210	< 353	NA	66.9	NA	56.9
Benzo[b]fluoranthene	205-99-2	ug/kg	240	220	NA	270	220	490	470	60.4	NA	133	NA	153
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 374.029	180	NA	120	106	120	160	< 353	NA	< 378	NA	< 370
Benzo[k]fluoranthene	207-08-9	ug/kg	< 374.029	< 379.397	NA	< 430	78.7	170	96	< 353	NA	< 378	NA	< 370
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 374.029	44	NA	61	27.7	< 378.804	35	282	NA	< 378	NA	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	170	400	NA	220	155	340	270	< 353	NA	93	NA	112
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Dimethylphthalate	131-11-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Di-n-butylphthalate	84-74-2	ug/kg	< 374.029	< 379.397	NA	52	152	< 378.804	34	< 353	NA	< 378	NA	120
Di-n-octylphthalate	117-84-0	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Fluoranthene	206-44-0	ug/kg	230	130	NA	350	194	< 378.804	300	< 353	NA	103	NA	106
Fluorene	86-73-7	ug/kg	< 374.029	< 379.397	NA	29	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Hexachlorobenzene	118-74-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Hexachlorobutadiene	87-68-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Hexachloroethane	67-72-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	81	110	NA	100	98.9	130	150	< 353	NA	< 378	NA	< 370
Isophorone	78-59-1	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-09	I12-11-11	I12-11-13	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/12/2000	5/31/2000	5/31/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			I12-11-061N	I12-11-081N810	I12-11-081N815	I12-11-081FD	I12-11-091N	I12-11-111N	I12-11-130.5N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
Parent Sample						I12-11-081N815								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Nitrobenzene	98-95-3	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
N-Nitrosodimethylamine	62-75-9	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Pentachlorophenol	87-86-5	ug/kg	< 748.058	< 758.794	NA	< 860	< 709	< 757.608	< 758.53	< 706	NA	< 756	NA	< 739
Phenanthrene	85-01-8	ug/kg	49	36	NA	240	72.7	61	49	< 353	NA	< 378	NA	32.2
Phenol	108-95-2	ug/kg	< 374.029	< 379.397	NA	< 430	< 355	< 378.804	< 379.265	< 353	NA	< 378	NA	< 370
Pyrene	129-00-0	ug/kg	130	99	NA	250	152	130	210	< 353	NA	83.1	NA	< 370
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-09	I12-11-11	I12-11-13	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/12/2000	5/31/2000	5/31/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			I12-11-061N	I12-11-081N810	I12-11-081N815	I12-11-081FD	I12-11-091N	I12-11-111N	I12-11-130.5N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
Parent Sample						I12-11-081N815								
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.617868	0.98	NA	0.53	0.804	< 0.682982	0.7	NA	NA	< 0.654	NA	< 6.53
Arsenic	7440-38-2	mg/kg	3.1	4.4	NA	5.7	4.82	3.3	4.9	NA	NA	4.76	NA	29.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.16	0.33	NA	0.33	0.243	0.12	0.24	NA	NA	0.168	NA	0.154
Cadmium	7440-43-9	mg/kg	0.14	1.7	NA	0.88	0.999	0.11	0.43	NA	NA	< 0.327	NA	< 3.27
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.8	13.4	NA	13.3	18.8	12	11.1	NA	NA	10.1	NA	52.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	25.8	62.3	NA	49.2	66.6	16.2	31.5	NA	NA	19.2	NA	33.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	116	48.2	NA	56.5	143	67.1	103	NA	NA	33	NA	138
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.24	NA	0.14	0.16	0.4	0.15	0.55	NA	NA	0.105	NA	0.183
Nickel	7440-02-0	mg/kg	6.3	12.3	NA	8.7	11.5	5.25	6	NA	NA	4.45	NA	57.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.51489	< 0.011166	NA	< 0.32	1.01	< 0.569152	< 0.526933	NA	NA	0.848	NA	< 5.44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-11-06	I12-11-08	I12-11-08	I12-11-08	I12-11-09	I12-11-11	I12-11-13	I12-12-01	I12-12-01	I12-13-03	I12-13-03	I12-14-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/12/2000	5/31/2000	5/31/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			I12-11-061N	I12-11-081N810	I12-11-081N815	I12-11-081FD	I12-11-091N	I12-11-111N	I12-11-130.5N	I12-12-011N	I12-12-010.5N	I12-13-031N	I12-13-030.5N	I12-14-011N
Parent Sample						I12-11-081N815								
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.308934	< 0.0067	NA	< 0.07	< 0.304	< 0.341491	< 0.31616	NA	NA	< 0.327	NA	< 3.27
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.69	1.3	NA	0.96	< 1.01	< 1.138304	< 1.053865	NA	NA	0.621	NA	< 10.9
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	112	227	NA	338	314	121	303	NA	NA	53.2	NA	5320
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	16200	NA	NA	NA	NA	NA	5170	NA	21900	NA	17900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	83	NA	NA	NA	NA	NA	96.1	NA	66.9	NA	78.2
SIEVE 0.75 inch, % passing	ARC-	%	NA	100	NA	NA	NA	NA	NA	100	NA	72.9	NA	89.2
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.8	NA	100
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	64.3	NA	NA	NA	NA	NA	83.8	NA	58.1	NA	65.4
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	17.9	NA	NA	NA	NA	NA	17.4	NA	22	NA	25.5
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	74.5	NA	NA	NA	NA	NA	91.8	NA	61.8	NA	70.7
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	43.1	NA	NA	NA	NA	NA	47.9	NA	41.5	NA	53.6
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	24.6	NA	NA	NA	NA	NA	24.4	NA	27.1	NA	33.7
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	53.6	NA	NA	NA	NA	NA	64.2	NA	50.7	NA	61.2
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	32.8	NA	NA	NA	NA	NA	34.5	NA	31.4	NA	44.1
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-15-01	I12-15-04	I12-2010-05	I12-2011-01	I12-2011-04	I12-2012-02	I12-2012-03	I12-2013-01	I12-2184-01	I12-2186-03	I12-2186-06
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	5/31/2000	6/2/2000	6/1/2000	6/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-15-011N	I12-15-040.5N	I12-2010-051.5N	I12-2011-011.5N	I12-2011-042N	I12-2012-021.5N	I12-2012-031N	I12-2013-011N	I12-2184-011.5N	I12-2186-031N	I12-2186-061N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-15-01	I12-15-04	I12-2010-05	I12-2011-01	I12-2011-04	I12-2012-02	I12-2012-03	I12-2013-01	I12-2184-01	I12-2186-03	I12-2186-06
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	5/31/2000	6/2/2000	6/1/2000	6/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-15-011N	I12-15-040.5N	I12-2010-051.5N	I12-2011-011.5N	I12-2011-042N	I12-2012-021.5N	I12-2012-031N	I12-2013-011N	I12-2184-011.5N	I12-2186-031N	I12-2186-061N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
1,2-Dichlorobenzene	95-50-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
1,4-Dichlorobenzene	106-46-7	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2,4-Dichlorophenol	120-83-2	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2,4-Dimethylphenol	105-67-9	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2,4-Dinitrophenol	51-28-5	ug/kg	< 778.816	< 780.64	< 774	< 719	< 716	< 723	< 705	< 730.34	< 710	< 703	< 709
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	< 390	< 387	< 360	< 358	< 362	< 352	< 370	< 355	< 351	724
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	< 390	< 387	< 360	< 358	< 362	< 352	< 370	< 355	< 351	74.8
2-Chloronaphthalene	91-58-7	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2-Chlorophenol	95-57-8	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 778.816	< 780.64	< 774	< 719	< 716	< 723	< 705	< 730.34	< 710	< 703	< 709
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 778.816	< 780.64	< 774	< 719	< 716	< 723	< 705	< 730.34	< 710	< 703	< 709
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-15-01	I12-15-04	I12-2010-05	I12-2011-01	I12-2011-04	I12-2012-02	I12-2012-03	I12-2013-01	I12-2184-01	I12-2186-03	I12-2186-06
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	5/31/2000	6/2/2000	6/1/2000	6/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-15-011N	I12-15-040.5N	I12-2010-051.5N	I12-2011-011.5N	I12-2011-042N	I12-2012-021.5N	I12-2012-031N	I12-2013-011N	I12-2184-011.5N	I12-2186-031N	I12-2186-061N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 780.64	< 774	< 719	< 716	< 723	< 705	< 730.34	< 710	< 703	< 709
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Acenaphthylene	208-96-8	ug/kg	44	40	773	55.4	< 358	< 362	< 352	70	< 355	< 351	107
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	48	83	1180	< 360	< 358	< 362	80	45	< 355	< 351	94.3
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	330	370	6340	119	< 358	47	340	200	74.5	138	287
Benzo[a]pyrene	50-32-8	ug/kg	220	190	4110	304	< 358	< 362	172	510	83.8	110	263
Benzo[b]fluoranthene	205-99-2	ug/kg	580	670	5370	355	< 358	83.2	555	600	102	186	388
Benzo[g,h,i]perylene	191-24-2	ug/kg	150	140	1880	207	< 358	< 362	113	370	< 355	90.7	202
Benzo[k]fluoranthene	207-08-9	ug/kg	200	180	2220	153	< 358	< 362	185	190	< 355	108	136
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	74	56	< 387	< 360	58.7	< 362	21.2	350	< 355	< 351	450
Butylbenzylphthalate	85-68-7	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	450	600	5060	128	< 358	67.3	481	310	79.1	186	358
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 389.408	< 390.32	649	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Dimethylphthalate	131-11-3	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Di-n-butylphthalate	84-74-2	ug/kg	140	41	125	159	268	< 362	< 352	220	< 355	101	517
Di-n-octylphthalate	117-84-0	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Fluoranthene	206-44-0	ug/kg	390	780	9470	162	< 358	< 362	684	330	165	290	776
Fluorene	86-73-7	ug/kg	< 389.408	< 390.32	92.5	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Hexachlorobenzene	118-74-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Hexachlorobutadiene	87-68-3	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Hexachloroethane	67-72-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	150	150	2050	205	< 358	< 362	115	340	< 355	84.7	177
Isophorone	78-59-1	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-15-01	I12-15-04	I12-2010-05	I12-2011-01	I12-2011-04	I12-2012-02	I12-2012-03	I12-2013-01	I12-2184-01	I12-2186-03	I12-2186-06
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	5/31/2000	6/2/2000	6/1/2000	6/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-15-011N	I12-15-040.5N	I12-2010-051.5N	I12-2011-011.5N	I12-2011-042N	I12-2012-021.5N	I12-2012-031N	I12-2013-011N	I12-2184-011.5N	I12-2186-031N	I12-2186-061N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Nitrobenzene	98-95-3	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
N-Nitrosodimethylamine	62-75-9	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 389.408	< 390.32	< 387	159	477	< 362	< 352	120	< 355	< 351	122
Pentachlorophenol	87-86-5	ug/kg	< 778.816	< 780.64	< 774	< 719	< 716	< 723	< 705	< 730.34	< 710	< 703	< 709
Phenanthrene	85-01-8	ug/kg	72	88	1920	34.2	< 358	< 362	55.3	71	71.3	147	350
Phenol	108-95-2	ug/kg	< 389.408	< 390.32	< 387	< 360	< 358	< 362	< 352	< 365.17	< 355	< 351	< 355
Pyrene	129-00-0	ug/kg	290	550	5580	151	< 358	< 362	552	340	138	250	656
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-15-01	I12-15-04	I12-2010-05	I12-2011-01	I12-2011-04	I12-2012-02	I12-2012-03	I12-2013-01	I12-2184-01	I12-2186-03	I12-2186-06
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	5/31/2000	6/2/2000	6/1/2000	6/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-15-011N	I12-15-040.5N	I12-2010-051.5N	I12-2011-011.5N	I12-2011-042N	I12-2012-021.5N	I12-2012-031N	I12-2013-011N	I12-2184-011.5N	I12-2186-031N	I12-2186-061N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.59	< 0.650533	1.14	< 0.623	0.521	< 0.614	0.31	9.4	< 0.614	< 0.62	< 0.632
Arsenic	7440-38-2	mg/kg	27	17.8	4.76	6.82	11.6	6.25	7.39	8.8	390	10.8	49.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.17	0.17	0.164	0.333	0.362	0.153	0.119	0.35	0.532	0.398	0.425
Cadmium	7440-43-9	mg/kg	0.11	0.41	0.081	0.738	1.12	0.319	< 0.292	6.4	0.14	0.501	1.03
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.5	14.3	15.1	16.1	21.5	8.57	12.6	117	12	18.5	25.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	28.5	20.3	38.7	69	64.6	20.5	37.9	1500	15.2	46	190
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	71.1	54.8	144	93.9	34.9	24.3	90.4	5020	11.7	331	1030
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.14	0.1	1.31	0.264	0.097	0.079	0.417	0.74	0.022	0.084	0.876
Nickel	7440-02-0	mg/kg	5.98	6.5	7.57	11.2	6.19	5.81	4.62	38.7	7.15	7.45	12.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.540845	0.85	1.08	0.459	0.832	0.526	0.48	< 1.086111	1.04	1.03	0.916

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-15-01	I12-15-04	I12-2010-05	I12-2011-01	I12-2011-04	I12-2012-02	I12-2012-03	I12-2013-01	I12-2184-01	I12-2186-03	I12-2186-06
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/31/2000	5/31/2000	6/2/2000	6/2/2000	9/12/2000	6/2/2000	9/12/2000	5/31/2000	6/2/2000	6/1/2000	6/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-15-011N	I12-15-040.5N	I12-2010-051.5N	I12-2011-011.5N	I12-2011-042N	I12-2012-021.5N	I12-2012-031N	I12-2013-011N	I12-2184-011.5N	I12-2186-031N	I12-2186-061N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.324507	< 0.325267	< 0.326	< 0.312	< 0.313	< 0.307	< 0.292	0.46	< 0.307	< 0.31	0.216
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.72	1.2	0.602	0.594	< 1.04	< 1.02	< 0.972	4.7	0.881	< 1.03	0.745
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	77	126	104	406	179	52	175	1770	46.1	103	431
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	32800	NA	21100	16400	NA	47500	NA	27800	27700	35700	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	81.2	NA	87.1	84.9	NA	92.3	NA	56.7	94.3	76.1	NA
SIEVE 0.75 inch, % passing	ARC-	%	90.4	NA	100	92.1	NA	100	NA	92.8	100	87.1	NA
SIEVE 1 inch, % passing	ARC-	%	100	NA	NA	100	NA	NA	NA	100	NA	100	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	70.3	NA	79.1	71.3	NA	72	NA	46.1	79.9	495	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	25.5	NA	26.9	30.2	NA	25.4	NA	8.8	53.2	5.5	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	75.5	NA	84	78.4	NA	79.1	NA	52.4	87.4	60.5	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	57.2	NA	59.8	49.9	NA	49.9	NA	27.7	67.1	20.5	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	36	NA	37	36.1	NA	33.3	NA	13.2	57.9	7.8	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	65.5	NA	71.8	60.7	NA	59.2	NA	37.5	73	36	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	46.5	NA	47.5	42.1	NA	41.6	NA	19.1	62.3	11.9	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I12-2186-13 0.0-1.0 ft 6/1/2000 N I12-2186-131N	I12-2287-01 0.0-1.0 ft 5/31/2000 N I12-2287-011N	I12-2287-04 0.0-0.5 ft 9/12/2000 N I12-2287-040.5N	I12-2341-03 0.0-1.0 ft 6/2/2000 N I12-2341-031N	I12-4-01 0.0-2.0 ft 5/25/2000 N I12-4-012N	I12-6-04 0.0-1.0 ft 6/1/2000 N I12-6-041N	I12-7-02 0.0-1.5 ft 5/26/2000 N I12-7-021.5N	I12-7-04 0.0-1.5 ft 5/26/2000 N I12-7-041.5N	I12-8-01 0.0-1.0 ft 6/1/2000 N I12-8-011N	I12-8101-01 0.0-1.0 ft 5/25/2000 N I12-8101-011N	I12-8101-02 0.0-1.0 ft 8/2/2000 N I12-8101-021N	I12-8271-01 0.0-2.0 ft 9/12/2000 N I12-8271-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 410	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I12-2186-13 0.0-1.0 ft 6/1/2000 N I12-2186-131N	I12-2287-01 0.0-1.0 ft 5/31/2000 N I12-2287-011N	I12-2287-04 0.0-0.5 ft 9/12/2000 N I12-2287-040.5N	I12-2341-03 0.0-1.0 ft 6/2/2000 N I12-2341-031N	I12-4-01 0.0-2.0 ft 5/25/2000 N I12-4-012N	I12-6-04 0.0-1.0 ft 6/1/2000 N I12-6-041N	I12-7-02 0.0-1.5 ft 5/26/2000 N I12-7-021.5N	I12-7-04 0.0-1.5 ft 5/26/2000 N I12-7-041.5N	I12-8-01 0.0-1.0 ft 6/1/2000 N I12-8-011N	I12-8101-01 0.0-1.0 ft 5/25/2000 N I12-8101-011N	I12-8101-02 0.0-1.0 ft 8/2/2000 N I12-8101-021N	I12-8271-01 0.0-2.0 ft 9/12/2000 N I12-8271-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 410	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
1,2-Dichlorobenzene	95-50-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	NA	NA	NA	< 44	< 402.773	< 359
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 410	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	NA	NA	NA	< 44	< 402.773	< 359
1,4-Dichlorobenzene	106-46-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
2,4-Dichlorophenol	120-83-2	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
2,4-Dimethylphenol	105-67-9	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
2,4-Dinitrophenol	51-28-5	ug/kg	< 777	< 774.754	< 703	< 762	< 1800	< 720	< 810	NA	NA	< 88	< 805.546	< 718
2,4-Dinitrotoluene	121-14-2	ug/kg	< 389	< 390	< 351	104	66000	82.5	< 410	NA	NA	110	< 402	< 359
2,6-Dinitrotoluene	606-20-2	ug/kg	< 389	< 390	< 351	< 381	1700	< 360	NA	NA	NA	< 440	< 402	< 359
2-Chloronaphthalene	91-58-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
2-Chlorophenol	95-57-8	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	NA	NA	NA	< 44	NA	< 359
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 410	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 777	< 774.754	< 703	< 762	< 1800	< 720	NA	NA	NA	< 88	< 805.546	< 718
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	< 810	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 777	< 774.754	< 703	< 762	< 1800	< 720	< 810	NA	NA	< 88	< 805.546	< 718
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-2186-13	I12-2287-01	I12-2287-04	I12-2341-03	I12-4-01	I12-6-04	I12-7-02	I12-7-04	I12-8-01	I12-8101-01	I12-8101-02	I12-8271-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			6/1/2000	5/31/2000	9/12/2000	6/2/2000	5/25/2000	6/1/2000	5/26/2000	5/26/2000	6/1/2000	5/25/2000	8/2/2000	9/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-2186-131N	I12-2287-011N	I12-2287-040.5N	I12-2341-031N	I12-4-012N	I12-6-041N	I12-7-021.5N	I12-7-041.5N	I12-8-011N	I12-8101-011N	I12-8101-021N	I12-8271-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 777	< 774.754	< 703	< 762	< 1800	< 720	NA	NA	NA	< 88	NA	< 718
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 810	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 389	26	49.5	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Acenaphthylene	208-96-8	ug/kg	70.8	31	< 351	< 381	< 900	< 360	20.7	NA	NA	< 44	< 402.773	< 359
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	98.7	42	55.5	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	212	240	268	109	940	120	137	NA	NA	< 44	< 402.773	46.7
Benzo[a]pyrene	50-32-8	ug/kg	199	250	288	84.6	< 900	91.8	160	NA	NA	18	< 402.773	< 359
Benzo[b]fluoranthene	205-99-2	ug/kg	454	440	529	151	< 900	172	376	NA	NA	< 44	< 402.773	< 359
Benzo[g,h,i]perylene	191-24-2	ug/kg	199	200	285	89.2	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Benzo[k]fluoranthene	207-08-9	ug/kg	163	140	201	< 381	< 900	83.6	< 410	NA	NA	< 44	< 402.773	< 359
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	1260	31	< 351	< 381	< 900	< 360	60.06	NA	NA	< 44	< 402.773	< 359
Butylbenzylphthalate	85-68-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	433	360	442	192	860	153	190	NA	NA	< 44	< 402.773	65
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Dimethylphthalate	131-11-3	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Di-n-butylphthalate	84-74-2	ug/kg	1050	< 387.377	< 351	50.7	< 900	254	43.83	NA	NA	< 44	912	< 359
Di-n-octylphthalate	117-84-0	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Fluoranthene	206-44-0	ug/kg	391	680	912	218	< 900	209	325	NA	NA	< 44	< 402.773	91.6
Fluorene	86-73-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Hexachlorobenzene	118-74-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	NA	< 359
Hexachlorobutadiene	87-68-3	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Hexachloroethane	67-72-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	191	170	254	< 381	< 900	69.5	76.7	NA	NA	< 44	< 402.773	< 359
Isophorone	78-59-1	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-2186-13	I12-2287-01	I12-2287-04	I12-2341-03	I12-4-01	I12-6-04	I12-7-02	I12-7-04	I12-8-01	I12-8101-01	I12-8101-02	I12-8271-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			6/1/2000	5/31/2000	9/12/2000	6/2/2000	5/25/2000	6/1/2000	5/26/2000	5/26/2000	6/1/2000	5/25/2000	8/2/2000	9/12/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I12-2186-131N	I12-2287-011N	I12-2287-040.5N	I12-2341-031N	I12-4-012N	I12-6-041N	I12-7-021.5N	I12-7-041.5N	I12-8-011N	I12-8101-011N	I12-8101-021N	I12-8271-012N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	NA	NA	NA	< 44	< 402.773	< 359
Nitrobenzene	98-95-3	ug/kg	< 389	< 387.377	< 351	< 381	NA	< 360	< 410	NA	NA	NA	NA	< 359
N-Nitrosodimethylamine	62-75-9	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
N-Nitrosodiphenylamine	86-30-6	ug/kg	90.6	< 387.377	< 351	< 381	3100	< 360	< 410	NA	NA	< 44	244	< 359
Pentachlorophenol	87-86-5	ug/kg	< 777	< 774.754	< 703	< 762	< 1800	< 720	< 810	NA	NA	< 88	< 805.546	< 718
Phenanthrene	85-01-8	ug/kg	94.5	370	520	125	< 900	70.2	118	NA	NA	34	< 402.773	< 359
Phenol	108-95-2	ug/kg	< 389	< 387.377	< 351	< 381	< 900	< 360	< 410	NA	NA	< 44	< 402.773	< 359
Pyrene	129-00-0	ug/kg	342	420	753	175	< 900	203	343	NA	NA	< 44	< 402.773	83.3
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 18.1	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 18.1	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 18.1	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 18.1	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 18.1	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	65.6	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 36.3	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	65.6	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I12-2186-13 0.0-1.0 ft 6/1/2000 N I12-2186-131N	I12-2287-01 0.0-1.0 ft 5/31/2000 N I12-2287-011N	I12-2287-04 0.0-0.5 ft 9/12/2000 N I12-2287-040.5N	I12-2341-03 0.0-1.0 ft 6/2/2000 N I12-2341-031N	I12-4-01 0.0-2.0 ft 5/25/2000 N I12-4-012N	I12-6-04 0.0-1.0 ft 6/1/2000 N I12-6-041N	I12-7-02 0.0-1.5 ft 5/26/2000 N I12-7-021.5N	I12-7-04 0.0-1.5 ft 5/26/2000 N I12-7-041.5N	I12-8-01 0.0-1.0 ft 6/1/2000 N I12-8-011N	I12-8101-01 0.0-1.0 ft 5/25/2000 N I12-8101-011N	I12-8101-02 0.0-1.0 ft 8/2/2000 N I12-8101-021N	I12-8271-01 0.0-2.0 ft 9/12/2000 N I12-8271-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 24	NA	NA	< 250	NA	< 25	< 227.275	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 24	NA	NA	< 250	NA	< 25	< 227.275	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 24	NA	NA	< 250	NA	< 25	< 227.275	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 24	NA	NA	< 250	NA	< 25	< 227.275	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 49	NA	NA	< 500	NA	< 49	< 454.55	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 49	NA	NA	< 500	NA	< 49	< 454.55	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 24	NA	NA	< 250	NA	< 25	< 227.275	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 49	NA	NA	< 500	NA	< 49	< 454.55	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 24	NA	NA	408	NA	< 25	< 227.275	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	8360000	NA	NA	522000	NA	118000	250000	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 670	NA	NA	2720	NA	< 640	21600	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 49	NA	NA	< 500	NA	< 49	< 454.55	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 49	NA	NA	< 500	NA	< 49	< 454.55	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 49	NA	NA	< 500	NA	< 49	< 454.55	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.14	0.68	0.327	7.82	< 3	< 0.607	< 0.696	NA	NA	< 0.7	< 0.502922	< 0.61
Arsenic	7440-38-2	mg/kg	3.91	7.6	59.7	14.3	24.3	20.8	5.48	NA	NA	4.9	6	4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.71	0.09	0.075	0.529	0.43	0.476	0.294	NA	NA	0.44	0.325	0.51
Cadmium	7440-43-9	mg/kg	13.5	0.09	0.44	1.69	< 1	0.091	0.252	NA	NA	0.45	0.413	0.724
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	36.8	12.4	10.2	9.66	39.2	15	15.4	NA	NA	14.2	17.9	14.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	69.3	69.7	33.7	114	112	105	471	NA	NA	23.4	23.6	23.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	157	134	54.7	73600	222	226	713	NA	NA	41.3	40.5	31.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.068	0.32	0.031	0.512	0.23	0.117	1.01	NA	NA	0.1	0.06	0.095
Nickel	7440-02-0	mg/kg	21.1	3.9	5.03	14.1	215	9.45	11.2	NA	NA	9.5	10.5	7.01
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.33	0.62	1.2	2.97	2.4	0.963	0.706	NA	NA	0.83	0.824	1.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I12-2186-13 0.0-1.0 ft 6/1/2000 N I12-2186-131N	I12-2287-01 0.0-1.0 ft 5/31/2000 N I12-2287-011N	I12-2287-04 0.0-0.5 ft 9/12/2000 N I12-2287-040.5N	I12-2341-03 0.0-1.0 ft 6/2/2000 N I12-2341-031N	I12-4-01 0.0-2.0 ft 5/25/2000 N I12-4-012N	I12-6-04 0.0-1.0 ft 6/1/2000 N I12-6-041N	I12-7-02 0.0-1.5 ft 5/26/2000 N I12-7-021.5N	I12-7-04 0.0-1.5 ft 5/26/2000 N I12-7-041.5N	I12-8-01 0.0-1.0 ft 6/1/2000 N I12-8-011N	I12-8101-01 0.0-1.0 ft 5/25/2000 N I12-8101-011N	I12-8101-02 0.0-1.0 ft 8/2/2000 N I12-8101-021N	I12-8271-01 0.0-2.0 ft 9/12/2000 N I12-8271-012N
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.218	< 0.322922	< 0.304	5.56	< 1	< 0.304	0.166	NA	NA	0.08	< 0.251461	< 0.305
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.81	< 1.076408	< 1.01	2.82	7.2	0.655	< 1.16	NA	NA	< 1	< 0.838203	< 1.02
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	704	42.2	38.5	429	277	70.1	140	NA	NA	183	88.6	91.6
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	37300	NA	85700	101000	25100	37800	NA	47500	38900	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	0	NA	NA	NA	NA	4.2	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	45	NA	NA	NA	NA	19.1	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	38.9	NA	NA	NA	NA	41.1	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	81.5	NA	84.4	NA	89.7	NA	NA	88.7	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	86.5	NA	100	NA	100	NA	NA	100	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	71.8	NA	58.3	NA	76.1	NA	NA	68.2	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	27.6	NA	17.7	NA	26.4	NA	NA	30.7	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	76.5	NA	68.4	NA	83.4	NA	NA	75.9	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	57.8	NA	36.7	NA	47.9	NA	NA	58.9	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	38.5	NA	23.8	NA	32.6	NA	NA	44.8	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	66.9	NA	46.3	NA	61.7	NA	NA	64	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	47.8	NA	29.7	NA	39	NA	NA	52.9	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	16.1	NA	NA	NA	NA	35.6	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-8271-02	I12-8581-01	I12-8581-01	I12-8581-04	I12-8581-04	I12-9-01	I12-9-01	I12-9110-03	I12-9110-04	I12-9111-01	I12-9111-01
Depths			0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2000	9/13/2000	9/13/2000	6/2/2000	6/2/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	9/13/2000	9/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			I12-8271-020.5N	I12-8581-012N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9-011N	I12-9-011FD	I12-9110-031N	I12-9110-041N	I12-9111-011N	I12-9111-010.5N
Parent Sample									I12-9-011N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1200	NA	< 1040	NA	NA	NA	NA	NA	< 1050
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Acrolein	107-02-8	ug/kg	NA	NA	< 2400	NA	< 2080	NA	NA	NA	NA	NA	< 2100
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Bromoform	75-25-2	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Bromomethane	74-83-9	ug/kg	NA	NA	< 1200	NA	< 1040	NA	NA	NA	NA	NA	< 1050
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Chloroethane	75-00-3	ug/kg	NA	NA	< 1200	NA	< 1040	NA	NA	NA	NA	NA	< 1050
Chloroform	67-66-3	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Chloromethane	74-87-3	ug/kg	NA	NA	< 1200	NA	< 1040	NA	NA	NA	NA	NA	< 1050
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-8271-02	I12-8581-01	I12-8581-01	I12-8581-04	I12-8581-04	I12-9-01	I12-9-01	I12-9110-03	I12-9110-04	I12-9111-01	I12-9111-01
Depths			0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2000	9/13/2000	9/13/2000	6/2/2000	6/2/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	9/13/2000	9/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			I12-8271-020.5N	I12-8581-012N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9-011N	I12-9-011FD	I12-9110-031N	I12-9110-041N	I12-9111-011N	I12-9111-010.5N
Parent Sample									I12-9-011N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	613	NA	< 521	NA	NA	NA	NA	NA	567
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Toluene	108-88-3	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 601	NA	< 521	NA	NA	NA	NA	NA	< 525
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 601	NA	306	NA	NA	NA	NA	NA	< 525
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 1200	NA	< 1040	NA	NA	NA	NA	NA	< 1050
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 756	< 773	NA	< 690	NA	NA	NA	< 783.378	< 784.068	< 745	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 390	< 390	< 373	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 390	< 390	< 373	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2-Chlorophenol	95-57-8	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 756	< 773	NA	< 690	NA	NA	NA	< 783.378	< 784.068	< 745	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 756	< 773	NA	< 690	NA	NA	NA	< 783.378	< 784.068	< 745	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-8271-02	I12-8581-01	I12-8581-01	I12-8581-04	I12-8581-04	I12-9-01	I12-9-01	I12-9110-03	I12-9110-04	I12-9111-01	I12-9111-01
Depths			0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2000	9/13/2000	9/13/2000	6/2/2000	6/2/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	9/13/2000	9/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			I12-8271-020.5N	I12-8581-012N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9-011N	I12-9-011FD	I12-9110-031N	I12-9110-041N	I12-9111-011N	I12-9111-010.5N
Parent Sample									I12-9-011N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 756	< 773	NA	< 690	NA	NA	NA	< 783.378	< 784.068	< 745	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 378	< 386	NA	42.4	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Acenaphthylene	208-96-8	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 378	< 386	NA	98.3	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	103	69.6	NA	117	NA	NA	NA	74	85	132	NA
Benzo[a]pyrene	50-32-8	ug/kg	96	51.8	NA	70.4	NA	NA	NA	64	140	135	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	182	102	NA	92.8	NA	NA	NA	180	240	190	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	87	95.8	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	76.3	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	60.8	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 378	< 386	NA	1190	NA	NA	NA	35	24	< 373	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	60	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	136	67.6	NA	97	NA	NA	NA	130	210	138	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 378	< 386	NA	205	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Dimethylphthalate	131-11-3	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Di-n-butylphthalate	84-74-2	ug/kg	56.7	< 386	NA	11000	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Fluoranthene	206-44-0	ug/kg	195	87	NA	277	NA	NA	NA	150	570	204	NA
Fluorene	86-73-7	ug/kg	< 378	< 386	NA	61.4	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Hexachlorobenzene	118-74-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Hexachloroethane	67-72-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	71.4	< 386	NA	< 345	NA	NA	NA	< 391.689	80	87.2	NA
Isophorone	78-59-1	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I12-8271-02 0.0-0.5 ft 6/1/2000 N I12-8271-020.5N	I12-8581-01 0.0-2.0 ft 9/13/2000 N I12-8581-012N	I12-8581-01 0.5-1.0 ft 9/13/2000 N I12-8581-010.5N	I12-8581-04 0.0-1.0 ft 6/2/2000 N I12-8581-041N	I12-8581-04 0.5-1.0 ft 6/2/2000 N I12-8581-040.5N	I12-9-01 0.0-1.0 ft 6/1/2000 N I12-9-011N	I12-9-01 0.0-1.0 ft 6/1/2000 FD I12-9-011FD I12-9-011N	I12-9110-03 0.0-1.0 ft 5/31/2000 N I12-9110-031N	I12-9110-04 0.0-1.0 ft 5/31/2000 N I12-9110-041N	I12-9111-01 0.0-1.0 ft 9/13/2000 N I12-9111-011N	I12-9111-01 0.5-1.0 ft 9/13/2000 N I12-9111-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	28	< 373	NA
Nitrobenzene	98-95-3	ug/kg	< 378	NA	NA	NA	NA	NA	NA	< 391.689	< 392.034	< 373	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 378	64.9	NA	1190	NA	NA	NA	< 391.689	< 392.034	27.6	NA
Pentachlorophenol	87-86-5	ug/kg	< 756	< 773	NA	< 690	NA	NA	NA	< 783.378	< 784.068	< 745	NA
Phenanthrene	85-01-8	ug/kg	52.2	< 386	NA	342	NA	NA	NA	58	430	71.2	NA
Phenol	108-95-2	ug/kg	< 378	< 386	NA	< 345	NA	NA	NA	< 391.689	< 392.034	< 373	NA
Pyrene	129-00-0	ug/kg	168	105	NA	185	NA	NA	NA	< 391.689	440	201	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	< 18.7	< 18.5	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	< 18.7	< 18.5	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	< 18.7	< 18.5	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	< 18.7	< 18.5	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	< 18.7	< 18.5	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	132	249	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	< 37.5	< 37	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	132	249	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I12-8271-02 0.0-0.5 ft 6/1/2000 N I12-8271-020.5N	I12-8581-01 0.0-2.0 ft 9/13/2000 N I12-8581-012N	I12-8581-01 0.5-1.0 ft 9/13/2000 N I12-8581-010.5N	I12-8581-04 0.0-1.0 ft 6/2/2000 N I12-8581-041N	I12-8581-04 0.5-1.0 ft 6/2/2000 N I12-8581-040.5N	I12-9-01 0.0-1.0 ft 6/1/2000 N I12-9-011N	I12-9-01 0.0-1.0 ft 6/1/2000 FD I12-9-011FD I12-9-011N	I12-9110-03 0.0-1.0 ft 5/31/2000 N I12-9110-031N	I12-9110-04 0.0-1.0 ft 5/31/2000 N I12-9110-041N	I12-9111-01 0.0-1.0 ft 9/13/2000 N I12-9111-011N	I12-9111-01 0.5-1.0 ft 9/13/2000 N I12-9111-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 238	NA	< 238	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 238	NA	< 238	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 238	NA	< 238	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 238	NA	< 238	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 476	NA	< 476	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 476	NA	< 476	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 238	NA	< 238	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 476	NA	< 238	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 238	NA	< 238	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	58200	NA	177000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 5390	NA	21100	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 476	NA	< 476	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 476	NA	< 476	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	< 476	NA	< 476	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.675	< 0.675	NA	< 0.604	NA	NA	NA	0.55	0.53	< 0.633	NA
Arsenic	7440-38-2	mg/kg	6.72	4.39	NA	3.23	NA	NA	NA	9.6	6.8	3.8	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.437	0.746	NA	0.487	NA	NA	NA	0.29	0.14	0.647	NA
Cadmium	7440-43-9	mg/kg	0.284	0.249	NA	0.31	NA	NA	NA	< 0.474116	< 0.329968	0.373	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.8	13.7	NA	14.8	NA	NA	NA	31.3	17.9	19.9	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	37.5	35.4	NA	20.6	NA	NA	NA	57.2	31.1	51.1	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	48.7	38.2	NA	25.2	NA	NA	NA	241	133	45.8	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.161	0.162	NA	0.053	NA	NA	NA	0.26	0.1	0.432	NA
Nickel	7440-02-0	mg/kg	8.71	9.11	NA	10.2	NA	NA	NA	18.2	8.1	18.9	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.19	< 0.563	NA	0.567	NA	NA	NA	0.65	< 0.549947	< 0.528	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-8271-02	I12-8581-01	I12-8581-01	I12-8581-04	I12-8581-04	I12-9-01	I12-9-01	I12-9110-03	I12-9110-04	I12-9111-01	I12-9111-01
Depths			0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2000	9/13/2000	9/13/2000	6/2/2000	6/2/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	9/13/2000	9/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			I12-8271-020.5N	I12-8581-012N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9-011N	I12-9-011FD	I12-9110-031N	I12-9110-041N	I12-9111-011N	I12-9111-010.5N
Parent Sample									I12-9-011N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.337	< 0.338	NA	< 0.302	NA	NA	NA	< 0.474116	< 0.329968	0.535	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.849	< 1.13	NA	0.701	NA	NA	NA	2.3	0.3	< 1.06	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	148	137	NA	83.6	NA	NA	NA	80	37.4	293	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	25600	NA	NA	12300	NA	15700	NA	41800	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	90.4	NA	NA	811.1	NA	98.8	NA	95.4	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	100	NA	100	NA	100	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	74	NA	NA	48.8	NA	81.4	NA	81.8	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	26.1	NA	NA	20.9	NA	19.1	NA	30.4	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	83.6	NA	NA	52.6	NA	91.5	NA	88.1	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	49.5	NA	NA	40.1	NA	48.9	NA	60.4	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	30.9	NA	NA	29.5	NA	25.1	NA	39.4	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	61.9	NA	NA	44.7	NA	66	NA	72	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	38.8	NA	NA	35.4	NA	34.7	NA	49.1	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-9111-04	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I5-1-01	I5-1-02	I5-1-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/2/2000	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	FD
Sample Name			I12-9111-041N	I12-9111-040.5N	I12-9112-030.5N	I12-9112-030.5FD	I12-9112-041N	I12-9112-041FD	I12-9120-020.5N	I12-9120-031N	I5-1-012N	I5-1-021.5N	I5-1-021.5FD
Parent Sample						I12-9112-030.5N		I12-9112-041N					I5-1-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 1050	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 2100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 1050	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 1050	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 1050	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-9111-04	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I5-1-01	I5-1-02	I5-1-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/2/2000	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	FD
Sample Name			I12-9111-041N	I12-9111-040.5N	I12-9112-030.5N	I12-9112-030.5FD	I12-9112-041N	I12-9112-041FD	I12-9120-020.5N	I12-9120-031N	I5-1-012N	I5-1-021.5N	I5-1-021.5FD
Parent Sample						I12-9112-030.5N		I12-9112-041N					I5-1-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 525	NA	NA	NA	NA	< 349.24	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 525	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 1050	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 738	NA	< 700	< 702	< 775	< 746	< 698.48	< 823	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349	< 412	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349	< 412	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	NA	< 412	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 349.24	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 738	NA	< 700	< 702	< 775	< 746	< 698.48	< 823	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 738	NA	< 700	< 702	< 775	< 746	< 698.48	< 823	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-9111-04	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I5-1-01	I5-1-02	I5-1-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/2/2000	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	FD
Sample Name			I12-9111-041N	I12-9111-040.5N	I12-9112-030.5N	I12-9112-030.5FD	I12-9112-041N	I12-9112-041FD	I12-9120-020.5N	I12-9120-031N	I5-1-012N	I5-1-021.5N	I5-1-021.5FD
Parent Sample						I12-9112-030.5N		I12-9112-041N					I5-1-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 738	NA	< 700	< 702	< 775	< 746	NA	< 823	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 698.48	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	73.1	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 369	NA	< 350	160	140	136	< 349.24	< 412	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	259	NA	< 350	118	164	208	< 349.24	< 412	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1130	NA	192	997	604	688	33.53	< 412	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	948	NA	159	539	502	520	35.62	< 412	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	1200	NA	413	1320	853	854	< 349.24	< 412	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	535	NA	144	366	363	299	< 349.24	< 412	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	467	NA	114	467	348	346	< 349.24	< 412	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	5620	NA	30.5	30.5	< 388	342	37.37	26.3	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	165	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	980	NA	298	1450	786	823	49.59	< 412	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	187	NA	< 350	< 351	110	101	< 349.24	< 412	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	293	NA	< 350	< 351	70.2	58.6	45.75	51.9	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	1980	NA	315	839	1390	1610	113	< 412	NA	NA	NA
Fluorene	86-73-7	ug/kg	71.6	NA	< 350	< 351	< 388	69.4	< 349.24	< 412	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	515	NA	138	362	353	304	< 349.24	< 412	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-9111-04	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I5-1-01	I5-1-02	I5-1-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/2/2000	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	FD
Sample Name			I12-9111-041N	I12-9111-040.5N	I12-9112-030.5N	I12-9112-030.5FD	I12-9112-041N	I12-9112-041FD	I12-9120-020.5N	I12-9120-031N	I5-1-012N	I5-1-021.5N	I5-1-021.5FD
Parent Sample						I12-9112-030.5N		I12-9112-041N					I5-1-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	NA	< 412	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	751	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 738	NA	< 700	< 702	< 775	< 746	< 698.48	< 823	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	1060	NA	70.8	94.4	638	1080	< 349.24	< 412	NA	NA	NA
Phenol	108-95-2	ug/kg	< 369	NA	< 350	< 351	< 388	< 373	< 349.24	< 412	NA	NA	NA
Pyrene	129-00-0	ug/kg	1520	NA	256	821	894	1060	< 349.24	< 412	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	< 21
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	< 21
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	< 21
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	< 21
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	< 21
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 2	< 21
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 4	< 4	< 42
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 40	< 41	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-9111-04	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I5-1-01	I5-1-02	I5-1-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/2/2000	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	FD
Sample Name			I12-9111-041N	I12-9111-040.5N	I12-9112-030.5N	I12-9112-030.5FD	I12-9112-041N	I12-9112-041FD	I12-9120-020.5N	I12-9120-031N	I5-1-012N	I5-1-021.5N	I5-1-021.5FD
Parent Sample						I12-9112-030.5N		I12-9112-041N					I5-1-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.651	NA	< 0.625	< 0.62	< 3.27	1.75	< 0.566901	< 0.733	NA	NA	NA
Arsenic	7440-38-2	mg/kg	4.32	NA	15.4	11.6	18.3	19.2	3.68	3.86	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.846	NA	0.087	0.08	0.137	0.14	0.049	0.129	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.242	NA	0.438	0.41	< 1.63	< 1.63	< 0.283451	< 0.367	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14	NA	15	13	52.3	52	25.8	13.8	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	23.1	NA	43.9	37.2	67.5	63.4	13.5	15.8	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	15.7	NA	88.8	73.8	345	371	35.7	47.7	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.035	NA	0.38	0.366	1.72	2.1	0.039	0.031	NA	NA	NA
Nickel	7440-02-0	mg/kg	10.3	NA	4.93	4.17	14.4	12.9	12.3	5.87	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.85	NA	0.833	0.858	2.95	< 2.72	0.527	0.439	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I12-9111-04	I12-9111-04	I12-9112-03	I12-9112-03	I12-9112-04	I12-9112-04	I12-9120-02	I12-9120-03	I5-1-01	I5-1-02	I5-1-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			6/2/2000	6/2/2000	9/12/2000	9/12/2000	6/2/2000	6/2/2000	7/13/2000	9/27/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	N	N	FD	N	FD	N	N	N	N	FD
Sample Name			I12-9111-041N	I12-9111-040.5N	I12-9112-030.5N	I12-9112-030.5FD	I12-9112-041N	I12-9112-041FD	I12-9120-020.5N	I12-9120-031N	I5-1-012N	I5-1-021.5N	I5-1-021.5FD
Parent Sample						I12-9112-030.5N		I12-9112-041N					I5-1-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.326	NA	< 0.312	< 0.31	< 1.63	< 1.63	< 0.283451	< 0.367	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.29	NA	< 1.04	< 1.03	< 5.44	< 5.43	< 0.944836	< 1.22	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	1150	NA	80.2	58.6	150	127	18.1	15.1	NA	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	19300	NA	NA	NA	39200	NA	14800	NA	8000	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	12.7	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	28.3	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	69.1	NA	NA	NA	87.2	NA	95.4	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	NA	100	NA	100	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	47.6	NA	NA	NA	71.1	NA	81	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	9.8	NA	NA	NA	25.7	NA	36.6	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	58	NA	NA	NA	77.4	NA	89.5	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	26.8	NA	NA	NA	53.8	NA	70.7	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	12.9	NA	NA	NA	33.7	NA	47.6	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	37.1	NA	NA	NA	64.3	NA	78.1	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	18.3	NA	NA	NA	43.4	NA	60.1	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	23.1	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-1-03	I5-2-01	I5-2-02	I5-3-03	I5-3-06	I5-4-03	I5-5-02	I5-7-01	I5-7-01	I5-7-05	I5-7-05	I5-8-01	I5-8-02	I5-8141-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	7/19/2000	4/13/2000	4/14/2000	4/14/2000	4/6/2000	4/6/2000	7/21/2000	7/21/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I5-1-032N	I5-2-012N	I5-2-021N	I5-3-031N	I5-3-060.75N	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-010.5N	I5-7-050.5N815	I5-7-050.5N820	I5-8-012N	I5-8-022N	I5-8141-011N
Parent Sample																
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 58	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 584	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1150	< 116	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2290	< 233	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 5730	< 58	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1150	< 116	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1150	< 116	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1150	< 116	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 58	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-1-03	I5-2-01	I5-2-02	I5-3-03	I5-3-06	I5-4-03	I5-5-02	I5-7-01	I5-7-01	I5-7-05	I5-7-05	I5-8-01	I5-8-02	I5-8141-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	7/19/2000	4/13/2000	4/14/2000	4/14/2000	4/6/2000	4/6/2000	7/21/2000	7/21/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I5-1-032N	I5-2-012N	I5-2-021N	I5-3-031N	I5-3-060.75N	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-010.5N	I5-7-050.5N815	I5-7-050.5N820	I5-8-012N	I5-8-022N	I5-8141-011N
Parent Sample																
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds (cont.)																
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2290	< 58	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	< 58	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 573	145	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 116	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	< 78	NA	< 716	NA	NA	< 77	< 79	< 747.724	< 77
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 390	NA	< 358	NA	NA	< 380	< 400	< 373	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 390	NA	< 358	NA	NA	< 380	< 400	< 373	< 380
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	NA	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	< 78	NA	< 716	NA	NA	< 77	< 79	< 747.724	< 77
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	< 78	NA	< 716	NA	NA	< 77	< 79	< 747.724	< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-1-03	I5-2-01	I5-2-02	I5-3-03	I5-3-06	I5-4-03	I5-5-02	I5-7-01	I5-7-01	I5-7-05	I5-7-05	I5-8-01	I5-8-02	I5-8141-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	7/19/2000	4/13/2000	4/14/2000	4/14/2000	4/6/2000	4/6/2000	7/21/2000	7/21/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I5-1-032N	I5-2-012N	I5-2-021N	I5-3-031N	I5-3-060.75N	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-010.5N	I5-7-050.5N815	I5-7-050.5N820	I5-8-012N	I5-8-022N	I5-8141-011N
Parent Sample																
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	< 78	NA	< 716	NA	NA	< 77	< 79	NA	< 77
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	20	< 40	< 373.862	33
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	31	NA	< 358	NA	NA	< 38	< 40	< 373.862	56
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	190	NA	35.4	NA	NA	140	< 40	35	340
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	150	NA	< 358	NA	NA	150	< 40	22	320
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	240	NA	< 358	NA	NA	160	< 40	< 373.862	400
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	120	< 40	< 373.862	180
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	140
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	76	NA	50.8	NA	NA	26	< 40	21	61
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	180	NA	54.1	NA	NA	130	< 40	< 373.862	300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	180	< 40	< 373.862	< 38
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	< 39	NA	171	NA	NA	< 38	< 40	< 373.862	130
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	320	NA	< 358	NA	NA	200	< 40	< 373.862	520
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	NA	< 38
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	98	< 40	< 373.862	170
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-1-03	I5-2-01	I5-2-02	I5-3-03	I5-3-06	I5-4-03	I5-5-02	I5-7-01	I5-7-01	I5-7-05	I5-7-05	I5-8-01	I5-8-02	I5-8141-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	7/19/2000	4/13/2000	4/14/2000	4/14/2000	4/6/2000	4/6/2000	7/21/2000	7/21/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I5-1-032N	I5-2-012N	I5-2-021N	I5-3-031N	I5-3-060.75N	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-010.5N	I5-7-050.5N815	I5-7-050.5N820	I5-8-012N	I5-8-022N	I5-8141-011N
Parent Sample																
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 358	NA	NA	< 38	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	240
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	< 78	NA	< 716	NA	NA	< 77	< 79	< 747.724	< 77
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	110	NA	< 358	NA	NA	47	26	29	110
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	< 39	NA	< 358	NA	NA	< 38	< 40	< 373.862	< 38
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	390	NA	< 358	NA	NA	260	< 40	< 373.862	400
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls																
Aroclor-1016	12674-11-2	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	< 43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-1-03	I5-2-01	I5-2-02	I5-3-03	I5-3-06	I5-4-03	I5-5-02	I5-7-01	I5-7-01	I5-7-05	I5-7-05	I5-8-01	I5-8-02	I5-8141-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	7/19/2000	4/13/2000	4/14/2000	4/14/2000	4/6/2000	4/6/2000	7/21/2000	7/21/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I5-1-032N	I5-2-012N	I5-2-021N	I5-3-031N	I5-3-060.75N	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-010.5N	I5-7-050.5N815	I5-7-050.5N820	I5-8-012N	I5-8-022N	I5-8141-011N
Parent Sample																
CONSTITUENT	***CAS NO.***	***UNITS***														
Explosives and Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	< 25	< 25	NA	< 25	NA	NA	NA	NA	NA	< 24	< 250	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	< 25	< 25	NA	< 25	NA	NA	NA	NA	NA	< 24	< 250	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	< 25	< 25	NA	< 25	NA	NA	NA	NA	NA	< 24	< 250	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 250	< 250	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	< 25	< 25	NA	< 25	NA	NA	NA	NA	NA	< 24	< 250	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	< 50	< 50	NA	< 50	NA	NA	NA	NA	NA	< 48	< 500	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	< 50	< 50	NA	< 50	NA	NA	NA	NA	NA	< 48	< 500	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	< 25	< 25	NA	< 25	NA	NA	NA	NA	NA	< 24	< 250	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	< 50	< 50	NA	< 50	NA	NA	NA	NA	NA	< 48	< 500	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	< 25	< 25	NA	< 25	NA	NA	NA	NA	NA	< 24	< 250	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	53800	< 39000	220000	NA	44200	NA	NA	NA	NA	NA	< 42000	< 400.673	40200
Nitroglycerin	55-63-0	ug/kg	NA	< 590	< 580	6100	NA	< 560	NA	NA	NA	NA	NA	< 600	< 5474.802	< 560
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	< 50	< 50	NA	< 50	NA	NA	NA	NA	NA	< 48	< 500	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	< 50	< 50	NA	< 50	NA	NA	NA	NA	NA	< 48	< 500	< 50
Tetryl	479-45-8	ug/kg	NA	< 50	< 50	< 50	NA	< 50	NA	NA	NA	NA	NA	< 48	< 500	< 50
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	31.2	NA	NA	5060	0.59	3.3	0.298	NA	NA	< 0.6	< 0.6	2.75	0.61
Arsenic	7440-38-2	mg/kg	NA	39.1	NA	NA	1060	22.7	9.3	5.61	NA	NA	11.5	4.6	5.5	11.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.522	NA	NA	0.18	0.53	0.6	0.341	NA	NA	0.4	0.6	0.351	0.54
Cadmium	7440-43-9	mg/kg	NA	1.38	NA	NA	1.1	0.34	< 0.3	0.631	NA	NA	0.84	0.38	0.511	0.27
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	54.2	NA	NA	10.9	17.3	14.2	7.93	NA	NA	14.5	12.1	9.57	13.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	6650	NA	NA	1540	34.7	23.2	15.5	NA	NA	27.7	83.6	809	30.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	15200	NA	NA	144000	64.8	734	103	NA	NA	89.3	127	565	87.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.531	NA	NA	7.8	0.11	0.06	0.12	NA	NA	0.19	0.03	0.04	0.22
Nickel	7440-02-0	mg/kg	NA	15.7	NA	NA	9.3	13.1	8	5.75	NA	NA	9.4	8.8	6.74	9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	< 5.7	NA	NA	0.88	< 0.5	< 0.5	0.426	NA	NA	0.57	0.49	< 0.46729	< 0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-1-03	I5-2-01	I5-2-02	I5-3-03	I5-3-06	I5-4-03	I5-5-02	I5-7-01	I5-7-01	I5-7-05	I5-7-05	I5-8-01	I5-8-02	I5-8141-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	7/19/2000	4/13/2000	4/14/2000	4/14/2000	4/6/2000	4/6/2000	7/21/2000	7/21/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I5-1-032N	I5-2-012N	I5-2-021N	I5-3-031N	I5-3-060.75N	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-010.5N	I5-7-050.5N815	I5-7-050.5N820	I5-8-012N	I5-8-022N	I5-8141-011N
Parent Sample																
CONSTITUENT	***CAS NO.***	***UNITS***														
Metals (cont.)																
Silver	7440-22-4	mg/kg	NA	< 3.42	NA	NA	20.5	0.83	< 0.3	0.43	NA	NA	0.34	< 0.3	< 0.280374	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 11.4	NA	NA	2.4	1.1	1.6	< 0.653	NA	NA	< 1	< 1	< 0.93458	0.97
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	2250	NA	NA	655	328	76.7	111	NA	NA	151	129	214	206
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	14200	NA	NA	32600	10600	15500	NA	NA	NA	49400	14500	NA	13300
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution																
Clay	ARC-PCLAY	%	NA	15.3	NA	NA	12.1	5.1	3.2	NA	NA	NA	2.8	11.8	NA	10.7
Gravel	ARC-PGRAVEL	%	NA	13.7	NA	NA	39.1	64.8	29.3	NA	NA	NA	51.4	19.5	NA	41.8
Sand	ARC-PSAND	%	NA	45.1	NA	NA	29.3	20.9	50.5	NA	NA	NA	34.1	49.4	NA	33.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	25.9	NA	NA	19.5	9.1	17	NA	NA	NA	11.7	19.3	NA	14

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02	I5-8170-02	I6-1-04	I6-11-01	I6-3-03	I6-3-04	I6-3-04	I6-5-02	I6-5-05	I6-8-01
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			6/21/2000	6/21/2000	4/6/2000	4/6/2000	4/13/2000	3/30/2000	4/13/2000	6/21/2000	3/31/2000	3/31/2000	3/30/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N	I5-8170-021N	I6-1-041.5N	I6-11-010.5N	I6-3-032N	I6-3-042N	I6-3-042FD	I6-5-021N	I6-5-051N	I6-8-010.5N
Parent Sample												I6-3-042N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1086.956
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2173.913
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1086.956
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	287
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02	I5-8170-02	I6-1-04	I6-11-01	I6-3-03	I6-3-04	I6-3-04	I6-5-02	I6-5-05	I6-8-01
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			6/21/2000	6/21/2000	4/6/2000	4/6/2000	4/13/2000	3/30/2000	4/13/2000	6/21/2000	3/31/2000	3/31/2000	3/30/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N	I5-8170-021N	I6-1-041.5N	I6-11-010.5N	I6-3-032N	I6-3-042N	I6-3-042FD	I6-5-021N	I6-5-051N	I6-8-010.5N
Parent Sample												I6-3-042N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	997
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 543.4782
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1086.956
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	24	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 727.558	< 826.854	< 78	< 78	< 74	< 78	< 760	< 896.056	< 85	< 850	< 85	< 780	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 363	< 413	< 390	< 390	< 370	1100	< 3800	< 448	< 430	< 430	3100	< 3900	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 363	< 413	< 390	< 390	< 370	43	< 3800	< 448	< 430	< 430	1500	< 3900	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
2-Chlorophenol	95-57-8	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 39	< 39	< 37	< 39	< 380	NA	< 43	< 430	< 43	< 390	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 413.427	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 727.558	< 826.854	< 78	< 78	< 74	< 78	< 760	< 896.056	< 85	< 850	< 85	< 780	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 727.558	< 826.854	< 78	< 78	< 74	< 78	< 760	< 896.056	< 85	< 850	< 85	< 780	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02	I5-8170-02	I6-1-04	I6-11-01	I6-3-03	I6-3-04	I6-3-04	I6-5-02	I6-5-05	I6-8-01
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			6/21/2000	6/21/2000	4/6/2000	4/6/2000	4/13/2000	3/30/2000	4/13/2000	6/21/2000	3/31/2000	3/31/2000	3/30/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N	I5-8170-021N	I6-1-041.5N	I6-11-010.5N	I6-3-032N	I6-3-042N	I6-3-042FD	I6-5-021N	I6-5-051N	I6-8-010.5N
Parent Sample												I6-3-042N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 78	< 78	< 74	< 78	< 760	NA	< 85	< 850	< 85	< 780	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 826.854	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Acenaphthylene	208-96-8	ug/kg	17	< 413.427	< 39	< 39	< 37	71	< 380	< 448.028	< 43	< 430	38	< 390	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	24	< 413.427	< 39	< 39	< 37	80	< 380	< 448.028	< 43	< 430	53	< 390	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	197	44	< 39	59	< 37	360	< 380	49	< 43	< 430	320	< 390	NA
Benzo[a]pyrene	50-32-8	ug/kg	174	42	25	76	< 37	350	< 380	33	< 43	< 430	280	< 390	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	292	< 413.427	< 39	93	< 37	690	< 380	< 448.028	< 43	< 430	480	< 390	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	97	< 413.427	< 39	< 39	< 37	220	< 380	< 448.028	< 43	< 430	160	< 390	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	95	< 413.427	< 39	< 39	< 37	180	< 380	< 448.028	< 43	< 430	130	< 390	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	21	21	62	23	73	< 39	< 380	41	34	35	< 43	< 390	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	30000	< 448.028	< 43	< 430	< 43	< 390	< 1086.956
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	126	39	< 39	63	< 37	410	< 380	83	< 43	51	360	< 390	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 363.779	< 413.427	< 39	55	< 37	< 39	< 380	< 448.028	< 43	< 430	120	< 390	NA
Dimethylphthalate	131-11-3	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Fluoranthene	206-44-0	ug/kg	266	< 413.427	< 39	130	< 37	460	< 380	< 448.028	< 43	< 430	550	< 390	NA
Fluorene	86-73-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 39	< 39	< 37	< 39	< 380	NA	< 43	< 430	< 43	< 390	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Hexachloroethane	67-72-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	85	< 413.427	< 39	< 39	< 37	210	< 380	< 448.028	< 43	< 430	150	< 390	NA
Isophorone	78-59-1	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02	I5-8170-02	I6-1-04	I6-11-01	I6-3-03	I6-3-04	I6-3-04	I6-5-02	I6-5-05	I6-8-01
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			6/21/2000	6/21/2000	4/6/2000	4/6/2000	4/13/2000	3/30/2000	4/13/2000	6/21/2000	3/31/2000	3/31/2000	3/30/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N	I5-8170-021N	I6-1-041.5N	I6-11-010.5N	I6-3-032N	I6-3-042N	I6-3-042FD	I6-5-021N	I6-5-051N	I6-8-010.5N
Parent Sample												I6-3-042N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 413.427	< 39	NA	< 37	< 39	< 380	NA	NA	NA	< 43	< 390	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	420	< 380	< 448.028	< 43	< 430	110	< 390	NA
Pentachlorophenol	87-86-5	ug/kg	< 727.558	< 826.854	< 78	< 78	< 74	< 78	< 760	< 896.056	< 85	< 850	< 85	< 780	NA
Phenanthrene	85-01-8	ug/kg	60	< 413.427	< 39	48	< 37	120	350	76	31	47	270	< 390	NA
Phenol	108-95-2	ug/kg	< 363.779	< 413.427	< 39	< 39	< 37	< 39	< 380	< 448.028	< 43	< 430	< 43	< 390	NA
Pyrene	129-00-0	ug/kg	199	< 413.427	< 39	< 39	< 37	450	< 380	< 448.028	< 43	< 430	490	< 390	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02	I5-8170-02	I6-1-04	I6-11-01	I6-3-03	I6-3-04	I6-3-04	I6-5-02	I6-5-05	I6-8-01
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			6/21/2000	6/21/2000	4/6/2000	4/6/2000	4/13/2000	3/30/2000	4/13/2000	6/21/2000	3/31/2000	3/31/2000	3/30/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N	I5-8170-021N	I6-1-041.5N	I6-11-010.5N	I6-3-032N	I6-3-042N	I6-3-042FD	I6-5-021N	I6-5-051N	I6-8-010.5N
Parent Sample												I6-3-042N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 250	< 25	< 250	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 250	< 25	< 250	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 250	< 25	< 250	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 250	< 25	< 250	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 500	< 50	< 500	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 500	< 50	< 500	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 250	< 25	< 250	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 500	< 50	< 500	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 250	< 25	< 250	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	57000	NA	NA	46400	NA	NA	NA	84300	93500	92900	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 4962.286	NA	NA	3300	NA	NA	NA	< 6720.43	6100	6000	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 500	< 50	< 500	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 500	< 50	< 500	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 500	< 50	< 500	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.595474	0.51	0.48	< 0.6	1.6	0.81	< 6	< 0.560748	< 0.7	< 0.7	< 0.7	< 0.6	NA
Arsenic	7440-38-2	mg/kg	82.3	5.9	7.5	14.4	9.4	198	12.9	8.98	5.7	6.9	7.8	14	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.458	0.802	0.62	0.51	0.57	0.31	0.29	0.496	0.7	0.7	0.81	0.6	NA
Cadmium	7440-43-9	mg/kg	0.235	0.378	0.45	0.2	0.8	0.1	23.1	0.496	< 0.3	< 0.37	< 0.3	< 0.3	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.3	14.8	14.8	11	20.6	8.2	247	13.5	16.1	26.8	15.3	15.5	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	26	21.9	22.6	25.5	356	15.6	857	24.6	18.6	22.7	21.1	12	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	68.1	91.5	118	47.6	736	28.6	3820	48.7	17	20.1	39.3	19.9	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.138	0.057	0.16	0.17	0.08	0.18	281	0.396	0.88	1.1	0.18	0.08	NA
Nickel	7440-02-0	mg/kg	12.3	9.33	9.6	10.9	9	7.9	56.4	8.67	8.5	10.3	9.7	8.9	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.496229	0.564	< 0.5	< 0.5	0.59	0.44	< 5	1.26	1	1.5	1	1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02	I5-8170-02	I6-1-04	I6-11-01	I6-3-03	I6-3-04	I6-3-04	I6-5-02	I6-5-05	I6-8-01
Depths			0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			6/21/2000	6/21/2000	4/6/2000	4/6/2000	4/13/2000	3/30/2000	4/13/2000	6/21/2000	3/31/2000	3/31/2000	3/30/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N	I5-8170-021N	I6-1-041.5N	I6-11-010.5N	I6-3-032N	I6-3-042N	I6-3-042FD	I6-5-021N	I6-5-051N	I6-8-010.5N
Parent Sample												I6-3-042N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	0.323	< 0.285714	0.21	1.5	< 0.2	< 0.3	6.5	< 0.280374	< 0.3	< 0.37	< 0.3	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.839	< 0.95238	1.4	0.59	< 0.9	< 1	< 11	< 0.93458	< 1	< 1.2	< 1	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	161	103	107	258	288	55.6	16200	132	112	109	88.4	43.8	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	14100	16200	4630	22300	23100	NA	24000	NA	15900	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	8.6	7.7	9.7	5	1.6	NA	10.1	NA	9.4	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	40.5	46.6	29.4	37.4	56.8	NA	34.5	NA	47.3	NA	NA
Sand	ARC-PSAND	%	NA	NA	35.4	33.9	42.5	45.6	33.8	NA	33.6	NA	35.2	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	15.5	11.7	18.3	12.1	7.8	NA	21.8	NA	8.1	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8-01	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-03	I6-8132-05	I6-8171-01	I6-8171-01
Depths			0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft
Collection Date			7/14/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8-011N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-032N	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 534	NA	< 530	NA	< 521	NA	NA	NA	NA	< 525
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 534	NA	< 530	NA	< 521	NA	NA	NA	NA	< 525
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 534	NA	< 530	NA	< 521	NA	NA	NA	NA	< 525
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 534	NA	< 530	NA	< 521	NA	NA	NA	NA	< 525
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 106	NA	< 105	NA	< 104	NA	NA	NA	NA	< 105
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 213	NA	< 211	NA	< 208	NA	NA	NA	NA	< 210
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Benzene	71-43-2	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Bromoform	75-25-2	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Bromomethane	74-83-9	ug/kg	NA	NA	< 106	NA	< 105	NA	< 104	NA	NA	NA	NA	< 105
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Chloroethane	75-00-3	ug/kg	NA	NA	< 106	NA	< 105	NA	< 104	NA	NA	NA	NA	< 105
Chloroform	67-66-3	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Chloromethane	74-87-3	ug/kg	NA	NA	< 106	NA	< 105	NA	< 104	NA	NA	NA	NA	208
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 534	NA	< 530	NA	< 521	NA	NA	NA	NA	< 525
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8-01	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-03	I6-8132-05	I6-8171-01	I6-8171-01
Depths			0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft
Collection Date			7/14/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8-011N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-032N	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Toluene	108-88-3	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	116
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	< 52
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 53	NA	< 53	NA	< 52	NA	NA	NA	NA	124
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 106	NA	< 105	NA	< 104	NA	NA	NA	NA	< 105
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 77	NA	< 77	NA	< 85	NA	NA	NA	NA	< 87	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 380	NA	< 380	NA	< 430	NA	NA	NA	NA	< 430	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 380	NA	< 380	NA	< 430	NA	NA	NA	NA	< 430	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 77	NA	< 77	NA	< 85	NA	NA	NA	NA	< 87	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 77	NA	< 77	NA	< 85	NA	NA	NA	NA	< 87	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8-01	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-03	I6-8132-05	I6-8171-01	I6-8171-01
Depths			0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft
Collection Date			7/14/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8-011N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-032N	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 77	NA	< 77	NA	< 85	NA	NA	NA	NA	< 87	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	130	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	200	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	40	NA	< 38	NA	< 43	NA	NA	NA	NA	790	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	33	NA	< 38	NA	< 43	NA	NA	NA	NA	700	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	65	NA	< 38	NA	< 43	NA	NA	NA	NA	1100	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	310	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	330	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	21	NA	25	NA	< 43	NA	NA	NA	NA	42	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	120	NA	< 38	NA	< 43	NA	NA	NA	NA	710	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	95	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	54	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Fluoranthene	206-44-0	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	1500	NA
Fluorene	86-73-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	100	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	320	NA
Isophorone	78-59-1	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8-01	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-03	I6-8132-05	I6-8171-01	I6-8171-01
Depths			0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft
Collection Date			7/14/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8-011N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-032N	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 77	NA	< 77	NA	< 85	NA	NA	NA	NA	< 87	NA
Phenanthrene	85-01-8	ug/kg	NA	98	NA	< 38	NA	< 43	NA	NA	NA	NA	760	NA
Phenol	108-95-2	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	< 43	NA
Pyrene	129-00-0	ug/kg	NA	< 38	NA	< 38	NA	< 43	NA	NA	NA	NA	1200	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8-01	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-03	I6-8132-05	I6-8171-01	I6-8171-01
Depths			0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft
Collection Date			7/14/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8-011N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-032N	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 24	NA	< 25	NA	< 25	NA	< 25	NA	< 25	< 23	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 24	NA	< 25	NA	< 25	NA	< 25	NA	270	< 23	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 24	NA	< 25	NA	< 25	NA	< 25	NA	220	< 23	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 250	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 24	NA	< 25	NA	< 25	NA	< 25	NA	< 25	< 23	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 48	NA	< 50	NA	< 50	NA	< 50	NA	< 50	< 45	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 48	NA	< 50	NA	< 50	NA	< 50	NA	< 50	< 45	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 24	NA	< 25	NA	< 25	NA	< 25	NA	< 25	< 23	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 48	NA	< 50	NA	< 50	NA	< 50	NA	< 50	< 45	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 24	NA	< 25	NA	< 25	NA	< 25	NA	150	< 23	NA
Nitrocellulose	9004-70-0	ug/kg	NA	< 36000	NA	< 40000	NA	64300	NA	83300	NA	490000	56500	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 560	NA	< 570	NA	< 640	NA	16000	NA	220000	< 650	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 48	NA	< 50	NA	< 50	NA	< 50	NA	< 50	1200	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 48	NA	< 50	NA	< 50	NA	< 50	NA	< 50	< 45	NA
Tetryl	479-45-8	ug/kg	NA	< 48	NA	< 50	NA	< 50	NA	< 50	NA	< 50	< 45	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.6	NA	< 0.6	NA	< 0.7	NA	< 0.6	< 0.9	NA	< 1	NA
Arsenic	7440-38-2	mg/kg	NA	5.1	NA	45.8	NA	3.5	NA	105	32.5	NA	83.7	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.55	NA	0.06	NA	0.51	NA	0.5	0.68	NA	0.85	NA
Cadmium	7440-43-9	mg/kg	NA	0.79	NA	0.52	NA	0.93	NA	0.76	1.8	NA	0.36	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	15.8	NA	30.1	NA	15.6	NA	24.7	37.4	NA	21	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	32.9	NA	28	NA	35.9	NA	37.3	270	NA	23.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	167	NA	739	NA	130	NA	350	2720	NA	26.5	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	307	NA	4.6	NA	10.8	NA	0.36	2.8	NA	0.65	NA
Nickel	7440-02-0	mg/kg	NA	7.1	NA	3.7	NA	12.3	NA	9.2	13.7	NA	7.2	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.57	NA	< 0.5	NA	0.79	NA	0.97	1.4	NA	1.3	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8-01	I6-8125-03	I6-8125-03	I6-8125-05	I6-8125-05	I6-8125-07	I6-8125-07	I6-8132-02	I6-8132-03	I6-8132-05	I6-8171-01	I6-8171-01
Depths			0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft
Collection Date			7/14/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/7/2000	4/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8-011N	I6-8125-031.5N	I6-8125-030.5N	I6-8125-051N	I6-8125-050.5N	I6-8125-071N	I6-8125-070.5N	I6-8132-021N	I6-8132-032N	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	< 0.3	NA	< 0.3	NA	< 0.3	NA	< 0.3	0.48	NA	0.57	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	NA	< 1	NA	< 1	NA	< 1	< 1	NA	< 2	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	93	NA	98.3	NA	273	NA	121	488	NA	380	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	44000	18400	NA	NA	NA	NA	NA	13500	NA	NA	28700	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	5	NA	NA	NA	NA	NA	5.7	NA	NA	13.8	NA
Gravel	ARC-PGRAVEL	%	NA	48.7	NA	NA	NA	NA	NA	49.3	NA	NA	25.4	NA
Sand	ARC-PSAND	%	NA	32.9	NA	NA	NA	NA	NA	29.8	NA	NA	39.4	NA
SIEVE 0.375 inch, % passing	ARC-	%	78.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	25.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	70.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	48.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	33.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	56.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	13.3	NA	NA	NA	NA	NA	15.2	NA	NA	21.4	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02	I6-8171C-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N	I6-8171C-021FD
Parent Sample													I6-8171C-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 544	NA	< 568	NA	< 512	NA	< 584	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 544	NA	< 568	NA	< 512	NA	< 584	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 544	NA	< 568	NA	< 512	NA	< 584	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 544	NA	< 568	NA	< 512	NA	< 584	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 108	NA	< 113	NA	< 102	NA	< 116	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 217	NA	< 227	NA	< 204	NA	< 233	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	< 108	NA	< 113	NA	< 102	NA	< 116	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 108	NA	< 113	NA	< 102	NA	< 116	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	159	NA	143	NA	216	NA	< 116	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 544	NA	< 568	NA	< 512	NA	< 584	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02	I6-8171C-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N	I6-8171C-021FD
Parent Sample													I6-8171C-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 54	NA	< 56	NA	< 51	NA	< 58	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 54	NA	< 56	NA	316	NA	< 58	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 108	NA	< 113	NA	< 102	NA	< 116	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 840	NA	< 77	NA	< 77	NA	< 800	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4200	NA	< 380	NA	< 380	NA	< 4000	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4200	NA	< 380	NA	< 380	NA	< 4000	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 840	NA	< 77	NA	< 77	NA	< 800	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 840	NA	< 77	NA	< 77	NA	< 800	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02	I6-8171C-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N	I6-8171C-021FD
Parent Sample													I6-8171C-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 840	NA	< 77	NA	< 77	NA	< 800	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	15000	NA	< 38	NA	43	NA	2700	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	19000	NA	< 38	NA	34	NA	2600	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	46000	NA	32	NA	120	NA	6100	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	39000	NA	< 38	NA	110	NA	4100	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	51000	NA	< 38	NA	140	NA	5600	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	18000	NA	< 38	NA	< 38	NA	1900	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	18000	NA	< 38	NA	< 38	NA	2200	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	920	NA	310	NA	990	NA	< 400	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	40000	NA	< 38	NA	110	NA	3900	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	5300	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	87000	NA	< 38	NA	240	NA	10000	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	11000	NA	< 38	NA	< 38	NA	1500	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	17000	NA	< 38	NA	< 38	NA	1800	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02	I6-8171C-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N	I6-8171C-021FD
Parent Sample													I6-8171C-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	3000	NA	< 38	NA	< 38	NA	980	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 400	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 840	NA	< 77	NA	< 77	NA	< 800	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	79000	NA	26	NA	140	NA	9200	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	< 420	NA	< 38	NA	< 38	NA	< 400	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	77000	NA	< 38	NA	200	NA	10000	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02	I6-8171C-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N	I6-8171C-021FD
Parent Sample													I6-8171C-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	NA	< 25	NA	< 25	NA	NA	NA	< 25	< 227.275	< 217
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	NA	< 25	NA	< 25	NA	NA	NA	< 25	< 227.275	< 217
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	NA	< 25	NA	< 25	NA	NA	NA	< 25	< 227.275	< 217
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 217
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 227	< 217
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	NA	< 25	NA	< 25	NA	NA	NA	< 25	< 227.275	< 217
2-Nitrotoluene	88-72-2	ug/kg	< 50	NA	< 50	NA	< 50	NA	NA	NA	< 50	< 454.55	< 434
3-Nitrotoluene	99-08-1	ug/kg	< 50	NA	< 50	NA	< 50	NA	NA	NA	< 50	< 454.55	< 434
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	NA	< 25	NA	< 25	NA	NA	NA	< 25	< 227.275	< 217
4-Nitrotoluene	99-99-0	ug/kg	< 50	NA	< 50	NA	< 50	NA	NA	NA	< 50	< 454.55	< 434
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	NA	< 25	NA	< 25	NA	NA	NA	< 25	< 227.275	< 217
Nitrocellulose	9004-70-0	ug/kg	52300	NA	< 40000	NA	704000	NA	NA	NA	53500	< 442.379	< 443
Nitroglycerin	55-63-0	ug/kg	< 630	NA	< 580	NA	< 570	NA	NA	NA	< 680	< 5632.533	< 6060
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	NA	< 50	NA	< 50	NA	NA	NA	< 50	< 454.55	< 434
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	NA	< 50	NA	< 50	NA	NA	NA	380	< 454.55	< 434
Tetryl	479-45-8	ug/kg	< 50	NA	< 50	NA	< 50	NA	NA	NA	< 50	< 454.55	< 434
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	NA	< 0.6	NA	< 0.6	NA	< 0.6	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	24.3	NA	7.1	NA	52.9	NA	26.4	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.64	NA	0.61	NA	0.69	NA	0.72	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.46	NA	< 0.3	NA	0.45	NA	1.4	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.7	NA	12.8	NA	44.1	NA	28.6	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	79.9	NA	11.9	NA	20.3	NA	13.6	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	45.2	NA	26.3	NA	39.1	NA	35	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.43	NA	0.08	NA	0.32	NA	0.09	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	7.5	NA	7.5	NA	20.2	NA	13.1	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.6	NA	< 0.5	NA	0.66	NA	0.79	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02	I6-8171C-02
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000	6/21/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N	I6-8171C-021FD
Parent Sample													I6-8171C-021N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	NA	< 0.3	NA	< 0.3	NA	0.35	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.1	NA	< 1	NA	1.6	NA	< 1	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	550	NA	76.6	NA	123	NA	221	NA	NA	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	24500	NA	23400	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	7.7	NA	8.8	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	51.2	NA	33.6	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	26.5	NA	39	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	14.7	NA	18.6	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I6-8172-06 0.0-2.0 ft 4/4/2000 N I6-8172-062N	I6-8173-01 0.0-0.5 ft 4/6/2000 N I6-8173-010.5N	I6-8174-02 0.0-2.0 ft 4/4/2000 N I6-8174-022N	I6-8174-04 0.0-1.5 ft 6/21/2000 N I6-8174-041.5N	I6-8175-04 0.0-1.0 ft 4/4/2000 N I6-8175-041N	I6-8175-04 0.0-1.0 ft 4/4/2000 FD I6-8175-041FD I6-8175-041N	I6-8181-01 0.0-0.5 ft 4/13/2000 N I6-8181-010.5N	I6-8181-02 0.0-1.0 ft 6/21/2000 N I6-8181-021N	I6-8183-01 0.0-2.0 ft 4/6/2000 N I6-8183-012N	I6-8183-01 0.0-2.0 ft 4/6/2000 FD I6-8183-012FD I6-8183-012N	I6-8183-05 0.0-2.0 ft 4/6/2000 N I6-8183-052N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8172-06	I6-8173-01	I6-8174-02	I6-8174-04	I6-8175-04	I6-8175-04	I6-8181-01	I6-8181-02	I6-8183-01	I6-8183-01	I6-8183-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/4/2000	4/6/2000	4/4/2000	6/21/2000	4/4/2000	4/4/2000	4/13/2000	6/21/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	FD	N	N	N	FD	N
Sample Name			I6-8172-062N	I6-8173-010.5N	I6-8174-022N	I6-8174-041.5N	I6-8175-041N	I6-8175-041FD	I6-8181-010.5N	I6-8181-021N	I6-8183-012N	I6-8183-012FD	I6-8183-052N
Parent Sample								I6-8175-041N				I6-8183-012N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 84	NA	NA	< 87	< 830	< 84	< 905.796	< 83	< 850	< 83
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 420	NA	NA	< 430	< 420	< 420	< 452	< 420	< 430	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 420	NA	NA	< 430	< 420	< 420	< 452	< 420	< 430	< 420
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
2-Chlorophenol	95-57-8	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	NA	< 42	< 430	< 42
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 84	NA	NA	< 87	< 830	< 84	< 905.796	< 83	< 850	< 83
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 84	NA	NA	< 87	< 830	< 84	< 905.796	< 83	< 850	< 83
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8172-06	I6-8173-01	I6-8174-02	I6-8174-04	I6-8175-04	I6-8175-04	I6-8181-01	I6-8181-02	I6-8183-01	I6-8183-01	I6-8183-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/4/2000	4/6/2000	4/4/2000	6/21/2000	4/4/2000	4/4/2000	4/13/2000	6/21/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	FD	N	N	N	FD	N
Sample Name			I6-8172-062N	I6-8173-010.5N	I6-8174-022N	I6-8174-041.5N	I6-8175-041N	I6-8175-041FD	I6-8181-010.5N	I6-8181-021N	I6-8183-012N	I6-8183-012FD	I6-8183-052N
Parent Sample								I6-8175-041N				I6-8183-012N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 84	NA	NA	< 87	< 830	< 84	NA	< 83	< 850	< 83
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	170	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Acenaphthylene	208-96-8	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	480	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	1800	NA	NA	39	< 420	< 42	< 452.898	< 42	< 430	< 42
Benzo[a]pyrene	50-32-8	ug/kg	NA	1400	NA	NA	26	32	< 42	< 452.898	< 42	< 430	< 42
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	1800	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	640	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	630	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 42	NA	NA	24	21	< 42	< 452.898	< 42	< 430	< 42
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	1400	NA	NA	< 43	43	< 42	< 452.898	< 42	< 430	< 42
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	200	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Dimethylphthalate	131-11-3	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 42	NA	NA	< 43	< 420	70	181	< 42	< 430	< 42
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Fluoranthene	206-44-0	ug/kg	NA	2800	NA	NA	< 43	73	< 42	< 452.898	< 42	< 430	< 42
Fluorene	86-73-7	ug/kg	NA	200	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Hexachlorobenzene	118-74-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	NA	< 42	< 430	< 42
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Hexachloroethane	67-72-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	600	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Isophorone	78-59-1	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8172-06	I6-8173-01	I6-8174-02	I6-8174-04	I6-8175-04	I6-8175-04	I6-8181-01	I6-8181-02	I6-8183-01	I6-8183-01	I6-8183-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/4/2000	4/6/2000	4/4/2000	6/21/2000	4/4/2000	4/4/2000	4/13/2000	6/21/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	FD	N	N	N	FD	N
Sample Name			I6-8172-062N	I6-8173-010.5N	I6-8174-022N	I6-8174-041.5N	I6-8175-041N	I6-8175-041FD	I6-8181-010.5N	I6-8181-021N	I6-8183-012N	I6-8183-012FD	I6-8183-052N
Parent Sample								I6-8175-041N				I6-8183-012N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	78	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Nitrobenzene	98-95-3	ug/kg	NA	< 42	NA	NA	< 43	< 420	NA	NA	< 42	< 430	< 42
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Pentachlorophenol	87-86-5	ug/kg	NA	< 84	NA	NA	< 87	< 830	< 84	< 905.796	< 83	< 850	< 83
Phenanthrene	85-01-8	ug/kg	NA	1300	NA	NA	< 43	34	< 42	< 452.898	< 42	< 430	< 42
Phenol	108-95-2	ug/kg	NA	< 42	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Pyrene	129-00-0	ug/kg	NA	2000	NA	NA	< 43	< 420	< 42	< 452.898	< 42	< 430	< 42
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8172-06	I6-8173-01	I6-8174-02	I6-8174-04	I6-8175-04	I6-8175-04	I6-8181-01	I6-8181-02	I6-8183-01	I6-8183-01	I6-8183-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/4/2000	4/6/2000	4/4/2000	6/21/2000	4/4/2000	4/4/2000	4/13/2000	6/21/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	FD	N	N	N	FD	N
Sample Name			I6-8172-062N	I6-8173-010.5N	I6-8174-022N	I6-8174-041.5N	I6-8175-041N	I6-8175-041FD	I6-8181-010.5N	I6-8181-021N	I6-8183-012N	I6-8183-012FD	I6-8183-052N
Parent Sample								I6-8175-041N				I6-8183-012N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	NA	NA	NA	NA	NA	< 25	< 238.1	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	NA	NA	NA	NA	NA	< 25	< 238.1	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 24	NA	NA	NA	NA	NA	< 25	< 238.1	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	NA	NA	NA	NA	NA	< 25	< 238.1	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 48	NA	NA	NA	NA	NA	< 50	< 476.2	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 48	NA	NA	NA	NA	NA	< 50	< 476.2	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	NA	NA	NA	NA	NA	< 25	< 238.1	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 48	NA	NA	NA	NA	NA	< 50	< 476.2	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 24	NA	NA	NA	NA	NA	< 25	< 238.1	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	< 41000	49100	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 590	< 5861.664	NA	NA	< 630	< 6038.647	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 48	NA	NA	NA	NA	NA	< 50	< 476.2	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 84	NA	NA	NA	NA	NA	< 50	< 476.2	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 84	NA	NA	NA	NA	NA	< 50	< 476.2	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.7	NA	NA	< 1	< 0.74	< 0.7	< 0.560748	< 0.7	< 0.74	< 0.6
Arsenic	7440-38-2	mg/kg	123	6	NA	NA	7.4	5	7.1	8.96	3.4	3.4	3.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.56	0.61	NA	NA	0.67	0.45	0.59	1.07	0.58	0.57	0.59
Cadmium	7440-43-9	mg/kg	0.05	< 0.3	NA	NA	0.63	0.3	0.89	0.797	0.16	0.19	0.83
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.2	17.6	NA	NA	13.6	9.7	18.4	20.8	12.9	14.2	13.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	18.7	9.7	NA	NA	7.4	7.7	7.2	11.6	24.4	28.6	56.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	26.9	16.3	NA	NA	70.8	104	16.3	26.7	140	124	127
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.06	0.17	NA	NA	0.12	0.12	0.11	0.144	35.9	35.4	4.5
Nickel	7440-02-0	mg/kg	7.1	9.7	NA	NA	5.4	3.8	8.4	8.78	9.2	9.7	9.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	< 0.6	NA	NA	0.76	0.5	0.66	< 0.46729	< 0.5	< 0.61	< 0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8172-06	I6-8173-01	I6-8174-02	I6-8174-04	I6-8175-04	I6-8175-04	I6-8181-01	I6-8181-02	I6-8183-01	I6-8183-01	I6-8183-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			4/4/2000	4/6/2000	4/4/2000	6/21/2000	4/4/2000	4/4/2000	4/13/2000	6/21/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	FD	N	N	N	FD	N
Sample Name			I6-8172-062N	I6-8173-010.5N	I6-8174-022N	I6-8174-041.5N	I6-8175-041N	I6-8175-041FD	I6-8181-010.5N	I6-8181-021N	I6-8183-012N	I6-8183-012FD	I6-8183-052N
Parent Sample								I6-8175-041N				I6-8183-012N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.31	< 0.3	NA	NA	< 0.6	< 0.37	< 0.3	0.356	< 0.3	< 0.37	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.98	1.7	NA	NA	< 2	< 1.2	< 1	< 0.93458	0.92	0.82	1.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	116	77.1	NA	NA	302	274	84.3	168	147	158	336
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	15300	34600	6110	NA	12400	NA	22600	NA	26900	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	12	9.4	8.8	NA	9.6	NA	8.2	NA	7.5	NA	NA
Gravel	ARC-PGRAVEL	%	37.3	35.2	33.7	NA	36.6	NA	40.6	NA	48.2	NA	NA
Sand	ARC-PSAND	%	24.3	33.4	39.7	NA	38.5	NA	26.3	NA	22.5	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	26.4	22	17.9	NA	15.2	NA	24.9	NA	21.8	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8184-02	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/6/2000	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8184-021.5N	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8184-02	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/6/2000	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8184-021.5N	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
1,2-Dichlorobenzene	95-50-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
1,4-Dichlorobenzene	106-46-7	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
2,4-Dichlorophenol	120-83-2	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
2,4-Dimethylphenol	105-67-9	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
2,4-Dinitrophenol	51-28-5	ug/kg	< 87	< 82	< 83	NA	NA	< 410	< 79	NA	NA	< 85	NA	NA	< 731.626
2,4-Dinitrotoluene	121-14-2	ug/kg	< 430	2700	< 420	NA	NA	< 2100	< 400	NA	NA	140	NA	NA	< 366
2,6-Dinitrotoluene	606-20-2	ug/kg	< 430	180	< 420	NA	NA	< 2100	< 400	NA	NA	41	NA	NA	< 366
2-Chloronaphthalene	91-58-7	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
2-Chlorophenol	95-57-8	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 87	< 82	< 83	NA	NA	< 410	< 79	NA	NA	< 85	NA	NA	< 731.626
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 87	< 82	< 83	NA	NA	< 410	< 79	NA	NA	< 85	NA	NA	< 731.626
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8184-02	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/6/2000	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8184-021.5N	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 87	< 82	< 83	NA	NA	< 410	< 79	NA	NA	< 85	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 43	< 41	< 42	NA	NA	16000	81	NA	NA	51	NA	NA	< 365.813
Acenaphthylene	208-96-8	ug/kg	< 43	57	< 42	NA	NA	110	< 40	NA	NA	67	NA	NA	< 365.813
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 43	82	< 42	NA	NA	16000	94	NA	NA	310	NA	NA	< 365.813
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 43	320	35	NA	NA	38000	270	NA	NA	1200	NA	NA	37.31
Benzo[a]pyrene	50-32-8	ug/kg	< 43	300	45	NA	NA	25000	210	NA	NA	1200	NA	NA	< 365.813
Benzo[b]fluoranthene	205-99-2	ug/kg	< 43	520	79	NA	NA	43000	270	NA	NA	1500	NA	NA	< 365.813
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 43	170	< 42	NA	NA	9700	110	NA	NA	740	NA	NA	< 365.813
Benzo[k]fluoranthene	207-08-9	ug/kg	< 43	170	< 42	NA	NA	14000	100	NA	NA	690	NA	NA	< 365.813
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	54	< 41	< 42	NA	NA	360	80	NA	NA	57	NA	NA	30.36
Butylbenzylphthalate	85-68-7	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	43	340	48	NA	NA	28000	240	NA	NA	1000	NA	NA	< 365.813
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 43	< 41	< 42	NA	NA	3600	< 40	NA	NA	< 43	NA	NA	< 365.813
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 43	160	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Dimethylphthalate	131-11-3	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Di-n-butylphthalate	84-74-2	ug/kg	74	< 41	< 42	NA	NA	< 210	< 40	NA	NA	250	NA	NA	< 365.813
Di-n-octylphthalate	117-84-0	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Fluoranthene	206-44-0	ug/kg	< 43	500	78	NA	NA	65000	630	NA	NA	2500	NA	NA	< 365.813
Fluorene	86-73-7	ug/kg	< 43	< 41	< 42	NA	NA	10000	53	NA	NA	94	NA	NA	< 365.813
Hexachlorobenzene	118-74-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Hexachloroethane	67-72-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 43	150	< 42	NA	NA	10000	110	NA	NA	690	NA	NA	< 365.813
Isophorone	78-59-1	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8184-02	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/6/2000	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8184-021.5N	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 43	< 41	< 42	NA	NA	3900	< 40	NA	NA	< 43	NA	NA	< 365.813
Nitrobenzene	98-95-3	ug/kg	NA	< 41	< 42	NA	NA	NA	NA	NA	NA	< 43	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 43	570	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Pentachlorophenol	87-86-5	ug/kg	< 87	< 82	< 83	NA	NA	< 410	< 79	NA	NA	< 85	NA	NA	< 731.626
Phenanthrene	85-01-8	ug/kg	33	190	32	NA	NA	52000	390	NA	NA	1200	NA	NA	< 365.813
Phenol	108-95-2	ug/kg	< 43	< 41	< 42	NA	NA	< 210	< 40	NA	NA	< 43	NA	NA	< 365.813
Pyrene	129-00-0	ug/kg	< 43	430	< 42	NA	NA	58000	360	NA	NA	1900	NA	NA	< 365.813
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8184-02	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/6/2000	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8184-021.5N	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	NA	NA	< 25	< 250	< 24	< 25	< 250	< 24	NA	< 250	< 25	< 227.275
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	NA	NA	< 25	< 250	< 24	< 25	< 250	< 24	NA	< 250	< 25	< 227.275
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	NA	NA	< 25	< 250	< 24	< 25	< 250	< 24	NA	< 250	< 25	< 227.275
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 250	< 250	NA	NA	< 250	< 240	NA	< 250	< 250	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	NA	NA	< 25	< 250	< 24	< 25	< 250	< 24	NA	< 250	< 25	< 227.275
2-Nitrotoluene	88-72-2	ug/kg	< 50	NA	NA	< 50	< 500	< 48	< 50	< 500	< 48	NA	< 500	< 50	< 454.55
3-Nitrotoluene	99-08-1	ug/kg	< 50	NA	NA	< 50	< 500	< 48	< 50	< 500	< 48	NA	< 500	< 50	< 454.55
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	NA	NA	< 25	< 250	< 24	< 25	< 250	< 24	NA	< 250	< 25	< 227.275
4-Nitrotoluene	99-99-0	ug/kg	< 50	NA	NA	< 50	< 500	< 48	< 50	< 500	< 48	NA	< 500	< 50	< 454.55
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	NA	NA	< 25	< 250	< 24	< 25	< 250	< 24	NA	< 250	< 25	< 227.275
Nitrocellulose	9004-70-0	ug/kg	83200	NA	NA	76300	< 420.991	62800	43400	561000	133000	NA	80400	52500	42900
Nitroglycerin	55-63-0	ug/kg	< 650	NA	NA	6200	< 5896.226	< 620	< 590	39400	< 560	NA	< 6211.18	< 700	< 5492.694
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	NA	NA	< 50	< 500	< 48	< 50	< 500	< 48	NA	< 500	800	< 454.55
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	NA	NA	< 50	< 500	< 48	< 50	< 500	< 48	NA	< 500	740	< 454.55
Tetryl	479-45-8	ug/kg	< 50	NA	NA	< 50	< 500	< 48	< 50	< 500	< 48	NA	< 500	< 50	< 454.55
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.64	< 0.7	< 0.6	NA	NA	< 0.7	< 0.6	NA	NA	< 0.7	NA	NA	< 0.639926
Arsenic	7440-38-2	mg/kg	3.9	19.3	29.9	NA	NA	20.7	4.3	NA	NA	13.3	NA	NA	4.08
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.54	0.39	0.51	NA	NA	0.6	0.43	NA	NA	0.71	NA	NA	0.53
Cadmium	7440-43-9	mg/kg	1	0.48	1.6	NA	NA	< 0.3	< 0.3	NA	NA	< 0.3	NA	NA	0.314
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.3	8.8	16.8	NA	NA	21.4	8.6	NA	NA	23.9	NA	NA	12.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	23.5	23.6	56.8	NA	NA	19.1	9.6	NA	NA	26.6	NA	NA	16.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	1860	63.6	717	NA	NA	29.2	12.2	NA	NA	210	NA	NA	10.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2.6	0.24	0.78	NA	NA	0.21	0.14	NA	NA	0.42	NA	NA	0.031
Nickel	7440-02-0	mg/kg	10.7	9.2	10.9	NA	NA	13.3	5.8	NA	NA	10.9	NA	NA	6.59
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.59	0.76	1.3	NA	NA	0.77	< 0.5	NA	NA	0.73	NA	NA	1.12

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-8184-02	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/6/2000	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I6-8184-021.5N	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	NA	NA	< 0.3	< 0.3	NA	NA	< 0.3	NA	NA	< 0.319963
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	NA	NA	< 1	1.3	NA	NA	< 1	NA	NA	< 1.066543
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	118	192	310	NA	NA	88.2	51.6	NA	NA	163	NA	NA	56.2
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	56000	NA	44500	16100	NA	24200	NA	NA	15500	47400	NA	37800	14200
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	10.1	NA	3.8	11.5	NA	7.8	NA	NA	4.7	7.4	NA	17.8	NA
Gravel	ARC-PGRAVEL	%	38.9	NA	52.2	14.1	NA	37.8	NA	NA	39.4	44.8	NA	23.5	NA
Sand	ARC-PSAND	%	24.2	NA	32.9	47.5	NA	37	NA	NA	45	29.5	NA	24.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.1
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35.1
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87.8
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58.4
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.3
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70.8
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48.2
Silt	ARC-PSILT	%	26.9	NA	11.1	26.9	NA	17.4	NA	NA	10.9	18.4	NA	34.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-E4-01	I7-12-01	I7-13-01	I7-13-02	I7-15-04	I7-15-04	I7-15-05	I7-15-05	I7-2124-04	I7-2124-05	I7-2124-06	I7-2124A-03
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/14/2000	4/18/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N	N
Sample Name			I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N	I7-15-041.25N	I7-15-041.25FD	I7-15-051.5N	I7-15-051.5FD	I7-2124-041.5N	I7-2124-052N	I7-2124-062N	I7-2124A-032N
Parent Sample								I7-15-041.25N		I7-15-051.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 553	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 553	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 553	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1106.194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2212.389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1106.194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	252	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 553	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-E4-01	I7-12-01	I7-13-01	I7-13-02	I7-15-04	I7-15-04	I7-15-05	I7-15-05	I7-2124-04	I7-2124-05	I7-2124-06	I7-2124A-03
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/14/2000	4/18/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N	N
Sample Name			I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N	I7-15-041.25N	I7-15-041.25FD	I7-15-051.5N	I7-15-051.5FD	I7-2124-041.5N	I7-2124-052N	I7-2124-062N	I7-2124A-032N
Parent Sample								I7-15-041.25N		I7-15-051.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	905	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 553.0973	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1106.194	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	< 739	< 738	< 80	< 780	< 81	< 77	< 78	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	275	205	95	82	< 410	< 380	< 390	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 370	< 369	< 400	< 390	< 410	< 380	< 390	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	< 739	< 738	< 80	< 780	< 81	< 77	< 78	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	< 739	< 738	< 80	< 780	< 81	< 77	< 78	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-E4-01	I7-12-01	I7-13-01	I7-13-02	I7-15-04	I7-15-04	I7-15-05	I7-15-05	I7-2124-04	I7-2124-05	I7-2124-06	I7-2124A-03
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/14/2000	4/18/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N	N
Sample Name			I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N	I7-15-041.25N	I7-15-041.25FD	I7-15-051.5N	I7-15-051.5FD	I7-2124-041.5N	I7-2124-052N	I7-2124-062N	I7-2124A-032N
Parent Sample								I7-15-041.25N		I7-15-051.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 739	< 738	< 80	< 780	< 81	< 77	< 78	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	58.8	77.2	< 40	< 390	< 41	< 38	< 39	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	225	261	< 40	18	< 41	< 38	< 39	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	302	343	32	58	< 41	< 38	< 39	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	1410	1620	150	230	63	< 38	< 39	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	1350	1660	130	170	59	< 38	< 39	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	1980	2480	210	230	85	< 38	< 39	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	741	941	< 40	< 390	< 41	< 38	< 39	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	746	797	< 40	110	< 41	< 38	< 39	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	26	28	< 38	< 39	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 1106	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	1670	2130	160	190	60	< 38	< 39	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	261	313	< 40	< 390	< 41	< 38	< 39	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	< 370	< 369	41	< 390	< 41	< 38	< 39	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	135	146	110	93	55	34	36	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	2930	3100	260	350	100	< 38	< 39	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	323	415	< 40	< 390	< 41	< 38	< 39	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	751	974	< 40	76	< 41	< 38	< 39	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-E4-01	I7-12-01	I7-13-01	I7-13-02	I7-15-04	I7-15-04	I7-15-05	I7-15-05	I7-2124-04	I7-2124-05	I7-2124-06	I7-2124A-03
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/14/2000	4/18/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N	N
Sample Name			I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N	I7-15-041.25N	I7-15-041.25FD	I7-15-051.5N	I7-15-051.5FD	I7-2124-041.5N	I7-2124-052N	I7-2124-062N	I7-2124A-032N
Parent Sample								I7-15-041.25N		I7-15-051.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 370	49.1	< 40	< 390	< 41	< 38	< 39	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	257	195	320	370	86	< 38	< 39	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	< 739	< 738	< 80	< 780	< 81	< 77	< 78	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	2460	2710	130	210	71	< 38	< 39	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	< 370	< 369	< 40	< 390	< 41	< 38	< 39	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	3010	3500	230	380	110	< 38	< 39	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	< 2	< 2	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 2	< 2	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 2	< 2	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 2	< 2	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 2	< 2	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 2	< 2	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 4	< 4	< 4	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 41	< 43	< 41	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-E4-01	I7-12-01	I7-13-01	I7-13-02	I7-15-04	I7-15-04	I7-15-05	I7-15-05	I7-2124-04	I7-2124-05	I7-2124-06	I7-2124A-03
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/14/2000	4/18/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N	N
Sample Name			I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N	I7-15-041.25N	I7-15-041.25FD	I7-15-051.5N	I7-15-051.5FD	I7-2124-041.5N	I7-2124-052N	I7-2124-062N	I7-2124A-032N
Parent Sample								I7-15-041.25N		I7-15-051.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 208	< 192	< 25	< 250	< 25	< 25	< 25	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 208	< 192	< 25	< 250	< 25	< 25	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 208	< 192	250	170	1100	< 25	520	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 208	< 192	< 25	< 250	< 25	< 25	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 417	< 385	< 50	< 500	< 50	< 50	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 417	< 385	< 50	< 500	< 50	< 50	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 208	< 192	< 25	< 250	< 25	< 25	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 417	< 385	< 50	< 500	< 50	< 50	< 50	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 208	< 192	< 25	< 250	< 25	< 25	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	114000	108000	220000	693000	79300	< 36000	< 37000	< 40000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	29200	16200	21000	16000	10000	< 580	7300	< 560
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 417	< 385	< 50	< 500	< 50	< 50	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 417	< 385	< 50	< 500	< 50	< 50	< 50	< 50
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 417	< 385	< 50	< 500	< 50	< 50	< 50	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	< 0.512	< 0.458	< 0.6	< 0.63	< 0.6	< 0.5	< 0.6	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	4.11	6.08	11.9	11.3	6.4	3.2	3.3	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	0.58	0.702	0.6	0.6	0.59	0.57	0.74	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	0.626	0.674	0.3	0.35	0.34	0.2	0.23	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	19	67	39.8	39.6	16	12.9	16.4	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	12.9	15.5	15.5	14.9	18.5	15.8	11.8	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	13.7	20.7	16.4	15.9	57.6	6.4	11.5	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	0.046	0.045	0.07	0.06	15.2	< 0	0.04	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	6.38	28.7	7.3	6.9	9.1	8.1	8	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	1.01	0.707	0.7	0.83	0.86	0.51	0.68	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I6-E4-01	I7-12-01	I7-13-01	I7-13-02	I7-15-04	I7-15-04	I7-15-05	I7-15-05	I7-2124-04	I7-2124-05	I7-2124-06	I7-2124A-03
Depths			0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/14/2000	4/18/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N	N
Sample Name			I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N	I7-15-041.25N	I7-15-041.25FD	I7-15-051.5N	I7-15-051.5FD	I7-2124-041.5N	I7-2124-052N	I7-2124-062N	I7-2124A-032N
Parent Sample								I7-15-041.25N		I7-15-051.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	< 0.256	< 0.229	< 0.3	< 0.32	< 0.3	< 0.2	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	< 0.853	< 0.764	< 1	< 1.1	< 1	< 0.9	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	96.5	115	120	120	113	52.5	49.7	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	20900	37600	NA	NA	NA	32700	NA	20300	NA	NA	8250
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	11.4	11.9	NA	NA	NA	5.9	NA	1.9	NA	NA	5.1
Gravel	ARC-PGRAVEL	%	NA	32	24.2	NA	NA	NA	40	NA	75.6	NA	NA	21.1
Sand	ARC-PSAND	%	NA	33.7	33.5	NA	NA	NA	36.1	NA	12.3	NA	NA	55.9
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	22.9	30.3	NA	NA	NA	18	NA	10.2	NA	NA	17.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-566A-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	7/13/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	FD	N	N
Sample Name			I7-2124A-051.5N	I7-2124A-051.5FD	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25N	I7-5-031.25FD	I7-5-030.5N	I7-5-030.5FD	I7-566-021.5N	I7-566A-012N
Parent Sample				I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 130	< 1200	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 2500	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 130	< 1200	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 130	< 1200	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	210	200	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 130	< 1200	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-566A-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	7/13/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	FD	N	N
Sample Name			I7-2124A-051.5N	I7-2124A-051.5FD	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25N	I7-5-031.25FD	I7-5-030.5N	I7-5-030.5FD	I7-566-021.5N	I7-566A-012N
Parent Sample				I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	780	820	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 63	< 610	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 130	< 1200	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 84	< 80	< 93	< 93	NA	NA	NA	NA	NA	< 858.69
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	6200	8600	39	< 460	NA	NA	NA	NA	NA	< 429
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	330	650	< 460	< 460	NA	NA	NA	NA	NA	< 429
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 84	< 80	< 93	< 93	NA	NA	NA	NA	NA	< 858.69
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 84	< 80	< 93	< 93	NA	NA	NA	NA	NA	< 858.69
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-566A-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	7/13/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	FD	N	N
Sample Name			I7-2124A-051.5N	I7-2124A-051.5FD	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25N	I7-5-031.25FD	I7-5-030.5N	I7-5-030.5FD	I7-566-021.5N	I7-566A-012N
Parent Sample				I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 84	< 80	< 93	< 93	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	59.7
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 42	24	< 46	< 46	NA	NA	NA	NA	NA	61.4
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	97.5
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 42	38	< 46	25	NA	NA	NA	NA	NA	32.6
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	< 42	39	< 46	< 46	NA	NA	NA	NA	NA	117
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	930	12000	1300	95	NA	NA	NA	NA	NA	93.6
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Fluoranthene	206-44-0	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	115
Fluorene	86-73-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Isophorone	78-59-1	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-566A-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	7/13/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	FD	N	N
Sample Name			I7-2124A-051.5N	I7-2124A-051.5FD	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25N	I7-5-031.25FD	I7-5-030.5N	I7-5-030.5FD	I7-566-021.5N	I7-566A-012N
Parent Sample				I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	280	1300	< 46	< 46	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 84	< 80	< 93	< 93	NA	NA	NA	NA	NA	< 858.69
Phenanthrene	85-01-8	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	86.3
Phenol	108-95-2	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	< 429.345
Pyrene	129-00-0	ug/kg	NA	NA	< 42	< 40	< 46	< 46	NA	NA	NA	NA	NA	145
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-566A-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	7/13/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	FD	N	N
Sample Name			I7-2124A-051.5N	I7-2124A-051.5FD	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25N	I7-5-031.25FD	I7-5-030.5N	I7-5-030.5FD	I7-566-021.5N	I7-566A-012N
Parent Sample				I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 250	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 25	< 208.325
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 250	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 25	< 208.325
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 250	1200	< 25	< 25	< 25	NA	NA	NA	NA	390	< 208.325
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 250	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 25	< 208.325
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 500	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 50	< 416.65
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 500	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 50	< 416.65
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 250	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 25	< 208.325
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 500	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 50	< 416.65
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 250	< 25	< 25	< 25	< 25	NA	NA	NA	NA	< 25	< 208.325
Nitrocellulose	9004-70-0	ug/kg	< 39000	< 38100	1970000	1680000	306000	62800	NA	NA	NA	NA	714000	79100
Nitroglycerin	55-63-0	ug/kg	< 560	< 5500	< 630	28000	< 690	< 700	NA	NA	NA	NA	42000	< 429
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 500	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 50	< 416.65
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 500	< 50	740	< 50	< 50	NA	NA	NA	NA	< 50	< 416.65
Tetryl	479-45-8	ug/kg	< 50	< 500	< 50	< 50	< 50	< 50	NA	NA	NA	NA	< 50	< 416.65
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 1	< 0.6	< 0.7	< 0.7	5.1	6.6	NA	NA	NA	< 0.736757
Arsenic	7440-38-2	mg/kg	NA	NA	12.1	6.5	6.8	3.6	562	675	NA	NA	NA	62.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.66	0.35	0.86	0.64	0.46	0.4	NA	NA	NA	0.495
Cadmium	7440-43-9	mg/kg	NA	NA	1.3	0.36	0.3	0.27	< 0.3	< 0.37	NA	NA	NA	0.2
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	28.2	16.7	16.9	15.2	25.7	27.3	NA	NA	NA	18.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	33.6	28.3	12.7	9.6	40.9	48.4	NA	NA	NA	17.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	64	32.7	27.3	16.3	67.5	81.4	NA	NA	NA	122
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.14	0.08	0.09	0.1	0.12	0.12	NA	NA	NA	0.166
Nickel	7440-02-0	mg/kg	NA	NA	12.4	7.2	6.8	6.5	13.6	15.7	NA	NA	NA	9.42
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	64	0.53	1.4	0.9	0.47	< 0.62	NA	NA	NA	1.76

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-2124A-05	I7-2124A-05	I7-2133A-03	I7-2305-02	I7-3-03	I7-4-01	I7-5-03	I7-5-03	I7-5-03	I7-5-03	I7-566-02	I7-566A-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/25/2000	4/25/2000	4/27/2000	4/20/2000	4/20/2000	4/20/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000	4/20/2000	7/13/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	FD	N	N
Sample Name			I7-2124A-051.5N	I7-2124A-051.5FD	I7-2133A-031N	I7-2305-021.25N	I7-3-031.5N	I7-4-011N	I7-5-031.25N	I7-5-031.25FD	I7-5-030.5N	I7-5-030.5FD	I7-566-021.5N	I7-566A-012N
Parent Sample				I7-2124A-051.5N						I7-5-031.25N		I7-5-030.5N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	< 0.7	< 0.3	< 0.3	< 0.4	< 0.3	< 0.37	NA	NA	NA	< 0.368378
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 2	< 1	< 1	< 1	< 1	< 1.2	NA	NA	NA	< 1.227928
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	566	96.5	104	95	66	70.5	NA	NA	NA	78.9
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	43600	34600	40000	42900	26300	NA	NA	NA	27300	86000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	0	5.4	20.9	11.7	0	NA	NA	NA	9.7	NA
Gravel	ARC-PGRAVEL	%	NA	NA	34.2	30.1	12	0.9	33.7	NA	NA	NA	38.5	NA
Sand	ARC-PSAND	%	NA	NA	32.5	40.7	31.9	30	40.3	NA	NA	NA	38.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	92.9
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.1
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90.5
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.1
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.7
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86.6
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.7
Silt	ARC-PSILT	%	NA	NA	33.3	23.8	35.2	57.5	26	NA	NA	NA	13.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-567-01	I7-567-02	I7-8-03	I7-8181-01	I7-8181-01	I7-8181-04	I7-8181-04	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/27/2000	7/19/2000	3/30/2000	4/28/2000	4/28/2000	7/21/2000	7/21/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I7-567-011.5N	I7-567-022N	I7-8-032N	I7-8181-012N	I7-8181-010.5N	I7-8181-041.5N	I7-8181-040.5N	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N
Parent Sample													I8-2170-041N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 550	NA	< 613	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 550	NA	< 613	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	< 55	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 550	NA	< 613	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 550	NA	< 613	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 110	NA	< 1230	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 220	NA	< 2450	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 55	NA	< 6130	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	< 110	NA	< 1230	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 110	NA	< 1230	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	180	NA	< 613	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	< 110	NA	< 1230	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	< 55	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	< 613	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 550	NA	< 613	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-567-01	I7-567-02	I7-8-03	I7-8181-01	I7-8181-01	I7-8181-04	I7-8181-04	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/27/2000	7/19/2000	3/30/2000	4/28/2000	4/28/2000	7/21/2000	7/21/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I7-567-011.5N	I7-567-022N	I7-8-032N	I7-8181-012N	I7-8181-010.5N	I7-8181-041.5N	I7-8181-040.5N	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N
Parent Sample													I8-2170-041N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	830	NA	< 2450	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 55	NA	< 613	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	< 110	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	< 85	NA	< 762	NA	< 77	< 82	< 821	< 793	< 80
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 430	NA	430	NA	870	320	< 410	< 397	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 430	NA	< 381	NA	43	< 410	< 410	< 397	< 400
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	< 85	NA	< 762	NA	< 77	< 82	< 821	< 793	< 80
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	< 85	NA	< 762	NA	< 77	< 82	< 821	< 793	< 80
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-567-01	I7-567-02	I7-8-03	I7-8181-01	I7-8181-01	I7-8181-04	I7-8181-04	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/27/2000	7/19/2000	3/30/2000	4/28/2000	4/28/2000	7/21/2000	7/21/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I7-567-011.5N	I7-567-022N	I7-8-032N	I7-8181-012N	I7-8181-010.5N	I7-8181-041.5N	I7-8181-040.5N	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N
Parent Sample													I8-2170-041N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 85	NA	< 762	NA	< 77	< 82	< 821	< 793	< 80
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	60	< 410	< 397	< 40
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	64	< 410	< 397	< 40
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	34	370	104	97.6	< 40
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	28	290	103	93.6	< 40
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	690	181	154	< 40
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	150	85.7	90.8	< 40
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	190	< 410	< 397	< 40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	110	NA	32	NA	25	84	< 410	< 397	< 40
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	84	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	44	420	207	202	39
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	230	NA	< 381	NA	160	2200	417	655	1400
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	210	NA	235	NA	260	550	< 410	< 397	< 40
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	300	213	139	< 40
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	150	71	73.4	< 40
Isophorone	78-59-1	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-567-01	I7-567-02	I7-8-03	I7-8181-01	I7-8181-01	I7-8181-04	I7-8181-04	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/27/2000	7/19/2000	3/30/2000	4/28/2000	4/28/2000	7/21/2000	7/21/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I7-567-011.5N	I7-567-022N	I7-8-032N	I7-8181-012N	I7-8181-010.5N	I7-8181-041.5N	I7-8181-040.5N	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N
Parent Sample													I8-2170-041N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	150	NA	129	NA	1600	1000	30.8	50.4	120
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	< 85	NA	< 762	NA	< 77	< 82	< 821	< 793	< 80
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	82	139	115	31
Phenol	108-95-2	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	< 41	< 410	< 397	< 40
Pyrene	129-00-0	ug/kg	NA	NA	NA	< 43	NA	< 381	NA	< 38	350	277	248	< 40
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-567-01	I7-567-02	I7-8-03	I7-8181-01	I7-8181-01	I7-8181-04	I7-8181-04	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/27/2000	7/19/2000	3/30/2000	4/28/2000	4/28/2000	7/21/2000	7/21/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I7-567-011.5N	I7-567-022N	I7-8-032N	I7-8181-012N	I7-8181-010.5N	I7-8181-041.5N	I7-8181-040.5N	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N
Parent Sample													I8-2170-041N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 208	< 24	NA	NA	NA	NA	< 25	< 23	< 250	< 250	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 208	< 24	NA	NA	NA	NA	< 25	< 23	< 250	< 250	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	1570	< 24	NA	NA	NA	NA	600	1900	< 250	< 250	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 208	< 240	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 208	< 24	NA	NA	NA	NA	< 25	< 23	< 250	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 417	< 48	NA	NA	NA	NA	< 50	< 45	< 500	< 500	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 417	< 48	NA	NA	NA	NA	< 50	< 45	< 500	< 500	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 208	< 24	NA	NA	NA	NA	< 25	< 23	< 250	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 417	< 48	NA	NA	NA	NA	< 50	< 45	< 500	< 500	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 208	< 24	NA	NA	NA	NA	< 25	< 23	< 250	< 250	< 250
Nitrocellulose	9004-70-0	ug/kg	94600	114000	81400	NA	NA	NA	NA	1540000	4280000	1190000	93900	139000
Nitroglycerin	55-63-0	ug/kg	< 610	43800	< 640	NA	NA	NA	NA	87000	180000	4280	< 5550	73000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	1260	320	NA	NA	NA	NA	< 50	< 45	< 500	< 500	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 417	< 48	NA	NA	NA	NA	< 50	< 45	< 500	< 500	< 500
Tetryl	479-45-8	ug/kg	< 50	< 417	< 48	NA	NA	NA	NA	< 50	< 45	< 500	< 500	< 500
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.7	< 0.7	NA	< 0.504	NA	< 0.6	< 0.7	< 0.684	< 0.612	< 0.6
Arsenic	7440-38-2	mg/kg	NA	NA	26.8	8.7	NA	3.55	NA	34.8	265	19.1	8.87	4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.63	0.46	NA	0.6	NA	0.35	0.59	0.555	0.57	0.51
Cadmium	7440-43-9	mg/kg	NA	NA	0.54	0.17	NA	0.702	NA	0.26	0.35	0.813	0.771	0.24
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	9.3	32.6	NA	26.7	NA	35.8	21.7	15.3	15	15.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	30.5	32.8	NA	20.2	NA	16.8	48	24.5	21.8	16.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	136	48.8	NA	14.2	NA	11.3	67.3	61.2	63.5	34.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.17	0.06	NA	0.158	NA	0.05	0.27	0.176	0.14	0.1
Nickel	7440-02-0	mg/kg	NA	NA	6.8	11.1	NA	8.61	NA	5.3	15.7	10.8	9.06	9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	1.4	< 0.6	NA	0.796	NA	< 0.6	1.2	1.74	1.41	0.56

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I7-567-01	I7-567-02	I7-8-03	I7-8181-01	I7-8181-01	I7-8181-04	I7-8181-04	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/27/2000	7/19/2000	3/30/2000	4/28/2000	4/28/2000	7/21/2000	7/21/2000	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I7-567-011.5N	I7-567-022N	I7-8-032N	I7-8181-012N	I7-8181-010.5N	I7-8181-041.5N	I7-8181-040.5N	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N
Parent Sample													I8-2170-041N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	< 0.3	< 0.3	NA	< 0.252	NA	< 0.3	< 0.3	< 0.342	< 0.306	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1	< 1	NA	< 0.84	NA	< 1	< 1	< 1.14	< 1.02	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	321	129	NA	178	NA	45.7	201	160	150	127
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	67200	NA	65400	9820	NA	NA	NA	18700	40600	NA	NA	24600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	5.1	NA	4	6.3	NA	NA	NA	4.7	6.7	NA	NA	7.6
Gravel	ARC-PGRAVEL	%	57.4	NA	56.7	36.9	NA	NA	NA	18.4	13.7	NA	NA	35.6
Sand	ARC-PSAND	%	27.9	NA	30.1	32.1	NA	NA	NA	63.8	62.3	NA	NA	39.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	9.7	NA	9.2	24.8	NA	NA	NA	13.1	17.3	NA	NA	17.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2299-03	I8-2299-05	I8-2328-02	I8-2328-07	I8-2328A-02	I8-2328A-03	I8-2332-01	I8-2332-02	I8-2333-02	I8-2333-03	I8-2405-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			7/19/2000	4/20/2000	4/20/2000	3/23/1999	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I8-2299-031N	I8-2299-051N	I8-2328-022N	I8-2328-071.5N	I8-2328A-022N	I8-2328A-031N	I8-2332-011.25N	I8-2332-021.5N	I8-2333-021N	I8-2333-031.5N	I8-2405-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 2500	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I8-2299-03 0.0-1.0 ft 7/19/2000 N I8-2299-031N	I8-2299-05 0.0-1.0 ft 4/20/2000 N I8-2299-051N	I8-2328-02 0.0-2.0 ft 4/20/2000 N I8-2328-022N	I8-2328-07 0.0-1.5 ft 3/23/1999 N I8-2328-071.5N	I8-2328A-02 0.0-2.0 ft 4/20/2000 N I8-2328A-022N	I8-2328A-03 0.0-1.0 ft 7/19/2000 N I8-2328A-031N	I8-2332-01 0.0-1.3 ft 7/19/2000 N I8-2332-011.25N	I8-2332-02 0.0-1.5 ft 4/20/2000 N I8-2332-021.5N	I8-2333-02 0.0-1.0 ft 4/20/2000 N I8-2333-021N	I8-2333-03 0.0-1.5 ft 7/19/2000 N I8-2333-031.5N	I8-2405-01 0.0-1.0 ft 4/20/2000 N I8-2405-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	560	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 630	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1300	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2,4-Dichlorophenol	120-83-2	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	< 776	< 75	< 77	< 77	< 78	< 7320	< 815	< 78	< 82	< 775	< 79
2,4-Dinitrotoluene	121-14-2	ug/kg	< 388	< 370	< 380	< 380	55	< 3660	< 407	< 390	< 410	< 388	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 388	< 370	< 380	< 380	< 390	< 3660	< 407	< 390	< 410	< 388	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2-Chlorophenol	95-57-8	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 776	< 75	< 77	< 77	< 78	< 7320	< 815	< 78	< 82	< 775	< 79
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 776	< 75	< 77	< 77	< 78	< 7320	< 815	< 78	< 82	< 775	< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I8-2299-03 0.0-1.0 ft 7/19/2000 N I8-2299-031N	I8-2299-05 0.0-1.0 ft 4/20/2000 N I8-2299-051N	I8-2328-02 0.0-2.0 ft 4/20/2000 N I8-2328-022N	I8-2328-07 0.0-1.5 ft 3/23/1999 N I8-2328-071.5N	I8-2328A-02 0.0-2.0 ft 4/20/2000 N I8-2328A-022N	I8-2328A-03 0.0-1.0 ft 7/19/2000 N I8-2328A-031N	I8-2332-01 0.0-1.3 ft 7/19/2000 N I8-2332-011.25N	I8-2332-02 0.0-1.5 ft 4/20/2000 N I8-2332-021.5N	I8-2333-02 0.0-1.0 ft 4/20/2000 N I8-2333-021N	I8-2333-03 0.0-1.5 ft 7/19/2000 N I8-2333-031.5N	I8-2405-01 0.0-1.0 ft 4/20/2000 N I8-2405-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 776	< 75	< 77	< 77	< 78	< 7320	< 815	< 78	< 82	< 775	< 79
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Acenaphthylene	208-96-8	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	67	< 388	120
Benzo[a]pyrene	50-32-8	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	72	< 388	110
Benzo[b]fluoranthene	205-99-2	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	130	< 388	200
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Benzo[k]fluoranthene	207-08-9	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	25.6	24	< 38	20	190	626	22.4	21	< 41	< 388	< 40
Butylbenzylphthalate	85-68-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	69	< 388	81
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 388	< 37	190	87	9000	3780	< 407	< 39	85	< 388	190
Dimethylphthalate	131-11-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Di-n-butylphthalate	84-74-2	ug/kg	< 388	< 37	310	< 38	9500	4450	< 407	< 39	< 41	64	< 40
Di-n-octylphthalate	117-84-0	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Fluoranthene	206-44-0	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	130
Fluorene	86-73-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Hexachlorobenzene	118-74-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Hexachlorobutadiene	87-68-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Hexachloroethane	67-72-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Isophorone	78-59-1	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I8-2299-03 0.0-1.0 ft 7/19/2000 N I8-2299-031N	I8-2299-05 0.0-1.0 ft 4/20/2000 N I8-2299-051N	I8-2328-02 0.0-2.0 ft 4/20/2000 N I8-2328-022N	I8-2328-07 0.0-1.5 ft 3/23/1999 N I8-2328-071.5N	I8-2328A-02 0.0-2.0 ft 4/20/2000 N I8-2328A-022N	I8-2328A-03 0.0-1.0 ft 7/19/2000 N I8-2328A-031N	I8-2332-01 0.0-1.3 ft 7/19/2000 N I8-2332-011.25N	I8-2332-02 0.0-1.5 ft 4/20/2000 N I8-2332-021.5N	I8-2333-02 0.0-1.0 ft 4/20/2000 N I8-2333-021N	I8-2333-03 0.0-1.5 ft 7/19/2000 N I8-2333-031.5N	I8-2405-01 0.0-1.0 ft 4/20/2000 N I8-2405-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 41	< 388	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	69.8	82	970	170	1400	2200	< 407	< 39	240	1070	170
Pentachlorophenol	87-86-5	ug/kg	< 776	< 75	< 77	< 77	< 78	< 7320	< 815	< 78	< 82	< 775	< 79
Phenanthrene	85-01-8	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	25
Phenol	108-95-2	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	< 41	< 388	< 40
Pyrene	129-00-0	ug/kg	< 388	< 37	< 38	< 38	< 39	< 3660	< 407	< 39	100	< 388	150
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	< 3.7	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	< 190	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	< 19	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 38	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	< 38	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I8-2299-03 0.0-1.0 ft 7/19/2000 N I8-2299-031N	I8-2299-05 0.0-1.0 ft 4/20/2000 N I8-2299-051N	I8-2328-02 0.0-2.0 ft 4/20/2000 N I8-2328-022N	I8-2328-07 0.0-1.5 ft 3/23/1999 N I8-2328-071.5N	I8-2328A-02 0.0-2.0 ft 4/20/2000 N I8-2328A-022N	I8-2328A-03 0.0-1.0 ft 7/19/2000 N I8-2328A-031N	I8-2332-01 0.0-1.3 ft 7/19/2000 N I8-2332-011.25N	I8-2332-02 0.0-1.5 ft 4/20/2000 N I8-2332-021.5N	I8-2333-02 0.0-1.0 ft 4/20/2000 N I8-2333-021N	I8-2333-03 0.0-1.5 ft 7/19/2000 N I8-2333-031.5N	I8-2405-01 0.0-1.0 ft 4/20/2000 N I8-2405-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 217	< 238	< 24	< 25	< 25	< 250	< 227	< 25	NA	NA	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 217	< 238	< 24	< 25	< 25	< 250	< 227	< 25	NA	NA	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 217	< 238	460	140	3300	1810	< 227	< 25	NA	NA	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 217	< 238	< 24	< 25	< 25	< 250	< 227	< 25	NA	NA	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 435	< 476	< 48	< 50	< 50	< 500	< 455	< 50	NA	NA	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 435	< 476	< 48	< 50	< 50	< 500	< 455	< 50	NA	NA	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 217	< 238	< 24	< 25	< 25	< 250	< 227	< 25	NA	NA	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 435	< 476	< 48	< 50	< 50	< 500	< 455	< 50	NA	NA	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 217	< 238	< 24	< 25	< 25	135	< 227	< 25	NA	NA	< 250
Nitrocellulose	9004-70-0	ug/kg	< 40.5	< 34000	1650000	69400	4010000	14900000	< 41.2	< 34000	NA	NA	85200
Nitroglycerin	55-63-0	ug/kg	< 5820	< 560	67000	7600	480000	< 4990	< 6110	< 580	NA	NA	7400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 435	< 476	< 48	< 50	550000	1640	< 455	< 50	NA	NA	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 435	< 476	< 48	< 50	< 50	< 500	< 455	< 50	NA	NA	< 500
Tetryl	479-45-8	ug/kg	< 435	< 476	< 48	< 50	< 50	< 500	< 455	< 50	NA	NA	< 500
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	8300	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.612	< 0.5	< 0.6	< 0.98	< 0.6	< 0.646	< 0.643	< 0.6	20.5	< 0.646	< 0.6
Arsenic	7440-38-2	mg/kg	4.52	3.7	6.8	3.1	3.4	6.46	3.56	3.3	6	6.03	5.2
Barium	7440-39-3	mg/kg	NA	NA	NA	32.4	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.741	0.74	0.64	0.8	0.66	0.466	0.655	0.65	0.68	0.973	0.49
Cadmium	7440-43-9	mg/kg	0.665	< 0.2	0.27	< 0.59	0.58	0.541	0.622	0.3	< 0.3	0.875	< 0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	1290	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	21.5	24.8	17.8	11.5	16.5	51.1	14	15.6	22.5	32.5	15.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	4.9	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	32	40.5	27.8	11	28.4	34	15	17.1	39	63	21.6
Iron	7439-89-6	mg/kg	NA	NA	NA	23300	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	9.43	6.1	6.8	5.4	21.3	12.6	10.4	8	17.7	12.1	59.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	1420	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	238	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.057	0.06	0.06	NA	0.18	0.197	0.028	0.05	0.07	0.068	0.03
Nickel	7440-02-0	mg/kg	11.9	13.5	9	6.4	10.3	10.7	8.62	11.2	13	16.6	8
Potassium	7440-09-7	mg/kg	NA	NA	NA	475	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.635	< 0.4	0.93	< 0.98	0.67	0.652	0.965	0.47	< 0.6	1.16	< 0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2299-03	I8-2299-05	I8-2328-02	I8-2328-07	I8-2328A-02	I8-2328A-03	I8-2332-01	I8-2332-02	I8-2333-02	I8-2333-03	I8-2405-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			7/19/2000	4/20/2000	4/20/2000	3/23/1999	4/20/2000	7/19/2000	7/19/2000	4/20/2000	4/20/2000	7/19/2000	4/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			I8-2299-031N	I8-2299-051N	I8-2328-022N	I8-2328-071.5N	I8-2328A-022N	I8-2328A-031N	I8-2332-011.25N	I8-2332-021.5N	I8-2333-021N	I8-2333-031.5N	I8-2405-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.306	< 0.2	< 0.3	< 0.59	< 0.3	< 0.323	< 0.322	< 0.3	< 0.3	< 0.323	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	< 196	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.02	0.91	< 1	< 2	< 1	< 1.08	< 1.07	< 1	< 1	< 1.08	0.72
Vanadium	7440-62-2	mg/kg	NA	NA	NA	26.3	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	63.2	43.5	46.8	49.1	73.7	101	61	83	61.2	57	64
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	5.75	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	6270	6440	NA	23300	NA	NA	9900	7100	NA	11200
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	10.9	11.6	NA	12.3	NA	NA	10.1	6.9	NA	7.4
Gravel	ARC-PGRAVEL	%	NA	26.6	26.5	NA	37.6	NA	NA	36.2	36.1	NA	31.5
Sand	ARC-PSAND	%	NA	42.2	45.7	NA	28.9	NA	NA	34.6	40.6	NA	47.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	20.3	16.2	NA	21.2	NA	NA	19.1	16.4	NA	13.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2405-05	I8-2405-06	I8-2405-06	I8-2405A-01	I8-2405A-02	I8-2409-01	I8-2409-04	I8-525-03	I8-525-04	I8-560-01	I8-560-03	I8-588E-03
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/20/2000	7/19/2000	4/20/2000	7/19/2000	7/19/2000	4/27/2000	4/20/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			I8-2405-050.5N	I8-2405-062N	I8-2405-062FD	I8-2405A-011.5N	I8-2405A-021N	I8-2409-011N	I8-2409-041N	I8-525-030.5N	I8-525-041N	I8-560-011N	I8-560-031.5N	I8-588E-031N
Parent Sample					I8-2405-062N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2405-05	I8-2405-06	I8-2405-06	I8-2405A-01	I8-2405A-02	I8-2409-01	I8-2409-04	I8-525-03	I8-525-04	I8-560-01	I8-560-03	I8-588E-03
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/20/2000	7/19/2000	4/20/2000	7/19/2000	7/19/2000	4/27/2000	4/20/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			I8-2405-050.5N	I8-2405-062N	I8-2405-062FD	I8-2405A-011.5N	I8-2405A-021N	I8-2409-011N	I8-2409-041N	I8-525-030.5N	I8-525-041N	I8-560-011N	I8-560-031.5N	I8-588E-031N
Parent Sample					I8-2405-062N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 76	< 78	< 790	< 754	< 78	< 78	< 747	< 770	< 745	< 829	< 90	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 380	< 390	41	< 377	< 390	< 390	< 373	< 3800	< 372	< 414	< 450	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 380	< 390	< 400	< 377	< 390	< 390	< 373	< 3800	< 372	< 414	< 450	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2-Chlorophenol	95-57-8	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 76	< 78	< 790	< 754	< 78	< 78	< 747	< 770	< 745	< 829	< 90	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 76	< 78	< 790	< 754	< 78	< 78	< 747	< 770	< 745	< 829	< 90	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			I8-2405-05 0.0-0.5 ft 4/20/2000 N I8-2405-050.5N	I8-2405-06 0.0-2.0 ft 4/20/2000 N I8-2405-062N	I8-2405-06 0.0-2.0 ft 4/20/2000 FD I8-2405-062FD I8-2405-062N	I8-2405A-01 0.0-1.5 ft 7/19/2000 N I8-2405A-011.5N	I8-2405A-02 0.0-1.0 ft 4/28/2000 N I8-2405A-021N	I8-2409-01 0.0-1.0 ft 4/20/2000 N I8-2409-011N	I8-2409-04 0.0-1.0 ft 7/19/2000 N I8-2409-041N	I8-525-03 0.0-0.5 ft 4/20/2000 N I8-525-030.5N	I8-525-04 0.0-1.0 ft 7/19/2000 N I8-525-041N	I8-560-01 0.0-1.0 ft 7/19/2000 N I8-560-011N	I8-560-03 0.0-1.5 ft 4/27/2000 N I8-560-031.5N	I8-588E-03 0.0-1.0 ft 4/20/2000 N I8-588E-031N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 76	< 78	< 790	< 754	< 78	< 78	< 747	< 770	< 745	< 829	< 90	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Acenaphthylene	208-96-8	ug/kg	30	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	35	< 39	44	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	280	100	440	< 377	< 39	48	< 373	290	153	359	< 45	NA
Benzo[a]pyrene	50-32-8	ug/kg	330	110	420	< 377	< 39	53	< 373	360	185	258	< 45	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	790	200	540	< 377	< 39	100	< 373	690	350	389	< 45	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	150	< 39	180	< 377	< 39	< 39	< 373	< 380	105	189	< 45	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	240	< 39	180	< 377	< 39	< 39	< 373	< 380	131	< 414	< 45	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 38	42	83	30.9	34	38	< 373	< 380	54.4	21.6	< 45	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	330	96	390	< 377	< 39	47	< 373	420	172	703	< 45	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	170	< 45	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	94	160	< 400	< 377	110	84	< 373	< 380	1060	208	< 45	NA
Dimethylphthalate	131-11-3	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 38	< 39	< 40	55.8	77	< 39	< 373	< 380	< 372	121	< 45	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Fluoranthene	206-44-0	ug/kg	290	85	610	< 377	< 39	< 39	< 373	< 380	184	174	< 45	NA
Fluorene	86-73-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Hexachlorobenzene	118-74-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Hexachloroethane	67-72-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	160	< 39	190	< 377	< 39	< 39	< 373	< 380	109	121	< 45	NA
Isophorone	78-59-1	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2405-05	I8-2405-06	I8-2405-06	I8-2405A-01	I8-2405A-02	I8-2409-01	I8-2409-04	I8-525-03	I8-525-04	I8-560-01	I8-560-03	I8-588E-03
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/20/2000	7/19/2000	4/20/2000	7/19/2000	7/19/2000	4/27/2000	4/20/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			I8-2405-050.5N	I8-2405-062N	I8-2405-062FD	I8-2405A-011.5N	I8-2405A-021N	I8-2409-011N	I8-2409-041N	I8-525-030.5N	I8-525-041N	I8-560-011N	I8-560-031.5N	I8-588E-031N
Parent Sample					I8-2405-062N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 39	< 373	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	350	160	< 400	385	130	230	< 373	1700	65.5	< 414	< 45	NA
Pentachlorophenol	87-86-5	ug/kg	< 76	< 78	< 790	< 754	< 78	< 78	< 747	< 770	< 745	< 829	< 90	NA
Phenanthrene	85-01-8	ug/kg	41	24	150	< 377	< 39	< 39	< 373	< 380	< 372	121	< 45	NA
Phenol	108-95-2	ug/kg	< 38	< 39	< 400	< 377	< 39	< 39	< 373	< 380	< 372	< 414	< 45	NA
Pyrene	129-00-0	ug/kg	420	170	730	< 377	< 39	100	< 373	< 380	242	214	< 45	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2405-05	I8-2405-06	I8-2405-06	I8-2405A-01	I8-2405A-02	I8-2409-01	I8-2409-04	I8-525-03	I8-525-04	I8-560-01	I8-560-03	I8-588E-03
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/20/2000	7/19/2000	4/20/2000	7/19/2000	7/19/2000	4/27/2000	4/20/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			I8-2405-050.5N	I8-2405-062N	I8-2405-062FD	I8-2405A-011.5N	I8-2405A-021N	I8-2409-011N	I8-2409-041N	I8-525-030.5N	I8-525-041N	I8-560-011N	I8-560-031.5N	I8-588E-031N
Parent Sample					I8-2405-062N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 250	< 250	< 227	< 25	NA	NA	< 250	< 227	< 250	< 25	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 250	< 250	< 227	< 25	NA	NA	< 250	< 227	< 250	< 25	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	< 250	755.8	< 227	< 25	NA	NA	< 250	< 227	< 250	< 25	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	1221.1	1263.5	< 227	< 25	NA	NA	< 250	< 227	< 250	< 25	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 500	< 500	< 455	< 50	NA	NA	< 500	< 455	< 500	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 500	< 500	< 455	< 50	NA	NA	< 500	< 455	< 500	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	654.8	678.2	< 227	< 25	NA	NA	< 250	< 227	< 250	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 500	< 500	< 455	< 50	NA	NA	< 500	< 455	< 500	< 50	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 250	< 250	< 227	< 25	NA	NA	< 250	< 227	< 250	< 25	< 250
Nitrocellulose	9004-70-0	ug/kg	524000	< 38000	< 41400	149000	< 42000	NA	NA	79000	1170000	145000	65600	139000
Nitroglycerin	55-63-0	ug/kg	7800	27000	15000	7630	3600	NA	NA	17000	< 5600	< 6220	< 680	< 680
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 500	< 500	< 455	< 50	NA	NA	< 500	< 455	< 500	< 50	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 500	< 500	< 455	< 50	NA	NA	< 500	< 455	< 500	< 50	< 500
Tetryl	479-45-8	ug/kg	< 500	< 500	< 500	< 455	< 50	NA	NA	< 500	< 455	< 500	< 50	< 500
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.5	< 0.62	< 0.508	< 0.6	< 0.6	< 0.542	< 0.6	< 0.534	< 0.632	< 0.7	1.3
Arsenic	7440-38-2	mg/kg	6.1	2.4	4.4	3.46	4.6	3.7	3.58	9.3	7.39	6.96	7.1	8.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.43	0.41	0.69	0.634	0.68	0.54	0.599	0.52	0.554	0.781	1.3	0.88
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.2	< 0.31	0.687	< 0.3	< 0.3	0.505	< 0.3	0.632	0.608	0.79	0.53
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.5	14.6	23.6	14.6	18.3	15.8	13.4	15.6	14.7	17.6	23.4	22.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	22.2	14.2	21.4	21.3	25.8	23.1	13.6	29.4	53.2	16.9	24	158
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	50.4	11.3	19.1	6.64	8.4	8.2	5.86	64.4	72.7	46.4	22.3	3520
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.05	0.06	0.07	0.04	0.02	0.06	0.018	0.04	0.039	0.173	0.22	13.4
Nickel	7440-02-0	mg/kg	7.3	5.7	10	8.89	11	9.1	7.57	9	7.45	9.95	9.2	12.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	0.52	0.48	0.588	< 0.5	< 0.5	0.762	< 0.5	1.03	1.7	1.9	1.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-2405-05	I8-2405-06	I8-2405-06	I8-2405A-01	I8-2405A-02	I8-2409-01	I8-2409-04	I8-525-03	I8-525-04	I8-560-01	I8-560-03	I8-588E-03
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/20/2000	7/19/2000	4/20/2000	7/19/2000	7/19/2000	4/27/2000	4/20/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			I8-2405-050.5N	I8-2405-062N	I8-2405-062FD	I8-2405A-011.5N	I8-2405A-021N	I8-2409-011N	I8-2409-041N	I8-525-030.5N	I8-525-041N	I8-560-011N	I8-560-031.5N	I8-588E-031N
Parent Sample					I8-2405-062N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.2	< 0.31	< 0.254	< 0.3	< 0.3	< 0.271	< 0.3	< 0.267	< 0.316	0.29	0.29
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 0.9	0.87	< 0.846	1.3	0.69	< 0.903	0.6	< 0.889	< 1.05	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	61.1	42.5	65.3	218	68.8	51	53.9	79.4	97.4	88.3	136	271
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	14000	4210	NA	17800	NA	NA	25400	46800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	10.1	8.5	NA	9.4	NA	NA	0	5.2
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	23.4	27.9	NA	27.2	NA	NA	2.3	23.6
Sand	ARC-PSAND	%	NA	NA	NA	NA	45	19.8	NA	46.3	NA	NA	34.6	42.4
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	21.5	43.7	NA	17.2	NA	NA	63.2	28.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-588E-06	I8-8236-01	I8-8236-05	I8-9334-01	I8-9334-02	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2-02	I9-2311-01	I9-2311-06	I9-2311-06
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	5/4/2000	5/4/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	N	FD
Sample Name			I8-588E-061N	I8-8236-011.25N	I8-8236-052N	I8-9334-011N	I8-9334-021N	I8-F2-011N	I8-F2-011FD	I9-2-011N	I9-2-011FD	I9-2-021.5N	I9-2311-011.5N	I9-2311-061N	I9-2311-061FD
Parent Sample									I8-F2-011N		I9-2-011N				I9-2311-061N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-588E-06	I8-8236-01	I8-8236-05	I8-9334-01	I8-9334-02	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2-02	I9-2311-01	I9-2311-06	I9-2311-06
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	5/4/2000	5/4/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	N	FD
Sample Name			I8-588E-061N	I8-8236-011.25N	I8-8236-052N	I8-9334-011N	I8-9334-021N	I8-F2-011N	I8-F2-011FD	I9-2-011N	I9-2-011FD	I9-2-021.5N	I9-2311-011.5N	I9-2311-061N	I9-2311-061FD
Parent Sample									I8-F2-011N		I9-2-011N				I9-2311-061N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 81	< 78	< 90	< 7220	< 73	< 730	< 82	< 870	< 843	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	85	< 390	43	< 3610	< 370	< 370	680	100	< 421	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 410	< 390	< 450	< 3610	< 370	< 370	38	< 430	< 421	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 81	< 78	< 90	< 7220	< 73	< 730	< 82	< 870	< 843	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 81	< 78	< 90	< 7220	< 73	< 730	< 82	< 870	< 843	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-588E-06	I8-8236-01	I8-8236-05	I8-9334-01	I8-9334-02	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2-02	I9-2311-01	I9-2311-06	I9-2311-06
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	5/4/2000	5/4/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	N	FD
Sample Name			I8-588E-061N	I8-8236-011.25N	I8-8236-052N	I8-9334-011N	I8-9334-021N	I8-F2-011N	I8-F2-011FD	I9-2-011N	I9-2-011FD	I9-2-021.5N	I9-2311-011.5N	I9-2311-061N	I9-2311-061FD
Parent Sample									I8-F2-011N		I9-2-011N				I9-2311-061N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 81	< 78	< 90	< 7220	< 73	< 730	< 82	< 870	< 843	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 41	< 39	< 45	< 3610	53	68	32	28	< 421	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 41	< 39	< 45	< 3610	47	51	39	36	< 421	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	41	< 39	110	< 3610	480	490	120	130	72.9	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	43	< 39	96	< 3610	490	550	130	120	62	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 41	< 39	200	< 3610	850	920	340	240	116	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 41	< 39	< 45	< 3610	270	360	130	120	< 421	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 41	< 39	< 45	< 3610	190	320	< 41	< 430	< 421	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	120	< 39	120	184	49	46	52	58	34.6	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	61	< 39	130	< 3610	480	550	230	250	90.6	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 41	< 39	< 45	< 3610	77	97	< 41	< 430	< 421	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	140	< 39	6300	< 3610	110	100	240	220	< 421	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	680	< 39	16000	902	140	690	< 41	< 43	55.6	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	< 41	< 39	220	< 3610	800	750	280	250	< 421	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 41	< 39	< 45	< 3610	32	27	< 41	< 430	< 421	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 41	< 39	< 45	< 3610	250	310	100	94	< 421	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-588E-06	I8-8236-01	I8-8236-05	I8-9334-01	I8-9334-02	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2-02	I9-2311-01	I9-2311-06	I9-2311-06
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	5/4/2000	5/4/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	N	FD
Sample Name			I8-588E-061N	I8-8236-011.25N	I8-8236-052N	I8-9334-011N	I8-9334-021N	I8-F2-011N	I8-F2-011FD	I9-2-011N	I9-2-011FD	I9-2-021.5N	I9-2311-011.5N	I9-2311-061N	I9-2311-061FD
Parent Sample									I8-F2-011N		I9-2-011N				I9-2311-061N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 41	< 39	NA	NA	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	880	< 39	5000	1840	300	1100	600	91	< 421	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 81	< 78	< 90	< 7220	< 73	< 730	< 82	< 870	< 843	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	50	< 39	92	< 3610	380	310	190	240	57.7	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	< 41	< 39	< 45	< 3610	< 37	< 370	< 41	< 430	< 421	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	< 41	< 39	210	< 3610	1300	880	230	230	113	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-588E-06	I8-8236-01	I8-8236-05	I8-9334-01	I8-9334-02	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2-02	I9-2311-01	I9-2311-06	I9-2311-06
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	5/4/2000	5/4/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	N	FD
Sample Name			I8-588E-061N	I8-8236-011.25N	I8-8236-052N	I8-9334-011N	I8-9334-021N	I8-F2-011N	I8-F2-011FD	I9-2-011N	I9-2-011FD	I9-2-021.5N	I9-2311-011.5N	I9-2311-061N	I9-2311-061FD
Parent Sample									I8-F2-011N		I9-2-011N				I9-2311-061N
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	< 25	< 238	NA	NA	NA	NA	NA	< 25	< 25	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	< 25	< 238	NA	NA	NA	NA	NA	< 25	< 25	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	NA	1400	< 238	NA	NA	NA	NA	NA	920	< 25	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 250	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 25	< 238	NA	NA	NA	NA	NA	< 25	< 25	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	< 50	< 476	NA	NA	NA	NA	NA	< 50	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	< 50	< 476	NA	NA	NA	NA	NA	< 50	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	< 25	< 238	NA	NA	NA	NA	NA	< 25	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	< 50	< 476	NA	NA	NA	NA	NA	< 50	< 50	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	NA	< 25	< 238	NA	NA	NA	NA	NA	< 25	< 25	< 250
Nitrocellulose	9004-70-0	ug/kg	91400	NA	NA	7050000	1030000	NA	NA	NA	NA	NA	2730000	90800	109000
Nitroglycerin	55-63-0	ug/kg	< 660	NA	NA	200000	39100	NA	NA	NA	NA	NA	190000	25000	9500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	< 50	< 476	NA	NA	NA	NA	NA	< 50	< 50	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	< 50	< 476	NA	NA	NA	NA	NA	< 50	< 50	< 500
Tetryl	479-45-8	ug/kg	< 500	NA	NA	< 50	< 476	NA	NA	NA	NA	NA	< 50	< 50	< 500
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	5.1	< 0.7	< 0.6	< 0.8	< 0.469	< 0.6	< 0.55	< 0.6	< 0.78	< 0.654	NA	NA	NA
Arsenic	7440-38-2	mg/kg	6.8	14.5	3.6	15.9	8.03	4.9	4.8	17.9	19.3	9.52	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.63	0.58	0.71	0.82	0.433	0.6	0.55	0.51	0.52	0.88	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.3	2.1	0.1	0.77	0.516	0.6	0.61	< 0.3	< 0.39	0.766	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.1	19.9	17.8	21	21.4	18.2	17.4	19.8	17	21.7	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	70	74.7	16.3	56.5	24	23.9	21.6	37.1	40.9	21.5	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6080	253	15.1	76.7	22.4	20.4	16.5	82.1	86.9	37	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.2	0.32	0.06	0.25	0.064	0.06	0.04	0.19	0.22	0.097	NA	NA	NA
Nickel	7440-02-0	mg/kg	15.4	13.2	10.6	11.2	9.4	9.7	9.3	10.9	10.1	11.2	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.94	0.86	0.67	1.4	0.435	0.5	0.74	1.4	1.3	1.42	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I8-588E-06	I8-8236-01	I8-8236-05	I8-9334-01	I8-9334-02	I8-F2-01	I8-F2-01	I9-2-01	I9-2-01	I9-2-02	I9-2311-01	I9-2311-06	I9-2311-06
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/20/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	5/4/2000	5/4/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	N	N	FD	N	FD	N	N	N	FD
Sample Name			I8-588E-061N	I8-8236-011.25N	I8-8236-052N	I8-9334-011N	I8-9334-021N	I8-F2-011N	I8-F2-011FD	I9-2-011N	I9-2-011FD	I9-2-021.5N	I9-2311-011.5N	I9-2311-061N	I9-2311-061FD
Parent Sample									I8-F2-011N		I9-2-011N				I9-2311-061N
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	0.43	0.24	< 0.3	< 0.4	< 0.234	< 0.3	< 0.28	< 0.3	< 0.39	< 0.327	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 0.9	< 1	< 0.782	< 1	< 92	< 1	< 1.3	< 1.09	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	72.5	636	58.8	127	74.2	78	64	49.3	48.5	76.4	NA	NA	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	19200	NA	50800	NA	20500	NA	122000	NA	NA	14600	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	3.3	NA	23.7	NA	2.3	NA	5.5	NA	NA	5.5	NA	NA
Gravel	ARC-PGRAVEL	%	NA	49.2	NA	7.9	NA	29	NA	34.8	NA	NA	63.9	NA	NA
Sand	ARC-PSAND	%	NA	29.9	NA	37.1	NA	48.9	NA	33.1	NA	NA	19.8	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	17.6	NA	31.3	NA	19.9	NA	26.5	NA	NA	10.8	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Name			I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD
Parent Sample								I9-2329A-042N							I9-3-111.5N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Name			I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD
Parent Sample								I9-2329A-042N							I9-3-111.5N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
1,2-Dichlorobenzene	95-50-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
1,4-Dichlorobenzene	106-46-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2,4-Dichlorophenol	120-83-2	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2,4-Dimethylphenol	105-67-9	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2,4-Dinitrophenol	51-28-5	ug/kg	< 76	< 77	< 78	< 74	< 733	< 719	< 81	< 80	< 76	< 88	< 76	< 84	< 840
2,4-Dinitrotoluene	121-14-2	ug/kg	< 380	< 380	< 390	< 370	< 366	< 360	< 410	< 400	< 380	< 440	< 380	< 420	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	< 380	< 380	< 390	< 370	< 366	< 360	< 410	< 400	< 380	< 440	< 380	< 420	< 420
2-Chloronaphthalene	91-58-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2-Chlorophenol	95-57-8	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 76	< 77	< 78	< 74	< 733	< 719	< 81	< 80	< 76	< 88	< 76	< 84	< 840
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 76	< 77	< 78	< 74	< 733	< 719	< 81	< 80	< 76	< 88	< 76	< 84	< 840
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Name			I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD
Parent Sample								I9-2329A-042N							I9-3-111.5N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 76	< 77	< 78	< 74	< 733	< 719	< 81	< 80	< 76	< 88	< 76	< 84	< 840
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Acenaphthylene	208-96-8	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 38	43	< 39	< 37	< 366	< 360	120	96	< 38	< 44	< 38	81	100
Benzo[a]pyrene	50-32-8	ug/kg	< 38	29	34	< 37	< 366	< 360	100	52	< 38	< 44	< 38	58	110
Benzo[b]fluoranthene	205-99-2	ug/kg	< 38	79	< 39	< 37	< 366	< 360	170	79	< 38	< 44	< 38	130	190
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Benzo[k]fluoranthene	207-08-9	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 38	25	30	31	80.2	36.3	34	52	19	59	33	< 42	32
Butylbenzylphthalate	85-68-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 38	60	41	< 37	53.1	< 360	140	84	< 38	< 44	< 38	63	94
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 38	< 38	55	< 37	< 366	< 360	72	< 40	< 38	< 44	< 38	< 42	< 420
Dimethylphthalate	131-11-3	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Di-n-butylphthalate	84-74-2	ug/kg	< 38	< 38	37	< 37	238	136	56	36	44	41	43	< 42	< 420
Di-n-octylphthalate	117-84-0	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Fluoranthene	206-44-0	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	180	96	< 38	< 44	< 38	< 42	75
Fluorene	86-73-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Hexachlorobenzene	118-74-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Hexachlorobutadiene	87-68-3	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Hexachloroethane	67-72-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Isophorone	78-59-1	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Name			I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD
Parent Sample								I9-2329A-042N							I9-3-111.5N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 41	< 40	< 38	< 44	< 38	< 42	< 420
N-Nitrosodimethylamine	62-75-9	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 38	< 38	< 39	240	475	189	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Pentachlorophenol	87-86-5	ug/kg	< 76	< 77	< 78	< 74	< 733	< 719	94	< 80	< 76	< 88	< 76	< 84	< 840
Phenanthrene	85-01-8	ug/kg	< 38	23	58	< 37	< 366	< 360	69	< 40	< 38	< 44	< 38	< 42	24
Phenol	108-95-2	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	< 41	< 40	< 38	< 44	< 38	< 42	< 420
Pyrene	129-00-0	ug/kg	< 38	< 38	< 39	< 37	< 366	< 360	160	< 40	< 38	< 44	< 38	< 42	< 420
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Name			I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD
Parent Sample								I9-2329A-042N							I9-3-111.5N
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 25	< 250	< 250	< 238	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 25	< 250	< 250	< 238	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 25	< 250	< 250	< 238	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 25	< 250	< 250	< 238	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 50	< 500	< 500	< 476	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 50	< 500	< 500	< 476	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 25	< 250	< 250	< 238	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 50	< 500	< 500	< 476	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 25	< 250	< 250	< 238	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 40000	< 38000	< 40000	40600	71300	298000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 570	< 570	6500	< 560	10400	14900	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 50	< 500	< 500	< 476	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 50	< 500	< 500	< 476	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	< 50	< 500	< 500	< 476	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.5	< 0.5	< 0.7	< 0.6	< 0.388	< 0.641	< 0.6	< 0.5	< 0.5	< 0.6	< 0.6	< 0.5	< 0.67
Arsenic	7440-38-2	mg/kg	4	6.5	6.9	3.1	5.48	6.3	11	5.7	4.6	4.5	7.3	4.6	5.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.59	0.39	0.66	0.32	0.425	0.253	0.79	0.65	0.58	0.66	0.46	0.65	0.67
Cadmium	7440-43-9	mg/kg	0.07	0.07	0.24	< 0.3	0.445	0.186	0.19	0.08	0.05	0.06	0.04	0.1	0.09
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.9	17.1	15.3	12.2	11.2	14.2	27.4	16.2	16.2	19.6	12.3	15.6	26.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.2	20.5	18.8	38.7	16.6	20.6	22.4	16.3	14	16.4	17.1	11.4	13.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	8.6	29.9	31.7	17.6	23.6	33.7	75.3	39.4	21.1	14.9	27	22	26.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0	0.09	0.06	0.04	0.049	0.034	0.13	0.08	0.04	0.03	0.06	0.06	0.08
Nickel	7440-02-0	mg/kg	10.2	10	9.7	4.6	3.65	4.43	11.7	9.6	8.9	10.9	7.6	8.5	13.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.5	0.81	0.77	< 0.5	0.387	0.454	1	0.64	0.76	0.63	0.61	0.75	1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-2329-04	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Name			I9-2329-041N	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD
Parent Sample								I9-2329A-042N							I9-3-111.5N
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.2	< 0.2	< 0.3	< 0.3	< 0.194	< 0.32	< 0.3	< 0.2	< 0.2	< 0.3	< 0.3	< 0.2	< 0.34
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.8	0.55	< 1	< 1	< 0.646	< 1.07	< 1	< 0.9	< 0.9	< 1	< 1	< 0.9	< 1.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	54.8	50.6	87	51.8	99.5	79.6	98.2	77.4	57.8	167	51.7	103	104
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	16100	NA	NA	4050	NA	NA	48100	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	0.7	NA	NA	1.8	NA	NA	4.8	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	49.7	NA	NA	58.8	NA	NA	25.6	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	34.1	NA	NA	34.1	NA	NA	42.3	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	15.5	NA	NA	5.2	NA	NA	27.3	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-3-13	I9-5-01	I9-5-05	I9-515-01	I9-515-01	I9-516-02	I9-516-04	I9-519-03	I9-519-04	I9-520-03	I9-520-05	I9-523-03	I9-523-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			4/25/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N	I9-515-010.5N	I9-516-021N	I9-516-041N	I9-519-030.5N	I9-519-040.5N	I9-520-031N	I9-520-051.5N	I9-523-030.5N	I9-523-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 260	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 650	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-3-13	I9-5-01	I9-5-05	I9-515-01	I9-515-01	I9-516-02	I9-516-04	I9-519-03	I9-519-04	I9-520-03	I9-520-05	I9-523-03	I9-523-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			4/25/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N	I9-515-010.5N	I9-516-021N	I9-516-041N	I9-519-030.5N	I9-519-040.5N	I9-520-031N	I9-520-051.5N	I9-523-030.5N	I9-523-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 65	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
1,2-Dichlorobenzene	95-50-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
1,4-Dichlorobenzene	106-46-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2,4-Dichlorophenol	120-83-2	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2,4-Dimethylphenol	105-67-9	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2,4-Dinitrophenol	51-28-5	ug/kg	< 68	NA	NA	< 79	NA	< 775	< 95	< 784	< 89	< 81	< 800	< 81	< 743
2,4-Dinitrotoluene	121-14-2	ug/kg	< 340	NA	NA	< 400	NA	< 388	< 480	< 392	< 440	< 410	< 400	160	146
2,6-Dinitrotoluene	606-20-2	ug/kg	< 340	NA	NA	< 400	NA	< 388	< 480	< 392	< 440	< 410	< 400	< 410	< 372
2-Chloronaphthalene	91-58-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2-Chlorophenol	95-57-8	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 68	NA	NA	< 79	NA	< 775	< 95	< 784	< 89	< 81	< 800	< 81	< 743
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 68	NA	NA	< 79	NA	< 775	< 95	< 784	< 89	< 81	< 800	< 81	< 743
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-3-13	I9-5-01	I9-5-05	I9-515-01	I9-515-01	I9-516-02	I9-516-04	I9-519-03	I9-519-04	I9-520-03	I9-520-05	I9-523-03	I9-523-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			4/25/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N	I9-515-010.5N	I9-516-021N	I9-516-041N	I9-519-030.5N	I9-519-040.5N	I9-520-031N	I9-520-051.5N	I9-523-030.5N	I9-523-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 68	NA	NA	< 79	NA	< 775	< 95	< 784	< 89	< 81	< 800	< 81	< 743
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Acenaphthylene	208-96-8	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 34	NA	NA	50	NA	< 388	76	< 392	< 44	52	64.4	43	< 372
Benzo[a]pyrene	50-32-8	ug/kg	< 34	NA	NA	57	NA	< 388	84	< 392	< 44	61	< 400	49	< 372
Benzo[b]fluoranthene	205-99-2	ug/kg	< 34	NA	NA	110	NA	< 388	110	< 392	< 44	120	118	98	< 372
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Benzo[k]fluoranthene	207-08-9	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	41	NA	NA	38	NA	33.7	49	21.2	30	49	< 400	420	59.1
Butylbenzylphthalate	85-68-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 34	NA	NA	87	NA	< 388	91	< 392	40	71	97	66	< 372
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	2100	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	410	143
Dimethylphthalate	131-11-3	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Di-n-butylphthalate	84-74-2	ug/kg	< 34	NA	NA	84	NA	54.3	300	< 392	220	100	< 400	400	< 372
Di-n-octylphthalate	117-84-0	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Fluoranthene	206-44-0	ug/kg	< 34	NA	NA	< 40	NA	< 388	150	< 392	< 44	150	149	< 41	< 372
Fluorene	86-73-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Hexachlorobenzene	118-74-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Hexachlorobutadiene	87-68-3	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Hexachloroethane	67-72-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Isophorone	78-59-1	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-3-13	I9-5-01	I9-5-05	I9-515-01	I9-515-01	I9-516-02	I9-516-04	I9-519-03	I9-519-04	I9-520-03	I9-520-05	I9-523-03	I9-523-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			4/25/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N	I9-515-010.5N	I9-516-021N	I9-516-041N	I9-519-030.5N	I9-519-040.5N	I9-520-031N	I9-520-051.5N	I9-523-030.5N	I9-523-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Nitrobenzene	98-95-3	ug/kg	< 34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
N-Nitrosodiphenylamine	86-30-6	ug/kg	520	NA	NA	< 40	NA	< 388	< 48	38	< 44	< 41	25.2	370	172
Pentachlorophenol	87-86-5	ug/kg	< 68	NA	NA	< 79	NA	< 775	< 95	< 784	< 89	< 81	< 800	< 81	< 743
Phenanthrene	85-01-8	ug/kg	< 34	NA	NA	42	NA	< 388	140	< 392	< 44	110	65.6	< 41	< 372
Phenol	108-95-2	ug/kg	< 34	NA	NA	< 40	NA	< 388	< 48	< 392	< 44	< 41	< 400	< 41	< 372
Pyrene	129-00-0	ug/kg	< 34	NA	NA	< 40	NA	< 388	200	< 392	< 44	110	< 400	< 41	< 372
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-3-13	I9-5-01	I9-5-05	I9-515-01	I9-515-01	I9-516-02	I9-516-04	I9-519-03	I9-519-04	I9-520-03	I9-520-05	I9-523-03	I9-523-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			4/25/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N	I9-515-010.5N	I9-516-021N	I9-516-041N	I9-519-030.5N	I9-519-040.5N	I9-520-031N	I9-520-051.5N	I9-523-030.5N	I9-523-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	< 238	< 25	NA	< 200	< 25	< 217	< 25	< 25	< 238	< 25	< 238
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	< 238	< 25	NA	< 200	< 25	< 217	< 25	< 25	< 238	< 25	< 238
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	< 238	< 25	NA	< 200	< 25	< 217	< 25	< 25	< 238	< 25	119
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 250	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	< 238	< 25	NA	< 200	< 25	< 217	< 25	< 25	< 238	< 25	< 238
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	< 476	< 50	NA	< 400	< 50	< 435	< 50	< 50	< 476	< 50	< 476
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	< 476	< 50	NA	< 400	< 50	< 435	< 50	< 50	< 476	< 50	< 476
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	< 238	< 25	NA	< 200	< 25	< 217	< 25	< 25	< 238	< 25	< 238
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	< 476	< 50	NA	< 400	< 50	< 435	< 50	< 50	< 476	< 50	< 476
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	< 238	< 25	NA	< 200	< 25	< 217	< 25	< 25	< 238	< 25	< 238
Nitrocellulose	9004-70-0	ug/kg	NA	< 37000	210000	< 41000	NA	43400	75900	58200	< 45000	50700	148000	635000	417000
Nitroglycerin	55-63-0	ug/kg	NA	< 550	2380	< 590	NA	< 5810	< 710	< 5730	< 660	< 610	< 6000	8300	23400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	< 476	< 50	NA	< 400	< 50	< 435	< 50	< 50	< 476	< 50	< 476
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	< 476	< 50	NA	< 400	< 50	< 435	< 50	< 50	< 476	< 50	< 476
Tetryl	479-45-8	ug/kg	NA	< 50	< 476	< 50	NA	< 400	< 50	< 435	< 50	< 50	< 476	< 50	< 476
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.5	NA	NA	< 0.6	NA	< 0.671	< 0.8	< 0.678	< 0.7	< 0.7	< 0.673	< 0.6	< 0.619
Arsenic	7440-38-2	mg/kg	4.7	NA	NA	7	NA	4.26	8.9	6.96	3.5	8.3	11.5	11.7	10.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.48	NA	NA	0.65	NA	0.685	0.82	0.633	0.92	0.76	0.761	0.47	0.499
Cadmium	7440-43-9	mg/kg	< 0.2	NA	NA	0.81	NA	0.741	0.89	0.482	0.77	1	0.276	0.71	0.264
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.3	NA	NA	18.4	NA	16.9	26.2	17.2	16.9	20.4	22.1	24.6	34
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	12.8	NA	NA	26.4	NA	17.2	16.5	37.2	9.9	25.4	23.9	57.9	47
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	5.7	NA	NA	28.6	NA	34.9	43.9	1370	12.3	379	156	59.2	58.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0	NA	NA	0.06	NA	0.068	0.11	0.135	0.04	0.05	0.144	0.05	0.101
Nickel	7440-02-0	mg/kg	9.8	NA	NA	10.3	NA	11.5	13.3	11	9.4	14.2	13.6	8.2	12.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.46	NA	NA	1.1	NA	1.24	1.2	1.4	0.97	0.89	1.74	0.45	1.07

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-3-13	I9-5-01	I9-5-05	I9-515-01	I9-515-01	I9-516-02	I9-516-04	I9-519-03	I9-519-04	I9-520-03	I9-520-05	I9-523-03	I9-523-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			4/25/2000	4/27/2000	7/20/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000	4/28/2000	4/28/2000	7/19/2000	4/28/2000	7/19/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N	I9-515-010.5N	I9-516-021N	I9-516-041N	I9-519-030.5N	I9-519-040.5N	I9-520-031N	I9-520-051.5N	I9-523-030.5N	I9-523-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.2	NA	NA	< 0.3	NA	< 0.335	< 0.4	< 0.339	< 0.3	< 0.3	< 0.336	< 0.3	< 0.31
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.9	NA	NA	< 1	NA	< 1.12	< 1	< 1.13	1.1	< 1	< 1.12	< 1	< 1.03
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	54.3	NA	NA	66.4	NA	59.8	77.5	243	81	333	93.7	97.4	115
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	15000	NA	14500	NA	NA	53800	NA	20000	37200	NA	74500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	4.5	NA	5.1	NA	NA	12.4	NA	9.6	8.3	NA	2.2	NA
Gravel	ARC-PGRAVEL	%	NA	37.3	NA	49.7	NA	NA	18.2	NA	37.2	45.6	NA	56.8	NA
Sand	ARC-PSAND	%	NA	49.4	NA	31.6	NA	NA	38.3	NA	26.9	28.7	NA	29.7	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	8.8	NA	13.6	NA	NA	31.1	NA	26.4	17.4	NA	11.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-524-01	J10-2033-01	J10-2-08	J10-2-11	J10-587B-02	J10-6-01	J10-6-01	J10-6-05	J10-6-05	J10-609-01	J10-609-01	J10-609-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/27/2000	5/5/2000	5/5/2000	5/5/2000	4/28/2000	7/19/2000	5/25/2000	5/25/2000	5/25/2000	8/2/2000	8/2/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I9-524-011N	J10-2033-011N	J10-2-081N	J10-2-111.5N	J10-587B-022N	J10-6-011.25N	J10-6-010.5N	J10-6-052N	J10-6-050.5N	J10-609-011.5N	J10-609-011.5FD	J10-609-022N
Parent Sample													J10-609-011.5N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 622	NA	< 530	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 622	NA	< 530	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 622	NA	< 530	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 622	NA	< 530	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	< 121	NA	< 105	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	< 242	NA	< 211	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 121	NA	< 105	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	< 121	NA	< 105	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	< 121	NA	< 105	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 622	NA	< 530	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-524-01	J10-2033-01	J10-2-08	J10-2-11	J10-587B-02	J10-6-01	J10-6-01	J10-6-05	J10-6-05	J10-609-01	J10-609-01	J10-609-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/27/2000	5/5/2000	5/5/2000	5/5/2000	4/28/2000	7/19/2000	5/25/2000	5/25/2000	5/25/2000	8/2/2000	8/2/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I9-524-011N	J10-2033-011N	J10-2-081N	J10-2-111.5N	J10-587B-022N	J10-6-011.25N	J10-6-010.5N	J10-6-052N	J10-6-050.5N	J10-609-011.5N	J10-609-011.5FD	J10-609-022N
Parent Sample													J10-609-011.5N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 62	NA	< 53	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 121	NA	< 105	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
1,2-Dichlorobenzene	95-50-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
1,4-Dichlorobenzene	106-46-7	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
2,4-Dichlorophenol	120-83-2	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
2,4-Dimethylphenol	105-67-9	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
2,4-Dinitrophenol	51-28-5	ug/kg	< 71	< 77	< 410	< 810	< 84	< 78	NA	< 82	NA	< 925.154	< 941	< 83
2,4-Dinitrotoluene	121-14-2	ug/kg	250	110	< 2100	< 4100	< 420	< 390	NA	< 410	NA	< 462	< 470	< 420
2,6-Dinitrotoluene	606-20-2	ug/kg	< 350	< 380	< 2100	< 4100	< 420	< 390	NA	< 410	NA	< 462	< 470	< 420
2-Chloronaphthalene	91-58-7	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
2-Chlorophenol	95-57-8	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	NA	NA	< 42
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 462.577	< 470	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 71	< 77	< 410	< 810	< 84	< 78	NA	< 82	NA	< 925.154	< 941	< 83
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 71	< 77	< 410	< 810	< 84	< 78	NA	< 82	NA	< 925.154	< 941	< 83
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-524-01	J10-2033-01	J10-2-08	J10-2-11	J10-587B-02	J10-6-01	J10-6-01	J10-6-05	J10-6-05	J10-609-01	J10-609-01	J10-609-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/27/2000	5/5/2000	5/5/2000	5/5/2000	4/28/2000	7/19/2000	5/25/2000	5/25/2000	5/25/2000	8/2/2000	8/2/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I9-524-011N	J10-2033-011N	J10-2-081N	J10-2-111.5N	J10-587B-022N	J10-6-011.25N	J10-6-010.5N	J10-6-052N	J10-6-050.5N	J10-609-011.5N	J10-609-011.5FD	J10-609-022N
Parent Sample													J10-609-011.5N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 71	< 77	< 410	< 810	< 84	< 78	NA	< 82	NA	NA	NA	< 83
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 925.154	< 941	NA
Acenaphthene	83-32-9	ug/kg	< 35	< 38	270	410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Acenaphthylene	208-96-8	ug/kg	16	43	920	1600	380	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 35	< 38	2300	2100	290	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	79	200	14000	9100	3200	120	NA	< 41	NA	133	1250	100
Benzo[a]pyrene	50-32-8	ug/kg	68	200	13000	7400	2300	100	NA	< 41	NA	131	1600	87
Benzo[b]fluoranthene	205-99-2	ug/kg	210	460	32000	20000	4600	140	NA	< 41	NA	191	1590	130
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 35	160	9100	4700	970	< 39	NA	< 41	NA	102	847	< 42
Benzo[k]fluoranthene	207-08-9	ug/kg	< 35	170	11000	7100	1100	< 39	NA	< 41	NA	81	392	< 42
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	21	< 38	< 210	< 410	33	< 39	NA	21	NA	< 462.577	< 470	< 42
Butylbenzylphthalate	85-68-7	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	140	430	18000	15000	2800	100	NA	< 41	NA	174	2010	120
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 35	< 38	3900	1500	400	< 39	NA	< 41	NA	< 462.577	831	< 42
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	51	< 38	< 210	< 410	39	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Dimethylphthalate	131-11-3	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Di-n-butylphthalate	84-74-2	ug/kg	200	340	280	< 410	95	< 39	NA	< 41	NA	147	184	< 42
Di-n-octylphthalate	117-84-0	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Fluoranthene	206-44-0	ug/kg	110	370	9600	20000	5600	240	NA	< 41	NA	370	404	220
Fluorene	86-73-7	ug/kg	< 35	< 38	210	370	32	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Hexachlorobenzene	118-74-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	NA	NA	< 42
Hexachlorobutadiene	87-68-3	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Hexachloroethane	67-72-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 35	150	9500	4700	1100	< 39	NA	< 41	NA	88	650	< 42
Isophorone	78-59-1	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-524-01	J10-2033-01	J10-2-08	J10-2-11	J10-587B-02	J10-6-01	J10-6-01	J10-6-05	J10-6-05	J10-609-01	J10-609-01	J10-609-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/27/2000	5/5/2000	5/5/2000	5/5/2000	4/28/2000	7/19/2000	5/25/2000	5/25/2000	5/25/2000	8/2/2000	8/2/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I9-524-011N	J10-2033-011N	J10-2-081N	J10-2-111.5N	J10-587B-022N	J10-6-011.25N	J10-6-010.5N	J10-6-052N	J10-6-050.5N	J10-609-011.5N	J10-609-011.5FD	J10-609-022N
Parent Sample													J10-609-011.5N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 35	40	< 210	310	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Nitrobenzene	98-95-3	ug/kg	NA	< 38	NA	NA	NA	NA	NA	< 41	NA	< 462.577	< 470	< 42
N-Nitrosodimethylamine	62-75-9	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
N-Nitrosodiphenylamine	86-30-6	ug/kg	110	130	< 210	< 410	130	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Pentachlorophenol	87-86-5	ug/kg	< 71	< 77	< 410	< 810	< 84	< 78	NA	< 82	NA	< 925.154	< 941	< 83
Phenanthrene	85-01-8	ug/kg	31	360	2800	5300	250	56	NA	< 41	NA	201	240	180
Phenol	108-95-2	ug/kg	< 35	< 38	< 210	< 410	< 42	< 39	NA	< 41	NA	< 462.577	< 470	< 42
Pyrene	129-00-0	ug/kg	130	500	17000	20000	4700	160	NA	< 41	NA	335	425	320
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-524-01	J10-2033-01	J10-2-08	J10-2-11	J10-587B-02	J10-6-01	J10-6-01	J10-6-05	J10-6-05	J10-609-01	J10-609-01	J10-609-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/27/2000	5/5/2000	5/5/2000	5/5/2000	4/28/2000	7/19/2000	5/25/2000	5/25/2000	5/25/2000	8/2/2000	8/2/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I9-524-011N	J10-2033-011N	J10-2-081N	J10-2-111.5N	J10-587B-022N	J10-6-011.25N	J10-6-010.5N	J10-6-052N	J10-6-050.5N	J10-609-011.5N	J10-609-011.5FD	J10-609-022N
Parent Sample													J10-609-011.5N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	NA	< 24	< 25	< 25	< 217	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	NA	< 24	< 25	< 25	< 217	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	3000	NA	< 24	< 25	< 25	< 217	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	NA	< 24	< 25	< 25	< 217	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	NA	< 48	< 50	< 50	< 435	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	NA	< 48	< 50	< 50	< 435	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	NA	< 24	< 25	< 25	< 217	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	NA	< 48	< 50	< 50	< 435	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	NA	500	1200	< 25	< 217	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	945000	NA	481000	253000	245000	49300	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	12000	NA	< 610	11000	20000	< 5650	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	NA	< 48	< 50	< 50	< 435	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	NA	< 48	< 50	< 50	< 435	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	NA	< 48	< 50	< 50	< 435	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.54	1.5	1.8	5.5	0.62	NA	NA	NA	NA	0.436	< 0.688	< 0.7
Arsenic	7440-38-2	mg/kg	240	47.5	53.9	420	8.3	NA	NA	NA	NA	4.72	6.78	6.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.23	0.38	0.4	0.3	0.57	NA	NA	NA	NA	0.807	0.71	0.67
Cadmium	7440-43-9	mg/kg	0.33	1.3	0.65	0.49	0.9	NA	NA	NA	NA	0.437	0.533	0.05
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	4.9	9.6	15.3	8.8	17.1	NA	NA	NA	NA	19.6	35.8	24.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	8.6	73.5	63.2	53.6	35.5	NA	NA	NA	NA	10	20.4	13.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	48.6	524	92.6	72	177	NA	NA	NA	NA	20.6	77.9	29.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	1.5	0.19	0.21	0.12	NA	NA	NA	NA	0.122	0.151	0.07
Nickel	7440-02-0	mg/kg	1.9	9.2	11.8	8.9	16.5	NA	NA	NA	NA	11.2	48.7	12.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.59	2.2	2.4	1.4	< 0.5	NA	NA	NA	NA	0.536	0.717	0.63

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			I9-524-01	J10-2033-01	J10-2-08	J10-2-11	J10-587B-02	J10-6-01	J10-6-01	J10-6-05	J10-6-05	J10-609-01	J10-609-01	J10-609-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			4/27/2000	5/5/2000	5/5/2000	5/5/2000	4/28/2000	7/19/2000	5/25/2000	5/25/2000	5/25/2000	8/2/2000	8/2/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N
Sample Name			I9-524-011N	J10-2033-011N	J10-2-081N	J10-2-111.5N	J10-587B-022N	J10-6-011.25N	J10-6-010.5N	J10-6-052N	J10-6-050.5N	J10-609-011.5N	J10-609-011.5FD	J10-609-022N
Parent Sample													J10-609-011.5N	
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.2	0.15	0.14	0.12	< 0.3	NA	NA	NA	NA	< 0.378472	< 0.344	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 0.9	< 1	< 1	< 1	0.58	NA	NA	NA	NA	< 1.261575	< 1.147	0.62
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	25.6	234	49.1	28	441	NA	NA	NA	NA	75.1	90.2	61.8
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	15200	27900	NA	NA	53000	25200	NA	NA	NA	NA	NA	54100
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	8.5	2	NA	NA	7.1	4	NA	NA	NA	NA	NA	5.4
Gravel	ARC-PGRAVEL	%	35.3	70.7	NA	NA	36.8	25.4	NA	NA	NA	NA	NA	16
Sand	ARC-PSAND	%	38	22.2	NA	NA	43.5	30.9	NA	NA	NA	NA	NA	63.4
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	18.1	5.2	NA	NA	12.6	39.8	NA	NA	NA	NA	NA	15.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-1-12	J11-1-12	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-317-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			J11-1-122N	J11-1-122FD	J11-1-120.5N	J11-1-120.5FD	J11-1-161N	J11-1-160.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-317-062N
Parent Sample				J11-1-122N		J11-1-120.5N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	< 420	< 520	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 658	213	NA	< 488	NA	< 520	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 658	< 644	NA	< 488	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 658	< 644	NA	< 488	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 658	< 644	NA	< 488	NA	< 520	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1315.789	< 1290	NA	< 976.5625	NA	< 1000	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2631.579	< 2580	NA	< 1953.125	NA	< 2100	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 6578.947	< 6440	NA	< 4882.812	NA	< 520	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	3140	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	< 1315.789	< 1290	NA	< 976.5625	NA	< 1000	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	< 1315.789	< 1290	NA	< 976.5625	NA	< 1000	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 658	< 644	NA	< 488	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-1-12	J11-1-12	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-317-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			J11-1-122N	J11-1-122FD	J11-1-120.5N	J11-1-120.5FD	J11-1-161N	J11-1-160.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-317-062N
Parent Sample				J11-1-122N		J11-1-120.5N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 2631.579	< 2577.319	NA	< 1953.125	< 420	< 520	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	586	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	243	388	NA	237	NA	< 520	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 657.8947	< 644	NA	< 488.2812	NA	< 520	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 1315.789	< 1290	NA	< 976.5625	NA	< 1000	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	NA	NA	NA	< 37	< 39	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 520	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	NA	NA	NA	< 37	< 39	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
2,4-Dichlorophenol	120-83-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	< 842.572	< 851	NA	NA	< 906.166	NA	< 420	NA	NA	< 74	< 78	< 75
2,4-Dinitrotoluene	121-14-2	ug/kg	< 421	< 425	NA	NA	< 453	NA	< 420	NA	NA	430	100	71
2,6-Dinitrotoluene	606-20-2	ug/kg	< 421	< 425	NA	NA	< 453	NA	NA	NA	NA	240	83	640
2-Chloronaphthalene	91-58-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
2-Chlorophenol	95-57-8	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 37	< 39	< 37
2-Nitrotoluene	88-72-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 842.572	< 851	NA	NA	< 906.166	NA	NA	NA	NA	< 74	< 78	< 75
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	< 840	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 842.572	< 851	NA	NA	< 906.166	NA	< 840	NA	NA	< 74	< 78	< 75
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-1-12	J11-1-12	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-317-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			J11-1-122N	J11-1-122FD	J11-1-120.5N	J11-1-120.5FD	J11-1-161N	J11-1-160.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-317-062N
Parent Sample				J11-1-122N		J11-1-120.5N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 74	< 78	< 75
4-Nitrotoluene	99-99-0	ug/kg	< 842.572	< 851	NA	NA	< 906.166	NA	< 840	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Acenaphthylene	208-96-8	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	320	63	< 37
Benzo[a]pyrene	50-32-8	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	410	< 39	< 37
Benzo[b]fluoranthene	205-99-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	1300	140	< 37
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	500	< 39	< 37
Benzo[k]fluoranthene	207-08-9	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	130	< 39	< 37
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 421.286	< 425	NA	NA	29	NA	19.97	NA	NA	37	61	37
Butylbenzylphthalate	85-68-7	ug/kg	< 421.286	< 425	< 1320	< 1290	< 453.083	< 977	< 420	< 1000	NA	< 37	< 39	< 37
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	37.9	NA	NA	820	110	99
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	540	< 39	< 37
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Dimethylphthalate	131-11-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Di-n-butylphthalate	84-74-2	ug/kg	124	69.3	NA	NA	332	NA	< 420	NA	NA	48	550	< 37
Di-n-octylphthalate	117-84-0	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Fluoranthene	206-44-0	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	130	< 37
Fluorene	86-73-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	< 420	< 520	NA	< 37	< 39	< 37
Hexachlorobutadiene	87-68-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Hexachloroethane	67-72-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	350	< 39	< 37
Isophorone	78-59-1	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-1-12	J11-1-12	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-317-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			J11-1-122N	J11-1-122FD	J11-1-120.5N	J11-1-120.5FD	J11-1-161N	J11-1-160.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-317-062N
Parent Sample				J11-1-122N		J11-1-120.5N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	NA	NA	NA	< 37	< 39	< 37
Nitrobenzene	98-95-3	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Pentachlorophenol	87-86-5	ug/kg	< 842.572	< 851	NA	NA	< 906.166	NA	< 840	NA	NA	< 74	< 78	< 75
Phenanthrene	85-01-8	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	36.27	NA	NA	32	67	88
Phenol	108-95-2	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	< 37	< 39	< 37
Pyrene	129-00-0	ug/kg	< 421.286	< 425	NA	NA	< 453.083	NA	< 420	NA	NA	120	130	< 37
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-1-12	J11-1-12	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-317-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			J11-1-122N	J11-1-122FD	J11-1-120.5N	J11-1-120.5FD	J11-1-161N	J11-1-160.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-317-062N
Parent Sample				J11-1-122N		J11-1-120.5N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	< 24	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	< 24	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	< 48	270
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	< 48	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA	< 24	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	82800	NA	185000	80800
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	< 550	< 540
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	< 48	< 50
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	< 48	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.6	< 0.7	< 0.6
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	3.6	4.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.35	0.26	0.27
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.3	< 0.3	< 0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.9	8.6	6.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1110	458	70.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1920	1040	478
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.6	13.4	5.4
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6	5.5	6.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	0.72	0.35

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-1-12	J11-1-12	J11-1-12	J11-1-12	J11-1-16	J11-1-16	J11-3-02	J11-3-02	J11-317-01	J11-317-03	J11-317-05	J11-317-06
Depths			0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/25/2000	5/25/2000	5/23/2000	5/23/2000	5/23/2000	5/23/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N
Sample Name			J11-1-122N	J11-1-122FD	J11-1-120.5N	J11-1-120.5FD	J11-1-161N	J11-1-160.5N	J11-3-021.5N	J11-3-020.5N	J11-317-011.5N	J11-317-031N	J11-317-051N	J11-317-062N
Parent Sample				J11-1-122N		J11-1-120.5N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1	0.1	0.09
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	34.2	31.2	18.7
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	46400	NA	NA	13200	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.8	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.2	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.6	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-8265-04	J11-B20-02	J11-B83-01	J11-B83-03	J12-2-02	J12-2-03	J12-2-03	J12-3-02	J5-4-01	J5-4-02	J5-5-04	J6-1-01	J6-1-04
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/23/2000	5/18/2000	5/18/2000	8/1/2000	8/2/2000	5/23/2000	5/23/2000	5/23/2000	7/7/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J11-B83-030.75N	J12-2-021N	J12-2-031.5N	J12-2-031.5FD	J12-3-022N	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-1-011.5N	J6-1-042N
Parent Sample									J12-2-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-8265-04	J11-B20-02	J11-B83-01	J11-B83-03	J12-2-02	J12-2-03	J12-2-03	J12-3-02	J5-4-01	J5-4-02	J5-5-04	J6-1-01	J6-1-04
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/23/2000	5/18/2000	5/18/2000	8/1/2000	8/2/2000	5/23/2000	5/23/2000	5/23/2000	7/7/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J11-B83-030.75N	J12-2-021N	J12-2-031.5N	J12-2-031.5FD	J12-3-022N	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-1-011.5N	J6-1-042N
Parent Sample									J12-2-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2,4-Dichlorophenol	120-83-2	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	< 930	< 79	< 3100	< 885	< 776.93	< 98	< 880	< 79	< 704	< 200	< 190	< 733	< 81
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4600	< 400	< 15000	< 443	< 388	< 490	< 440	33	< 352	< 400	190	< 366	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4600	< 400	< 15000	< 443	< 388	< 490	< 440	< 400	< 352	< 400	100	< 366	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2-Chlorophenol	95-57-8	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 460	< 40	< 1500	< 443	NA	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 930	< 79	< 3100	< 885	< 776.93	< 98	< 880	< 79	< 704	< 80	< 75	< 733	< 81
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 930	< 79	< 3100	< 885	< 776.93	< 98	< 880	< 79	< 704	< 200	< 190	< 733	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-8265-04	J11-B20-02	J11-B83-01	J11-B83-03	J12-2-02	J12-2-03	J12-2-03	J12-3-02	J5-4-01	J5-4-02	J5-5-04	J6-1-01	J6-1-04
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/23/2000	5/18/2000	5/18/2000	8/1/2000	8/2/2000	5/23/2000	5/23/2000	5/23/2000	7/7/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J11-B83-030.75N	J12-2-021N	J12-2-031.5N	J12-2-031.5FD	J12-3-022N	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-1-011.5N	J6-1-042N
Parent Sample									J12-2-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 930	< 79	< 3100	< 885	NA	< 98	< 880	< 79	< 704	< 200	< 190	< 733	< 81
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Acenaphthylene	208-96-8	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	30	21	< 40	< 352	< 40	< 37	< 366	< 41
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	29	30	< 40	< 352	< 40	< 37	< 366	< 41
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	430	40	< 1500	77	< 388.465	220	170	< 40	281	59	860	< 366	< 41
Benzo[a]pyrene	50-32-8	ug/kg	< 460	31	< 1500	54.4	< 388.465	230	210	< 40	305	39	820	< 366	< 41
Benzo[b]fluoranthene	205-99-2	ug/kg	< 460	< 40	< 1500	173	< 388.465	520	470	89	573	94	1500	< 366	< 41
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	140	< 40	146	< 40	520	< 366	< 41
Benzo[k]fluoranthene	207-08-9	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	160	< 440	< 40	292	< 40	< 37	< 366	< 41
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 460	< 40	< 1500	29.2	< 388.465	40	44	< 40	35.9	28	44	< 366	< 41
Butylbenzylphthalate	85-68-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	440	38	< 1500	138	< 388.465	310	270	45	374	66	1800	< 366	< 41
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	540	< 366	< 41
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Dimethylphthalate	131-11-3	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Di-n-butylphthalate	84-74-2	ug/kg	570	< 40	< 1500	69.5	< 388.465	170	140	< 40	87	< 40	< 37	< 366	37
Di-n-octylphthalate	117-84-0	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Fluoranthene	206-44-0	ug/kg	< 460	< 40	< 1500	204	< 388.465	500	390	< 40	567	94	< 37	< 366	< 41
Fluorene	86-73-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	30	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Hexachlorobenzene	118-74-1	ug/kg	< 460	< 40	< 1500	< 443	NA	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Hexachlorobutadiene	87-68-3	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Hexachloroethane	67-72-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	120	< 40	153	< 40	400	< 366	< 41
Isophorone	78-59-1	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-8265-04	J11-B20-02	J11-B83-01	J11-B83-03	J12-2-02	J12-2-03	J12-2-03	J12-3-02	J5-4-01	J5-4-02	J5-5-04	J6-1-01	J6-1-04
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/23/2000	5/18/2000	5/18/2000	8/1/2000	8/2/2000	5/23/2000	5/23/2000	5/23/2000	7/7/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J11-B83-030.75N	J12-2-021N	J12-2-031.5N	J12-2-031.5FD	J12-3-022N	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-1-011.5N	J6-1-042N
Parent Sample									J12-2-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	128	< 40	49	< 366	< 41
Pentachlorophenol	87-86-5	ug/kg	< 930	< 79	< 3100	< 885	< 776.93	< 98	< 880	< 79	< 704	< 200	< 190	< 733	< 81
Phenanthrene	85-01-8	ug/kg	< 460	45	< 1500	104	< 388.465	320	250	25	62.7	< 40	< 37	< 366	< 41
Phenol	108-95-2	ug/kg	< 460	< 40	< 1500	< 443	< 388.465	< 49	< 440	< 40	< 352	< 40	< 37	< 366	< 41
Pyrene	129-00-0	ug/kg	< 460	< 40	< 1500	178	< 388.465	630	670	< 40	587	140	230	< 366	< 41
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-8265-04	J11-B20-02	J11-B83-01	J11-B83-03	J12-2-02	J12-2-03	J12-2-03	J12-3-02	J5-4-01	J5-4-02	J5-5-04	J6-1-01	J6-1-04
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/23/2000	5/18/2000	5/18/2000	8/1/2000	8/2/2000	5/23/2000	5/23/2000	5/23/2000	7/7/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J11-B83-030.75N	J12-2-021N	J12-2-031.5N	J12-2-031.5FD	J12-3-022N	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-1-011.5N	J6-1-042N
Parent Sample									J12-2-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 23	< 238	< 227.275	< 25	< 240	< 25	< 250	< 24	< 25	< 250	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 23	< 238	< 227.275	< 25	< 240	< 25	< 250	< 24	< 25	< 250	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	130	< 25	< 23	< 238	< 227.275	< 25	< 240	42000	< 250	< 24	< 25	< 250	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 23	< 238	< 227.275	< 25	< 240	360	< 250	< 24	< 25	< 250	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 45	< 476	< 454.55	< 50	< 480	< 50	< 500	< 48	< 50	< 500	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 45	< 476	< 454.55	< 50	< 480	< 50	< 500	< 48	< 50	< 500	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 23	< 238	< 227.275	< 25	< 240	130	< 250	< 24	< 25	< 250	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 45	< 476	< 454.55	< 50	< 480	< 50	< 500	< 48	< 50	< 500	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	510	< 25	< 23	134	< 227.275	< 25	< 240	< 25	< 250	< 24	290	< 250	< 25
Nitrocellulose	9004-70-0	ug/kg	6240000	59200	15600000	304000	< 42266.36	483000	487000	196000	102000	44300	161000	< 34.9	< 43000
Nitroglycerin	55-63-0	ug/kg	< 700	< 540	< 570	< 6640	< 5734.471	< 730	< 5900	< 560	7860	24000	< 560	< 5120	< 610
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 45	< 476	< 454.55	< 50	< 480	< 50	< 500	< 48	< 50	< 500	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 45	< 476	< 454.55	< 50	< 480	< 50	< 500	< 48	< 50	< 500	< 50
Tetryl	479-45-8	ug/kg	< 50	< 50	< 45	< 476	< 454.55	< 50	< 480	< 50	< 500	< 48	< 50	< 500	< 50
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.8	< 0.6	< 0.6	< 0.766	< 0.478506	< 0.8	0.67	< 0.6	< 0.577	< 0.7	< 0.6	< 0.577	< 0.6
Arsenic	7440-38-2	mg/kg	20.8	3.3	8.4	8.93	3.95	5.7	5.5	2.1	6.08	5.9	2.2	4.51	5.2
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.52	0.2	0.22	0.337	0.277	0.14	0.14	0.12	0.297	0.62	0.32	0.635	0.6
Cadmium	7440-43-9	mg/kg	1.5	0.04	0.13	< 0.383	0.367	< 0.4	< 0.3	< 0.3	0.377	< 0.3	< 0.3	0.506	0.58
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.4	10.7	11.3	21	18.5	9.9	10.5	7.2	10.8	20.3	8.7	14.3	15.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	72.5	75.5	32.6	28.7	15.8	34.8	30.7	153	22.5	35.9	398	13.2	17.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	553	138	95.9	121	10.1	213	198	436	28.6	20.9	7680	14.4	30.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2	0.23	0.16	0.149	< 0.038413	0.74	0.6	0.2	0.086	0.09	40.2	0.068	0.07
Nickel	7440-02-0	mg/kg	11.2	4.9	8.5	11.4	8.96	5.2	5.4	3.5	3.97	10.5	7	9.14	8.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.2	0.39	0.73	1.4	0.428	0.99	1.1	< 0.5	0.455	< 0.6	< 0.5	0.993	0.83

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J11-8265-04	J11-B20-02	J11-B83-01	J11-B83-03	J12-2-02	J12-2-03	J12-2-03	J12-3-02	J5-4-01	J5-4-02	J5-5-04	J6-1-01	J6-1-04
Depths			0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/23/2000	5/18/2000	5/18/2000	8/1/2000	8/2/2000	5/23/2000	5/23/2000	5/23/2000	7/7/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			J11-8265-041N	J11-B20-021.25N	J11-B83-011.5N	J11-B83-030.75N	J12-2-021N	J12-2-031.5N	J12-2-031.5FD	J12-3-022N	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-1-011.5N	J6-1-042N
Parent Sample									J12-2-031.5N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	0.1	< 0.3	< 0.3	< 0.383	< 0.239253	< 0.4	< 0.36	< 0.3	< 0.288	< 0.3	< 0.3	< 0.288	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	< 1.28	< 0.797509	< 1	< 1.2	< 1	< 0.962	1	< 1	< 0.962	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	694	24.9	61.5	82.2	47.9	53.2	36.6	22.6	77.3	89.8	39.8	88.4	107
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	65200	46500	225000	NA	NA	79200	NA	26400	NA	5730	4740	NA	10100
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	5.5	3.5	2.2	NA	NA	10.5	NA	5.9	NA	4.9	0	NA	9.4
Gravel	ARC-PGRAVEL	%	48.3	20.9	50.4	NA	NA	31.3	NA	38	NA	31.4	12.7	NA	28.9
Sand	ARC-PSAND	%	40.8	47.1	32.5	NA	NA	43.2	NA	45.2	NA	47.7	81.7	NA	44.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	5.5	28.5	14.9	NA	NA	15.1	NA	10.9	NA	16	5.7	NA	17.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	FD	N	N	N
Sample Name			J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N
Parent Sample				J6-2-032N				J6-2340-021.5N				J6-4-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	FD	N	N	N
Sample Name			J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N
Parent Sample				J6-2-032N				J6-2340-021.5N				J6-4-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2,4-Dinitrophenol	51-28-5	ug/kg	< 79	< 780	< 722	< 78	< 81	< 820	< 78	< 83	NA	NA	NA	< 87	< 93
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	31	< 361	150	< 410	< 410	< 390	< 420	NA	NA	NA	< 440	< 470
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 390	< 361	< 390	< 410	< 410	< 390	< 420	NA	NA	NA	< 440	< 470
2-Chloronaphthalene	91-58-7	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2-Chlorophenol	95-57-8	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 79	< 780	< 722	< 78	< 81	< 820	< 78	< 83	NA	NA	NA	< 87	< 93
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 79	< 780	< 722	< 78	< 81	< 820	< 78	< 83	NA	NA	NA	< 87	< 93
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	FD	N	N	N
Sample Name			J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N
Parent Sample				J6-2-032N				J6-2340-021.5N				J6-4-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 79	< 780	< 722	< 78	< 81	< 820	< 78	< 83	NA	NA	NA	< 87	< 93
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 40	< 390	< 361	< 39	30	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Acenaphthylene	208-96-8	ug/kg	< 40	< 390	< 361	< 39	43	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 40	36	< 361	< 39	350	< 410	43	52	NA	NA	NA	37	< 47
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 40	130	< 361	< 39	1300	220	240	400	NA	NA	NA	< 44	< 47
Benzo[a]pyrene	50-32-8	ug/kg	< 40	85	< 361	< 39	880	290	210	480	NA	NA	NA	< 44	< 47
Benzo[b]fluoranthene	205-99-2	ug/kg	< 40	110	< 361	< 39	1100	390	360	960	NA	NA	NA	< 44	< 47
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 40	< 390	< 361	< 39	370	220	120	360	NA	NA	NA	< 44	< 47
Benzo[k]fluoranthene	207-08-9	ug/kg	< 40	< 390	< 361	< 39	520	150	< 39	300	NA	NA	NA	< 44	< 47
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 40	32	< 361	< 39	< 41	< 410	< 39	24	NA	NA	NA	< 44	790
Butylbenzylphthalate	85-68-7	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 40	110	< 361	< 39	890	250	230	540	NA	NA	NA	< 44	< 47
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	120	NA	NA	NA	< 44	< 47
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	210	1600	< 361	< 39	190	160	39	< 42	NA	NA	NA	< 44	7900
Dimethylphthalate	131-11-3	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Di-n-butylphthalate	84-74-2	ug/kg	< 40	61	< 361	410	76	39	< 39	< 42	NA	NA	NA	99	520
Di-n-octylphthalate	117-84-0	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Fluoranthene	206-44-0	ug/kg	< 40	210	< 361	< 39	3100	290	430	480	NA	NA	NA	< 44	< 47
Fluorene	86-73-7	ug/kg	< 40	< 390	< 361	< 39	110	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Hexachlorobenzene	118-74-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Hexachlorobutadiene	87-68-3	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Hexachloroethane	67-72-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 40	< 390	< 361	< 39	400	200	110	310	NA	NA	NA	< 44	< 47
Isophorone	78-59-1	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	FD	N	N	N
Sample Name			J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N
Parent Sample				J6-2-032N				J6-2340-021.5N				J6-4-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 42	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 40	< 390	< 361	< 39	250	190	81	< 42	NA	NA	NA	< 44	< 47
Pentachlorophenol	87-86-5	ug/kg	< 79	< 780	< 722	< 78	< 81	< 820	< 78	< 83	NA	NA	NA	< 87	< 93
Phenanthrene	85-01-8	ug/kg	25	120	< 361	< 39	1800	66	150	99	NA	NA	NA	36	36
Phenol	108-95-2	ug/kg	< 40	< 390	< 361	< 39	< 41	< 410	< 39	< 42	NA	NA	NA	< 44	< 47
Pyrene	129-00-0	ug/kg	< 40	200	< 361	< 39	1800	280	310	460	NA	NA	NA	< 44	< 47
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 27	< 2	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 27	< 2	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 27	< 2	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 27	< 2	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 27	< 2	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 27	< 2	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 5	< 52	< 4	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 52	< 52	< 43	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	FD	N	N	N
Sample Name			J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N
Parent Sample				J6-2-032N				J6-2340-021.5N				J6-4-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 250	< 250	< 25	< 25	< 250	< 25	NA	NA	NA	NA	< 24	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 250	< 250	< 25	< 25	< 250	< 25	NA	NA	NA	NA	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 250	< 250	< 25	< 25	< 250	< 25	NA	NA	NA	NA	< 24	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 250	< 250	< 25	< 25	< 250	< 25	NA	NA	NA	NA	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 500	< 500	< 50	< 50	< 500	< 50	NA	NA	NA	NA	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 500	< 500	< 50	< 50	< 500	< 50	NA	NA	NA	NA	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 250	< 250	< 25	< 25	< 250	< 25	NA	NA	NA	NA	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 500	< 500	< 50	< 50	< 500	< 50	NA	NA	NA	NA	< 48	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	470	< 250	< 250	< 25	< 25	250	210	NA	NA	NA	NA	< 24	< 25
Nitrocellulose	9004-70-0	ug/kg	3750000	5820000	< 34.3	< 35000	193000	44700	< 40000	NA	NA	NA	NA	< 42000	< 49000
Nitroglycerin	55-63-0	ug/kg	6900	4600	< 5280	< 580	7000	29000	3400	NA	NA	NA	NA	< 650	< 700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 500	< 500	< 50	< 50	< 500	< 50	NA	NA	NA	NA	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 500	< 500	< 50	< 50	< 500	< 50	NA	NA	NA	NA	< 48	< 50
Tetryl	479-45-8	ug/kg	< 50	< 500	< 500	< 50	< 50	< 500	< 50	NA	NA	NA	NA	< 48	< 50
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.65	< 0.571	< 0.6	< 0.6	< 0.68	0.74	< 0.7	NA	NA	NA	< 0.7	< 0.8
Arsenic	7440-38-2	mg/kg	21	14.4	3.18	3.7	14.5	13.2	17.9	6.2	NA	NA	NA	5.3	5.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.59	0.78	0.553	0.56	0.7	0.7	0.39	0.57	NA	NA	NA	0.49	0.64
Cadmium	7440-43-9	mg/kg	1.2	1.1	0.4	0.57	0.92	0.86	0.75	0.63	NA	NA	NA	0.31	0.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.7	16.7	21.8	16.7	19.4	17.9	21.5	18.5	NA	NA	NA	14.1	13.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	36.2	36	13.9	194	24.1	21.7	44.6	80.6	NA	NA	NA	12.8	10.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	129	126	6.46	19.7	53.3	39.7	321	143	NA	NA	NA	34.8	35.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.23	0.28	0.047	0.04	0.15	0.14	0.28	0.06	NA	NA	NA	0.08	0.1
Nickel	7440-02-0	mg/kg	11.8	15	8.39	8.5	9.9	10.1	7.2	11.7	NA	NA	NA	10	7.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.1	0.68	0.444	0.36	0.97	0.94	0.71	0.81	NA	NA	NA	0.96	1.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	FD	N	N	N
Sample Name			J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N
Parent Sample				J6-2-032N				J6-2340-021.5N				J6-4-011.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.3	< 0.32	< 0.286	< 0.3	< 0.3	< 0.34	0.29	< 0.3	NA	NA	NA	< 0.3	< 0.4
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1.1	< 0.952	< 1	< 0.9	< 0.85	< 0.7	< 1	NA	NA	NA	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	458	168	107	114	196	211	128	883	NA	NA	NA	65	62
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	17300	NA	NA	8600	19300	NA	NA	31000	44600	NA	38500	24700	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	3.9	NA	NA	8.5	7.4	NA	NA	10.1	9.4	NA	10.6	17.9	NA
Gravel	ARC-PGRAVEL	%	45.3	NA	NA	28.5	25.3	NA	NA	27.1	11.9	NA	30.5	10	NA
Sand	ARC-PSAND	%	39.8	NA	NA	36.7	54.8	NA	NA	44.7	43.5	NA	35.3	28.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	10.9	NA	NA	26.2	12.5	NA	NA	18	35.2	NA	23.6	43.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-8-01	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05	J6-8133-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-8136-07	J6-8167-02
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	4/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-8-012N	J6-8133-011.5N	J6-8133-012N	J6-8133-042N	J6-8133-051.5N	J6-8133-052N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-8-01	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05	J6-8133-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-8136-07	J6-8167-02
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	4/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-8-012N	J6-8133-011.5N	J6-8133-012N	J6-8133-042N	J6-8133-051.5N	J6-8133-052N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 190	< 78	< 76	NA	< 85	< 79	< 85	< 210	< 210	< 190
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	69	57	310	NA	730	< 390	< 420	< 420	< 420	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	27	< 390	190	NA	37	< 390	< 420	16	< 420	< 390
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 76	< 78	< 76	NA	< 85	< 79	< 85	< 210	< 83	< 78
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 190	< 78	< 76	NA	< 85	< 79	< 85	< 210	< 210	< 190
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-8-01	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05	J6-8133-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-8136-07	J6-8167-02
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	4/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-8-012N	J6-8133-011.5N	J6-8133-012N	J6-8133-042N	J6-8133-051.5N	J6-8133-052N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 190	< 78	< 76	NA	< 85	< 79	< 85	< 210	< 210	< 190
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Acenaphthylene	208-96-8	ug/kg	NA	NA	39	120	< 38	NA	41	< 39	130	< 42	< 42	< 39
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	64	61	< 38	NA	160	< 39	370	< 42	< 42	< 39
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	310	480	51	NA	280	< 39	1600	51	< 42	50
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	270	480	69	NA	170	< 39	1300	50	< 42	< 39
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	270	600	83	NA	240	< 39	1700	100	< 42	< 39
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 38	200	< 38	NA	< 43	< 39	610	< 42	< 42	< 39
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	250	330	< 38	NA	< 43	< 39	670	< 42	< 42	< 39
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	78	49	42	NA	21	33	36	34	22	47000
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	320	570	150	NA	220	< 39	1500	83	43	55
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	210	< 42	< 42	< 39
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	53	64	210	NA	42	< 39	110	< 42	< 42	41
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	580
Fluoranthene	206-44-0	ug/kg	NA	NA	580	1300	93	NA	810	< 39	3300	< 42	< 42	68
Fluorene	86-73-7	ug/kg	NA	NA	34	100	< 38	NA	72	< 39	79	< 42	< 42	< 39
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	120	200	< 38	NA	< 43	< 39	650	< 42	< 42	< 39
Isophorone	78-59-1	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-8-01	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05	J6-8133-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-8136-07	J6-8167-02
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	4/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-8-012N	J6-8133-011.5N	J6-8133-012N	J6-8133-042N	J6-8133-051.5N	J6-8133-052N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 38	NA	< 38	NA	NA	NA	NA	< 42	< 42	< 39
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 38	< 39	< 38	NA	79	< 39	< 42	< 42	< 42	< 39
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 190	< 78	< 76	NA	< 85	< 79	< 85	< 210	< 210	< 190
Phenanthrene	85-01-8	ug/kg	NA	NA	470	1300	87	NA	650	24	1300	43	36	41
Phenol	108-95-2	ug/kg	NA	NA	< 38	< 39	< 38	NA	< 43	< 39	< 42	< 42	< 42	< 39
Pyrene	129-00-0	ug/kg	NA	NA	580	1200	110	NA	620	< 39	3300	< 42	< 42	130
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	< 39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-8-01	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05	J6-8133-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-8136-07	J6-8167-02
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	4/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-8-012N	J6-8133-011.5N	J6-8133-012N	J6-8133-042N	J6-8133-051.5N	J6-8133-052N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 24	NA	< 25	NA	< 24	< 25	< 25	< 25	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 24	NA	< 25	NA	< 24	< 25	< 25	< 25	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 24	NA	< 25	NA	< 24	< 25	< 25	< 25	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 240	NA	NA	NA	< 240	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 24	NA	< 25	NA	< 24	< 25	< 25	< 25	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 48	NA	< 50	NA	< 58	< 50	< 50	< 50	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 48	NA	< 50	NA	< 58	< 50	< 50	< 50	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 24	NA	210	NA	< 24	< 25	< 25	< 25	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 48	NA	< 50	NA	< 58	< 50	< 50	< 50	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 24	NA	< 25	NA	< 24	< 25	< 25	< 25	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	< 40	NA	< 40000	NA	72800	< 45000	43300	< 42000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 600	NA	< 550	NA	< 610	< 640	< 590	< 640	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 48	NA	< 50	NA	< 58	< 50	< 50	< 50	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 48	NA	< 50	NA	< 58	< 50	< 50	< 50	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	< 48	NA	< 50	NA	< 58	< 50	< 50	< 50	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.6	< 0.6	< 0.6	NA	< 0.6	< 0.4	< 0.7	< 0.7	< 0.7	1.1
Arsenic	7440-38-2	mg/kg	NA	NA	5.2	32.9	16.4	NA	4.6	4.3	6.6	14	16.2	96
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.62	0.57	0.56	NA	0.71	0.51	0.62	0.44	0.76	0.44
Cadmium	7440-43-9	mg/kg	NA	NA	0.96	1.4	1.5	NA	1	0.33	2.3	0.37	< 0.3	0.28
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	16.6	22	14.3	NA	19.3	15.4	14.5	15.7	18.1	15.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	65.6	45.5	28	NA	16.2	25.2	23.6	99.1	83.7	69.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	480	388	338	NA	17.9	219	39.2	467	218	414
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.26	1	0.33	NA	0.06	0.04	0.06	4.2	4	0.4
Nickel	7440-02-0	mg/kg	NA	NA	9.2	9.4	8.8	NA	11.3	14.7	12.5	9.9	13.3	12.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	0.59	0.89	1.2	NA	0.89	0.32	0.66	0.73	< 0.5	< 0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-8-01	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05	J6-8133-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-8136-07	J6-8167-02
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	4/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-8-012N	J6-8133-011.5N	J6-8133-012N	J6-8133-042N	J6-8133-051.5N	J6-8133-052N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	1.1	< 1	< 1	NA	< 1	< 0.8	< 1	< 1	2.1	1.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	581	364	226	NA	88.8	137	876	129	116	250
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	8450	NA	13900	NA	NA	NA	18300	NA	NA	34200	NA	29800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	9.3	NA	3.2	NA	NA	NA	15.5	NA	NA	0	NA	5.1
Gravel	ARC-PGRAVEL	%	17.3	NA	38.5	NA	NA	NA	22	NA	NA	43.8	NA	28.8
Sand	ARC-PSAND	%	58.5	NA	45.2	NA	NA	NA	28.1	NA	NA	48.1	NA	52.4
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	14.9	NA	13.1	NA	NA	NA	34.3	NA	NA	8.1	NA	13.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-9-01	J6-915-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01	J7-2246-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-9-012N	J6-915-011N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N	J7-2246-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 534	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 534	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 534	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 534	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	< 106	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	< 213	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 106	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	< 106	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	< 106	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 534	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-9-01	J6-915-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01	J7-2246-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-9-012N	J6-915-011N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N	J7-2246-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 53	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 106	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 190	< 937	< 84	< 210	< 82	NA	< 78	< 81	< 81	< 78	< 747
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 380	< 469	< 420	< 420	< 410	NA	34000	3400	6400	56	< 374
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 380	< 469	< 420	< 420	< 410	NA	890	200	330	< 390	< 374
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2-Chlorophenol	95-57-8	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 77	< 937	< 84	< 84	< 82	NA	< 78	< 81	< 81	< 78	< 747
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 190	< 937	< 84	< 210	< 82	NA	< 78	< 81	< 81	< 78	< 747
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-9-01	J6-915-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01	J7-2246-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-9-012N	J6-915-011N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N	J7-2246-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 190	< 937	< 84	< 210	< 82	NA	< 78	< 81	< 81	< 78	< 747
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 38	< 469	< 42	< 42	56	NA	< 39	< 41	< 41	< 39	< 374
Acenaphthylene	208-96-8	ug/kg	NA	< 38	< 469	< 42	41	24	NA	320	24	53	< 39	< 374
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 38	< 469	< 42	460	170	NA	170	42	65	< 39	< 374
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 38	< 469	< 42	1700	2000	NA	580	190	290	< 39	< 374
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 38	< 469	< 42	1400	1800	NA	600	140	220	< 39	< 374
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 38	< 469	< 42	1900	2200	NA	1400	290	500	< 39	< 374
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 38	< 469	< 42	700	1100	NA	610	< 41	160	< 39	< 374
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 38	< 469	< 42	950	790	NA	500	89	180	< 39	< 374
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	28	55.8	< 42	52	< 41	NA	< 39	100	55	< 39	< 374
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 38	< 469	< 42	1500	2100	NA	960	210	340	< 39	< 374
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 38	< 469	< 42	220	390	NA	210	< 41	< 41	< 39	< 374
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 38	< 469	< 42	< 42	120	NA	1600	2600	1800	< 39	< 374
Dimethylphthalate	131-11-3	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Di-n-butylphthalate	84-74-2	ug/kg	NA	110	< 469	43	< 42	< 41	NA	380	1900	1400	58	173
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Fluoranthene	206-44-0	ug/kg	NA	< 38	< 469	< 42	2600	3000	NA	1000	280	540	< 39	< 374
Fluorene	86-73-7	ug/kg	NA	< 38	< 469	< 42	56	36	NA	50	< 41	< 41	< 39	< 374
Hexachlorobenzene	118-74-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Hexachloroethane	67-72-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 38	< 469	< 42	670	960	NA	590	89	120	< 39	< 374
Isophorone	78-59-1	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-9-01	J6-915-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01	J7-2246-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-9-012N	J6-915-011N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N	J7-2246-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	31	< 41	30	< 39	< 374
Nitrobenzene	98-95-3	ug/kg	NA	< 38	NA	NA	NA	< 41	NA	NA	NA	NA	< 39	< 374
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	890	3400	3300	< 39	< 374
Pentachlorophenol	87-86-5	ug/kg	NA	< 190	< 937	< 84	< 210	< 82	NA	< 78	< 81	< 81	< 78	< 747
Phenanthrene	85-01-8	ug/kg	NA	< 38	< 469	< 42	1500	790	NA	440	90	210	< 39	< 374
Phenol	108-95-2	ug/kg	NA	< 38	< 469	< 42	< 42	< 41	NA	< 39	< 41	< 41	< 39	< 374
Pyrene	129-00-0	ug/kg	NA	< 38	< 469	< 42	3300	3700	NA	770	200	400	< 39	< 374
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	< 38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-9-01	J6-915-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01	J7-2246-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-9-012N	J6-915-011N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N	J7-2246-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 248	< 25	< 25	NA	NA	< 25	< 24	< 25	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 248	< 25	< 25	NA	NA	< 25	< 24	< 25	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 248	< 25	< 25	NA	NA	730	7000	6100	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 248	< 25	< 25	NA	NA	< 25	< 24	< 25	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 495	< 50	< 50	NA	NA	< 50	< 48	< 50	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 495	< 50	< 50	NA	NA	< 50	< 48	< 50	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 248	< 25	< 25	NA	NA	< 25	< 24	< 25	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 495	< 50	< 50	NA	NA	< 50	< 48	< 50	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 248	< 25	< 25	NA	NA	< 25	530	< 25	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	69400	49200	< 42000	NA	NA	3980000	7040000	6810000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 6250	< 630	< 640	NA	NA	120000	570000	1000000	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 495	< 50	< 50	NA	NA	< 50	< 48	< 50	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 495	< 50	< 50	NA	NA	< 50	< 48	< 50	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	< 495	< 50	< 50	NA	NA	< 50	< 48	< 50	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.42	0.37	< 0.588	< 0.7	0.33	< 0.7	NA	< 0.5	1.5	1	< 0.6	< 0.483
Arsenic	7440-38-2	mg/kg	3.5	55.2	4.76	3.4	7.8	4	NA	8.9	33.3	28.3	4.5	10.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.31	0.39	0.842	0.85	0.52	0.36	NA	0.59	0.44	0.6	0.48	0.524
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.3	1	0.69	< 0.3	0.46	NA	0.48	0.87	0.8	0.46	0.735
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	8.4	19.1	14.6	14.7	23	16.8	NA	10.9	26.4	26.2	11.5	18.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	727	10.4	15.8	11.9	15.9	15.2	NA	15.1	118	107	14.5	15.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	1710	21.6	59.4	56.4	29.8	50.5	NA	54.4	1950	1570	14.5	17.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	36.9	0.08	0.352	0.1	0.15	0.16	NA	0.09	4.8	1.8	0.07	0.101
Nickel	7440-02-0	mg/kg	5.3	4.1	9.88	9.4	7.4	11.2	NA	8.1	6.4	9.2	7.8	8.43
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.6	< 0.5	1.7	0.79	< 0.6	0.75	NA	0.68	0.88	1.2	0.57	0.94

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J6-9-01	J6-915-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01	J7-2246-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J6-9-012N	J6-915-011N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N	J7-2246-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.294	< 0.3	< 0.3	< 0.3	NA	< 0.2	< 0.3	< 0.3	< 0.3	< 0.242
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.83	0.61	< 0.98	< 1	1	< 1	NA	< 1	< 1	< 1	< 1	< 0.806
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	92.6	70.1	106	78.4	98.1	119	NA	98.2	235	163	46.8	71.1
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	4520	9390	NA	26100	10000	13400	NA	23500	21000	NA	9070	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	0	0	NA	4.4	0	5.7	NA	10.5	6.8	NA	4.6	NA
Gravel	ARC-PGRAVEL	%	13.8	20	NA	38.8	28.1	27.9	NA	41.3	51.3	NA	22.4	NA
Sand	ARC-PSAND	%	78	71.6	NA	42.1	57.2	59.2	NA	31.3	31.8	NA	58.5	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	8.2	8.4	NA	14.7	14.7	7.2	NA	16.9	10.1	NA	14.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-2246-02	J7-2281-02	J7-2281-05	J7-2281B-01	J7-2281B-03	J7-2281B-03	J7-2281B-05	J7-2282-03	J7-2282-06	J7-2324-06	J7-241-04
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			J7-2246-021.5FD	J7-2281-021N	J7-2281-052N	J7-2281B-012N	J7-2281B-032N	J7-2281B-032FD	J7-2281B-052N	J7-2282-032N	J7-2282-061N	J7-2324-062N	J7-241-041.25N
Parent Sample			J7-2246-021.5N					J7-2281B-032N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-2246-02	J7-2281-02	J7-2281-05	J7-2281B-01	J7-2281B-03	J7-2281B-03	J7-2281B-05	J7-2282-03	J7-2282-06	J7-2324-06	J7-241-04
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			J7-2246-021.5FD	J7-2281-021N	J7-2281-052N	J7-2281B-012N	J7-2281B-032N	J7-2281B-032FD	J7-2281B-052N	J7-2282-032N	J7-2282-061N	J7-2324-062N	J7-241-041.25N
Parent Sample			J7-2246-021.5N					J7-2281B-032N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 762	< 75	< 77	< 76	< 78	< 770	< 75	< 74	< 84	< 82	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 381	< 370	220	< 380	< 390	< 380	< 370	< 370	< 420	820	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 381	< 370	< 380	< 380	< 390	< 380	< 370	< 370	< 420	53	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2-Chlorophenol	95-57-8	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 762	< 75	< 77	< 76	< 78	< 770	< 75	< 74	< 84	< 82	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 762	< 75	< 77	< 76	< 78	< 770	< 75	< 74	< 84	< 82	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-2246-02	J7-2281-02	J7-2281-05	J7-2281B-01	J7-2281B-03	J7-2281B-03	J7-2281B-05	J7-2282-03	J7-2282-06	J7-2324-06	J7-241-04
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			J7-2246-021.5FD	J7-2281-021N	J7-2281-052N	J7-2281B-012N	J7-2281B-032N	J7-2281B-032FD	J7-2281B-052N	J7-2282-032N	J7-2282-061N	J7-2324-062N	J7-241-041.25N
Parent Sample			J7-2246-021.5N					J7-2281B-032N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 762	< 75	< 77	< 76	< 78	< 770	< 75	< 74	< 84	< 82	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Acenaphthylene	208-96-8	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	34	84	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	39	93	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	140	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	22.1	< 37	< 38	27	81	66	< 37	< 37	55	< 41	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	44	89	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 381	< 37	< 38	37	140	220	< 37	< 37	83	82	NA
Dimethylphthalate	131-11-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Di-n-butylphthalate	84-74-2	ug/kg	67.8	< 37	180	43	8900	7700	36	< 37	220	96	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Fluoranthene	206-44-0	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	160	NA
Fluorene	86-73-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Hexachlorobenzene	118-74-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Hexachloroethane	67-72-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Isophorone	78-59-1	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-2246-02	J7-2281-02	J7-2281-05	J7-2281B-01	J7-2281B-03	J7-2281B-03	J7-2281B-05	J7-2282-03	J7-2282-06	J7-2324-06	J7-241-04
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			J7-2246-021.5FD	J7-2281-021N	J7-2281-052N	J7-2281B-012N	J7-2281B-032N	J7-2281B-032FD	J7-2281B-052N	J7-2282-032N	J7-2282-061N	J7-2324-062N	J7-241-041.25N
Parent Sample			J7-2246-021.5N					J7-2281B-032N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Nitrobenzene	98-95-3	ug/kg	< 381	NA	NA	< 38	NA	NA	< 37	NA	NA	< 41	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 381	< 37	760	< 38	800	580	< 37	< 37	90	190	NA
Pentachlorophenol	87-86-5	ug/kg	< 762	< 75	< 77	< 76	< 78	< 770	< 75	< 74	< 84	< 82	NA
Phenanthrene	85-01-8	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	31	53	NA
Phenol	108-95-2	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	< 41	NA
Pyrene	129-00-0	ug/kg	< 381	< 37	< 38	< 38	< 39	< 380	< 37	< 37	< 42	140	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-2246-02	J7-2281-02	J7-2281-05	J7-2281B-01	J7-2281B-03	J7-2281B-03	J7-2281B-05	J7-2282-03	J7-2282-06	J7-2324-06	J7-241-04
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			J7-2246-021.5FD	J7-2281-021N	J7-2281-052N	J7-2281B-012N	J7-2281B-032N	J7-2281B-032FD	J7-2281B-052N	J7-2282-032N	J7-2282-061N	J7-2324-062N	J7-241-041.25N
Parent Sample			J7-2246-021.5N					J7-2281B-032N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	< 25	NA	< 25	< 250	NA	< 25	< 25	NA	< 238
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	< 25	NA	< 25	< 250	NA	< 25	< 25	NA	< 238
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	180	NA	< 25	< 250	NA	< 25	< 25	NA	154
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 238
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	< 25	NA	< 25	< 250	NA	< 25	< 25	NA	< 238
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	< 50	NA	< 50	< 500	NA	< 50	< 50	NA	< 476
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	< 50	NA	< 50	< 500	NA	< 50	< 50	NA	< 476
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	< 25	NA	< 25	< 250	NA	< 25	< 25	NA	< 238
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	< 50	NA	< 50	< 500	NA	< 50	< 50	NA	< 476
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	270	NA	< 25	< 250	NA	< 25	< 25	NA	< 238
Nitrocellulose	9004-70-0	ug/kg	NA	< 37	466000	NA	2720000	2300000	NA	< 37000	72200	NA	369000
Nitroglycerin	55-63-0	ug/kg	NA	< 560	110000	NA	27000	25000	NA	< 560	< 630	NA	41300
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	< 50	NA	< 50	< 500	NA	< 50	< 50	NA	< 476
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	< 50	NA	< 50	< 500	NA	< 50	< 50	NA	< 476
Tetryl	479-45-8	ug/kg	NA	< 50	< 50	NA	< 50	< 500	NA	< 50	< 50	NA	< 476
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.604	< 0.6	< 0.6	< 0.5	< 0.5	< 0.56	< 0.6	2.8	< 0.7	< 0.7	NA
Arsenic	7440-38-2	mg/kg	7.1	3.6	12	2.6	3	2.7	2.4	2.4	7.7	38.3	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.594	0.56	0.56	0.56	0.66	0.51	0.78	0.58	0.8	0.76	NA
Cadmium	7440-43-9	mg/kg	0.705	0.38	0.45	0.43	0.45	0.42	0.4	0.35	0.81	0.71	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	20	13.3	17.2	9.2	15.2	18.2	10.3	10.5	20.1	49.9	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.9	12.8	15.4	10.4	14.6	13.5	9.9	12.1	23.3	42.4	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	11.4	6.4	14.1	7.1	11.1	11.3	5.1	5.2	37.8	744	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.092	0.03	0.05	0.03	0.23	0.05	0.02	0.02	0.12	0.82	NA
Nickel	7440-02-0	mg/kg	10.1	8.6	9.3	5.5	8	6.9	5.9	6.3	12.1	9.1	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.772	0.66	0.98	0.75	0.78	0.67	0.65	< 0.5	1.1	0.87	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-2246-02	J7-2281-02	J7-2281-05	J7-2281B-01	J7-2281B-03	J7-2281B-03	J7-2281B-05	J7-2282-03	J7-2282-06	J7-2324-06	J7-241-04
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
Collection Date			7/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	7/20/2000
Sample Type			FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			J7-2246-021.5FD	J7-2281-021N	J7-2281-052N	J7-2281B-012N	J7-2281B-032N	J7-2281B-032FD	J7-2281B-052N	J7-2282-032N	J7-2282-061N	J7-2324-062N	J7-241-041.25N
Parent Sample			J7-2246-021.5N					J7-2281B-032N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.302	< 0.3	< 0.3	< 0.2	< 0.2	< 0.28	< 0.3	< 0.3	< 0.3	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.01	< 1	< 1	< 0.6	< 0.9	< 0.92	< 1	< 0.9	< 1	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	92.4	39.4	62	44.1	59	56.3	39.9	43.5	384	164	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	10600	NA	3310	NA	NA	NA	3550	NA	11200	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	7.5	NA	7.4	NA	NA	NA	13.5	NA	7.6	NA
Gravel	ARC-PGRAVEL	%	NA	24.9	NA	25.6	NA	NA	NA	15.4	NA	45.4	NA
Sand	ARC-PSAND	%	NA	50.6	NA	54.6	NA	NA	NA	26.5	NA	28.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	17.1	NA	12.4	NA	NA	NA	44.6	NA	19	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-241-05	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			4/27/2000	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J7-241-051N	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-241-05	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			4/27/2000	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J7-241-051N	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 1100	NA	< 787	< 80	< 895	< 93	< 78	< 779	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	4200	NA	< 393	< 400	264	< 460	< 390	< 390	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 5600	NA	< 393	< 400	< 448	< 460	< 390	< 390	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 19.86399	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 1100	NA	< 787	< 80	< 895	< 93	< 78	< 779	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 1100	NA	< 787	< 80	< 895	< 93	< 78	< 779	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-241-05	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			4/27/2000	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J7-241-051N	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 1100	NA	< 787	< 80	< 895	< 93	< 78	< 779	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 560	NA	< 393	< 40	66.7	< 46	< 39	< 390	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 560	NA	< 393	< 40	69	< 46	< 39	< 390	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 560	NA	< 393	< 40	159	< 46	< 39	< 390	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 560	NA	34.6	< 40	39.4	< 46	< 39	45.6	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 560	NA	< 393	< 40	90	< 46	< 39	< 390	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	970	NA	< 393	< 40	< 448	61	< 39	< 390	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	600	NA	71.6	< 40	831	210	38	< 390	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	< 560	NA	< 393	< 40	131	< 46	< 39	< 390	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-241-05	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			4/27/2000	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J7-241-051N	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	NA	< 390	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	1100	NA	210	< 40	357	< 46	< 39	< 390	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 1100	NA	< 787	< 80	< 895	< 93	< 78	< 779	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	< 560	NA	< 393	< 40	< 448	< 46	< 39	< 390	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	< 560	NA	< 393	< 40	146	< 46	< 39	< 390	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 19.86399	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 1
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 19.86399	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 1
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 19.86399	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 1
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 19.86399	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 1
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	< 1
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 19.86399	NA	NA	NA	NA	NA	NA	NA	NA	93	90
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4	< 3
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	< 19.9	NA	NA	NA	NA	NA	NA	NA	NA	93	90

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-241-05	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			4/27/2000	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J7-241-051N	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	NA	NA	NA	NA	NA	NA	< 25	NA	< 250	< 227	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	NA	NA	NA	NA	NA	NA	< 25	NA	< 250	< 227	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	NA	NA	NA	NA	NA	NA	< 25	NA	< 250	< 227	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	< 250	< 227	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	NA	NA	NA	NA	NA	NA	< 25	NA	< 250	< 227	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	NA	NA	NA	NA	NA	NA	< 50	NA	< 500	< 455	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	NA	NA	NA	NA	NA	NA	< 50	NA	< 500	< 455	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	NA	NA	NA	NA	NA	NA	< 25	NA	< 250	< 227	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	NA	NA	NA	NA	NA	NA	< 50	NA	< 500	< 455	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	NA	NA	NA	NA	NA	NA	< 25	NA	< 250	< 227	NA	NA
Nitrocellulose	9004-70-0	ug/kg	74800	NA	NA	NA	NA	NA	NA	< 42000	NA	< 43000	< 49.3	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 590	NA	NA	NA	NA	NA	NA	< 590	NA	< 620	< 7050	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	NA	NA	NA	NA	NA	NA	< 50	NA	< 500	< 455	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	NA	NA	NA	NA	NA	NA	< 50	NA	< 500	< 455	NA	NA
Tetryl	479-45-8	ug/kg	< 50	NA	NA	NA	NA	NA	NA	< 50	NA	< 500	< 455	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	1.5	NA	0.625	< 0.6	0.374	< 0.8	< 0.6	< 0.453	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	13	NA	6.91	9.4	18.3	6.6	8.4	4.84	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	1.5	NA	0.619	0.59	1.3	1.9	0.5	0.674	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	1.1	NA	1.41	0.42	1.05	0.54	0.26	0.697	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	20.4	NA	17.8	15.8	21.7	15.3	12.7	15.4	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	143	NA	19.7	17.8	32.2	22.4	14.7	17.7	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	880	NA	155	117	74	46.2	20.2	20.2	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.43	NA	0.1	0.28	0.249	0.11	0.06	0.057	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	10.1	NA	10.9	9.6	11.5	9.3	7.1	9.24	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	2	NA	0.878	0.64	1.25	1	0.6	1.03	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J7-241-05	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft
Collection Date			4/27/2000	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J7-241-051N	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	< 0.4	NA	< 0.291	< 0.3	0.255	0.38	< 0.3	< 0.226	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	NA	< 0.97	< 1	< 1.03	< 1	< 1	< 0.754	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	205	NA	323	113	179	142	69.4	69.6	NA	NA	NA	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	15700	74500	28100	NA	17200	NA	42500	13800	NA	3970	NA	NA	17800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	4.1	10	NA	NA	5.1	NA	5.2	7.4	NA	3.1	NA	NA	2.7
Gravel	ARC-PGRAVEL	%	30	15.9	NA	NA	20.6	NA	47.2	23.7	NA	52.4	NA	NA	31.2
Sand	ARC-PSAND	%	50	36.6	NA	NA	40.3	NA	29.2	53.6	NA	29.9	NA	NA	51
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	98.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	87.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	40.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	94.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	65.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	47.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	76.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	54.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	15.9	37.5	NA	NA	33.9	NA	18.3	15.3	NA	14.6	NA	NA	15.1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J8-2339-02	J8-2354-01	J8-2354-02	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	6/16/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J8-2339-02	J8-2354-01	J8-2354-02	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	6/16/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 74	NA	< 760	< 70	NA	NA	NA	NA	NA	< 78	< 75	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	NA	< 3800	< 350	NA	NA	NA	NA	NA	520	< 370	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	NA	< 3800	< 350	NA	NA	NA	NA	NA	27	< 370	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2-Chlorophenol	95-57-8	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 74	NA	< 760	< 70	NA	NA	NA	NA	NA	< 78	< 75	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 74	NA	< 760	< 70	NA	NA	NA	NA	NA	< 78	< 75	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J8-2339-02	J8-2354-01	J8-2354-02	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	6/16/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 74	NA	< 760	< 70	NA	NA	NA	NA	NA	< 78	< 75	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Acenaphthylene	208-96-8	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	28	45	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 37	NA	< 380	21	NA	NA	NA	NA	NA	32	65	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 37	NA	< 380	130	NA	NA	NA	NA	NA	210	370	NA
Benzo[a]pyrene	50-32-8	ug/kg	24	NA	< 380	120	NA	NA	NA	NA	NA	190	320	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 37	NA	< 380	220	NA	NA	NA	NA	NA	260	500	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	120	300	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 37	NA	< 380	88	NA	NA	NA	NA	NA	120	200	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	36	NA	< 380	< 35	NA	NA	NA	NA	NA	130	36	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 37	NA	< 380	120	NA	NA	NA	NA	NA	190	480	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	100	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	88	NA	2800	200	NA	NA	NA	NA	NA	250	< 37	NA
Dimethylphthalate	131-11-3	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Di-n-butylphthalate	84-74-2	ug/kg	120	NA	< 380	< 35	NA	NA	NA	NA	NA	420	61	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Fluoranthene	206-44-0	ug/kg	< 37	NA	< 380	200	NA	NA	NA	NA	NA	220	760	NA
Fluorene	86-73-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Hexachlorobenzene	118-74-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Hexachloroethane	67-72-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	120	250	NA
Isophorone	78-59-1	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J8-2339-02	J8-2354-01	J8-2354-02	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	6/16/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	34	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 39	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	260	NA	5100	500	NA	NA	NA	NA	NA	2400	< 37	NA
Pentachlorophenol	87-86-5	ug/kg	< 74	NA	< 760	< 70	NA	NA	NA	NA	NA	< 78	< 75	NA
Phenanthrene	85-01-8	ug/kg	< 37	NA	< 380	91	NA	NA	NA	NA	NA	75	350	NA
Phenol	108-95-2	ug/kg	< 37	NA	< 380	< 35	NA	NA	NA	NA	NA	< 39	< 37	NA
Pyrene	129-00-0	ug/kg	< 37	NA	< 380	210	NA	NA	NA	NA	NA	370	770	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J8-2339-02	J8-2354-01	J8-2354-02	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	6/16/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 227	< 248	< 250	< 250	< 200	< 250	< 217	< 25	< 25	NA	< 25	< 200
1,3-Dinitrobenzene	99-65-0	ug/kg	< 227	< 248	< 250	< 250	< 200	< 250	< 217	< 25	< 25	NA	< 25	< 200
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 227	< 248	3433.2	< 250	< 200	< 250	< 217	< 25	< 25	NA	< 25	280
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 248	NA	NA	< 200	< 250	< 217.4	< 250	< 250	NA	NA	< 200
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 227	< 248	< 250	< 250	< 200	< 250	< 217	< 25	< 25	NA	< 25	< 200
2-Nitrotoluene	88-72-2	ug/kg	< 454	< 495	< 500	< 500	< 400	< 500	< 434	< 50	< 50	NA	< 50	< 400
3-Nitrotoluene	99-08-1	ug/kg	< 454	< 495	< 500	< 500	< 400	< 500	< 434	< 50	< 50	NA	< 50	< 400
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 227	< 248	< 250	< 250	< 200	< 250	< 217	< 25	< 25	NA	< 25	< 200
4-Nitrotoluene	99-99-0	ug/kg	< 454	< 495	< 500	< 500	< 400	< 500	< 434	< 50	< 50	NA	< 50	< 400
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 227	< 248	< 250	< 250	< 200	< 250	< 217	< 25	130	NA	< 25	< 200
Nitrocellulose	9004-70-0	ug/kg	< 38000	397000	5430000	148000	< 37.1	56000	83300	166000	81500	NA	63700	942000
Nitroglycerin	55-63-0	ug/kg	5400	28200	810000	13000	< 5090	< 590	11000	22000	18000	NA	< 550	42700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 454	< 495	< 500	< 500	< 400	< 500	< 434	< 50	< 50	NA	< 50	< 400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 454	< 495	< 500	< 500	< 400	< 500	< 434	< 50	< 50	NA	< 50	< 400
Tetryl	479-45-8	ug/kg	< 454	< 495	< 500	< 500	< 400	< 500	< 434	< 50	< 50	NA	< 50	< 400
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.5	NA	< 0.5	< 0.6	NA	NA	NA	NA	NA	< 0.6	< 0.6	NA
Arsenic	7440-38-2	mg/kg	3.9	NA	18.9	4.2	NA	NA	NA	NA	NA	29.6	6.6	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.68	NA	0.69	0.37	NA	NA	NA	NA	NA	0.45	0.59	NA
Cadmium	7440-43-9	mg/kg	< 0.2	NA	0.21	< 0.3	NA	NA	NA	NA	NA	0.93	0.12	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	22	NA	20.1	11.3	NA	NA	NA	NA	NA	24	13.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	72	NA	27.4	18.4	NA	NA	NA	NA	NA	1690	31	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	11.1	NA	16.3	14.2	NA	NA	NA	NA	NA	65.2	45	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.06	NA	0.23	0.13	NA	NA	NA	NA	NA	0.2	0.09	NA
Nickel	7440-02-0	mg/kg	21.6	NA	7.2	8.4	NA	NA	NA	NA	NA	15.7	10.9	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.4	NA	< 0.4	< 0.5	NA	NA	NA	NA	NA	1.2	1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J8-2339-02	J8-2354-01	J8-2354-02	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/20/2000	6/16/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.2	NA	< 0.2	< 0.3	NA	NA	NA	NA	NA	0.93	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.62	NA	< 0.9	< 1	NA	NA	NA	NA	NA	< 1	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	232	NA	56.3	61.7	NA	NA	NA	NA	NA	444	78.6	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	4310	NA	13000	NA	NA	5760	14000	26500	NA	24300	74800	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	8.5	NA	2.8	NA	NA	5	0.7	5.2	NA	6.5	6.7	NA
Gravel	ARC-PGRAVEL	%	21.2	NA	57.4	NA	NA	23.3	63	34.1	NA	23	32.1	NA
Sand	ARC-PSAND	%	45.3	NA	31	NA	NA	43.6	30.2	40.9	NA	56.1	46.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	24.9	NA	8.8	NA	NA	28.2	6.2	19.8	NA	14.4	14.9	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	J9-6-01	J9-6-02	K10-1-01	K10-1-02	K10-2090-01	K10-2090-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	7/25/2000	5/9/2000	5/16/2000	7/25/2000	5/16/2000	5/16/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	J9-6-011N	J9-6-022N	K10-1-011.25N	K10-1-022N	K10-2090-011.5N	K10-2090-041.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			J9-2111-05 0.0-1.3 ft 4/25/2000 N J9-2111-051.25N	J9-2142-04 0.0-1.0 ft 4/25/2000 N J9-2142-041N	J9-2142-05 0.0-1.5 ft 4/25/2000 N J9-2142-051.5N	J9-3-03 0.0-0.8 ft 4/28/2000 N J9-3-030.75N	J9-4-03 0.0-1.3 ft 4/28/2000 N J9-4-031.25N	J9-5-01 0.0-1.0 ft 4/25/2000 N J9-5-011N	J9-6-01 0.0-1.0 ft 7/25/2000 N J9-6-011N	J9-6-02 0.0-2.0 ft 5/9/2000 N J9-6-022N	K10-1-01 0.0-1.3 ft 5/16/2000 N K10-1-011.25N	K10-1-02 0.0-2.0 ft 7/25/2000 N K10-1-022N	K10-2090-01 0.0-1.5 ft 5/16/2000 N K10-2090-011.5N	K10-2090-04 0.0-1.3 ft 5/16/2000 N K10-2090-041.25N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	290	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 72	< 77	< 100	< 98	NA	NA	NA	< 74	< 7160	< 73	< 74
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	300	< 380	170	490	NA	NA	NA	< 37	781	61	120
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	17	< 380	< 520	< 490	NA	NA	NA	< 370	< 3580	< 370	< 370
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2-Chlorophenol	95-57-8	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 72	< 77	< 100	< 98	NA	NA	NA	< 74	< 7160	< 73	< 74
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 72	< 77	< 100	< 98	NA	NA	NA	< 74	< 7160	< 73	< 74
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			J9-2111-05 0.0-1.3 ft 4/25/2000 N J9-2111-051.25N	J9-2142-04 0.0-1.0 ft 4/25/2000 N J9-2142-041N	J9-2142-05 0.0-1.5 ft 4/25/2000 N J9-2142-051.5N	J9-3-03 0.0-0.8 ft 4/28/2000 N J9-3-030.75N	J9-4-03 0.0-1.3 ft 4/28/2000 N J9-4-031.25N	J9-5-01 0.0-1.0 ft 4/25/2000 N J9-5-011N	J9-6-01 0.0-1.0 ft 7/25/2000 N J9-6-011N	J9-6-02 0.0-2.0 ft 5/9/2000 N J9-6-022N	K10-1-01 0.0-1.3 ft 5/16/2000 N K10-1-011.25N	K10-1-02 0.0-2.0 ft 7/25/2000 N K10-1-022N	K10-2090-01 0.0-1.5 ft 5/16/2000 N K10-2090-011.5N	K10-2090-04 0.0-1.3 ft 5/16/2000 N K10-2090-041.25N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 72	< 77	< 100	< 98	NA	NA	NA	< 74	< 7160	< 73	< 74
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	20	130
Acenaphthylene	208-96-8	ug/kg	NA	< 36	< 38	36	< 49	NA	NA	NA	21	< 3580	64	120
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 36	< 38	41	< 49	NA	NA	NA	54	< 3580	92	510
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	82	54	240	100	NA	NA	NA	400	484	620	2200
Benzo[a]pyrene	50-32-8	ug/kg	NA	100	140	270	90	NA	NA	NA	350	541	760	1700
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	190	220	610	190	NA	NA	NA	510	853	1200	2300
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	52	190	280	< 49	NA	NA	NA	220	< 3580	570	1100
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 36	< 38	130	< 49	NA	NA	NA	140	< 3580	350	690
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	36	35	100	31	NA	NA	NA	32	< 3580	70	< 37
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	120	140	400	110	NA	NA	NA	310	< 3580	830	1700
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 36	110	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	120	47	< 52	21000	NA	NA	NA	< 37	< 3580	140	< 37
Dimethylphthalate	131-11-3	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	88	< 3580	< 37	< 37
Di-n-butylphthalate	84-74-2	ug/kg	NA	58	< 38	270	450	NA	NA	NA	2900	7060	23000	4500
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Fluoranthene	206-44-0	ug/kg	NA	93	< 38	610	170	NA	NA	NA	640	806	1600	3800
Fluorene	86-73-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	28	230
Hexachlorobenzene	118-74-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Hexachloroethane	67-72-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 36	120	220	< 49	NA	NA	NA	210	< 3580	520	1000
Isophorone	78-59-1	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	J9-6-01	J9-6-02	K10-1-01	K10-1-02	K10-2090-01	K10-2090-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	7/25/2000	5/9/2000	5/16/2000	7/25/2000	5/16/2000	5/16/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	J9-6-011N	J9-6-022N	K10-1-011.25N	K10-1-022N	K10-2090-011.5N	K10-2090-041.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Nitrobenzene	98-95-3	ug/kg	NA	< 36	< 38	< 52	NA	NA	NA	NA	< 37	< 3580	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	380	91	< 52	250	NA	NA	NA	540	913	3700	320
Pentachlorophenol	87-86-5	ug/kg	NA	< 72	< 77	< 100	< 98	NA	NA	NA	< 74	< 7160	< 73	< 74
Phenanthrene	85-01-8	ug/kg	NA	57	< 38	340	110	NA	NA	NA	190	< 3580	470	2300
Phenol	108-95-2	ug/kg	NA	< 36	< 38	< 52	< 49	NA	NA	NA	< 37	< 3580	< 37	< 37
Pyrene	129-00-0	ug/kg	NA	120	< 38	640	160	NA	NA	NA	660	< 3580	1800	4500
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	17	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	< 4	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	17	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	J9-6-01	J9-6-02	K10-1-01	K10-1-02	K10-2090-01	K10-2090-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	7/25/2000	5/9/2000	5/16/2000	7/25/2000	5/16/2000	5/16/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	J9-6-011N	J9-6-022N	K10-1-011.25N	K10-1-022N	K10-2090-011.5N	K10-2090-041.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	NA	NA	NA	< 24	NA	< 238	< 25	NA	NA	< 24	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	NA	NA	NA	< 24	NA	< 238	< 25	NA	NA	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	NA	NA	NA	130	NA	< 238	< 25	NA	NA	5900	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	NA	NA	NA	NA	NA	< 238	< 250	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	NA	NA	NA	< 24	NA	< 238	< 25	NA	NA	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 50	NA	NA	NA	< 48	NA	< 476	< 50	NA	NA	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 50	NA	NA	NA	< 48	NA	< 476	< 50	NA	NA	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	NA	NA	NA	< 24	NA	< 238	< 25	NA	NA	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 50	NA	NA	NA	< 48	NA	< 476	< 50	NA	NA	< 48	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	NA	NA	NA	< 24	NA	< 238	< 25	NA	NA	< 24	< 25
Nitrocellulose	9004-70-0	ug/kg	85000	NA	NA	NA	1060000	NA	195000	113000	NA	NA	8970000	1090000
Nitroglycerin	55-63-0	ug/kg	5500	NA	NA	NA	11000	NA	11800	< 560	NA	NA	830000	2900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	NA	NA	NA	< 48	NA	< 476	< 50	NA	NA	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	NA	NA	NA	< 48	NA	< 476	< 50	NA	NA	< 48	< 50
Tetryl	479-45-8	ug/kg	< 50	NA	NA	NA	< 48	NA	< 476	< 50	NA	NA	< 48	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.4	< 0.6	1.8	0.8	NA	NA	NA	< 0.6	< 0.421	< 0.5	< 0.5
Arsenic	7440-38-2	mg/kg	NA	54.3	5.4	17.7	26.6	NA	NA	NA	5.5	7.99	15.7	9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.47	0.47	0.54	0.63	NA	NA	NA	0.47	0.635	0.54	0.5
Cadmium	7440-43-9	mg/kg	NA	0.36	0.25	< 0.4	< 0.4	NA	NA	NA	< 0.3	1.03	< 0.2	< 0.2
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	11.5	13.6	30.5	15.6	NA	NA	NA	20.7	16.3	20.2	17.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	36.2	1200	39.6	61	NA	NA	NA	131	78.7	25.6	31.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	99	96.7	115	81.6	NA	NA	NA	106	29.6	20.6	44.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.51	0.15	0.4	0.16	NA	NA	NA	0.04	0.05	0.09	0.04
Nickel	7440-02-0	mg/kg	NA	8.3	8.8	16.9	12.1	NA	NA	NA	9.5	10.2	10.5	9.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.92	0.86	2	0.96	NA	NA	NA	< 0.5	0.664	< 0.4	< 0.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03	J9-5-01	J9-6-01	J9-6-02	K10-1-01	K10-1-02	K10-2090-01	K10-2090-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000	4/25/2000	7/25/2000	5/9/2000	5/16/2000	7/25/2000	5/16/2000	5/16/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N	J9-5-011N	J9-6-011N	J9-6-022N	K10-1-011.25N	K10-1-022N	K10-2090-011.5N	K10-2090-041.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	< 0.2	0.43	0.22	< 0.4	NA	NA	NA	< 0.3	< 0.211	< 0.2	< 0.2
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 0.9	< 1	< 1	< 1	NA	NA	NA	1	< 0.702	0.94	1.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	156	105	80	56.6	NA	NA	NA	143	244	93.1	102
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	6850	24200	NA	92600	49400	11100	NA	45400	24800	NA	26800	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	6.5	2.6	NA	7.8	5.1	11.2	NA	10.4	7.6	NA	8.9	NA
Gravel	ARC-PGRAVEL	%	23	68.8	NA	21.4	35.4	22.5	NA	48	31.8	NA	41.2	NA
Sand	ARC-PSAND	%	56.1	15.8	NA	39.9	35.4	48.7	NA	28.1	52.4	NA	44	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	14.4	12.7	NA	30.9	24.1	17.6	NA	13.5	8.2	NA	5.9	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03	K10-602B-03	K10-79A-01	K10-79A-03	K11-2301-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N
Sample Name			K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N	K10-602B-031.5FD	K10-79A-011.25N	K10-79A-031.5N	K11-2301-021N
Parent Sample					K10-2090-081N				K10-602B-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03	K10-602B-03	K10-79A-01	K10-79A-03	K11-2301-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N
Sample Name			K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N	K10-602B-031.5FD	K10-79A-011.25N	K10-79A-031.5N	K11-2301-021N
Parent Sample					K10-2090-081N				K10-602B-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
1,2-Dichlorobenzene	95-50-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
1,4-Dichlorobenzene	106-46-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2,4-Dichlorophenol	120-83-2	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2,4-Dimethylphenol	105-67-9	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2,4-Dinitrophenol	51-28-5	ug/kg	< 72	< 74	< 770	NA	NA	NA	NA	< 83	< 879	< 959
2,4-Dinitrotoluene	121-14-2	ug/kg	< 36	1700	770	NA	NA	NA	NA	< 420	< 439	110
2,6-Dinitrotoluene	606-20-2	ug/kg	< 360	100	45	NA	NA	NA	NA	< 420	< 439	< 480
2-Chloronaphthalene	91-58-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2-Chlorophenol	95-57-8	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 72	< 74	< 770	NA	NA	NA	NA	< 83	< 879	< 959
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 72	< 74	< 770	NA	NA	NA	NA	< 83	< 879	< 959
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03	K10-602B-03	K10-79A-01	K10-79A-03	K11-2301-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N
Sample Name			K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N	K10-602B-031.5FD	K10-79A-011.25N	K10-79A-031.5N	K11-2301-021N
Parent Sample					K10-2090-081N				K10-602B-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 72	< 74	< 770	NA	NA	NA	NA	< 83	< 879	< 959
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 36	580	250	NA	NA	NA	NA	< 42	< 439	< 480
Acenaphthylene	208-96-8	ug/kg	< 36	250	230	NA	NA	NA	NA	< 42	< 439	< 480
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 36	2100	1400	NA	NA	NA	NA	< 42	< 439	< 480
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 36	5400	4900	NA	NA	NA	NA	< 42	< 439	152
Benzo[a]pyrene	50-32-8	ug/kg	27	3900	3800	NA	NA	NA	NA	< 42	< 439	195
Benzo[b]fluoranthene	205-99-2	ug/kg	< 36	4900	4700	NA	NA	NA	NA	< 42	< 439	518
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 36	2700	2600	NA	NA	NA	NA	< 42	< 439	254
Benzo[k]fluoranthene	207-08-9	ug/kg	< 36	1500	1400	NA	NA	NA	NA	< 42	< 439	227
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	25	27.3	83.9
Butylbenzylphthalate	85-68-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 36	3900	3600	NA	NA	NA	NA	< 42	< 439	306
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 36	33	40	NA	NA	NA	NA	< 42	< 439	< 480
Dimethylphthalate	131-11-3	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Di-n-butylphthalate	84-74-2	ug/kg	1100	2900	2600	NA	NA	NA	NA	< 42	< 439	3260
Di-n-octylphthalate	117-84-0	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Fluoranthene	206-44-0	ug/kg	< 36	5500	5000	NA	NA	NA	NA	< 42	< 439	341
Fluorene	86-73-7	ug/kg	< 36	1100	420	NA	NA	NA	NA	< 42	< 439	< 480
Hexachlorobenzene	118-74-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Hexachlorobutadiene	87-68-3	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Hexachloroethane	67-72-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 36	2800	2700	NA	NA	NA	NA	< 42	< 439	233
Isophorone	78-59-1	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03	K10-602B-03	K10-79A-01	K10-79A-03	K11-2301-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N
Sample Name			K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N	K10-602B-031.5FD	K10-79A-011.25N	K10-79A-031.5N	K11-2301-021N
Parent Sample					K10-2090-081N				K10-602B-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	< 36	95	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 42	< 439	< 480
N-Nitrosodimethylamine	62-75-9	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
N-Nitrosodiphenylamine	86-30-6	ug/kg	170	410	260	NA	NA	NA	NA	< 42	< 439	1170
Pentachlorophenol	87-86-5	ug/kg	< 72	< 74	< 770	NA	NA	NA	NA	< 83	< 879	< 959
Phenanthrene	85-01-8	ug/kg	25	5700	3500	NA	NA	NA	NA	< 42	< 439	165
Phenol	108-95-2	ug/kg	< 36	< 37	< 350	NA	NA	NA	NA	< 42	< 439	< 480
Pyrene	129-00-0	ug/kg	< 36	12000	8800	NA	NA	NA	NA	< 42	< 439	339
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03	K10-602B-03	K10-79A-01	K10-79A-03	K11-2301-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N
Sample Name			K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N	K10-602B-031.5FD	K10-79A-011.25N	K10-79A-031.5N	K11-2301-021N
Parent Sample					K10-2090-081N				K10-602B-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 250	< 25	< 227	< 25	< 250	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 250	< 25	< 227	< 25	< 250	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 250	< 25	< 227	< 25	< 250	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 250	< 227	< 250	< 250	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 250	< 25	< 227	< 25	< 250	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 500	< 50	< 455	< 50	< 500	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 500	< 50	< 455	< 50	< 500	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 250	< 25	< 227	< 25	< 250	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 500	< 50	< 455	< 50	< 500	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 250	< 25	< 227	< 25	< 250	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	59900	2370000	256000	159000	140000	91300	53800	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 540	< 550	2900	6100	< 6710	< 600	< 6500	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 500	< 50	< 455	< 50	< 500	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 500	< 50	< 455	< 50	< 500	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	< 500	< 50	< 455	< 50	< 500	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.6	< 0.54	2.5	NA	NA	NA	< 0.7	< 0.776	0.598
Arsenic	7440-38-2	mg/kg	5.5	7.6	7.1	10.5	NA	NA	NA	6.8	11.1	9.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.51	0.61	0.47	0.4	NA	NA	NA	0.74	0.7	0.247
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.3	< 0.2	0.27	NA	NA	NA	0.4	< 0.388	< 0.411
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.7	17.6	17.8	19.3	NA	NA	NA	23	20.3	39.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	26.3	29.7	24.4	40.9	NA	NA	NA	13.9	13.4	144
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	21.4	80.6	39.7	3100	NA	NA	NA	20.6	40.8	145
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.05	0.13	0.09	0.45	NA	NA	NA	0.07	0.097	0.971
Nickel	7440-02-0	mg/kg	8.1	12.9	9.7	12.3	NA	NA	NA	13.2	11.8	25.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	< 0.5	< 0.45	1	NA	NA	NA	1.4	1.79	1.85

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03	K10-602B-03	K10-79A-01	K10-79A-03	K11-2301-02
Depths			0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N
Sample Name			K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N	K10-602B-031.5FD	K10-79A-011.25N	K10-79A-031.5N	K11-2301-021N
Parent Sample					K10-2090-081N				K10-602B-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.27	0.09	NA	NA	NA	< 0.3	< 0.388	0.789
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1	1.3	0.88	0.76	NA	NA	NA	< 1	1.38	< 1.37
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	78.9	142	122	98.6	NA	NA	NA	75.9	71.2	239
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	30800	NA	45700	NA	39900	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	14.2	NA	13.8	NA	16.4	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	36.2	NA	16.4	NA	9.8	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	33.7	NA	23	NA	33.2	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	16	NA	46.8	NA	40.6	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			K11-2301-04 0.0-1.5 ft 5/18/2000 N K11-2301-041.5N	K11-3-02 0.0-1.0 ft 5/12/2000 N K11-3-021N	K11-3-02 0.0-1.0 ft 5/12/2000 FD K11-3-021FD K11-3-021N	K5-4-01 0.0-0.5 ft 4/18/2000 N K5-4-010.5N	K5-4-02 0.0-1.3 ft 7/7/2000 N K5-4-021.25N	K5-9213-03 0.0-2.0 ft 4/14/2000 N K5-9213-032N	K5-9213-05 0.0-1.0 ft 4/14/2000 N K5-9213-051N	K6-1-01 0.0-1.0 ft 7/13/2000 N K6-1-011N	K6-1-02 0.0-1.3 ft 9/27/2000 N K6-1-021.25N	K6-2-02 0.0-1.5 ft 7/7/2000 N K6-2-021.5N	K6-2-03 0.0-1.0 ft 4/11/2000 N K6-2-031N	K6-529-01 0.0-1.5 ft 7/7/2000 N K6-529-011.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K11-2301-04	K11-3-02	K11-3-02	K5-4-01	K5-4-02	K5-9213-03	K5-9213-05	K6-1-01	K6-1-02	K6-2-02	K6-2-03	K6-529-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/12/2000	5/12/2000	4/18/2000	7/7/2000	4/14/2000	4/14/2000	7/13/2000	9/27/2000	7/7/2000	4/11/2000	7/7/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			K11-2301-041.5N	K11-3-021N	K11-3-021FD	K5-4-010.5N	K5-4-021.25N	K5-9213-032N	K5-9213-051N	K6-1-011N	K6-1-021.25N	K6-2-021.5N	K6-2-031N	K6-529-011.5N
Parent Sample					K11-3-021N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
2,4-Dinitrophenol	51-28-5	ug/kg	< 80	< 740	< 7400	< 84	< 766.812	NA	NA	< 735.408	< 796	< 732.922	< 480	< 755.822
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 3700	670	< 420	< 383	NA	NA	< 368	< 398	< 366	< 950	< 378
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 3700	< 3700	< 420	< 383	NA	NA	< 368	< 398	< 366	< 950	< 378
2-Chloronaphthalene	91-58-7	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
2-Chlorophenol	95-57-8	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 40	< 370	< 3700	< 42	NA	NA	NA	NA	< 398	NA	< 95	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 383.406	NA	NA	NA	NA	< 366.461	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 80	< 740	< 7400	< 84	< 766.812	NA	NA	< 735.408	< 796	< 732.922	< 190	< 755.822
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 80	< 740	< 7400	< 84	< 766.812	NA	NA	< 735.408	< 796	< 732.922	< 480	< 755.822
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K11-2301-04	K11-3-02	K11-3-02	K5-4-01	K5-4-02	K5-9213-03	K5-9213-05	K6-1-01	K6-1-02	K6-2-02	K6-2-03	K6-529-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/12/2000	5/12/2000	4/18/2000	7/7/2000	4/14/2000	4/14/2000	7/13/2000	9/27/2000	7/7/2000	4/11/2000	7/7/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			K11-2301-041.5N	K11-3-021N	K11-3-021FD	K5-4-010.5N	K5-4-021.25N	K5-9213-032N	K5-9213-051N	K6-1-011N	K6-1-021.25N	K6-2-021.5N	K6-2-031N	K6-529-011.5N
Parent Sample					K11-3-021N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 80	< 740	< 7400	< 84	NA	NA	NA	NA	< 796	NA	< 480	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 766.812	NA	NA	NA	NA	< 732.922	NA	NA
Acenaphthene	83-32-9	ug/kg	< 40	< 370	1700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Acenaphthylene	208-96-8	ug/kg	< 40	610	1500	< 42	< 383.406	NA	NA	< 367.704	261	< 366.461	< 95	< 377.911
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 40	1400	7400	< 42	< 383.406	NA	NA	122	355	< 366.461	< 95	85.4
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 40	4200	20000	< 42	< 383.406	NA	NA	465	1180	57.5	77	437
Benzo[a]pyrene	50-32-8	ug/kg	< 40	5000	19000	< 42	< 383.406	NA	NA	331	868	44.7	71	388
Benzo[b]fluoranthene	205-99-2	ug/kg	< 40	9300	21000	< 42	< 383.406	NA	NA	505	1130	< 366.461	< 95	553
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 40	3000	12000	< 42	< 383.406	NA	NA	210	434	< 366.461	< 95	181
Benzo[k]fluoranthene	207-08-9	ug/kg	< 40	3300	7800	< 42	< 383.406	NA	NA	160	399	< 366.461	< 95	216
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	27	200	< 3700	< 42	< 383.406	NA	NA	18.8	< 398	< 366.461	110	< 377.911
Butylbenzylphthalate	85-68-7	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 40	4700	20000	< 42	< 383.406	NA	NA	429	985	59	96	451
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	< 370	3400	< 42	< 383.406	NA	NA	69.9	< 398	< 366.461	< 95	< 377.911
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 40	3500	10000	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Dimethylphthalate	131-11-3	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Di-n-butylphthalate	84-74-2	ug/kg	3100	190000	130000	< 42	111	NA	NA	< 367.704	< 398	< 366.461	110	< 377.911
Di-n-octylphthalate	117-84-0	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Fluoranthene	206-44-0	ug/kg	< 40	9000	35000	< 42	< 383.406	NA	NA	1080	2250	152	< 95	1040
Fluorene	86-73-7	ug/kg	< 40	380	3400	< 42	< 383.406	NA	NA	< 367.704	77.2	< 366.461	< 95	< 377.911
Hexachlorobenzene	118-74-1	ug/kg	< 40	< 370	< 3700	< 42	NA	NA	NA	NA	< 398	NA	< 95	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Hexachloroethane	67-72-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 40	3000	11000	< 42	< 383.406	NA	NA	205	456	< 366.461	< 95	200
Isophorone	78-59-1	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K11-2301-04	K11-3-02	K11-3-02	K5-4-01	K5-4-02	K5-9213-03	K5-9213-05	K6-1-01	K6-1-02	K6-2-02	K6-2-03	K6-529-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/12/2000	5/12/2000	4/18/2000	7/7/2000	4/14/2000	4/14/2000	7/13/2000	9/27/2000	7/7/2000	4/11/2000	7/7/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			K11-2301-041.5N	K11-3-021N	K11-3-021FD	K5-4-010.5N	K5-4-021.25N	K5-9213-032N	K5-9213-051N	K6-1-011N	K6-1-021.25N	K6-2-021.5N	K6-2-031N	K6-529-011.5N
Parent Sample					K11-3-021N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Nitrobenzene	98-95-3	ug/kg	< 40	NA	NA	< 42	< 383.406	NA	NA	NA	NA	< 366.461	< 95	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
N-Nitrosodiphenylamine	86-30-6	ug/kg	710	9300	12000	< 42	NA	NA	NA	NA	< 398	NA	< 95	NA
Pentachlorophenol	87-86-5	ug/kg	< 80	< 740	< 7400	< 84	< 766.812	NA	NA	< 735.408	< 796	< 732.922	< 480	< 755.822
Phenanthrene	85-01-8	ug/kg	< 40	4200	26000	< 42	< 383.406	NA	NA	568	1200	90.2	130	566
Phenol	108-95-2	ug/kg	< 40	< 370	< 3700	< 42	< 383.406	NA	NA	< 367.704	< 398	< 366.461	< 95	< 377.911
Pyrene	129-00-0	ug/kg	< 40	8100	42000	< 42	< 383.406	NA	NA	892	1760	87.6	250	586
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K11-2301-04	K11-3-02	K11-3-02	K5-4-01	K5-4-02	K5-9213-03	K5-9213-05	K6-1-01	K6-1-02	K6-2-02	K6-2-03	K6-529-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/12/2000	5/12/2000	4/18/2000	7/7/2000	4/14/2000	4/14/2000	7/13/2000	9/27/2000	7/7/2000	4/11/2000	7/7/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			K11-2301-041.5N	K11-3-021N	K11-3-021FD	K5-4-010.5N	K5-4-021.25N	K5-9213-032N	K5-9213-051N	K6-1-011N	K6-1-021.25N	K6-2-021.5N	K6-2-031N	K6-529-011.5N
Parent Sample					K11-3-021N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 14	< 250	NA	NA	< 25	< 25	< 250	< 100	NA	NA	< 485.425
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 14	< 250	NA	NA	< 25	< 25	< 250	< 100	NA	NA	< 485.425
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	1900	1300	NA	NA	< 25	< 25	< 250	< 100	NA	NA	< 485.425
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 14	< 250	NA	NA	< 25	< 25	< 250	< 100	NA	NA	< 485.425
2-Nitrotoluene	88-72-2	ug/kg	NA	< 27	< 500	NA	NA	< 50	< 50	< 500	< 200	NA	NA	< 970.85
3-Nitrotoluene	99-08-1	ug/kg	NA	< 27	< 500	NA	NA	< 50	< 50	< 500	< 200	NA	NA	< 970.85
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 14	< 250	NA	NA	< 25	< 25	< 250	< 100	NA	NA	< 485.425
4-Nitrotoluene	99-99-0	ug/kg	NA	< 27	< 500	NA	NA	< 50	< 50	< 500	< 200	NA	NA	< 970.85
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	280	570	NA	NA	< 25	< 25	< 250	< 100	NA	NA	< 485.425
Nitrocellulose	9004-70-0	ug/kg	NA	3990000	< 38600	NA	NA	< 38000	< 39000	< 38518.52	< 28.4	NA	NA	51300
Nitroglycerin	55-63-0	ug/kg	NA	320000	120000	NA	< 383.406	< 590	< 600	< 368	< 5680	< 366.461	NA	< 378
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 27	540	NA	NA	< 50	< 50	< 500	< 200	NA	NA	< 970.85
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 27	< 500	NA	NA	< 50	< 50	< 500	< 200	NA	NA	< 970.85
Tetryl	479-45-8	ug/kg	NA	< 27	< 500	NA	NA	< 50	< 50	< 500	< 200	NA	NA	< 970.85
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	< 0.6	< 0.63	< 0.6	< 0.676599	NA	NA	< 0.632881	0.796	< 0.681896	0.92	0.658
Arsenic	7440-38-2	mg/kg	3.8	8.4	8.3	4.7	4.16	NA	NA	3.66	6.58	5.86	4.9	3.71
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.27	0.34	0.37	0.7	0.505	NA	NA	0.577	0.852	0.641	0.32	0.379
Cadmium	7440-43-9	mg/kg	< 0.3	0.37	0.33	0.63	0.594	NA	NA	0.203	0.079	0.748	0.88	0.577
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.4	14.3	13.9	18	15	NA	NA	14.1	14.2	16.9	9.1	11.7
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	119	43	23.8	21.6	12.3	NA	NA	24	38.4	20.3	19.7	87
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	67.6	62.6	66.5	17.9	28.9	NA	NA	24.6	64.2	45.9	131	321
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.07	0.27	0.18	0.22	0.124	NA	NA	0.159	1.49	0.167	0.92	1.41
Nickel	7440-02-0	mg/kg	7.7	8.1	7.9	11.3	8.33	NA	NA	9.84	12.2	9.93	9.9	8.29
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	< 0.5	0.42	0.86	1.15	NA	NA	0.904	< 0.597	0.839	2.6	1.12

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K11-2301-04	K11-3-02	K11-3-02	K5-4-01	K5-4-02	K5-9213-03	K5-9213-05	K6-1-01	K6-1-02	K6-2-02	K6-2-03	K6-529-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/12/2000	5/12/2000	4/18/2000	7/7/2000	4/14/2000	4/14/2000	7/13/2000	9/27/2000	7/7/2000	4/11/2000	7/7/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			K11-2301-041.5N	K11-3-021N	K11-3-021FD	K5-4-010.5N	K5-4-021.25N	K5-9213-032N	K5-9213-051N	K6-1-011N	K6-1-021.25N	K6-2-021.5N	K6-2-031N	K6-529-011.5N
Parent Sample					K11-3-021N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.32	< 0.3	< 0.3383	NA	NA	< 0.316441	0.266	< 0.340948	0.65	< 0.329219
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1.1	< 1	< 1.127665	NA	NA	< 1.054802	< 1.19	< 1.136493	< 2	< 1.097396
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	214	93.6	85.5	91.7	78	NA	NA	82.3	79.5	72.9	95.7	62.3
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	19000	50700	NA	57300	NA	5710	NA	47600	NA	NA	388000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	13.9	2.3	NA	1.9	NA	6.4	NA	NA	NA	NA	0	NA
Gravel	ARC-PGRAVEL	%	34.2	22.6	NA	31.4	NA	30.3	NA	NA	NA	NA	16.3	NA
Sand	ARC-PSAND	%	33.4	61	NA	50.4	NA	43.3	NA	NA	NA	NA	69.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	93.2	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	78.3	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	29.6	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	86.8	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	54.6	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	37.7	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	66.4	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	45	NA	NA	NA	NA
Silt	ARC-PSILT	%	18.4	14.2	NA	16.2	NA	20	NA	NA	NA	NA	13.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K6-529-02	K6-8273-03	K6-9214-03	K6-9214-05	K6-9214-05	K6-9217-01	K6-9217-05	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			K6-529-021.5N	K6-8273-031N	K6-9214-031N	K6-9214-051N	K6-9214-051FD	K6-9217-012N	K6-9217-052N	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N
Parent Sample							K6-9214-051N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K6-529-02	K6-8273-03	K6-9214-03	K6-9214-05	K6-9214-05	K6-9217-01	K6-9217-05	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			K6-529-021.5N	K6-8273-031N	K6-9214-031N	K6-9214-051N	K6-9214-051FD	K6-9217-012N	K6-9217-052N	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N
Parent Sample							K6-9214-051N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K6-529-02	K6-8273-03	K6-9214-03	K6-9214-05	K6-9214-05	K6-9217-01	K6-9217-05	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			K6-529-021.5N	K6-8273-031N	K6-9214-031N	K6-9214-051N	K6-9214-051FD	K6-9217-012N	K6-9217-052N	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N
Parent Sample							K6-9214-051N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K6-529-02	K6-8273-03	K6-9214-03	K6-9214-05	K6-9214-05	K6-9217-01	K6-9217-05	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			K6-529-021.5N	K6-8273-031N	K6-9214-031N	K6-9214-051N	K6-9214-051FD	K6-9217-012N	K6-9217-052N	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N
Parent Sample							K6-9214-051N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	< 40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K6-529-02	K6-8273-03	K6-9214-03	K6-9214-05	K6-9214-05	K6-9217-01	K6-9217-05	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			K6-529-021.5N	K6-8273-031N	K6-9214-031N	K6-9214-051N	K6-9214-051FD	K6-9217-012N	K6-9217-052N	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N
Parent Sample							K6-9214-051N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 250	< 25	< 23	< 250	< 25	< 24	< 24	< 25	< 24	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 250	< 25	< 23	< 250	< 25	< 24	< 24	< 25	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 250	< 25	< 23	< 250	< 25	< 24	< 24	130	4400	290
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 2500	< 250	< 230	< 250	< 250	< 240	< 240	< 250	< 240	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 250	< 25	< 23	< 250	< 25	< 24	< 24	< 25	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 500	< 50	< 45	< 500	< 50	< 48	< 48	< 50	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 500	< 50	< 45	< 500	< 50	< 48	< 48	< 50	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 250	< 25	< 23	< 250	< 25	< 24	< 24	< 25	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 500	< 50	< 45	< 500	< 50	< 48	< 48	< 50	< 48	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 250	< 25	< 23	< 250	< 25	< 24	< 24	< 25	< 24	< 25
Nitrocellulose	9004-70-0	ug/kg	73000	8340000	84400	181000	961000	247000	80400	< 39000	90300	15900000	353000
Nitroglycerin	55-63-0	ug/kg	< 580	14000	< 640	4800	49000	13000	11000	< 600	3400	650000	33000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 500	< 50	< 45	< 500	< 50	< 48	< 48	< 50	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 500	< 50	< 45	< 500	< 50	< 48	< 48	< 50	< 48	< 50
Tetryl	479-45-8	ug/kg	< 50	< 500	< 50	< 45	< 500	< 50	< 48	< 48	< 50	< 48	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	NA	1	NA	NA	< 0.6	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	7.3	NA	114	NA	NA	7.1	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.86	NA	0.58	NA	NA	0.5	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	1.3	NA	4.1	NA	NA	0.54	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.5	NA	22.8	NA	NA	15.6	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	27.6	NA	87	NA	NA	17.4	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	347	NA	5220	NA	NA	231	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.19	NA	0.47	NA	NA	0.1	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	12	NA	14.1	NA	NA	8.3	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1	NA	2.1	NA	NA	0.39	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K6-529-02	K6-8273-03	K6-9214-03	K6-9214-05	K6-9214-05	K6-9217-01	K6-9217-05	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			4/14/2000	4/27/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/28/2000	4/28/2000	4/28/2000	4/28/2000
Sample Type			N	N	N	N	FD	N	N	N	N	N	N
Sample Name			K6-529-021.5N	K6-8273-031N	K6-9214-031N	K6-9214-051N	K6-9214-051FD	K6-9217-012N	K6-9217-052N	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N
Parent Sample							K6-9214-051N						
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	NA	0.76	NA	NA	< 0.3	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	NA	1.6	NA	NA	< 1	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	209	NA	498	NA	NA	214	NA	NA	NA	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	35700	24300	108000	NA	NA	20100	NA	25800	NA	21100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	9.3	0	6.3	NA	NA	7.4	NA	16.9	NA	10.5	NA
Gravel	ARC-PGRAVEL	%	33.5	74.5	58.4	NA	NA	19.8	NA	27.4	NA	39	NA
Sand	ARC-PSAND	%	41.3	23.3	26.4	NA	NA	44.5	NA	35.4	NA	35.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	16	2.2	8.9	NA	NA	28.3	NA	20.3	NA	14.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			K7-2127-03 0.0-1.0 ft 5/2/2000 N K7-2127-031N	K7-2127-05 0.0-2.0 ft 5/2/2000 N K7-2127-052N	K7-2132-03 0.0-2.0 ft 4/28/2000 N K7-2132-032N	K7-2132-05 0.0-2.0 ft 4/28/2000 N K7-2132-052N	K7-3-03 0.0-0.5 ft 5/2/2000 N K7-3-030.5N	K7-8651-02 0.0-2.0 ft 4/14/2000 N K7-8651-022N	K7-F5-02 0.0-1.0 ft 5/2/2000 N K7-F5-021N	K8-1-01 0.0-1.0 ft 4/28/2000 N K8-1-011N	K8-1-05 0.0-0.5 ft 4/28/2000 N K8-1-050.5N	K8-393-01 0.0-1.0 ft 7/25/2000 N K8-393-011N	K8-393-05 0.0-0.5 ft 4/28/2000 N K8-393-050.5N	K8-9207-02 0.0-1.5 ft 5/5/2000 N K8-9207-021.5N
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K7-2127-03	K7-2127-05	K7-2132-03	K7-2132-05	K7-3-03	K7-8651-02	K7-F5-02	K8-1-01	K8-1-05	K8-393-01	K8-393-05	K8-9207-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/2/2000	5/2/2000	4/28/2000	4/28/2000	5/2/2000	4/14/2000	5/2/2000	4/28/2000	4/28/2000	7/25/2000	4/28/2000	5/5/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K7-2127-031N	K7-2127-052N	K7-2132-032N	K7-2132-052N	K7-3-030.5N	K7-8651-022N	K7-F5-021N	K8-1-011N	K8-1-050.5N	K8-393-011N	K8-393-050.5N	K8-9207-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	< 78	< 82	< 79	< 84	< 100	< 741	< 120	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	< 390	36	< 400	820	< 520	< 371	64	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 390	< 410	< 400	39	< 520	< 371	< 600	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	< 78	< 82	< 79	< 84	< 100	< 741	< 120	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	< 78	< 82	< 79	< 84	< 100	< 741	< 120	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K7-2127-03	K7-2127-05	K7-2132-03	K7-2132-05	K7-3-03	K7-8651-02	K7-F5-02	K8-1-01	K8-1-05	K8-393-01	K8-393-05	K8-9207-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/2/2000	5/2/2000	4/28/2000	4/28/2000	5/2/2000	4/14/2000	5/2/2000	4/28/2000	4/28/2000	7/25/2000	4/28/2000	5/5/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K7-2127-031N	K7-2127-052N	K7-2132-032N	K7-2132-052N	K7-3-030.5N	K7-8651-022N	K7-F5-021N	K8-1-011N	K8-1-050.5N	K8-393-011N	K8-393-050.5N	K8-9207-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 78	< 82	< 79	< 84	< 100	< 741	< 120	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	< 39	48	< 40	< 42	< 52	< 371	< 60	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	< 39	57	< 40	< 42	< 52	< 371	< 60	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	< 39	86	< 40	< 42	< 52	< 371	< 60	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	< 39	510	< 40	38	48	< 371	160	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	< 39	430	< 40	38	48	< 371	140	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	< 39	850	< 40	97	< 52	< 371	350	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	< 39	190	< 40	< 42	< 52	< 371	< 60	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	< 39	300	< 40	< 42	< 52	< 371	< 60	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	< 39	23	54	20	83	< 371	52	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	< 39	580	< 40	65	53	< 371	210	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	< 39	< 41	56	150	< 52	< 371	< 60	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	< 39	46	140	47	92	< 371	120	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	< 39	1800	< 40	< 42	< 52	< 371	360	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	< 39	49	< 40	< 42	< 52	< 371	< 60	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	< 39	210	< 40	< 42	< 52	< 371	110	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K7-2127-03	K7-2127-05	K7-2132-03	K7-2132-05	K7-3-03	K7-8651-02	K7-F5-02	K8-1-01	K8-1-05	K8-393-01	K8-393-05	K8-9207-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/2/2000	5/2/2000	4/28/2000	4/28/2000	5/2/2000	4/14/2000	5/2/2000	4/28/2000	4/28/2000	7/25/2000	4/28/2000	5/5/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K7-2127-031N	K7-2127-052N	K7-2132-032N	K7-2132-052N	K7-3-030.5N	K7-8651-022N	K7-F5-021N	K8-1-011N	K8-1-050.5N	K8-393-011N	K8-393-050.5N	K8-9207-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 41	< 40	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	< 39	< 41	89	120	< 52	< 371	< 60	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	< 78	< 82	< 79	< 84	< 100	< 741	< 120	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	< 39	660	29	37	56	< 371	260	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	< 39	< 41	< 40	< 42	< 52	< 371	< 60	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	< 39	1100	< 40	< 42	< 52	< 371	380	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K7-2127-03	K7-2127-05	K7-2132-03	K7-2132-05	K7-3-03	K7-8651-02	K7-F5-02	K8-1-01	K8-1-05	K8-393-01	K8-393-05	K8-9207-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/2/2000	5/2/2000	4/28/2000	4/28/2000	5/2/2000	4/14/2000	5/2/2000	4/28/2000	4/28/2000	7/25/2000	4/28/2000	5/5/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K7-2127-031N	K7-2127-052N	K7-2132-032N	K7-2132-052N	K7-3-030.5N	K7-8651-022N	K7-F5-021N	K8-1-011N	K8-1-050.5N	K8-393-011N	K8-393-050.5N	K8-9207-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 25	< 25	< 25	NA	NA	< 25	< 25	< 250	< 25	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 25	< 25	< 25	NA	NA	< 25	< 25	< 250	< 25	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 25	< 25	< 25	NA	NA	690	< 25	< 250	< 25	< 24
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	< 250	< 250	NA	NA	NA	NA	NA	NA	NA	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 25	< 25	< 25	NA	NA	< 25	< 25	< 250	< 25	130
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 50	< 50	< 50	NA	NA	< 50	< 50	< 500	< 50	< 48
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 50	< 50	< 50	NA	NA	< 50	< 50	< 500	< 50	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 25	< 25	< 25	NA	NA	< 25	< 25	< 250	< 25	150
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 50	< 50	< 50	NA	NA	< 50	< 50	< 500	< 50	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 25	< 25	< 25	NA	NA	< 25	< 25	< 250	< 25	< 24
Nitrocellulose	9004-70-0	ug/kg	126000	< 39000	< 38000	< 37	107000	NA	NA	2360000	145000	< 38.4	660000	54900
Nitroglycerin	55-63-0	ug/kg	11000	31000	< 570	< 520	< 580	NA	NA	10000	< 780	< 4960	< 850	< 620
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 50	< 50	< 50	NA	NA	< 50	< 50	< 500	< 50	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 50	< 50	< 50	NA	NA	< 50	< 50	< 500	< 50	< 48
Tetryl	479-45-8	ug/kg	< 50	< 50	< 50	< 50	< 50	NA	NA	< 50	< 50	< 500	< 50	< 48
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	< 0.7	< 0.6	< 0.6	0.63	0.62	< 0.519	1.8	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	5.3	4.7	4	248	9.4	4.15	18.3	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	0.8	0.84	0.71	0.68	1.4	0.777	1.1	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	0.72	0.47	0.46	< 0.3	0.1	0.846	< 0.4	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	21.1	15.5	15.2	17.3	16.3	23	16	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	37.4	11.3	18.2	45.1	18.7	36.8	69.3	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	9.2	27.2	20.5	233	95.3	9.42	182	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	0.04	0.09	0.12	0.33	0.18	0.05	1.9	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	11.7	9	9.6	11.5	12.5	12.2	12.1	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	0.86	0.97	0.53	< 0.6	1.2	0.921	2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K7-2127-03	K7-2127-05	K7-2132-03	K7-2132-05	K7-3-03	K7-8651-02	K7-F5-02	K8-1-01	K8-1-05	K8-393-01	K8-393-05	K8-9207-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/2/2000	5/2/2000	4/28/2000	4/28/2000	5/2/2000	4/14/2000	5/2/2000	4/28/2000	4/28/2000	7/25/2000	4/28/2000	5/5/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K7-2127-031N	K7-2127-052N	K7-2132-032N	K7-2132-052N	K7-3-030.5N	K7-8651-022N	K7-F5-021N	K8-1-011N	K8-1-050.5N	K8-393-011N	K8-393-050.5N	K8-9207-021.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	< 0.3	< 0.3	< 0.3	< 0.3	0.11	< 0.259	0.35	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	< 1	< 1	< 1	0.79	0.73	< 0.865	1.2	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	53.1	72.2	93.2	92.6	137	53.1	109	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	36600	NA	20800	NA	31800	24000	39300	34700	NA	NA	161000	42900
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	9.8	NA	5.6	NA	6.1	0.9	0	5	NA	NA	9	16.6
Gravel	ARC-PGRAVEL	%	25.7	NA	39	NA	15.4	21.7	32.6	30.5	NA	NA	2.6	23.8
Sand	ARC-PSAND	%	43.7	NA	38.3	NA	51.4	51.7	41	36.7	NA	NA	41.7	28.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	20.8	NA	17.1	NA	27.1	25.6	26.4	27.8	NA	NA	46.8	31

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			K8-9207-04 0.0-1.5 ft 7/25/2000 N K8-9207-041.5N835	K8-9207-04 0.0-1.5 ft 7/25/2000 N K8-9207-041.5N900	K8-9212-02 0.0-2.0 ft 5/9/2000 N K8-9212-022N	K8-9212-07 0.0-1.5 ft 3/23/1999 N K8-9212-071.5N	K8-9212A-01 0.0-1.5 ft 5/9/2000 N K8-9212A-011.5N	K8-9212A-04 0.0-1.0 ft 7/25/2000 N K8-9212A-041N	K8-9212A-04 0.0-1.0 ft 7/25/2000 FD K8-9212A-041FD K8-9212A-041N	K9-1-01 0.0-1.0 ft 8/1/2000 N K9-1-011N	K9-1-02 0.0-1.0 ft 5/25/2000 N K9-1-021N	K9-3-01 0.0-1.5 ft 5/9/2000 N K9-3-011.5N	K9-4-01 0.0-0.5 ft 8/1/2000 N K9-4-010.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	< 1400	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	< 2900	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 1400	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	< 1400	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	< 1400	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K8-9207-04	K8-9207-04	K8-9212-02	K8-9212-07	K8-9212A-01	K8-9212A-04	K8-9212A-04	K9-1-01	K9-1-02	K9-3-01	K9-4-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/25/2000	7/25/2000	5/9/2000	3/23/1999	5/9/2000	7/25/2000	7/25/2000	8/1/2000	5/25/2000	5/9/2000	8/1/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			K8-9207-041.5N835	K8-9207-041.5N900	K8-9212-022N	K8-9212-071.5N	K8-9212A-011.5N	K8-9212A-041N	K8-9212A-041FD	K9-1-011N	K9-1-021N	K9-3-011.5N	K9-4-010.5N
Parent Sample									K8-9212A-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	610	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	< 720	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	< 1400	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 774	< 84	< 76	< 81	< 854	< 852	< 831	< 85	< 83	< 759
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	361	< 420	< 380	< 410	< 427	< 426	< 416	< 430	< 420	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	60	< 420	< 380	< 410	< 427	< 426	< 416	< 430	< 420	< 380
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2-Chlorophenol	95-57-8	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 774	< 84	< 76	< 81	< 854	< 852	< 831	< 85	< 83	< 759
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 774	< 84	< 76	< 81	< 854	< 852	< 831	< 85	< 83	< 759
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K8-9207-04	K8-9207-04	K8-9212-02	K8-9212-07	K8-9212A-01	K8-9212A-04	K8-9212A-04	K9-1-01	K9-1-02	K9-3-01	K9-4-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/25/2000	7/25/2000	5/9/2000	3/23/1999	5/9/2000	7/25/2000	7/25/2000	8/1/2000	5/25/2000	5/9/2000	8/1/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			K8-9207-041.5N835	K8-9207-041.5N900	K8-9212-022N	K8-9212-071.5N	K8-9212A-011.5N	K8-9212A-041N	K8-9212A-041FD	K9-1-011N	K9-1-021N	K9-3-011.5N	K9-4-010.5N
Parent Sample									K8-9212A-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 774	< 84	< 76	< 81	< 854	< 852	< 831	< 85	< 83	< 759
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Acenaphthylene	208-96-8	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	66.6	34	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	438	290	160	120	51.7	51.6	83.1	< 43	< 42	< 380
Benzo[a]pyrene	50-32-8	ug/kg	NA	361	330	69	63	52.5	53.3	84	30	< 42	< 380
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	457	500	150	95	92.2	92.9	200	< 43	< 42	< 380
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	211	210	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	171	150	< 38	< 41	< 427	< 426	74	< 43	< 42	< 380
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	33.7	27	42	< 41	28.2	27.7	25.4	< 43	< 42	< 380
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	360	410	190	130	99.5	94.2	141	< 43	70	< 380
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Dimethylphthalate	131-11-3	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Di-n-butylphthalate	84-74-2	ug/kg	NA	87.5	110	< 38	38	< 427	< 426	< 416	< 43	< 42	< 380
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Fluoranthene	206-44-0	ug/kg	NA	603	540	150	110	106	104	242	90	76	< 380
Fluorene	86-73-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Hexachlorobenzene	118-74-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Hexachloroethane	67-72-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	212	170	< 38	< 41	< 427	< 426	69.8	< 43	< 42	< 380
Isophorone	78-59-1	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K8-9207-04	K8-9207-04	K8-9212-02	K8-9212-07	K8-9212A-01	K8-9212A-04	K8-9212A-04	K9-1-01	K9-1-02	K9-3-01	K9-4-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/25/2000	7/25/2000	5/9/2000	3/23/1999	5/9/2000	7/25/2000	7/25/2000	8/1/2000	5/25/2000	5/9/2000	8/1/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			K8-9207-041.5N835	K8-9207-041.5N900	K8-9212-022N	K8-9212-071.5N	K8-9212A-011.5N	K8-9212A-041N	K8-9212A-041FD	K9-1-011N	K9-1-021N	K9-3-011.5N	K9-4-010.5N
Parent Sample									K8-9212A-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 387	< 42	< 38	43	< 427	< 426	< 416	< 43	< 42	< 380
Nitrobenzene	98-95-3	ug/kg	NA	< 387	NA	NA	< 41	< 427	< 426	NA	NA	< 42	< 380
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Pentachlorophenol	87-86-5	ug/kg	NA	< 774	< 84	< 76	< 81	< 854	< 852	< 831	< 85	< 83	< 759
Phenanthrene	85-01-8	ug/kg	NA	147	210	300	150	84.5	83.1	126	50	85	< 380
Phenol	108-95-2	ug/kg	NA	< 387	< 42	< 38	< 41	< 427	< 426	< 416	< 43	< 42	< 380
Pyrene	129-00-0	ug/kg	NA	585	530	< 38	120	116	113	223	< 43	< 42	< 380
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	< 3.8	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	< 200	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	< 20	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 39	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	< 39	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K8-9207-04	K8-9207-04	K8-9212-02	K8-9212-07	K8-9212A-01	K8-9212A-04	K8-9212A-04	K9-1-01	K9-1-02	K9-3-01	K9-4-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/25/2000	7/25/2000	5/9/2000	3/23/1999	5/9/2000	7/25/2000	7/25/2000	8/1/2000	5/25/2000	5/9/2000	8/1/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			K8-9207-041.5N835	K8-9207-041.5N900	K8-9212-022N	K8-9212-071.5N	K8-9212A-011.5N	K8-9212A-041N	K8-9212A-041FD	K9-1-011N	K9-1-021N	K9-3-011.5N	K9-4-010.5N
Parent Sample									K8-9212A-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	< 24	< 25	NA	NA	NA	< 250	< 25	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	< 24	< 25	NA	NA	NA	< 250	< 25	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	4140	NA	< 24	< 25	NA	NA	NA	< 250	< 25	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	844	NA	< 24	< 25	NA	NA	NA	< 250	< 25	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	< 48	< 50	NA	NA	NA	< 500	< 49	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	< 48	< 50	NA	NA	NA	< 500	< 49	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	533	NA	< 24	< 25	NA	NA	NA	< 250	< 25	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	< 48	< 50	NA	NA	NA	< 500	< 49	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	< 24	< 25	NA	NA	NA	< 250	< 25	NA	NA
Nitrocellulose	9004-70-0	ug/kg	165000	NA	106000	106000	NA	NA	NA	< 43.7	83000	NA	NA
Nitroglycerin	55-63-0	ug/kg	13900	NA	3600	< 540	NA	NA	NA	< 6090	< 640	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	< 48	< 50	NA	NA	NA	< 500	< 49	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	< 48	< 50	NA	NA	NA	< 500	< 49	NA	NA
Tetryl	479-45-8	ug/kg	< 500	NA	< 48	< 50	NA	NA	NA	< 500	< 49	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	16500	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.7	< 0.81	< 0.6	< 0.771	< 0.737	< 0.734	< 0.7	< 0.7	< 0.663
Arsenic	7440-38-2	mg/kg	NA	NA	19.7	4.8	15.7	14.4	15.1	7.4	7.7	7.4	4.49
Barium	7440-39-3	mg/kg	NA	NA	NA	54.8	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.44	1.1	0.61	0.573	0.658	0.538	0.92	0.69	0.523
Cadmium	7440-43-9	mg/kg	NA	NA	0.07	< 0.48	0.04	0.691	0.774	< 0.367	0.62	0.06	< 0.332
Calcium	7440-70-2	mg/kg	NA	NA	NA	485	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	14.7	17.5	16.1	21.1	20.4	22.5	24.6	18.5	15.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	8.6	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	16	15.6	17.6	15.7	18	16.5	15	11.3	12.7
Iron	7439-89-6	mg/kg	NA	NA	NA	26700	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	32.5	9.2	34.6	34.5	40.2	25.3	16	24.6	10.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	1930	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	372	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.07	NA	0.11	0.137	0.127	0.074	0.06	0.07	0.039
Nickel	7440-02-0	mg/kg	NA	NA	9.7	13.1	10.5	12	12.1	13.7	14.2	11	10.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	627	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	1.1	1.4	1.5	1.94	2.08	1.34	1.1	0.97	0.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K8-9207-04	K8-9207-04	K8-9212-02	K8-9212-07	K8-9212A-01	K8-9212A-04	K8-9212A-04	K9-1-01	K9-1-02	K9-3-01	K9-4-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft
Collection Date			7/25/2000	7/25/2000	5/9/2000	3/23/1999	5/9/2000	7/25/2000	7/25/2000	8/1/2000	5/25/2000	5/9/2000	8/1/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			K8-9207-041.5N835	K8-9207-041.5N900	K8-9212-022N	K8-9212-071.5N	K8-9212A-011.5N	K8-9212A-041N	K8-9212A-041FD	K9-1-011N	K9-1-021N	K9-3-011.5N	K9-4-010.5N
Parent Sample									K8-9212A-041N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	< 0.3	< 0.48	< 0.3	< 0.385	< 0.369	< 0.367	< 0.3	< 0.3	< 0.332
Sodium	7440-23-5	mg/kg	NA	NA	NA	< 161	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1	< 1.6	< 1	< 1.29	< 1.23	1.21	< 1	< 1	1.45
Vanadium	7440-62-2	mg/kg	NA	NA	NA	34.5	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	49	49.4	88.5	85.2	96	50.1	88.2	50.1	51.6
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	4.99	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	18500	NA	67400	NA	NA	NA	42400	41200	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	7	NA	16.9	NA	NA	NA	0	18.8	NA
Gravel	ARC-PGRAVEL	%	NA	NA	29.5	NA	15.1	NA	NA	NA	17.4	17.9	NA
Sand	ARC-PSAND	%	NA	NA	33.9	NA	40.5	NA	NA	NA	33.7	26.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	29.6	NA	40.8	NA	NA	NA	48.9	36.9	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	N	N	N
Sample Name			K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N
Parent Sample				K9-4-021N						L10-1-021.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	N	N	N
Sample Name			K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N
Parent Sample				K9-4-021N						L10-1-021.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	< 74	< 760	NA	NA	NA	NA	< 77	< 780	< 826.098	< 72	< 744.552	< 76
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 380	NA	NA	NA	NA	< 380	< 390	648	180	177	31
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 380	NA	NA	NA	NA	< 380	< 390	92.9	< 360	55.5	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
2-Chlorophenol	95-57-8	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	NA	< 36	NA	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 74	< 760	NA	NA	NA	NA	< 77	< 780	< 826.098	< 72	< 744.552	< 76
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 74	< 760	NA	NA	NA	NA	< 77	< 780	< 826.098	< 72	< 744.552	< 76
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	N	N	N
Sample Name			K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N
Parent Sample				K9-4-021N						L10-1-021.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 74	< 760	NA	NA	NA	NA	< 77	< 780	NA	< 72	NA	< 76
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	25	< 372.276	18
Acenaphthylene	208-96-8	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	36
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	74	108	66
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	163	490	450	560
Benzo[a]pyrene	50-32-8	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	170	470	441	530
Benzo[b]fluoranthene	205-99-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	233	800	762	700
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	106	340	359	320
Benzo[k]fluoranthene	207-08-9	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	124	290	232	430
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 37	26	NA	NA	NA	NA	23	< 390	< 413.049	130	33.1	75
Butylbenzylphthalate	85-68-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	164	480	492	540
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	105	< 38
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	1900	< 372.276	42
Dimethylphthalate	131-11-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Di-n-butylphthalate	84-74-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	1380	1100	758	1200
Di-n-octylphthalate	117-84-0	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Fluoranthene	206-44-0	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	353	890	1040	760
Fluorene	86-73-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	34	< 372.276	29
Hexachlorobenzene	118-74-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	NA	< 36	NA	< 38
Hexachlorobutadiene	87-68-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Hexachloroethane	67-72-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	95	320	321	270
Isophorone	78-59-1	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	N	N	N
Sample Name			K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N
Parent Sample				K9-4-021N						L10-1-021.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Nitrobenzene	98-95-3	ug/kg	< 37	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	218	220	185	1300
Pentachlorophenol	87-86-5	ug/kg	< 74	< 760	NA	NA	NA	NA	< 77	< 780	< 826.098	< 72	< 744.552	< 76
Phenanthrene	85-01-8	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	110	410	451	250
Phenol	108-95-2	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	< 413.049	< 36	< 372.276	< 38
Pyrene	129-00-0	ug/kg	< 37	< 380	NA	NA	NA	NA	< 38	< 390	234	1400	750	1400
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	N	N	N
Sample Name			K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N
Parent Sample				K9-4-021N						L10-1-021.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 24	< 23	< 25	< 25	< 25	< 240	< 250	< 25	< 250	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 24	< 23	170	170	< 25	< 240	< 250	< 25	< 250	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 24	290	< 25	< 25	< 25	< 240	255	250	1010	130
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 240	< 230	< 250	< 250	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 24	< 23	< 25	< 25	< 25	< 240	< 250	< 25	367	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 48	< 45	< 50	< 50	< 50	< 480	< 500	< 50	< 500	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 48	< 45	< 50	< 50	< 50	< 480	< 500	< 50	< 500	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 24	< 23	170	< 25	< 25	< 240	< 250	< 25	316	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 48	< 45	< 50	< 50	< 50	< 480	< 500	< 50	< 500	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 24	< 23	940	640	< 25	< 240	< 250	< 25	< 250	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	68100	78800	70700	< 39000	< 38000	< 40200	83200	101000	89000	820000
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 580	63000	< 560	< 580	< 570	< 5700	3600	8700	11000	33000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 48	< 45	< 50	< 50	< 50	< 480	< 500	< 50	< 500	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 48	< 45	< 50	< 50	< 50	< 480	< 500	< 50	< 500	< 50
Tetryl	479-45-8	ug/kg	NA	NA	< 48	< 45	< 50	< 50	< 50	< 480	< 500	< 50	< 500	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.65	NA	NA	NA	NA	< 0.6	< 0.68	< 0.477072	< 0.6	0.43	< 0.6
Arsenic	7440-38-2	mg/kg	6.5	5.3	NA	NA	NA	NA	8	5.5	6.2	4.6	10.1	11.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.63	0.64	NA	NA	NA	NA	0.84	0.73	0.48	0.39	0.28	0.64
Cadmium	7440-43-9	mg/kg	0.51	0.52	NA	NA	NA	NA	< 0.3	< 0.34	0.19	0.33	0.05	0.42
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.2	15	NA	NA	NA	NA	27.1	20.7	12.6	11.5	12	19
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	19.2	17.9	NA	NA	NA	NA	20.5	13.3	22.3	17.1	15.2	33.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	9.4	9.4	NA	NA	NA	NA	145	74.4	109	31.3	34.8	60.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.03	NA	NA	NA	NA	< 0	0.02	0.113	0.04	0.033	0.1
Nickel	7440-02-0	mg/kg	10.8	9.8	NA	NA	NA	NA	16.2	13.2	9.2	8.6	6.9	11.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.97	0.94	NA	NA	NA	NA	< 0.5	< 0.56	0.88	0.56	0.68	1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	FD	N	N	N	N
Sample Name			K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N
Parent Sample				K9-4-021N						L10-1-021.5N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.3	< 0.33	NA	NA	NA	NA	< 0.3	< 0.34	< 0.238536	< 0.3	< 0.212339	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1.1	NA	NA	NA	NA	1.5	1.1	< 1.170176	< 1	1.11	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	41.6	41.7	NA	NA	NA	NA	95.2	83.2	84.5	43.2	39	76.1
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	6650	NA	43400	NA	25900	NA	7330	NA	NA	31800	NA	21500
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	6.2	NA	5.4	NA	6.4	NA	10.5	NA	NA	0	NA	3.8
Gravel	ARC-PGRAVEL	%	32.2	NA	40.8	NA	42.4	NA	39.1	NA	NA	45.3	NA	26.7
Sand	ARC-PSAND	%	35.8	NA	31.2	NA	36.2	NA	32.2	NA	NA	45.3	NA	41.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	25.8	NA	22.5	NA	15	NA	18.3	NA	NA	9.4	NA	27.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-2191-02	L10-2191-06	L10-2242-02	L10-2242-03	L10-2316-02	L10-4-02	L10-4-05	L10-6-01	L10-6-05	L10-6-05	L10-725-01	L10-725-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	7/25/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L10-2191-021.5N	L10-2191-061N	L10-2242-021N	L10-2242-031.5N	L10-2316-021N	L10-4-021N	L10-4-051N	L10-6-011N	L10-6-052N	L10-6-052FD	L10-725-011N	L10-725-010.5N
Parent Sample												L10-6-052N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 96
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 190
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 96
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 96
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 96
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 480
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-2191-02	L10-2191-06	L10-2242-02	L10-2242-03	L10-2316-02	L10-4-02	L10-4-05	L10-6-01	L10-6-05	L10-6-05	L10-725-01	L10-725-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	7/25/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L10-2191-021.5N	L10-2191-061N	L10-2242-021N	L10-2242-031.5N	L10-2316-021N	L10-4-021N	L10-4-051N	L10-6-011N	L10-6-052N	L10-6-052FD	L10-725-011N	L10-725-010.5N
Parent Sample												L10-6-052N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 96
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	980	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 83	< 72	< 752.894	< 72	< 690	< 7200	< 78	NA	NA	NA	< 74	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 420	< 360	1350	770	560	< 3600	< 390	NA	NA	NA	130	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 360	63.2	47	< 3500	< 3600	< 390	NA	NA	NA	21	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2-Chlorophenol	95-57-8	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 42	< 36	NA	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 83	< 72	< 752.894	< 72	< 690	< 7200	< 78	NA	NA	NA	< 73	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 83	< 72	< 752.894	< 72	< 690	< 7200	< 78	NA	NA	NA	< 73	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-2191-02	L10-2191-06	L10-2242-02	L10-2242-03	L10-2316-02	L10-4-02	L10-4-05	L10-6-01	L10-6-05	L10-6-05	L10-725-01	L10-725-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	7/25/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L10-2191-021.5N	L10-2191-061N	L10-2242-021N	L10-2242-031.5N	L10-2316-021N	L10-4-021N	L10-4-051N	L10-6-011N	L10-6-052N	L10-6-052FD	L10-725-011N	L10-725-010.5N
Parent Sample												L10-6-052N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 83	< 72	NA	< 72	< 690	< 7200	< 78	NA	NA	NA	< 73	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	72	< 36	< 376.447	< 36	700	< 3600	< 39	NA	NA	NA	37	NA
Acenaphthylene	208-96-8	ug/kg	100	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	45	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	290	< 36	487	< 36	2300	< 3600	64	NA	NA	NA	89	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1400	67	2030	52	6900	< 3600	270	NA	NA	NA	620	NA
Benzo[a]pyrene	50-32-8	ug/kg	1200	68	1910	61	5900	< 3600	230	NA	NA	NA	620	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	1700	91	2640	110	9500	< 3600	310	NA	NA	NA	1100	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	1000	81	1140	< 36	3100	< 3600	140	NA	NA	NA	360	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	590	< 36	1040	< 36	3400	< 3600	97	NA	NA	NA	340	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	1000	34	< 376.447	38	< 350	< 3600	33	NA	NA	NA	42	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	1200	86	1690	88	6500	< 3600	220	NA	NA	NA	800	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 42	< 36	344	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	37	NA
Dimethylphthalate	131-11-3	ug/kg	630	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Di-n-butylphthalate	84-74-2	ug/kg	47000	560	646	660	8700	817	480	NA	NA	NA	1100	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Fluoranthene	206-44-0	ug/kg	2600	190	4440	200	15000	< 3600	550	NA	NA	NA	1300	NA
Fluorene	86-73-7	ug/kg	120	< 36	186	< 36	1200	< 3600	< 39	NA	NA	NA	77	NA
Hexachlorobenzene	118-74-1	ug/kg	< 42	< 36	NA	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Hexachloroethane	67-72-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	920	< 36	1170	< 36	3300	< 3600	130	NA	NA	NA	320	NA
Isophorone	78-59-1	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-2191-02	L10-2191-06	L10-2242-02	L10-2242-03	L10-2316-02	L10-4-02	L10-4-05	L10-6-01	L10-6-05	L10-6-05	L10-725-01	L10-725-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	7/25/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L10-2191-021.5N	L10-2191-061N	L10-2242-021N	L10-2242-031.5N	L10-2316-021N	L10-4-021N	L10-4-051N	L10-6-011N	L10-6-052N	L10-6-052FD	L10-725-011N	L10-725-010.5N
Parent Sample												L10-6-052N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	180	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 350	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	24000	< 36	332	360	2500	< 3600	< 39	NA	NA	NA	100	NA
Pentachlorophenol	87-86-5	ug/kg	< 83	< 72	< 752.894	< 72	< 690	< 7200	< 78	NA	NA	NA	< 73	NA
Phenanthrene	85-01-8	ug/kg	1200	83	1930	100	8900	< 3600	260	NA	NA	NA	910	NA
Phenol	108-95-2	ug/kg	< 42	< 36	< 376.447	< 36	< 350	< 3600	< 39	NA	NA	NA	< 37	NA
Pyrene	129-00-0	ug/kg	3300	240	3030	150	13000	< 3600	580	NA	NA	NA	2300	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-2191-02	L10-2191-06	L10-2242-02	L10-2242-03	L10-2316-02	L10-4-02	L10-4-05	L10-6-01	L10-6-05	L10-6-05	L10-725-01	L10-725-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	7/25/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L10-2191-021.5N	L10-2191-061N	L10-2242-021N	L10-2242-031.5N	L10-2316-021N	L10-4-021N	L10-4-051N	L10-6-011N	L10-6-052N	L10-6-052FD	L10-725-011N	L10-725-010.5N
Parent Sample												L10-6-052N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	< 25	< 250	< 25	NA	< 227	< 24	< 238.1	< 25	< 240	< 25	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	< 25	< 250	< 25	NA	< 227	< 24	< 238.1	< 25	< 240	< 25	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	9800	< 25	< 250	< 25	NA	< 227	< 24	610	< 25	< 240	< 25	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 238	< 250	< 240	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	< 25	< 250	< 25	NA	< 227	< 24	< 238.1	< 25	< 240	< 25	NA
2-Nitrotoluene	88-72-2	ug/kg	< 48	< 50	< 500	< 50	NA	< 455	< 48	< 476.2	< 50	< 480	< 50	NA
3-Nitrotoluene	99-08-1	ug/kg	< 48	< 50	< 500	< 50	NA	< 455	< 48	< 476.2	< 50	< 480	< 50	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	< 25	< 250	< 25	NA	< 227	< 24	< 238.1	< 25	< 240	< 25	NA
4-Nitrotoluene	99-99-0	ug/kg	< 48	< 50	< 500	< 50	NA	< 455	< 48	< 476.2	< 50	< 480	< 50	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 24	< 25	< 250	< 25	NA	< 227	< 24	< 238.1	< 25	< 240	< 25	NA
Nitrocellulose	9004-70-0	ug/kg	23200000	< 37000	40200	89300	NA	181000	44800	39800	45400	< 38500	71400	NA
Nitroglycerin	55-63-0	ug/kg	3900000	< 530	< 5141.916	< 540	NA	< 5140	< 580	< 4850.86	3200	5100	< 550	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	17000	< 50	< 500	< 50	NA	< 455	< 48	< 476.2	< 50	< 480	< 50	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 48	< 50	< 500	< 50	NA	< 455	< 48	< 476.2	< 50	< 480	< 50	NA
Tetryl	479-45-8	ug/kg	< 48	< 50	< 500	< 50	NA	< 455	< 48	< 476.2	< 50	< 480	< 50	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.538677	< 0.6	1.9	< 0.453	< 0.6	NA	NA	NA	0.95	NA
Arsenic	7440-38-2	mg/kg	NA	NA	3.3	4.5	117	4.4	4.7	NA	NA	NA	4.6	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.61	0.49	0.44	0.5	0.52	NA	NA	NA	0.46	NA
Cadmium	7440-43-9	mg/kg	NA	NA	0.12	0.39	0.31	0.702	< 0.3	NA	NA	NA	0.39	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	13.9	14.7	19.4	13.6	22.5	NA	NA	NA	13.9	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	21	269	34.7	25.4	19.5	NA	NA	NA	23.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	10.6	14.4	44.9	55.6	12.1	NA	NA	NA	43.5	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	< 0.037029	0.05	0.07	0.125	< 0	NA	NA	NA	0.08	NA
Nickel	7440-02-0	mg/kg	NA	NA	8.84	7.4	11.9	7.31	12	NA	NA	NA	12.1	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	0.72	0.62	1.1	0.921	< 0.5	NA	NA	NA	0.91	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-2191-02	L10-2191-06	L10-2242-02	L10-2242-03	L10-2316-02	L10-4-02	L10-4-05	L10-6-01	L10-6-05	L10-6-05	L10-725-01	L10-725-01
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	7/25/2000	5/16/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L10-2191-021.5N	L10-2191-061N	L10-2242-021N	L10-2242-031.5N	L10-2316-021N	L10-4-021N	L10-4-051N	L10-6-011N	L10-6-052N	L10-6-052FD	L10-725-011N	L10-725-010.5N
Parent Sample												L10-6-052N		
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	< 0.269339	0.07	< 0.3	< 0.227	< 0.3	NA	NA	NA	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1.06719	< 1	< 1	< 0.755	1.2	NA	NA	NA	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	52.5	112	44.4	77.5	70.9	NA	NA	NA	61.8	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	27200	NA	NA	7520	17300	NA	33000	NA	9230	NA	58100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	37.4	NA	NA	13.5	0	NA	8.4	NA	0	NA	3.4	NA
Gravel	ARC-PGRAVEL	%	9.3	NA	NA	29.7	66.8	NA	24.9	NA	21.7	NA	34.4	NA
Sand	ARC-PSAND	%	11.6	NA	NA	49.8	24.8	NA	50.2	NA	36.6	NA	49.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	41.7	NA	NA	7	8.4	NA	16.5	NA	41.7	NA	13.1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			L10-8210-03 0.0-1.0 ft 5/25/2000 N L10-8210-031N1630	L10-8210-03 0.0-1.0 ft 5/26/2000 N L10-8210-031N810	L10-8215-01 0.0-1.0 ft 8/2/2000 N L10-8215-011N	L10-8215-02 0.0-1.0 ft 5/18/2000 N L10-8215-021N	L10-8521-01 0.0-2.0 ft 5/18/2000 N L10-8521-012N	L10-8521-02 0.0-2.0 ft 5/18/2000 N L10-8521-022N	L10-8521-03 0.0-1.5 ft 5/18/2000 N L10-8521-031.5N	L10-B462-01 0.0-1.3 ft 8/2/2000 N L10-B462-011.25N	L10-B462-03 0.0-1.0 ft 5/18/2000 N L10-B462-031N	L11-1-04 0.0-1.0 ft 5/18/2000 N L11-1-041N	L11-2-01 0.0-1.0 ft 5/25/2000 N L11-2-011N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-8210-03	L10-8210-03	L10-8215-01	L10-8215-02	L10-8521-01	L10-8521-02	L10-8521-03	L10-B462-01	L10-B462-03	L11-1-04	L11-2-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/26/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L10-8210-031N1630	L10-8210-031N810	L10-8215-011N	L10-8215-021N	L10-8521-012N	L10-8521-022N	L10-8521-031.5N	L10-B462-011.25N	L10-B462-031N	L11-1-041N	L11-2-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
2,4-Dinitrophenol	51-28-5	ug/kg	NA	4240	< 784.42	< 75	NA	NA	NA	< 732.44	< 74	< 70	< 78
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	185	733	470	NA	NA	NA	< 366	150	2900	1000
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 392	210	NA	NA	NA	< 366	< 370	440	300
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
2-Chlorophenol	95-57-8	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 37	NA	NA	NA	NA	< 37	< 35	< 39
2-Nitrotoluene	88-72-2	ug/kg	NA	< 400	< 392.21	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 784.42	< 75	NA	NA	NA	< 732.44	< 74	< 70	< 78
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 790	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 790	< 784.42	< 75	NA	NA	NA	< 732.44	< 74	< 70	< 78
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-8210-03	L10-8210-03	L10-8215-01	L10-8215-02	L10-8521-01	L10-8521-02	L10-8521-03	L10-B462-01	L10-B462-03	L11-1-04	L11-2-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/26/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L10-8210-031N1630	L10-8210-031N810	L10-8215-011N	L10-8215-021N	L10-8521-012N	L10-8521-022N	L10-8521-031.5N	L10-B462-011.25N	L10-B462-031N	L11-1-041N	L11-2-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 75	NA	NA	NA	NA	< 74	< 70	< 78
4-Nitrotoluene	99-99-0	ug/kg	NA	< 790	< 784.42	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	28.8	< 392.21	27	NA	NA	NA	< 366.22	< 37	55	66
Acenaphthylene	208-96-8	ug/kg	NA	23.67	< 392.21	15	NA	NA	NA	< 366.22	< 37	< 35	65
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	54.44	< 392.21	64	NA	NA	NA	< 366.22	< 37	430	370
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	358	151	400	NA	NA	NA	< 366.22	100	940	1300
Benzo[a]pyrene	50-32-8	ug/kg	NA	375	149	300	NA	NA	NA	31	87	830	1200
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	639	202	670	NA	NA	NA	< 366.22	160	1200	2000
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	201	87.1	160	NA	NA	NA	< 366.22	< 37	430	890
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	159	113	140	NA	NA	NA	< 366.22	< 37	540	740
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	279	< 392.21	35	NA	NA	NA	42	44	84	< 39
Butylbenzylphthalate	85-68-7	ug/kg	NA	497	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	444	145	400	NA	NA	NA	< 366.22	110	770	1300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	260
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 400	< 392.21	53	NA	NA	NA	< 366.22	< 37	1200	71
Dimethylphthalate	131-11-3	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Di-n-butylphthalate	84-74-2	ug/kg	NA	758	1610	1200	NA	NA	NA	130	1900	2900	< 39
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	48	< 37	< 35	< 39
Fluoranthene	206-44-0	ug/kg	NA	637	324	580	NA	NA	NA	< 366.22	240	1600	2400
Fluorene	86-73-7	ug/kg	NA	41.82	< 392.21	34	NA	NA	NA	< 366.22	< 37	92	130
Hexachlorobenzene	118-74-1	ug/kg	NA	< 400	NA	< 37	NA	NA	NA	NA	< 37	< 35	< 39
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Hexachloroethane	67-72-1	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	189	85.1	170	NA	NA	NA	< 366.22	< 37	420	890
Isophorone	78-59-1	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-8210-03	L10-8210-03	L10-8215-01	L10-8215-02	L10-8521-01	L10-8521-02	L10-8521-03	L10-B462-01	L10-B462-03	L11-1-04	L11-2-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/26/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L10-8210-031N1630	L10-8210-031N810	L10-8215-011N	L10-8215-021N	L10-8521-012N	L10-8521-022N	L10-8521-031.5N	L10-B462-011.25N	L10-B462-031N	L11-1-041N	L11-2-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	< 392.21	36	NA	NA	NA	< 366.22	< 37	< 35	29
Nitrobenzene	98-95-3	ug/kg	NA	< 400	< 392.21	NA	NA	NA	NA	NA	NA	NA	< 39
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	583	223	140	NA	NA	NA	< 366.22	720	1700	2500
Pentachlorophenol	87-86-5	ug/kg	NA	< 790	< 784.42	< 75	NA	NA	NA	< 732.44	< 74	< 70	< 78
Phenanthrene	85-01-8	ug/kg	NA	509	124	350	NA	NA	NA	< 366.22	110	690	1500
Phenol	108-95-2	ug/kg	NA	< 400	< 392.21	< 37	NA	NA	NA	< 366.22	< 37	< 35	< 39
Pyrene	129-00-0	ug/kg	NA	1710	231	690	NA	NA	NA	< 366.22	210	2400	2200
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	< 2	< 2	< 2	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	< 4	< 4	< 4	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	< 40	< 43	< 42	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-8210-03	L10-8210-03	L10-8215-01	L10-8215-02	L10-8521-01	L10-8521-02	L10-8521-03	L10-B462-01	L10-B462-03	L11-1-04	L11-2-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/26/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L10-8210-031N1630	L10-8210-031N810	L10-8215-011N	L10-8215-021N	L10-8521-012N	L10-8521-022N	L10-8521-031.5N	L10-B462-011.25N	L10-B462-031N	L11-1-041N	L11-2-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 200	< 25	< 24	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 200	< 25	< 24	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 200	< 25	< 24	NA
2,4-Dinitrophenol	51-28-5	ug/kg	14800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 200	< 25	< 24	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 400	< 50	< 48	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 400	< 50	< 48	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 200	< 25	< 24	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 400	< 50	< 48	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	NA	< 25	NA	NA	NA	< 200	< 25	< 24	NA
Nitrocellulose	9004-70-0	ug/kg	NA	852000	NA	60900	NA	NA	NA	56300	136000	96200	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 5800	NA	< 560	NA	NA	NA	< 5359.315	7500	24000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 400	< 50	< 48	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 400	< 50	< 48	NA
Tetryl	479-45-8	ug/kg	< 500	NA	NA	< 50	NA	NA	NA	< 400	< 50	< 48	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.664	< 0.490427	< 0.6	NA	NA	NA	< 0.41987	< 0.6	NA	NA
Arsenic	7440-38-2	mg/kg	NA	13.9	3.6	16.2	NA	NA	NA	9.23	4.6	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.573	0.385	0.3	NA	NA	NA	0.444	0.51	NA	NA
Cadmium	7440-43-9	mg/kg	NA	0.733	< 0.245213	0.21	NA	NA	NA	0.377	0.47	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	20.9	10	22	NA	NA	NA	15.4	18.2	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	38.8	21.9	23.5	NA	NA	NA	55.1	38	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	177	31.4	32.3	NA	NA	NA	17.4	32.2	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.579	0.035	0.04	NA	NA	NA	0.043	0.11	NA	NA
Nickel	7440-02-0	mg/kg	NA	14.3	7.77	7.8	NA	NA	NA	9.13	10.6	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.799	0.75	0.69	NA	NA	NA	0.322	0.82	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L10-8210-03	L10-8210-03	L10-8215-01	L10-8215-02	L10-8521-01	L10-8521-02	L10-8521-03	L10-B462-01	L10-B462-03	L11-1-04	L11-2-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/25/2000	5/26/2000	8/2/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L10-8210-031N1630	L10-8210-031N810	L10-8215-011N	L10-8215-021N	L10-8521-012N	L10-8521-022N	L10-8521-031.5N	L10-B462-011.25N	L10-B462-031N	L11-1-041N	L11-2-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	< 0.332	< 0.245213	< 0.3	NA	NA	NA	< 0.209935	< 0.3	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	0.751	0.68	< 1	NA	NA	NA	< 0.699783	< 1	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	368	44.1	40.6	NA	NA	NA	262	109	NA	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	37800	NA	17100	21300	NA	NA	NA	20800	8870	80000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	13.8	15.6	NA	NA	NA	8	10.7	7.5
Gravel	ARC-PGRAVEL	%	NA	NA	NA	28.3	38.1	NA	NA	NA	28.6	29.8	50.7
Sand	ARC-PSAND	%	NA	NA	NA	45	20.3	NA	NA	NA	50.5	45.5	30
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	12.9	26	NA	NA	NA	12.8	14.1	11.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L5-10-06
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5N	L11-2226-021.5FD	L11-2303-031N	L5-10-062N
Parent Sample											L11-2226-021.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L5-10-06
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5N	L11-2226-021.5FD	L11-2303-031N	L5-10-062N
Parent Sample											L11-2226-021.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 74	< 72	< 74	< 76	< 85	< 74	< 70	< 700	< 71	< 97
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	560	760	140	740	< 430	< 370	< 350	< 350	970	680
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	300	380	98	430	< 430	< 370	< 350	< 350	930	32
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2-Chlorophenol	95-57-8	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 74	< 72	< 74	< 76	< 85	< 74	< 70	< 700	< 71	< 97
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 74	< 72	< 74	< 76	< 85	< 74	< 70	< 700	< 71	< 97
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L5-10-06
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5N	L11-2226-021.5FD	L11-2303-031N	L5-10-062N
Parent Sample											L11-2226-021.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 74	< 72	< 74	< 76	< 85	< 74	< 70	< 700	< 71	< 97
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	27	25	< 37	58	< 43	< 37	78	120	< 35	< 48
Acenaphthylene	208-96-8	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	21	< 35	< 350	< 35	< 48
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	92	120	34	230	< 43	30	330	450	82	< 48
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	260	840	180	960	< 43	100	1600	1800	210	< 48
Benzo[a]pyrene	50-32-8	ug/kg	NA	250	810	170	920	< 43	150	1600	1700	180	< 48
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	340	1300	290	1500	< 43	330	1900	2600	250	< 48
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 37	440	< 37	360	< 43	130	600	590	81	< 48
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	240	460	140	640	< 43	130	1400	870	140	< 48
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	44	95	37	43	41	94	27	22	35	88
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	230	650	190	810	< 43	140	1200	1400	190	< 48
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 37	140	< 37	120	< 43	< 37	< 35	< 350	< 35	< 48
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	550	920	230	700	< 43	200	220	< 350	110	43
Dimethylphthalate	131-11-3	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Di-n-butylphthalate	84-74-2	ug/kg	NA	910	1300	< 37	< 38	4900	5300	< 35	< 35	790	390
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Fluoranthene	206-44-0	ug/kg	NA	570	1000	370	1700	< 43	180	2600	3000	420	< 48
Fluorene	86-73-7	ug/kg	NA	49	37	< 37	70	< 43	< 37	83	140	25	< 48
Hexachlorobenzene	118-74-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Hexachloroethane	67-72-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	81	430	< 37	370	< 43	120	610	620	79	< 48
Isophorone	78-59-1	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L5-10-06
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5N	L11-2226-021.5FD	L11-2303-031N	L5-10-062N
Parent Sample											L11-2226-021.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 37	< 38	NA	NA	< 35	< 350	NA	< 48
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	1500	590	95	90	180	490	< 35	200	380	< 48
Pentachlorophenol	87-86-5	ug/kg	NA	< 74	< 72	< 74	< 76	< 85	< 74	< 70	< 700	< 71	< 97
Phenanthrene	85-01-8	ug/kg	NA	370	330	150	560	< 43	47	790	1300	280	< 48
Phenol	108-95-2	ug/kg	NA	< 37	< 36	< 37	< 38	< 43	< 37	< 35	< 350	< 35	< 48
Pyrene	129-00-0	ug/kg	NA	490	2100	390	1800	< 43	160	2900	3400	340	< 48
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			L11-2-01 0.5-1.0 ft 5/25/2000 N L11-2-010.5N	L11-2089-01 0.0-1.0 ft 5/18/2000 N L11-2089-011N	L11-2089-05 0.0-1.0 ft 5/18/2000 N L11-2089-051N	L11-2091-02 0.0-0.5 ft 5/18/2000 N L11-2091-020.5N	L11-2091-05 0.0-1.0 ft 5/18/2000 N L11-2091-051N	L11-2225-02 0.0-1.5 ft 5/25/2000 N L11-2225-021.5N	L11-2225-05 0.0-1.0 ft 5/25/2000 N L11-2225-051N	L11-2226-02 0.0-1.5 ft 5/18/2000 N L11-2226-021.5N	L11-2226-02 0.0-1.5 ft 5/18/2000 FD L11-2226-021.5FD L11-2226-021.5N	L11-2303-03 0.0-1.0 ft 5/18/2000 N L11-2303-031N	L5-10-06 0.0-2.0 ft 4/6/2000 N L5-10-062N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	< 25	NA	NA	< 25	< 25	NA	NA	< 25	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	< 25	NA	NA	< 25	< 25	NA	NA	< 25	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	< 25	NA	NA	1700	< 25	NA	NA	< 25	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	< 25	NA	NA	< 25	< 25	NA	NA	< 25	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	< 50	NA	NA	< 50	< 50	NA	NA	< 50	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	< 50	NA	NA	< 50	< 50	NA	NA	< 50	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	< 25	NA	NA	< 25	< 25	NA	NA	< 25	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	< 50	NA	NA	< 50	< 50	NA	NA	< 50	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	< 25	NA	NA	< 25	210	NA	NA	< 25	NA
Nitrocellulose	9004-70-0	ug/kg	NA	80700	108000	NA	NA	433000	128000	NA	NA	< 36000	NA
Nitroglycerin	55-63-0	ug/kg	NA	27000	2800	NA	NA	< 640	< 540	NA	NA	11000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	< 50	NA	NA	< 50	< 50	NA	NA	< 50	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	< 50	NA	NA	< 50	< 50	NA	NA	< 50	NA
Tetryl	479-45-8	ug/kg	NA	< 50	< 50	NA	NA	350	< 50	NA	NA	< 50	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	0.52	< 0.5	< 0.6	< 0.6	< 0.7	< 0.6	< 0.6	< 0.62	< 0.6	1.2
Arsenic	7440-38-2	mg/kg	NA	6.6	8.6	5.2	6.1	33.4	3.9	3	3.9	3.6	4.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.48	0.27	0.41	0.5	0.45	0.47	0.17	0.14	0.81	0.18
Cadmium	7440-43-9	mg/kg	NA	0.29	0.28	0.32	0.36	0.61	0.5	0.16	0.16	0.39	0.8
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	16.2	16.6	14.7	21	35.3	11	4.4	3.9	23.1	11.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	27.5	23.8	18.8	24.6	16.6	16.1	6.4	8.3	40.6	38.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	17.4	13.5	16.3	16.2	24.3	17.4	3.4	4.6	16.9	369
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.05	0.05	0.05	0.04	0.03	0.04	< 0	0.02	0.03	0.13
Nickel	7440-02-0	mg/kg	NA	9.1	6.8	8.6	9.4	10.6	7.6	2.3	1.9	11.4	3.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.49	< 0.4	0.45	0.82	0.67	0.68	< 0.5	< 0.51	0.94	< 0.6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05	L11-2225-02	L11-2225-05	L11-2226-02	L11-2226-02	L11-2303-03	L5-10-06
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N
Sample Name			L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N	L11-2225-021.5N	L11-2225-051N	L11-2226-021.5N	L11-2226-021.5FD	L11-2303-031N	L5-10-062N
Parent Sample											L11-2226-021.5N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	< 0.3	< 0.2	< 0.3	< 0.3	0.1	< 0.3	< 0.3	< 0.31	< 0.3	< 0.4
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	< 0.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	69.5	61.2	83.5	74.7	241	57.5	10.7	14.3	47.3	361
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	7330	NA	NA	7740	11200	NA	4950	NA	9130	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	1.9	NA	NA	7.7	0	NA	4.5	NA	9.4	NA
Gravel	ARC-PGRAVEL	%	NA	40.8	NA	NA	31.6	34.5	NA	14.2	NA	38.1	NA
Sand	ARC-PSAND	%	NA	44.3	NA	NA	48.4	53	NA	74.5	NA	38.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	13	NA	NA	12.3	12.6	NA	6.9	NA	13.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L5-1-01	L5-1-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02	L5-6-03	L5-6-05	L5-6-10	L5-7-01	L5-8-05	L5-8318-02	L5-8318-02	L6-1-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			7/14/2000	7/14/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/14/2000	4/18/2000	4/11/2000	4/11/2000	4/7/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N	FD	N
Sample Name			L5-1-011.5N	L5-1-011.5FD	L5-1-010.5N	L5-1-010.5FD	L5-4-021N	L5-6-021N	L5-6-032N	L5-6-052N	L5-6-101.5N	L5-7-011.5N	L5-8-052N	L5-8318-022N	L5-8318-022FD	L6-1-011.5N
Parent Sample				L5-1-011.5N		L5-1-010.5N									L5-8318-022N	
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 525	181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 525	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 525	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 1050.42	< 886	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2100.84	< 1773	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	< 1050.42	< 886	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	< 1050.42	< 886	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 525	209	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L5-1-01	L5-1-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02	L5-6-03	L5-6-05	L5-6-10	L5-7-01	L5-8-05	L5-8318-02	L5-8318-02	L6-1-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			7/14/2000	7/14/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/14/2000	4/18/2000	4/11/2000	4/11/2000	4/7/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N	FD	N
Sample Name			L5-1-011.5N	L5-1-011.5FD	L5-1-010.5N	L5-1-010.5FD	L5-4-021N	L5-6-021N	L5-6-032N	L5-6-052N	L5-6-101.5N	L5-7-011.5N	L5-8-052N	L5-8318-022N	L5-8318-022FD	L6-1-011.5N
Parent Sample				L5-1-011.5N		L5-1-010.5N									L5-8318-022N	
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds (cont.)																
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	1460	957	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 525.21	< 443	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 1050.42	< 886	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
1,4-Dichlorobenzene	106-46-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2,4-Dichlorophenol	120-83-2	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2,4-Dimethylphenol	105-67-9	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2,4-Dinitrophenol	51-28-5	ug/kg	< 744.8	< 739	NA	NA	< 78	< 190	NA	< 190	< 200	NA	< 89	< 220	< 2000	< 81
2,4-Dinitrotoluene	121-14-2	ug/kg	222	225	NA	NA	1100	3000	NA	2100	240	NA	< 440	93	120	76
2,6-Dinitrotoluene	606-20-2	ug/kg	96.45	209	NA	NA	410	2200	NA	650	120	NA	< 440	< 430	57	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2-Chlorophenol	95-57-8	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 744.8	< 739	NA	NA	< 78	< 76	NA	< 76	< 78	NA	< 89	< 87	< 790	< 81
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 744.8	< 739	NA	NA	< 78	< 190	NA	< 190	< 200	NA	< 89	< 220	< 2000	< 81
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L5-1-01	L5-1-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02	L5-6-03	L5-6-05	L5-6-10	L5-7-01	L5-8-05	L5-8318-02	L5-8318-02	L6-1-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			7/14/2000	7/14/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/14/2000	4/18/2000	4/11/2000	4/11/2000	4/7/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N	FD	N
Sample Name			L5-1-011.5N	L5-1-011.5FD	L5-1-010.5N	L5-1-010.5FD	L5-4-021N	L5-6-021N	L5-6-032N	L5-6-052N	L5-6-101.5N	L5-7-011.5N	L5-8-052N	L5-8318-022N	L5-8318-022FD	L6-1-011.5N
Parent Sample				L5-1-011.5N		L5-1-010.5N									L5-8318-022N	
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 78	< 190	NA	< 190	< 200	NA	< 89	< 220	< 2000	< 81
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Acenaphthylene	208-96-8	ug/kg	< 372.4	39.56	NA	NA	< 39	< 38	NA	28	< 39	NA	< 44	< 43	< 400	50
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	29	95
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	264	288	NA	NA	53	110	NA	160	78	NA	< 44	58	150	240
Benzo[a]pyrene	50-32-8	ug/kg	226	220	NA	NA	55	100	NA	140	71	NA	< 44	< 43	120	150
Benzo[b]fluoranthene	205-99-2	ug/kg	344	347	NA	NA	130	160	NA	190	94	NA	< 44	< 43	170	540
Benzo[g,h,i]perylene	191-24-2	ug/kg	129	122	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	160
Benzo[k]fluoranthene	207-08-9	ug/kg	99.06	118	NA	NA	< 39	< 38	NA	110	< 39	NA	< 44	< 43	< 400	170
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 372.4	69.14	NA	NA	23	59	NA	36	54	NA	< 44	44	23	36
Butylbenzylphthalate	85-68-7	ug/kg	< 372.4	< 370	< 1050	< 886	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	256	255	NA	NA	97	130	NA	210	78	NA	< 44	42	130	370
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 372.4	< 370	NA	NA	73	160	NA	< 38	< 39	NA	30	< 43	< 400	< 41
Dimethylphthalate	131-11-3	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Di-n-butylphthalate	84-74-2	ug/kg	203	183	NA	NA	1200	1500	NA	1300	250	NA	< 44	170	190	73
Di-n-octylphthalate	117-84-0	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Fluoranthene	206-44-0	ug/kg	514	543	NA	NA	140	150	NA	390	150	NA	< 44	98	280	440
Fluorene	86-73-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Hexachlorobutadiene	87-68-3	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Hexachloroethane	67-72-1	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	127	125	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	140
Isophorone	78-59-1	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L5-1-01	L5-1-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02	L5-6-03	L5-6-05	L5-6-10	L5-7-01	L5-8-05	L5-8318-02	L5-8318-02	L6-1-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			7/14/2000	7/14/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/14/2000	4/18/2000	4/11/2000	4/11/2000	4/7/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N	FD	N
Sample Name			L5-1-011.5N	L5-1-011.5FD	L5-1-010.5N	L5-1-010.5FD	L5-4-021N	L5-6-021N	L5-6-032N	L5-6-052N	L5-6-101.5N	L5-7-011.5N	L5-8-052N	L5-8318-022N	L5-8318-022FD	L6-1-011.5N
Parent Sample				L5-1-011.5N		L5-1-010.5N									L5-8318-022N	
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
Naphthalene	91-20-3	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	33
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 38	NA	< 38	< 39	NA	< 44	NA	NA	< 41
N-Nitrosodimethylamine	62-75-9	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 372.4	< 370	NA	NA	100	240	NA	200	< 39	NA	< 44	< 43	< 400	170
Pentachlorophenol	87-86-5	ug/kg	< 744.8	< 739	NA	NA	< 78	< 190	NA	< 190	< 200	NA	< 89	< 220	< 2000	< 81
Phenanthrene	85-01-8	ug/kg	204	202	NA	NA	69	93	NA	240	80	NA	< 44	61	150	130
Phenol	108-95-2	ug/kg	< 372.4	< 370	NA	NA	< 39	< 38	NA	< 38	< 39	NA	< 44	< 43	< 400	< 41
Pyrene	129-00-0	ug/kg	303	318	NA	NA	100	200	NA	360	130	NA	< 44	< 43	250	540
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls																
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L5-1-01	L5-1-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02	L5-6-03	L5-6-05	L5-6-10	L5-7-01	L5-8-05	L5-8318-02	L5-8318-02	L6-1-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			7/14/2000	7/14/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/14/2000	4/18/2000	4/11/2000	4/11/2000	4/7/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N	FD	N
Sample Name			L5-1-011.5N	L5-1-011.5FD	L5-1-010.5N	L5-1-010.5FD	L5-4-021N	L5-6-021N	L5-6-032N	L5-6-052N	L5-6-101.5N	L5-7-011.5N	L5-8-052N	L5-8318-022N	L5-8318-022FD	L6-1-011.5N
Parent Sample				L5-1-011.5N		L5-1-010.5N									L5-8318-022N	
CONSTITUENT	***CAS NO.***	***UNITS***														
Explosives and Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 250	NA	NA	< 25	NA	< 25	NA	NA	NA	NA	< 23	< 220	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 250	NA	NA	< 25	NA	< 25	NA	NA	NA	NA	< 23	< 220	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	212	357	NA	NA	3300	NA	2700	NA	NA	NA	NA	< 23	290	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 250	NA	NA	1300	NA	300	NA	NA	NA	NA	< 23	< 220	NA
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 500	NA	NA	< 50	NA	< 50	NA	NA	NA	NA	< 45	< 430	NA
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 500	NA	NA	< 50	NA	< 50	NA	NA	NA	NA	< 45	< 430	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	130	< 250	NA	NA	1000	NA	390	NA	NA	NA	NA	< 23	170	NA
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 500	NA	NA	< 50	NA	< 50	NA	NA	NA	NA	< 45	< 430	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	< 250	NA	NA	150	NA	< 25	NA	NA	NA	NA	< 23	< 220	NA
Nitrocellulose	9004-70-0	ug/kg	49300	51200	NA	NA	131000	NA	686000	NA	NA	NA	NA	68900	97300	NA
Nitroglycerin	55-63-0	ug/kg	4360	< 5416	NA	NA	< 590	NA	< 530	NA	NA	NA	NA	< 630	< 5900	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	< 500	NA	NA	< 50	NA	< 50	NA	NA	NA	NA	< 45	< 430	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 500	NA	NA	720	NA	1400	NA	NA	NA	NA	< 45	< 430	NA
Tetryl	479-45-8	ug/kg	< 500	< 500	NA	NA	< 50	NA	< 50	NA	NA	NA	NA	< 45	< 430	NA
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.664347	< 0.623	NA	NA	< 1	< 0.6	NA	< 0.5	< 0.6	< 0.7	< 0.7	< 0.7	< 0.67	0.49
Arsenic	7440-38-2	mg/kg	6.97	7.26	NA	NA	3.8	2.5	NA	2.2	2.5	3.2	4.7	5.2	6.1	57.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.6	0.557	NA	NA	0.33	0.3	NA	0.26	0.38	0.52	0.81	0.73	0.56	0.36
Cadmium	7440-43-9	mg/kg	0.249	0.235	NA	NA	< 0.6	0.26	NA	< 0.2	< 0.3	0.48	0.56	0.44	0.25	< 0.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.7	17	NA	NA	7.8	8.9	NA	7.2	12.1	15	14.2	17.4	15.3	11.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	259	264	NA	NA	4090	983	NA	1000	527	274	427	211	166	34.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	809	993	NA	NA	1590	2260	NA	2630	1490	518	1710	625	923	156
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.87	1.29	NA	NA	3.5	3.5	NA	6.2	3.1	0.59	8.8	1.1	1.3	0.26
Nickel	7440-02-0	mg/kg	10.5	8.86	NA	NA	4.6	5.5	NA	3.9	5	9.1	8.5	9.8	8.3	8.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.02	2.01	NA	NA	2.7	2.7	NA	0.88	1.4	0.81	0.89	1.4	0.45	0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L5-1-01	L5-1-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02	L5-6-03	L5-6-05	L5-6-10	L5-7-01	L5-8-05	L5-8318-02	L5-8318-02	L6-1-01
Depths			0.0-1.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			7/14/2000	7/14/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/14/2000	4/18/2000	4/11/2000	4/11/2000	4/7/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N	N	FD	N
Sample Name			L5-1-011.5N	L5-1-011.5FD	L5-1-010.5N	L5-1-010.5FD	L5-4-021N	L5-6-021N	L5-6-032N	L5-6-052N	L5-6-101.5N	L5-7-011.5N	L5-8-052N	L5-8318-022N	L5-8318-022FD	L6-1-011.5N
Parent Sample				L5-1-011.5N		L5-1-010.5N									L5-8318-022N	
CONSTITUENT	***CAS NO.***	***UNITS***														
Metals (cont.)																
Silver	7440-22-4	mg/kg	< 0.332174	< 0.311	NA	NA	0.49	< 0.3	NA	< 0.2	< 0.3	< 0.3	< 0.3	< 0.3	< 0.33	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.107246	< 1.04	NA	NA	< 2	< 1	NA	< 0.9	< 1	< 1	< 1	< 1	< 1.1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	162	145	NA	NA	165	173	NA	42	70.3	120	101	147	117	97.4
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	26400	NA	NA	NA	18900	12000	NA	NA	NA	13200	33600	20200	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution																
Clay	ARC-PCLAY	%	NA	NA	NA	NA	6.7	0	NA	NA	NA	14.4	6.5	0	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	29.8	14	NA	NA	NA	19.9	25.9	32.1	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	48.8	68.4	NA	NA	NA	43.3	32.2	52.7	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	94.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	83.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	90.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	37.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	20.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	54.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	28.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	14.7	17.6	NA	NA	NA	22.4	35.3	15.3	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N
Parent Sample												L6-370-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N
Parent Sample												L6-370-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2,4-Dichlorophenol	120-83-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2,4-Dimethylphenol	105-67-9	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	< 84	< 73	NA	NA	NA	NA	< 723	< 79	< 754	< 756	< 81	< 190	< 740
2,4-Dinitrotoluene	121-14-2	ug/kg	< 420	< 370	NA	NA	NA	NA	< 361	< 390	< 377	< 378	< 400	< 390	< 370
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 370	NA	NA	NA	NA	< 361	< 390	< 377	< 378	< 400	< 390	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2-Chlorophenol	95-57-8	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 84	< 73	NA	NA	NA	NA	< 723	< 79	< 754	< 756	< 81	< 78	< 740
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 84	< 73	NA	NA	NA	NA	< 723	< 79	< 754	< 756	< 81	< 190	< 740
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N
Parent Sample												L6-370-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 84	< 73	NA	NA	NA	NA	< 723	< 79	< 754	< 756	< 81	< 190	< 740
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 42	84	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	54.7
Acenaphthylene	208-96-8	ug/kg	< 42	31	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	902
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	27	< 37	NA	NA	NA	NA	< 361	< 39	93.8	76.4	< 40	26	831
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	931	765	< 40	210	4970
Benzo[a]pyrene	50-32-8	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	27	688	565	< 40	180	4640
Benzo[b]fluoranthene	205-99-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	1070	915	< 40	200	5910
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	453	361	< 40	93	3340
Benzo[k]fluoranthene	207-08-9	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	403	258	< 40	100	1700
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 42	500	NA	NA	NA	NA	39.7	32	< 377	< 378	< 40	22	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	755	659	< 40	160	4270
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	38	< 370
Dimethylphthalate	131-11-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Di-n-butylphthalate	84-74-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	45	< 377	< 378	< 40	< 39	< 370
Di-n-octylphthalate	117-84-0	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Fluoranthene	206-44-0	ug/kg	100	190	NA	NA	NA	NA	< 361	74	1710	1440	< 40	330	14500
Fluorene	86-73-7	ug/kg	< 42	69	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	156
Hexachlorobenzene	118-74-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Hexachlorobutadiene	87-68-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
Hexachloroethane	67-72-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	211
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	445	358	< 40	89	2910
Isophorone	78-59-1	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N
Parent Sample												L6-370-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	66	240	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	52.2
Nitrobenzene	98-95-3	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	25.6	228	< 40	< 39	< 370
Pentachlorophenol	87-86-5	ug/kg	< 84	< 73	NA	NA	NA	NA	< 723	< 79	< 754	< 756	< 81	< 190	< 740
Phenanthrene	85-01-8	ug/kg	100	300	NA	NA	NA	NA	44.4	39	367	467	< 40	86	3260
Phenol	108-95-2	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	< 377	< 378	< 40	< 39	36.3
Pyrene	129-00-0	ug/kg	< 42	< 37	NA	NA	NA	NA	< 361	< 39	984	1000	< 40	370	5890
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N
Parent Sample												L6-370-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 25	< 25	< 25	< 25	NA	NA	< 250	< 249	< 25	< 24	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 25	< 25	< 25	< 25	NA	NA	< 250	< 249	< 25	< 24	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 25	1500	140	740	NA	NA	< 250	< 249	< 25	< 24	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 250	< 250	< 250	< 250	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 25	< 25	< 25	< 25	NA	NA	< 250	< 249	< 25	< 24	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 50	< 50	< 50	< 50	NA	NA	< 500	< 498	< 50	< 48	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 50	< 50	< 50	< 50	NA	NA	< 500	< 498	< 50	< 48	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 25	< 25	< 25	< 25	NA	NA	< 250	< 249	< 25	< 24	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 50	< 50	< 50	< 50	NA	NA	< 500	< 498	< 50	< 48	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 25	< 25	< 25	< 25	NA	NA	< 250	< 249	< 25	< 24	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 37000	1780000	< 37000	1120000	NA	NA	1140000	111000	< 42000	< 40000	36600
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 570	160000	9400	210000	NA	NA	4580	5350	< 600	< 550	< 4730
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 50	< 50	< 50	< 50	NA	NA	< 500	< 498	< 50	< 48	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 50	< 50	< 50	< 50	NA	NA	< 500	< 498	< 50	< 48	< 500
Tetryl	479-45-8	ug/kg	NA	NA	< 50	< 50	< 50	< 50	NA	NA	< 500	< 498	< 50	< 48	< 500
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.42	< 6	NA	NA	NA	NA	< 0.583	< 0.7	< 0.556	< 0.594	< 0.4	< 0.6	< 0.577
Arsenic	7440-38-2	mg/kg	14.5	35.9	NA	NA	NA	NA	3.65	3.8	3.9	3.95	3.3	4.5	2.83
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.17	0.32	NA	NA	NA	NA	0.568	0.48	0.632	0.617	0.49	0.65	0.542
Cadmium	7440-43-9	mg/kg	< 0.3	< 3	NA	NA	NA	NA	0.418	< 0.3	1.16	1.54	0.28	0.27	0.372
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.1	88.9	NA	NA	NA	NA	11.5	9.7	12.9	13.5	12.9	16.5	11.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	262	82.2	NA	NA	NA	NA	14.2	14	94.6	93.6	14.1	16.3	12.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	74.9	54.9	NA	NA	NA	NA	75.8	39.2	450	604	15	35.4	7.83
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	4.8	20.4	NA	NA	NA	NA	0.118	0.14	1.49	1.09	0.05	0.05	0.042
Nickel	7440-02-0	mg/kg	8.4	42.2	NA	NA	NA	NA	7.08	6.1	8.94	8.47	8.1	10.8	6.89
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	4.1	4.1	NA	NA	NA	NA	0.957	0.42	1.1	0.884	0.64	0.51	0.765

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N
Parent Sample												L6-370-031.5N			
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.3	< 3	NA	NA	NA	NA	< 0.291	< 0.3	0.204	< 0.297	< 0.2	< 0.3	< 0.288
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	9.3	NA	NA	NA	NA	< 0.971	< 1	< 0.926	< 0.99	< 0.8	< 1	< 0.962
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	88.6	48.9	NA	NA	NA	NA	60.5	50.7	400	555	60.3	82.2	43.7
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	47700	6960	NA	40100	NA	NA	36300	NA	NA	10600	18100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	10	10.8	NA	0	NA	NA	5.7	NA	NA	6.9	3.6	NA
Gravel	ARC-PGRAVEL	%	NA	4.6	29.1	NA	16.3	NA	NA	14.7	NA	NA	20.4	30	NA
Sand	ARC-PSAND	%	NA	79	41.7	NA	77.7	NA	NA	64.3	NA	NA	47.2	41.7	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	6.4	18.4	NA	6	NA	NA	15.4	NA	NA	25.5	24.7	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-4-02	L6-4-03	L6-5-01	L6-5-02	L6-9-01	L7-1-01	L7-1-03	L7-2-02	L7-2-02	L7-2130-01	L7-2130-01	L7-2130-06	L7-2131-04
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/18/2000	7/7/2000	4/18/2000	7/7/2000	4/11/2000	8/2/2000	5/23/2000	5/9/2000	5/9/2000	5/11/2000	5/11/2000	5/11/2000	5/2/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			L6-4-021N	L6-4-031.5N	L6-5-011.5N	L6-5-021.25N	L6-9-011N	L7-1-011.5N	L7-1-031.5N	L7-2-022N	L7-2-022FD	L7-2130-012N	L7-2130-012FD	L7-2130-061N	L7-2131-041N
Parent Sample											L7-2-022N		L7-2130-012N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-4-02	L6-4-03	L6-5-01	L6-5-02	L6-9-01	L7-1-01	L7-1-03	L7-2-02	L7-2-02	L7-2130-01	L7-2130-01	L7-2130-06	L7-2131-04
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/18/2000	7/7/2000	4/18/2000	7/7/2000	4/11/2000	8/2/2000	5/23/2000	5/9/2000	5/9/2000	5/11/2000	5/11/2000	5/11/2000	5/2/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			L6-4-021N	L6-4-031.5N	L6-5-011.5N	L6-5-021.25N	L6-9-011N	L7-1-011.5N	L7-1-031.5N	L7-2-022N	L7-2-022FD	L7-2130-012N	L7-2130-012FD	L7-2130-061N	L7-2131-041N
Parent Sample											L7-2-022N		L7-2130-012N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 83	< 763.474	< 78	< 776.198	< 240	< 861.548	< 89	< 77	< 800	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 420	< 382	< 390	< 388	290	< 430	< 440	< 380	< 400	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	< 382	< 390	< 388	130	< 430	< 440	< 380	< 400	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 42	NA	< 39	NA	< 48	NA	< 44	< 38	< 400	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 381.737	NA	NA	NA	< 430.774	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 83	< 763.474	< 78	< 776.198	< 97	< 861.548	< 89	< 77	< 800	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 83	< 763.474	< 78	< 776.198	< 240	< 861.548	< 89	< 77	< 800	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-4-02	L6-4-03	L6-5-01	L6-5-02	L6-9-01	L7-1-01	L7-1-03	L7-2-02	L7-2-02	L7-2130-01	L7-2130-01	L7-2130-06	L7-2131-04
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/18/2000	7/7/2000	4/18/2000	7/7/2000	4/11/2000	8/2/2000	5/23/2000	5/9/2000	5/9/2000	5/11/2000	5/11/2000	5/11/2000	5/2/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			L6-4-021N	L6-4-031.5N	L6-5-011.5N	L6-5-021.25N	L6-9-011N	L7-1-011.5N	L7-1-031.5N	L7-2-022N	L7-2-022FD	L7-2130-012N	L7-2130-012FD	L7-2130-061N	L7-2131-041N
Parent Sample											L7-2-022N		L7-2130-012N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 83	NA	< 78	NA	< 240	NA	< 89	< 77	< 800	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 763.474	NA	NA	NA	< 861.548	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 42	< 381.737	< 39	< 388.099	100	< 430.774	37	< 38	< 400	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 42	< 381.737	< 39	< 388.099	99	52	< 44	< 38	< 400	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	21	< 381.737	< 39	< 388.099	170	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	31	< 381.737	26	< 388.099	76	< 430.774	40	19	< 400	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 42	< 381.737	< 39	< 388.099	120	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 42	< 381.737	< 39	< 388.099	43	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 42	140	35	< 388.099	410	< 430.774	83	< 38	< 400	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	< 42	< 381.737	< 39	< 388.099	190	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 42	NA	< 39	NA	< 48	NA	< 44	< 38	< 400	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-4-02	L6-4-03	L6-5-01	L6-5-02	L6-9-01	L7-1-01	L7-1-03	L7-2-02	L7-2-02	L7-2130-01	L7-2130-01	L7-2130-06	L7-2131-04
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/18/2000	7/7/2000	4/18/2000	7/7/2000	4/11/2000	8/2/2000	5/23/2000	5/9/2000	5/9/2000	5/11/2000	5/11/2000	5/11/2000	5/2/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			L6-4-021N	L6-4-031.5N	L6-5-011.5N	L6-5-021.25N	L6-9-011N	L7-1-011.5N	L7-1-031.5N	L7-2-022N	L7-2-022FD	L7-2130-012N	L7-2130-012FD	L7-2130-061N	L7-2131-041N
Parent Sample											L7-2-022N		L7-2130-012N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 42	< 381.737	NA	NA	< 48	< 430.774	< 44	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 42	NA	< 39	NA	< 48	48	< 44	< 38	< 400	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 83	< 763.474	< 78	< 776.198	< 240	< 861.548	< 89	< 77	< 800	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 42	< 381.737	< 39	< 388.099	160	< 430.774	44	< 38	< 400	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	< 42	< 381.737	< 39	< 388.099	< 48	< 430.774	< 44	< 38	< 400	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 42	< 381.737	< 39	< 388.099	270	105	< 44	< 38	< 400	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-4-02	L6-4-03	L6-5-01	L6-5-02	L6-9-01	L7-1-01	L7-1-03	L7-2-02	L7-2-02	L7-2130-01	L7-2130-01	L7-2130-06	L7-2131-04
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/18/2000	7/7/2000	4/18/2000	7/7/2000	4/11/2000	8/2/2000	5/23/2000	5/9/2000	5/9/2000	5/11/2000	5/11/2000	5/11/2000	5/2/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			L6-4-021N	L6-4-031.5N	L6-5-011.5N	L6-5-021.25N	L6-9-011N	L7-1-011.5N	L7-1-031.5N	L7-2-022N	L7-2-022FD	L7-2130-012N	L7-2130-012FD	L7-2130-061N	L7-2131-041N
Parent Sample											L7-2-022N		L7-2130-012N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 25	< 485.425	NA	NA	NA	< 24	< 230	< 136	< 140	< 14	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 25	< 485.425	NA	NA	NA	< 24	< 230	< 136	< 140	< 14	< 24
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 25	< 485.425	NA	NA	NA	< 24	< 230	2273	8800	< 14	3700
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 136.9	< 140	< 140	< 240
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 25	< 485.425	NA	NA	NA	< 24	< 230	< 136	< 140	< 14	< 24
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 50	< 970.85	NA	NA	NA	< 48	< 450	< 273	< 280	< 29	< 48
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 50	< 970.85	NA	NA	NA	< 48	< 450	< 273	< 280	< 29	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 25	< 485.425	NA	NA	NA	< 24	< 230	< 136	< 140	< 14	< 24
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 50	< 970.85	NA	NA	NA	< 48	< 450	< 273	< 280	< 29	< 48
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 25	< 485.425	NA	NA	NA	< 24	< 230	< 136	< 140	< 14	< 24
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 39000	< 291000	NA	NA	NA	< 38000	< 41500	3690000	20600000	52100	6260000
Nitroglycerin	55-63-0	ug/kg	NA	< 381.737	< 570	< 388	NA	NA	NA	< 580	< 6000	640000	3500000	9600	1200000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 50	< 970.85	NA	NA	NA	< 48	< 450	< 273	< 280	< 29	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 50	< 970.85	NA	NA	NA	< 48	< 450	< 273	< 280	< 29	< 48
Tetryl	479-45-8	ug/kg	NA	NA	< 50	< 970.85	NA	NA	NA	< 48	< 450	< 273	< 280	< 29	< 48
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.644315	< 0.6	< 0.651143	< 4	< 0.657114	< 0.7	< 0.6	< 0.71	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	6.7	4.32	4.8	3.1	5	7.38	8.9	2.6	3.2	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.56	0.548	0.8	0.791	0.61	0.735	0.67	0.59	0.63	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.5	0.681	0.15	0.522	< 2	0.602	0.23	< 0.3	0.05	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.5	15	17.8	13	10.2	19	20.3	11.3	12.9	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	37.7	37.2	22.4	11.4	9480	15.2	13.1	7.2	7.5	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	142	125	46.9	9.27	2850	34.3	30.7	9	11.7	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0	0.286	0.15	0.051	6.6	0.098	0.07	< 0	0.05	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	9.9	12.1	12.5	8.86	6.2	11.5	7.9	6.6	7.1	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.87	0.629	0.48	0.909	2.5	1.17	0.79	0.77	0.77	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L6-4-02	L6-4-03	L6-5-01	L6-5-02	L6-9-01	L7-1-01	L7-1-03	L7-2-02	L7-2-02	L7-2130-01	L7-2130-01	L7-2130-06	L7-2131-04
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			4/18/2000	7/7/2000	4/18/2000	7/7/2000	4/11/2000	8/2/2000	5/23/2000	5/9/2000	5/9/2000	5/11/2000	5/11/2000	5/11/2000	5/2/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			L6-4-021N	L6-4-031.5N	L6-5-011.5N	L6-5-021.25N	L6-9-011N	L7-1-011.5N	L7-1-031.5N	L7-2-022N	L7-2-022FD	L7-2130-012N	L7-2130-012FD	L7-2130-061N	L7-2131-041N
Parent Sample											L7-2-022N		L7-2130-012N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.3	< 0.322158	< 0.3	< 0.325572	< 2	< 0.328557	0.09	< 0.3	< 0.35	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1.073859	< 1	< 1.085239	< 6	< 1.095189	< 1	< 1	< 1.2	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	75.8	98.2	110	73.3	70.9	150	103	58.3	56	NA	NA	NA	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	35000	NA	11600	NA	53100	NA	70900	18900	NA	8080	NA	NA	8400
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	10.9	NA	8	NA	3.5	NA	8	8.7	NA	6	NA	NA	0.1
Gravel	ARC-PGRAVEL	%	15.3	NA	23.5	NA	32.9	NA	15.9	12.5	NA	29.8	NA	NA	45.6
Sand	ARC-PSAND	%	47	NA	47.1	NA	48	NA	52.8	54.3	NA	51.6	NA	NA	46.1
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	26.8	NA	21.4	NA	15.6	NA	23.2	24.5	NA	12.6	NA	NA	8.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L7-2131-05	L7-2131-05	L7-4-02	L7-5-01	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			L7-2131-051.5N	L7-2131-051.5FD	L7-4-022N	L7-5-011N	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N
Parent Sample				L7-2131-051.5N					L7-8115-022N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L7-2131-05	L7-2131-05	L7-4-02	L7-5-01	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			L7-2131-051.5N	L7-2131-051.5FD	L7-4-022N	L7-5-011N	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N
Parent Sample				L7-2131-051.5N					L7-8115-022N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 89	NA	< 94	< 74	< 720	< 809	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 440	NA	< 470	< 370	< 360	< 404	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 440	NA	< 470	< 370	< 360	< 404	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 89	NA	< 94	< 74	< 720	< 809	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 89	NA	< 94	< 74	< 720	< 809	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L7-2131-05	L7-2131-05	L7-4-02	L7-5-01	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			L7-2131-051.5N	L7-2131-051.5FD	L7-4-022N	L7-5-011N	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N
Parent Sample				L7-2131-051.5N					L7-8115-022N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 89	NA	< 94	< 74	< 720	< 809	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	29.1	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 44	NA	56	< 37	120	< 404	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	< 44	NA	85	< 37	< 360	< 404	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L7-2131-05	L7-2131-05	L7-4-02	L7-5-01	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			L7-2131-051.5N	L7-2131-051.5FD	L7-4-022N	L7-5-011N	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N
Parent Sample				L7-2131-051.5N					L7-8115-022N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 89	NA	< 94	< 74	< 720	< 809	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	< 44	NA	61	< 37	< 360	< 404	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	< 44	NA	< 47	< 37	< 360	< 404	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	< 44	NA	75	< 37	< 360	< 404	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 4	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	< 45	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L7-2131-05	L7-2131-05	L7-4-02	L7-5-01	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			L7-2131-051.5N	L7-2131-051.5FD	L7-4-022N	L7-5-011N	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N
Parent Sample				L7-2131-051.5N					L7-8115-022N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 250	NA	NA	NA	NA	NA	NA	< 22	< 250	< 25	< 185.175
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 250	NA	NA	NA	NA	NA	NA	< 22	< 250	< 25	< 185.175
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	430	180	NA	NA	NA	NA	NA	NA	< 22	< 250	< 25	< 185.175
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	NA	NA	NA	NA	NA	NA	< 220	< 250	< 250	< 185
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 250	NA	NA	NA	NA	NA	NA	< 22	< 250	< 25	< 185.175
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 500	NA	NA	NA	NA	NA	NA	< 43	< 500	< 50	< 370.35
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 500	NA	NA	NA	NA	NA	NA	< 43	< 500	< 50	< 370.35
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 250	NA	NA	NA	NA	NA	NA	< 22	< 250	< 25	< 185.175
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 500	NA	NA	NA	NA	NA	NA	< 43	< 500	< 50	< 370.35
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 250	NA	NA	NA	NA	NA	NA	< 22	< 250	< 25	< 185.175
Nitrocellulose	9004-70-0	ug/kg	498000	246000	NA	NA	NA	NA	NA	NA	65700	80800	63900	95100
Nitroglycerin	55-63-0	ug/kg	110000	37000	NA	NA	NA	NA	NA	NA	< 550	< 4851.401	< 590	< 6335.951
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 500	NA	NA	NA	NA	NA	NA	< 43	< 500	< 50	< 370.35
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 500	NA	NA	NA	NA	NA	NA	< 43	< 500	< 50	< 370.35
Tetryl	479-45-8	ug/kg	< 50	< 500	NA	NA	NA	NA	NA	NA	< 43	< 500	< 50	< 370.35
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.6	NA	< 0.8	0.46	< 0.6	< 0.562	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	4.4	NA	13.4	6.4	2.4	5.42	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.87	NA	0.71	0.47	0.42	0.742	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	0.45	NA	0.27	0.35	0.23	0.725	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	14.9	NA	18.1	9.6	11	20.9	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	11.3	NA	15.9	15.8	11.9	19.2	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	19.9	NA	40	7.8	3.9	34.6	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.13	NA	0.13	0.02	< 0.03	0.093	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	9.3	NA	12.6	12.8	5.2	11.9	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	0.65	NA	0.96	< 0.5	< 0.5	0.833	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L7-2131-05	L7-2131-05	L7-4-02	L7-5-01	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000
Sample Type			N	FD	N	N	N	N	FD	N	N	N	N	N
Sample Name			L7-2131-051.5N	L7-2131-051.5FD	L7-4-022N	L7-5-011N	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N
Parent Sample				L7-2131-051.5N					L7-8115-022N					
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	0.13	NA	0.12	< 0.3	< 0.3	< 0.281	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1	NA	< 1	< 1	< 1	< 0.936	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	93.2	NA	93.5	92.2	87.2	97.6	NA	NA	NA	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	43800	11300	88700	10200	NA	NA	16300	NA	57500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	4.4	7.2	9	1.7	NA	NA	1.6	NA	0	NA
Gravel	ARC-PGRAVEL	%	NA	NA	15.6	36	17.1	10.2	NA	NA	50.5	NA	30	NA
Sand	ARC-PSAND	%	NA	NA	61.5	40.2	41	82.1	NA	NA	42	NA	63.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	18.6	16.6	32.8	6	NA	NA	5.9	NA	6.4	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	FD
Sample Name			L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD
Parent Sample					L8-1-051N										L9-79B-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	FD
Sample Name			L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD
Parent Sample					L8-1-051N										L9-79B-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2,4-Dichlorophenol	120-83-2	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	< 810.318	< 734.126	< 729	< 73	< 88	< 825	NA	NA	< 75	NA	< 76	< 899	< 880
2,4-Dinitrotoluene	121-14-2	ug/kg	< 405	< 367	< 364	< 370	< 440	< 413	NA	NA	< 370	NA	< 380	< 450	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	< 405	< 367	< 364	< 370	< 440	< 413	NA	NA	< 370	NA	< 380	< 450	< 440
2-Chloronaphthalene	91-58-7	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2-Chlorophenol	95-57-8	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
2-Nitrotoluene	88-72-2	ug/kg	< 405.159	< 367.063	< 364	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 810.318	< 734.126	< 729	< 73	< 88	< 825	NA	NA	< 75	NA	< 76	< 899	< 880
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 810.318	< 734.126	< 729	< 73	< 88	< 825	NA	NA	< 75	NA	< 76	< 899	< 880
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	FD
Sample Name			L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD
Parent Sample					L8-1-051N										L9-79B-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 73	< 88	< 825	NA	NA	< 75	NA	< 76	< 899	< 880
4-Nitrotoluene	99-99-0	ug/kg	< 810.318	< 734.126	< 729	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	100	NA	< 38	< 450	< 440
Acenaphthylene	208-96-8	ug/kg	< 405.159	< 367.063	< 364	38	< 44	< 413	NA	NA	33	NA	< 38	< 450	< 440
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 405.159	< 367.063	< 364	49	< 44	< 413	NA	NA	300	NA	< 38	< 450	< 440
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	58.3	< 367.063	< 364	350	75	101	NA	NA	880	NA	33	44.5	59
Benzo[a]pyrene	50-32-8	ug/kg	72.1	< 367.063	< 364	380	95	101	NA	NA	780	NA	34	44.1	58.1
Benzo[b]fluoranthene	205-99-2	ug/kg	85.9	< 367.063	< 364	620	140	192	NA	NA	1100	NA	< 38	67.4	< 440
Benzo[g,h,i]perylene	191-24-2	ug/kg	102	< 367.063	< 364	240	< 44	< 413	NA	NA	390	NA	< 38	< 450	< 440
Benzo[k]fluoranthene	207-08-9	ug/kg	< 405.159	< 367.063	< 364	230	< 44	< 413	NA	NA	350	NA	< 38	< 450	< 440
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	45.4	25.3	32.1	53	36	24.8	NA	NA	150	NA	300	< 450	< 440
Butylbenzylphthalate	85-68-7	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	77	< 367.063	< 364	390	93	144	NA	NA	770	NA	36	60.2	81
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	110	NA	< 38	< 450	< 440
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Dimethylphthalate	131-11-3	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Di-n-butylphthalate	84-74-2	ug/kg	51.9	66.8	< 364	78	< 44	< 413	NA	NA	270	NA	< 38	< 450	< 440
Di-n-octylphthalate	117-84-0	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Fluoranthene	206-44-0	ug/kg	117	< 367.063	< 364	800	190	229	NA	NA	2200	NA	72	98.9	131
Fluorene	86-73-7	ug/kg	< 405.159	< 367.063	< 364	39	< 44	< 413	NA	NA	190	NA	< 38	< 450	< 440
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Hexachlorobutadiene	87-68-3	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Hexachloroethane	67-72-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	82.7	< 367.063	< 364	220	< 44	71	NA	NA	380	NA	< 38	< 450	< 440
Isophorone	78-59-1	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	FD
Sample Name			L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD
Parent Sample					L8-1-051N										L9-79B-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	30	NA	< 38	< 450	< 440
Nitrobenzene	98-95-3	ug/kg	< 405.159	< 367.063	< 364	NA	< 44	< 413	NA	NA	NA	NA	< 38	< 450	< 440
N-Nitrosodimethylamine	62-75-9	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Pentachlorophenol	87-86-5	ug/kg	< 810.318	< 734.126	< 729	< 73	< 88	< 825	NA	NA	< 75	NA	< 76	< 899	< 880
Phenanthrene	85-01-8	ug/kg	65.2	< 367.063	< 364	360	96	85.8	NA	NA	1500	NA	39	58.9	89.8
Phenol	108-95-2	ug/kg	< 405.159	< 367.063	< 364	< 37	< 44	< 413	NA	NA	< 37	NA	< 38	< 450	< 440
Pyrene	129-00-0	ug/kg	195	< 367.063	< 364	1000	150	229	NA	NA	1500	NA	< 38	110	152
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 41	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	FD
Sample Name			L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD
Parent Sample					L8-1-051N										L9-79B-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 13	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 13	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 13	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 250	< 250	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 13	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 27	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 27	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 13	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 27	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 25	NA	NA	< 25	< 25	< 13	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	66100	NA	NA	< 37000	< 37000	< 39000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 405.159	< 367.063	< 364	< 550	NA	NA	< 560	< 540	< 560	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 27	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 27	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 50	NA	NA	< 50	< 50	< 27	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.722788	< 0.648408	< 0.614	< 0.6	< 0.7	< 0.589	NA	NA	< 0.6	NA	< 0.6	0.732	0.961
Arsenic	7440-38-2	mg/kg	6.88	102	97.4	5.3	7.4	9.18	NA	NA	5.1	NA	5.4	12	12.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.6	0.453	0.439	0.31	0.8	0.91	NA	NA	0.55	NA	0.97	0.906	0.874
Cadmium	7440-43-9	mg/kg	0.264	0.542	0.534	0.53	0.67	0.844	NA	NA	< 0.3	NA	0.59	0.22	0.228
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	17.2	32.9	33	12.8	19.7	23.9	NA	NA	17.9	NA	20	21.2	18.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	24.1	79.2	73.2	10.5	17.8	17.7	NA	NA	17	NA	12.6	21.4	17.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	42.1	20.7	19.6	32.8	40.7	40.5	NA	NA	35.3	NA	32.8	63.1	71.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.121	0.057	0.039	0.04	0.11	0.108	NA	NA	0.04	NA	0.13	0.158	0.194
Nickel	7440-02-0	mg/kg	9.84	7.75	7.78	6.2	12	16.1	NA	NA	9.5	NA	11.6	13.2	12.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.98	1.37	1.11	0.49	1.2	1.5	NA	NA	< 0.5	NA	1.3	0.96	0.948

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N	FD
Sample Name			L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD
Parent Sample					L8-1-051N										L9-79B-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.361394	< 0.324204	< 0.307	< 0.3	< 0.3	< 0.295	NA	NA	< 0.3	NA	< 0.3	0.246	0.312
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.204647	< 1.080679	< 1.02	< 1	< 1	< 0.982	NA	NA	< 1	NA	< 1	< 1.34	< 1.32
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	62.7	62.6	61.6	73.6	197	101	NA	NA	66.2	NA	143	81.2	75.8
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	80100	NA	NA	39700	68200	NA	11100	NA	33200	18200	53300	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	NA	4.9	0	NA	4	NA	2.3	0	21.8	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	32.3	60.2	NA	23.5	NA	40.6	45	19.8	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	50.6	17	NA	61.8	NA	46.8	42.2	34.3	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	64.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	73.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	46.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	32.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	55.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	38.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	12.2	22.8	NA	10.7	NA	10.3	12.8	24.1	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02	M10-6-02	M10-7-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850	M10-6-022N	M10-7-020.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 625	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 625	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 625	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 625	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 125	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 125	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 125	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 125	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 625	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02	M10-6-02	M10-7-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850	M10-6-022N	M10-7-020.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 62	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 125	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 790	< 78	< 808.766	NA	< 720.02	< 73	< 84	NA	< 81	< 84	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	2300	< 390	< 404	NA	< 360	500	< 420	NA	< 410	< 420	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4000	< 390	< 404	NA	< 360	32	< 420	NA	< 410	< 420	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
2-Chlorophenol	95-57-8	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 400	< 39	NA	NA	NA	< 37	< 42	NA	< 41	< 42	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 790	< 78	< 808.766	NA	< 720.02	< 73	< 84	NA	< 81	< 84	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 790	< 78	< 808.766	NA	< 720.02	< 73	< 84	NA	< 81	< 84	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02	M10-6-02	M10-7-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850	M10-6-022N	M10-7-020.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 790	< 78	NA	NA	NA	< 73	< 84	NA	< 81	< 84	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Acenaphthylene	208-96-8	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	24	NA	< 41	< 42	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	23	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 400	< 39	112	NA	82	240	< 42	NA	87	59	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 400	37	88	NA	69	< 37	99	NA	96	44	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 400	< 39	180	NA	123	400	140	NA	160	110	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	110	NA	< 41	< 42	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 400	< 39	73	NA	48	120	< 42	NA	< 41	< 42	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	790	< 39	< 404.383	NA	< 360.01	88	81	NA	35	31	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 400	53	140	NA	84	260	140	NA	120	93	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Dimethylphthalate	131-11-3	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Di-n-butylphthalate	84-74-2	ug/kg	500	< 39	167	NA	< 360.01	270	940	NA	< 41	< 42	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Fluoranthene	206-44-0	ug/kg	< 400	100	160	NA	177	340	180	NA	210	160	NA
Fluorene	86-73-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Hexachlorobenzene	118-74-1	ug/kg	< 400	< 39	NA	NA	NA	< 37	< 42	NA	< 41	< 42	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Hexachloroethane	67-72-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	90	NA	< 41	< 42	NA
Isophorone	78-59-1	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02	M10-6-02	M10-7-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850	M10-6-022N	M10-7-020.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Nitrobenzene	98-95-3	ug/kg	< 400	NA	NA	NA	NA	NA	< 42	NA	< 41	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	730	< 39	< 404.383	NA	< 360.01	580	< 42	NA	< 41	< 42	NA
Pentachlorophenol	87-86-5	ug/kg	< 790	< 78	< 808.766	NA	< 720.02	< 73	< 84	NA	< 81	< 84	NA
Phenanthrene	85-01-8	ug/kg	< 400	60	< 404.383	NA	60	120	66	NA	80	89	NA
Phenol	108-95-2	ug/kg	< 400	< 39	< 404.383	NA	< 360.01	< 37	< 42	NA	< 41	< 42	NA
Pyrene	129-00-0	ug/kg	< 400	93	145	NA	153	540	230	NA	150	140	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	< 3	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	< 34	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02	M10-6-02	M10-7-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850	M10-6-022N	M10-7-020.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 25	< 227.275	NA	< 200	< 23	NA	NA	NA	< 24	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 25	< 227.275	NA	< 200	< 23	NA	NA	NA	< 24	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 25	467	NA	< 200	< 23	NA	NA	NA	< 24	2600
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 25	< 227.275	NA	< 200	< 23	NA	NA	NA	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	< 50	< 454.55	NA	< 400	< 45	NA	NA	NA	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	< 50	< 454.55	NA	< 400	< 45	NA	NA	NA	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 25	< 227.275	NA	< 200	< 23	NA	NA	NA	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	< 50	< 454.55	NA	< 400	< 45	NA	NA	NA	< 48	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 25	< 227.275	NA	< 200	< 23	NA	NA	NA	< 24	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	< 41000	< 42516.47	NA	47800	107000	NA	NA	NA	142000	685000
Nitroglycerin	55-63-0	ug/kg	NA	< 580	< 5642.56	NA	< 4408.286	9200	NA	NA	NA	5500	280000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 50	< 454.55	NA	< 400	< 45	NA	NA	NA	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 50	< 454.55	NA	< 400	< 45	NA	NA	NA	< 48	< 50
Tetryl	479-45-8	ug/kg	NA	< 50	< 454.55	NA	< 400	< 45	NA	NA	NA	< 48	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.52	< 0.6	< 0.632948	NA	< 0.434912	< 0.6	0.59	NA	NA	0.58	NA
Arsenic	7440-38-2	mg/kg	9.9	4.8	5.87	NA	3.09	5.9	4.5	NA	NA	4.3	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.45	0.22	0.326	NA	0.351	0.29	0.26	NA	NA	0.14	NA
Cadmium	7440-43-9	mg/kg	0.82	0.05	0.316	NA	0.289	< 0.3	0.75	NA	NA	0.21	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	53.5	17.9	20.3	NA	12.7	12	24.7	NA	NA	12.6	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	36.9	6.1	13	NA	31.2	117	1120	NA	NA	13.3	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6530	20	443	NA	17.7	18.2	155	NA	NA	459	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	3.1	0.06	0.177	NA	< 0.028089	0.03	0.15	NA	NA	0.39	NA
Nickel	7440-02-0	mg/kg	14.1	6.5	9.75	NA	9.52	6.9	14.3	NA	NA	6.2	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.4	0.55	0.667	NA	< 0.362426	< 0.5	0.44	NA	NA	0.77	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02	M10-4-02	M10-6-02	M10-7-02
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845	M10-4-020.5N850	M10-6-022N	M10-7-020.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	4.7	< 0.3	< 0.316474	NA	< 0.217456	< 0.3	0.54	NA	NA	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.67	< 1	< 1.054914	NA	< 0.724853	< 1	< 1	NA	NA	< 1	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	290	30.4	49.6	NA	49	52.9	643	NA	NA	105	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	103000	17800	NA	16600	NA	11000	54900	NA	25900	57700	24500
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	8.5	16.6	NA	12.7	NA	6.4	3.5	NA	2.4	1.9	0
Gravel	ARC-PGRAVEL	%	46.8	19.1	NA	31.1	NA	44.5	45.8	NA	23.6	21.4	51.7
Sand	ARC-PSAND	%	29.1	35.2	NA	46.5	NA	40.4	36.6	NA	32.7	57.8	40.9
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	15.6	29.1	NA	9.6	NA	8.7	14.1	NA	41.3	18.9	7.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02	M11-3-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N
Sample Name			M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N	M11-3-021N
Parent Sample				M10-7-031.5N							M10-B14-011N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 540	NA	NA	< 538	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 540	NA	NA	< 538	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 540	NA	NA	< 538	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 540	NA	NA	< 538	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 110	NA	NA	< 1077.586	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 220	NA	NA	< 2155.172	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 54	NA	NA	< 5387.931	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	730	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	< 110	NA	NA	< 1077.586	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	< 110	NA	NA	< 1077.586	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 540	NA	NA	< 538	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02	M11-3-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N
Sample Name			M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N	M11-3-021N
Parent Sample				M10-7-031.5N							M10-B14-011N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	210	NA	NA	< 538.7931	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	< 54	NA	NA	< 538.7931	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 110	NA	NA	< 1077.586	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	< 740	< 759.22	NA	NA	< 78	< 750	< 796.78	< 88
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 3700	< 379	NA	NA	< 390	< 370	< 398	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 3700	< 379	NA	NA	< 390	< 370	< 398	< 440
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 370	NA	NA	NA	< 39	< 370	NA	< 44
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 398.39	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	< 740	< 759.22	NA	NA	< 78	< 750	< 796.78	< 88
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	< 740	< 759.22	NA	NA	< 78	< 750	< 796.78	< 88
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02	M11-3-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N
Sample Name			M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N	M11-3-021N
Parent Sample				M10-7-031.5N							M10-B14-011N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 740	NA	NA	NA	< 78	< 750	NA	< 88
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 796.78	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 370	431	NA	NA	< 39	< 370	< 398.39	< 44
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	31
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 370	1410	NA	NA	< 39	< 370	< 398.39	44
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	330	4980	NA	NA	67	62	148	140
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	310	4670	NA	NA	< 39	48	172	140
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	< 370	6830	NA	NA	100	72	239	510
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 370	2880	NA	NA	< 39	< 370	100	130
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	< 370	2420	NA	NA	< 39	< 370	126	150
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	< 370	48	NA	NA	140	37	21	28
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	< 370	< 379.61	< 1077	NA	< 39	< 370	< 398.39	< 44
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	390	5100	NA	NA	100	63	205	400
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 370	796	NA	NA	< 39	< 370	< 398.39	< 44
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	1000	215	NA	NA	< 39	< 370	< 398.39	< 44
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	16000	479	NA	NA	< 39	< 37	200	< 44
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	740	8770	NA	NA	150	110	487	610
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 370	803	NA	NA	< 39	< 370	< 398.39	< 44
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 370	NA	NA	NA	< 39	< 370	NA	< 44
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	< 370	2840	NA	NA	< 39	< 370	92	130
Isophorone	78-59-1	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02	M11-3-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N
Sample Name			M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N	M11-3-021N
Parent Sample				M10-7-031.5N							M10-B14-011N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 370	92	NA	NA	< 39	< 370	< 398.39	< 44
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 39	< 370	< 398.39	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	3200	696	NA	NA	< 39	< 370	< 398.39	< 44
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	< 740	< 759.22	NA	NA	< 78	< 750	< 796.78	< 88
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	290	7330	NA	NA	92	56	213	150
Phenol	108-95-2	ug/kg	NA	NA	NA	< 370	< 379.61	NA	NA	< 39	< 370	< 398.39	< 44
Pyrene	129-00-0	ug/kg	NA	NA	NA	< 370	9620	NA	NA	190	130	339	450
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	< 2	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	< 4	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	< 40	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02	M11-3-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N
Sample Name			M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N	M11-3-021N
Parent Sample				M10-7-031.5N							M10-B14-011N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 192.3	108	NA	< 24	< 250	NA	NA	NA	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 192.3	< 250	NA	< 24	< 250	NA	NA	NA	NA	NA	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	13400	3110	NA	360	< 250	NA	NA	NA	NA	NA	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	66.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 192	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	626	552	NA	< 24	< 250	NA	NA	NA	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 384.6	< 500	NA	< 48	< 500	NA	NA	NA	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 384.6	< 500	NA	< 48	< 500	NA	NA	NA	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	743	647	NA	< 24	< 250	NA	NA	NA	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 384.6	< 500	NA	< 48	< 500	NA	NA	NA	NA	NA	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 192.3	< 250	NA	< 24	311	NA	NA	NA	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	44100	68200	NA	1140000	121000	NA	NA	NA	NA	NA	80900
Nitroglycerin	55-63-0	ug/kg	< 4982.561	< 4600	NA	50000	33400	NA	NA	NA	NA	NA	< 630
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 384.6	< 500	NA	< 48	< 500	NA	NA	NA	NA	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 384.6	< 500	NA	< 48	< 500	NA	NA	NA	NA	NA	< 50
Tetryl	479-45-8	ug/kg	< 384.6	< 500	NA	< 48	< 500	NA	NA	NA	NA	NA	< 50
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	< 0.6	< 0.466305	NA	NA	< 0.6	0.68	1.09	< 0.7
Arsenic	7440-38-2	mg/kg	NA	NA	NA	4.2	2.74	NA	NA	5.2	4.4	4.89	4.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	0.37	0.245	NA	NA	0.44	0.46	0.519	0.28
Cadmium	7440-43-9	mg/kg	NA	NA	NA	0.31	0.277	NA	NA	0.07	0.18	0.452	1.5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	10	8.39	NA	NA	20.1	20.7	19.1	9.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	13.3	38.3	NA	NA	24.4	24.1	24.2	10.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	29.8	37.2	NA	NA	308	295	391	128
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	0.06	0.137	NA	NA	0.11	0.08	0.105	0.22
Nickel	7440-02-0	mg/kg	NA	NA	NA	8	5.57	NA	NA	12.6	11.7	11.2	6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	0.33	0.268	NA	NA	0.56	0.46	0.727	0.91

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02	M11-3-02
Depths			0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
Collection Date			8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000	5/25/2000
Sample Type			N	FD	N	N	N	N	N	N	FD	N	N
Sample Name			M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N	M11-3-021N
Parent Sample				M10-7-031.5N							M10-B14-011N		
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	NA	< 0.3	< 0.233152	NA	NA	< 0.3	< 0.32	< 0.358551	0.17
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	< 1	< 0.777175	NA	NA	< 1	< 1.1	< 1.195172	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	46.5	49.6	NA	NA	221	103	94.7	295
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	36600	NA	NA	11500	27500	NA	NA	44400
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	0	NA	NA	2.3	15.3	NA	NA	3.7
Gravel	ARC-PGRAVEL	%	NA	NA	NA	30.4	NA	NA	36.5	25.3	NA	NA	48.8
Sand	ARC-PSAND	%	NA	NA	NA	57.6	NA	NA	46.3	47.4	NA	NA	39.3
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	12	NA	NA	15	11.9	NA	NA	8.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M11-3-03	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166-03	M5-8166A-B-C-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01	M5-8166E-02
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			8/2/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000	7/7/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			M11-3-030.5N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166-031N	M5-8166A-B-C-011.25N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N	M5-8166E-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M11-3-03	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166-03	M5-8166A-B-C-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01	M5-8166E-02
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			8/2/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000	7/7/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			M11-3-030.5N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166-031N	M5-8166A-B-C-011.25N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N	M5-8166E-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
1,2-Dichlorobenzene	95-50-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
1,4-Dichlorobenzene	106-46-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2,4-Dichlorophenol	120-83-2	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2,4-Dimethylphenol	105-67-9	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	< 1045.914	NA	< 80	< 83	< 78	< 765	< 748	< 74	< 75	< 78	< 699
2,4-Dinitrotoluene	121-14-2	ug/kg	< 522	NA	< 400	< 420	< 390	< 382	< 374	< 370	< 370	< 390	1240
2,6-Dinitrotoluene	606-20-2	ug/kg	< 522	NA	< 400	< 420	< 390	< 382	< 374	< 370	< 370	< 390	84.6
2-Chloronaphthalene	91-58-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2-Chlorophenol	95-57-8	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 1045.914	NA	< 80	< 83	< 78	< 765	< 748	< 74	< 75	< 78	< 699
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1045.914	NA	< 80	< 83	< 78	< 765	< 748	< 74	< 75	< 78	< 699
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M11-3-03	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166-03	M5-8166A-B-C-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01	M5-8166E-02
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			8/2/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000	7/7/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			M11-3-030.5N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166-031N	M5-8166A-B-C-011.25N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N	M5-8166E-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 80	< 83	< 78	< 765	< 748	< 74	< 75	< 78	< 699
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Acenaphthylene	208-96-8	ug/kg	178	NA	< 40	< 42	< 39	< 382	< 374	< 37	27	18	< 350
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	319	NA	< 40	< 42	< 39	< 382	< 374	< 37	45	24	< 350
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	2350	NA	< 40	< 42	< 39	< 382	< 374	< 37	170	85	< 350
Benzo[a]pyrene	50-32-8	ug/kg	1420	NA	< 40	< 42	< 39	< 382	< 374	< 37	110	62	< 350
Benzo[b]fluoranthene	205-99-2	ug/kg	6030	NA	< 40	< 42	< 39	< 382	< 374	< 37	180	77	< 350
Benzo[g,h,i]perylene	191-24-2	ug/kg	1490	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Benzo[k]fluoranthene	207-08-9	ug/kg	1550	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	98	NA	51	< 42	60	39.8	< 374	81	< 37	78	18.9
Butylbenzylphthalate	85-68-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	6720	NA	< 40	< 42	< 39	< 382	< 374	< 37	140	54	< 350
Dibenzo[a,h]anthracene	53-70-3	ug/kg	388	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	40	< 350
Dimethylphthalate	131-11-3	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Di-n-butylphthalate	84-74-2	ug/kg	428	NA	150	38	40	60.8	< 374	< 37	< 37	71	1640
Di-n-octylphthalate	117-84-0	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Fluoranthene	206-44-0	ug/kg	12000	NA	< 40	< 42	< 39	< 382	< 374	< 37	340	120	< 350
Fluorene	86-73-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Hexachlorobutadiene	87-68-3	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Hexachloroethane	67-72-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	1370	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Isophorone	78-59-1	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M11-3-03	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166-03	M5-8166A-B-C-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01	M5-8166E-02
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			8/2/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000	7/7/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			M11-3-030.5N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166-031N	M5-8166A-B-C-011.25N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N	M5-8166E-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
N-Nitrosodimethylamine	62-75-9	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	217
Pentachlorophenol	87-86-5	ug/kg	< 1045.914	NA	< 80	< 83	< 78	< 765	< 748	< 74	< 75	< 78	< 699
Phenanthrene	85-01-8	ug/kg	2340	NA	< 40	< 42	< 39	< 382	< 374	< 37	250	91	< 350
Phenol	108-95-2	ug/kg	< 522.957	NA	< 40	< 42	< 39	< 382	< 374	< 37	< 37	< 39	< 350
Pyrene	129-00-0	ug/kg	12100	NA	< 40	< 42	< 39	< 382	< 374	< 37	270	150	< 350
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 38	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M11-3-03	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166-03	M5-8166A-B-C-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01	M5-8166E-02
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			8/2/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000	7/7/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			M11-3-030.5N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166-031N	M5-8166A-B-C-011.25N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N	M5-8166E-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 208.325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 208.325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 208.325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 208.325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 416.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 416.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 208.325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 416.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 208.325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	133000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 7844.367	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 416.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 416.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 416.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.18	NA	< 0.7	< 0.7	0.57	< 0.566	< 0.55	< 0.6	< 0.6	< 0.6	< 0.55
Arsenic	7440-38-2	mg/kg	13.4	NA	3.5	6.5	9.8	4.96	3.84	2.7	1.7	3.2	1.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.27	NA	0.48	0.64	0.59	0.552	0.622	0.31	0.3	0.44	0.336
Cadmium	7440-43-9	mg/kg	0.647	NA	< 0.3	0.41	< 0.3	0.575	0.502	< 0.3	< 0.3	0.13	0.632
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.5	NA	14.6	20.9	23.1	12.3	16.9	7.5	7.7	15.2	6.42
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	19.8	NA	27.9	20.3	22.8	41.6	10.6	18.5	10.1	31.8	10.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	490	NA	20.2	288	22.7	13.8	6.94	6.3	3.8	31	16
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.29	NA	0.03	0.1	0.03	0.035	0.041	0.03	< 0	0.08	0.04
Nickel	7440-02-0	mg/kg	5.33	NA	10.9	10.5	12	8.25	10.9	5.3	5	9.3	5.84
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.54	NA	< 0.6	0.69	0.46	1	0.922	< 0.5	< 0.5	0.76	0.735

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M11-3-03	M4-2-01	M5-11-02	M5-12-03	M5-8166-01	M5-8166-03	M5-8166A-B-C-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01	M5-8166E-02
Depths			0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			8/2/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000	7/7/2000	4/7/2000	4/7/2000	4/7/2000	7/7/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			M11-3-030.5N	M4-2-011.25N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166-031N	M5-8166A-B-C-011.25N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N	M5-8166E-022N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.28	NA	< 0.3	< 0.3	< 0.3	< 0.283	< 0.275	< 0.3	< 0.3	< 0.3	< 0.275
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.40078	NA	< 1	0.66	1	< 0.943	< 0.917	< 1	< 1	< 1	< 0.917
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	119	NA	73.3	78.1	185	87	65.3	40.4	41.7	69.3	37.2
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	8780	11400	55400	7120	NA	NA	15000	1270	15500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	8	8.4	1.4	2.2	NA	NA	6.3	7.2	3.8	NA
Gravel	ARC-PGRAVEL	%	NA	44.8	52.2	43.6	35.8	NA	NA	25.2	31.2	55.2	NA
Sand	ARC-PSAND	%	NA	40.6	22.4	40.5	51.3	NA	NA	47	51.5	32.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	6.6	17.1	14.5	10.7	NA	NA	21.5	10.1	8.4	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M6-1-01	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			M6-1-011N	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N
Parent Sample												M7-1-051N				
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M6-1-01	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			M6-1-011N	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N
Parent Sample												M7-1-051N				
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds (cont.)																
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	< 81	< 970	< 160
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	970	< 410	1900	< 790
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5200	< 410	< 4800	< 790
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	< 81	< 970	< 160
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	< 81	< 970	< 160
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M6-1-01	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			M6-1-011N	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N
Parent Sample												M7-1-051N				
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	< 81	< 970	< 160
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	830	52	< 480	< 79
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1900	42	< 480	< 79
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	110	< 480	< 79
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3700	< 41	< 480	< 79
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	20	< 480	< 79
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1700	73	< 480	< 79
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1900	< 41	< 480	< 79
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	490	< 41	< 480	< 79
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	190	< 480	< 79
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	120	< 480	< 79
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2100	< 41	< 480	< 79
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M6-1-01	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			M6-1-011N	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N
Parent Sample												M7-1-051N				
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11000	< 41	3200	< 79
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	< 81	< 970	< 160
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	25	< 480	< 79
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	< 41	< 480	< 79
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls																
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M6-1-01	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			M6-1-011N	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N
Parent Sample												M7-1-051N				
CONSTITUENT	***CAS NO.***	***UNITS***														
Explosives and Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 25	< 25	< 24	< 23	< 25	< 24	< 25	< 210	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 25	< 25	< 24	< 23	< 25	< 24	260	260	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	< 25	< 25	< 24	< 23	< 25	< 24	< 25	110	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	< 250	< 250	< 240	< 230	< 250	< 240	< 250	< 210	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 25	< 25	< 24	< 23	< 25	< 24	< 25	< 210	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 50	< 50	< 48	< 45	< 50	< 48	< 50	< 420	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 50	< 50	< 48	< 45	< 50	< 48	< 50	< 420	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	340	< 25	< 24	< 23	120	< 24	< 25	< 210	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 50	< 50	< 48	< 45	< 50	< 48	< 50	< 420	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 25	< 25	< 24	< 23	< 25	< 24	< 25	< 210	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	108000	79400	604000	198000	386000	90900	153000	150000	157000	183000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	8400	< 590	13000	< 680	4800	< 610	< 630	< 610	< 670	< 6800	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 50	< 50	< 48	< 45	< 50	< 48	< 50	< 420	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 50	< 50	< 48	< 45	< 50	< 48	< 50	< 420	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	< 50	< 50	< 48	< 45	< 50	< 48	< 50	< 420	NA	NA	NA	NA
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	3.1	< 0.6	19.9	< 1
Arsenic	7440-38-2	mg/kg	NA	161	NA	NA	NA	NA	NA	NA	NA	NA	20.8	28.6	72.5	11.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.8	NA	NA	NA	NA	NA	NA	NA	NA	0.56	0.47	0.69	0.74
Cadmium	7440-43-9	mg/kg	NA	0.29	NA	NA	NA	NA	NA	NA	NA	NA	2.9	0.12	2.4	0.47
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	16.8	NA	NA	NA	NA	NA	NA	NA	NA	45.8	16.2	286	19.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	50.6	NA	NA	NA	NA	NA	NA	NA	NA	636	42.5	9520	14
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	53.5	NA	NA	NA	NA	NA	NA	NA	NA	806	36.9	1980	51.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.15	NA	NA	NA	NA	NA	NA	NA	NA	2.7	0.09	0.5	NA
Nickel	7440-02-0	mg/kg	NA	17.5	NA	NA	NA	NA	NA	NA	NA	NA	136	18.5	1380	5.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	1.4	1.5	< 6	2.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M6-1-01	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			M6-1-011N	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N
Parent Sample												M7-1-051N				
CONSTITUENT	***CAS NO.***	***UNITS***														
Metals (cont.)																
Silver	7440-22-4	mg/kg	NA	< 0.3	NA	NA	NA	NA	NA	NA	NA	NA	0.59	< 0.3	2.1	< 0.7
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 13	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	52.9	NA	NA	NA	NA	NA	NA	NA	NA	1720	24.9	1940	122
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	62000	NA	NA	NA	NA	NA	NA	71800	NA	NA	NA	NA	257000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution																
Clay	ARC-PCLAY	%	-0.1	NA	NA	NA	NA	NA	NA	0.9	NA	NA	NA	NA	3.2	NA
Gravel	ARC-PGRAVEL	%	49.4	NA	NA	NA	NA	NA	NA	27.4	NA	NA	NA	NA	50.6	NA
Sand	ARC-PSAND	%	45.3	NA	NA	NA	NA	NA	NA	63	NA	NA	NA	NA	33.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	5.4	NA	NA	NA	NA	NA	NA	8.7	NA	NA	NA	NA	12.8	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M7-2-13	M7-2-15	M7-2-18	M7-2-20	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M7-2-13	M7-2-15	M7-2-18	M7-2-20	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
1,2-Dichlorobenzene	95-50-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
1,4-Dichlorobenzene	106-46-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2,4-Dichlorophenol	120-83-2	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2,4-Dimethylphenol	105-67-9	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2,4-Dinitrophenol	51-28-5	ug/kg	< 140	< 85	< 81	< 110	NA	NA	< 80	NA	NA	NA	< 76	< 737
2,4-Dinitrotoluene	121-14-2	ug/kg	< 680	< 430	430	2500	NA	NA	79	NA	NA	NA	< 380	< 369
2,6-Dinitrotoluene	606-20-2	ug/kg	< 680	< 430	< 410	< 530	NA	NA	< 400	NA	NA	NA	< 380	< 369
2-Chloronaphthalene	91-58-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2-Chlorophenol	95-57-8	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 140	< 85	< 81	< 110	NA	NA	< 80	NA	NA	NA	< 76	< 737
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 140	< 85	< 81	< 110	NA	NA	< 80	NA	NA	NA	< 76	< 737
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M7-2-13	M7-2-15	M7-2-18	M7-2-20	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 140	< 85	< 81	< 110	NA	NA	< 80	NA	NA	NA	< 76	< 737
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Acenaphthylene	208-96-8	ug/kg	< 68	29	52	35	NA	NA	< 40	NA	NA	NA	< 38	< 369
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 68	29	120	51	NA	NA	< 40	NA	NA	NA	< 38	< 369
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	87	95	420	210	NA	NA	80	NA	NA	NA	< 38	< 369
Benzo[a]pyrene	50-32-8	ug/kg	< 68	76	300	260	NA	NA	61	NA	NA	NA	< 38	< 369
Benzo[b]fluoranthene	205-99-2	ug/kg	< 68	200	850	550	NA	NA	< 40	NA	NA	NA	< 38	< 369
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 68	< 43	150	180	NA	NA	< 40	NA	NA	NA	< 38	< 369
Benzo[k]fluoranthene	207-08-9	ug/kg	< 68	< 43	310	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	78	< 43	< 41	< 53	NA	NA	48	NA	NA	NA	26	< 369
Butylbenzylphthalate	85-68-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	100	190	690	320	NA	NA	96	NA	NA	NA	< 38	< 369
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	62	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Dimethylphthalate	131-11-3	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Di-n-butylphthalate	84-74-2	ug/kg	93	59	42	84	NA	NA	160	NA	NA	NA	< 38	167
Di-n-octylphthalate	117-84-0	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Fluoranthene	206-44-0	ug/kg	200	200	570	410	NA	NA	130	NA	NA	NA	< 38	< 369
Fluorene	86-73-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Hexachlorobenzene	118-74-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Hexachlorobutadiene	87-68-3	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Hexachloroethane	67-72-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 68	< 43	170	210	NA	NA	< 40	NA	NA	NA	< 38	< 369
Isophorone	78-59-1	ug/kg	< 68	< 43	< 41	< 53	NA	NA	69	NA	NA	NA	< 38	< 369

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M7-2-13	M7-2-15	M7-2-18	M7-2-20	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 68	< 43	67	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Nitrobenzene	98-95-3	ug/kg	< 68	< 43	< 41	< 53	NA	NA	NA	NA	NA	NA	< 38	< 369
N-Nitrosodimethylamine	62-75-9	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 68	< 43	< 41	290	NA	NA	180	NA	NA	NA	< 38	< 369
Pentachlorophenol	87-86-5	ug/kg	< 140	< 85	< 81	< 110	NA	NA	< 80	NA	NA	NA	< 76	< 737
Phenanthrene	85-01-8	ug/kg	110	110	510	170	NA	NA	50	NA	NA	NA	< 38	< 369
Phenol	108-95-2	ug/kg	< 68	< 43	< 41	< 53	NA	NA	< 40	NA	NA	NA	< 38	< 369
Pyrene	129-00-0	ug/kg	190	160	730	290	NA	NA	120	NA	NA	NA	< 38	< 369
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M7-2-13	M7-2-15	M7-2-18	M7-2-20	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 25	< 25	< 25	< 25	< 14	< 24	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 25	< 25	< 25	< 25	< 14	< 24	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 25	< 25	390	< 25	2000	< 24	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 250	< 250	NA	< 250	< 140	< 240	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 25	< 25	< 25	< 25	< 14	< 24	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 29	< 48	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 29	< 48	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 25	< 25	< 25	< 25	< 14	< 24	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 29	< 48	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 25	< 25	< 25	< 25	< 14	< 24	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	< 40000	44600	273000	< 37000	124000	< 36000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 570	14000	< 610	< 530	370000	< 550	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 29	< 48	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 29	< 48	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 29	< 48	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.5	4.1	8.4	12.5	NA	NA	< 0.6	NA	NA	NA	< 0.4	< 0.464
Arsenic	7440-38-2	mg/kg	14.7	417	100	43.7	NA	NA	7	NA	NA	NA	5.4	2.73
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.31	0.38	0.41	0.47	NA	NA	0.41	NA	NA	NA	0.41	0.525
Cadmium	7440-43-9	mg/kg	0.5	0.69	0.21	2.6	NA	NA	2.2	NA	NA	NA	0.32	0.732
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.7	12.9	13.7	22.4	NA	NA	15.7	NA	NA	NA	15.1	14.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	24.7	34.3	58.2	701	NA	NA	88.4	NA	NA	NA	31.3	16.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	120	44.2	280	1790	NA	NA	822	NA	NA	NA	33.5	21.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.32	0.14	0.5	2.2	NA	NA	0.44	NA	NA	NA	< 0	0.043
Nickel	7440-02-0	mg/kg	7.6	11.8	15.1	47.4	NA	NA	12.5	NA	NA	NA	9.9	9.19
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	3.3	1.3	1.9	1.6	NA	NA	1.2	NA	NA	NA	0.24	0.784

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M7-2-13	M7-2-15	M7-2-18	M7-2-20	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft
Collection Date			5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	0.34	0.12	0.25	0.54	NA	NA	32.2	NA	NA	NA	0.15	< 0.232
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	< 1	NA	NA	< 1	NA	NA	NA	< 0.7	< 0.773
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	68.3	63.5	81.8	1040	NA	NA	953	NA	NA	NA	135	79.2
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	17200	NA	194000	NA	NA	15400	10500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	3.8	NA	4.4	NA	NA	3.1	0	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	26.3	NA	33.7	NA	NA	32.5	31.6	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	56.6	NA	51.8	NA	NA	55.4	60.3	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	13.3	NA	10.1	NA	NA	9	8.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD
Parent Sample													M9-2251-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD
Parent Sample													M9-2251-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 72	NA	NA	NA	NA	NA	NA	< 87	< 870
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 360	NA	NA	NA	NA	NA	NA	< 430	3200
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 360	NA	NA	NA	NA	NA	NA	< 430	< 430
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 72	NA	NA	NA	NA	NA	NA	< 87	< 870
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 72	NA	NA	NA	NA	NA	NA	< 87	< 870
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD
Parent Sample													M9-2251-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 72	NA	NA	NA	NA	NA	NA	< 87	< 870
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	98	87
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	22	39
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	400	370
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	1100	900
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	26	NA	NA	NA	NA	NA	NA	780	670
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	1100	970
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	400	360
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	350	350
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	30	NA	NA	NA	NA	NA	NA	< 43	< 430
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	960	850
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	130	120
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 43
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Fluoranthene	206-44-0	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	2300	2600
Fluorene	86-73-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	190	200
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	410	360
Isophorone	78-59-1	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD
Parent Sample													M9-2251-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 43	< 430
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	85	NA	NA	NA	NA	NA	NA	< 43	150
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 72	NA	NA	NA	NA	NA	NA	< 87	< 870
Phenanthrene	85-01-8	ug/kg	NA	NA	22	NA	NA	NA	NA	NA	NA	1900	1900
Phenol	108-95-2	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	< 43	< 430
Pyrene	129-00-0	ug/kg	NA	NA	< 36	NA	NA	NA	NA	NA	NA	2300	1700
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD
Parent Sample													M9-2251-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	< 25	< 14	< 14	< 13	< 14	< 13	< 13	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	< 25	< 14	< 14	< 13	< 14	< 13	< 13	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	130	< 25	< 25	< 14	760	< 13	2000	< 13	< 13	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	NA	< 140	< 140	< 130	< 140	< 130	< 130	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	< 25	< 14	< 14	< 13	< 14	< 13	< 13	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	< 50	< 27	< 28	< 27	< 29	< 26	< 26	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	< 50	< 27	< 28	< 27	< 29	< 26	< 26	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	< 25	< 14	< 14	< 13	< 14	< 13	< 13	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	< 50	< 27	< 28	< 27	< 29	< 26	< 26	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 25	< 25	< 14	< 14	< 13	< 14	< 13	< 13	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 38000	226000	293000	< 38000	71400	< 37	563000	60100	< 38000	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 550	12000	11000	< 540	180000	< 520	760000	< 540	< 540	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 50	< 50	< 27	< 28	< 27	< 29	< 26	< 26	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	< 50	< 27	< 28	< 27	< 29	< 26	< 26	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 50	< 50	< 27	< 28	< 27	< 29	< 26	< 26	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 1	NA	NA	NA	NA	NA	NA	1.3	< 0.76
Arsenic	7440-38-2	mg/kg	NA	NA	5.6	NA	NA	NA	NA	NA	NA	11.3	10.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.4	NA	NA	NA	NA	NA	NA	0.87	0.64
Cadmium	7440-43-9	mg/kg	NA	NA	0.26	NA	NA	NA	NA	NA	NA	0.86	0.45
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	24.3	NA	NA	NA	NA	NA	NA	25.9	23.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	3600	NA	NA	NA	NA	NA	NA	46.3	43.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	1510	NA	NA	NA	NA	NA	NA	72.9	55.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.11	NA	NA	NA	NA	NA	NA	0.12	0.12
Nickel	7440-02-0	mg/kg	NA	NA	17.8	NA	NA	NA	NA	NA	NA	12.9	11.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	< 1	NA	NA	NA	NA	NA	NA	1.9	1.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD
Parent Sample													M9-2251-031N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	< 0.6	NA	NA	NA	NA	NA	NA	0.43	0.12
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 2	NA	NA	NA	NA	NA	NA	< 2	< 1.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	161	NA	NA	NA	NA	NA	NA	92	92.8
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	38500	NA	6300	NA	NA	12700	NA	5610	NA	37900	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	5.1	NA	3.7	NA	NA	2.6	NA	2.1	NA	2.9	NA
Gravel	ARC-PGRAVEL	%	25.4	NA	42.4	NA	NA	33.7	NA	29.6	NA	17.7	NA
Sand	ARC-PSAND	%	54.8	NA	45.8	NA	NA	52.2	NA	56.9	NA	46.8	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	14.6	NA	8.1	NA	NA	11.5	NA	11.5	NA	32.6	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft
Collection Date			5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	7/13/2000	9/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N
Parent Sample				M9-2251-030.5N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 584	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 584	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 584	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 116	< 1214	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 233	< 2427	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 116	< 1214	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 116	< 1214	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 116	< 1214	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft
Collection Date			5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	7/13/2000	9/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N
Parent Sample				M9-2251-030.5N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 58	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 60	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 58	< 607	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 116	< 1214	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 75	< 76	< 7497.766	NA	NA	< 70	< 83	< 697.018	< 738
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	3300	< 380	< 3748	NA	NA	9600	< 420	< 349	< 369
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	130	< 380	< 3748	NA	NA	690	< 420	< 349	< 369
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 37	< 38	NA	NA	NA	< 35	< 42	NA	< 369
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 75	< 76	< 7497.766	NA	NA	< 70	< 83	< 697.018	< 738
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 75	< 76	< 7497.766	NA	NA	< 70	< 83	< 697.018	< 738
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft
Collection Date			5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	7/13/2000	9/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N
Parent Sample				M9-2251-030.5N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 75	< 76	NA	NA	NA	< 70	< 83	NA	< 738
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	210	< 42	< 348.509	< 369
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 37	70	< 3748.883	NA	NA	220	< 42	< 348.509	< 369
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 37	150	2100	NA	NA	490	< 42	< 348.509	68.3
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	59	740	15300	NA	NA	1900	< 42	194	250
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	69	620	24000	NA	NA	2100	< 42	173	227
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	100	870	28200	NA	NA	3600	< 42	244	305
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 37	460	21400	NA	NA	1600	< 42	138	137
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 37	250	10600	NA	NA	1000	< 42	92.4	102
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	30	1500	< 3748.883	NA	NA	110	< 42	23.4	24.4
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	81	800	15300	NA	NA	2600	< 42	192	250
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 37	130	4990	NA	NA	< 35	< 42	< 348.509	< 369
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 37	350	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	180	< 38	724	NA	NA	2900	< 42	< 348.509	50.2
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Fluoranthene	206-44-0	ug/kg	NA	NA	190	1100	23000	NA	NA	3200	< 42	480	639
Fluorene	86-73-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	320	< 42	< 348.509	< 369
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 37	< 38	NA	NA	NA	< 35	< 42	NA	< 369
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 37	440	18500	NA	NA	1700	< 42	127	134
Isophorone	78-59-1	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft
Collection Date			5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	7/13/2000	9/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N
Parent Sample				M9-2251-030.5N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	55	< 42	< 348.509	< 369
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 37	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	21.6	< 369
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	570	2800	2310	NA	NA	490	< 42	NA	< 369
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 75	< 76	< 7497.766	NA	NA	< 70	< 83	< 697.018	< 738
Phenanthrene	85-01-8	ug/kg	NA	NA	68	490	5810	NA	NA	3200	< 42	166	385
Phenol	108-95-2	ug/kg	NA	NA	< 37	< 38	< 3748.883	NA	NA	< 35	< 42	< 348.509	< 369
Pyrene	129-00-0	ug/kg	NA	NA	110	1600	31100	NA	NA	4700	< 42	414	561
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft
Collection Date			5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	7/13/2000	9/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N
Parent Sample				M9-2251-030.5N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 25	< 227.275	< 24	< 227.275	< 25	< 25	< 250	< 100
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 25	< 227.275	< 24	< 227.275	< 25	< 25	< 250	< 100
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	140	< 227.275	6200	< 227.275	< 25	< 25	< 250	< 100
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 240	< 227	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 25	< 227.275	< 24	< 227.275	< 25	< 25	< 250	< 100
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 50	< 454.55	< 48	< 454.55	< 50	< 50	< 500	< 200
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 50	< 454.55	< 48	< 454.55	< 50	< 50	< 500	< 200
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 25	< 227.275	< 24	< 227.275	< 25	< 25	< 250	< 100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 50	< 454.55	< 48	< 454.55	< 50	< 50	< 500	< 200
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	130	442	< 24	< 227.275	< 25	< 25	< 250	< 100
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	70600	75400	93800	42400	56700	< 42000	< 36232.19	< 35.6
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 530	< 5248.434	< 510	< 4880.143	< 500	< 610	< 349	< 5400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 50	< 454.55	< 48	< 454.55	< 50	< 50	< 500	< 200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 50	< 454.55	< 48	< 454.55	< 50	< 50	< 500	< 200
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 50	< 454.55	< 48	< 454.55	< 50	< 50	< 500	< 200
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 0.5	NA	NA	NA	NA	< 0.6	< 0.7	< 0.581429	< 0.658
Arsenic	7440-38-2	mg/kg	NA	NA	6.3	NA	NA	NA	NA	2.9	7.6	2.92	3.45
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.6	NA	NA	NA	NA	0.36	0.75	0.454	0.63
Cadmium	7440-43-9	mg/kg	NA	NA	0.37	NA	NA	NA	NA	0.16	0.59	0.204	0.054
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	20	NA	NA	NA	NA	11	26.4	10.6	10.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	32.6	NA	NA	NA	NA	14.5	14.5	13.4	13.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	16.1	NA	NA	NA	NA	49.2	16.9	10.6	9.03
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.04	NA	NA	NA	NA	0.04	0.05	0.027	0.02
Nickel	7440-02-0	mg/kg	NA	NA	10.6	NA	NA	NA	NA	7.3	16.1	7.37	8.47
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	< 0.4	NA	NA	NA	NA	< 0.5	0.39	0.892	< 0.548

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft
Collection Date			5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	7/13/2000	9/27/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N
Parent Sample				M9-2251-030.5N									
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	NA	< 0.3	NA	NA	NA	NA	< 0.3	< 0.3	< 0.290715	< 0.329
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	0.56	NA	NA	NA	NA	< 1	< 1	< 0.969049	< 1.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	94.1	NA	NA	NA	NA	63.8	136	45.6	46
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	19200	18300	NA	57500	NA	32400	14700	15100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	0.7	4.4	NA	2.9	NA	2.1	26.7	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	29.1	31.4	NA	54.9	NA	52.5	6.2	NA	NA
Sand	ARC-PSAND	%	NA	NA	53	49.1	NA	33.2	NA	39.7	22.1	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	93.1	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	70.8	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.1	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.7	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.9	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.6	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	56.2	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.3	NA
Silt	ARC-PSILT	%	NA	NA	17.2	15.1	NA	9	NA	5.7	45	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01	N5-581-05	N5-582-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000	7/25/2000	5/12/2000
Sample Type			FD	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N	N5-581-051.5N	N5-582-021.5N
Parent Sample			M9-8151-031.5N			N4-2-022N									
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01	N5-581-05	N5-582-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000	7/25/2000	5/12/2000
Sample Type			FD	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N	N5-581-051.5N	N5-582-021.5N
Parent Sample			M9-8151-031.5N			N4-2-022N									
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2,4-Dichlorophenol	120-83-2	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	< 746	< 709	< 75	< 780	< 76	< 719	< 8460	< 78	< 795	< 83	< 79	< 787	< 890
2,4-Dinitrotoluene	121-14-2	ug/kg	2690	1080	< 370	< 390	< 380	135	< 4230	< 390	< 398	< 420	< 400	< 394	< 4400
2,6-Dinitrotoluene	606-20-2	ug/kg	133	198	< 370	< 390	< 380	< 359	< 4230	< 390	< 398	< 420	< 400	< 394	< 4400
2-Chloronaphthalene	91-58-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2-Chlorophenol	95-57-8	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 746	< 709	< 75	< 780	< 76	< 719	< 8460	< 78	< 795	< 83	< 79	< 787	< 890
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 746	< 709	< 75	< 780	< 76	< 719	< 8460	< 78	< 795	< 83	< 79	< 787	< 890
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01	N5-581-05	N5-582-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000	7/25/2000	5/12/2000
Sample Type			FD	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N	N5-581-051.5N	N5-582-021.5N
Parent Sample			M9-8151-031.5N			N4-2-022N									
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 746	< 709	< 75	< 780	< 76	< 719	< 8460	< 78	< 795	< 83	< 79	< 787	< 890
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	40	< 394	< 440
Acenaphthylene	208-96-8	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	210	< 394	380
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	160	< 394	410
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	130	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	120	< 42	470	43.3	1700
Benzo[a]pyrene	50-32-8	ug/kg	123	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	85.9	< 42	400	36.6	1400
Benzo[b]fluoranthene	205-99-2	ug/kg	170	344	< 37	< 390	< 38	< 359	< 4230	< 39	123	< 42	500	< 394	2300
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	180	< 394	< 440
Benzo[k]fluoranthene	207-08-9	ug/kg	< 373	86.2	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	230	< 394	1200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 373	699	< 37	19	46	32.7	< 4230	< 39	< 398	30	18	20.5	290
Butylbenzylphthalate	85-68-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	139	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	104	< 42	490	< 394	2300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 373	1510	< 37	48	62	99.2	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Dimethylphthalate	131-11-3	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Di-n-butylphthalate	84-74-2	ug/kg	2550	1340	< 37	< 390	58	925	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Di-n-octylphthalate	117-84-0	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Fluoranthene	206-44-0	ug/kg	333	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	221	< 42	1200	110	5300
Fluorene	86-73-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	180	< 394	370
Hexachlorobenzene	118-74-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Hexachlorobutadiene	87-68-3	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Hexachloroethane	67-72-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	74.2	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	190	< 394	910
Isophorone	78-59-1	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01	N5-581-05	N5-582-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000	7/25/2000	5/12/2000
Sample Type			FD	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N	N5-581-051.5N	N5-582-021.5N
Parent Sample			M9-8151-031.5N			N4-2-022N									
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	76	< 394	< 440
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
N-Nitrosodimethylamine	62-75-9	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	215	75.6	< 37	< 390	< 38	61.4	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Pentachlorophenol	87-86-5	ug/kg	< 746	< 709	< 75	< 780	< 76	< 719	< 8460	< 78	< 795	< 83	< 79	< 787	< 890
Phenanthrene	85-01-8	ug/kg	157	< 355	< 37	< 390	< 38	< 359	< 4230	28	126	30	1400	92.1	3800
Phenol	108-95-2	ug/kg	< 373	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	< 398	< 42	< 40	< 394	< 440
Pyrene	129-00-0	ug/kg	299	< 355	< 37	< 390	< 38	< 359	< 4230	< 39	186	< 42	990	93.3	3800
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01	N5-581-05	N5-582-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000	7/25/2000	5/12/2000
Sample Type			FD	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N	N5-581-051.5N	N5-582-021.5N
Parent Sample			M9-8151-031.5N			N4-2-022N									
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 95.2	< 250	< 25	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 95.2	< 250	< 25	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 95.2	< 250	< 25	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 95.2	< 250	< 25	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 190	< 500	< 50	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 190	< 500	< 50	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 95.2	< 250	< 25	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 190	< 500	< 50	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 95.2	< 250	< 25	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 38200	1220000	< 38000	< 40300	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5590	18300	< 560	< 5800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 190	47200	< 50	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 190	323000	< 50	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 190	< 500	< 50	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.664	0.321	< 0.6	< 0.64	< 0.6	1.15	< 0.754	< 0.6	< 0.497	< 0.6	< 0.5	< 0.642	11.4
Arsenic	7440-38-2	mg/kg	3.73	3.61	5.2	5.6	4.3	4.13	7.54	4.8	3.83	12	4.3	5.65	12.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.701	0.459	0.23	0.25	0.59	0.567	0.532	0.54	0.428	0.49	0.74	0.555	0.53
Cadmium	7440-43-9	mg/kg	0.064	0.631	< 0.3	< 0.32	0.11	140	< 0.377	< 0.3	< 0.249	< 0.3	0.53	< 0.321	1.1
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.5	8.45	3.7	4.4	13.3	14.4	17.3	20.3	10.7	23.2	20.5	19.4	17.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.4	4740	5.9	7.9	37.6	2210	20.7	13.2	10.2	12.6	10.4	16.6	22.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	11	109	1.9	2.7	10.4	30.7	64.4	16.8	187	67.3	17	19.8	225
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.021	0.032	0.03	0.14	< 0	0.214	0.166	< 0	0.099	< 0	0.07	0.066	0.28
Nickel	7440-02-0	mg/kg	9.1	10.1	1.4	1.8	9.2	10.1	11	13.1	5.79	11.8	9.7	12.4	11.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.554	1.19	0.43	0.66	0.8	2.99	1.61	0.58	1.05	0.64	< 0.4	1.27	< 3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01	N5-581-05	N5-582-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000	7/25/2000	5/12/2000
Sample Type			FD	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N	N5-581-051.5N	N5-582-021.5N
Parent Sample			M9-8151-031.5N			N4-2-022N									
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.332	0.357	< 0.3	< 0.32	< 0.3	0.192	< 0.377	< 0.3	< 0.249	< 0.3	< 0.2	< 0.321	0.42
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.11	< 0.962	< 1	< 1.1	< 1	< 0.917	< 1.26	< 1	0.981	< 1	< 0.9	1.57	< 6
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	47.6	510	11.5	13.8	95	309	78	98.3	156	150	96.8	75.9	80.4
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	1660	NA	10100	NA	NA	33400	NA	96200	47300	NA	201000
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	12.3	NA	7.2	NA	NA	10.1	NA	9.8	9.7	NA	6.4
Gravel	ARC-PGRAVEL	%	NA	NA	1.1	NA	42.4	NA	NA	27.4	NA	17.4	18.9	NA	35.7
Sand	ARC-PSAND	%	NA	NA	45	NA	33.1	NA	NA	45.6	NA	43.6	42.8	NA	45.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	41.5	NA	17.3	NA	NA	16.9	NA	29.1	28.6	NA	12.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N5-6-14	N5-8-01	N5-8-03	N5-8-05	N6-9208-03	N6-9208-03	N6-9208-04	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-14	N7-2-17	N7-394-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N6-9208-032N	N6-9208-032FD	N6-9208-042N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N
Parent Sample								N6-9208-032N								
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N5-6-14	N5-8-01	N5-8-03	N5-8-05	N6-9208-03	N6-9208-03	N6-9208-04	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-14	N7-2-17	N7-394-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N6-9208-032N	N6-9208-032FD	N6-9208-042N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N
Parent Sample								N6-9208-032N								
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds (cont.)																
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
1,2-Dichlorobenzene	95-50-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
1,4-Dichlorobenzene	106-46-7	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2,4-Dichlorophenol	120-83-2	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2,4-Dimethylphenol	105-67-9	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2,4-Dinitrophenol	51-28-5	ug/kg	< 95	< 72	< 87	< 77	NA	NA	NA	< 100	< 90	< 170	< 93	< 90	< 140	< 88
2,4-Dinitrotoluene	121-14-2	ug/kg	120	< 360	< 430	< 380	NA	NA	NA	280	< 450	< 830	< 460	< 450	< 690	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	56	< 360	< 430	< 380	NA	NA	NA	120	< 450	< 830	< 460	< 450	< 690	< 440
2-Chloronaphthalene	91-58-7	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2-Chlorophenol	95-57-8	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 95	< 72	< 87	< 77	NA	NA	NA	< 100	< 90	< 170	< 93	< 90	< 140	< 88
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 95	< 72	< 87	< 77	NA	NA	NA	< 100	< 90	< 170	< 93	< 90	< 140	< 88
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N5-6-14	N5-8-01	N5-8-03	N5-8-05	N6-9208-03	N6-9208-03	N6-9208-04	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-14	N7-2-17	N7-394-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N6-9208-032N	N6-9208-032FD	N6-9208-042N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N
Parent Sample								N6-9208-032N								
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 95	< 72	< 87	< 77	NA	NA	NA	< 100	< 90	< 170	< 93	< 90	< 140	< 88
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	43	< 45	< 83	< 46	< 45	< 69	< 44
Acenaphthylene	208-96-8	ug/kg	250	< 36	< 43	< 38	NA	NA	NA	260	150	220	120	< 45	130	< 44
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	330	< 36	< 43	< 38	NA	NA	NA	900	58	450	190	< 45	130	< 44
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	2500	< 36	< 43	< 38	NA	NA	NA	4200	600	4100	1400	94	2200	< 44
Benzo[a]pyrene	50-32-8	ug/kg	1800	< 36	< 43	< 38	NA	NA	NA	2600	660	1800	1000	88	2400	< 44
Benzo[b]fluoranthene	205-99-2	ug/kg	3900	< 36	< 43	< 38	NA	NA	NA	5400	1300	4900	3500	160	4200	< 44
Benzo[g,h,i]perylene	191-24-2	ug/kg	740	< 36	< 43	< 38	NA	NA	NA	1200	460	800	480	< 45	2000	< 44
Benzo[k]fluoranthene	207-08-9	ug/kg	1600	< 36	< 43	< 38	NA	NA	NA	2500	540	2000	1100	< 45	1800	< 44
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	200	42	140	39	NA	NA	NA	170	120	160	52	80	140	< 44
Butylbenzylphthalate	85-68-7	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	2900	< 36	< 43	< 38	NA	NA	NA	3900	700	3700	2000	100	2600	< 44
Dibenzo[a,h]anthracene	53-70-3	ug/kg	280	< 36	< 43	< 38	NA	NA	NA	490	180	340	200	< 45	610	< 44
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	710	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Dimethylphthalate	131-11-3	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Di-n-butylphthalate	84-74-2	ug/kg	300	< 36	< 43	< 38	NA	NA	NA	46	46	< 83	< 46	< 45	150	< 44
Di-n-octylphthalate	117-84-0	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Fluoranthene	206-44-0	ug/kg	2800	< 36	< 43	< 38	NA	NA	NA	4700	860	4600	860	200	4000	< 44
Fluorene	86-73-7	ug/kg	30	< 36	< 43	< 38	NA	NA	NA	86	40	< 83	< 46	< 45	< 69	< 44
Hexachlorobenzene	118-74-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Hexachlorobutadiene	87-68-3	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Hexachloroethane	67-72-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	770	< 36	< 43	< 38	NA	NA	NA	1300	470	930	550	< 45	1900	< 44
Isophorone	78-59-1	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N5-6-14	N5-8-01	N5-8-03	N5-8-05	N6-9208-03	N6-9208-03	N6-9208-04	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-14	N7-2-17	N7-394-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N6-9208-032N	N6-9208-032FD	N6-9208-042N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N
Parent Sample								N6-9208-032N								
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
Naphthalene	91-20-3	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	41	39	< 83	< 46	< 45	110	< 44
Nitrobenzene	98-95-3	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
N-Nitrosodiphenylamine	86-30-6	ug/kg	690	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Pentachlorophenol	87-86-5	ug/kg	< 95	< 72	< 87	< 77	NA	NA	NA	< 100	< 90	< 170	< 93	< 90	< 140	< 88
Phenanthrene	85-01-8	ug/kg	230	< 36	< 43	< 38	NA	NA	NA	540	500	290	46	60	1100	< 44
Phenol	108-95-2	ug/kg	< 48	< 36	< 43	< 38	NA	NA	NA	< 50	< 45	< 83	< 46	< 45	< 69	< 44
Pyrene	129-00-0	ug/kg	7300	< 36	< 43	< 38	NA	NA	NA	5700	1600	6600	1700	160	4400	< 44
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls																
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N5-6-14	N5-8-01	N5-8-03	N5-8-05	N6-9208-03	N6-9208-03	N6-9208-04	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-14	N7-2-17	N7-394-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N6-9208-032N	N6-9208-032FD	N6-9208-042N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N
Parent Sample								N6-9208-032N								
CONSTITUENT	***CAS NO.***	***UNITS***														
Explosives and Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 25	< 240	< 25	NA	NA	NA	NA	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 25	< 240	< 25	NA	NA	NA	NA	NA	NA	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 25	< 240	< 25	NA	NA	NA	NA	NA	NA	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 240	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 250	< 240	< 250	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 25	< 240	< 25	NA	NA	NA	NA	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 50	< 480	< 50	NA	NA	NA	NA	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 50	< 480	< 50	NA	NA	NA	NA	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 25	< 240	< 25	NA	NA	NA	NA	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 50	< 480	< 50	NA	NA	NA	NA	NA	NA	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 25	< 240	< 25	NA	NA	NA	NA	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	< 37000	< 37800	< 35000	NA	NA	NA	NA	NA	NA	77200
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 500	< 5300	< 530	NA	NA	NA	NA	NA	NA	< 660
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 50	< 480	< 50	NA	NA	NA	NA	NA	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 50	< 480	< 50	NA	NA	NA	NA	NA	NA	< 50
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 50	< 480	< 50	NA	NA	NA	NA	NA	NA	< 50
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.86	< 0.6	< 0.7	< 0.6	NA	NA	NA	< 4	7.6	1.5	< 0.7	< 0.6	3.9	< 0.7
Arsenic	7440-38-2	mg/kg	25.1	2	2.8	2.2	NA	NA	NA	81.6	108	34.8	18.7	3.1	16.9	4.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.34	0.24	0.58	0.67	NA	NA	NA	0.68	0.48	0.44	0.7	0.69	0.57	0.65
Cadmium	7440-43-9	mg/kg	0.58	0.52	0.97	0.13	NA	NA	NA	0.73	< 3	2.7	0.86	0.33	1	0.32
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	16	8.1	19.2	13	NA	NA	NA	57.8	60.2	23.1	13.3	14.9	17.6	10.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	84	10.6	20.9	17.8	NA	NA	NA	62.1	180	40.9	17.7	13.2	69.9	11.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	191	27.5	35.4	7.2	NA	NA	NA	210	942	95.5	59	12.3	629	22.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.32	0.04	0.09	< 0	NA	NA	NA	0.23	0.23	0.26	0.08	0.05	0.37	0.09
Nickel	7440-02-0	mg/kg	7.6	4.6	13.5	12.1	NA	NA	NA	29.9	157	24.2	11.1	9.5	11.7	7.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	2.3	0.66	1.2	< 0.5	NA	NA	NA	3.5	5.1	2.5	0.96	0.84	2.9	0.86

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N5-6-14	N5-8-01	N5-8-03	N5-8-05	N6-9208-03	N6-9208-03	N6-9208-04	N7-2-06	N7-2-07	N7-2-10	N7-2-13	N7-2-14	N7-2-17	N7-394-01
Depths			0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/2/2000
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	N6-9208-032N	N6-9208-032FD	N6-9208-042N	N7-2-061N	N7-2-071N	N7-2-101N	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N
Parent Sample								N6-9208-032N								
CONSTITUENT	***CAS NO.***	***UNITS***														
Metals (cont.)																
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3	NA	NA	NA	0.74	< 3	0.32	< 0.3	< 0.3	0.32	< 0.4
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	< 1	NA	NA	NA	< 7	< 12	< 2	< 1	< 1	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	101	41.2	100	87.7	NA	NA	NA	452	490	282	121	91.2	106	51.3
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	38200	77900	NA	NA	30500	NA	NA	39400	NA	NA	NA	NA	NA	27600
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution																
Clay	ARC-PCLAY	%	6.6	5.5	NA	NA	3.8	NA	NA	9	NA	NA	NA	NA	NA	13.4
Gravel	ARC-PGRAVEL	%	37.3	35.7	NA	NA	26.7	NA	NA	40.6	NA	NA	NA	NA	NA	22.1
Sand	ARC-PSAND	%	43.6	47.3	NA	NA	46	NA	NA	27.8	NA	NA	NA	NA	NA	42.7
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	12.5	11.6	NA	NA	23.5	NA	NA	22.6	NA	NA	NA	NA	NA	21.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
1,2-Dichlorobenzene	95-50-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
1,4-Dichlorobenzene	106-46-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2,4-Dichlorophenol	120-83-2	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2,4-Dimethylphenol	105-67-9	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2,4-Dinitrophenol	51-28-5	ug/kg	< 874	NA	< 77	< 869	< 85	< 85	< 83	< 78	< 796	NA	NA	< 78	< 140
2,4-Dinitrotoluene	121-14-2	ug/kg	< 437	NA	< 380	< 435	< 430	< 430	120	< 390	< 398	NA	NA	< 390	< 720
2,6-Dinitrotoluene	606-20-2	ug/kg	< 437	NA	< 380	< 435	< 430	< 430	< 420	< 390	< 398	NA	NA	< 390	< 720
2-Chloronaphthalene	91-58-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2-Chlorophenol	95-57-8	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 874	NA	< 77	< 869	< 85	< 85	< 83	< 78	< 796	NA	NA	< 78	< 140
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 874	NA	< 77	< 869	< 85	< 85	< 83	< 78	< 796	NA	NA	< 78	< 140
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 874	NA	< 77	< 869	< 85	< 85	< 83	16	< 796	NA	NA	< 78	< 140
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	71	99
Acenaphthylene	208-96-8	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	39	< 39	< 398	NA	NA	160	320
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	36	< 39	< 398	NA	NA	410	700
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 437	NA	72	< 435	< 43	< 43	260	< 39	< 398	NA	NA	1600	3300
Benzo[a]pyrene	50-32-8	ug/kg	< 437	NA	86	< 435	< 43	< 43	210	< 39	< 398	NA	NA	1500	3100
Benzo[b]fluoranthene	205-99-2	ug/kg	< 437	NA	140	< 435	< 43	< 43	530	< 39	< 398	NA	NA	2400	4100
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	190	< 39	< 398	NA	NA	1400	2100
Benzo[k]fluoranthene	207-08-9	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	180	< 39	< 398	NA	NA	1100	1500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	67	< 39	< 398	NA	NA	78	< 72
Butylbenzylphthalate	85-68-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 437	NA	120	< 435	< 43	< 43	330	< 39	< 398	NA	NA	2000	4000
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	430	590
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 437	NA	< 38	< 435	< 43	2000	< 42	< 39	< 398	NA	NA	220	120
Dimethylphthalate	131-11-3	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Di-n-butylphthalate	84-74-2	ug/kg	159	NA	84	< 435	< 43	< 43	36	< 39	55.4	NA	NA	4400	2200
Di-n-octylphthalate	117-84-0	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Fluoranthene	206-44-0	ug/kg	< 437	NA	190	< 435	< 43	< 43	430	< 39	< 398	NA	NA	2900	6500
Fluorene	86-73-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	140	220
Hexachlorobenzene	118-74-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Hexachlorobutadiene	87-68-3	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Hexachloroethane	67-72-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	180	< 39	< 398	NA	NA	1200	1700
Isophorone	78-59-1	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	24	< 39	< 398	NA	NA	< 39	< 72
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 437	NA	< 38	40.4	< 43	550	< 42	< 39	< 398	NA	NA	620	310
Pentachlorophenol	87-86-5	ug/kg	< 874	NA	< 77	< 869	< 85	< 85	< 83	< 78	< 796	NA	NA	< 78	< 140
Phenanthrene	85-01-8	ug/kg	< 437	NA	160	< 435	< 43	< 43	180	< 39	< 398	NA	NA	1700	2800
Phenol	108-95-2	ug/kg	< 437	NA	< 38	< 435	< 43	< 43	< 42	< 39	< 398	NA	NA	< 39	< 72
Pyrene	129-00-0	ug/kg	< 437	NA	200	< 435	< 43	< 43	610	< 39	< 398	NA	NA	3900	6800
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	< 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	< 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	< 46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	NA	NA	< 227	< 25	< 24	< 25	< 25	< 238	< 217	< 25	< 25	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	NA	NA	< 227	< 25	< 24	< 25	< 25	< 238	< 217	< 25	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 250	NA	NA	< 227	< 25	< 24	< 25	< 25	< 238	< 217	390	< 25	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 217	< 250	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	NA	NA	< 227	< 25	< 24	< 25	< 25	< 238	< 217	< 25	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 500	NA	NA	< 455	< 50	< 48	< 50	< 50	< 476	< 435	< 50	< 50	< 49
3-Nitrotoluene	99-08-1	ug/kg	< 500	NA	NA	< 455	< 50	< 48	< 50	< 50	< 476	< 435	< 50	< 50	< 49
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	NA	NA	< 227	< 25	< 24	< 25	< 25	< 238	< 217	< 25	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 500	NA	NA	< 455	< 50	< 48	< 50	< 50	< 476	< 435	< 50	< 50	< 49
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 250	NA	NA	< 227	< 25	< 24	< 25	< 25	< 238	< 217	< 25	< 25	< 25
Nitrocellulose	9004-70-0	ug/kg	< 46.2	NA	NA	< 45.9	74700	365000	105000	< 41000	< 42.2	61800	879000	872000	579000
Nitroglycerin	55-63-0	ug/kg	< 6550	NA	NA	< 5930	< 640	62000	< 630	< 580	< 5980	< 5720	110000	8400	2300
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 500	NA	NA	< 455	< 50	< 48	< 50	< 50	< 476	< 435	< 50	< 50	< 49
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	NA	NA	< 455	< 50	< 48	< 50	< 50	< 476	< 435	< 50	< 50	< 49
Tetryl	479-45-8	ug/kg	< 500	NA	NA	< 455	< 50	< 48	< 50	< 50	< 476	< 435	< 50	< 50	< 49
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.339	NA	0.59	0.59	< 0.7	< 0.7	0.5	< 0.6	< 0.569	NA	NA	< 0.6	< 0.6
Arsenic	7440-38-2	mg/kg	7.02	NA	8	7.57	7.9	7.2	32.7	3.4	4.03	NA	NA	3.3	1.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.925	NA	0.79	0.546	0.5	0.48	0.45	0.72	0.663	NA	NA	0.55	0.34
Cadmium	7440-43-9	mg/kg	< 0.32	NA	0.26	< 0.251	0.14	0.17	0.84	0.18	< 0.285	NA	NA	0.64	0.47
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.6	NA	9.6	22.9	17.3	14.8	17	17.1	14.9	NA	NA	15.1	10.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	15.5	NA	16.1	17.6	14.8	10.3	58.5	14.1	23.4	NA	NA	24.6	20.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	45.2	NA	75.7	47.2	20	15.9	274	7.4	16	NA	NA	19	9.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.12	NA	0.17	0.078	0.05	0.05	0.42	< 0	0.024	NA	NA	0.04	0.02
Nickel	7440-02-0	mg/kg	10.6	NA	7	12.4	9.7	7.5	16.5	9.7	10.8	NA	NA	9.2	7.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.37	NA	1.3	0.683	< 0.6	0.62	2	< 0.5	0.698	NA	NA	0.91	0.56

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.32	NA	0.1	< 0.251	< 0.3	< 0.3	0.16	< 0.3	< 0.285	NA	NA	< 0.3	0.09
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.574	NA	< 1	1.43	< 1	< 1	< 1	< 1	1.47	NA	NA	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	82.1	NA	69.4	67.7	77.3	70	66.9	69.7	81.8	NA	NA	213	101
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	10800	123000	NA	28900	29000	57400	9030	NA	NA	1480	31100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	1.1	7.5	NA	7.7	7.6	6.2	10.4	NA	NA	-1.1	5.5	NA
Gravel	ARC-PGRAVEL	%	NA	37.6	12	NA	26.8	27.2	45.1	18.7	NA	NA	24.4	23.2	NA
Sand	ARC-PSAND	%	NA	55.8	44.7	NA	38.6	45.7	37	46.7	NA	NA	68.6	55.9	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	5.4	35.8	NA	26.9	19.4	11.7	24.1	NA	NA	8.1	15.4	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N8-389-04	N8-389-05	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			8/2/2000	4/28/2000	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			N8-389-041.5N	N8-389-051N	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N
Parent Sample											N9-2267-052N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N8-389-04	N8-389-05	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			8/2/2000	4/28/2000	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			N8-389-041.5N	N8-389-051N	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N
Parent Sample											N9-2267-052N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	< 76	< 72	< 701.422	< 772	< 722	< 710	< 150	< 853.496	< 89
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 380	< 360	51.2	63.7	1100	< 355	< 740	< 426	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 380	< 360	< 351	< 386	41.9	< 355	< 740	< 426	< 440
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 38	< 36	NA	< 386	< 361	< 355	< 74	NA	< 44
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	< 76	< 72	< 701.422	< 772	< 722	< 710	< 150	< 853.496	< 89
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	< 76	< 72	< 701.422	< 772	< 722	< 710	< 150	< 853.496	< 89
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N8-389-04	N8-389-05	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			8/2/2000	4/28/2000	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			N8-389-041.5N	N8-389-051N	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N
Parent Sample											N9-2267-052N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 76	< 72	NA	< 772	< 722	< 710	< 150	NA	< 89
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 38	58	91.5	< 386	< 361	< 355	< 74	< 426.748	< 44
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 38	16	< 350.711	24.3	53.8	23.4	59	< 426.748	< 44
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 38	360	426	56.7	91.7	41.5	160	< 426.748	< 44
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	< 38	1500	1920	202	330	188	720	156	39
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	< 38	1200	1840	215	279	145	690	121	39
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	< 38	1900	2560	427	385	184	1100	253	< 44
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 38	390	1450	172	198	111	430	97	< 44
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	< 38	750	965	182	151	94	400	101	< 44
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	47	100	44.2	101	36.1	21.6	190	< 426.748	24
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	41	1200	2190	221	380	195	730	222	55
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 38	140	417	< 386	54.1	< 355	< 74	< 426.748	< 44
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	< 38	32	< 350.711	86	< 361	< 355	76	< 426.748	< 44
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	73	83	262	80900	87.3	37.6	12000	208	< 44
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	75	2700	3560	387	555	292	1600	322	110
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 38	150	176	< 386	< 361	< 355	74	< 426.748	< 44
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 38	< 36	NA	< 386	< 361	< 355	< 74	NA	< 44
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	< 38	420	1340	152	167	91.2	440	83	< 44
Isophorone	78-59-1	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N8-389-04	N8-389-05	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			8/2/2000	4/28/2000	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			N8-389-041.5N	N8-389-051N	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N
Parent Sample											N9-2267-052N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	< 38	< 36	793	< 386	< 361	< 355	< 74	< 426.748	< 44
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	< 38	1100	NA	19900	2010	85.2	1900	2210	< 44
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	< 76	< 72	< 701.422	< 772	< 722	< 710	< 150	< 853.496	< 89
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	38	1300	2450	155	230	123	730	156	60
Phenol	108-95-2	ug/kg	NA	NA	NA	< 38	< 36	< 350.711	< 386	< 361	< 355	< 74	< 426.748	< 44
Pyrene	129-00-0	ug/kg	NA	NA	NA	< 38	2400	5660	414	754	411	1200	296	< 44
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 39.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	< 79.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	< 79.9	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N8-389-04	N8-389-05	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			8/2/2000	4/28/2000	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			N8-389-041.5N	N8-389-051N	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N
Parent Sample											N9-2267-052N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 200	< 25	NA	< 25	< 24	< 250	< 250	< 250	< 250	< 25	< 172.425	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 200	< 25	NA	< 25	< 24	< 250	< 250	< 250	< 250	< 25	< 172.425	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 200	< 25	NA	< 25	< 24	< 250	3750	< 250	< 250	1300	< 172.425	< 25
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 200	< 25	NA	< 25	< 24	< 250	< 250	< 250	< 250	< 25	< 172.425	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 400	< 50	NA	< 50	< 48	< 500	< 500	< 500	< 500	< 50	< 344.85	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 400	< 50	NA	< 50	< 48	< 500	< 500	< 500	< 500	< 50	< 344.85	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 200	< 25	NA	< 25	< 24	< 250	< 250	< 250	< 250	< 25	< 172.425	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 400	< 50	NA	< 50	< 48	< 500	< 500	< 500	< 500	< 50	< 344.85	< 50
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 200	< 25	NA	< 25	< 24	< 250	177	< 250	< 250	< 25	< 172.425	< 25
Nitrocellulose	9004-70-0	ug/kg	48000	< 46000	NA	< 39000	79000	130000	14500000	39500	< 380	161000	93300	51500
Nitroglycerin	55-63-0	ug/kg	< 5945.656	< 660	NA	< 570	54000	< 351	552000	< 5330	< 5240	5600	< 6096.408	< 660
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 400	< 50	NA	< 50	< 48	< 500	< 500	< 500	< 500	< 50	< 344.85	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 400	< 50	NA	< 50	< 48	< 500	< 500	< 500	< 500	< 50	< 344.85	< 50
Tetryl	479-45-8	ug/kg	< 400	< 50	NA	< 50	< 48	< 500	< 500	< 500	< 500	< 50	< 344.85	< 50
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	< 0.6	< 0.6	< 0.625655	< 0.643	< 0.619	< 0.602	< 0.6	< 0.760542	< 0.7
Arsenic	7440-38-2	mg/kg	NA	NA	NA	2.8	6	5.95	3.89	14.9	6.34	3.1	7.54	5.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	0.14	0.21	0.252	0.442	0.362	0.329	0.39	0.194	0.14
Cadmium	7440-43-9	mg/kg	NA	NA	NA	< 0.3	< 0.3	0.221	0.646	0.283	0.333	0.59	0.358	1.5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	8.2	9.9	22.8	15.5	175	149	12.3	15.3	9.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	6	75.7	33.4	32.8	16.6	14.4	21.6	96.7	20
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	31.3	93.6	37.4	38.8	43.2	41.2	22.7	135	170
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	0.1	0.34	0.075	0.155	< 0.031	0.021	0.05	0.115	0.09
Nickel	7440-02-0	mg/kg	NA	NA	NA	3.3	4.6	11.4	8.5	5.14	4.76	7.2	6.03	4.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	< 0.5	< 0.5	0.915	0.816	0.462	< 0.502	0.62	1.07	1.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N8-389-04	N8-389-05	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05
Depths			0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			8/2/2000	4/28/2000	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N
Sample Name			N8-389-041.5N	N8-389-051N	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N
Parent Sample											N9-2267-052N			
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	NA	NA	< 0.3	< 0.3	< 0.312827	< 0.322	< 0.309	< 0.301	0.1	< 0.380271	0.22
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	< 1	< 1	< 1.042758	< 1.07	< 1.03	< 1	< 1	< 1.26757	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	19.8	52.3	58.5	338	286	444	134	45.2	374
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	31200	38700	9410	NA	33600	19000	NA	NA	14300	NA	45800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	12	NA	11.1	NA	NA	NA	NA	NA	1.9	NA	2.5
Gravel	ARC-PGRAVEL	%	NA	20.9	NA	18.1	NA	NA	NA	NA	NA	40.4	NA	20.3
Sand	ARC-PSAND	%	NA	44.9	NA	59.6	NA	NA	NA	NA	NA	45.8	NA	51.6
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	87.1	77.1	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	96.5	91.3	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	100	91.3	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	77.5	61.2	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	47.7	15.2	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	82.3	68.7	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	64.3	38.7	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	52.4	21.9	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	70.8	50	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	57.9	29.2	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	22.1	NA	11.2	NA	NA	NA	NA	NA	11.9	NA	25.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/26/2000	9/12/2000	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N
Parent Sample					N9-B4-042N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 410	< 380	NA	< 390	NA	< 360	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/26/2000	9/12/2000	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N
Parent Sample					N9-B4-042N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 410	< 380	NA	< 390	NA	< 360	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
1,2-Dichlorobenzene	95-50-1	ug/kg	< 369	NA	NA	< 382	NA	< 342	NA	< 41	< 374	< 379	< 39	< 470
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 410	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 369	NA	NA	< 382	NA	< 342	NA	< 41	< 374	< 379	< 39	< 470
1,4-Dichlorobenzene	106-46-7	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
2,4-Dichlorophenol	120-83-2	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
2,4-Dimethylphenol	105-67-9	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
2,4-Dinitrophenol	51-28-5	ug/kg	< 739	< 410	< 770	< 764	< 390	< 684	< 360	< 82	< 748	< 757	< 78	< 940
2,4-Dinitrotoluene	121-14-2	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 410	< 374	< 379	< 390	< 470
2,6-Dinitrotoluene	606-20-2	ug/kg	< 369	NA	NA	< 382	NA	< 342	NA	< 410	< 374	< 379	< 390	< 470
2-Chloronaphthalene	91-58-7	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
2-Chlorophenol	95-57-8	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 369	NA	NA	< 382	NA	< 342	NA	< 41	< 374	< 379	< 39	< 470
2-Nitrotoluene	88-72-2	ug/kg	NA	< 410	< 380	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 739	NA	NA	< 764	NA	< 684	NA	< 82	< 748	< 757	< 78	< 940
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 810	< 770	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 739	< 810	< 770	< 764	< 780	< 684	< 720	< 82	< 748	< 757	< 78	< 940
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/26/2000	9/12/2000	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N
Parent Sample					N9-B4-042N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 739	NA	NA	< 764	NA	< 684	NA	< 82	< 748	< 757	< 78	< 940
4-Nitrotoluene	99-99-0	ug/kg	NA	< 810	< 770	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 369	< 410	22.13	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Acenaphthylene	208-96-8	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 369	33.7	70.2	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	93.5	186	286	46.2	< 390	< 342	< 360	< 41	< 374	37.1	< 39	< 470
Benzo[a]pyrene	50-32-8	ug/kg	82.4	170	246	45.5	< 390	< 342	< 360	< 41	< 374	40.5	< 39	41.4
Benzo[b]fluoranthene	205-99-2	ug/kg	137	233	325	< 382	< 390	< 342	< 360	< 41	< 374	93.9	< 39	< 470
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 369	< 410	85.84	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Benzo[k]fluoranthene	207-08-9	ug/kg	< 369	< 410	183	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	21.1	778	28.23	< 382	< 390	< 342	121	< 41	< 374	19.3	< 39	37.1
Butylbenzylphthalate	85-68-7	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	126	190	269	67.6	< 390	< 342	< 360	< 41	< 374	62.1	< 39	< 470
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Dimethylphthalate	131-11-3	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Di-n-butylphthalate	84-74-2	ug/kg	< 369	< 410	< 380	81	< 390	80.1	< 360	< 41	< 374	< 379	< 39	< 470
Di-n-octylphthalate	117-84-0	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Fluoranthene	206-44-0	ug/kg	298	480	697	142	< 390	< 342	< 360	< 41	< 374	126	< 39	< 470
Fluorene	86-73-7	ug/kg	< 369	< 410	43.49	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Hexachlorobenzene	118-74-1	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Hexachlorobutadiene	87-68-3	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Hexachloroethane	67-72-1	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 369	< 410	98.43	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Isophorone	78-59-1	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/26/2000	9/12/2000	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N
Parent Sample					N9-B4-042N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	< 369	NA	NA	< 382	NA	< 342	NA	< 41	< 374	< 379	< 39	< 470
Nitrobenzene	98-95-3	ug/kg	< 369	< 410	< 380	NA	NA	NA	NA	< 41	< 374	< 379	< 39	< 470
N-Nitrosodimethylamine	62-75-9	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
N-Nitrosodiphenylamine	86-30-6	ug/kg	54.3	< 410	< 380	< 382	< 390	< 342	95.28	< 41	< 374	< 379	< 39	< 470
Pentachlorophenol	87-86-5	ug/kg	< 739	< 810	< 770	< 764	< 780	< 684	< 720	< 82	< 748	< 757	< 78	< 940
Phenanthrene	85-01-8	ug/kg	130	178	361	74.5	< 390	< 342	< 360	< 41	< 374	147	< 39	66.3
Phenol	108-95-2	ug/kg	< 369	< 410	< 380	< 382	< 390	< 342	< 360	< 41	< 374	< 379	< 39	< 470
Pyrene	129-00-0	ug/kg	228	371	508	144	< 390	< 342	< 360	< 41	< 374	95	< 39	< 470
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/26/2000	9/12/2000	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N
Parent Sample					N9-B4-042N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 238	< 240	< 250	< 240	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 238	< 240	< 250	< 240	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 238	< 240	< 250	< 240	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 238	< 240	< 250	< 240	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 476	< 490	< 500	< 490	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 476	< 490	< 500	< 490	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 238	< 240	< 250	< 240	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 476	< 490	< 500	< 490	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 238	< 240	< 250	< 240	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	< 40.2	38600	< 29.5	22000	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 5740	< 5800	< 4890	< 5400	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	< 476	< 490	< 500	< 490	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 476	< 490	< 500	< 490	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 476	< 490	< 500	< 490	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.617	< 0.67	< 0.654	< 0.638	< 0.679	< 0.604	< 0.613	< 0.6	< 0.556	< 0.528	< 0.6	< 0.832
Arsenic	7440-38-2	mg/kg	3.19	4	4.7	5.2	3.34	1.77	2.36	4	12.3	5.86	4.3	7.36
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.42	0.425	0.387	0.299	0.329	0.099	0.362	0.6	0.561	0.513	0.48	1.2
Cadmium	7440-43-9	mg/kg	1.47	0.286	0.362	1.19	< 0.34	< 0.302	< 0.306	< 0.3	< 0.278	< 0.264	< 0.3	0.144
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.2	16.1	15.7	17.1	10.1	5.94	8.97	18.4	17.8	14.1	35	13.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	20.4	13.3	12.6	168	10.6	6.85	12.4	12.7	24.9	17.2	13.9	15.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	26.8	19.1	19.8	45.6	9.56	8.92	7.24	11.8	34.4	37.5	11.1	65.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.043	0.047	0.05	0.204	0.162	< 0.033	< 0.035	0.04	0.053	0.052	0.06	0.253
Nickel	7440-02-0	mg/kg	8.38	9.36	8.98	13	5.89	2.75	6.05	22.9	13	9.67	17.6	5.61
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.01	0.395	0.845	1.12	0.465	0.345	< 0.511	< 0.5	0.891	0.988	< 0.5	0.626

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/26/2000	9/12/2000	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N	N
Sample Name			N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N
Parent Sample					N9-B4-042N									
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	< 0.308	0.085	0.103	0.192	< 0.34	< 0.302	< 0.306	< 0.3	< 0.278	< 0.264	< 0.3	0.392
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.03	< 1.12	< 1.09	< 1.06	< 1.13	< 1.01	< 1.02	0.54	1.06	1.41	< 1	< 1.39
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	907	1190	1380	397	359	31.2	64.7	81.8	112	95.1	101	66.5
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	8420	NA	NA	4340	NA	6440	28400	NA	NA	9920	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	14.4	NA	NA	8.8	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	19.9	NA	NA	25.9	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	42.3	NA	NA	46.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	23.5	NA	NA	18.7	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O5-534-04 0.0-1.0 ft 5/11/2000 N O5-534-041N	O5-537-02 0.0-1.0 ft 7/25/2000 N O5-537-021N	O5-537-02 0.0-1.0 ft 7/25/2000 FD O5-537-021FD O5-537-021N	O5-537-05 0.0-2.0 ft 5/9/2000 N O5-537-052N	O5-578-02 0.0-1.0 ft 7/25/2000 N O5-578-021N	O5-578-04 0.0-1.5 ft 5/9/2000 N O5-578-041.5N	O5-579-01 0.0-0.5 ft 7/25/2000 N O5-579-010.5N	O5-579-04 0.0-1.5 ft 5/11/2000 N O5-579-041.5N	O5-580.5-02 0.0-2.0 ft 5/11/2000 N O5-580.5-022N	O5-580.5-05 0.0-1.0 ft 7/25/2000 N O5-580.5-051N	O5-580.75-04 0.0-1.0 ft 7/25/2000 N O5-580.75-041N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-534-04	O5-537-02	O5-537-02	O5-537-05	O5-578-02	O5-578-04	O5-579-01	O5-579-04	O5-580.5-02	O5-580.5-05	O5-580.75-04
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/11/2000	7/25/2000	7/25/2000	5/9/2000	7/25/2000	5/9/2000	7/25/2000	5/11/2000	5/11/2000	7/25/2000	7/25/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			O5-534-041N	O5-537-021N	O5-537-021FD	O5-537-052N	O5-578-021N	O5-578-041.5N	O5-579-010.5N	O5-579-041.5N	O5-580.5-022N	O5-580.5-051N	O5-580.75-041N
Parent Sample					O5-537-021N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 88	NA	NA	NA	NA	NA	NA	NA	< 80	< 766	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 440	NA	NA	NA	NA	NA	NA	NA	< 400	< 383	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 440	NA	NA	NA	NA	NA	NA	NA	< 400	< 383	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2-Chlorophenol	95-57-8	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 88	NA	NA	NA	NA	NA	NA	NA	< 80	< 766	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 88	NA	NA	NA	NA	NA	NA	NA	< 80	< 766	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-534-04	O5-537-02	O5-537-02	O5-537-05	O5-578-02	O5-578-04	O5-579-01	O5-579-04	O5-580.5-02	O5-580.5-05	O5-580.75-04
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/11/2000	7/25/2000	7/25/2000	5/9/2000	7/25/2000	5/9/2000	7/25/2000	5/11/2000	5/11/2000	7/25/2000	7/25/2000
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			O5-534-041N	O5-537-021N	O5-537-021FD	O5-537-052N	O5-578-021N	O5-578-041.5N	O5-579-010.5N	O5-579-041.5N	O5-580.5-022N	O5-580.5-051N	O5-580.75-041N
Parent Sample					O5-537-021N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 88	NA	NA	NA	NA	NA	NA	NA	< 80	< 766	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Acenaphthylene	208-96-8	ug/kg	62	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	130	NA	NA	NA	NA	NA	NA	NA	< 40	130	NA
Benzo[a]pyrene	50-32-8	ug/kg	180	NA	NA	NA	NA	NA	NA	NA	< 40	98.1	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	320	NA	NA	NA	NA	NA	NA	NA	< 40	141	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	26	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	220	NA	NA	NA	NA	NA	NA	NA	< 40	128	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Dimethylphthalate	131-11-3	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Fluoranthene	206-44-0	ug/kg	580	NA	NA	NA	NA	NA	NA	NA	< 40	235	NA
Fluorene	86-73-7	ug/kg	37	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Hexachlorobenzene	118-74-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Hexachloroethane	67-72-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Isophorone	78-59-1	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O5-534-04 0.0-1.0 ft 5/11/2000 N O5-534-041N	O5-537-02 0.0-1.0 ft 7/25/2000 N O5-537-021N	O5-537-02 0.0-1.0 ft 7/25/2000 FD O5-537-021FD O5-537-021N	O5-537-05 0.0-2.0 ft 5/9/2000 N O5-537-052N	O5-578-02 0.0-1.0 ft 7/25/2000 N O5-578-021N	O5-578-04 0.0-1.5 ft 5/9/2000 N O5-578-041.5N	O5-579-01 0.0-0.5 ft 7/25/2000 N O5-579-010.5N	O5-579-04 0.0-1.5 ft 5/11/2000 N O5-579-041.5N	O5-580.5-02 0.0-2.0 ft 5/11/2000 N O5-580.5-022N	O5-580.5-05 0.0-1.0 ft 7/25/2000 N O5-580.5-051N	O5-580.75-04 0.0-1.0 ft 7/25/2000 N O5-580.75-041N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	30	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Nitrobenzene	98-95-3	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	240	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Pentachlorophenol	87-86-5	ug/kg	< 88	NA	NA	NA	NA	NA	NA	NA	< 80	< 766	NA
Phenanthrene	85-01-8	ug/kg	450	NA	NA	NA	NA	NA	NA	NA	47	102	NA
Phenol	108-95-2	ug/kg	< 44	NA	NA	NA	NA	NA	NA	NA	< 40	< 383	NA
Pyrene	129-00-0	ug/kg	390	NA	NA	NA	NA	NA	NA	NA	< 40	185	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O5-534-04 0.0-1.0 ft 5/11/2000 N O5-534-041N	O5-537-02 0.0-1.0 ft 7/25/2000 N O5-537-021N	O5-537-02 0.0-1.0 ft 7/25/2000 FD O5-537-021FD O5-537-021N	O5-537-05 0.0-2.0 ft 5/9/2000 N O5-537-052N	O5-578-02 0.0-1.0 ft 7/25/2000 N O5-578-021N	O5-578-04 0.0-1.5 ft 5/9/2000 N O5-578-041.5N	O5-579-01 0.0-0.5 ft 7/25/2000 N O5-579-010.5N	O5-579-04 0.0-1.5 ft 5/11/2000 N O5-579-041.5N	O5-580.5-02 0.0-2.0 ft 5/11/2000 N O5-580.5-022N	O5-580.5-05 0.0-1.0 ft 7/25/2000 N O5-580.5-051N	O5-580.75-04 0.0-1.0 ft 7/25/2000 N O5-580.75-041N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 227	< 250	< 24	< 250	< 23	< 250	< 15	NA	NA	< 238
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 227	< 250	< 24	< 250	< 23	< 250	< 15	NA	NA	< 238
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 227	< 250	< 24	< 250	< 23	< 250	< 15	NA	NA	< 238
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 250	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 227	< 250	< 240	< 250	< 230	< 250	< 150	NA	NA	< 238
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 227	< 250	< 24	< 250	< 23	< 250	< 15	NA	NA	< 238
2-Nitrotoluene	88-72-2	ug/kg	NA	< 455	< 500	< 48	< 500	< 45	< 500	< 30	NA	NA	< 476
3-Nitrotoluene	99-08-1	ug/kg	NA	< 455	< 500	< 48	< 500	< 45	< 500	< 30	NA	NA	< 476
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 227	< 250	< 24	< 250	< 23	< 250	< 15	NA	NA	< 238
4-Nitrotoluene	99-99-0	ug/kg	NA	< 455	< 500	< 48	< 500	< 45	< 500	< 30	NA	NA	< 476
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 227	< 250	< 24	< 250	< 23	< 250	< 15	NA	NA	< 238
Nitrocellulose	9004-70-0	ug/kg	NA	100000	< 40700	< 43000	< 45.1	< 45000	312000	< 41000	NA	NA	< 38.5
Nitroglycerin	55-63-0	ug/kg	NA	7750	6400	< 570	< 6250	< 650	< 8810	< 590	NA	NA	< 5410
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 455	< 500	< 48	< 500	< 45	< 500	< 30	NA	NA	< 476
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 455	< 500	< 48	< 500	< 45	< 500	< 30	NA	NA	< 476
Tetryl	479-45-8	ug/kg	NA	< 455	< 500	< 48	< 500	< 45	< 500	< 30	NA	NA	< 476
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.7	NA	NA	NA	NA	NA	NA	NA	< 0.6	< 0.639	NA
Arsenic	7440-38-2	mg/kg	4	NA	NA	NA	NA	NA	NA	NA	5	4.84	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.55	NA	NA	NA	NA	NA	NA	NA	0.64	0.709	NA
Cadmium	7440-43-9	mg/kg	0.11	NA	NA	NA	NA	NA	NA	NA	< 0.3	< 0.319	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.1	NA	NA	NA	NA	NA	NA	NA	18.8	20.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.3	NA	NA	NA	NA	NA	NA	NA	15.5	20.3	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	310	NA	NA	NA	NA	NA	NA	NA	13.9	15.6	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.22	NA	NA	NA	NA	NA	NA	NA	0.08	0.247	NA
Nickel	7440-02-0	mg/kg	7	NA	NA	NA	NA	NA	NA	NA	12.9	13.9	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.6	NA	NA	NA	NA	NA	NA	NA	< 0.5	1.05	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O5-534-04 0.0-1.0 ft 5/11/2000 N O5-534-041N	O5-537-02 0.0-1.0 ft 7/25/2000 N O5-537-021N	O5-537-02 0.0-1.0 ft 7/25/2000 FD O5-537-021FD O5-537-021N	O5-537-05 0.0-2.0 ft 5/9/2000 N O5-537-052N	O5-578-02 0.0-1.0 ft 7/25/2000 N O5-578-021N	O5-578-04 0.0-1.5 ft 5/9/2000 N O5-578-041.5N	O5-579-01 0.0-0.5 ft 7/25/2000 N O5-579-010.5N	O5-579-04 0.0-1.5 ft 5/11/2000 N O5-579-041.5N	O5-580.5-02 0.0-2.0 ft 5/11/2000 N O5-580.5-022N	O5-580.5-05 0.0-1.0 ft 7/25/2000 N O5-580.5-051N	O5-580.75-04 0.0-1.0 ft 7/25/2000 N O5-580.75-041N
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	NA	NA	NA	NA	NA	NA	NA	< 0.3	< 0.319	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.89	NA	NA	NA	NA	NA	NA	NA	0.7	1.35	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	158	NA	NA	NA	NA	NA	NA	NA	71.1	90.5	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	45800	NA	NA	23000	NA	35100	NA	14100	16400	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	11.4	NA	NA	16.7	NA	12.9	NA	8.3	13.6	NA	NA
Gravel	ARC-PGRAVEL	%	21.4	NA	NA	30.1	NA	19.2	NA	30.7	14.6	NA	NA
Sand	ARC-PSAND	%	34.2	NA	NA	33.6	NA	40.5	NA	39.4	31.4	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	33	NA	NA	19.6	NA	27.5	NA	21.7	40.4	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-580.75-05	O5-6-02	O5-6-03	O6-1-02	O6-3-01	O6-577-01	O6-577-03	O6-649-02	O6-649-03	O6-650-01	O6-650-03	O6-9224-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/11/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	7/25/2000	5/10/2000	5/9/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O5-580.75-051.5N	O5-6-022N	O5-6-031N	O6-1-021N	O6-3-011.5N	O6-577-011N	O6-577-032N	O6-649-021.5N	O6-649-031N	O6-650-010.5N	O6-650-031.5N	O6-9224-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-580.75-05	O5-6-02	O5-6-03	O6-1-02	O6-3-01	O6-577-01	O6-577-03	O6-649-02	O6-649-03	O6-650-01	O6-650-03	O6-9224-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/11/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	7/25/2000	5/10/2000	5/9/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O5-580.75-051.5N	O5-6-022N	O5-6-031N	O6-1-021N	O6-3-011.5N	O6-577-011N	O6-577-032N	O6-649-021.5N	O6-649-031N	O6-650-010.5N	O6-650-031.5N	O6-9224-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds (cont.)														
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 81	< 758	< 92	NA	NA	NA	< 76	< 707	< 791	< 73	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 410	< 379	< 460	NA	NA	NA	< 380	< 354	< 395	< 370	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 410	< 379	< 460	NA	NA	NA	< 380	< 354	< 395	< 370	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 81	< 758	< 92	NA	NA	NA	< 76	< 707	< 791	< 73	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 81	< 758	< 92	NA	NA	NA	< 76	< 707	< 791	< 73	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O5-580.75-05 0.0-1.5 ft 5/11/2000 N O5-580.75-051.5N	O5-6-02 0.0-2.0 ft 5/10/2000 N O5-6-022N	O5-6-03 0.0-1.0 ft 7/25/2000 N O5-6-031N	O6-1-02 0.0-1.0 ft 5/10/2000 N O6-1-021N	O6-3-01 0.0-1.5 ft 5/10/2000 N O6-3-011.5N	O6-577-01 0.0-1.0 ft 7/25/2000 N O6-577-011N	O6-577-03 0.0-2.0 ft 5/10/2000 N O6-577-032N	O6-649-02 0.0-1.5 ft 5/10/2000 N O6-649-021.5N	O6-649-03 0.0-1.0 ft 7/25/2000 N O6-649-031N	O6-650-01 0.0-0.5 ft 7/25/2000 N O6-650-010.5N	O6-650-03 0.0-1.5 ft 5/10/2000 N O6-650-031.5N	O6-9224-03 0.0-1.0 ft 5/9/2000 N O6-9224-031N
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 81	< 758	< 92	NA	NA	NA	< 76	< 707	< 791	< 73	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 41	62.1	< 46	NA	NA	NA	< 38	< 354	< 395	37	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 41	63.3	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 41	98.5	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 41	44	30	NA	NA	NA	23	< 354	26.1	< 37	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 41	85.6	< 46	NA	NA	NA	< 38	< 354	< 395	52	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 41	188	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Fluoranthene	206-44-0	ug/kg	NA	< 41	161	< 46	NA	NA	NA	< 38	< 354	< 395	85	NA
Fluorene	86-73-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Isophorone	78-59-1	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-580.75-05	O5-6-02	O5-6-03	O6-1-02	O6-3-01	O6-577-01	O6-577-03	O6-649-02	O6-649-03	O6-650-01	O6-650-03	O6-9224-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/11/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	7/25/2000	5/10/2000	5/9/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O5-580.75-051.5N	O5-6-022N	O5-6-031N	O6-1-021N	O6-3-011.5N	O6-577-011N	O6-577-032N	O6-649-021.5N	O6-649-031N	O6-650-010.5N	O6-650-031.5N	O6-9224-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (cont.)														
Naphthalene	91-20-3	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 46	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 81	< 758	< 92	NA	NA	NA	< 76	< 707	< 791	< 73	NA
Phenanthrene	85-01-8	ug/kg	NA	< 41	107	29	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Phenol	108-95-2	ug/kg	NA	< 41	< 379	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Pyrene	129-00-0	ug/kg	NA	< 41	147	< 46	NA	NA	NA	< 38	< 354	< 395	< 37	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides														
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls														
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	< 1	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	< 3	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-580.75-05	O5-6-02	O5-6-03	O6-1-02	O6-3-01	O6-577-01	O6-577-03	O6-649-02	O6-649-03	O6-650-01	O6-650-03	O6-9224-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/11/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	7/25/2000	5/10/2000	5/9/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O5-580.75-051.5N	O5-6-022N	O5-6-031N	O6-1-021N	O6-3-011.5N	O6-577-011N	O6-577-032N	O6-649-021.5N	O6-649-031N	O6-650-010.5N	O6-650-031.5N	O6-9224-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives and Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 15	< 151	< 250	NA	NA	< 250	< 157	< 139	< 238	< 250	< 137	< 22
1,3-Dinitrobenzene	99-65-0	ug/kg	< 15	< 151	< 250	NA	NA	< 250	< 157	< 139	< 238	< 250	< 137	< 22
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 15	< 151	< 250	NA	NA	< 250	< 157	< 139	< 238	< 250	< 137	300
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 150	NA	NA	NA	NA	< 250	< 157.8	NA	NA	NA	NA	< 220
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 15	< 151	< 250	NA	NA	< 250	< 157	< 139	< 238	< 250	< 137	< 22
2-Nitrotoluene	88-72-2	ug/kg	< 29	< 303	< 500	NA	NA	< 500	< 315	< 278	< 476	< 500	< 275	< 43
3-Nitrotoluene	99-08-1	ug/kg	< 29	< 303	< 500	NA	NA	< 500	< 157	< 278	< 476	< 500	< 275	< 43
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	160	< 151	< 250	NA	NA	< 250	< 157	< 139	< 238	< 250	< 137	< 22
4-Nitrotoluene	99-99-0	ug/kg	< 29	< 303	< 500	NA	NA	< 500	< 315	< 278	< 476	< 500	< 275	< 43
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 15	< 151	< 250	NA	NA	< 250	< 157	< 139	< 238	< 250	< 137	< 22
Nitrocellulose	9004-70-0	ug/kg	< 39000	< 43000	< 39.9	NA	NA	< 42.1	< 44000	< 38000	58800	< 41.6	< 38000	203000
Nitroglycerin	55-63-0	ug/kg	< 570	< 610	< 5680	NA	NA	< 5690	< 630	< 570	< 4940	< 5790	< 550	70000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 29	< 303	< 500	NA	NA	< 500	< 315	< 278	< 476	< 500	< 275	< 43
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 29	< 303	< 500	NA	NA	< 500	< 315	< 278	< 476	< 500	< 275	< 43
Tetryl	479-45-8	ug/kg	< 29	< 303	< 500	NA	NA	< 500	< 315	< 278	< 476	< 500	< 275	< 43
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.6	0.367	< 0.8	NA	NA	NA	< 0.6	1.56	< 0.712	< 0.6	NA
Arsenic	7440-38-2	mg/kg	NA	4.2	7.26	7.3	NA	NA	NA	6.4	14.4	4.12	5.1	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.58	0.43	1.1	NA	NA	NA	0.58	0.533	0.78	0.55	NA
Cadmium	7440-43-9	mg/kg	NA	< 0.3	< 0.299	< 0.4	NA	NA	NA	< 0.3	< 0.232	< 0.356	< 0.3	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	16.3	16.7	17.4	NA	NA	NA	16.5	15.3	14.3	13.7	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	11	17.2	19.8	NA	NA	NA	16.8	16.9	15.3	15.9	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	11.5	50.8	38.1	NA	NA	NA	19.8	25.3	31.8	9.8	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.02	0.083	0.11	NA	NA	NA	0.02	0.042	0.097	0.04	NA
Nickel	7440-02-0	mg/kg	NA	9.4	9.95	12	NA	NA	NA	15.1	10.6	11.7	8.1	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.41	1.14	0.48	NA	NA	NA	< 0.5	0.613	0.835	< 0.5	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O5-580.75-05	O5-6-02	O5-6-03	O6-1-02	O6-3-01	O6-577-01	O6-577-03	O6-649-02	O6-649-03	O6-650-01	O6-650-03	O6-9224-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			5/11/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	7/25/2000	5/10/2000	5/9/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O5-580.75-051.5N	O5-6-022N	O5-6-031N	O6-1-021N	O6-3-011.5N	O6-577-011N	O6-577-032N	O6-649-021.5N	O6-649-031N	O6-650-010.5N	O6-650-031.5N	O6-9224-031N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Metals (cont.)														
Silver	7440-22-4	mg/kg	NA	< 0.3	< 0.299	< 0.4	NA	NA	NA	< 0.3	< 0.232	< 0.356	< 0.3	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	1.14	< 1	NA	NA	NA	0.72	1.1	1.31	0.8	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	86.7	60.2	87.8	NA	NA	NA	57	84.6	96.9	81.8	NA
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	9290	17500	NA	71200	68900	NA	32300	15000	NA	NA	16300	25700
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution														
Clay	ARC-PCLAY	%	9.2	14	NA	18.8	10.3	NA	10.9	13.4	NA	NA	9.2	5.8
Gravel	ARC-PGRAVEL	%	23.2	14.9	NA	16.2	17.8	NA	24.8	34.5	NA	NA	26.4	27.3
Sand	ARC-PSAND	%	45.2	45.6	NA	23.1	50.6	NA	38.8	29.8	NA	NA	52.6	49.5
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	22.5	25.5	NA	41.9	21.4	NA	25.6	22.3	NA	NA	11.8	17.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02	O7-395-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000	7/26/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N	O7-395-031N
Parent Sample					O7-1-012N				O7-2-022N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02	O7-395-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000	7/26/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N	O7-395-031N
Parent Sample					O7-1-012N				O7-2-022N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	NA	NA	NA	< 45	< 425
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	NA	NA	NA	< 45	< 425
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	< 802	< 79	< 740	< 745	< 390	NA	NA	< 90	< 850
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	< 401	< 400	< 370	< 373	< 390	NA	NA	< 450	< 425
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 401	< 400	< 370	< 373	NA	NA	NA	< 450	< 425
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	NA	NA	NA	< 45	< 425
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	< 802	< 79	< 740	< 745	NA	NA	NA	< 90	< 850
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	< 802	< 79	< 740	< 745	< 780	NA	NA	< 90	< 850
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02	O7-395-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000	7/26/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N	O7-395-031N
Parent Sample					O7-1-012N				O7-2-022N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 802	< 79	< 740	< 745	NA	NA	NA	< 90	< 850
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	140	263
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	150	232
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	180	277
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	100	137
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	102
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	< 401	39	< 370	19.4	< 390	NA	NA	66	< 425
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	150	205
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	63.4	< 40	< 370	< 373	< 390	NA	NA	45	< 425
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	230	436
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	131
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02	O7-395-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000	7/26/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N	O7-395-031N
Parent Sample					O7-1-012N				O7-2-022N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	NA	NA	NA	< 45	< 425
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	< 802	< 79	< 740	< 745	< 780	NA	NA	< 90	< 850
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	120	140
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	< 45	< 425
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	< 401	< 40	< 370	< 373	< 390	NA	NA	260	348
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02	O7-395-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000	7/26/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N	O7-395-031N
Parent Sample					O7-1-012N				O7-2-022N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 250	< 238	< 25	< 250	< 24	< 240	< 250	< 240	< 250	< 25	< 25	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 250	< 238	< 25	< 250	< 24	< 240	< 250	< 240	< 250	< 25	< 25	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 250	< 238	< 25	< 250	< 24	< 240	< 250	< 240	< 250	< 25	< 25	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 238	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	< 238	< 250	NA	NA	NA	NA	NA	< 250	< 250	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 250	< 238	< 25	< 250	< 24	< 240	< 250	< 240	< 250	< 25	< 25	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 500	< 476	< 50	< 500	< 48	< 480	< 500	< 490	< 500	< 50	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 500	< 476	< 50	< 500	< 48	< 480	< 500	< 490	< 500	< 50	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 250	< 238	< 25	< 250	< 24	< 240	< 250	< 240	< 250	< 25	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 500	< 476	< 50	< 500	< 48	< 480	< 500	< 490	< 500	< 50	< 50	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 250	< 238	< 25	< 250	< 24	< 240	< 250	< 240	< 250	< 25	< 25	< 250
Nitrocellulose	9004-70-0	ug/kg	< 36000	< 45.3	< 45400	< 40000	< 42.4	< 40000	< 36800	< 33.6	28100	< 45.1	< 41000	87400	151000
Nitroglycerin	55-63-0	ug/kg	< 520	< 6420	< 6270	< 620	< 6010	< 590	< 5500	< 4970	< 5900	< 6130	< 590	< 660	5540
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 50	< 500	< 476	< 50	< 500	< 48	< 480	< 500	< 490	< 500	< 50	< 50	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 500	< 476	< 50	< 500	< 48	< 480	< 500	< 490	< 500	< 50	< 50	< 500
Tetryl	479-45-8	ug/kg	< 50	< 500	< 476	< 50	< 500	< 48	< 480	< 500	< 490	< 500	< 50	< 50	< 500
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	< 0.525	< 0.43	< 0.6	< 0.56	< 0.665	< 0.695	NA	NA	< 0.8	< 0.728
Arsenic	7440-38-2	mg/kg	NA	NA	NA	12.7	2.56	3.6	3.9	1.69	2.52	NA	NA	6	5.38
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	0.682	0.386	0.73	0.67	0.606	0.616	NA	NA	0.56	0.846
Cadmium	7440-43-9	mg/kg	NA	NA	NA	1.21	< 0.215	0.63	0.62	0.605	< 0.347	NA	NA	0.54	< 0.364
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	23.4	9.1	15.4	14.6	10.9	15	NA	NA	16.9	17.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	93.9	13.8	16.7	14.4	20	19.2	NA	NA	19.7	15.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	1920	17.6	14.2	26.6	7.08	4.33	NA	NA	88.7	63.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	0.125	0.047	0.02	0.03	< 0.035	0.02	NA	NA	0.15	0.173
Nickel	7440-02-0	mg/kg	NA	NA	NA	15.6	5.5	9.4	9.4	5.9	7.29	NA	NA	10.2	9.98
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	2.05	0.531	0.39	0.29	0.823	0.407	NA	NA	1.3	1.22

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02	O7-395-03
Depths			0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000	7/26/2000
Sample Type			N	N	FD	N	N	N	FD	N	N	N	N	N	N
Sample Name			O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N	O7-395-031N
Parent Sample					O7-1-012N				O7-2-022N						
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	NA	NA	0.249	< 0.215	< 0.3	< 0.28	< 0.332	< 0.347	NA	NA	2.3	< 0.364
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	< 0.875	0.808	< 1	< 0.93	< 1.11	0.579	NA	NA	< 1	1.93
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	352	39.9	144	153	242	104	NA	NA	298	189
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	25400	NA	9010	NA	NA	634	NA	7230	73000	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	NA	16.7	NA	12.5	NA	NA	NA	NA	10.3	9.1	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	16.1	NA	27.8	NA	NA	NA	NA	17.9	27.1	NA
Sand	ARC-PSAND	%	NA	NA	NA	42	NA	51.5	NA	NA	NA	NA	43.4	45.8	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	25.2	NA	8.1	NA	NA	NA	NA	28.5	18	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O7-396-02	O7-396-03	O7-576-02	O7-615E-01	O7-615E-04	O7-9319-01	O7-9319-01	O8-2247-04	O8-2247-05	O8-2252-01	O8-2252-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/10/2000	7/26/2000	5/10/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/16/2000	5/16/2000	7/25/2000	5/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			O7-396-022N	O7-396-032N	O7-576-021.5N	O7-615E-012N	O7-615E-041.25N	O7-9319-011.25N	O7-9319-011.25FD	O8-2247-041.5N	O8-2247-051N	O8-2252-011N	O8-2252-022N
Parent Sample									O7-9319-011.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O7-396-02 0.0-2.0 ft 5/10/2000 N O7-396-022N	O7-396-03 0.0-2.0 ft 7/26/2000 N O7-396-032N	O7-576-02 0.0-1.5 ft 5/10/2000 N O7-576-021.5N	O7-615E-01 0.0-2.0 ft 5/5/2000 N O7-615E-012N	O7-615E-04 0.0-1.3 ft 7/26/2000 N O7-615E-041.25N	O7-9319-01 0.0-1.3 ft 5/5/2000 N O7-9319-011.25N	O7-9319-01 0.0-1.3 ft 5/5/2000 FD O7-9319-011.25FD O7-9319-011.25N	O8-2247-04 0.0-1.5 ft 5/16/2000 N O8-2247-041.5N	O8-2247-05 0.0-1.0 ft 5/16/2000 N O8-2247-051N	O8-2252-01 0.0-1.0 ft 7/25/2000 N O8-2252-011N	O8-2252-02 0.0-2.0 ft 5/16/2000 N O8-2252-022N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	< 72	< 796	< 87	< 78	< 800	< 79	< 850	< 73	< 72	< 741	< 76
2,4-Dinitrotoluene	121-14-2	ug/kg	< 360	< 398	< 430	< 390	< 400	< 400	79	< 370	< 360	< 371	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	< 360	< 398	< 430	< 390	< 400	< 400	< 430	< 370	< 360	< 371	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2-Chlorophenol	95-57-8	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 72	< 796	< 87	< 78	< 800	< 79	< 850	< 73	< 72	< 741	< 76
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 72	< 796	< 87	< 78	< 800	< 79	< 850	< 73	< 72	< 741	< 76
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O7-396-02	O7-396-03	O7-576-02	O7-615E-01	O7-615E-04	O7-9319-01	O7-9319-01	O8-2247-04	O8-2247-05	O8-2252-01	O8-2252-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/10/2000	7/26/2000	5/10/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/16/2000	5/16/2000	7/25/2000	5/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			O7-396-022N	O7-396-032N	O7-576-021.5N	O7-615E-012N	O7-615E-041.25N	O7-9319-011.25N	O7-9319-011.25FD	O8-2247-041.5N	O8-2247-051N	O8-2252-011N	O8-2252-022N
Parent Sample									O7-9319-011.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 72	< 796	< 87	< 78	< 800	< 79	< 850	< 73	< 72	< 741	< 76
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Acenaphthylene	208-96-8	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 36	78	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 36	307	46	< 39	< 400	< 40	59	< 37	78	58.9	52
Benzo[a]pyrene	50-32-8	ug/kg	< 36	181	63	< 39	< 400	85	97	< 37	51	48.9	45
Benzo[b]fluoranthene	205-99-2	ug/kg	< 36	601	< 43	< 39	< 400	220	280	< 37	72	< 371	< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 36	141	< 43	< 39	< 400	140	130	< 37	< 36	< 371	< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	< 36	205	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	90	21.5	37	< 39	131	170	61	29	49	34.5	33
Butylbenzylphthalate	85-68-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 36	513	110	< 39	< 400	130	120	< 37	71	66	48
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Dimethylphthalate	131-11-3	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Di-n-butylphthalate	84-74-2	ug/kg	61	77.2	< 43	< 39	< 400	210	130	< 37	83	< 371	< 38
Di-n-octylphthalate	117-84-0	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Fluoranthene	206-44-0	ug/kg	< 36	871	120	< 39	< 400	120	120	< 37	120	104	< 38
Fluorene	86-73-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Hexachlorobenzene	118-74-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Hexachlorobutadiene	87-68-3	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Hexachloroethane	67-72-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 36	149	< 43	< 39	< 400	93	99	< 37	< 36	< 371	< 38
Isophorone	78-59-1	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O7-396-02	O7-396-03	O7-576-02	O7-615E-01	O7-615E-04	O7-9319-01	O7-9319-01	O8-2247-04	O8-2247-05	O8-2252-01	O8-2252-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/10/2000	7/26/2000	5/10/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/16/2000	5/16/2000	7/25/2000	5/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			O7-396-022N	O7-396-032N	O7-576-021.5N	O7-615E-012N	O7-615E-041.25N	O7-9319-011.25N	O7-9319-011.25FD	O8-2247-041.5N	O8-2247-051N	O8-2252-011N	O8-2252-022N
Parent Sample									O7-9319-011.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 39	< 400	NA	NA	NA	NA	< 371	< 38
N-Nitrosodimethylamine	62-75-9	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 36	46.2	< 43	330	< 400	230	240	< 37	< 36	52.6	< 38
Pentachlorophenol	87-86-5	ug/kg	< 72	< 796	< 87	< 78	< 800	< 79	< 850	79	< 72	< 741	< 76
Phenanthrene	85-01-8	ug/kg	< 36	113	100	< 39	< 400	69	65	22	92	51.2	47
Phenol	108-95-2	ug/kg	< 36	< 398	< 43	< 39	< 400	< 40	< 430	< 37	< 36	< 371	< 38
Pyrene	129-00-0	ug/kg	< 36	637	< 43	< 39	< 400	140	160	< 37	170	126	100
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O7-396-02	O7-396-03	O7-576-02	O7-615E-01	O7-615E-04	O7-9319-01	O7-9319-01	O8-2247-04	O8-2247-05	O8-2252-01	O8-2252-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/10/2000	7/26/2000	5/10/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/16/2000	5/16/2000	7/25/2000	5/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			O7-396-022N	O7-396-032N	O7-576-021.5N	O7-615E-012N	O7-615E-041.25N	O7-9319-011.25N	O7-9319-011.25FD	O8-2247-041.5N	O8-2247-051N	O8-2252-011N	O8-2252-022N
Parent Sample									O7-9319-011.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 135	< 250	< 162	NA	NA	< 24	< 250	< 25	< 25	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 135	< 250	< 162	NA	NA	< 24	< 250	< 25	< 25	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 135	< 250	< 162	NA	NA	310	< 250	< 25	< 25	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 135	< 250	< 162	NA	NA	< 24	< 250	< 25	< 25	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 270	< 500	< 325	NA	NA	< 48	< 500	< 50	< 50	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 270	< 500	< 325	NA	NA	< 48	< 500	< 50	< 50	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 135	< 250	< 162	NA	NA	< 24	< 250	< 25	< 25	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 270	< 500	< 325	NA	NA	< 48	< 500	< 50	< 50	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 135	161	< 162	NA	NA	200	220	< 25	240	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 38000	89500	79000	NA	NA	1160000	1750000	< 38000	278000	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 530	< 5970	< 650	NA	NA	4000	660000	< 550	< 440	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 270	< 500	< 325	NA	NA	< 48	< 500	< 50	< 50	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 270	< 500	< 325	NA	NA	< 48	< 500	< 50	< 50	NA	NA
Tetryl	479-45-8	ug/kg	< 270	< 500	< 325	NA	NA	< 48	< 500	< 50	< 50	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	0.532	< 0.7	< 0.5	0.314	0.55	0.69	< 0.6	< 0.6	< 0.547	< 0.6
Arsenic	7440-38-2	mg/kg	4.4	107	8.9	4.3	3.84	19.9	20.1	2.4	2.1	2.84	2.2
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.66	0.261	0.89	0.64	0.325	0.53	0.48	0.39	0.49	0.494	0.49
Cadmium	7440-43-9	mg/kg	0.4	< 0.32	0.25	0.2	< 0.321	2	2.3	0.3	0.2	1.94	3.4
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.7	9.69	16.5	19.1	7.29	54.6	293	15.4	17.3	25.4	15.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.4	13.9	16.8	20.4	21.3	59.6	59	46.3	21.7	18.1	17.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	39.3	52.6	84.2	13.4	18.3	534	1580	24.6	9	10.6	11
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.09	0.121	0.16	0.07	0.199	3.3	3.2	< 0	< 0	0.019	< 0
Nickel	7440-02-0	mg/kg	9	7.39	11.4	12.1	7.81	11.4	10.9	9	9.6	13.3	7.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.42	0.73	1.1	0.4	0.831	0.6	0.71	< 0.5	< 0.5	0.594	< 0.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O7-396-02	O7-396-03	O7-576-02	O7-615E-01	O7-615E-04	O7-9319-01	O7-9319-01	O8-2247-04	O8-2247-05	O8-2252-01	O8-2252-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
Collection Date			5/10/2000	7/26/2000	5/10/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/16/2000	5/16/2000	7/25/2000	5/16/2000
Sample Type			N	N	N	N	N	N	FD	N	N	N	N
Sample Name			O7-396-022N	O7-396-032N	O7-576-021.5N	O7-615E-012N	O7-615E-041.25N	O7-9319-011.25N	O7-9319-011.25FD	O8-2247-041.5N	O8-2247-051N	O8-2252-011N	O8-2252-022N
Parent Sample									O7-9319-011.25N				
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.3	< 0.32	0.14	< 0.2	< 0.321	0.2	0.15	< 0.3	< 0.3	< 0.273	< 0.3
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.5	< 1.07	0.74	< 0.9	< 1.07	< 1	< 1.2	< 1	0.87	< 0.911	1.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	292	58.6	109	114	52.7	581	463	182	90.3	552	907
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	13100	NA	85600	32500	NA	49200	NA	24500	NA	NA	10100
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	15	NA	8	10.9	NA	3.6	NA	11.6	NA	NA	14.9
Gravel	ARC-PGRAVEL	%	18.8	NA	35.8	24.6	NA	25.5	NA	23.5	NA	NA	13.3
Sand	ARC-PSAND	%	41.8	NA	36.9	39.8	NA	47.3	NA	52.7	NA	NA	61.4
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	24.4	NA	19.3	24.7	NA	23.6	NA	12.2	NA	NA	10.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			O8-2268-01 0.0-0.5 ft 9/12/2000 N O8-2268-010.5N	O8-2268-05 0.0-1.5 ft 5/26/2000 N O8-2268-051.5N	O8-2274-01 0.0-2.0 ft 5/16/2000 N O8-2274-012N	O8-3-04 0.0-1.0 ft 5/4/2000 N O8-3-041N	O8-3-06 0.0-2.0 ft 5/4/2000 N O8-3-062N	O8-3-09 0.0-1.3 ft 5/4/2000 N O8-3-091.25N	O8-3-12 0.0-2.0 ft 5/4/2000 N O8-3-122N	O8-3-13 0.0-1.0 ft 5/4/2000 N O8-3-131N	O8-3-15 0.0-2.0 ft 5/4/2000 N O8-3-152N	O8-3-18 0.0-1.0 ft 5/4/2000 N O8-3-181N	O8-3-20 0.0-1.5 ft 5/4/2000 N O8-3-201.5N	O8-392-02 0.0-2.0 ft 5/2/2000 N O8-392-022N	O8-4-01 0.0-1.0 ft 7/25/2000 N O8-4-011N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-2268-01	O8-2268-05	O8-2274-01	O8-3-04	O8-3-06	O8-3-09	O8-3-12	O8-3-13	O8-3-15	O8-3-18	O8-3-20	O8-392-02	O8-4-01
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/16/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/2/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O8-2268-010.5N	O8-2268-051.5N	O8-2274-012N	O8-3-041N	O8-3-062N	O8-3-091.25N	O8-3-122N	O8-3-131N	O8-3-152N	O8-3-181N	O8-3-201.5N	O8-392-022N	O8-4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
1,2-Dichlorobenzene	95-50-1	ug/kg	< 344	NA	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 344	NA	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
1,4-Dichlorobenzene	106-46-7	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2,4-Dichlorophenol	120-83-2	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2,4-Dimethylphenol	105-67-9	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2,4-Dinitrophenol	51-28-5	ug/kg	< 687	< 790	< 75	< 93	< 81	< 76	< 77	< 91	< 78	< 87	< 80	NA	< 745
2,4-Dinitrotoluene	121-14-2	ug/kg	< 344	< 400	< 370	< 460	< 410	59	< 380	< 460	< 390	< 430	< 400	NA	< 373
2,6-Dinitrotoluene	606-20-2	ug/kg	< 344	NA	< 370	< 460	< 410	< 380	< 380	< 460	< 390	< 430	< 400	NA	< 373
2-Chloronaphthalene	91-58-7	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2-Chlorophenol	95-57-8	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 344	NA	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
2-Nitrotoluene	88-72-2	ug/kg	NA	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 687	NA	< 75	< 93	< 81	< 76	< 77	< 91	< 78	< 87	< 80	NA	< 745
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 790	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 687	< 790	< 75	< 93	< 81	< 76	< 77	< 91	< 78	< 87	< 80	NA	< 745
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-2268-01	O8-2268-05	O8-2274-01	O8-3-04	O8-3-06	O8-3-09	O8-3-12	O8-3-13	O8-3-15	O8-3-18	O8-3-20	O8-392-02	O8-4-01
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/16/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/2/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O8-2268-010.5N	O8-2268-051.5N	O8-2274-012N	O8-3-041N	O8-3-062N	O8-3-091.25N	O8-3-122N	O8-3-131N	O8-3-152N	O8-3-181N	O8-3-201.5N	O8-392-022N	O8-4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 687	NA	< 75	< 93	< 81	< 76	< 77	< 91	< 78	< 87	< 80	NA	17.5
4-Nitrotoluene	99-99-0	ug/kg	NA	< 790	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 344	< 400	710	< 46	65	31	< 38	< 46	< 39	29	< 40	NA	< 373
Acenaphthylene	208-96-8	ug/kg	< 344	< 400	400	< 46	36	20	< 38	< 46	< 39	130	< 40	NA	< 373
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 344	< 400	2400	< 46	190	120	< 38	< 46	< 39	180	< 40	NA	< 373
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 344	< 400	7200	39	610	490	34	< 46	67	780	< 40	NA	140
Benzo[a]pyrene	50-32-8	ug/kg	< 344	< 400	4300	42	490	400	32	30	75	710	< 40	NA	88.3
Benzo[b]fluoranthene	205-99-2	ug/kg	< 344	< 400	5100	< 46	620	570	< 38	< 46	93	700	< 40	NA	108
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 344	< 400	3200	< 46	290	190	< 38	< 46	< 39	520	< 40	NA	< 373
Benzo[k]fluoranthene	207-08-9	ug/kg	< 344	< 400	1300	< 46	220	190	< 38	< 46	< 39	620	< 40	NA	< 373
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 344	21.76	< 37	120	25	91	34	< 46	21	50	< 40	NA	< 373
Butylbenzylphthalate	85-68-7	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 344	< 400	5200	< 46	650	470	36	< 46	84	940	< 40	NA	129
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 344	< 400	< 37	< 46	88	< 38	< 38	< 46	< 39	150	< 40	NA	< 373
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	3500	< 39	410	< 40	NA	< 373
Dimethylphthalate	131-11-3	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Di-n-butylphthalate	84-74-2	ug/kg	< 344	< 400	< 37	< 46	110	< 38	150	< 46	< 39	170	< 40	NA	142
Di-n-octylphthalate	117-84-0	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Fluoranthene	206-44-0	ug/kg	< 344	< 400	5200	< 46	1200	920	74	< 46	150	1600	< 40	NA	243
Fluorene	86-73-7	ug/kg	< 344	< 400	1500	< 46	170	69	< 38	< 46	< 39	84	< 40	NA	< 373
Hexachlorobenzene	118-74-1	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Hexachlorobutadiene	87-68-3	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Hexachloroethane	67-72-1	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 344	< 400	2800	< 46	230	160	< 38	< 46	< 39	430	< 40	NA	< 373
Isophorone	78-59-1	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-2268-01	O8-2268-05	O8-2274-01	O8-3-04	O8-3-06	O8-3-09	O8-3-12	O8-3-13	O8-3-15	O8-3-18	O8-3-20	O8-392-02	O8-4-01
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/16/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/2/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O8-2268-010.5N	O8-2268-051.5N	O8-2274-012N	O8-3-041N	O8-3-062N	O8-3-091.25N	O8-3-122N	O8-3-131N	O8-3-152N	O8-3-181N	O8-3-201.5N	O8-392-022N	O8-4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 344	NA	210	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Nitrobenzene	98-95-3	ug/kg	< 344	< 400	NA	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 344	< 400	< 37	< 46	< 41	320	< 38	< 46	< 39	< 43	< 40	NA	< 373
Pentachlorophenol	87-86-5	ug/kg	< 687	< 790	< 75	< 93	< 81	< 76	< 77	< 91	< 78	< 87	< 80	NA	< 745
Phenanthrene	85-01-8	ug/kg	< 344	< 400	13000	27	1200	670	44	34	100	890	< 40	NA	258
Phenol	108-95-2	ug/kg	< 344	< 400	< 37	< 46	< 41	< 38	< 38	< 46	< 39	< 43	< 40	NA	< 373
Pyrene	129-00-0	ug/kg	< 344	< 400	16000	< 46	1200	990	< 38	< 46	140	1900	< 40	NA	300
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-2268-01	O8-2268-05	O8-2274-01	O8-3-04	O8-3-06	O8-3-09	O8-3-12	O8-3-13	O8-3-15	O8-3-18	O8-3-20	O8-392-02	O8-4-01
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/16/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/2/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O8-2268-010.5N	O8-2268-051.5N	O8-2274-012N	O8-3-041N	O8-3-062N	O8-3-091.25N	O8-3-122N	O8-3-131N	O8-3-152N	O8-3-181N	O8-3-201.5N	O8-392-022N	O8-4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 238
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 238
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 238
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 238
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 476
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 476
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 238
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 476
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 238
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 39000	NA	NA	NA	NA	NA	NA	NA	NA	211000	51900
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 560	NA	NA	NA	NA	NA	NA	NA	NA	< 620	< 5590
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 476
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 476
Tetryl	479-45-8	ug/kg	NA	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 476
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.607	< 0.672	< 0.6	< 0.7	< 0.7	< 0.6	< 0.6	< 0.8	< 0.6	< 0.7	< 0.6	NA	< 0.61
Arsenic	7440-38-2	mg/kg	3.63	6.7	2.7	4.4	4.3	3.5	2.7	4.7	9.6	3.2	4.3	NA	1.54
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.369	0.865	0.55	0.31	0.8	0.56	0.5	0.98	0.47	0.42	0.41	NA	0.585
Cadmium	7440-43-9	mg/kg	< 0.303	< 0.336	< 0.3	0.81	0.61	0.64	0.5	0.45	0.52	0.55	0.38	NA	0.6
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.07	23.2	13.8	14.7	15.8	15.6	11.5	17.2	10.4	11	16.9	NA	10.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.7	26.8	15.3	62.7	52.5	51.6	72.9	31.5	26.7	23.9	17.2	NA	16.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	25	34.3	4.9	12.6	39.9	48.3	23.4	60	31.6	35.8	10.8	NA	4.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.032	0.134	0.02	0.06	0.06	0.06	0.03	0.1	0.03	0.03	0.05	NA	< 0.035
Nickel	7440-02-0	mg/kg	5.05	15.7	7.3	11	9.5	9.4	11	10	8	23.3	10.7	NA	5.95
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.645	1.03	< 0.5	0.95	0.92	0.41	0.34	1.3	0.77	< 0.6	0.81	NA	0.424

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-2268-01	O8-2268-05	O8-2274-01	O8-3-04	O8-3-06	O8-3-09	O8-3-12	O8-3-13	O8-3-15	O8-3-18	O8-3-20	O8-392-02	O8-4-01
Depths			0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			9/12/2000	5/26/2000	5/16/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/2/2000	7/25/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			O8-2268-010.5N	O8-2268-051.5N	O8-2274-012N	O8-3-041N	O8-3-062N	O8-3-091.25N	O8-3-122N	O8-3-131N	O8-3-152N	O8-3-181N	O8-3-201.5N	O8-392-022N	O8-4-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.303	< 0.336	< 0.3	332	0.69	< 0.3	< 0.3	0.29	< 0.3	0.65	< 0.3	NA	< 0.305
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.01	1.25	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1.02
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	28.8	101	66.1	93.3	90	120	80	82.5	125	392	73.9	NA	39.8
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	9790	16900	NA	NA	20000	NA	NA	NA	NA	NA	27600	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	14.4	NA	NA	6.3	NA	NA	NA	NA	NA	20.9	NA
Gravel	ARC-PGRAVEL	%	NA	NA	25.2	NA	NA	15	NA	NA	NA	NA	NA	17.1	NA
Sand	ARC-PSAND	%	NA	NA	53	NA	NA	64	NA	NA	NA	NA	NA	28.8	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	7.5	NA	NA	17.4	NA	NA	NA	NA	NA	33.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-4-02	O8-732-01	O8-732-04	P5-2-01	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/4/2000	7/26/2000	5/11/2000	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			O8-4-020.5N	O8-732-012N	O8-732-042N	P5-2-012N	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N
Parent Sample										P5-3-022N						
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-4-02	O8-732-01	O8-732-04	P5-2-01	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/4/2000	7/26/2000	5/11/2000	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			O8-4-020.5N	O8-732-012N	O8-732-042N	P5-2-012N	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N
Parent Sample										P5-3-022N						
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds (cont.)																
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2,4-Dinitrophenol	51-28-5	ug/kg	< 74	< 81	< 980	< 90	< 745	< 753	< 80	< 810	NA	NA	< 804	NA	< 74	< 736
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 410	< 490	< 450	< 372	< 377	< 400	< 410	NA	NA	< 402	NA	< 370	< 368
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 410	< 490	< 450	< 372	< 377	< 400	< 410	NA	NA	< 402	NA	< 370	< 368
2-Chloronaphthalene	91-58-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2-Chlorophenol	95-57-8	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 74	< 81	< 980	< 90	< 745	< 753	< 80	< 810	NA	NA	< 804	NA	< 74	< 736
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 74	< 81	< 980	< 90	< 745	< 753	< 80	< 810	NA	NA	< 804	NA	< 74	< 736
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-4-02	O8-732-01	O8-732-04	P5-2-01	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/4/2000	7/26/2000	5/11/2000	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			O8-4-020.5N	O8-732-012N	O8-732-042N	P5-2-012N	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N
Parent Sample										P5-3-022N						
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 74	< 81	< 980	< 90	< 745	< 753	< 80	< 810	NA	NA	< 804	NA	< 74	< 736
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Acenaphthylene	208-96-8	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	52	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	210	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Benzo[a]pyrene	50-32-8	ug/kg	150	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Benzo[b]fluoranthene	205-99-2	ug/kg	190	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Benzo[g,h,i]perylene	191-24-2	ug/kg	91	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Benzo[k]fluoranthene	207-08-9	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	26	34	43.6	53	26.8	19.2	21	< 410	NA	NA	26.1	NA	< 37	24.7
Butylbenzylphthalate	85-68-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	180	< 41	< 490	50	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Dimethylphthalate	131-11-3	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Di-n-butylphthalate	84-74-2	ug/kg	< 37	< 41	179	< 45	169	101	< 40	< 410	NA	NA	< 402	NA	< 37	51.2
Di-n-octylphthalate	117-84-0	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Fluoranthene	206-44-0	ug/kg	310	< 41	< 490	84	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Fluorene	86-73-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Hexachlorobenzene	118-74-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Hexachlorobutadiene	87-68-3	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Hexachloroethane	67-72-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	76	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Isophorone	78-59-1	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-4-02	O8-732-01	O8-732-04	P5-2-01	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/4/2000	7/26/2000	5/11/2000	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			O8-4-020.5N	O8-732-012N	O8-732-042N	P5-2-012N	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N
Parent Sample										P5-3-022N						
CONSTITUENT	***CAS NO.***	***UNITS***														
Semivolatile Organic Compounds (cont.)																
Naphthalene	91-20-3	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 37	< 41	69.1	< 45	< 372	< 377	< 40	< 410	NA	NA	38.2	NA	< 37	< 368
Pentachlorophenol	87-86-5	ug/kg	< 74	< 81	< 980	< 90	< 745	< 753	< 80	< 810	NA	NA	< 804	NA	< 74	< 736
Phenanthrene	85-01-8	ug/kg	210	< 41	< 490	52	< 372	< 377	37	< 410	NA	NA	< 402	NA	< 37	< 368
Phenol	108-95-2	ug/kg	< 37	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Pyrene	129-00-0	ug/kg	470	< 41	< 490	< 45	< 372	< 377	< 40	< 410	NA	NA	< 402	NA	< 37	< 368
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls																
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-4-02	O8-732-01	O8-732-04	P5-2-01	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/4/2000	7/26/2000	5/11/2000	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			O8-4-020.5N	O8-732-012N	O8-732-042N	P5-2-012N	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N
Parent Sample										P5-3-022N						
CONSTITUENT	***CAS NO.***	***UNITS***														
Explosives and Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	< 25	< 250	< 167	< 250	< 250	< 151	< 149.6	< 175	< 25	< 238	< 154	< 25	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	< 25	< 250	< 167	< 250	< 250	< 151	< 149.6	< 175	< 25	< 238	< 154	< 25	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 24	< 25	< 250	< 167	< 250	< 250	< 151	< 149.6	967.4	< 25	< 238	< 154	< 25	< 250
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 175.8	< 250	NA	< 154.2	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	< 25	< 250	< 167	< 250	< 250	< 151	< 149.6	< 175	< 25	< 238	< 154	< 25	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 48	< 50	< 500	< 335	< 500	< 500	< 302	< 299.3	< 351	< 50	< 476	< 308	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 48	< 50	< 500	< 335	< 500	< 500	< 302	< 299.3	< 351	< 50	< 476	< 308	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	< 25	< 250	< 167	< 250	< 250	< 151	< 149.6	< 175	< 25	< 238	< 154	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 48	< 50	< 500	< 335	< 500	< 500	< 302	< 299.3	< 351	< 50	< 476	< 308	< 50	< 500
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 24	< 25	< 250	< 167	< 250	< 250	< 151	< 149.6	93.6	< 25	< 238	< 154	< 25	< 250
Nitrocellulose	9004-70-0	ug/kg	< 39000	< 43000	143000	< 46000	< 40	< 40.7	< 41000	< 43400	3130000	< 39000	< 42.4	< 44000	< 39	60000
Nitroglycerin	55-63-0	ug/kg	< 560	< 610	2930	< 670	< 5320	< 5760	< 610	< 6100	< 700	< 560	< 5750	< 620	< 560	< 5420
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 48	< 50	< 500	< 335	< 500	< 500	< 302	< 299.3	< 351	< 50	< 476	< 308	< 50	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 48	< 50	< 500	< 335	< 500	< 500	< 302	< 299.3	< 351	< 50	< 476	< 308	< 50	< 500
Tetryl	479-45-8	ug/kg	< 48	< 50	< 500	< 335	< 500	< 500	< 302	< 299.3	< 351	< 50	< 476	< 308	< 50	< 500
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.6	0.546	< 0.7	< 0.624	< 0.634	< 0.7	< 0.69	0.64	< 0.531	< 0.467	NA	< 0.6	< 0.661
Arsenic	7440-38-2	mg/kg	2.3	4.2	4.55	5.6	5.63	4.24	4.8	4.8	8.5	5.82	5.41	NA	3.3	261
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.59	0.62	0.694	0.51	0.555	0.681	0.67	0.74	0.83	0.827	0.612	NA	0.52	0.362
Cadmium	7440-43-9	mg/kg	< 0.3	0.52	< 0.43	< 0.3	< 0.312	0.497	< 0.3	< 0.35	0.36	0.654	< 0.234	NA	0.32	< 0.33
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.7	20	16.3	15.1	14	16.6	22.2	20.8	17.9	18	14.8	NA	11.9	11.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	17.7	14.9	43.9	14.9	20.5	60.8	15.7	16.4	24.7	23.2	21.6	NA	14.5	13.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	11.6	42.8	685	33.4	23	26.8	15.5	14.9	1330	283	455	NA	11.7	47
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.02	0.02	0.139	0.16	0.03	0.057	0.04	< 0.04	0.13	0.061	0.515	NA	0.03	0.079
Nickel	7440-02-0	mg/kg	6.8	10.5	10.8	10.1	11.3	10.1	12.2	13.1	12.2	13.5	11.4	NA	8.5	7.12
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.5	0.61	1.44	0.43	0.925	0.7	0.34	< 0.58	0.99	0.814	0.744	NA	0.47	4.89

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			O8-4-02	O8-732-01	O8-732-04	P5-2-01	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04
Depths			0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			5/16/2000	5/4/2000	7/26/2000	5/11/2000	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			O8-4-020.5N	O8-732-012N	O8-732-042N	P5-2-012N	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N
Parent Sample										P5-3-022N						
CONSTITUENT	***CAS NO.***	***UNITS***														
Metals (cont.)																
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.43	< 0.3	< 0.312	< 0.317	< 0.3	< 0.35	0.17	< 0.266	< 0.234	NA	< 0.3	< 0.33
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.4	< 1	1.77	< 1	1.11	0.547	1.1	1.3	1.1	< 0.885	1.11	NA	< 1	2.96
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	56.1	134	302	81.3	73.5	113	66.2	68.4	383	83.3	178	NA	57.8	41.4
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	20300	16500	NA	144000	NA	NA	15000	NA	56100	8360	NA	61200	19100	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution																
Clay	ARC-PCLAY	%	14.5	22	NA	14.5	NA	NA	12.7	NA	13.4	8.1	NA	8.8	35.1	NA
Gravel	ARC-PGRAVEL	%	15.9	13.2	NA	21.7	NA	NA	23	NA	7.7	18.6	NA	29.8	26.7	NA
Sand	ARC-PSAND	%	52.8	32.4	NA	38.8	NA	NA	25.8	NA	40.2	45.4	NA	39	24.1	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	16.8	32.4	NA	25.1	NA	NA	38.5	NA	38.8	29.3	NA	22.5	14.1	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000
Sample Type			N	N	N	FD	N	N	N	FD	N	N	N	N	N
Sample Name			P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N
Parent Sample						P7-4-012N				P7-9209-032N					
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 112
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 225
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 112
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 112
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 112
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000
Sample Type			N	N	N	FD	N	N	N	FD	N	N	N	N	N
Sample Name			P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N
Parent Sample						P7-4-012N				P7-9209-032N					
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 56
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 112
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 81	< 77	< 78	< 770	< 73	< 78	NA	NA	NA	< 81	< 2100	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	920	< 380	< 390	< 380	< 370	< 390	NA	NA	NA	< 410	< 420	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 380	< 390	< 380	< 370	< 390	NA	NA	NA	< 410	< 420	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 81	< 77	< 78	< 770	< 73	< 78	NA	NA	NA	< 81	< 830	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 81	< 77	< 78	< 770	< 73	< 78	NA	NA	NA	< 81	< 2100	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000
Sample Type			N	N	N	FD	N	N	N	FD	N	N	N	N	N
Sample Name			P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N
Parent Sample						P7-4-012N				P7-9209-032N					
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 81	< 77	< 78	< 770	< 73	< 78	NA	NA	NA	< 81	< 2100	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 41	< 38	29	17	< 37	< 39	NA	NA	NA	< 41	130	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 41	< 38	340	310	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 41	< 38	280	270	< 37	< 39	NA	NA	NA	< 41	270	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 41	< 38	2100	1500	< 37	65	NA	NA	NA	< 41	570	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 41	< 38	1600	1200	< 37	55	NA	NA	NA	< 41	440	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 41	< 38	3300	2400	< 37	83	NA	NA	NA	< 41	720	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 41	< 38	940	710	< 37	< 39	NA	NA	NA	< 41	170	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 41	< 38	1400	860	< 37	< 39	NA	NA	NA	< 41	180	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	1700	46	62	37	23	39	NA	NA	NA	< 41	21	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 41	< 38	2300	2000	< 37	64	NA	NA	NA	< 41	550	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 41	< 38	370	270	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 41	190	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	99	59	< 39	< 380	< 37	< 39	NA	NA	NA	220	< 420	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Fluoranthene	206-44-0	ug/kg	< 41	< 38	4300	3300	< 37	71	NA	NA	NA	< 41	1300	NA	NA
Fluorene	86-73-7	ug/kg	< 41	< 38	43	25	< 37	< 39	NA	NA	NA	< 41	130	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 41	< 38	1100	810	< 37	< 39	NA	NA	NA	< 41	200	NA	NA
Isophorone	78-59-1	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000
Sample Type			N	N	N	FD	N	N	N	FD	N	N	N	N	N
Sample Name			P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N
Parent Sample						P7-4-012N				P7-9209-032N					
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	< 41	< 38	34	32	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 38	NA	NA	NA	NA	NA	NA	NA	< 41	< 420	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	160	140	< 39	< 380	< 37	< 39	NA	NA	NA	170	< 420	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 81	< 77	< 78	< 770	< 73	< 78	NA	NA	NA	< 81	< 2100	NA	NA
Phenanthrene	85-01-8	ug/kg	< 41	< 38	550	390	< 37	38	NA	NA	NA	< 41	1100	NA	NA
Phenol	108-95-2	ug/kg	< 41	< 38	< 39	< 380	< 37	< 39	NA	NA	NA	< 41	< 420	NA	NA
Pyrene	129-00-0	ug/kg	< 41	< 38	4000	3100	< 37	< 39	NA	NA	NA	< 41	940	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000
Sample Type			N	N	N	FD	N	N	N	FD	N	N	N	N	N
Sample Name			P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N
Parent Sample						P7-4-012N				P7-9209-032N					
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	NA	< 25	< 250	< 25	< 24	< 140	< 141.1	< 141	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	NA	< 25	< 250	< 25	< 24	< 140	< 141.1	< 141	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 24	NA	< 25	< 250	< 25	< 24	< 140	< 141.1	< 141	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 141.1	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 140.3	< 141.1	< 141.6	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	NA	< 25	< 250	< 25	< 24	< 140	< 141.1	< 141	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 48	NA	< 50	< 500	< 50	< 48	< 280	< 282.2	< 283	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 48	NA	< 50	< 500	< 50	< 48	< 280	< 282.2	< 283	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	NA	< 25	< 250	< 25	< 24	< 140	< 141.1	< 141	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 48	NA	< 50	< 500	< 50	< 48	< 280	< 282.2	< 283	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 24	NA	< 25	< 250	< 25	< 24	< 140	< 141.1	< 141	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	419000	NA	< 41000	267000	< 38	< 39000	408000	< 38600	64100	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	13000	NA	< 570	< 5800	< 550	< 570	< 530	< 5600	4100	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 48	NA	< 50	< 500	< 50	< 48	< 280	< 282.2	< 283	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 48	NA	< 50	< 500	< 50	< 48	< 280	< 282.2	< 283	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 48	NA	< 50	< 500	< 50	< 48	< 280	< 282.2	< 283	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.6	< 0.6	1.2	1.1	< 0.6	< 0.6	< 0.6	< 0.64	NA	< 0.7	< 0.99	NA	NA
Arsenic	7440-38-2	mg/kg	13.6	11.7	103	108	3.8	3.3	6.2	5.4	NA	3.6	10.5	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.48	0.46	0.4	0.38	0.74	0.36	0.48	0.52	NA	0.35	0.76	NA	NA
Cadmium	7440-43-9	mg/kg	0.95	0.72	0.27	0.33	0.33	0.13	< 0.3	< 0.32	NA	< 0.3	< 0.59	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	27.1	28.9	11.4	9.8	28.3	8.9	13.1	13.7	NA	12.9	22.6	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	29.8	18.5	26	20.9	16	15.9	23.9	23.3	NA	7.9	22.6	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	60.9	29.4	29.6	37.2	19.3	38.4	68.3	53.6	NA	20.9	29.8	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.04	0.05	0.74	0.64	0.02	0.05	100	118	NA	0.07	0.06	NA	NA
Nickel	7440-02-0	mg/kg	8.9	8.5	13.2	11.6	16.2	6.4	9	9.6	NA	5.3	14.4	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.44	0.58	1.6	1.3	< 0.5	0.64	0.47	0.46	NA	0.47	1	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000
Sample Type			N	N	N	FD	N	N	N	FD	N	N	N	N	N
Sample Name			P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N
Parent Sample						P7-4-012N				P7-9209-032N					
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	0.11	0.1	< 0.3	< 0.3	< 0.3	< 0.32	NA	< 0.3	< 0.59	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 0.9	< 1.1	< 1	< 1	0.56	0.98	NA	< 1	< 2	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	477	242	29.9	23.8	232	59.9	79.7	104	NA	52.8	192	NA	NA
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	22700	NA	48000	NA	8320	NA	51800	NA	NA	57200	45600	23500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	19.8	NA	2.6	NA	7.1	NA	4.9	NA	NA	9	14.7	0	NA
Gravel	ARC-PGRAVEL	%	21.8	NA	44	NA	28.2	NA	53.1	NA	NA	14.6	48.1	55	NA
Sand	ARC-PSAND	%	37	NA	43.7	NA	41.7	NA	28.8	NA	NA	45.7	16.4	33	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	21.3	NA	9.7	NA	23	NA	13.1	NA	NA	30.8	20.8	12	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			Q6-583-02 0.5-1.0 ft 9/13/2000 N Q6-583-020.5N	Q6-584-01 0.0-1.0 ft 7/26/2000 N Q6-584-011N	Q6-584-02 0.0-1.0 ft 5/10/2000 N Q6-584-021N	Q6-8-03 0.0-1.0 ft 5/4/2000 N Q6-8-031N	Q6-8-05 0.0-0.5 ft 7/26/2000 N Q6-8-050.5N	Q6-9311-01 0.0-1.0 ft 9/27/2000 N Q6-9311-011N	Q6-9311-03 0.0-2.0 ft 7/13/2000 N Q6-9311-032N	R5-1-01 0.0-1.3 ft 5/4/2000 N R5-1-011.25N	R5-1-01 0.0-1.3 ft 5/4/2000 FD R5-1-011.25FD R5-1-011.25N	R5-1-03 0.0-1.0 ft 7/26/2000 N R5-1-031N	R5-1-03 0.0-1.0 ft 7/26/2000 FD R5-1-031FD R5-1-031N	R5-2-01 0.0-1.0 ft 5/4/2000 N R5-2-011N	R5-2-03 0.0-1.0 ft 5/4/2000 N R5-2-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 1180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 1180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 1180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			Q6-583-02	Q6-584-01	Q6-584-02	Q6-8-03	Q6-8-05	Q6-9311-01	Q6-9311-03	R5-1-01	R5-1-01	R5-1-03	R5-1-03	R5-2-01	R5-2-03
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			9/13/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000	9/27/2000	7/13/2000	5/4/2000	5/4/2000	7/26/2000	7/26/2000	5/4/2000	5/4/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			Q6-583-020.5N	Q6-584-011N	Q6-584-021N	Q6-8-031N	Q6-8-050.5N	Q6-9311-011N	Q6-9311-032N	R5-1-011.25N	R5-1-011.25FD	R5-1-031N	R5-1-031FD	R5-2-011N	R5-2-031N
Parent Sample											R5-1-011.25N		R5-1-031N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds (cont.)															
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	670	NA	NA	NA	NA	NA	< 358.952	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 1180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 748	< 78	< 72	< 766	< 722	< 717.904	< 74	< 750	< 819	< 894	< 87	< 90
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 374	< 390	< 360	< 383	< 361	< 359	< 370	< 370	< 409	< 447	< 430	< 450
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 374	< 390	< 360	< 383	< 361	< 359	28	38	< 409	< 447	< 430	< 450
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
2-Chlorophenol	95-57-8	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	NA	< 37	< 370	< 409	< 447	< 43	< 45
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 748	< 78	< 72	< 766	< 722	< 717.904	< 74	< 750	< 819	< 894	< 87	< 90
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 748	< 78	< 72	< 766	< 722	< 717.904	< 74	< 750	< 819	< 894	< 87	< 90
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			Q6-583-02	Q6-584-01	Q6-584-02	Q6-8-03	Q6-8-05	Q6-9311-01	Q6-9311-03	R5-1-01	R5-1-01	R5-1-03	R5-1-03	R5-2-01	R5-2-03
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			9/13/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000	9/27/2000	7/13/2000	5/4/2000	5/4/2000	7/26/2000	7/26/2000	5/4/2000	5/4/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			Q6-583-020.5N	Q6-584-011N	Q6-584-021N	Q6-8-031N	Q6-8-050.5N	Q6-9311-011N	Q6-9311-032N	R5-1-011.25N	R5-1-011.25FD	R5-1-031N	R5-1-031FD	R5-2-011N	R5-2-031N
Parent Sample											R5-1-011.25N		R5-1-031N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 748	< 78	< 72	< 766	< 722	NA	< 74	< 750	< 819	< 894	< 87	< 90
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Acenaphthylene	208-96-8	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 374	< 39	43	36.8	< 361	34.82	< 37	< 370	< 409	< 447	< 43	< 45
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 374	< 39	42	40.6	< 361	34.1	< 37	< 370	< 409	< 447	< 43	< 45
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 374	< 39	63	85.1	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	23.2	24	23	54.8	< 361	< 358.952	47	47	26.6	25.9	33	37
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 374	< 39	41	53.6	< 361	< 358.952	< 37	39	< 409	< 447	< 43	61
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 374	< 39	< 36	1280	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Dimethylphthalate	131-11-3	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 374	< 39	< 36	138	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Fluoranthene	206-44-0	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	84
Fluorene	86-73-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Hexachlorobenzene	118-74-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Hexachloroethane	67-72-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Isophorone	78-59-1	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			Q6-583-02 0.5-1.0 ft 9/13/2000 N Q6-583-020.5N	Q6-584-01 0.0-1.0 ft 7/26/2000 N Q6-584-011N	Q6-584-02 0.0-1.0 ft 5/10/2000 N Q6-584-021N	Q6-8-03 0.0-1.0 ft 5/4/2000 N Q6-8-031N	Q6-8-05 0.0-0.5 ft 7/26/2000 N Q6-8-050.5N	Q6-9311-01 0.0-1.0 ft 9/27/2000 N Q6-9311-011N	Q6-9311-03 0.0-2.0 ft 7/13/2000 N Q6-9311-032N	R5-1-01 0.0-1.3 ft 5/4/2000 N R5-1-011.25N	R5-1-01 0.0-1.3 ft 5/4/2000 FD R5-1-011.25FD R5-1-011.25N	R5-1-03 0.0-1.0 ft 7/26/2000 N R5-1-031N	R5-1-03 0.0-1.0 ft 7/26/2000 FD R5-1-031FD R5-1-031N	R5-2-01 0.0-1.0 ft 5/4/2000 N R5-2-011N	R5-2-03 0.0-1.0 ft 5/4/2000 N R5-2-031N
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (cont.)															
Naphthalene	91-20-3	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	NA	< 37	< 370	< 409	< 447	< 43	< 45
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 37	< 370	< 409	< 447	< 43	< 45
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 374	< 39	< 36	519	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Pentachlorophenol	87-86-5	ug/kg	NA	< 748	< 78	< 72	< 766	< 722	< 717.904	< 74	< 750	< 819	< 894	< 87	< 90
Phenanthrene	85-01-8	ug/kg	NA	< 374	< 39	22	< 383	< 361	< 358.952	29	42	< 409	< 447	41	37
Phenol	108-95-2	ug/kg	NA	< 374	< 39	< 36	< 383	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Pyrene	129-00-0	ug/kg	NA	< 374	< 39	< 36	95.4	< 361	< 358.952	< 37	< 370	< 409	< 447	< 43	< 45
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides															
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls															
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			Q6-583-02	Q6-584-01	Q6-584-02	Q6-8-03	Q6-8-05	Q6-9311-01	Q6-9311-03	R5-1-01	R5-1-01	R5-1-03	R5-1-03	R5-2-01	R5-2-03
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			9/13/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000	9/27/2000	7/13/2000	5/4/2000	5/4/2000	7/26/2000	7/26/2000	5/4/2000	5/4/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			Q6-583-020.5N	Q6-584-011N	Q6-584-021N	Q6-8-031N	Q6-8-050.5N	Q6-9311-011N	Q6-9311-032N	R5-1-011.25N	R5-1-011.25FD	R5-1-031N	R5-1-031FD	R5-2-011N	R5-2-031N
Parent Sample											R5-1-011.25N		R5-1-031N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives and Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 250	< 141	< 25	< 250	< 100	< 178.5714	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 250	< 141	< 25	< 250	< 100	< 178.5714	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 250	< 141	< 25	501	< 100	< 178.5714	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 250	< 141	< 25	< 250	< 100	< 178.5714	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 500	< 282	< 50	< 500	< 200	< 357.1428	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 500	< 282	< 50	< 500	< 200	< 357.1428	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 250	< 141	< 25	< 250	< 100	< 178.5714	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 500	< 282	< 50	< 500	< 200	< 357.1428	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 250	< 141	< 25	142	< 100	< 178.5714	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	58600	< 40000	< 38000	377000	< 33.3	39300	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 5250	11000	< 540	43900	< 5420	< 5258.165	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 500	< 282	< 50	< 500	< 200	< 357.1428	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 500	< 282	< 50	< 500	< 200	< 357.1428	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	< 500	< 282	< 50	< 500	< 200	< 357.1428	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.525	< 0.6	< 0.6	< 0.501	< 0.637	< 0.525822	0.88	0.77	< 0.746	< 0.752	< 0.7	< 1
Arsenic	7440-38-2	mg/kg	NA	2.96	4.8	3.4	10.3	3.13	5.13	4.8	6.1	5.37	4.58	5.8	8.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.352	0.56	0.6	0.598	0.784	0.431	0.25	0.26	0.301	0.276	0.43	0.53
Cadmium	7440-43-9	mg/kg	NA	< 0.263	< 0.3	0.45	< 0.251	0.079	< 0.262911	0.2	0.23	< 0.373	< 0.376	0.37	0.21
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	8.79	18.2	11.6	19.4	11.4	16	9.8	9.4	8.52	12.5	14.4	27
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	8.8	15.3	19.1	26.1	16.8	13.6	17.2	21.6	15.2	15.1	15.3	19.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	10.9	22.4	17.6	21.2	10.2	9.44	59.9	85.8	40.9	41.1	94.5	79.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.03	0.03	0.05	< 0.034	< 0.035	0.022	0.22	0.22	0.213	0.176	0.08	0.11
Nickel	7440-02-0	mg/kg	NA	5.51	7.7	6.8	9.34	6.5	6.77	4.7	6.1	5.32	6.77	7.2	9.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.551	< 0.5	0.63	0.828	< 0.531	0.452	0.91	1.4	1.54	1.07	1.3	79.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			Q6-583-02	Q6-584-01	Q6-584-02	Q6-8-03	Q6-8-05	Q6-9311-01	Q6-9311-03	R5-1-01	R5-1-01	R5-1-03	R5-1-03	R5-2-01	R5-2-03
Depths			0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			9/13/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000	9/27/2000	7/13/2000	5/4/2000	5/4/2000	7/26/2000	7/26/2000	5/4/2000	5/4/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	FD	N	N
Sample Name			Q6-583-020.5N	Q6-584-011N	Q6-584-021N	Q6-8-031N	Q6-8-050.5N	Q6-9311-011N	Q6-9311-032N	R5-1-011.25N	R5-1-011.25FD	R5-1-031N	R5-1-031FD	R5-2-011N	R5-2-031N
Parent Sample											R5-1-011.25N		R5-1-031N		
CONSTITUENT	***CAS NO.***	***UNITS***													
Metals (cont.)															
Silver	7440-22-4	mg/kg	NA	< 0.263	< 0.3	< 0.3	< 0.251	0.269	< 0.262911	0.15	0.1	< 0.373	< 0.376	< 0.3	0.79
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	0.615	0.56	< 1	0.999	< 1.06	< 0.87637	< 1	< 1.1	< 1.24	< 1.25	< 1	< 2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	60.3	94.2	80.4	73.3	75.7	51.4	80.7	98.9	60.3	62.2	174	4910
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	47700	12700	NA	NA	14500	49300	NA	NA	NA	60200	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution															
Clay	ARC-PCLAY	%	NA	NA	7	0	NA	NA	NA	2.9	NA	NA	NA	8.6	NA
Gravel	ARC-PGRAVEL	%	NA	NA	33.3	24	NA	NA	NA	45.3	NA	NA	NA	27.6	NA
Sand	ARC-PSAND	%	NA	NA	43.7	67.1	NA	NA	NA	44.5	NA	NA	NA	42.6	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	94	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	80.9	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	60.9	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	88	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	69	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	63.6	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	74.1	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	65.5	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	16	8.8	NA	NA	NA	7.3	NA	NA	NA	21.2	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01	SB-R0-J11-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005	12/21/2005
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851	SB-R0-J11-021.0N0919
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01	SB-R0-J11-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005	12/21/2005
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851	SB-R0-J11-021.0N0919
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 93	< 71	< 775	< 77	< 795	< 84	< 8310	< 85	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 460	< 350	< 387	< 380	< 397	< 420	< 4160	< 430	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 460	< 350	< 387	< 380	< 397	< 420	< 4160	< 430	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 93	< 71	< 775	< 77	< 795	< 84	< 8310	< 85	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 93	< 71	< 775	< 77	< 795	< 84	< 8310	< 85	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01	SB-R0-J11-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005	12/21/2005
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851	SB-R0-J11-021.0N0919
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 93	< 71	< 775	< 77	< 795	< 84	< 8310	< 85	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	1750	170	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	41	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	2730	320	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	90	33	< 387	43	< 397	< 42	5850	600	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	86	26	< 387	25	< 397	< 42	4080	490	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	170	< 35	< 387	< 38	< 397	< 42	6220	700	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	2510	200	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	2330	340	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	130	25	< 387	< 38	< 397	22	< 4160	22	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	130	< 35	< 387	< 38	< 397	< 42	5190	660	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	914	< 43	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	41	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	170	< 35	< 387	< 38	< 397	< 42	15000	1800	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	1750	200	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	2470	220	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01	SB-R0-J11-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005	12/21/2005
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851	SB-R0-J11-021.0N0919
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	682	32	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 46	< 35	< 387	< 38	NA	< 42	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 93	< 71	< 775	< 77	< 795	< 84	< 8310	< 85	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	140	21	< 387	< 38	< 397	< 42	15400	1300	NA	NA	NA
Phenol	108-95-2	ug/kg	< 46	< 35	< 387	< 38	< 397	< 42	< 4160	< 43	NA	NA	NA
Pyrene	129-00-0	ug/kg	290	< 35	< 387	< 38	< 397	< 42	11500	930	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5000
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01	SB-R0-J11-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005	12/21/2005
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851	SB-R0-J11-021.0N0919
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 250	NA	< 250	< 160	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 250	NA	< 250	< 160	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 250	NA	< 250	< 160	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 250	NA	< 250	< 160	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 500	NA	< 500	< 320	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 500	NA	< 500	< 320	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 250	NA	< 250	< 160	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 500	NA	< 500	< 320	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 250	NA	< 250	< 160	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	151000	NA	< 43.7	< 44000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 5890	NA	< 6460	< 620	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 500	NA	< 500	< 320	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 500	NA	< 500	< 320	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 500	NA	< 500	< 320	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.2	< 0.6	< 0.58	< 0.6	< 0.575	< 0.7	< 0.68	0.57	< 1121.1	< 1180.3	< 977.2
Arsenic	7440-38-2	mg/kg	9.1	2.1	3.24	4.4	7.42	4.2	14.9	16.5	< 77.3	< 68.4	76.66
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.58	0.44	0.443	0.78	0.612	0.92	0.384	0.67	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.9	0.32	< 0.29	< 0.3	< 0.288	< 0.3	0.511	0.04	< 577.8	< 632.5	< 524.8
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	21.5	8.6	9.85	15.1	23.9	17.6	16.9	19.8	< 414.4	< 473.1	< 372.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	29.6	11.3	13.1	12.3	13.3	9.8	18.4	19.6	24.44	< 201.2	34.83
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	108	17.9	13.5	18.4	8.63	13.6	108	42.7	63.41	22.62	654.82
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.35	< 0	0.036	0.05	0.034	0.05	0.101	0.06	< 127.8	< 136.8	< 136.7
Nickel	7440-02-0	mg/kg	11.1	5.6	6.44	9.7	9.81	10.6	11.9	12.5	< 332.9	< 339.1	< 309.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.4	0.35	0.732	0.37	1.03	0.38	0.935	0.79	< 31.9	< 35.7	< 36.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01	SB-R0-J11-02
Depths			0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005	12/21/2005
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851	SB-R0-J11-021.0N0919
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	0.48	< 0.3	< 0.29	< 0.3	< 0.288	< 0.3	< 0.34	< 0.3	< 378.5	< 423	< 341
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	1.03	1	1.45	0.79	0.923	0.66	< 112.8	< 119.9	< 167.8
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	945	41.6	50	140	109	134	286	122	169.94	53.24	116.69
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	5920	NA	27900	NA	34600	NA	38800	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	2.2	NA	5	NA	28	NA	21.5	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	18.4	NA	22.4	NA	13.9	NA	12.3	NA	NA	NA
Sand	ARC-PSAND	%	NA	66.4	NA	50.8	NA	32.3	NA	38.2	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	13.1	NA	21.7	NA	25.8	NA	28.1	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005
Sample Type			N	N	N	N	N	N	FD
Sample Name			SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538
Parent Sample									SB-R0-M9-011.5N1538
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds									
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005
Sample Type			N	N	N	N	N	N	FD
Sample Name			SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538
Parent Sample									SB-R0-M9-011.5N1538
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds (cont.)									
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds									
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 200	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	< 2400	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	87	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 200	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005
Sample Type			N	N	N	N	N	N	FD
Sample Name			SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538
Parent Sample									SB-R0-M9-011.5N1538
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	< 390	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	< 200	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005
Sample Type			N	N	N	N	N	N	FD
Sample Name			SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538
Parent Sample									SB-R0-M9-011.5N1538
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	< 200	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	100	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	< 200	< 200
Pesticides									
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005
Sample Type			N	N	N	N	N	N	FD
Sample Name			SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538
Parent Sample									SB-R0-M9-011.5N1538
CONSTITUENT	***CAS NO.***	***UNITS***							
Explosives and Energetics									
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 330	NA	NA	< 320	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 330	NA	NA	< 320	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 330	NA	NA	< 320	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 330	NA	NA	< 320	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	< 130000	NA	NA	< 130000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 6500	NA	NA	< 6500	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 810	NA	NA	< 810	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 330	NA	NA	< 320	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Metals									
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 1115.8	< 1.99	< 1112	< 1072	NA	NA	NA
Arsenic	7440-38-2	mg/kg	< 57.8	3.29	< 96.1	14.39	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.458	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 573.6	1.35	< 573.7	< 553.5	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	< 383.6	NA	< 373.2	< 379.1	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	< 178	30	33.12	< 167.9	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	20.16	77.5	149.48	138.69	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 123.6	0.0345	< 144.2	< 127.4	NA	NA	NA
Nickel	7440-02-0	mg/kg	< 323.4	7.48	< 336	< 320.3	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 32.9	< 1.99	< 34.5	< 31.3	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005
Sample Type			N	N	N	N	N	N	FD
Sample Name			SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538
Parent Sample									SB-R0-M9-011.5N1538
CONSTITUENT	***CAS NO.***	***UNITS***							
Metals (cont.)									
Silver	7440-22-4	mg/kg	< 371.4	5.19	< 372.3	< 356.3	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 105.2	< 1.99	< 125.4	< 117	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	100.72	174	238.65	347.49	NA	NA	NA
Miscellaneous									
Percent Moisture	ARC-MOIST	%dw	NA	7.7	NA	NA	7.5	15.3	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution									
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M9-02	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02
Depths			0.2-0.7 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/22/2005	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type			N	N	FD	N	N	N	N	FD
Sample Name			SB-R0-M9-020.67N1124	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD
Parent Sample					SB-R0-M9-031.0N1052					SB-R-A12-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 3100	< 2700	< 2800	< 2800
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 780	< 680	< 710	< 690
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 780	< 680	< 710	< 690
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M9-02	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02
Depths			0.2-0.7 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/22/2005	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type			N	N	FD	N	N	N	N	FD
Sample Name			SB-R0-M9-020.67N1124	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD
Parent Sample					SB-R0-M9-031.0N1052					SB-R-A12-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds (cont.)										
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 780	< 680	< 710	< 690
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 780	< 680	< 710	< 690
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds										
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 170	< 190	NA	< 190	< 190	< 180	< 180	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 2300	NA	< 2200	< 2300	< 2200	< 2200	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	73000	< 190	NA	< 190	< 190	< 180	< 180	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	3100	< 190	NA	< 190	< 190	< 180	< 180	< 180
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M9-02	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02
Depths			0.2-0.7 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/22/2005	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type			N	N	FD	N	N	N	N	FD
Sample Name			SB-R0-M9-020.67N1124	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD
Parent Sample					SB-R0-M9-031.0N1052					SB-R-A12-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	260	100	NA	570	< 190	< 180	< 180	< 180
Benzo[a]pyrene	50-32-8	ug/kg	270	81	NA	620	< 190	< 180	< 180	< 180
Benzo[b]fluoranthene	205-99-2	ug/kg	470	140	NA	820	< 190	< 180	< 180	< 180
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	190	58	NA	400	< 190	< 180	< 180	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 330	< 380	NA	< 370	< 380	< 370	< 370	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 170	< 190	NA	< 190	< 190	< 180	< 180	< 180
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	300	120	NA	650	< 190	< 180	< 180	< 180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	57	< 190	NA	120	< 190	< 180	< 180	< 180
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 170	< 190	NA	< 190	< 190	< 180	< 180	< 180
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	240	940	NA	< 190	< 190	< 180	< 180	< 180
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	180	46	NA	390	< 190	< 180	< 180	< 180
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M9-02	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02
Depths			0.2-0.7 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/22/2005	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type			N	N	FD	N	N	N	N	FD
Sample Name			SB-R0-M9-020.67N1124	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD
Parent Sample					SB-R0-M9-031.0N1052					SB-R-A12-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 170	< 190	NA	< 190	< 190	< 180	< 180	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	1600	220	NA	< 190	< 190	< 180	< 180	< 180
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	2900	1100	360	6300	NA	NA	NA	NA
Pesticides										
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls										
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	< 20	< 19	< 19	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M9-02	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02
Depths			0.2-0.7 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/22/2005	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type			N	N	FD	N	N	N	N	FD
Sample Name			SB-R0-M9-020.67N1124	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD
Parent Sample					SB-R0-M9-031.0N1052					SB-R-A12-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***								
Explosives and Energetics										
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 350	< 330	< 330	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 350	< 330	< 330	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 350	< 330	< 330	< 330
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 350	< 330	< 330	< 330
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	< 140000	< 130000	< 130000	< 130000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 6900	< 6600	< 6600	< 6600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	NA	NA	< 860	< 830	< 830	< 830
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 350	< 330	< 330	< 330
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	< 2.26	< 2.19	< 2.12	< 2.12
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	2.73	1.74	2.98	3.32
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	0.681	0.203	0.218	0.22
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	< 0.564	< 0.548	< 0.53	< 0.531
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	11.7	7.45	8.09	7.47
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	4.45	1.9	3.36	3.74
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	< 0.112	< 0.103	< 0.106	< 0.106
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	9.51	3.42	4.18	3.85
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	< 2.26	< 2.19	< 2.12	< 2.12

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R0-M9-02	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02
Depths			0.2-0.7 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			12/22/2005	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006
Sample Type			N	N	FD	N	N	N	N	FD
Sample Name			SB-R0-M9-020.67N1124	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD
Parent Sample					SB-R0-M9-031.0N1052					SB-R-A12-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***								
Metals (cont.)										
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	< 0.564	< 0.548	< 0.53	< 0.531
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	< 2.26	< 2.19	1.66	< 2.12
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	34.4	12	14.5	13.7
Miscellaneous										
Percent Moisture	ARC-MOIST	%dw	< 0.5	12.8	NA	10.5	13.1	9.6	9.3	9.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution										
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03	SB-R-A13-04	SB-R-A13-04	SB-R-A14-01	SB-R-B10-01	SB-R-B10-01	SB-R-B10-03
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/24/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/18/2006	5/25/2006	5/25/2006	6/13/2006
Sample Type			N	N	N	N	N	FD	N	N	FD	N
Sample Name			SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N	SB-R-A13-041.0N	SB-R-A13-041.0FD	SB-R-A14-011.0N	SB-R-B10-011.0N	SB-R-B10-011.0FD	SB-R-B10-031.0N
Parent Sample								SB-R-A13-041.0N			SB-R-B10-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2700	< 2900	< 3200	< 3000	< 3000	< 3000	< 3400	< 3000	< 3000	< 3100
Benzene	71-43-2	ug/kg	< 660	< 740	< 800	< 750	< 760	< 740	< 850	< 760	< 750	< 770
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 660	< 740	< 800	< 750	< 760	< 740	< 850	< 760	< 750	< 770
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03	SB-R-A13-04	SB-R-A13-04	SB-R-A14-01	SB-R-B10-01	SB-R-B10-01	SB-R-B10-03
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/24/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/18/2006	5/25/2006	5/25/2006	6/13/2006
Sample Type			N	N	N	N	N	FD	N	N	FD	N
Sample Name			SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N	SB-R-A13-041.0N	SB-R-A13-041.0FD	SB-R-A14-011.0N	SB-R-B10-011.0N	SB-R-B10-011.0FD	SB-R-B10-031.0N
Parent Sample								SB-R-A13-041.0N			SB-R-B10-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 660	< 740	< 800	< 750	< 760	< 740	< 850	< 760	< 750	< 770
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 660	< 740	< 800	< 750	< 760	< 740	< 850	< 760	< 750	< 770
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	< 2300	< 2400	< 2300	< 2200	< 2200	< 2400	< 2300	< 2400	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03	SB-R-A13-04	SB-R-A13-04	SB-R-A14-01	SB-R-B10-01	SB-R-B10-01	SB-R-B10-03
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/24/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/18/2006	5/25/2006	5/25/2006	6/13/2006
Sample Type			N	N	N	N	N	FD	N	N	FD	N
Sample Name			SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N	SB-R-A13-041.0N	SB-R-A13-041.0FD	SB-R-A14-011.0N	SB-R-B10-011.0N	SB-R-B10-011.0FD	SB-R-B10-031.0N
Parent Sample								SB-R-A13-041.0N			SB-R-B10-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Benzo[a]pyrene	50-32-8	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 360	< 390	< 400	< 380	< 370	< 370	< 400	< 390	< 390	< 400
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03	SB-R-A13-04	SB-R-A13-04	SB-R-A14-01	SB-R-B10-01	SB-R-B10-01	SB-R-B10-03
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/24/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/18/2006	5/25/2006	5/25/2006	6/13/2006
Sample Type			N	N	N	N	N	FD	N	N	FD	N
Sample Name			SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N	SB-R-A13-041.0N	SB-R-A13-041.0FD	SB-R-A14-011.0N	SB-R-B10-011.0N	SB-R-B10-011.0FD	SB-R-B10-031.0N
Parent Sample								SB-R-A13-041.0N			SB-R-B10-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 180	< 200	< 200	< 190	< 190	< 190	< 200	< 200	< 200	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Aroclor-1221	11104-28-2	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Aroclor-1232	11141-16-5	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Aroclor-1242	53469-21-9	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Aroclor-1248	12672-29-6	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Aroclor-1254	11097-69-1	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Aroclor-1260	11096-82-5	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 18	< 20	< 21	< 20	< 19	< 19	< 21	< 20	< 20	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03	SB-R-A13-04	SB-R-A13-04	SB-R-A14-01	SB-R-B10-01	SB-R-B10-01	SB-R-B10-03
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/24/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/18/2006	5/25/2006	5/25/2006	6/13/2006
Sample Type			N	N	N	N	N	FD	N	N	FD	N
Sample Name			SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N	SB-R-A13-041.0N	SB-R-A13-041.0FD	SB-R-A14-011.0N	SB-R-B10-011.0N	SB-R-B10-011.0FD	SB-R-B10-031.0N
Parent Sample								SB-R-A13-041.0N			SB-R-B10-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 320	< 350	< 360	< 350	< 340	< 340	< 360	< 350	< 350	< 360
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 320	< 350	< 360	< 350	< 340	< 340	< 360	< 350	< 350	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 320	< 350	< 360	< 350	< 340	< 340	< 360	< 350	< 350	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 320	< 350	< 360	< 350	< 340	< 340	< 360	< 350	< 350	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 140000	< 140000	< 140000	< 130000	< 130000	< 140000	< 140000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6400	< 7000	< 7300	< 6900	< 6700	< 6700	< 7300	< 7000	< 7100	< 7200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 800	< 880	< 910	< 860	< 840	< 840	< 910	< 880	< 880	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 320	< 350	< 360	< 350	< 340	< 340	< 360	< 350	< 350	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.1	< 2.28	< 2.33	< 2.22	1.06	1.01	< 2.38	< 2.32	< 2.29	1.16
Arsenic	7440-38-2	mg/kg	2.25	3.18	3.24	4.22	3.25	2.69	3.55	3.98	3.39	3.27
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.197	0.857	0.613	0.443	0.423	0.378	0.711	0.902	0.967	0.8
Cadmium	7440-43-9	mg/kg	< 0.524	< 2.85	< 0.581	< 2.77	< 2.72	< 0.534	< 2.97	< 2.9	< 2.86	< 2.87
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	9.34	10.2	6.51	21.4	11.1	9.96	10.4	16.3	19.9	16.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	5.74	8.81	5.82	3.51	4.34	4.75	11	8.05	8.99	5.93
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0.105	0.0263	0.0203	0.0148	0.0152	0.0192	0.0352	0.0352	0.0343	0.0319
Nickel	7440-02-0	mg/kg	3.23	8.5	8.32	9.73	17.4	7.19	8.74	13.3	13.4	11.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.1	< 2.28	< 2.33	< 2.22	< 2.18	< 2.14	< 2.38	< 2.32	< 2.29	< 2.29

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03	SB-R-A13-04	SB-R-A13-04	SB-R-A14-01	SB-R-B10-01	SB-R-B10-01	SB-R-B10-03
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/24/2006	5/19/2006	5/19/2006	5/19/2006	5/23/2006	5/23/2006	5/18/2006	5/25/2006	5/25/2006	6/13/2006
Sample Type			N	N	N	N	N	FD	N	N	FD	N
Sample Name			SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N	SB-R-A13-041.0N	SB-R-A13-041.0FD	SB-R-A14-011.0N	SB-R-B10-011.0N	SB-R-B10-011.0FD	SB-R-B10-031.0N
Parent Sample								SB-R-A13-041.0N			SB-R-B10-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.524	< 0.569	< 0.581	< 0.554	< 0.544	< 0.534	< 0.595	< 0.58	0.289	< 0.574
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.1	< 2.28	< 2.33	1.61	1.29	1.45	< 2.38	< 2.32	< 2.29	< 2.29
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	16.3	50.1	37.7	30.6	32.2	25.7	59.7	39.9	39.7	35.4
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	6.5	14.7	17.3	13.2	10.8	10.9	17.6	14.7	15.2	16.2
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-B11-02	SB-R-B11-02	SB-R-B11-04	SB-R-B12-01	SB-R-B12-02	SB-R-B12-03	SB-R-B14-02	SB-R-B14-04	SB-R-C10-02	SB-R-C10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	5/31/2006	5/23/2006	5/23/2006	5/24/2006	5/18/2006	6/6/2006	6/1/2006	6/7/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-B11-021.0N	SB-R-B11-021.0FD	SB-R-B11-041.0N	SB-R-B12-011.0N	SB-R-B12-021.0N	SB-R-B12-031.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C10-021.0N	SB-R-C10-031.0N
Parent Sample				SB-R-B11-021.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 2800	< 3000	< 2800	< 2900	< 3000	< 3300	< 3100	< 3000	< 4800
Benzene	71-43-2	ug/kg	< 730	< 710	< 740	< 690	< 720	< 750	< 810	< 780	< 750	< 1200
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 730	< 710	< 740	< 690	< 720	< 750	< 810	< 780	< 750	< 1200
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-B11-02	SB-R-B11-02	SB-R-B11-04	SB-R-B12-01	SB-R-B12-02	SB-R-B12-03	SB-R-B14-02	SB-R-B14-04	SB-R-C10-02	SB-R-C10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	5/31/2006	5/23/2006	5/23/2006	5/24/2006	5/18/2006	6/6/2006	6/1/2006	6/7/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-B11-021.0N	SB-R-B11-021.0FD	SB-R-B11-041.0N	SB-R-B12-011.0N	SB-R-B12-021.0N	SB-R-B12-031.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C10-021.0N	SB-R-C10-031.0N
Parent Sample				SB-R-B11-021.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 730	< 710	< 740	< 690	< 720	< 750	< 810	< 780	< 750	< 1200
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 730	< 710	< 740	< 690	< 720	< 750	< 810	< 780	< 750	< 1200
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2300	< 2300	< 2100	< 2300	< 2300	< 2500	< 2400	< 2300	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	4200	480	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	690	55	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-B11-02	SB-R-B11-02	SB-R-B11-04	SB-R-B12-01	SB-R-B12-02	SB-R-B12-03	SB-R-B14-02	SB-R-B14-04	SB-R-C10-02	SB-R-C10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	5/31/2006	5/23/2006	5/23/2006	5/24/2006	5/18/2006	6/6/2006	6/1/2006	6/7/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-B11-021.0N	SB-R-B11-021.0FD	SB-R-B11-041.0N	SB-R-B12-011.0N	SB-R-B12-021.0N	SB-R-B12-031.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C10-021.0N	SB-R-C10-031.0N
Parent Sample				SB-R-B11-021.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	44	< 190	< 200	< 180	< 190	< 200	< 210	< 200	540	< 200
Benzo[a]pyrene	50-32-8	ug/kg	41	< 190	< 200	< 180	< 190	< 200	< 210	< 200	400	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	89	82	< 200	< 180	< 190	< 200	< 210	< 200	630	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	290	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 380	< 380	< 390	< 350	< 390	< 390	< 420	< 400	< 380	< 400
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	50	54	< 200	< 180	< 190	< 200	< 210	< 200	650	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	61	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	210	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-B11-02	SB-R-B11-02	SB-R-B11-04	SB-R-B12-01	SB-R-B12-02	SB-R-B12-03	SB-R-B14-02	SB-R-B14-04	SB-R-C10-02	SB-R-C10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	5/31/2006	5/23/2006	5/23/2006	5/24/2006	5/18/2006	6/6/2006	6/1/2006	6/7/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-B11-021.0N	SB-R-B11-021.0FD	SB-R-B11-041.0N	SB-R-B12-011.0N	SB-R-B12-021.0N	SB-R-B12-031.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C10-021.0N	SB-R-C10-031.0N
Parent Sample				SB-R-B11-021.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	< 190	< 200	< 180	< 190	< 200	< 210	< 200	< 190	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 19	< 20	< 18	< 20	< 20	< 21	< 21	< 19	< 20
Aroclor-1221	11104-28-2	ug/kg	< 20	< 19	< 20	< 18	< 20	< 20	< 21	< 21	< 19	< 20
Aroclor-1232	11141-16-5	ug/kg	< 20	< 19	< 20	< 18	< 20	< 20	< 21	< 21	< 19	< 20
Aroclor-1242	53469-21-9	ug/kg	< 20	< 19	< 20	< 18	< 20	< 20	< 21	< 21	< 19	< 20
Aroclor-1248	12672-29-6	ug/kg	< 20	< 19	< 20	< 18	< 20	< 20	< 21	< 21	< 19	< 20
Aroclor-1254	11097-69-1	ug/kg	33	39	< 20	< 18	< 20	< 20	< 21	< 21	110	< 20
Aroclor-1260	11096-82-5	ug/kg	27	53	< 20	< 18	< 20	< 20	< 21	< 21	< 19	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	60	92	< 20	< 18	< 20	< 20	< 21	< 21	110	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-B11-02	SB-R-B11-02	SB-R-B11-04	SB-R-B12-01	SB-R-B12-02	SB-R-B12-03	SB-R-B14-02	SB-R-B14-04	SB-R-C10-02	SB-R-C10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	5/31/2006	5/23/2006	5/23/2006	5/24/2006	5/18/2006	6/6/2006	6/1/2006	6/7/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-B11-021.0N	SB-R-B11-021.0FD	SB-R-B11-041.0N	SB-R-B12-011.0N	SB-R-B12-021.0N	SB-R-B12-031.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C10-021.0N	SB-R-C10-031.0N
Parent Sample				SB-R-B11-021.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 340	< 350	< 320	< 350	< 350	< 370	< 360	< 340	< 360
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	570	1100	< 350	< 320	< 350	< 350	< 370	< 360	< 340	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	420	1800	< 350	< 320	< 350	< 350	< 370	< 360	< 340	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	450	1100	130	< 320	< 350	< 350	< 370	< 360	< 340	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 140000	< 130000	< 140000	< 140000	< 150000	< 150000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6900	< 6900	< 7000	< 6400	< 6900	< 7000	< 7500	< 7300	< 6800	< 7200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 860	< 860	< 880	< 800	< 870	< 880	< 940	< 910	< 860	< 900
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 340	< 350	< 320	< 350	< 350	< 370	< 360	< 340	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.28	< 2.23	< 2.3	1.54	< 2.29	< 2.34	< 2.42	1.39	< 2.26	< 2.37
Arsenic	7440-38-2	mg/kg	3.15	3.06	4.41	1.87	1.74	3	2.85	5.44	30.6	3.15
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.407	0.455	0.593	0.484	0.169	0.247	0.817	0.653	0.56	0.521
Cadmium	7440-43-9	mg/kg	< 0.57	< 0.557	< 0.575	< 0.511	< 0.572	< 0.586	< 0.606	< 2.97	< 2.82	< 0.592
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	15.2	16	10.3	14.6	3.71	7.27	9.2	13	10.2	7.08
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	173	183	61	4.37	2.61	3.55	10.4	10	50.5	9.25
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0523	0.05	0.0544	< 0.104	0.0174	< 0.114	0.0751	0.125	0.335	0.0391
Nickel	7440-02-0	mg/kg	7.04	6.89	6.43	8.09	2.56	3.94	7.43	8.95	8.61	5.77
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.28	< 2.23	< 2.3	< 2.05	< 2.29	< 2.34	< 2.42	1.34	< 2.26	< 2.37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-B11-02	SB-R-B11-02	SB-R-B11-04	SB-R-B12-01	SB-R-B12-02	SB-R-B12-03	SB-R-B14-02	SB-R-B14-04	SB-R-C10-02	SB-R-C10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	5/31/2006	5/23/2006	5/23/2006	5/24/2006	5/18/2006	6/6/2006	6/1/2006	6/7/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-B11-021.0N	SB-R-B11-021.0FD	SB-R-B11-041.0N	SB-R-B12-011.0N	SB-R-B12-021.0N	SB-R-B12-031.0N	SB-R-B14-021.0N	SB-R-B14-041.0N	SB-R-C10-021.0N	SB-R-C10-031.0N
Parent Sample				SB-R-B11-021.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.236	< 0.557	< 0.575	< 0.511	< 0.572	< 0.586	< 0.606	< 0.593	0.298	< 0.592
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.28	< 2.23	< 2.3	1.79	< 2.29	< 2.34	< 2.42	1.79	1.67	< 2.37
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	38	38.7	43.6	31.2	9.57	15.6	53.6	50.2	35.7	27
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	13.2	12.8	14.7	6	13.5	14.7	19.9	17.4	12.3	16.4
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C10-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C11-04	SB-R-C12-01	SB-R-C12-01	SB-R-C12-03	SB-R-C12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			6/12/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/7/2006	5/31/2006	5/31/2006	6/6/2006	6/6/2006
Sample Type			N	N	FD	N	N	N	N	FD	N	N
Sample Name			SB-R-C10-041.0N	SB-R-C11-011.0N	SB-R-C11-011.0FD	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C11-041.0N	SB-R-C12-011.0N	SB-R-C12-011.0FD	SB-R-C12-031.5N	SB-R-C12-041.0N
Parent Sample					SB-R-C11-011.0N					SB-R-C12-011.0N		
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 3200	< 3200	< 2800	< 3000	< 3000	< 2700	< 2800	< 2900	< 2600
Benzene	71-43-2	ug/kg	< 730	< 800	< 800	< 700	< 740	< 740	< 680	< 700	< 720	< 660
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 730	< 800	< 800	< 700	< 740	< 740	< 680	< 700	< 720	< 660
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C10-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C11-04	SB-R-C12-01	SB-R-C12-01	SB-R-C12-03	SB-R-C12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			6/12/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/7/2006	5/31/2006	5/31/2006	6/6/2006	6/6/2006
Sample Type			N	N	FD	N	N	N	N	FD	N	N
Sample Name			SB-R-C10-041.0N	SB-R-C11-011.0N	SB-R-C11-011.0FD	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C11-041.0N	SB-R-C12-011.0N	SB-R-C12-011.0FD	SB-R-C12-031.5N	SB-R-C12-041.0N
Parent Sample					SB-R-C11-011.0N					SB-R-C12-011.0N		
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 730	< 800	< 800	< 700	< 740	< 740	< 680	< 700	< 720	< 660
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 730	< 800	< 800	< 700	< 740	< 740	< 680	< 700	< 720	< 660
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2400	< 2600	< 2200	< 2300	< 2300	< 2200	< 2200	< 2400	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	220
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C10-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C11-04	SB-R-C12-01	SB-R-C12-01	SB-R-C12-03	SB-R-C12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			6/12/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/7/2006	5/31/2006	5/31/2006	6/6/2006	6/6/2006
Sample Type			N	N	FD	N	N	N	N	FD	N	N
Sample Name			SB-R-C10-041.0N	SB-R-C11-011.0N	SB-R-C11-011.0FD	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C11-041.0N	SB-R-C12-011.0N	SB-R-C12-011.0FD	SB-R-C12-031.5N	SB-R-C12-041.0N
Parent Sample					SB-R-C11-011.0N					SB-R-C12-011.0N		
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	350	580	150	1000	< 190	< 180	< 180	< 200	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 200	390	590	130	970	< 190	< 180	< 180	< 200	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 200	690	870	200	1400	< 190	< 180	< 180	< 200	85
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	190	340	80	520	< 190	< 180	< 180	< 200	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 400	< 430	< 370	< 380	< 390	< 360	< 370	< 400	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	400	660	160	970	< 190	< 180	< 180	< 200	70
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	89	46	< 180	150	< 190	< 180	< 180	< 200	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	230	380	73	590	< 190	< 180	< 180	< 200	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C10-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C11-04	SB-R-C12-01	SB-R-C12-01	SB-R-C12-03	SB-R-C12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			6/12/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/7/2006	5/31/2006	5/31/2006	6/6/2006	6/6/2006
Sample Type			N	N	FD	N	N	N	N	FD	N	N
Sample Name			SB-R-C10-041.0N	SB-R-C11-011.0N	SB-R-C11-011.0FD	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C11-041.0N	SB-R-C12-011.0N	SB-R-C12-011.0FD	SB-R-C12-031.5N	SB-R-C12-041.0N
Parent Sample					SB-R-C11-011.0N					SB-R-C12-011.0N		
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 200	< 200	< 210	< 180	< 190	< 190	< 180	< 180	< 200	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	< 20
Aroclor-1221	11104-28-2	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	< 20
Aroclor-1232	11141-16-5	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	< 20
Aroclor-1242	53469-21-9	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	< 20
Aroclor-1248	12672-29-6	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	< 20
Aroclor-1254	11097-69-1	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	< 20
Aroclor-1260	11096-82-5	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	6.9
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 21	< 22	< 19	< 20	< 20	< 18	< 19	< 20	6.9

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C10-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C11-04	SB-R-C12-01	SB-R-C12-01	SB-R-C12-03	SB-R-C12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			6/12/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/7/2006	5/31/2006	5/31/2006	6/6/2006	6/6/2006
Sample Type			N	N	FD	N	N	N	N	FD	N	N
Sample Name			SB-R-C10-041.0N	SB-R-C11-011.0N	SB-R-C11-011.0FD	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C11-041.0N	SB-R-C12-011.0N	SB-R-C12-011.0FD	SB-R-C12-031.5N	SB-R-C12-041.0N
Parent Sample					SB-R-C11-011.0N					SB-R-C12-011.0N		
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360	< 360	< 390	< 330	< 350	< 350	< 330	< 330	< 360	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 360	< 390	< 330	< 350	< 350	< 330	< 330	< 360	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 360	< 390	< 330	< 350	< 350	< 330	< 330	< 360	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 360	< 390	< 330	< 350	< 350	< 330	< 330	< 360	< 350
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 150000	< 150000	< 130000	< 140000	< 140000	< 130000	< 130000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7100	< 7300	< 7700	< 6600	< 6900	< 7000	< 6500	< 6600	< 7100	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 890	< 910	< 960	< 830	< 870	< 870	< 820	< 820	< 890	< 860
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 360	< 390	< 330	< 350	< 350	< 330	< 330	< 360	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.28	< 2.35	< 2.57	1.27	1.18	1.19	1.22	1.4	< 2.29	1.88
Arsenic	7440-38-2	mg/kg	3.2	22.6	26.3	8.52	6.27	2.88	2.83	4.65	2.42	133
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.93	0.361	0.349	0.56	0.749	0.347	0.626	0.68	0.369	0.542
Cadmium	7440-43-9	mg/kg	< 2.85	< 2.94	< 3.21	1.12	< 0.571	< 0.58	< 2.67	< 2.64	0.375	< 2.85
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.5	14.8	18.3	14.3	18.4	12.2	14.7	16.8	10.2	15.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6.4	102	110	500	473	680	5.48	6.12	50.5	15.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.029	0.098	0.119	0.0518	0.137	0.0263	0.0273	0.0228	0.0273	0.0459
Nickel	7440-02-0	mg/kg	12.4	7.05	7.41	7.57	8.23	5.1	7.6	8.06	5.59	8.71
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.28	1.73	2.02	< 2.16	1.57	< 2.32	< 2.13	< 2.11	< 2.29	< 2.28

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C10-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C11-04	SB-R-C12-01	SB-R-C12-01	SB-R-C12-03	SB-R-C12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			6/12/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/7/2006	5/31/2006	5/31/2006	6/6/2006	6/6/2006
Sample Type			N	N	FD	N	N	N	N	FD	N	N
Sample Name			SB-R-C10-041.0N	SB-R-C11-011.0N	SB-R-C11-011.0FD	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C11-041.0N	SB-R-C12-011.0N	SB-R-C12-011.0FD	SB-R-C12-031.5N	SB-R-C12-041.0N
Parent Sample					SB-R-C11-011.0N					SB-R-C12-011.0N		
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.57	< 0.588	< 0.642	< 0.539	< 0.571	< 0.58	< 0.533	< 0.528	< 0.572	< 0.57
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.66	1.63	< 2.57	< 2.16	< 2.28	< 2.32	< 2.13	< 2.11	< 2.29	< 2.28
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	40.4	44.5	48.3	72	40.1	37.3	39.2	37.1	32.9	42.7
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	15.7	17.4	22.1	9.1	13.3	13.8	8.1	8.9	15.9	13.2
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C13-01	SB-R-C13-02	SB-R-C13-03	SB-R-C13-04	SB-R-C14-01	SB-R-C14-02	SB-R-C14-03	SB-R-C14-04	SB-R-C9-01	SB-R-C9-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2006	5/19/2006	5/31/2006	6/2/2006	5/18/2006	5/18/2006	6/6/2006	6/6/2006	5/16/2006	5/16/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-C13-011.33N	SB-R-C13-021.0N	SB-R-C13-031.0N	SB-R-C13-041.0N	SB-R-C14-011.0N	SB-R-C14-021.25N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 3300	< 2900	< 2900	< 2900	< 3100	< 3300	< 2900	< 3000	< 3100
Benzene	71-43-2	ug/kg	< 710	< 830	< 730	< 720	< 720	< 770	< 810	< 740	< 750	< 780
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 710	< 830	< 730	< 720	< 720	< 770	< 810	< 740	< 750	< 780
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C13-01	SB-R-C13-02	SB-R-C13-03	SB-R-C13-04	SB-R-C14-01	SB-R-C14-02	SB-R-C14-03	SB-R-C14-04	SB-R-C9-01	SB-R-C9-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2006	5/19/2006	5/31/2006	6/2/2006	5/18/2006	5/18/2006	6/6/2006	6/6/2006	5/16/2006	5/16/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-C13-011.33N	SB-R-C13-021.0N	SB-R-C13-031.0N	SB-R-C13-041.0N	SB-R-C14-011.0N	SB-R-C14-021.25N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 710	< 830	< 730	< 720	< 720	< 770	< 810	< 740	< 750	< 780
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 710	< 830	< 730	< 720	< 720	< 770	< 810	< 740	< 750	< 780
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2500	< 2400	< 2300	< 2200	< 2400	< 2500	< 2400	< 2400	< 2500
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C13-01	SB-R-C13-02	SB-R-C13-03	SB-R-C13-04	SB-R-C14-01	SB-R-C14-02	SB-R-C14-03	SB-R-C14-04	SB-R-C9-01	SB-R-C9-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2006	5/19/2006	5/31/2006	6/2/2006	5/18/2006	5/18/2006	6/6/2006	6/6/2006	5/16/2006	5/16/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-C13-011.33N	SB-R-C13-021.0N	SB-R-C13-031.0N	SB-R-C13-041.0N	SB-R-C14-011.0N	SB-R-C14-021.25N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 420	< 390	< 380	< 370	< 400	< 410	< 400	< 400	< 410
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	170	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	77	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C13-01	SB-R-C13-02	SB-R-C13-03	SB-R-C13-04	SB-R-C14-01	SB-R-C14-02	SB-R-C14-03	SB-R-C14-04	SB-R-C9-01	SB-R-C9-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2006	5/19/2006	5/31/2006	6/2/2006	5/18/2006	5/18/2006	6/6/2006	6/6/2006	5/16/2006	5/16/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-C13-011.33N	SB-R-C13-021.0N	SB-R-C13-031.0N	SB-R-C13-041.0N	SB-R-C14-011.0N	SB-R-C14-021.25N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	100	< 210	< 200	< 190	< 190	< 200	< 210	< 200	< 200	< 210
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Aroclor-1221	11104-28-2	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Aroclor-1232	11141-16-5	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Aroclor-1242	53469-21-9	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Aroclor-1248	12672-29-6	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Aroclor-1254	11097-69-1	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Aroclor-1260	11096-82-5	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 21	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 21

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C13-01	SB-R-C13-02	SB-R-C13-03	SB-R-C13-04	SB-R-C14-01	SB-R-C14-02	SB-R-C14-03	SB-R-C14-04	SB-R-C9-01	SB-R-C9-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2006	5/19/2006	5/31/2006	6/2/2006	5/18/2006	5/18/2006	6/6/2006	6/6/2006	5/16/2006	5/16/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-C13-011.33N	SB-R-C13-021.0N	SB-R-C13-031.0N	SB-R-C13-041.0N	SB-R-C14-011.0N	SB-R-C14-021.25N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 340	< 380	< 350	< 340	< 330	< 360	< 370	< 360	< 360	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 340	< 380	< 350	< 340	< 330	< 360	< 370	< 360	< 360	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 340	< 380	< 350	< 340	< 330	< 360	< 370	< 360	< 360	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 340	< 380	< 350	< 340	< 330	< 360	< 370	< 360	< 360	< 370
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	110000	< 150000	< 140000	< 140000	< 130000	< 140000	< 150000	< 140000	< 140000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 6700	< 7600	< 7100	< 6800	< 6700	< 7200	< 7400	< 7200	< 7200	< 7400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 840	< 950	< 880	< 860	< 840	< 890	< 930	< 900	< 910	< 920
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 340	< 380	< 350	< 340	< 330	< 360	< 370	< 360	< 360	< 370
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.02	< 2.47	1.12	1.56	1.54	1.11	< 2.4	1.65	< 2.35	< 2.44
Arsenic	7440-38-2	mg/kg	2.62	3.52	2.3	4.19	2.66	3.68	5.44	4.2	5.3	2.84
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.631	0.81	0.608	0.704	0.654	0.698	0.544	0.75	0.359	0.585
Cadmium	7440-43-9	mg/kg	< 0.542	0.643	< 2.83	< 2.77	< 2.79	< 2.87	< 0.599	0.504	0.515	1.07
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	12.7	9.5	10.9	13.9	14.2	10.9	16.3	10.3	7.7	18.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	9.43	17.7	4.37	6.06	4.87	6.15	159	6.32	4.52	6.27
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0213	0.0319	0.0141	0.0315	0.0175	0.026	0.696	0.0224	0.0176	0.0079
Nickel	7440-02-0	mg/kg	8.14	7.03	6.98	8	11.7	9.12	7.27	9.09	4.93	15.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.17	< 2.47	< 2.27	< 2.21	< 2.23	< 2.29	1.47	< 2.37	< 2.35	< 2.44

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C13-01	SB-R-C13-02	SB-R-C13-03	SB-R-C13-04	SB-R-C14-01	SB-R-C14-02	SB-R-C14-03	SB-R-C14-04	SB-R-C9-01	SB-R-C9-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2006	5/19/2006	5/31/2006	6/2/2006	5/18/2006	5/18/2006	6/6/2006	6/6/2006	5/16/2006	5/16/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-C13-011.33N	SB-R-C13-021.0N	SB-R-C13-031.0N	SB-R-C13-041.0N	SB-R-C14-011.0N	SB-R-C14-021.25N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.542	< 0.618	< 0.566	< 0.554	< 0.557	< 0.573	< 0.599	< 0.591	< 0.586	0.293
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.17	< 2.47	< 2.27	< 2.21	< 2.23	< 2.29	< 2.4	< 2.37	< 2.35	< 2.44
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	51.6	53	40.8	46.9	50.5	42	45.2	48.4	28.8	39
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	10.5	20.7	15.1	12.3	10.3	16.1	19	16.3	17.2	18.8
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C9-03	SB-R-C9-04	SB-R-D10-01	SB-R-D10-02	SB-R-D10-03	SB-R-D10-03	SB-R-D10-04	SB-R-D11-01	SB-R-D11-02	SB-R-D11-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/16/2006	5/25/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/2/2006	5/31/2006	5/31/2006	6/1/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SB-R-C9-031.0N	SB-R-C9-041.0N	SB-R-D10-011.0N	SB-R-D10-021.5N	SB-R-D10-031.0N	SB-R-D10-031.0FD	SB-R-D10-041.0N	SB-R-D11-011.5N	SB-R-D11-021.0N	SB-R-D11-031.5N
Parent Sample								SB-R-D10-031.0N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3100	< 3000	< 2700	< 2900	< 2900	< 3000	< 3000	< 3300	< 2900	< 3200
Benzene	71-43-2	ug/kg	< 780	< 750	< 670	< 710	< 730	< 740	< 740	< 810	< 730	< 800
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 780	< 750	< 670	< 710	< 730	< 740	< 740	< 810	< 730	< 800
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C9-03	SB-R-C9-04	SB-R-D10-01	SB-R-D10-02	SB-R-D10-03	SB-R-D10-03	SB-R-D10-04	SB-R-D11-01	SB-R-D11-02	SB-R-D11-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/16/2006	5/25/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/2/2006	5/31/2006	5/31/2006	6/1/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SB-R-C9-031.0N	SB-R-C9-041.0N	SB-R-D10-011.0N	SB-R-D10-021.5N	SB-R-D10-031.0N	SB-R-D10-031.0FD	SB-R-D10-041.0N	SB-R-D11-011.5N	SB-R-D11-021.0N	SB-R-D11-031.5N
Parent Sample								SB-R-D10-031.0N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 780	< 750	< 670	< 710	< 730	< 740	< 740	< 810	< 730	< 800
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 780	< 750	< 670	< 710	< 730	< 740	< 740	< 810	< 730	< 800
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2300	< 2100	< 2200	< 2300	< 2300	< 2300	< 2500	< 2300	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C9-03	SB-R-C9-04	SB-R-D10-01	SB-R-D10-02	SB-R-D10-03	SB-R-D10-03	SB-R-D10-04	SB-R-D11-01	SB-R-D11-02	SB-R-D11-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/16/2006	5/25/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/2/2006	5/31/2006	5/31/2006	6/1/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SB-R-C9-031.0N	SB-R-C9-041.0N	SB-R-D10-011.0N	SB-R-D10-021.5N	SB-R-D10-031.0N	SB-R-D10-031.0FD	SB-R-D10-041.0N	SB-R-D11-011.5N	SB-R-D11-021.0N	SB-R-D11-031.5N
Parent Sample								SB-R-D10-031.0N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	< 190	< 170	< 190	780	580	140	160	< 190	< 200
Benzo[a]pyrene	50-32-8	ug/kg	< 200	< 190	< 170	< 190	670	490	190	130	< 190	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	< 200	< 190	< 170	< 190	1100	870	390	220	< 190	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	< 190	< 170	< 190	480	350	140	64	< 190	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	< 380	< 350	110	< 390	390	< 380	< 410	< 380	< 410
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	< 190	< 170	< 190	830	630	210	200	< 190	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 190	< 170	< 190	140	140	51	< 210	< 190	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	< 190	< 170	< 190	430	360	150	71	< 190	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C9-03	SB-R-C9-04	SB-R-D10-01	SB-R-D10-02	SB-R-D10-03	SB-R-D10-03	SB-R-D10-04	SB-R-D11-01	SB-R-D11-02	SB-R-D11-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/16/2006	5/25/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/2/2006	5/31/2006	5/31/2006	6/1/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SB-R-C9-031.0N	SB-R-C9-041.0N	SB-R-D10-011.0N	SB-R-D10-021.5N	SB-R-D10-031.0N	SB-R-D10-031.0FD	SB-R-D10-041.0N	SB-R-D11-011.5N	SB-R-D11-021.0N	SB-R-D11-031.5N
Parent Sample								SB-R-D10-031.0N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	< 210	< 190	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 200	< 190	< 170	< 190	< 190	< 190	< 190	45	< 190	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 20	< 18	< 380	< 20	< 20	< 20	< 21	< 19	< 21
Aroclor-1221	11104-28-2	ug/kg	< 20	< 20	< 18	< 380	< 20	< 20	< 20	< 21	< 19	< 21
Aroclor-1232	11141-16-5	ug/kg	< 20	< 20	< 18	< 380	< 20	< 20	< 20	< 21	< 19	< 21
Aroclor-1242	53469-21-9	ug/kg	< 20	< 20	< 18	< 380	< 20	< 20	< 20	< 21	< 19	< 21
Aroclor-1248	12672-29-6	ug/kg	< 20	< 20	< 18	< 380	< 20	< 20	< 20	< 21	< 19	< 21
Aroclor-1254	11097-69-1	ug/kg	< 20	< 20	< 18	1800	21	40	< 20	60	< 19	< 21
Aroclor-1260	11096-82-5	ug/kg	< 20	< 20	< 18	< 380	< 20	< 20	20	< 21	< 19	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 20	< 18	1800	21	40	20	60	< 19	< 21

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C9-03	SB-R-C9-04	SB-R-D10-01	SB-R-D10-02	SB-R-D10-03	SB-R-D10-03	SB-R-D10-04	SB-R-D11-01	SB-R-D11-02	SB-R-D11-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/16/2006	5/25/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/2/2006	5/31/2006	5/31/2006	6/1/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SB-R-C9-031.0N	SB-R-C9-041.0N	SB-R-D10-011.0N	SB-R-D10-021.5N	SB-R-D10-031.0N	SB-R-D10-031.0FD	SB-R-D10-041.0N	SB-R-D11-011.5N	SB-R-D11-021.0N	SB-R-D11-031.5N
Parent Sample								SB-R-D10-031.0N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 350	< 310	< 330	< 350	< 350	< 350	< 370	< 340	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 350	< 350	< 310	< 330	< 350	< 350	< 350	< 370	< 340	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 350	< 310	< 330	< 350	< 350	< 350	< 370	< 340	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 350	< 350	< 310	< 330	< 350	< 350	< 350	< 370	< 340	< 370
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 130000	< 130000	< 140000	< 140000	< 140000	< 150000	< 140000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 7100	< 6900	< 6300	< 6700	< 7000	< 6900	< 6900	< 7400	< 6800	7600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 890	< 870	< 780	< 830	< 870	< 870	< 860	< 930	< 860	< 920
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 350	< 310	< 330	< 350	< 350	< 350	< 370	< 340	< 370
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.31	< 2.31	< 2.07	< 2.16	< 2.27	< 2.26	< 2.3	< 2.38	1.21	1.52
Arsenic	7440-38-2	mg/kg	2.86	3.64	1.52	4.18	2.91	3.66	3.97	12.7	5.88	1.74
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.857	0.724	0.179	0.481	0.415	0.457	0.474	0.334	0.761	< 0.606
Cadmium	7440-43-9	mg/kg	0.891	< 2.89	< 0.517	< 2.7	< 2.84	< 2.83	< 0.575	< 0.594	1.12	< 0.606
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16	12.5	6.67	27.5	17.7	21.7	16.3	16.1	11.4	2.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6.51	5.52	39.9	68.3	44.3	59.8	95.7	288	35.6	5100
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0229	0.0205	0.0207	0.107	0.239	0.2	0.109	0.0663	0.0564	0.017
Nickel	7440-02-0	mg/kg	14.1	10.9	3.13	8.26	10.7	11.2	6.2	8.19	7.42	< 1.21
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.31	< 2.31	< 2.07	< 2.16	< 2.27	< 2.26	< 2.3	< 2.38	< 2.24	< 2.42

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-C9-03	SB-R-C9-04	SB-R-D10-01	SB-R-D10-02	SB-R-D10-03	SB-R-D10-03	SB-R-D10-04	SB-R-D11-01	SB-R-D11-02	SB-R-D11-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/16/2006	5/25/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/2/2006	5/31/2006	5/31/2006	6/1/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SB-R-C9-031.0N	SB-R-C9-041.0N	SB-R-D10-011.0N	SB-R-D10-021.5N	SB-R-D10-031.0N	SB-R-D10-031.0FD	SB-R-D10-041.0N	SB-R-D11-011.5N	SB-R-D11-021.0N	SB-R-D11-031.5N
Parent Sample								SB-R-D10-031.0N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.293	0.249	< 0.517	0.342	0.218	0.322	< 0.575	< 0.594	< 0.56	< 0.606
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.31	< 2.31	< 2.07	2.11	2.15	1.78	< 2.3	< 2.38	1.81	< 2.42
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	48.5	29.1	11.9	56.1	58	64.6	45.2	38.3	58.4	2.58
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	15.3	13.4	4.2	10.1	13.8	13.4	13.1	19.1	12.4	18.3
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-D11-03	SB-R-D11-04	SB-R-D12-01	SB-R-D12-02	SB-R-D12-03	SB-R-D13-01	SB-R-D14-02	SB-R-D14-03	SB-R-E10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2006	6/8/2006	5/30/2006	6/6/2006	6/12/2006	5/19/2006	6/6/2006	7/6/2006	6/1/2006
Sample Type			FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-D11-031.5FD	SB-R-D11-041.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D12-031.25N	SB-R-D13-011.0N	SB-R-D14-021.0N	SB-R-D14-031.0N	SB-R-E10-021.0N
Parent Sample			SB-R-D11-031.5N								
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3100	< 2800	< 3100	< 3000	< 3200	< 3600	< 3200	< 18000	< 3000
Benzene	71-43-2	ug/kg	< 790	< 700	< 770	< 750	< 790	< 910	< 800	< 4400	< 750
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 790	< 700	< 770	< 750	< 790	< 910	< 800	< 4400	< 750
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-D11-03	SB-R-D11-04	SB-R-D12-01	SB-R-D12-02	SB-R-D12-03	SB-R-D13-01	SB-R-D14-02	SB-R-D14-03	SB-R-E10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2006	6/8/2006	5/30/2006	6/6/2006	6/12/2006	5/19/2006	6/6/2006	7/6/2006	6/1/2006
Sample Type			FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-D11-031.5FD	SB-R-D11-041.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D12-031.25N	SB-R-D13-011.0N	SB-R-D14-021.0N	SB-R-D14-031.0N	SB-R-E10-021.0N
Parent Sample			SB-R-D11-031.5N								
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds (cont.)											
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 790	< 700	< 770	< 750	< 790	< 910	< 800	< 4400	< 750
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 790	< 700	< 770	< 750	< 790	< 910	< 800	< 4400	< 750
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2200	< 2400	< 2500	< 2500	< 2900	< 2500	< 14000	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-D11-03	SB-R-D11-04	SB-R-D12-01	SB-R-D12-02	SB-R-D12-03	SB-R-D13-01	SB-R-D14-02	SB-R-D14-03	SB-R-E10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2006	6/8/2006	5/30/2006	6/6/2006	6/12/2006	5/19/2006	6/6/2006	7/6/2006	6/1/2006
Sample Type			FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-D11-031.5FD	SB-R-D11-041.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D12-031.25N	SB-R-D13-011.0N	SB-R-D14-021.0N	SB-R-D14-031.0N	SB-R-E10-021.0N
Parent Sample			SB-R-D11-031.5N								
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	52	< 200	64	97	< 240	< 210	< 1100	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 200	51	< 200	43	74	< 240	< 210	< 1100	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 200	57	< 200	91	180	51	< 210	< 1100	54
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	< 180	< 200	< 200	83	< 240	< 210	< 1100	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	< 370	< 400	< 410	< 420	< 480	< 410	< 2300	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	54	< 200	100	110	140	< 210	< 1100	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	550
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	< 180	< 200	< 200	49	< 240	< 210	< 1100	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-D11-03	SB-R-D11-04	SB-R-D12-01	SB-R-D12-02	SB-R-D12-03	SB-R-D13-01	SB-R-D14-02	SB-R-D14-03	SB-R-E10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2006	6/8/2006	5/30/2006	6/6/2006	6/12/2006	5/19/2006	6/6/2006	7/6/2006	6/1/2006
Sample Type			FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-D11-031.5FD	SB-R-D11-041.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D12-031.25N	SB-R-D13-011.0N	SB-R-D14-021.0N	SB-R-D14-031.0N	SB-R-E10-021.0N
Parent Sample			SB-R-D11-031.5N								
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 200	< 180	< 200	< 200	< 210	< 240	< 210	< 1100	41
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls											
Aroclor-1016	12674-11-2	ug/kg	< 21	< 94	< 20	< 21	< 21	< 24	< 21	< 120	< 20
Aroclor-1221	11104-28-2	ug/kg	< 21	< 94	< 20	< 21	< 21	< 24	< 21	< 120	< 20
Aroclor-1232	11141-16-5	ug/kg	< 21	< 94	< 20	< 21	< 21	< 24	< 21	< 120	< 20
Aroclor-1242	53469-21-9	ug/kg	< 21	< 94	< 20	< 21	< 21	< 24	< 21	< 120	< 20
Aroclor-1248	12672-29-6	ug/kg	< 21	< 94	< 20	< 21	< 21	< 24	< 21	< 120	< 20
Aroclor-1254	11097-69-1	ug/kg	< 21	1100	< 20	< 21	< 21	< 24	< 21	< 120	4.2
Aroclor-1260	11096-82-5	ug/kg	< 21	< 94	< 20	< 21	11	< 24	< 21	< 120	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 21	1100	< 20	< 21	11	< 24	< 21	< 120	4.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-D11-03	SB-R-D11-04	SB-R-D12-01	SB-R-D12-02	SB-R-D12-03	SB-R-D13-01	SB-R-D14-02	SB-R-D14-03	SB-R-E10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2006	6/8/2006	5/30/2006	6/6/2006	6/12/2006	5/19/2006	6/6/2006	7/6/2006	6/1/2006
Sample Type			FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-D11-031.5FD	SB-R-D11-041.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D12-031.25N	SB-R-D13-011.0N	SB-R-D14-021.0N	SB-R-D14-031.0N	SB-R-E10-021.0N
Parent Sample			SB-R-D11-031.5N								
CONSTITUENT	***CAS NO.***	***UNITS***									
Explosives and Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 370	< 330	< 360	< 370	< 380	< 430	< 370	< 2100	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 370	< 330	< 360	< 370	< 380	< 430	< 370	< 2100	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 370	< 330	< 360	< 370	< 380	< 430	< 370	< 2100	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 370	< 330	< 360	< 370	< 380	< 430	< 370	< 2100	< 350
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 130000	< 140000	< 150000	< 150000	< 170000	< 150000	< 810000	220000
Nitroglycerin	55-63-0	ug/kg	3900	< 6600	< 7200	< 7400	< 7600	< 8600	< 7400	< 41000	< 7000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 910	< 830	< 890	< 920	< 940	< 1100	< 920	< 5100	< 870
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 370	< 330	< 360	< 370	< 380	< 430	< 370	< 2100	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals											
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	2.01	< 2.18	< 2.36	1.54	1.55	< 2.85	1.14	< 13.4	< 2.33
Arsenic	7440-38-2	mg/kg	1.54	6.13	17.5	19.9	13.4	6.66	2.7	< 13.4	3.59
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	< 0.609	0.97	0.328	0.559	0.547	0.463	0.5	0.524	0.648
Cadmium	7440-43-9	mg/kg	< 0.609	< 2.73	< 2.95	< 3.06	< 3.03	< 3.56	0.21	< 3.36	< 0.581
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	1.89	20.4	6.47	20.7	13.4	28.3	7.02	9.61	15
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	3760	61.7	29.6	1160	239	3.92	8.52	13.4	36
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0191	0.0541	0.415	0.333	0.168	0.0205	0.0393	< 0.674	0.0606
Nickel	7440-02-0	mg/kg	< 1.22	7.44	4.51	8.19	11.2	13.2	8.57	4.94	9.41
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.44	< 2.18	< 2.36	2.11	< 2.42	1.6	< 2.41	< 13.4	< 2.33

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-D11-03	SB-R-D11-04	SB-R-D12-01	SB-R-D12-02	SB-R-D12-03	SB-R-D13-01	SB-R-D14-02	SB-R-D14-03	SB-R-E10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/1/2006	6/8/2006	5/30/2006	6/6/2006	6/12/2006	5/19/2006	6/6/2006	7/6/2006	6/1/2006
Sample Type			FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-D11-031.5FD	SB-R-D11-041.0N	SB-R-D12-011.0N	SB-R-D12-021.0N	SB-R-D12-031.25N	SB-R-D13-011.0N	SB-R-D14-021.0N	SB-R-D14-031.0N	SB-R-E10-021.0N
Parent Sample			SB-R-D11-031.5N								
CONSTITUENT	***CAS NO.***	***UNITS***									
Metals (cont.)											
Silver	7440-22-4	mg/kg	< 0.609	< 0.546	< 0.59	< 0.613	< 0.606	< 0.712	< 0.603	< 3.36	< 0.581
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.44	< 2.18	< 2.36	< 2.45	< 2.42	< 2.85	< 2.41	< 13.4	< 2.33
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	3.04	61	29.6	30.3	45.5	28.3	46.7	35.9	51.7
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	17.9	9.3	16.1	18.4	20.6	30.5	18.7	85.4	14
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution											
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
Sample Type			N	FD	N	N	N	N	N	N	FD	N
Sample Name			SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N
Parent Sample				SB-R-E10-031.0N							SB-R-E12-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 2900	< 3000	< 3400	< 3200	< 3300	< 2900	< 3400	< 3300	< 3400
Benzene	71-43-2	ug/kg	< 720	< 730	< 760	< 840	< 800	< 820	< 720	< 840	< 820	< 840
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 720	< 730	< 760	< 840	< 800	< 820	< 720	< 840	< 820	< 840
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
Sample Type			N	FD	N	N	N	N	N	N	FD	N
Sample Name			SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N
Parent Sample				SB-R-E10-031.0N							SB-R-E12-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 720	< 730	< 760	< 840	< 800	< 820	< 720	< 840	< 820	< 840
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 720	< 730	< 760	< 840	< 800	< 820	< 720	< 840	< 820	< 840
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2200	< 2300	< 2500	< 2600	< 2600	< 2300	< 2600	< 2500	< 2600
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 190	< 190	< 210	< 220	150	< 190	< 210	< 210	< 220
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
Sample Type			N	FD	N	N	N	N	N	N	FD	N
Sample Name			SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N
Parent Sample				SB-R-E10-031.0N							SB-R-E12-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	160	180	< 190	< 210	< 220	110	350	< 210	< 210	< 220
Benzo[a]pyrene	50-32-8	ug/kg	150	150	< 190	< 210	< 220	160	240	< 210	< 210	< 220
Benzo[b]fluoranthene	205-99-2	ug/kg	320	290	< 190	< 210	64	300	410	< 210	< 210	< 220
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	160	130	< 190	< 210	< 220	120	170	< 210	< 210	< 220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 370	< 390	< 420	< 440	< 430	< 380	< 430	< 420	< 440
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	230	210	< 190	< 210	< 220	250	320	< 210	< 210	< 220
Dibenzo[a,h]anthracene	53-70-3	ug/kg	42	< 190	< 190	< 210	< 220	55	41	< 210	< 210	< 220
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	110	120	< 190	< 210	< 220	130	120	< 210	< 210	< 220
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
Sample Type			N	FD	N	N	N	N	N	N	FD	N
Sample Name			SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N
Parent Sample				SB-R-E10-031.0N							SB-R-E12-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	< 190	< 190	< 210	< 220	< 210	< 190	< 210	< 210	< 220
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22
Aroclor-1221	11104-28-2	ug/kg	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22
Aroclor-1232	11141-16-5	ug/kg	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22
Aroclor-1242	53469-21-9	ug/kg	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22
Aroclor-1248	12672-29-6	ug/kg	< 19	< 19	< 20	< 21	< 22	< 22	< 20	< 22	< 22	< 22
Aroclor-1254	11097-69-1	ug/kg	5.2	24	< 20	< 21	< 22	19	8	< 22	< 22	< 22
Aroclor-1260	11096-82-5	ug/kg	< 19	5.2	< 20	< 21	< 22	< 22	6.1	39	< 22	< 22
Polychlorinated biphenyls	1336-36-3	ug/kg	5.2	29.2	< 20	< 21	< 22	19	14.1	39	< 22	< 22

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
Sample Type			N	FD	N	N	N	N	N	N	FD	N
Sample Name			SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N
Parent Sample				SB-R-E10-031.0N							SB-R-E12-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 340	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 340	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 340	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 340	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 130000	< 140000	< 150000	90000	< 150000	< 140000	< 150000	< 150000	< 160000
Nitroglycerin	55-63-0	ug/kg	< 6700	< 6700	< 7000	< 7600	4100	< 7700	< 6900	< 7700	< 7600	< 7900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 840	< 840	< 880	< 950	< 980	< 960	< 860	< 960	< 950	< 990
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 340	< 350	< 380	< 390	< 380	< 350	< 380	< 380	< 400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1.06	< 2.24	1.22	1.67	< 2.59	< 2.5	< 2.24	< 2.49	< 2.53	< 2.54
Arsenic	7440-38-2	mg/kg	75.6	45.8	3.48	2.68	3.03	10.8	11.2	2.6	2.28	1.98
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.462	0.463	0.419	0.521	0.595	0.648	0.6	0.501	0.463	0.404
Cadmium	7440-43-9	mg/kg	< 2.78	< 2.8	< 2.81	< 0.613	0.836	1.47	< 2.8	< 0.622	< 0.634	< 0.635
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	17.9	20.7	5.94	7.3	8.56	23.1	14.1	4.07	3.77	5.71
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	50.8	45.3	5.36	55.3	262	166	14.1	5.44	5.72	11.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0659	0.0761	0.0316	0.0352	0.0629	0.295	0.0209	0.0245	0.0208	0.0244
Nickel	7440-02-0	mg/kg	6.72	13.4	4.59	7.16	6.38	10.3	6.89	5.96	5.41	5.97
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.23	< 2.24	< 2.25	< 2.45	< 2.59	< 2.5	< 2.24	< 2.49	< 2.53	< 2.54

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E10-03	SB-R-E10-03	SB-R-E10-04	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/2/2006	6/2/2006	6/8/2006	5/17/2006	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
Sample Type			N	FD	N	N	N	N	N	N	FD	N
Sample Name			SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E10-041.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N
Parent Sample				SB-R-E10-031.0N							SB-R-E12-011.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.557	< 0.559	< 0.562	< 0.613	< 0.646	0.246	< 0.559	< 0.622	< 0.634	< 0.635
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.23	< 2.24	< 2.25	< 2.45	< 2.59	< 2.5	< 2.24	< 2.49	< 2.53	< 2.54
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	45.1	62.9	21.7	48.1	64	92.6	54.4	30.5	26.6	38
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	10.2	10.6	14.5	20.8	23.4	21.6	13.2	21.9	21.1	24.3
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006	6/5/2006	7/6/2006	5/9/2006	5/8/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3500	< 3200	< 2800	< 2900	< 3900	< 3100	< 3100	< 19000	< 2600	< 3400
Benzene	71-43-2	ug/kg	< 860	< 800	< 710	< 710	< 980	< 760	< 770	< 4800	< 660	< 840
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 860	< 800	< 710	< 710	< 980	< 760	< 770	< 4800	< 660	< 840
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006	6/5/2006	7/6/2006	5/9/2006	5/8/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 860	< 800	< 710	< 710	< 980	< 760	< 770	< 4800	< 660	< 840
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 860	< 800	< 710	< 710	< 980	< 760	< 770	< 4800	< 660	< 840
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2600	< 2500	< 2200	< 2300	< 3000	< 2300	< 2500	< 15000	< 11000	< 2500
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006	6/5/2006	7/6/2006	5/9/2006	5/8/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	45	49	61	< 190	120	< 190	< 210	< 1300	< 880	< 210
Benzo[a]pyrene	50-32-8	ug/kg	50	50	69	< 190	300	< 190	< 210	< 1300	< 880	43
Benzo[b]fluoranthene	205-99-2	ug/kg	90	59	180	42	500	< 190	< 210	< 1300	< 880	66
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	< 210	60	< 190	150	< 190	< 210	< 1300	< 880	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 440	< 420	< 370	< 390	< 500	< 390	< 420	< 2500	< 1800	< 420
Butylbenzylphthalate	85-68-7	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	44	51	83	73	310	< 190	< 210	< 1300	< 880	64
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	< 210	< 190	< 190	82	< 190	< 210	< 1300	< 880	< 210
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 220	< 210	50	< 190	220	< 190	< 210	< 1300	< 880	< 210
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006	6/5/2006	7/6/2006	5/9/2006	5/8/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 220	< 210	< 190	< 190	< 250	< 190	< 210	< 1300	< 880	< 210
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Aroclor-1221	11104-28-2	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Aroclor-1232	11141-16-5	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Aroclor-1242	53469-21-9	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Aroclor-1248	12672-29-6	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Aroclor-1254	11097-69-1	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Aroclor-1260	11096-82-5	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22
Polychlorinated biphenyls	1336-36-3	ug/kg	< 22	< 22	< 19	< 20	< 25	< 20	< 21	< 130	< 18	< 22

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006	6/5/2006	7/6/2006	5/9/2006	5/8/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 390	< 380	< 340	< 350	< 450	< 350	< 370	< 2300	< 320	< 380
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 390	< 380	< 340	< 350	< 450	< 350	< 370	< 2300	< 320	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 390	< 380	< 340	< 350	< 450	< 350	< 370	< 2300	< 320	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 390	< 380	< 340	< 350	< 450	< 350	< 370	< 2300	< 320	< 380
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 150000	< 130000	< 140000	< 180000	< 140000	< 150000	< 890000	480000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 7900	< 7600	< 6700	< 7000	< 9000	< 7000	< 7500	< 45000	25000	< 7600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 980	< 950	< 840	< 870	< 1100	< 880	< 940	< 5600	< 790	< 960
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 390	< 380	< 340	< 350	< 450	< 350	< 370	< 2300	< 320	< 380
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.57	< 2.53	< 2.18	< 2.32	< 2.99	1.28	< 2.45	< 14.7	< 2.06	< 2.55
Arsenic	7440-38-2	mg/kg	4.22	2.34	4.48	25.4	19.8	1.34	< 2.45	9.96	3.67	5.97
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.548	0.627	0.483	1.46	0.616	0.654	0.364	< 3.69	0.325	1.17
Cadmium	7440-43-9	mg/kg	< 0.643	< 3.17	< 2.72	< 0.579	< 0.747	< 2.83	< 0.612	0.995	0.387	0.419
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	8.81	13.4	16.1	16.6	66	13	2.67	15.7	10.8	24.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	20.3	1.77	17.4	10.2	44.9	1.94	3.82	151	29.3	25.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0549	0.0234	0.0978	1.69	0.444	< 0.111	0.0203	0.124	0.0434	0.091
Nickel	7440-02-0	mg/kg	7.13	6.97	8.9	6.73	13.5	6.99	6.5	< 7.37	6.21	17.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.57	< 2.53	< 2.18	1.57	< 2.99	< 2.27	< 2.45	8.49	< 2.06	< 2.55

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006	6/5/2006	7/6/2006	5/9/2006	5/8/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.643	< 0.634	< 0.545	0.291	< 0.747	< 0.566	0.233	< 3.69	< 0.514	< 0.637
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.57	< 2.53	< 2.18	< 2.32	< 2.99	< 2.27	< 2.45	< 14.7	< 2.06	< 2.55
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	59.3	41.4	45.6	15.9	87.4	42.9	23.1	357	36.3	120
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	23.8	21.1	10.9	13.7	33.1	14.3	19.9	86.7	5.6	21.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 2500	< 3200	< 3100	< 3500	< 2800	< 3100	< 3100	< 3600	< 3300
Benzene	71-43-2	ug/kg	260	< 610	< 810	< 780	< 870	< 700	< 760	< 780	< 890	< 840
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 740	< 610	< 810	< 780	< 870	< 700	< 760	< 780	< 890	< 840
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 740	< 610	< 810	< 780	< 870	< 700	< 760	< 780	< 890	< 840
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 740	< 610	< 810	< 780	< 870	< 700	< 760	< 780	< 890	< 840
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 180	< 210	< 190	< 220	< 190	< 200	< 200	< 220	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2100	< 2500	< 2300	< 2700	< 2300	< 2500	< 2400	< 2700	< 2600
2,4-Dinitrotoluene	121-14-2	ug/kg	210	< 180	< 210	< 190	< 220	< 190	< 200	< 200	< 220	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 180	< 210	< 190	< 220	< 190	< 200	< 200	< 220	< 210
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	110	< 180	810	220	400	< 190	< 200	< 200	< 220	< 210
Benzo[a]pyrene	50-32-8	ug/kg	140	< 180	720	210	340	< 190	< 200	< 200	< 220	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	270	47	1500	350	870	< 190	< 200	< 200	< 220	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	170	< 180	560	130	350	< 190	< 200	< 200	< 220	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 360	< 420	< 380	< 450	< 380	< 410	< 400	< 450	< 430
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 180	< 210	< 190	< 220	< 190	< 200	< 200	< 220	< 210
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	110	< 180	800	330	460	< 190	< 200	< 200	< 220	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 180	120	< 190	85	< 190	< 200	< 200	< 220	< 210
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 180	130	< 190	< 220	< 190	< 200	< 200	< 220	< 210
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 180	< 210	< 190	< 220	< 190	< 200	< 200	< 220	< 210
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	160	< 180	380	150	230	< 190	< 200	< 200	< 220	< 210
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 180	< 210	< 190	< 220	< 190	< 200	< 200	< 220	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	3300	< 180	86	< 190	< 220	< 190	< 200	< 200	< 220	< 210
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 21	< 18	< 22	< 19	< 23	< 19	< 21	< 21	< 23	< 22
Aroclor-1221	11104-28-2	ug/kg	< 21	< 18	< 22	< 19	< 23	< 19	< 21	< 21	< 23	< 22
Aroclor-1232	11141-16-5	ug/kg	< 21	< 18	< 22	< 19	< 23	< 19	< 21	< 21	< 23	< 22
Aroclor-1242	53469-21-9	ug/kg	< 21	< 18	< 22	< 19	< 23	< 19	< 21	< 21	< 23	< 22
Aroclor-1248	12672-29-6	ug/kg	< 21	< 18	< 22	< 19	< 23	< 19	< 21	< 21	< 23	< 22
Aroclor-1254	11097-69-1	ug/kg	< 21	< 18	< 22	< 19	140	< 19	< 21	7.5	< 23	< 22
Aroclor-1260	11096-82-5	ug/kg	< 21	< 18	35	< 19	46	< 19	< 21	7.3	< 23	< 22
Polychlorinated biphenyls	1336-36-3	ug/kg	< 21	< 18	35	< 19	186	< 19	< 21	14.8	< 23	< 22

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360	< 320	< 380	< 340	< 400	< 340	< 370	< 360	< 400	< 380
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 320	< 380	< 340	< 400	< 340	< 370	< 360	< 400	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 320	< 380	< 340	< 400	< 340	< 370	< 360	< 400	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 320	< 380	< 340	< 400	< 340	< 370	< 360	< 400	< 380
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	860000	< 130000	< 150000	< 140000	< 160000	< 140000	< 150000	< 150000	< 160000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 7300	< 6400	< 7600	< 6800	< 8000	< 6900	< 7400	< 7300	< 8100	< 7700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 910	< 810	< 950	< 850	< 1000	< 860	< 920	< 910	< 1000	< 960
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 320	< 380	< 340	< 400	< 340	< 370	< 360	< 400	< 380
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.33	< 2.13	< 2.51	0.984	3.48	< 2.29	< 2.36	1.46	< 2.64	< 2.51
Arsenic	7440-38-2	mg/kg	8.99	3.57	79.6	6.98	351	1.95	2.62	4.98	1.8	2.75
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.582	0.575	0.322	0.532	0.662	0.612	0.633	0.494	0.47	0.583
Cadmium	7440-43-9	mg/kg	0.698	0.65	0.785	0.139	< 0.654	0.984	0.937	< 3	< 0.66	< 3.14
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	84.9	13.6	33.7	45.8	69.9	10.2	8.6	12.6	3.45	8.92
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	186	12	70.6	133	143	4.66	6.43	17.6	12.6	6.14
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.149	0.0307	0.415	0.216	0.269	0.0663	0.0296	0.0569	0.0436	0.0372
Nickel	7440-02-0	mg/kg	9.55	8.77	9.31	11.8	13.8	8.28	8.03	7.82	4.06	7.19
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.33	< 2.13	1.81	1.28	2.16	1.13	< 2.36	< 2.4	< 2.64	< 2.51

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03	SB-R-F12-04	SB-R-F13-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006	5/30/2006	5/26/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N	SB-R-F12-041.0N	SB-R-F13-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.352	0.356	0.255	< 0.552	< 0.654	0.269	< 0.589	< 0.601	0.239	< 0.628
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.96	1.21	< 2.51	< 2.21	< 2.62	< 2.29	< 2.36	< 2.4	< 2.64	< 2.51
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	136	53.4	44.2	75.4	208	63	57	43.7	23.6	67.6
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	17.6	6.9	21.2	12.1	25.1	12.7	18.4	17.6	25.7	22
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
Parent Sample				SB-R-F13-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3300	< 3400	< 3400	< 3500	< 2700	< 2700	< 2600	< 3500	< 3000	< 3300
Benzene	71-43-2	ug/kg	< 830	< 840	< 850	< 880	< 680	< 680	< 650	< 870	280	220
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 830	< 840	< 850	< 880	< 680	< 680	< 650	< 870	< 740	< 830
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
Parent Sample				SB-R-F13-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 830	< 840	< 850	< 880	< 680	< 680	< 650	< 870	< 740	< 830
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 830	< 840	< 850	< 880	< 680	< 680	< 650	< 870	< 740	< 830
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2600	< 2600	< 2700	< 2800	< 2300	< 2300	< 2100	< 2600	< 23000	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	250
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
Parent Sample				SB-R-F13-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	68
Benzo[a]pyrene	50-32-8	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	75
Benzo[b]fluoranthene	205-99-2	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	170
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	92
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	< 430	< 450	< 460	< 390	< 380	< 360	< 440	< 3800	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	77
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	320
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	49
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
Parent Sample				SB-R-F13-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	< 1900	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 220	< 210	< 230	< 230	< 190	< 190	< 180	< 220	6500	1200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Aroclor-1221	11104-28-2	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Aroclor-1232	11141-16-5	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Aroclor-1242	53469-21-9	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Aroclor-1248	12672-29-6	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Aroclor-1254	11097-69-1	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Aroclor-1260	11096-82-5	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 22	< 22	< 23	< 24	< 20	< 19	< 18	< 22	< 190	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
Parent Sample				SB-R-F13-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 390	< 390	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 390	< 390	< 410	< 420	< 350	< 340	< 320	< 400	< 340	450
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 390	< 390	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 390	< 390	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 350
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 150000	< 160000	< 170000	< 140000	< 140000	< 130000	< 160000	1700000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7800	< 7700	< 8200	< 8300	< 7000	< 6800	< 6400	< 7900	350000	12000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 980	< 960	< 1000	< 1000	< 880	< 850	< 800	< 990	< 850	< 870
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 390	< 390	< 410	< 420	< 350	< 340	< 320	< 400	< 340	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.56	< 2.57	< 2.68	< 2.67	1.08	1.17	< 2.11	< 2.64	3.08	< 2.29
Arsenic	7440-38-2	mg/kg	1.92	1.69	4.92	2.33	2.84	2.93	2.76	< 2.64	82.3	1.88
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.591	0.557	0.482	0.507	0.457	0.523	0.37	0.441	0.445	0.549
Cadmium	7440-43-9	mg/kg	< 3.2	< 0.642	< 0.669	< 0.669	< 2.83	< 2.74	< 0.528	< 0.66	2.34	0.674
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	9.11	7.75	3.75	5.4	3.47	9.3	10.5	2.85	149	28.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	16	13.9	4.06	6.33	2.94	7.95	4.7	6.39	2230	26.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0303	0.0239	0.0311	0.0258	0.0139	0.0386	0.0314	0.0254	0.277	0.0883
Nickel	7440-02-0	mg/kg	6.34	6.58	4.96	6.11	4.07	6.08	4.8	3.39	14.2	8.37
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.56	< 2.57	< 2.68	< 2.67	< 2.27	< 2.19	< 2.11	< 2.64	1.42	< 2.29

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
Parent Sample				SB-R-F13-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.288	0.344	< 0.669	< 0.669	< 0.566	< 0.548	< 0.528	< 0.66	0.435	0.345
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.56	1.81	< 2.68	< 2.67	< 2.27	< 2.19	< 2.11	< 2.64	< 2.24	1.36
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	54.4	53.9	32.6	41.6	35.8	46.5	32	25.3	757	116
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	23.3	22.1	26.7	28.1	14.3	12.2	6.2	24.2	11.5	13.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F9-03	SB-R-G10-01	SB-R-G10-01	SB-R-G10-02	SB-R-G10-03	SB-R-G11-01	SB-R-G11-02	SB-R-G11-03	SB-R-G11-04	SB-R-G12-01
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/4/2006	5/4/2006	5/8/2006	5/8/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-F9-031.25N	SB-R-G10-011.0N	SB-R-G10-011.0FD	SB-R-G10-021.5N	SB-R-G10-031.25N	SB-R-G11-011.0N	SB-R-G11-021.5N	SB-R-G11-031.5N	SB-R-G11-041.5N	SB-R-G12-011.0N
Parent Sample					SB-R-G10-011.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 3300	< 2900	< 2800	< 3000	< 3200	< 3300	< 3100	< 3400	< 3000
Benzene	71-43-2	ug/kg	< 740	< 830	< 740	< 700	< 760	< 810	< 830	< 760	< 860	< 750
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 740	< 830	< 740	< 700	< 760	< 810	< 830	< 760	< 860	< 750
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F9-03	SB-R-G10-01	SB-R-G10-01	SB-R-G10-02	SB-R-G10-03	SB-R-G11-01	SB-R-G11-02	SB-R-G11-03	SB-R-G11-04	SB-R-G12-01
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/4/2006	5/4/2006	5/8/2006	5/8/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-F9-031.25N	SB-R-G10-011.0N	SB-R-G10-011.0FD	SB-R-G10-021.5N	SB-R-G10-031.25N	SB-R-G11-011.0N	SB-R-G11-021.5N	SB-R-G11-031.5N	SB-R-G11-041.5N	SB-R-G12-011.0N
Parent Sample					SB-R-G10-011.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 740	< 830	< 740	< 700	< 760	< 810	< 830	< 760	< 860	< 750
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 740	< 830	< 740	< 700	< 760	< 810	< 830	< 760	< 860	< 750
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 12000	< 12000	< 2400	< 2300	< 2200	< 2400	< 2500	< 2600	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	97	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F9-03	SB-R-G10-01	SB-R-G10-01	SB-R-G10-02	SB-R-G10-03	SB-R-G11-01	SB-R-G11-02	SB-R-G11-03	SB-R-G11-04	SB-R-G12-01
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/4/2006	5/4/2006	5/8/2006	5/8/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-F9-031.25N	SB-R-G10-011.0N	SB-R-G10-011.0FD	SB-R-G10-021.5N	SB-R-G10-031.25N	SB-R-G11-011.0N	SB-R-G11-021.5N	SB-R-G11-031.5N	SB-R-G11-041.5N	SB-R-G12-011.0N
Parent Sample					SB-R-G10-011.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 180	220	< 960	220	180	3400	< 200	53	< 220	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 180	230	< 960	280	140	1800	< 200	43	< 220	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 180	470	260	530	220	4100	< 200	73	< 220	110
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 180	< 960	< 960	160	110	1600	< 200	< 210	< 220	41
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 1900	< 1900	< 400	< 390	< 370	< 400	< 410	< 440	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 180	350	190	470	190	3700	44	77	< 220	140
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	< 960	< 960	160	< 190	320	< 200	< 210	< 220	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	76	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 180	< 960	< 960	220	110	780	< 200	< 210	< 220	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F9-03	SB-R-G10-01	SB-R-G10-01	SB-R-G10-02	SB-R-G10-03	SB-R-G11-01	SB-R-G11-02	SB-R-G11-03	SB-R-G11-04	SB-R-G12-01
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/4/2006	5/4/2006	5/8/2006	5/8/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-F9-031.25N	SB-R-G10-011.0N	SB-R-G10-011.0FD	SB-R-G10-021.5N	SB-R-G10-031.25N	SB-R-G11-011.0N	SB-R-G11-021.5N	SB-R-G11-031.5N	SB-R-G11-041.5N	SB-R-G12-011.0N
Parent Sample					SB-R-G10-011.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	170	< 960	< 960	< 200	< 190	< 190	< 200	< 210	< 220	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 19	< 200	< 200	< 20	< 20	< 96	< 20	< 21	< 22	< 19
Aroclor-1221	11104-28-2	ug/kg	< 19	< 200	< 200	< 20	< 20	< 96	< 20	< 21	< 22	< 19
Aroclor-1232	11141-16-5	ug/kg	< 19	< 200	< 200	< 20	< 20	< 96	< 20	< 21	< 22	< 19
Aroclor-1242	53469-21-9	ug/kg	< 19	< 200	< 200	< 20	< 20	< 96	< 20	< 21	< 22	< 19
Aroclor-1248	12672-29-6	ug/kg	< 19	< 200	< 200	< 20	< 20	< 96	< 20	< 21	< 22	< 19
Aroclor-1254	11097-69-1	ug/kg	< 19	220	360	< 20	< 20	290	< 20	< 21	< 22	< 19
Aroclor-1260	11096-82-5	ug/kg	< 19	380	600	< 20	< 20	350	< 20	< 21	< 22	35
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	600	960	< 20	< 20	640	< 20	< 21	< 22	35

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F9-03	SB-R-G10-01	SB-R-G10-01	SB-R-G10-02	SB-R-G10-03	SB-R-G11-01	SB-R-G11-02	SB-R-G11-03	SB-R-G11-04	SB-R-G12-01
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/4/2006	5/4/2006	5/8/2006	5/8/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-F9-031.25N	SB-R-G10-011.0N	SB-R-G10-011.0FD	SB-R-G10-021.5N	SB-R-G10-031.25N	SB-R-G11-011.0N	SB-R-G11-021.5N	SB-R-G11-031.5N	SB-R-G11-041.5N	SB-R-G12-011.0N
Parent Sample					SB-R-G10-011.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 350	< 350	220	< 350	< 340	< 360	< 370	< 390	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 350	< 350	< 360	< 350	< 340	< 360	< 370	< 390	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 350	< 350	< 360	< 350	< 340	< 360	< 370	< 390	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 350	< 350	< 360	< 350	< 340	< 360	< 370	< 390	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	83000	< 140000	< 140000	< 140000	< 140000	< 130000	< 140000	< 150000	< 160000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6600	< 6900	< 6900	< 7200	< 7000	< 6700	< 7200	< 7400	< 7900	< 6800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 820	< 870	< 870	< 900	< 880	< 840	< 900	< 920	< 980	< 840
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 350	< 350	< 360	< 350	< 340	< 360	< 370	< 390	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.13	1.35	2.55	2.06	2.59	< 2.18	< 2.31	< 2.42	< 2.57	< 2.17
Arsenic	7440-38-2	mg/kg	4.99	13.7	13.4	22.1	12.1	45.3	43	59.6	1.71	14.2
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.432	0.397	0.473	0.706	0.604	0.557	0.399	0.633	0.804	0.193
Cadmium	7440-43-9	mg/kg	0.471	0.988	1.38	0.194	1.07	0.739	0.986	0.724	0.766	0.232
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.4	39	43.5	113	106	35.2	13.3	22.7	11.8	17.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	102	133	155	519	523	54	13.1	43.7	28.8	28.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.572	6.66	4.14	1.27	0.861	0.348	0.143	1.04	0.053	0.0797
Nickel	7440-02-0	mg/kg	7.19	29.9	33.3	11.1	18.3	16.6	6.38	8.23	10.7	6.01
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.13	2.39	2.28	1.86	< 2.31	1.83	5.43	1.61	1.35	< 2.17

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-F9-03	SB-R-G10-01	SB-R-G10-01	SB-R-G10-02	SB-R-G10-03	SB-R-G11-01	SB-R-G11-02	SB-R-G11-03	SB-R-G11-04	SB-R-G12-01
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/4/2006	5/4/2006	5/8/2006	5/8/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006	5/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-F9-031.25N	SB-R-G10-011.0N	SB-R-G10-011.0FD	SB-R-G10-021.5N	SB-R-G10-031.25N	SB-R-G11-011.0N	SB-R-G11-021.5N	SB-R-G11-031.5N	SB-R-G11-041.5N	SB-R-G12-011.0N
Parent Sample					SB-R-G10-011.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.533	< 0.577	0.316	< 0.602	< 0.578	0.225	0.363	0.296	< 0.643	< 0.541
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.34	1.47	< 2.29	< 2.41	< 2.31	< 2.18	< 2.31	< 2.42	< 2.57	< 2.17
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	108	106	126	202	545	26.3	93.8	45.7	60.2	10.1
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	9	13.3	13.4	17	14.3	11.1	16.9	18.9	23.8	11.2
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G12-02	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G14-02	SB-R-G7-02	SB-R-G8-01	SB-R-G8-02	SB-R-G8-03	SB-R-G8-04
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.8-1.3 ft
Collection Date			5/5/2006	5/5/2006	5/16/2006	5/16/2006	6/7/2006	7/5/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G12-021.5N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G14-021.25N	SB-R-G7-021.0N	SB-R-G8-011.42N	SB-R-G8-021.0N	SB-R-G8-031.25N	SB-R-G8-041.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3700	< 3000	< 3100	< 3100	< 3100	< 3500	< 2600	< 2700	< 3100	< 3000
Benzene	71-43-2	ug/kg	< 920	< 760	< 780	< 780	< 780	< 870	< 650	< 680	< 780	< 740
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 920	< 760	< 780	< 780	< 780	< 870	< 650	< 680	< 780	< 740
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G12-02	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G14-02	SB-R-G7-02	SB-R-G8-01	SB-R-G8-02	SB-R-G8-03	SB-R-G8-04
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.8-1.3 ft
Collection Date			5/5/2006	5/5/2006	5/16/2006	5/16/2006	6/7/2006	7/5/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G12-021.5N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G14-021.25N	SB-R-G7-021.0N	SB-R-G8-011.42N	SB-R-G8-021.0N	SB-R-G8-031.25N	SB-R-G8-041.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 920	< 760	< 780	< 780	< 780	< 870	< 650	< 680	< 780	< 740
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 920	< 760	< 780	< 780	< 780	< 870	< 650	< 680	< 780	< 740
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2800	< 2400	< 2300	< 2300	< 2600	< 2800	< 2100	< 2200	< 2500	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 230	69	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G12-02	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G14-02	SB-R-G7-02	SB-R-G8-01	SB-R-G8-02	SB-R-G8-03	SB-R-G8-04
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.8-1.3 ft
Collection Date			5/5/2006	5/5/2006	5/16/2006	5/16/2006	6/7/2006	7/5/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G12-021.5N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G14-021.25N	SB-R-G7-021.0N	SB-R-G8-011.42N	SB-R-G8-021.0N	SB-R-G8-031.25N	SB-R-G8-041.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 230	< 200	65	220	< 210	69	380	< 180	< 210	< 200
Benzo[a]pyrene	50-32-8	ug/kg	< 230	< 200	71	230	< 210	81	420	< 180	< 210	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	< 230	65	120	380	< 210	140	860	43	< 210	70
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 230	< 200	47	140	< 210	< 240	390	< 180	< 210	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 460	< 400	< 390	< 380	< 430	< 470	< 350	< 360	< 410	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 230	100	99	330	< 210	110	500	< 180	< 210	59
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 230	< 200	< 190	43	< 210	< 240	100	< 180	< 210	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 230	< 200	49	140	< 210	58	330	< 180	< 210	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G12-02	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G14-02	SB-R-G7-02	SB-R-G8-01	SB-R-G8-02	SB-R-G8-03	SB-R-G8-04
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.8-1.3 ft
Collection Date			5/5/2006	5/5/2006	5/16/2006	5/16/2006	6/7/2006	7/5/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G12-021.5N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G14-021.25N	SB-R-G7-021.0N	SB-R-G8-011.42N	SB-R-G8-021.0N	SB-R-G8-031.25N	SB-R-G8-041.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	< 170	< 180	< 210	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 230	< 200	< 190	< 190	< 210	< 240	77	230	< 210	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 23	< 20	< 20	< 19	< 22	< 24	< 18	< 18	< 21	< 20
Aroclor-1221	11104-28-2	ug/kg	< 23	< 20	< 20	< 19	< 22	< 24	< 18	< 18	< 21	< 20
Aroclor-1232	11141-16-5	ug/kg	< 23	< 20	< 20	< 19	< 22	< 24	< 18	< 18	< 21	< 20
Aroclor-1242	53469-21-9	ug/kg	< 23	< 20	< 20	< 19	< 22	< 24	< 18	< 18	< 21	< 20
Aroclor-1248	12672-29-6	ug/kg	< 23	< 20	< 20	< 19	< 22	< 24	< 18	< 18	< 21	< 20
Aroclor-1254	11097-69-1	ug/kg	< 23	< 20	< 20	< 19	< 22	< 24	< 18	120	< 21	9.8
Aroclor-1260	11096-82-5	ug/kg	< 23	< 20	4.6	< 19	11	28	< 18	< 18	< 21	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 23	< 20	4.6	< 19	11	28	< 18	120	< 21	9.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G12-02	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G14-02	SB-R-G7-02	SB-R-G8-01	SB-R-G8-02	SB-R-G8-03	SB-R-G8-04
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.8-1.3 ft
Collection Date			5/5/2006	5/5/2006	5/16/2006	5/16/2006	6/7/2006	7/5/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G12-021.5N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G14-021.25N	SB-R-G7-021.0N	SB-R-G8-011.42N	SB-R-G8-021.0N	SB-R-G8-031.25N	SB-R-G8-041.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 410	< 360	< 350	< 340	< 390	< 430	< 310	< 320	< 370	< 360
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 410	< 360	< 350	< 340	< 390	< 430	< 310	< 320	< 370	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 410	< 360	< 350	< 340	< 390	< 430	< 310	< 320	< 370	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 410	< 360	< 350	< 340	< 390	< 430	< 310	< 320	< 370	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 170000	< 140000	< 140000	< 130000	< 150000	< 170000	< 130000	< 130000	< 150000	94000
Nitroglycerin	55-63-0	ug/kg	< 8300	< 7200	< 7000	< 6800	< 7700	< 8500	< 6300	< 6500	10000	8400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 1000	< 900	< 880	< 850	< 960	< 1100	< 790	2900	< 930	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 410	< 360	< 350	< 340	< 390	< 430	< 310	< 320	< 370	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.67	< 2.32	< 2.34	< 2.22	< 2.52	< 2.82	0.906	0.913	< 2.43	< 2.37
Arsenic	7440-38-2	mg/kg	1.14	10.3	18.3	6.64	3.11	4.32	29	2.63	4.39	22.2
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.533	0.323	0.611	0.357	0.567	0.0972	0.607	0.757	0.797	0.727
Cadmium	7440-43-9	mg/kg	0.548	0.351	1.15	0.431	< 0.63	0.21	0.202	0.156	0.896	0.967
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	6.44	49.7	15.9	13.2	4.14	7.25	36.9	20	15.3	44.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6.69	132	53.5	13.8	8.03	59.9	33.9	63.7	14.9	77.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0338	0.198	0.215	0.115	0.0321	0.174	0.0129	0.0419	0.0153	0.0962
Nickel	7440-02-0	mg/kg	8.57	8.05	11.1	6.43	4.92	6.33	8.73	7.99	14	10.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.67	3.01	< 2.34	< 2.22	< 2.52	< 2.82	< 2.02	< 2.09	< 2.43	< 2.37

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G12-02	SB-R-G12-03	SB-R-G12-04	SB-R-G13-01	SB-R-G14-02	SB-R-G7-02	SB-R-G8-01	SB-R-G8-02	SB-R-G8-03	SB-R-G8-04
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.8-1.3 ft
Collection Date			5/5/2006	5/5/2006	5/16/2006	5/16/2006	6/7/2006	7/5/2006	5/10/2006	5/10/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G12-021.5N	SB-R-G12-031.0N	SB-R-G12-041.0N	SB-R-G13-011.0N	SB-R-G14-021.25N	SB-R-G7-021.0N	SB-R-G8-011.42N	SB-R-G8-021.0N	SB-R-G8-031.25N	SB-R-G8-041.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.668	< 0.579	0.313	< 0.555	0.241	< 0.704	< 0.504	< 0.522	0.285	0.305
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.67	< 2.32	< 2.34	< 2.22	< 2.52	< 2.82	1.72	1.92	< 2.43	< 2.37
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	52.8	15.9	244	10.5	41.4	22.5	70.8	79.8	72.7	126
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	27.3	17	14.5	11.6	22.2	29.7	4.7	7	19.4	15.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G9-01	SB-R-G9-02	SB-R-G9-03	SB-R-G9-04	SB-R-H10-01	SB-R-H10-02	SB-R-H10-03	SB-R-H10-04	SB-R-H11-01	SB-R-H11-02
Depths			0.8-1.3 ft	1.0-1.5 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/4/2006	5/4/2006	5/9/2006	5/9/2006	5/4/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G9-011.25N	SB-R-G9-021.5N	SB-R-G9-031.0N	SB-R-G9-041.33N	SB-R-H10-011.0N	SB-R-H10-021.0N	SB-R-H10-031.0N	SB-R-H10-041.5N	SB-R-H11-011.5N	SB-R-H11-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3000	< 3200	< 3000	< 3000	< 3000	< 2700	< 2700	< 3300	< 2400	< 3100
Benzene	71-43-2	ug/kg	< 760	< 790	< 750	< 750	< 760	< 690	< 670	< 810	< 610	< 790
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 760	< 790	< 750	< 750	< 760	< 690	< 670	< 810	< 610	< 790
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G9-01	SB-R-G9-02	SB-R-G9-03	SB-R-G9-04	SB-R-H10-01	SB-R-H10-02	SB-R-H10-03	SB-R-H10-04	SB-R-H11-01	SB-R-H11-02
Depths			0.8-1.3 ft	1.0-1.5 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/4/2006	5/4/2006	5/9/2006	5/9/2006	5/4/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G9-011.25N	SB-R-G9-021.5N	SB-R-G9-031.0N	SB-R-G9-041.33N	SB-R-H10-011.0N	SB-R-H10-021.0N	SB-R-H10-031.0N	SB-R-H10-041.5N	SB-R-H11-011.5N	SB-R-H11-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 760	< 790	< 750	< 750	< 760	< 690	< 670	< 810	< 610	< 790
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 760	< 790	< 750	< 750	< 760	< 690	< 670	< 810	< 610	< 790
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 200	< 200	< 200	< 190	< 180	< 190	< 190	< 190	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2400	< 2400	< 2400	< 2300	< 2200	< 2300	< 2300	< 2300	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	170	< 200	< 200	< 200	< 190	230	450	490	< 190	160
2,6-Dinitrotoluene	606-20-2	ug/kg	50	< 200	< 200	< 200	< 190	45	170	160	< 190	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G9-01	SB-R-G9-02	SB-R-G9-03	SB-R-G9-04	SB-R-H10-01	SB-R-H10-02	SB-R-H10-03	SB-R-H10-04	SB-R-H11-01	SB-R-H11-02
Depths			0.8-1.3 ft	1.0-1.5 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/4/2006	5/4/2006	5/9/2006	5/9/2006	5/4/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G9-011.25N	SB-R-G9-021.5N	SB-R-G9-031.0N	SB-R-G9-041.33N	SB-R-H10-011.0N	SB-R-H10-021.0N	SB-R-H10-031.0N	SB-R-H10-041.5N	SB-R-H11-011.5N	SB-R-H11-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 200	< 200	76	< 190	120	< 190	54	190	4500
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 200	< 200	78	< 190	160	< 190	44	270	3800
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	< 200	52	120	45	320	< 190	120	450	7300
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 200	< 200	59	< 190	140	< 190	< 190	240	2900
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 380	< 400	< 390	< 390	< 380	< 360	< 380	< 390	< 380	< 400
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 200	< 200	< 200	< 190	< 180	< 190	< 190	< 190	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	39	< 200	80	87	110	230	55	160	340	4600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 200	< 200	< 200	< 190	50	< 190	44	65	740
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 200	< 200	< 200	< 190	< 180	< 190	< 190	< 190	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 200	< 200	< 200	< 190	< 180	< 190	< 190	< 190	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 200	< 200	51	< 190	140	< 190	51	220	1700
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G9-01	SB-R-G9-02	SB-R-G9-03	SB-R-G9-04	SB-R-H10-01	SB-R-H10-02	SB-R-H10-03	SB-R-H10-04	SB-R-H11-01	SB-R-H11-02
Depths			0.8-1.3 ft	1.0-1.5 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/4/2006	5/4/2006	5/9/2006	5/9/2006	5/4/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G9-011.25N	SB-R-G9-021.5N	SB-R-G9-031.0N	SB-R-G9-041.33N	SB-R-H10-011.0N	SB-R-H10-021.0N	SB-R-H10-031.0N	SB-R-H10-041.5N	SB-R-H11-011.5N	SB-R-H11-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 200	< 200	< 200	< 190	< 180	< 190	< 190	< 190	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	140	< 200	130	< 190	< 180	< 190	< 190	< 190	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 19	< 20	< 20	< 20	< 19	< 19	< 19	< 20	< 19	< 210
Aroclor-1221	11104-28-2	ug/kg	< 19	< 20	< 20	< 20	< 19	< 19	< 19	< 20	< 19	< 210
Aroclor-1232	11141-16-5	ug/kg	< 19	< 20	< 20	< 20	< 19	< 19	< 19	< 20	< 19	< 210
Aroclor-1242	53469-21-9	ug/kg	< 19	< 20	< 20	< 20	< 19	< 19	< 19	< 20	< 19	< 210
Aroclor-1248	12672-29-6	ug/kg	< 19	< 20	< 20	< 20	< 19	< 19	< 19	< 20	< 19	< 210
Aroclor-1254	11097-69-1	ug/kg	< 19	< 20	< 20	< 20	110	190	< 19	< 20	< 19	< 210
Aroclor-1260	11096-82-5	ug/kg	< 19	< 20	< 20	6.1	35	110	< 19	< 20	42	1700
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 20	< 20	6.1	145	300	< 19	< 20	42	1700

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G9-01	SB-R-G9-02	SB-R-G9-03	SB-R-G9-04	SB-R-H10-01	SB-R-H10-02	SB-R-H10-03	SB-R-H10-04	SB-R-H11-01	SB-R-H11-02
Depths			0.8-1.3 ft	1.0-1.5 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/4/2006	5/4/2006	5/9/2006	5/9/2006	5/4/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G9-011.25N	SB-R-G9-021.5N	SB-R-G9-031.0N	SB-R-G9-041.33N	SB-R-H10-011.0N	SB-R-H10-021.0N	SB-R-H10-031.0N	SB-R-H10-041.5N	SB-R-H11-011.5N	SB-R-H11-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 340	< 360	< 350	< 350	< 340	< 330	< 340	500	< 340	230
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 340	< 360	< 350	< 350	< 340	< 330	< 340	< 350	< 340	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 340	< 360	< 350	< 350	< 340	< 330	< 340	< 350	< 340	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 340	< 360	< 350	< 350	< 340	< 330	< 340	< 350	< 340	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	150000	240000	110000	< 140000	< 140000	< 130000	< 140000	< 140000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6800	5800	< 7100	9000	< 6900	6300	< 6900	< 6900	< 6900	< 7200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 860	650	< 880	< 880	< 860	< 820	< 860	< 870	< 860	< 910
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	160	130	< 350	< 350	< 340	< 330	< 340	< 350	< 340	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.26	< 2.3	1.07	< 2.35	< 2.24	< 2.14	< 2.26	< 2.25	< 2.27	1.2
Arsenic	7440-38-2	mg/kg	8.22	3.47	9.33	5.27	15.3	11.3	11.3	104	13.3	16
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.821	0.584	0.528	0.692	0.992	0.584	0.464	0.641	0.334	0.621
Cadmium	7440-43-9	mg/kg	0.539	0.566	0.114	0.186	1.15	0.862	0.165	0.335	0.659	0.896
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14	14.1	24.5	24.6	39.1	27.6	68	44.6	23.6	31.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	35.7	59.6	63.4	34.2	104	562	4060	5910	55.8	1210
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0222	0.326	0.101	0.19	0.122	0.116	0.188	3.78	0.454	0.383
Nickel	7440-02-0	mg/kg	13.9	7.69	10.6	10.9	16.1	10.6	16.8	16.2	11.7	14.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.26	< 2.3	< 2.31	< 2.35	1.5	< 2.14	< 2.26	< 2.25	< 2.27	1.48

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-G9-01	SB-R-G9-02	SB-R-G9-03	SB-R-G9-04	SB-R-H10-01	SB-R-H10-02	SB-R-H10-03	SB-R-H10-04	SB-R-H11-01	SB-R-H11-02
Depths			0.8-1.3 ft	1.0-1.5 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			5/9/2006	5/9/2006	5/10/2006	5/10/2006	5/4/2006	5/4/2006	5/9/2006	5/9/2006	5/4/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-G9-011.25N	SB-R-G9-021.5N	SB-R-G9-031.0N	SB-R-G9-041.33N	SB-R-H10-011.0N	SB-R-H10-021.0N	SB-R-H10-031.0N	SB-R-H10-041.5N	SB-R-H11-011.5N	SB-R-H11-021.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.34	0.338	< 0.577	< 0.588	0.303	0.303	0.324	0.58	< 0.566	0.369
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.33	1.55	1.7	1.83	< 2.24	1.72	< 2.26	1.16	1.74	2.07
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	46.3	65.7	63.9	92.5	60.2	127	1330	153	23.3	63.2
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	12.4	16.4	15	15	12.6	8.4	12.5	13.6	12.6	17.2
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H11-03	SB-R-H11-04	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/4/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H11-031.5N	SB-R-H11-041.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3400	< 3100	< 2900	< 3000	< 3400	< 3100	< 3200	< 3000	< 3200	< 3100
Benzene	71-43-2	ug/kg	150	< 780	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 860	< 780	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H11-03	SB-R-H11-04	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/4/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H11-031.5N	SB-R-H11-041.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 860	< 780	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 860	< 780	< 730	< 740	< 860	< 780	< 800	< 760	< 800	< 770
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 210	< 210	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2500	< 2500	< 2300	< 2400	< 2600	< 2600	< 2600	< 2400	< 2500	< 23000
2,4-Dinitrotoluene	121-14-2	ug/kg	95	280	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
2,6-Dinitrotoluene	606-20-2	ug/kg	< 210	60	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H11-03	SB-R-H11-04	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/4/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H11-031.5N	SB-R-H11-041.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	240	200	1500	< 200	< 220	< 210	< 220	950	120	< 1900
Benzo[a]pyrene	50-32-8	ug/kg	230	250	1500	< 200	< 220	< 210	< 220	1100	130	< 1900
Benzo[b]fluoranthene	205-99-2	ug/kg	570	500	2300	< 200	< 220	65	63	1800	190	< 1900
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	240	190	1100	< 200	< 220	< 210	< 220	600	76	< 1900
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 420	< 410	< 390	< 400	< 440	97	< 440	< 400	< 410	< 3800
Butylbenzylphthalate	85-68-7	ug/kg	< 210	< 210	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	620	460	1500	< 200	< 220	88	72	1400	150	< 1900
Dibenzo[a,h]anthracene	53-70-3	ug/kg	87	110	360	< 200	< 220	< 210	< 220	210	< 200	< 1900
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 210	< 210	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 210	< 210	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	210	190	1200	< 200	< 220	< 210	< 220	740	93	< 1900
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H11-03	SB-R-H11-04	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/4/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H11-031.5N	SB-R-H11-041.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 210	< 210	< 190	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
N-Nitrosodiphenylamine	86-30-6	ug/kg	45	< 210	140	< 200	< 220	< 210	< 220	< 200	< 200	< 1900
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 210	< 110	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 20
Aroclor-1221	11104-28-2	ug/kg	< 210	< 110	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 20
Aroclor-1232	11141-16-5	ug/kg	< 210	< 110	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 20
Aroclor-1242	53469-21-9	ug/kg	< 210	< 110	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 20
Aroclor-1248	12672-29-6	ug/kg	< 210	< 110	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 20
Aroclor-1254	11097-69-1	ug/kg	< 210	< 110	< 20	< 20	< 22	< 21	< 22	< 20	< 21	< 20
Aroclor-1260	11096-82-5	ug/kg	2700	1400	11	< 20	< 22	< 21	< 22	37	< 21	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	2700	1400	11	< 20	< 22	< 21	< 22	37	< 21	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H11-03	SB-R-H11-04	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/4/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H11-031.5N	SB-R-H11-041.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	160	920	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 370	< 370	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 370	< 370	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 370	< 370	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 150000	< 140000	< 140000	< 160000	< 150000	< 160000	< 140000	< 150000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7500	< 7400	< 7000	< 7200	< 7900	< 7400	< 7900	< 7100	< 7400	< 7200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 940	< 930	< 870	< 900	< 990	< 920	< 990	< 890	< 920	< 900
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 370	< 370	< 350	< 360	< 390	< 370	< 400	< 360	< 370	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	3.46	< 2.45	1.42	< 11.7	< 2.55	0.837	1.35	1.63	< 2.43	< 2
Arsenic	7440-38-2	mg/kg	32.5	78.4	31.4	6.38	24.1	7.33	11.5	11.1	9.31	5.74
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.531	0.517	0.817	0.662	0.272	0.445	0.44	0.543	0.597	0.994
Cadmium	7440-43-9	mg/kg	0.731	0.875	< 0.558	< 2.93	0.494	< 0.487	0.227	0.443	0.292	< 0.5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	32.8	65.3	29	8.18	10	62.2	23	42.4	12.2	33.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	314	150	28	5.93	12.5	319	126	87.2	83.5	50.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2.08	0.268	0.0572	0.0166	0.0439	0.632	0.107	0.182	0.201	1.64
Nickel	7440-02-0	mg/kg	8.42	14.4	10.8	5.07	5.23	10	7.52	12.9	7.05	16.6
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	3.95	1.58	< 2.23	< 11.7	< 2.55	1.53	< 2.62	< 2.29	< 2.43	1.06

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H11-03	SB-R-H11-04	SB-R-H12-02	SB-R-H12-03	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/4/2006	5/4/2006	5/3/2006	5/3/2006	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H11-031.5N	SB-R-H11-041.0N	SB-R-H12-021.0N	SB-R-H12-031.0N	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.327	0.249	< 0.558	< 2.93	< 0.638	< 0.487	< 0.655	< 0.572	< 0.608	< 0.5
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.93	1.39	1.59	< 11.7	< 2.55	1.5	< 2.62	< 2.29	< 2.43	1.09
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	37	86.9	74.5	41	43.2	57.5	38.8	141	104	110
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	19.8	19.2	13.8	16.3	23.9	18.4	24.4	16	18.6	16.3
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03	SB-R-H7-04	SB-R-H8-01	SB-R-H8-02	SB-R-H8-03
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
Collection Date			4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H8-021.5N	SB-R-H8-031.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3500	< 3000	< 3100	< 3000	< 3500	< 2800	< 2900	< 2900	< 3100	< 3100
Benzene	71-43-2	ug/kg	< 870	< 760	< 770	< 750	< 880	< 710	< 740	< 710	< 770	< 760
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 870	< 760	< 770	< 750	< 880	< 710	< 740	< 710	< 770	< 760
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03	SB-R-H7-04	SB-R-H8-01	SB-R-H8-02	SB-R-H8-03
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
Collection Date			4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H8-021.5N	SB-R-H8-031.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 870	< 760	< 770	< 750	< 880	< 710	< 740	< 710	< 770	< 760
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 870	< 760	< 770	< 750	< 880	< 710	< 740	< 710	< 770	< 760
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 210	< 210	< 410	< 210	< 210	< 190	< 190	< 180	< 190	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2600	< 2500	< 4900	< 2500	< 2500	< 2300	< 2200	< 2200	< 2300	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	90	< 210	< 410	< 210	< 210	< 190	110	< 180	< 190	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 210	< 210	< 410	< 210	< 210	< 190	< 190	< 180	< 190	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03	SB-R-H7-04	SB-R-H8-01	SB-R-H8-02	SB-R-H8-03
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
Collection Date			4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H8-021.5N	SB-R-H8-031.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	150	< 210	160	69	< 210	< 190	< 190	< 180	< 190	54
Benzo[a]pyrene	50-32-8	ug/kg	150	< 210	170	69	< 210	< 190	37	< 180	< 190	54
Benzo[b]fluoranthene	205-99-2	ug/kg	240	< 210	240	170	< 210	< 190	64	< 180	< 190	81
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	120	< 210	110	65	< 210	< 190	< 190	< 180	< 190	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	< 410	< 810	< 410	< 420	< 380	< 370	< 370	< 390	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 210	< 210	< 410	< 210	< 210	< 190	< 190	< 180	< 190	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	200	< 210	220	130	< 210	< 190	87	< 180	< 190	61
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 210	< 210	< 410	< 210	< 210	< 190	< 190	< 180	< 190	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 210	< 210	< 410	< 210	< 210	< 190	400	< 180	< 190	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	120	< 210	< 410	< 210	< 210	< 190	200	< 180	< 190	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	100	< 210	120	45	< 210	< 190	< 190	< 180	< 190	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03	SB-R-H7-04	SB-R-H8-01	SB-R-H8-02	SB-R-H8-03
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
Collection Date			4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H8-021.5N	SB-R-H8-031.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 210	< 210	< 410	< 210	< 210	< 190	< 190	< 180	< 190	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 210	< 210	< 410	240	< 210	< 190	160	< 180	< 190	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 22	< 20	< 21	< 21	< 21	< 20	< 19	< 19	< 20	< 20
Aroclor-1221	11104-28-2	ug/kg	< 22	< 20	< 21	< 21	< 21	< 20	< 19	< 19	< 20	< 20
Aroclor-1232	11141-16-5	ug/kg	< 22	< 20	< 21	< 21	< 21	< 20	< 19	< 19	< 20	< 20
Aroclor-1242	53469-21-9	ug/kg	< 22	< 20	< 21	< 21	< 21	< 20	< 19	< 19	< 20	< 20
Aroclor-1248	12672-29-6	ug/kg	< 22	< 20	< 21	< 21	< 21	< 20	< 19	< 19	< 20	< 20
Aroclor-1254	11097-69-1	ug/kg	24	< 20	< 21	< 21	< 21	< 20	10	43	< 20	170
Aroclor-1260	11096-82-5	ug/kg	24	< 20	16	< 21	< 21	< 20	8.8	16	< 20	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	48	< 20	16	< 21	< 21	< 20	18.8	59	< 20	170

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03	SB-R-H7-04	SB-R-H8-01	SB-R-H8-02	SB-R-H8-03
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
Collection Date			4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H8-021.5N	SB-R-H8-031.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 380	< 360	< 360	< 370	< 380	< 340	< 330	< 330	< 350	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 380	< 360	< 360	< 370	< 380	< 340	< 330	< 330	< 350	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 380	< 360	< 360	< 370	< 380	< 340	< 330	< 330	< 350	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 380	< 360	< 360	< 370	< 380	< 340	< 330	< 330	< 350	< 350
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 140000	< 150000	< 150000	< 150000	< 140000	54000	< 130000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7700	< 7200	< 7300	19000	< 7600	< 6900	< 6700	< 6600	< 7000	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 960	< 900	< 910	< 920	< 950	< 860	< 840	< 830	< 880	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 380	< 360	< 360	160	< 380	< 340	< 330	< 330	< 350	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.53	< 2.03	< 2.41	< 2.39	< 2.43	< 2.28	< 2.23	1.37	1.12	< 2.36
Arsenic	7440-38-2	mg/kg	5.37	7.34	5.25	14.9	2.81	4.56	5.66	4.45	4.99	5.02
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.329	0.914	0.995	0.486	0.401	0.575	0.33	0.74	0.978	0.814
Cadmium	7440-43-9	mg/kg	< 0.633	< 2.53	1.16	< 0.599	< 0.608	1.1	0.562	0.103	< 0.572	1.3
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	26.4	23.9	20	24.5	11.8	12.4	16.4	16.9	17.8	15.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	63.3	12.6	69.2	26.9	15.3	12.7	40	31	7.64	34.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.41	0.0307	3.24	0.177	0.161	0.0532	2.31	0.245	0.0194	8.08
Nickel	7440-02-0	mg/kg	11.4	16.6	12.4	13.3	9.5	11.2	13.4	10.9	12.1	8.48
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.53	1.28	< 2.41	1.31	< 2.43	< 2.28	< 2.23	< 2.19	< 2.29	< 2.36

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03	SB-R-H7-04	SB-R-H8-01	SB-R-H8-02	SB-R-H8-03
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
Collection Date			4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006	5/11/2006	5/10/2006	5/10/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N	SB-R-H7-041.0N	SB-R-H8-011.0N	SB-R-H8-021.5N	SB-R-H8-031.25N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.633	< 0.507	0.445	< 0.599	< 0.608	0.299	0.276	< 0.546	< 0.572	0.766
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.53	2.16	< 2.41	4.39	< 2.43	< 2.28	< 2.23	1.74	2.17	< 2.36
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	95	89	124	71.7	70	53.4	34.2	63.9	53.2	79.6
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	21.8	19	17.7	18.9	20.9	13	10.3	9.4	14.3	15.4
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H8-04	SB-R-H9-01	SB-R-H9-02	SB-R-H9-03	SB-R-H9-04	SB-R-I10-01	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I10-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/11/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	3/31/2006	3/31/2006	3/31/2006	4/3/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H8-041.5N	SB-R-H9-011.5N	SB-R-H9-021.0N	SB-R-H9-031.5N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-011.5N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I10-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 3100	< 3200	< 3100	< 3000	< 2900	< 3500	< 3300	< 2900	< 2800
Benzene	71-43-2	ug/kg	< 710	< 770	< 790	< 780	< 740	< 720	< 870	< 830	< 730	< 710
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 710	< 770	< 790	< 780	< 740	< 720	< 870	< 830	< 730	< 710
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H8-04	SB-R-H9-01	SB-R-H9-02	SB-R-H9-03	SB-R-H9-04	SB-R-I10-01	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I10-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/11/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	3/31/2006	3/31/2006	3/31/2006	4/3/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H8-041.5N	SB-R-H9-011.5N	SB-R-H9-021.0N	SB-R-H9-031.5N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-011.5N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I10-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 710	< 770	< 790	< 780	< 740	< 720	< 870	< 830	< 730	< 710
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 710	< 770	< 790	< 780	< 740	< 720	< 870	< 830	< 730	< 710
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 190	< 200	< 200	< 200	< 190	< 210	< 200	< 190	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2300	< 2400	< 2400	< 2400	< 2300	< 2500	< 2400	< 2300	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 190	< 200	< 200	100	< 190	< 210	< 200	< 190	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 190	< 200	< 200	58	< 190	< 210	< 200	< 190	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H8-04	SB-R-H9-01	SB-R-H9-02	SB-R-H9-03	SB-R-H9-04	SB-R-I10-01	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I10-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/11/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	3/31/2006	3/31/2006	3/31/2006	4/3/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H8-041.5N	SB-R-H9-011.5N	SB-R-H9-021.0N	SB-R-H9-031.5N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-011.5N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I10-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 190	< 200	< 200	120	< 190	< 210	130	< 190	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 190	< 200	< 200	170	< 190	< 210	130	< 190	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	< 190	< 200	< 200	360	< 190	< 210	160	< 190	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 190	< 200	< 200	170	< 190	< 210	85	< 190	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 380	< 390	< 390	< 400	< 400	< 380	< 420	< 400	< 380	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 190	< 200	< 200	< 200	< 190	< 210	< 200	< 190	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 190	< 190	< 200	< 200	170	< 190	< 210	170	< 190	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 190	< 200	< 200	43	< 190	< 210	< 200	< 190	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 190	< 200	< 200	< 200	< 190	< 210	< 200	< 190	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 190	< 200	< 200	< 200	< 190	< 210	< 200	< 190	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 190	< 200	< 200	110	< 190	< 210	90	< 190	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H8-04	SB-R-H9-01	SB-R-H9-02	SB-R-H9-03	SB-R-H9-04	SB-R-I10-01	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I10-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/11/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	3/31/2006	3/31/2006	3/31/2006	4/3/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H8-041.5N	SB-R-H9-011.5N	SB-R-H9-021.0N	SB-R-H9-031.5N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-011.5N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I10-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 190	< 200	< 200	< 200	< 190	< 210	< 200	< 190	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	< 190	< 200	< 200	< 200	< 190	< 210	< 200	< 190	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	< 20	< 19	< 19
Aroclor-1221	11104-28-2	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	< 20	< 19	< 19
Aroclor-1232	11141-16-5	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	< 20	< 19	< 19
Aroclor-1242	53469-21-9	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	< 20	< 19	< 19
Aroclor-1248	12672-29-6	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	< 20	< 19	< 19
Aroclor-1254	11097-69-1	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	< 20	< 19	< 19
Aroclor-1260	11096-82-5	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	4.3	< 19	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 20	< 20	< 20	< 20	< 19	< 21	4.3	< 19	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-H8-04	SB-R-H9-01	SB-R-H9-02	SB-R-H9-03	SB-R-H9-04	SB-R-I10-01	SB-R-I10-01	SB-R-I10-02	SB-R-I10-03	SB-R-I10-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			5/11/2006	5/9/2006	5/9/2006	5/10/2006	5/10/2006	3/31/2006	3/31/2006	3/31/2006	4/3/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-H8-041.5N	SB-R-H9-011.5N	SB-R-H9-021.0N	SB-R-H9-031.5N	SB-R-H9-041.0N	SB-R-I10-011.0N	SB-R-I10-011.5N	SB-R-I10-021.0N	SB-R-I10-031.0N	SB-R-I10-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 340	< 350	< 350	< 360	< 360	< 340	< 380	< 360	< 340	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 340	< 350	< 350	< 360	< 360	< 340	< 380	< 360	< 340	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 340	< 350	< 350	< 360	< 360	< 340	< 380	< 360	< 340	< 330
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 340	< 350	< 350	< 360	< 360	< 340	< 380	< 360	< 340	< 330
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	< 150000	< 140000	< 140000	< 130000
Nitroglycerin	55-63-0	ug/kg	< 6800	< 6900	< 7100	< 7200	< 7200	< 6800	< 7500	< 7200	< 6900	< 6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 850	< 870	< 890	< 900	< 900	< 850	< 940	< 900	< 860	< 840
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 340	< 350	< 350	< 360	< 360	< 340	< 380	< 360	< 340	< 330
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.19	< 2.29	< 2.27	1.51	< 2.35	< 2.21	< 12.2	< 2.39	< 2.22	< 2.16
Arsenic	7440-38-2	mg/kg	2.87	2.48	3.4	5.68	7.48	3.38	5.71	4.09	4.04	1.83
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.779	0.549	0.803	0.682	0.915	0.554	1.25	0.909	0.969	0.788
Cadmium	7440-43-9	mg/kg	0.953	< 0.572	< 0.568	< 0.582	0.847	< 0.553	< 3.05	< 0.597	< 2.78	0.741
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	21.3	6.29	11	22.6	28.3	56.2	16.8	13.2	21.9	14.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	9.38	2.42	12.5	9.4	70.3	12.1	9.09	14.2	5.69	4.12
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0235	0.0112	0.0733	0.0182	0.11	0.0405	0.0558	0.123	0.045	0.0497
Nickel	7440-02-0	mg/kg	11.1	3.9	10.2	13.5	17	8.09	13.7	10.6	11.8	10.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.19	< 2.29	< 2.27	< 2.33	< 2.35	1.28	< 12.2	2.15	3.8	< 2.16

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-H8-04 1.0-1.5 ft 5/11/2006 N SB-R-H8-041.5N	SB-R-H9-01 1.0-1.5 ft 5/9/2006 N SB-R-H9-011.5N	SB-R-H9-02 0.5-1.0 ft 5/9/2006 N SB-R-H9-021.0N	SB-R-H9-03 1.0-1.5 ft 5/10/2006 N SB-R-H9-031.5N	SB-R-H9-04 0.5-1.0 ft 5/10/2006 N SB-R-H9-041.0N	SB-R-I10-01 0.5-1.0 ft 3/31/2006 N SB-R-I10-011.0N	SB-R-I10-01 1.0-1.5 ft 3/31/2006 N SB-R-I10-011.5N	SB-R-I10-02 0.5-1.0 ft 3/31/2006 N SB-R-I10-021.0N	SB-R-I10-03 0.5-1.0 ft 4/3/2006 N SB-R-I10-031.0N	SB-R-I10-04 1.0-1.5 ft 5/4/2006 N SB-R-I10-041.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.368	< 0.572	< 0.568	1.11	< 0.587	< 0.553	< 3.05	< 0.597	< 0.556	0.274
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.19	< 2.29	1.79	2.09	1.6	1.33	< 12.2	1.48	2.29	1.82
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	69.8	34.9	126	46.9	503	87.3	182	74	50.4	54.3
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	11.3	13.5	15.3	16.6	16.5	11.4	20.5	16.3	12.7	10.2
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I11-02	SB-R-I11-03	SB-R-I11-04	SB-R-I12-01	SB-R-I12-01	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I5-01	SB-R-I5-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/31/2006	5/3/2006	5/4/2006	5/3/2006	5/3/2006	5/15/2006	5/15/2006	5/12/2006	4/19/2006	4/19/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-I11-021.33N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-011.5N	SB-R-I12-011.5FD	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I5-011.0N	SB-R-I5-021.0N
Parent Sample							SB-R-I12-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3700	< 3000	< 3000	< 3200	< 3300	< 2800	< 2900	< 3300	< 3200	< 2700
Benzene	71-43-2	ug/kg	< 920	< 740	< 760	< 810	< 830	< 690	< 740	< 820	< 800	< 660
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 920	< 740	< 760	< 810	< 830	< 690	< 740	< 820	< 800	< 660
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I11-02	SB-R-I11-03	SB-R-I11-04	SB-R-I12-01	SB-R-I12-01	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I5-01	SB-R-I5-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/31/2006	5/3/2006	5/4/2006	5/3/2006	5/3/2006	5/15/2006	5/15/2006	5/12/2006	4/19/2006	4/19/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-I11-021.33N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-011.5N	SB-R-I12-011.5FD	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I5-011.0N	SB-R-I5-021.0N
Parent Sample							SB-R-I12-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 920	< 740	< 760	< 810	< 830	< 690	< 740	< 820	< 800	< 660
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 920	< 740	< 760	< 810	< 830	< 690	< 740	< 820	< 800	< 660
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2600	< 2400	< 2400	< 2600	< 2600	< 2300	< 2400	< 2500	< 2500	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I11-02	SB-R-I11-03	SB-R-I11-04	SB-R-I12-01	SB-R-I12-01	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I5-01	SB-R-I5-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/31/2006	5/3/2006	5/4/2006	5/3/2006	5/3/2006	5/15/2006	5/15/2006	5/12/2006	4/19/2006	4/19/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-I11-021.33N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-011.5N	SB-R-I12-011.5FD	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I5-011.0N	SB-R-I5-021.0N
Parent Sample							SB-R-I12-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 220	1900	740	180	110	600	< 200	91	< 210	< 180
Benzo[a]pyrene	50-32-8	ug/kg	< 220	1800	860	180	140	610	< 200	83	< 210	< 180
Benzo[b]fluoranthene	205-99-2	ug/kg	46	2800	1300	310	210	870	40	180	< 210	< 180
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	1200	660	110	81	380	< 200	68	< 210	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 440	< 400	150	< 440	< 440	580	< 400	< 410	< 420	< 360
Butylbenzylphthalate	85-68-7	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	120	1900	960	210	140	730	120	150	< 210	< 180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	370	180	47	< 220	120	< 200	< 210	< 210	< 180
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 220	1300	590	150	110	440	< 200	73	< 210	< 180
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I11-02	SB-R-I11-03	SB-R-I11-04	SB-R-I12-01	SB-R-I12-01	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I5-01	SB-R-I5-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/31/2006	5/3/2006	5/4/2006	5/3/2006	5/3/2006	5/15/2006	5/15/2006	5/12/2006	4/19/2006	4/19/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-I11-021.33N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-011.5N	SB-R-I12-011.5FD	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I5-011.0N	SB-R-I5-021.0N
Parent Sample							SB-R-I12-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 220	< 200	< 200	< 220	< 220	< 190	< 200	< 210	< 210	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 220	< 200	< 200	< 220	< 220	100	< 200	< 210	< 210	< 180
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 22	< 20	< 20	< 22	< 22	< 96	< 20	< 210	< 22	< 19
Aroclor-1221	11104-28-2	ug/kg	< 22	< 20	< 20	< 22	< 22	< 96	< 20	< 210	< 22	< 19
Aroclor-1232	11141-16-5	ug/kg	< 22	< 20	< 20	< 22	< 22	< 96	< 20	< 210	< 22	< 19
Aroclor-1242	53469-21-9	ug/kg	< 22	< 20	< 20	< 22	< 22	< 96	< 20	< 210	< 22	< 19
Aroclor-1248	12672-29-6	ug/kg	< 22	< 20	< 20	< 22	< 22	< 96	< 20	< 210	< 22	< 19
Aroclor-1254	11097-69-1	ug/kg	< 22	< 20	< 20	< 22	< 22	340	< 20	< 210	< 22	< 19
Aroclor-1260	11096-82-5	ug/kg	< 22	19	240	13	6.9	280	< 20	870	< 22	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 22	19	240	13	6.9	620	< 20	870	< 22	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I11-02	SB-R-I11-03	SB-R-I11-04	SB-R-I12-01	SB-R-I12-01	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I5-01	SB-R-I5-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/31/2006	5/3/2006	5/4/2006	5/3/2006	5/3/2006	5/15/2006	5/15/2006	5/12/2006	4/19/2006	4/19/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-I11-021.33N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-011.5N	SB-R-I12-011.5FD	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I5-011.0N	SB-R-I5-021.0N
Parent Sample							SB-R-I12-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 400	< 360	< 350	< 390	< 390	< 340	< 360	< 370	< 380	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 400	< 360	< 350	< 390	< 390	< 340	< 360	< 370	< 380	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 400	< 360	< 350	< 390	< 390	< 340	< 360	< 370	< 380	< 330
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 400	< 360	< 350	< 390	< 390	< 340	< 360	< 370	< 380	< 330
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 140000	< 140000	< 160000	< 160000	< 130000	< 140000	< 150000	< 150000	< 130000
Nitroglycerin	55-63-0	ug/kg	< 7900	< 7200	< 7100	< 7900	< 7800	< 6800	< 7200	< 7400	< 7700	< 6500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 990	< 890	< 890	< 990	< 980	< 840	< 900	< 930	< 960	< 820
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 420	< 360	< 350	< 390	< 390	< 340	< 360	< 370	< 380	< 330
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.64	1.01	1.15	1.56	1.46	1.15	< 2.34	1.2	< 1.94	< 1.98
Arsenic	7440-38-2	mg/kg	77.6	15.3	25.2	13.6	14.2	6.81	13.9	6.76	5.11	5.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.565	0.167	0.651	0.501	0.416	0.567	0.305	0.178	0.861	0.768
Cadmium	7440-43-9	mg/kg	< 0.659	< 0.591	0.993	0.258	0.148	0.361	< 0.586	< 0.613	< 0.484	< 2.48
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	19	17.4	36.8	43.6	46.1	31.3	15.4	31.1	11.1	21.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	19.9	48.1	85.1	67.7	83.8	89.8	182	95.4	11.3	6.58
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.142	0.286	4.71	0.248	0.161	9.23	0.283	0.372	0.0263	0.0236
Nickel	7440-02-0	mg/kg	6.21	4.52	12.1	8.78	8.67	8.81	9.26	5.96	14.7	11.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	5.76	< 2.36	< 2.31	< 2.58	< 2.56	< 2.21	< 2.34	< 2.45	< 1.94	< 1.98

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I11-02	SB-R-I11-03	SB-R-I11-04	SB-R-I12-01	SB-R-I12-01	SB-R-I12-02	SB-R-I12-04	SB-R-I13-02	SB-R-I5-01	SB-R-I5-02
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/31/2006	5/3/2006	5/4/2006	5/3/2006	5/3/2006	5/15/2006	5/15/2006	5/12/2006	4/19/2006	4/19/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-I11-021.33N	SB-R-I11-031.0N	SB-R-I11-041.0N	SB-R-I12-011.5N	SB-R-I12-011.5FD	SB-R-I12-021.0N	SB-R-I12-041.0N	SB-R-I13-021.0N	SB-R-I5-011.0N	SB-R-I5-021.0N
Parent Sample							SB-R-I12-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.659	< 0.591	0.83	< 0.644	< 0.64	0.581	< 0.586	< 0.613	< 0.484	< 0.495
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.48	< 2.36	1.81	< 2.58	< 2.56	< 2.21	1.28	< 2.45	< 1.94	1.24
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	44.7	22.4	91.5	164	175	111	19.3	34.7	73.3	155
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	24.1	16.2	15.3	23.9	23.4	11.2	16.3	19.2	21.9	8.2
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I6-01	SB-R-I6-02	SB-R-I6-03	SB-R-I6-04	SB-R-I7-01	SB-R-I7-02	SB-R-I7-03	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/7/2006	4/19/2006	4/19/2006	4/19/2006	4/7/2006	4/7/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-I6-011.0N	SB-R-I6-021.0N	SB-R-I6-031.5N	SB-R-I6-041.5N	SB-R-I7-011.0N	SB-R-I7-021.0N	SB-R-I7-031.5N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3200	< 3500	< 2900	< 3300	< 3200	< 3000	< 3500	< 3200	< 3000	< 2900	< 2900
Benzene	71-43-2	ug/kg	< 790	< 870	< 720	< 840	< 810	< 750	< 880	< 790	< 740	< 740	< 730
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 790	< 870	< 720	< 840	< 810	< 750	< 880	< 790	< 740	< 740	< 730
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I6-01	SB-R-I6-02	SB-R-I6-03	SB-R-I6-04	SB-R-I7-01	SB-R-I7-02	SB-R-I7-03	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/7/2006	4/19/2006	4/19/2006	4/19/2006	4/7/2006	4/7/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-I6-011.0N	SB-R-I6-021.0N	SB-R-I6-031.5N	SB-R-I6-041.5N	SB-R-I7-011.0N	SB-R-I7-021.0N	SB-R-I7-031.5N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 790	< 870	< 720	< 840	< 810	< 750	< 880	< 790	< 740	< 740	< 730
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 790	< 870	< 720	< 840	< 810	< 750	< 880	< 790	< 740	< 740	< 730
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	< 220	< 200	< 190	< 200	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2600	< 2700	< 2300	< 2600	< 2500	< 2400	< 2700	< 2400	< 2300	< 2400	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	470	< 190	< 210	< 210	< 200	< 220	6700	< 190	< 200	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	< 220	87	< 190	< 200	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I6-01	SB-R-I6-02	SB-R-I6-03	SB-R-I6-04	SB-R-I7-01	SB-R-I7-02	SB-R-I7-03	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/7/2006	4/19/2006	4/19/2006	4/19/2006	4/7/2006	4/7/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-I6-011.0N	SB-R-I6-021.0N	SB-R-I6-031.5N	SB-R-I6-041.5N	SB-R-I7-011.0N	SB-R-I7-021.0N	SB-R-I7-031.5N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 220	< 220	< 190	< 210	120	< 200	480	500	340	110	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 220	< 220	< 190	< 210	130	< 200	280	700	310	120	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 220	74	< 190	< 210	220	< 200	820	2300	370	190	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	< 220	< 190	< 210	87	< 200	360	1200	170	95	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	< 450	< 380	< 430	< 410	< 410	< 450	< 390	< 380	< 400	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	< 220	< 200	< 190	< 200	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	46	45	< 190	< 210	190	< 200	1000	660	310	150	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	51	280	52	< 200	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	< 220	510	< 190	< 200	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	120	470	< 190	96	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 220	< 220	< 190	< 210	88	< 200	170	870	210	82	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I6-01	SB-R-I6-02	SB-R-I6-03	SB-R-I6-04	SB-R-I7-01	SB-R-I7-02	SB-R-I7-03	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/7/2006	4/19/2006	4/19/2006	4/19/2006	4/7/2006	4/7/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-I6-011.0N	SB-R-I6-021.0N	SB-R-I6-031.5N	SB-R-I6-041.5N	SB-R-I7-011.0N	SB-R-I7-021.0N	SB-R-I7-031.5N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	< 220	< 200	< 190	< 200	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 220	< 220	< 190	< 210	< 210	< 200	< 220	460	< 190	99	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	< 19	< 20	< 19
Aroclor-1221	11104-28-2	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	< 19	< 20	< 19
Aroclor-1232	11141-16-5	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	< 19	< 20	< 19
Aroclor-1242	53469-21-9	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	< 19	< 20	< 19
Aroclor-1248	12672-29-6	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	< 19	< 20	< 19
Aroclor-1254	11097-69-1	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	10	< 20	< 19
Aroclor-1260	11096-82-5	ug/kg	NA	< 22	< 20	< 21	< 21	< 21	< 23	< 20	< 19	9.2	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 22	< 22	< 20	< 21	< 21	< 21	< 23	< 20	10	9.2	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-I6-01 0.5-1.0 ft 4/7/2006 N SB-R-I6-011.0N	SB-R-I6-02 0.5-1.0 ft 4/19/2006 N SB-R-I6-021.0N	SB-R-I6-03 1.0-1.5 ft 4/19/2006 N SB-R-I6-031.5N	SB-R-I6-04 1.0-1.5 ft 4/19/2006 N SB-R-I6-041.5N	SB-R-I7-01 0.5-1.0 ft 4/7/2006 N SB-R-I7-011.0N	SB-R-I7-02 0.5-1.0 ft 4/7/2006 N SB-R-I7-021.0N	SB-R-I7-03 1.0-1.5 ft 4/11/2006 N SB-R-I7-031.5N	SB-R-I7-04 0.5-1.0 ft 4/11/2006 N SB-R-I7-041.0N	SB-R-I8-01 0.5-1.0 ft 4/4/2006 N SB-R-I8-011.0N	SB-R-I8-02 0.5-1.0 ft 4/4/2006 N SB-R-I8-021.0N	SB-R-I8-03 0.5-1.0 ft 4/6/2006 N SB-R-I8-031.0N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 390	< 390	< 350	< 380	< 370	< 360	< 400	< 350	< 340	< 360	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 390	< 390	< 350	< 380	< 370	< 360	< 400	660	< 340	< 360	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 390	< 390	< 350	< 380	< 370	< 360	< 400	< 350	< 340	< 360	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 390	< 390	< 350	< 380	< 370	< 360	< 400	< 350	< 340	< 360	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 160000	< 140000	< 150000	< 150000	< 140000	< 160000	160000	< 140000	77000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7800	< 7900	< 6900	< 7600	< 7500	< 7300	< 8100	76000	< 6800	3900	< 6800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 980	< 980	< 870	< 950	< 930	2000	< 1000	< 880	< 840	< 900	< 850
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 390	< 390	< 350	< 380	< 370	1000	< 400	< 350	< 340	< 360	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.55	3.92	< 1.98	< 1.95	< 2.44	< 2.41	< 2.69	< 2.33	< 2.23	< 2.4	< 2.24
Arsenic	7440-38-2	mg/kg	13.8	8.89	7.6	3.49	4.26	4.82	9.12	11.8	4.01	9.19	4.85
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.648	1.15	0.603	0.667	0.244	0.584	0.751	0.72	0.783	0.56	0.664
Cadmium	7440-43-9	mg/kg	< 0.638	< 0.518	< 2.48	< 0.488	< 3.05	< 3.01	0.606	1.25	0.784	0.599	< 0.56
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16.6	117	21	8.47	124	15.8	7.84	15.7	19.3	14	16
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	18.4	706	10.3	8.25	69.2	21.1	15.3	27.1	9.74	20.9	23.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.21	6.83	0.021	0.0472	0.0873	0.104	0.0878	0.0368	0.0184	0.0469	0.0425
Nickel	7440-02-0	mg/kg	9.56	16.8	18.1	11.1	7.68	8.98	7.98	10	12.3	6.25	8.83
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.96	1.08	< 1.98	< 1.95	< 2.44	< 2.41	< 2.69	< 2.33	1.3	< 2.4	2.19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I6-01	SB-R-I6-02	SB-R-I6-03	SB-R-I6-04	SB-R-I7-01	SB-R-I7-02	SB-R-I7-03	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/7/2006	4/19/2006	4/19/2006	4/19/2006	4/7/2006	4/7/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-I6-011.0N	SB-R-I6-021.0N	SB-R-I6-031.5N	SB-R-I6-041.5N	SB-R-I7-011.0N	SB-R-I7-021.0N	SB-R-I7-031.5N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.638	0.392	< 0.496	< 0.488	< 0.61	< 0.602	0.26	0.271	< 0.557	< 0.601	< 0.56
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.65	< 2.07	1.82	3.62	< 2.44	1.9	1.43	1.74	< 2.23	< 2.4	1.13
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	42.4	353	99	194	66.3	57	89.6	172	67.4	47.2	74.5
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	23.2	23.6	13.4	22.3	19.6	17.8	25.7	15.1	11.2	16.8	11.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01
Depths			0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006	3/22/2006	3/31/2006	3/22/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N
Parent Sample					SB-R-I9-021.5N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3100	< 2900	< 3100	< 2800	< 3000	< 3000	< 3000	< 3100	< 2100	< 3500
Benzene	71-43-2	ug/kg	< 770	< 740	< 780	< 700	< 750	< 740	< 740	< 780	< 530	< 880
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 770	< 740	< 780	< 700	< 750	< 740	< 740	< 780	< 530	< 880
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01
Depths			0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006	3/22/2006	3/31/2006	3/22/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N
Parent Sample					SB-R-I9-021.5N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 770	< 740	< 780	< 700	< 750	< 740	< 740	< 780	< 530	< 880
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 770	< 740	< 780	< 700	< 750	< 740	< 740	< 780	< 530	< 880
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 200	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 4700	< 2400	< 2400	< 2400	< 2300	< 2400	< 2300	< 2300	< 2300	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	7100	< 200	90	< 200	< 190	< 200	< 190	< 200	< 200	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	510	< 200	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01
Depths			0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006	3/22/2006	3/31/2006	3/22/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N
Parent Sample					SB-R-I9-021.5N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 390	80	59	< 200	< 190	360	< 190	110	880	< 200
Benzo[a]pyrene	50-32-8	ug/kg	< 390	81	63	< 200	< 190	250	< 190	120	640	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	510	200	160	< 200	< 190	500	< 190	200	2100	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	210	61	52	< 200	< 190	170	< 190	86	780	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 790	< 400	< 400	< 390	< 380	< 400	< 380	190	< 390	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 200	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	190	130	110	< 200	< 190	380	< 190	140	1300	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 200	< 200	< 200	< 190	43	< 190	< 200	210	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	450	< 200	< 200	890	< 190	< 200	< 190	< 200	< 200	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	5100	< 200	< 200	85	< 190	< 200	< 190	320	< 200	91
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	120	64	48	< 200	< 190	140	< 190	89	620	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01
Depths			0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006	3/22/2006	3/31/2006	3/22/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N
Parent Sample					SB-R-I9-021.5N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 200	< 200	< 200	< 190	< 200	< 190	< 200	< 200	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	2700	140	160	< 200	< 190	150	< 190	45	43	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 20	< 20	< 20	< 20	< 21	< 19	< 20	< 20	< 20
Aroclor-1221	11104-28-2	ug/kg	< 20	< 20	< 20	< 20	< 20	< 21	< 19	< 20	< 20	< 20
Aroclor-1232	11141-16-5	ug/kg	< 20	< 20	< 20	< 20	< 20	< 21	< 19	< 20	< 20	< 20
Aroclor-1242	53469-21-9	ug/kg	< 20	< 20	< 20	< 20	< 20	< 21	< 19	< 20	< 20	< 20
Aroclor-1248	12672-29-6	ug/kg	< 20	< 20	< 20	< 20	< 20	< 21	< 19	< 20	< 20	< 20
Aroclor-1254	11097-69-1	ug/kg	< 20	< 20	< 20	170	< 20	< 21	< 19	61	16	< 20
Aroclor-1260	11096-82-5	ug/kg	< 20	15	16	19	< 20	6.9	< 19	22	30	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	15	16	189	< 20	6.9	< 19	83	46	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01
Depths			0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006	3/22/2006	3/31/2006	3/22/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N
Parent Sample					SB-R-I9-021.5N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 360	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	23000	< 360	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 360	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 350	< 360	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 350
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	1000000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	130000	< 7100	3400	3500	< 6900	< 7200	< 6900	< 7000	< 7000	< 7000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 880	< 890	< 890	< 880	< 860	< 910	< 860	< 880	< 880	< 880
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 360	< 360	< 350	< 340	< 360	< 340	< 350	< 350	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.36	< 2.35	< 2.38	< 2.29	< 2.27	< 2.35	< 2.23	< 2.34	< 2.35	< 2.3
Arsenic	7440-38-2	mg/kg	14.1	9.55	8.93	3.9	3.29	7.12	2.95	7.25	79.1	3.96
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.4	0.789	0.79	0.701	0.784	0.867	0.742	0.582	0.575	0.613
Cadmium	7440-43-9	mg/kg	< 0.589	< 0.587	< 0.595	0.698	0.557	< 0.586	< 2.78	0.129	0.218	0.132
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	17.6	30.5	28.7	15.6	13.3	276	9.06	22	33.7	14.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	67.8	79.9	85.6	22.7	6.56	37.5	12.5	45.9	121	21.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0411	0.119	0.102	0.12	0.0125	0.0784	0.0312	0.0721	0.141	0.0175
Nickel	7440-02-0	mg/kg	8.4	10.1	9.9	9.57	10.3	10.5	7.57	8.13	9.24	11.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.79	2.35	2.3	< 2.29	< 2.27	2.33	< 2.23	< 2.34	1.53	< 2.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01
Depths			0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006	3/22/2006	3/31/2006	3/22/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N
Parent Sample					SB-R-I9-021.5N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.589	< 0.587	< 0.595	< 0.572	< 0.568	< 0.586	0.291	0.289	< 0.587	< 0.575
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.36	1.46	1.88	< 2.29	< 2.27	1.61	< 2.23	< 2.34	< 2.35	< 2.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	96.7	89	87.9	114	54.9	85.3	71.1	54.8	127	64.5
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	15.1	15.7	15.9	15.1	12.9	17.2	12.8	14.6	14.8	14.8
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J6-03	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01	SB-R-J8-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
Collection Date			3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J6-031.5N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N	SB-R-J8-021.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2700	< 3100	< 3200	< 2900	< 2900	< 3500	< 3100	< 2700	< 3200	< 2900	< 2400
Benzene	71-43-2	ug/kg	< 680	< 790	< 810	< 730	< 730	< 870	< 770	< 670	< 790	< 720	< 600
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 680	< 790	< 810	< 730	< 730	< 870	< 770	< 670	< 790	< 720	< 600
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J6-03	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01	SB-R-J8-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
Collection Date			3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J6-031.5N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N	SB-R-J8-021.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 680	< 790	< 810	< 730	< 730	< 870	< 770	< 670	< 790	< 720	< 600
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 680	< 790	< 810	< 730	< 730	< 870	< 770	< 670	< 790	< 720	< 600
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 210	< 220	< 200	< 180	< 210	< 200	< 180	< 200	< 190	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2500	< 2600	< 2300	< 2200	< 2500	< 2400	< 2200	< 2400	< 2300	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 210	560	51000	430	< 210	300	< 180	< 200	< 190	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 210	< 220	180000	270	< 210	< 200	< 180	< 200	< 190	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J6-03	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01	SB-R-J8-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
Collection Date			3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J6-031.5N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N	SB-R-J8-021.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 180	< 210	110	< 200	37	< 210	160	< 180	< 200	< 190	< 200
Benzo[a]pyrene	50-32-8	ug/kg	< 180	< 210	120	< 200	57	< 210	170	< 180	< 200	< 190	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	< 180	< 210	240	< 200	300	< 210	750	< 180	< 200	< 190	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 180	< 210	110	< 200	49	< 210	350	< 180	< 200	< 190	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 420	< 440	< 390	< 370	< 420	< 400	< 360	< 400	< 380	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 210	< 220	< 200	< 180	< 210	< 200	< 180	< 200	< 190	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 180	< 210	170	< 200	110	< 210	310	< 180	< 200	< 190	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	< 210	< 220	< 200	110	< 210	70	< 180	< 200	< 190	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 210	< 220	< 200	< 180	< 210	650	< 180	< 200	< 190	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 210	270	< 200	< 180	< 210	970	< 180	< 200	< 190	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 180	< 210	85	< 200	86	< 210	170	< 180	< 200	< 190	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J6-03	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01	SB-R-J8-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
Collection Date			3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J6-031.5N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N	SB-R-J8-021.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 210	< 220	< 200	< 180	< 210	< 200	< 180	< 200	< 190	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 180	< 210	< 220	< 200	75	< 210	310	< 180	< 200	110	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 19	< 21	< 22	< 20	< 19	< 21	< 20	< 18	< 20	< 390	< 20
Aroclor-1221	11104-28-2	ug/kg	< 19	< 21	< 22	< 20	< 19	< 21	< 20	< 18	< 20	< 390	< 20
Aroclor-1232	11141-16-5	ug/kg	< 19	< 21	< 22	< 20	< 19	< 21	< 20	< 18	< 20	< 390	< 20
Aroclor-1242	53469-21-9	ug/kg	< 19	< 21	< 22	< 20	< 19	< 21	< 20	< 18	< 20	< 390	< 20
Aroclor-1248	12672-29-6	ug/kg	< 19	< 21	< 22	< 20	< 19	< 21	< 20	< 18	< 20	< 390	< 20
Aroclor-1254	11097-69-1	ug/kg	< 19	< 21	5.5	< 20	< 19	< 21	60	< 18	< 20	1200	< 20
Aroclor-1260	11096-82-5	ug/kg	< 19	< 21	13	< 20	< 19	< 21	11	< 18	< 20	< 390	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 21	18.5	< 20	< 19	< 21	71	< 18	< 20	1200	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J6-03	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01	SB-R-J8-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
Collection Date			3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J6-031.5N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N	SB-R-J8-021.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 380	< 390	< 350	< 330	< 380	< 360	< 330	< 360	< 350	< 360
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 380	< 390	< 350	280	< 380	390	< 330	< 360	< 350	< 360
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 380	< 390	< 7500	< 330	< 380	< 360	< 330	< 360	< 350	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 380	< 390	< 350	200	< 380	< 360	< 330	< 360	< 350	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 150000	< 160000	< 140000	< 130000	< 150000	420000	< 130000	< 150000	160000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6700	< 7500	< 7900	< 7000	< 6600	< 7600	120000	< 6500	< 7200	9000	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 830	< 940	< 980	< 880	< 830	< 950	< 900	< 820	< 900	< 860	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 380	< 390	< 350	< 330	< 380	< 360	< 330	< 360	< 350	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.17	< 2.38	< 2.57	< 2.3	< 2.16	< 2.43	< 2.39	< 2.09	< 2.31	< 2.28	< 2.37
Arsenic	7440-38-2	mg/kg	3.1	5.67	7.49	7.2	3.96	4.43	97.8	1.21	1.61	5.2	4.56
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.323	0.379	0.852	0.486	0.371	0.734	0.332	0.542	0.583	0.784	0.872
Cadmium	7440-43-9	mg/kg	< 0.543	< 0.596	< 0.642	< 0.575	< 0.54	1.19	1.15	0.91	0.762	0.754	0.257
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	21.9	13.1	20.9	47.4	932	13.9	13.3	8.88	13.4	32.4	16
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	20	20.2	43.3	610	4660	21	31.2	4.39	7.76	21.9	6.62
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0257	0.0143	0.202	0.0039	30.5	0.0594	0.257	0.013	0.0363	0.0404	0.0116
Nickel	7440-02-0	mg/kg	8.59	10.8	9.54	12.9	7.93	9.74	8.47	7.62	6.05	12.5	12.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.17	< 2.38	< 2.57	< 2.3	1.05	< 2.43	< 2.39	< 2.09	< 2.31	< 2.28	1.25

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J6-03	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01	SB-R-J8-02
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
Collection Date			3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J6-031.5N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N	SB-R-J8-021.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.543	< 0.596	< 0.642	< 0.575	< 0.54	0.232	< 0.596	< 0.523	< 0.577	< 0.57	< 0.592
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.17	< 2.38	< 2.57	1.41	2.58	1.92	1.55	< 2.09	< 2.31	< 2.28	1.33
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	32.5	88.6	86.3	142	58.6	106	54.4	40	39.9	61.2	68.1
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	9.8	20.1	23.6	14.7	9.3	20.7	17	8.1	16.7	13.2	15.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N
Parent Sample			SB-R-J8-021.0N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 3400	< 2900	< 3400	< 3000	< 3100	< 3000	< 3300	< 3200	< 3000
Benzene	71-43-2	ug/kg	< 710	< 860	< 720	< 860	< 740	< 780	< 750	< 810	< 790	< 750
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 710	< 860	< 720	< 860	< 740	< 780	< 750	< 810	< 790	< 750
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N
Parent Sample			SB-R-J8-021.0N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 710	< 860	< 720	< 860	< 740	< 780	< 750	< 810	< 790	< 750
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 710	< 860	< 720	< 860	< 740	< 780	< 750	< 810	< 790	< 750
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2500	< 2300	< 2400	< 2400	< 2400	< 2400	< 2500	< 2500	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N
Parent Sample			SB-R-J8-021.0N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	< 210	NA	48	< 200	< 200	< 200	< 210	< 210	< 180
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 380	< 410	< 380	< 390	< 400	< 400	< 400	87	< 410	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 210	< 190	90	< 200	< 200	< 200	< 210	< 210	< 180
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N
Parent Sample			SB-R-J8-021.0N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 210	< 190	< 200	< 200	< 200	< 200	< 210	< 210	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	< 210	< 190	77	< 200	< 200	< 200	< 210	< 210	< 180
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Aroclor-1221	11104-28-2	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Aroclor-1232	11141-16-5	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Aroclor-1242	53469-21-9	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Aroclor-1248	12672-29-6	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Aroclor-1254	11097-69-1	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Aroclor-1260	11096-82-5	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 21	< 20	< 20	< 20	< 20	< 20	< 21	< 21	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N
Parent Sample			SB-R-J8-021.0N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 370	< 350	< 350	< 360	< 360	< 360	< 380	< 370	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 350	< 370	< 350	< 350	< 360	< 360	< 360	< 380	< 370	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 370	< 350	< 350	< 360	< 360	< 360	< 380	< 370	< 330
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 350	< 370	< 350	< 350	< 360	< 360	< 360	< 380	< 370	< 330
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 150000	< 140000	< 140000	< 140000	< 140000	< 140000	< 150000	< 150000	< 130000
Nitroglycerin	55-63-0	ug/kg	< 6900	< 7400	< 6900	5200	< 7200	< 7100	< 7200	< 7500	< 7400	< 6600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 870	< 920	< 870	< 880	< 900	< 890	< 900	< 940	< 930	< 830
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 370	< 350	< 350	< 360	< 360	< 360	< 380	< 370	< 330
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.28	< 2.39	< 11.5	< 2.36	< 2.39	< 2.31	< 2.32	< 2.51	< 2.4	< 2.17
Arsenic	7440-38-2	mg/kg	4.81	3.82	< 11.5	7.28	3.79	3.94	4.83	5.81	6.07	14.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.829	0.798	0.855	0.872	0.866	0.744	0.661	0.832	0.802	0.673
Cadmium	7440-43-9	mg/kg	0.25	< 0.597	< 2.89	< 0.589	0.664	0.619	0.249	0.91	< 3	< 2.71
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	15.4	13.8	12.1	31.4	12.7	12.8	12.9	12.6	12.3	16.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6.77	22.3	5.47	32.1	8.39	5.76	8.69	9.76	10	12.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0286	0.019	0.0131	0.0959	0.0313	0.0079	0.039	0.0198	0.0423	0.0316
Nickel	7440-02-0	mg/kg	12.3	9.55	11.5	11.5	9.83	10.9	12.3	13	15.4	14.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.29	2.27	< 11.5	2.84	< 2.39	< 2.31	1.19	1.35	2.96	< 10.8

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N
Parent Sample			SB-R-J8-021.0N									
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.571	< 0.597	< 2.89	< 0.589	< 0.598	< 0.577	< 0.581	< 0.628	< 0.599	< 0.542
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.37	1.25	< 11.5	2.06	< 2.39	< 2.31	1.17	< 2.51	2.58	< 10.8
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	49.1	81.9	62.4	100	96.6	115	56.6	64.2	76.8	50
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	13.3	18.7	13.4	15.1	16.4	15.8	16.4	20.4	19	9.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-K10-03 0.8-1.3 ft 4/5/2006 N SB-R-K10-031.25N	SB-R-K10-04 0.5-1.0 ft 4/13/2006 N SB-R-K10-041.0N	SB-R-K5-01 0.5-1.0 ft 4/24/2006 N SB-R-K5-011N	SB-R-K5-02 0.5-1.0 ft 5/2/2006 N SB-R-K5-021.0N	SB-R-K6-01 0.5-1.0 ft 4/20/2006 N SB-R-K6-011.0N	SB-R-K6-02 0.5-1.0 ft 4/20/2006 N SB-R-K6-021.0N	SB-R-K6-04 0.5-1.0 ft 4/20/2006 N SB-R-K6-041.0N	SB-R-K7-01 0.5-1.0 ft 4/11/2006 N SB-R-K7-011.0N	SB-R-K7-02 1.0-1.5 ft 4/11/2006 N SB-R-K7-021.5N	SB-R-K7-03 1.0-1.5 ft 4/11/2006 N SB-R-K7-031.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3300	< 3100	< 3300	< 3000	< 2700	< 3000	< 2800	< 2700	< 2700	< 2900
Benzene	71-43-2	ug/kg	< 830	< 770	< 840	< 750	< 680	< 740	< 700	< 690	< 680	< 730
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 830	< 770	< 840	< 750	< 680	< 740	< 700	< 690	< 680	< 730
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K10-03	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02	SB-R-K6-01	SB-R-K6-02	SB-R-K6-04	SB-R-K7-01	SB-R-K7-02	SB-R-K7-03
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/5/2006	4/13/2006	4/24/2006	5/2/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-K10-031.25N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K6-041.0N	SB-R-K7-011.0N	SB-R-K7-021.5N	SB-R-K7-031.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 830	< 770	< 840	< 750	< 680	< 740	< 700	< 690	< 680	< 730
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 830	< 770	< 840	< 750	< 680	< 740	< 700	< 690	< 680	< 730
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2600	< 2400	< 2700	< 2500	< 2300	< 2300	< 2200	< 2200	< 2200	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K10-03	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02	SB-R-K6-01	SB-R-K6-02	SB-R-K6-04	SB-R-K7-01	SB-R-K7-02	SB-R-K7-03
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/5/2006	4/13/2006	4/24/2006	5/2/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-K10-031.25N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K6-041.0N	SB-R-K7-011.0N	SB-R-K7-021.5N	SB-R-K7-031.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 430	< 400	< 450	< 410	< 380	< 380	< 370	< 370	< 360	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K10-03	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02	SB-R-K6-01	SB-R-K6-02	SB-R-K6-04	SB-R-K7-01	SB-R-K7-02	SB-R-K7-03
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/5/2006	4/13/2006	4/24/2006	5/2/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-K10-031.25N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K6-041.0N	SB-R-K7-011.0N	SB-R-K7-021.5N	SB-R-K7-031.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 220	< 200	< 230	< 210	< 190	< 190	< 190	< 190	< 180	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Aroclor-1221	11104-28-2	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Aroclor-1232	11141-16-5	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Aroclor-1242	53469-21-9	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Aroclor-1248	12672-29-6	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Aroclor-1254	11097-69-1	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Aroclor-1260	11096-82-5	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 22	< 21	< 23	< 21	< 19	< 20	< 19	< 19	< 18	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K10-03	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02	SB-R-K6-01	SB-R-K6-02	SB-R-K6-04	SB-R-K7-01	SB-R-K7-02	SB-R-K7-03
Depths			0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			4/5/2006	4/13/2006	4/24/2006	5/2/2006	4/20/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-K10-031.25N	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N	SB-R-K6-011.0N	SB-R-K6-021.0N	SB-R-K6-041.0N	SB-R-K7-011.0N	SB-R-K7-021.5N	SB-R-K7-031.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 390	< 360	< 410	< 370	< 340	< 350	< 340	< 340	< 320	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 390	< 360	< 410	< 370	< 340	< 350	< 340	< 340	< 320	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 390	< 360	< 410	< 370	< 340	< 420	< 340	< 340	< 320	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 390	< 360	< 410	< 370	< 340	< 350	< 340	< 340	< 320	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 150000	< 160000	< 150000	< 140000	< 140000	< 140000	< 130000	< 130000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7800	< 7200	< 8200	< 7500	< 6800	< 6900	< 6700	< 6700	< 6500	< 6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 970	< 910	< 1000	< 930	< 860	< 1800	< 840	< 840	< 810	< 840
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 390	< 360	< 410	< 370	< 340	< 350	< 340	< 340	< 320	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.54	< 2.42	< 2.69	< 2.01	< 2.17	0.968	1.43	< 2.22	< 2.07	< 2.15
Arsenic	7440-38-2	mg/kg	7.08	6.25	2.11	2.93	4.53	4.34	10.7	17.9	1.3	2.23
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.865	0.864	0.599	0.878	0.737	0.747	0.813	0.583	0.635	0.738
Cadmium	7440-43-9	mg/kg	0.214	0.847	< 0.674	< 0.504	< 2.72	< 0.564	< 0.55	0.896	1	0.812
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.3	12	14.2	11.7	16.2	11.5	20.9	10.5	12.9	12.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	17.9	11.2	7.67	17.4	9.89	6.66	4.82	4.8	2.99	5.02
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0576	0.0476	0.0286	0.0717	0.0293	0.0226	0.0186	0.0143	0.0145	0.0157
Nickel	7440-02-0	mg/kg	14.6	15.2	9.49	11.4	13.2	12.9	10.7	9.47	6.16	10.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.74	< 2.42	< 2.69	< 2.01	< 2.17	< 2.26	< 2.2	< 2.22	< 2.07	< 2.15

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-K10-03 0.8-1.3 ft 4/5/2006 N SB-R-K10-031.25N	SB-R-K10-04 0.5-1.0 ft 4/13/2006 N SB-R-K10-041.0N	SB-R-K5-01 0.5-1.0 ft 4/24/2006 N SB-R-K5-011N	SB-R-K5-02 0.5-1.0 ft 5/2/2006 N SB-R-K5-021.0N	SB-R-K6-01 0.5-1.0 ft 4/20/2006 N SB-R-K6-011.0N	SB-R-K6-02 0.5-1.0 ft 4/20/2006 N SB-R-K6-021.0N	SB-R-K6-04 0.5-1.0 ft 4/20/2006 N SB-R-K6-041.0N	SB-R-K7-01 0.5-1.0 ft 4/11/2006 N SB-R-K7-011.0N	SB-R-K7-02 1.0-1.5 ft 4/11/2006 N SB-R-K7-021.5N	SB-R-K7-03 1.0-1.5 ft 4/11/2006 N SB-R-K7-031.5N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.634	0.319	< 0.674	< 0.504	< 0.544	< 0.564	< 0.55	0.287	0.236	0.217
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.54	2.23	< 2.69	1.37	2.33	< 2.26	1.22	< 2.22	< 2.07	1.54
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	71.3	58	110	123	72.3	71.6	88.2	71	50.2	82.3
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	22.7	17.2	26.5	19.7	12.4	13.1	10.8	11	7	10.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N
Parent Sample					SB-R-K8-021.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2800	< 2900	< 2700	< 3000	< 3100	< 3100	< 2900	< 3500	< 3200	< 3100
Benzene	71-43-2	ug/kg	< 700	< 710	< 670	< 750	< 770	< 770	< 730	< 870	< 800	< 790
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 700	< 710	< 670	< 750	< 770	< 770	< 730	< 870	< 800	< 790
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N
Parent Sample					SB-R-K8-021.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 700	< 710	< 670	< 750	< 770	< 770	< 730	< 870	< 800	< 790
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 700	< 710	< 670	< 750	< 770	< 770	< 730	< 870	< 800	< 790
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2300	< 2200	< 2200	< 2400	< 2400	< 2300	< 2500	< 2500	< 2500
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N
Parent Sample					SB-R-K8-021.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 180	310	130	< 180	< 200	79	< 190	< 210	75	54
Benzo[a]pyrene	50-32-8	ug/kg	< 180	320	130	< 180	< 200	86	< 190	< 210	68	41
Benzo[b]fluoranthene	205-99-2	ug/kg	< 180	430	220	< 180	41	140	< 190	< 210	220	92
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 180	220	77	< 180	< 200	58	< 190	< 210	83	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 360	< 390	< 370	< 370	< 400	< 400	< 380	< 410	< 420	< 410
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 180	380	150	< 180	< 200	92	< 190	< 210	220	140
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	55	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 180	210	89	< 180	< 200	63	< 190	< 210	49	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N
Parent Sample					SB-R-K8-021.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	140	< 190	< 180	< 180	< 200	< 200	< 190	< 210	< 210	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 19	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 22	< 21
Aroclor-1221	11104-28-2	ug/kg	< 19	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 22	< 21
Aroclor-1232	11141-16-5	ug/kg	< 19	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 22	< 21
Aroclor-1242	53469-21-9	ug/kg	< 19	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 22	< 21
Aroclor-1248	12672-29-6	ug/kg	< 19	< 20	< 19	< 19	< 20	< 21	< 20	< 21	< 22	< 21
Aroclor-1254	11097-69-1	ug/kg	< 19	< 20	44	< 19	< 20	< 21	< 20	< 21	< 22	< 21
Aroclor-1260	11096-82-5	ug/kg	< 19	< 20	< 19	< 19	< 20	8.3	< 20	< 21	< 22	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 20	44	< 19	< 20	8.3	< 20	< 21	< 22	< 21

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N
Parent Sample					SB-R-K8-021.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 350	< 330	< 330	< 360	< 360	< 350	< 370	< 380	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 350	< 330	< 330	< 360	< 360	< 350	< 370	< 380	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 350	< 330	< 330	< 360	< 360	< 350	< 370	< 380	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 350	< 330	< 330	< 360	< 360	< 350	< 370	< 380	< 370
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 140000	< 130000	< 130000	< 140000	< 150000	< 140000	< 150000	< 150000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 6600	< 7000	< 6600	< 6600	< 7200	< 7300	< 6900	< 7400	< 7600	< 7400
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 820	< 870	< 830	< 830	< 900	< 910	< 860	< 930	< 950	< 920
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 350	< 330	< 330	< 360	< 360	< 350	< 370	< 380	< 370
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.1	< 2.27	< 2.19	< 2.15	< 2.37	< 2.42	< 2.3	< 2.42	< 2.48	< 2.41
Arsenic	7440-38-2	mg/kg	3.14	4.41	2.76	5.49	5.27	9.01	4.07	5.8	278	39.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.588	0.525	0.476	0.0548	1.02	0.525	0.521	0.684	0.741	0.752
Cadmium	7440-43-9	mg/kg	< 2.68	< 0.568	< 0.548	< 2.69	< 2.96	< 0.605	0.214	0.206	0.181	< 0.602
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	15.9	13.4	12.5	18.7	12.2	24.4	13.6	19.4	17.7	15.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	7.37	30.3	22.7	8.17	11	19.5	8.59	9.95	18.5	36.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0322	0.051	0.0589	0.0246	0.028	0.0296	0.0322	0.0272	0.055	0.0752
Nickel	7440-02-0	mg/kg	9.38	6.89	6.63	7.79	16.7	16.7	13.8	14	16.8	12.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.1	1.27	< 2.19	< 2.15	1.15	2.28	< 2.3	1.82	1.7	5.77

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N
Parent Sample					SB-R-K8-021.0N							
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	0.292	< 0.568	< 0.548	< 0.538	0.276	< 0.605	< 0.576	< 0.605	< 0.621	< 0.602
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.05	< 2.27	< 11	3.42	< 2.37	1.95	< 2.3	< 2.42	< 2.48	2.28
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	81.4	40.4	46.5	26.7	66.6	61.2	59.6	54.8	65.3	53.3
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	8.6	13.7	9.7	9.7	16.4	17.3	13.2	19	21	18.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01
Depths			0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006	3/29/2006	4/21/2006	4/13/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N
Parent Sample							SB-R-L10-041.0N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 2800	< 2900	< 3200	< 2600	< 2900	< 2600	< 2800	< 2900	< 2900
Benzene	71-43-2	ug/kg	< 740	< 700	< 730	< 810	< 640	< 720	< 650	< 700	< 720	< 740
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 740	< 700	< 730	< 810	< 640	< 720	< 650	< 700	< 720	< 740
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01
Depths			0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006	3/29/2006	4/21/2006	4/13/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N
Parent Sample							SB-R-L10-041.0N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 740	< 700	< 730	< 810	< 640	< 720	< 650	< 700	< 720	< 740
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 740	< 700	< 730	< 810	< 640	< 720	< 650	< 700	< 720	< 740
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	< 180	< 190	< 190	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2500	< 2300	< 2200	< 2200	< 2200	< 2200	< 2200	< 2300	< 2300	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	360	< 190	< 190	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	240	< 190	< 190	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01
Depths			0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006	3/29/2006	4/21/2006	4/13/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N
Parent Sample							SB-R-L10-041.0N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 210	170	< 190	< 180	< 180	< 180	10000	100	< 190	< 200
Benzo[a]pyrene	50-32-8	ug/kg	< 210	210	< 190	< 180	< 180	< 180	8400	92	< 190	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	< 210	380	< 190	< 180	< 180	< 180	12000	160	< 190	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 210	140	< 190	< 180	< 180	< 180	4400	49	< 190	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	95	< 380	< 370	< 370	< 360	< 370	100	< 380	< 380	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	< 180	< 190	< 190	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 210	250	< 190	< 180	< 180	< 180	8400	180	< 190	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	1600	< 190	< 190	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	160	< 190	< 190	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 210	320	< 190	< 180	< 180	1400	1200	< 190	< 190	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 210	160	< 190	< 180	< 180	< 180	5400	67	< 190	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01
Depths			0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006	3/29/2006	4/21/2006	4/13/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N
Parent Sample							SB-R-L10-041.0N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 210	< 190	< 190	< 180	< 180	< 180	< 180	< 190	< 190	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 210	< 190	< 190	< 180	< 180	130	330	< 190	< 190	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 21	< 20	< 19	< 19	< 18	< 19	< 19	< 19	< 20	< 20
Aroclor-1221	11104-28-2	ug/kg	< 21	< 20	< 19	< 19	< 18	< 19	< 19	< 19	< 20	< 20
Aroclor-1232	11141-16-5	ug/kg	< 21	< 20	< 19	< 19	< 18	< 19	< 19	< 19	< 20	< 20
Aroclor-1242	53469-21-9	ug/kg	< 21	< 20	< 19	< 19	< 18	< 19	< 19	< 19	< 20	< 20
Aroclor-1248	12672-29-6	ug/kg	< 21	< 20	< 19	< 19	< 18	< 19	< 19	< 19	< 20	< 20
Aroclor-1254	11097-69-1	ug/kg	< 21	17	< 19	< 19	< 18	< 19	58	< 19	< 20	< 20
Aroclor-1260	11096-82-5	ug/kg	< 21	9.6	< 19	< 19	< 18	< 19	18	< 19	< 20	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	< 21	26.6	< 19	< 19	< 18	< 19	76	< 19	< 20	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01
Depths			0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006	3/29/2006	4/21/2006	4/13/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N
Parent Sample							SB-R-L10-041.0N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 370	< 340	< 340	< 330	< 320	< 330	< 330	< 340	< 350	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 370	< 340	< 340	< 330	< 320	< 330	< 330	< 340	< 350	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 370	< 340	< 340	< 330	< 320	< 330	< 330	< 340	< 350	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 370	< 340	< 340	< 330	< 320	< 330	< 330	< 340	< 350	< 350
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 140000	< 130000	< 130000	< 130000	140000	< 130000	< 140000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7500	< 6900	< 6700	< 6700	< 6500	< 6600	4800	< 6800	< 6900	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 930	< 860	< 840	< 830	< 810	< 820	< 830	< 850	< 870	< 880
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 370	< 340	< 340	< 330	< 320	< 330	< 330	< 340	< 350	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.39	< 2.27	< 2.16	< 2.17	< 2.14	< 2.11	< 2.14	0.934	1.39	< 2.36
Arsenic	7440-38-2	mg/kg	5.57	5.26	2.83	4.99	2.42	4.77	20	8.52	1.8	3.85
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.774	0.556	0.67	0.642	0.637	0.719	0.56	0.49	0.62	0.788
Cadmium	7440-43-9	mg/kg	0.88	0.955	< 2.7	< 2.72	< 2.67	< 0.527	0.968	< 0.559	< 0.571	28.1
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	12.1	22.2	12.3	11.4	13.3	16.3	41	128	14.5	9.12
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	17.3	57.5	7.99	9.87	9.48	7.52	41.8	852	13.4	7.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0418	0.104	0.0255	0.0173	0.0145	0.0053	0.0316	0.171	0.0229	0.0407
Nickel	7440-02-0	mg/kg	12.5	9.25	12.6	8.5	9.03	8.2	10.3	15.5	9.13	10.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.39	1.17	< 2.16	< 2.17	< 2.14	< 2.11	< 2.14	< 2.24	< 2.28	< 2.36

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01
Depths			0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006	3/29/2006	4/21/2006	4/13/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N
Parent Sample							SB-R-L10-041.0N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.597	< 0.568	0.268	< 0.543	0.235	0.248	< 0.535	< 0.559	< 0.571	0.269
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.39	< 2.27	1.43	1.15	< 2.14	< 2.11	< 2.14	< 2.24	2.83	< 2.36
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	58.9	111	52	39.5	75.1	51.1	59.9	741	98.2	92.3
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	19.5	12.9	11	9.8	7.4	8.8	9.2	11.5	13.3	15.1
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01	SB-R-L8-01	SB-R-L8-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/21/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006	3/30/2006	4/6/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-L6-021.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N	SB-R-L8-011.5N	SB-R-L8-021.0N
Parent Sample					SB-R-L6-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2600	< 3300	< 3000	< 2900	< 2900	< 3200	< 2900	< 3100	< 3000	< 2700	< 2800
Benzene	71-43-2	ug/kg	< 640	< 820	< 750	< 730	< 730	< 790	< 730	97	< 740	< 680	< 700
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 640	< 820	< 750	< 730	< 730	< 790	< 730	< 780	< 740	< 680	< 700
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-L6-02 0.5-1.0 ft 4/13/2006 N SB-R-L6-021.0N	SB-R-L6-03 0.5-1.0 ft 4/21/2006 N SB-R-L6-031.0N	SB-R-L6-03 0.5-1.0 ft 4/21/2006 FD SB-R-L6-031.0FD SB-R-L6-031.0N	SB-R-L6-04 1.0-1.5 ft 4/21/2006 N SB-R-L6-041.5N	SB-R-L7-01 0.5-1.0 ft 4/13/2006 N SB-R-L7-011.0N	SB-R-L7-02 0.5-1.0 ft 4/13/2006 N SB-R-L7-021.0N	SB-R-L7-03 0.5-1.0 ft 4/13/2006 N SB-R-L7-031.0N	SB-R-L7-04 0.5-1.0 ft 4/13/2006 N SB-R-L7-041.0N	SB-R-L8-01 0.5-1.0 ft 3/30/2006 N SB-R-L8-011.0N	SB-R-L8-01 1.0-1.5 ft 3/30/2006 N SB-R-L8-011.5N	SB-R-L8-02 0.5-1.0 ft 4/6/2006 N SB-R-L8-021.0N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 640	< 820	< 750	< 730	< 730	< 790	< 730	< 780	< 740	< 680	< 700
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 640	< 820	< 750	< 730	< 730	< 790	< 730	< 780	< 740	< 680	< 700
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2400	< 2300	< 2200	< 2300	< 2600	< 2400	< 2500	< 2400	< 2100	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01	SB-R-L8-01	SB-R-L8-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/21/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006	3/30/2006	4/6/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-L6-021.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N	SB-R-L8-011.5N	SB-R-L8-021.0N
Parent Sample					SB-R-L6-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	72	< 200	< 190	< 190	< 190	< 220	< 200	130	< 200	< 170	< 180
Benzo[a]pyrene	50-32-8	ug/kg	50	< 200	< 190	< 190	< 190	< 220	< 200	210	< 200	< 170	< 180
Benzo[b]fluoranthene	205-99-2	ug/kg	96	< 200	< 190	< 190	< 190	51	< 200	260	< 200	< 170	< 180
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	51	< 200	< 190	< 190	< 190	< 220	< 200	130	< 200	< 170	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 400	< 380	< 370	< 390	< 430	< 400	< 410	< 390	< 350	< 360
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	99	< 200	< 190	< 190	< 190	< 220	< 200	250	< 200	< 170	< 180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	120	< 200	< 170	< 180
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01	SB-R-L8-01	SB-R-L8-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/21/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006	3/30/2006	4/6/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-L6-021.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N	SB-R-L8-011.5N	SB-R-L8-021.0N
Parent Sample					SB-R-L6-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 200	< 190	< 190	< 190	< 220	< 200	< 210	< 200	< 170	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	57	< 200	< 190	< 190	< 190	140	< 200	< 210	< 200	< 170	< 180
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	< 20	< 21	< 20	< 18	< 18
Aroclor-1221	11104-28-2	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	< 20	< 21	< 20	< 18	< 18
Aroclor-1232	11141-16-5	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	< 20	< 21	< 20	< 18	< 18
Aroclor-1242	53469-21-9	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	< 20	< 21	< 20	< 18	< 18
Aroclor-1248	12672-29-6	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	< 20	< 21	< 20	< 18	< 18
Aroclor-1254	11097-69-1	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	< 20	15	< 20	< 18	< 18
Aroclor-1260	11096-82-5	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	10	26	< 20	< 18	< 18
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 20	< 19	< 19	< 20	< 22	10	41	< 20	< 18	< 18

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01	SB-R-L8-01	SB-R-L8-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/21/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006	3/30/2006	4/6/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-L6-021.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N	SB-R-L8-011.5N	SB-R-L8-021.0N
Parent Sample					SB-R-L6-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 340	< 360	< 340	< 330	< 350	< 390	< 360	< 370	< 350	< 310	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 340	< 360	< 340	< 330	< 350	< 390	< 360	< 370	< 350	< 310	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 340	< 360	< 340	< 330	< 350	< 390	< 360	< 370	< 350	< 310	< 330
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 340	< 360	< 340	< 330	< 350	< 390	< 360	< 370	< 350	< 310	< 330
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 140000	< 130000	< 140000	170000	< 140000	< 150000	< 140000	< 120000	< 130000
Nitroglycerin	55-63-0	ug/kg	< 6800	< 7200	< 6900	< 6700	< 7000	< 7800	< 7100	5100	< 7100	< 6300	< 6500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 840	< 900	< 860	< 840	< 880	< 970	< 890	< 930	< 880	< 780	< 810
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 340	< 360	< 340	< 330	< 350	< 390	< 360	< 370	< 350	< 310	< 330
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.25	1.36	1.41	1.89	< 2.32	< 2.54	< 2.31	< 2.4	< 2.36	< 2.04	< 2.17
Arsenic	7440-38-2	mg/kg	20.4	4.24	4.58	3.41	2.67	8.29	2.61	7.75	70.1	12.4	7.01
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.199	0.884	0.76	0.729	0.662	1.15	0.775	0.756	0.0566	0.237	0.266
Cadmium	7440-43-9	mg/kg	0.113	< 2.96	0.489	0.525	< 2.9	< 3.17	< 2.91	< 3.03	< 2.95	< 2.55	< 2.71
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	27.1	11.4	12	18.3	12.4	12.6	12.7	20.6	13.2	12.1	16.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	44.5	6.8	6.67	3.41	7.22	19.1	15.8	66.1	15.1	3.78	12.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.497	0.0058	0.0168	0.0206	0.0147	0.0758	0.0602	0.162	0.0255	0.0046	0.0174
Nickel	7440-02-0	mg/kg	8.88	12.3	11	8.47	12.8	9.51	10.1	9.37	6.89	5.75	8.44
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.3	< 2.37	< 2.22	< 2.14	< 2.32	< 2.54	< 2.31	< 2.4	6.48	< 10.2	< 2.17

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01	SB-R-L8-01	SB-R-L8-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/13/2006	4/21/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006	3/30/2006	4/6/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N	N
Sample Name			SB-R-L6-021.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N	SB-R-L8-011.5N	SB-R-L8-021.0N
Parent Sample					SB-R-L6-031.0N								
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.563	< 0.592	< 0.556	< 0.536	0.294	0.489	0.354	0.484	< 0.59	< 0.511	< 0.543
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.25	2.32	2.68	2.42	< 2.32	1.34	1.86	< 2.4	< 11.8	< 10.2	2.93
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	50.5	67.8	56.1	121	102	89.4	111	115	59.1	60.3	84.8
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	11.2	16.4	12.7	10.3	14.5	22.8	15.8	19.1	15.2	4	7.9
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-01	SB-R-L9-01	SB-R-L9-02	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/6/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-011.5N	SB-R-L9-011.5FD	SB-R-L9-021.0N	SB-R-L9-021.5N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N
Parent Sample							SB-R-L9-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2800	< 3000	< 3600	< 3400	< 3200	< 3000	< 2900	< 3200	< 3100	< 3000
Benzene	71-43-2	ug/kg	< 710	< 750	< 910	< 840	< 800	< 750	< 730	< 810	< 770	< 750
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 710	< 750	< 910	< 840	< 800	< 750	< 730	< 810	< 770	< 750
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-01	SB-R-L9-01	SB-R-L9-02	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/6/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-011.5N	SB-R-L9-011.5FD	SB-R-L9-021.0N	SB-R-L9-021.5N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N
Parent Sample							SB-R-L9-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 710	< 750	< 910	< 840	< 800	< 750	< 730	< 810	< 770	< 750
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 710	< 750	< 910	< 840	< 800	< 750	< 730	< 810	< 770	< 750
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2200	< 2600	< 2400	< 2400	< 2400	< 2300	< 2500	< 2600	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-01	SB-R-L9-01	SB-R-L9-02	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/6/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-011.5N	SB-R-L9-011.5FD	SB-R-L9-021.0N	SB-R-L9-021.5N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N
Parent Sample							SB-R-L9-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	1800	< 220	< 200	< 200	< 200	< 190	< 210	< 210	7600
Benzo[a]pyrene	50-32-8	ug/kg	< 200	2000	< 220	< 200	< 200	40	< 190	< 210	< 210	6100
Benzo[b]fluoranthene	205-99-2	ug/kg	< 200	3300	< 220	< 200	< 200	74	< 190	< 210	< 210	7700
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	1200	< 220	< 200	< 200	< 200	< 190	< 210	< 210	3400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 370	< 430	< 400	< 400	< 390	< 380	< 420	< 430	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	2000	< 220	< 200	< 200	78	< 190	< 210	< 210	6100
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	460	< 220	< 200	< 200	< 200	< 190	< 210	< 210	1300
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	150
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	1700	< 220	< 200	< 200	< 200	< 190	< 210	< 210	4000
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-01	SB-R-L9-01	SB-R-L9-02	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/6/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-011.5N	SB-R-L9-011.5FD	SB-R-L9-021.0N	SB-R-L9-021.5N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N
Parent Sample							SB-R-L9-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 200	< 180	< 220	< 200	< 200	< 200	< 190	< 210	< 210	290
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Aroclor-1221	11104-28-2	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Aroclor-1232	11141-16-5	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Aroclor-1242	53469-21-9	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Aroclor-1248	12672-29-6	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Aroclor-1254	11097-69-1	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Aroclor-1260	11096-82-5	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 19	< 22	< 20	< 20	< 20	< 19	< 21	< 22	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-01	SB-R-L9-01	SB-R-L9-02	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/6/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-011.5N	SB-R-L9-011.5FD	SB-R-L9-021.0N	SB-R-L9-021.5N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N
Parent Sample							SB-R-L9-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360	< 330	< 390	< 360	< 360	< 350	< 340	< 370	< 380	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 330	< 390	< 360	< 360	< 350	< 340	< 370	< 380	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 330	< 390	< 360	< 360	< 350	< 340	< 370	< 380	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 330	< 390	< 360	< 360	< 350	< 340	< 370	< 380	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 130000	< 150000	< 140000	< 140000	< 140000	< 140000	< 150000	< 150000	< 130000
Nitroglycerin	55-63-0	ug/kg	< 7100	< 6700	< 7800	< 7100	< 7200	< 7100	< 6800	< 7500	< 7700	130000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 890	< 830	< 970	< 890	< 900	< 890	< 850	< 940	< 960	< 850
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 330	< 390	< 360	< 360	< 350	< 340	< 370	< 380	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.35	< 2.13	< 2.53	< 2.33	< 2.33	< 2.34	< 2.25	< 2.47	< 2.48	< 2.24
Arsenic	7440-38-2	mg/kg	3.02	6.34	6.79	5.95	1.09	8.35	6.4	3.78	5.49	4.72
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.397	0.629	0.885	0.67	0.727	0.65	0.69	0.803	0.93	0.44
Cadmium	7440-43-9	mg/kg	< 2.94	< 2.67	< 0.633	< 0.582	< 0.583	< 0.585	< 0.563	< 3.09	< 0.619	< 0.561
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	8.69	13.5	10.7	11.2	10.8	14	15	8.65	9.37	15.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	10.6	9.41	19.9	12.9	13	17.9	8.36	11.4	10.5	54.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0176	0.0062	0.0459	0.0389	0.0374	0.0452	0.0244	0.0156	0.0505	0.0568
Nickel	7440-02-0	mg/kg	8.85	8.11	14.3	13.6	13.2	13.8	16.1	11.9	12.8	10.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.35	< 2.13	2.86	1.98	< 2.33	2.54	2.44	< 2.47	< 2.48	< 2.24

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-L8-03	SB-R-L8-04	SB-R-L9-01	SB-R-L9-01	SB-R-L9-01	SB-R-L9-02	SB-R-L9-02	SB-R-L9-03	SB-R-L9-04	SB-R-M10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/6/2006	4/12/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/12/2006	4/28/2006	3/29/2006
Sample Type			N	N	N	N	FD	N	N	N	N	N
Sample Name			SB-R-L8-031.0N	SB-R-L8-041.0N	SB-R-L9-011.0N	SB-R-L9-011.5N	SB-R-L9-011.5FD	SB-R-L9-021.0N	SB-R-L9-021.5N	SB-R-L9-031.0N	SB-R-L9-041.0N	SB-R-M10-011.0N
Parent Sample							SB-R-L9-011.5N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.589	0.277	< 0.633	< 0.582	< 0.583	0.864	< 0.563	0.377	< 0.619	< 0.561
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.35	< 2.13	1.99	1.73	< 2.33	1.17	2.08	< 2.47	1.85	1.26
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	76.6	82.1	96.2	63	91.7	53.4	58.9	75.6	69.7	110
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	15.9	9.8	22.6	15.8	16.8	15.4	12.1	19.9	21.6	11.7
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M10-02	SB-R-M10-03	SB-R-M7-01	SB-R-M7-02	SB-R-M7-03	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M9-04
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			3/30/2006	4/28/2006	4/17/2006	4/17/2006	4/27/2006	4/6/2006	3/29/2006	3/30/2006	3/30/2006	4/13/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M10-021.0N	SB-R-M10-031.5N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M7-031.25N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M9-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3100	< 2900	< 3300	< 3200	< 3500	< 2800	< 2600	< 3000	< 2800	< 3000
Benzene	71-43-2	ug/kg	< 770	< 740	< 820	< 790	< 880	< 710	< 660	< 750	< 710	< 760
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 770	< 740	< 820	< 790	< 880	< 710	< 660	< 750	< 710	< 760
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M10-02	SB-R-M10-03	SB-R-M7-01	SB-R-M7-02	SB-R-M7-03	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M9-04
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			3/30/2006	4/28/2006	4/17/2006	4/17/2006	4/27/2006	4/6/2006	3/29/2006	3/30/2006	3/30/2006	4/13/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M10-021.0N	SB-R-M10-031.5N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M7-031.25N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M9-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 770	< 740	< 820	< 790	< 880	< 710	< 660	< 750	< 710	< 760
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 770	< 740	< 820	< 790	< 880	< 710	< 660	< 750	< 710	< 760
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 210	< 190	< 200	< 210	< 220	< 190	< 170	< 200	< 180	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2500	< 2300	< 2400	< 2500	< 2700	< 2300	< 2100	< 2400	< 2200	< 2500
2,4-Dinitrotoluene	121-14-2	ug/kg	< 210	< 190	< 200	< 210	1400	< 190	< 170	150000	< 180	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	< 210	< 190	< 200	< 210	130	< 190	< 170	6700	< 180	< 210
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M10-02	SB-R-M10-03	SB-R-M7-01	SB-R-M7-02	SB-R-M7-03	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M9-04
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			3/30/2006	4/28/2006	4/17/2006	4/17/2006	4/27/2006	4/6/2006	3/29/2006	3/30/2006	3/30/2006	4/13/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M10-021.0N	SB-R-M10-031.5N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M7-031.25N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M9-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 210	< 190	< 200	63	< 220	220	41000	54	190	< 210
Benzo[a]pyrene	50-32-8	ug/kg	< 210	< 190	< 200	62	< 220	240	32000	74	180	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	< 210	< 190	< 200	94	< 220	350	47000	160	260	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 210	< 190	< 200	< 210	< 220	140	16000	40	120	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 420	< 390	< 390	< 420	< 450	< 380	< 350	< 400	< 370	< 420
Butylbenzylphthalate	85-68-7	ug/kg	< 210	< 190	< 200	< 210	< 220	< 190	< 170	< 200	< 180	< 210
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 210	< 190	< 200	120	< 220	270	35000	78	270	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 210	< 190	< 200	< 210	< 220	43	6500	< 200	< 180	< 210
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 210	< 190	< 200	< 210	< 220	< 190	< 170	< 200	< 180	< 210
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 210	< 190	< 200	< 210	210	< 190	< 170	< 200	< 180	< 210
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 210	< 190	< 200	< 210	< 220	170	20000	50	120	< 210
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M10-02	SB-R-M10-03	SB-R-M7-01	SB-R-M7-02	SB-R-M7-03	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M9-04
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			3/30/2006	4/28/2006	4/17/2006	4/17/2006	4/27/2006	4/6/2006	3/29/2006	3/30/2006	3/30/2006	4/13/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M10-021.0N	SB-R-M10-031.5N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M7-031.25N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M9-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 210	< 190	< 200	< 210	< 220	< 190	< 170	< 200	< 180	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 210	< 190	< 200	< 210	650	210	310	13000	< 180	< 210
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 21	< 20	< 20	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Aroclor-1221	11104-28-2	ug/kg	< 21	< 20	< 20	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Aroclor-1232	11141-16-5	ug/kg	< 21	< 20	< 20	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Aroclor-1242	53469-21-9	ug/kg	< 21	< 20	< 20	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Aroclor-1248	12672-29-6	ug/kg	< 21	< 20	< 20	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Aroclor-1254	11097-69-1	ug/kg	< 21	< 20	< 20	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Aroclor-1260	11096-82-5	ug/kg	< 21	< 20	23	< 21	< 23	< 19	< 18	< 20	< 19	< 21
Polychlorinated biphenyls	1336-36-3	ug/kg	< 21	< 20	23	< 21	< 23	< 19	< 18	< 20	< 19	< 21

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M10-02	SB-R-M10-03	SB-R-M7-01	SB-R-M7-02	SB-R-M7-03	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M9-04
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			3/30/2006	4/28/2006	4/17/2006	4/17/2006	4/27/2006	4/6/2006	3/29/2006	3/30/2006	3/30/2006	4/13/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M10-021.0N	SB-R-M10-031.5N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M7-031.25N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M9-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 380	< 350	< 350	< 380	< 400	< 340	< 310	< 360	< 330	< 370
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 380	< 350	< 350	< 380	< 400	< 340	< 310	< 360	< 330	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 380	< 350	< 350	< 380	< 400	< 340	< 310	< 360	< 330	< 370
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 380	< 350	< 350	< 380	< 400	< 340	< 310	< 360	< 330	< 370
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 140000	< 140000	< 150000	< 160000	54000	< 120000	< 140000	< 130000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 7500	< 7000	< 7100	< 7500	< 8000	< 6800	< 6300	< 7100	< 6600	< 7500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 940	< 870	< 880	< 940	< 1000	< 850	< 790	< 890	< 830	< 940
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 380	< 350	< 350	< 380	< 400	240	< 310	< 360	< 330	< 370
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.42	< 2.23	< 2.31	< 2.47	< 2.59	< 2.19	< 2.01	< 2.37	< 2.14	< 2.47
Arsenic	7440-38-2	mg/kg	3.77	5.87	5.31	13	4.04	18	2.73	3.27	3.78	9.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.438	0.762	0.329	0.935	0.171	0.287	0.402	0.297	0.518	0.975
Cadmium	7440-43-9	mg/kg	< 0.604	< 0.557	< 0.577	< 0.617	< 0.648	< 2.74	0.212	< 0.593	< 0.536	< 3.03
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	6.61	14	15.6	28.2	13.5	22.4	11.5	24.5	14.3	21.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	16.3	16.2	24.6	159	21.7	50.4	14.2	46.2	7.41	11.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0199	0.0329	0.624	0.171	0.1	0.0453	0.0217	0.0721	0.0431	0.0424
Nickel	7440-02-0	mg/kg	6.06	13.6	10.2	13	10.1	10.9	5.52	6.02	12.8	20.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.42	< 2.23	< 2.31	< 2.47	< 2.59	< 2.19	< 2.01	< 2.37	1.57	< 2.47

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M10-02	SB-R-M10-03	SB-R-M7-01	SB-R-M7-02	SB-R-M7-03	SB-R-M8-01	SB-R-M9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M9-04
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			3/30/2006	4/28/2006	4/17/2006	4/17/2006	4/27/2006	4/6/2006	3/29/2006	3/30/2006	3/30/2006	4/13/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M10-021.0N	SB-R-M10-031.5N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-M7-031.25N	SB-R-M8-011.0N	SB-R-M9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M9-041.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.604	< 0.557	< 0.577	< 0.617	< 0.648	< 0.548	< 0.503	< 0.593	< 0.536	0.456
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.42	1.54	< 2.31	1.9	< 2.59	2.8	< 2.01	< 2.37	1.55	1.51
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	32.8	103	56.4	57.1	35.1	73.8	35.4	170	56.8	80.3
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	20.4	13.7	15.1	20.5	25.1	12.2	4.5	15.7	9.4	19.8
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3200	< 13000	< 3000	< 4500	NA	< 3000	< 2800	< 2700	< 3100	< 3100
Benzene	71-43-2	ug/kg	< 790	< 3200	< 750	< 1100	NA	< 760	< 700	< 670	< 780	< 780
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 790	< 3200	< 750	< 1100	NA	< 760	< 700	< 670	< 780	< 780
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 790	< 3200	< 750	< 1100	NA	< 760	< 700	< 670	< 780	< 780
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 790	< 3200	< 750	< 1100	NA	< 760	< 700	< 670	< 780	< 780
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2500	< 9300	< 2500	NA	< 3400	< 2300	< 2300	< 2200	< 2500	< 2500
2,4-Dinitrotoluene	121-14-2	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	47	< 200	< 210
Benzo[a]pyrene	50-32-8	ug/kg	< 210	< 780	< 210	NA	61	< 190	< 190	67	< 200	< 210
Benzo[b]fluoranthene	205-99-2	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	78	< 200	< 210
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	41	< 200	< 210
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 420	< 1600	< 410	NA	< 560	< 390	< 390	< 370	< 410	< 420
Butylbenzylphthalate	85-68-7	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	60	< 200	< 210
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	55	< 200	< 210
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 210	< 780	< 210	NA	< 280	< 190	< 190	< 180	< 200	< 210
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 21	< 79	< 21	< 24	NA	< 20	< 20	< 19	< 21	< 21
Aroclor-1221	11104-28-2	ug/kg	< 21	< 79	< 21	< 24	NA	< 20	< 20	< 19	< 21	< 21
Aroclor-1232	11141-16-5	ug/kg	< 21	< 79	< 21	< 24	NA	< 20	< 20	< 19	< 21	< 21
Aroclor-1242	53469-21-9	ug/kg	< 21	< 79	< 21	< 24	NA	< 20	< 20	< 19	< 21	< 21
Aroclor-1248	12672-29-6	ug/kg	< 21	< 79	< 21	< 24	NA	< 20	< 20	< 19	< 21	< 21
Aroclor-1254	11097-69-1	ug/kg	< 21	< 79	< 21	< 24	NA	< 20	< 20	< 19	< 21	< 21
Aroclor-1260	11096-82-5	ug/kg	< 21	< 79	< 21	< 24	NA	9.3	< 20	6.9	< 21	8.7
Polychlorinated biphenyls	1336-36-3	ug/kg	< 21	< 79	< 21	< 24	NA	9.3	< 20	6.9	< 21	8.7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 380	< 1400	< 370	< 430	NA	< 350	< 350	< 330	< 370	< 380
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 380	< 1400	< 370	< 430	NA	< 350	< 350	< 330	< 370	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 380	< 1400	< 370	< 430	NA	< 350	< 350	< 330	< 370	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 380	< 2800	< 370	< 430	NA	< 350	< 350	< 660	< 370	< 380
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 560000	< 150000	< 170000	NA	< 140000	< 140000	< 130000	< 150000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 7500	< 28000	< 7500	< 8500	NA	< 6900	< 6900	< 6600	< 7400	< 7600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 940	< 3500	< 930	< 1100	NA	< 870	< 870	< 830	< 920	< 950
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 380	470	< 370	< 430	NA	120	< 350	< 330	< 370	< 380
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.43	< 9.35	< 2.48	NA	< 1.97	< 9.96	< 2.25	1.66	1.45	< 2.5
Arsenic	7440-38-2	mg/kg	5.64	< 9.35	2.19	NA	1.74	7.92	2.53	6.26	5.96	3.81
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.785	< 2.34	< 0.621	NA	0.522	0.957	0.708	0.799	0.768	0.256
Cadmium	7440-43-9	mg/kg	< 0.608	0.481	0.24	NA	0.164	< 2.49	< 0.562	< 0.543	< 0.59	0.312
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	10.6	17.6	8.3	NA	16	33.5	7.7	18	19.3	17.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	10.1	14.4	14	NA	8.68	8.39	5.87	30.4	7.51	18.9
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0413	0.184	0.0252	NA	0.0493	0.0368	0.0166	0.0964	0.0189	0.0633
Nickel	7440-02-0	mg/kg	13.4	4.59	3.48	NA	10.8	18.1	9.86	11.9	13.5	13.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.43	< 9.35	< 2.48	NA	< 1.97	< 9.96	< 2.25	< 2.17	< 2.36	< 2.5

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-M9-05	SB-R-N4-02	SB-R-N5-01	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/28/2006	8/3/2006	4/27/2006	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-M9-051.0N	SB-R-N4-021.0N	SB-R-N5-011.0N	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.608	< 2.34	< 0.621	NA	< 0.492	< 2.49	< 0.562	< 0.543	< 0.59	< 0.624
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	2.15	< 9.35	< 2.48	NA	< 1.97	< 9.96	1.47	< 2.17	2.21	< 2.5
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	83.2	63.2	21.7	NA	60.5	113	69.1	124	82.7	88.7
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	20.2	78.6	19.5	29.5	3.3	13.6	13.6	9.7	18.5	20.7
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03	SB-R-O5-01	SB-R-O5-02	SB-R-O5-03	SB-R-O5-03	SB-R-O5-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	5/2/2006
Sample Type			N	N	N	N	N	N	N	N	FD	N
Sample Name			SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N	SB-R-O5-011.0N	SB-R-O5-021.5N	SB-R-O5-031.0N	SB-R-O5-031.0FD	SB-R-O5-041.0N
Parent Sample											SB-R-O5-031.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 3200	< 3500	< 3400	< 2900	< 3000	< 2900	< 3000	< 2900	< 3000	< 3700
Benzene	71-43-2	ug/kg	< 810	< 880	< 850	< 710	< 750	< 730	< 750	< 720	< 750	< 930
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 810	< 880	< 850	< 710	< 750	< 730	< 750	< 720	< 750	< 930
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03	SB-R-O5-01	SB-R-O5-02	SB-R-O5-03	SB-R-O5-03	SB-R-O5-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	5/2/2006
Sample Type			N	N	N	N	N	N	N	N	FD	N
Sample Name			SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N	SB-R-O5-011.0N	SB-R-O5-021.5N	SB-R-O5-031.0N	SB-R-O5-031.0FD	SB-R-O5-041.0N
Parent Sample											SB-R-O5-031.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 810	< 880	< 850	< 710	< 750	< 730	< 750	< 720	< 750	< 930
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 810	< 880	< 850	< 710	< 750	< 730	< 750	< 720	< 750	< 930
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2900	< 2400	< 2300	< 2300	< 2300	< 2400	< 2200	< 2300	< 2700
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03	SB-R-O5-01	SB-R-O5-02	SB-R-O5-03	SB-R-O5-03	SB-R-O5-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	5/2/2006
Sample Type			N	N	N	N	N	N	N	N	FD	N
Sample Name			SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N	SB-R-O5-011.0N	SB-R-O5-021.5N	SB-R-O5-031.0N	SB-R-O5-031.0FD	SB-R-O5-041.0N
Parent Sample											SB-R-O5-031.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	53	< 240	170	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Benzo[a]pyrene	50-32-8	ug/kg	64	< 240	180	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Benzo[b]fluoranthene	205-99-2	ug/kg	120	< 240	250	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	52	< 240	120	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 480	< 400	< 380	< 390	< 390	< 400	< 370	< 380	< 460
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	110	< 240	190	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 240	47	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	48	< 240	130	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03	SB-R-O5-01	SB-R-O5-02	SB-R-O5-03	SB-R-O5-03	SB-R-O5-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	5/2/2006
Sample Type			N	N	N	N	N	N	N	N	FD	N
Sample Name			SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N	SB-R-O5-011.0N	SB-R-O5-021.5N	SB-R-O5-031.0N	SB-R-O5-031.0FD	SB-R-O5-041.0N
Parent Sample											SB-R-O5-031.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 240	< 200	< 190	< 190	< 200	< 200	< 190	< 190	< 230
N-Nitrosodiphenylamine	86-30-6	ug/kg	270	< 240	42	< 190	< 190	< 200	< 200	< 190	< 190	< 230
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 24	< 20	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Aroclor-1221	11104-28-2	ug/kg	< 20	< 24	< 20	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Aroclor-1232	11141-16-5	ug/kg	< 20	< 24	< 20	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Aroclor-1242	53469-21-9	ug/kg	< 20	< 24	< 20	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Aroclor-1248	12672-29-6	ug/kg	< 20	< 24	< 20	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Aroclor-1254	11097-69-1	ug/kg	< 20	< 24	72	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Aroclor-1260	11096-82-5	ug/kg	< 20	< 24	28	< 20	< 20	< 20	< 20	< 19	< 19	< 23
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 24	100	< 20	< 20	< 20	< 20	< 19	< 19	< 23

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03	SB-R-O5-01	SB-R-O5-02	SB-R-O5-03	SB-R-O5-03	SB-R-O5-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	5/2/2006
Sample Type			N	N	N	N	N	N	N	N	FD	N
Sample Name			SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N	SB-R-O5-011.0N	SB-R-O5-021.5N	SB-R-O5-031.0N	SB-R-O5-031.0FD	SB-R-O5-041.0N
Parent Sample											SB-R-O5-031.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360	< 430	< 360	< 350	< 350	< 350	< 350	< 340	< 340	< 410
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 430	< 360	< 350	< 350	< 350	< 350	< 340	< 340	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 430	< 360	< 350	< 350	< 350	< 350	< 340	< 340	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 430	< 360	< 350	< 350	< 350	< 350	< 340	< 340	< 410
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 170000	< 140000	< 140000	< 140000	< 140000	< 140000	< 130000	< 140000	< 170000
Nitroglycerin	55-63-0	ug/kg	< 7200	< 8600	< 7200	< 6900	< 7000	< 6900	< 7100	< 6700	< 6800	< 8300
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 900	< 1100	< 900	< 870	< 870	< 870	< 880	< 840	< 850	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 430	< 360	< 350	< 350	< 350	< 350	< 340	< 340	< 410
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 11.9	1.18	< 2.4	< 2.26	< 2.33	< 1.96	< 1.98	0.904	< 2.23	0.936
Arsenic	7440-38-2	mg/kg	35.8	6.06	6.55	3.35	5.58	5.26	5.81	4.05	3.12	1.52
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.702	0.741	0.307	0.322	0.487	0.427	0.723	1.11	0.865	0.441
Cadmium	7440-43-9	mg/kg	2.27	< 0.699	< 0.599	< 0.565	< 0.582	0.439	0.174	< 0.54	< 0.557	0.168
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	439	14.4	18.8	4.79	12	10	14.8	22.2	16.1	12
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	202	20.6	32.2	6.2	8.44	25.1	22.2	3.48	3.14	4.76
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.373	0.077	0.05	0.0188	0.0556	0.041	0.0365	0.0201	0.0273	0.0288
Nickel	7440-02-0	mg/kg	33.2	10.2	10.1	7.1	12.9	12.2	14.1	10.4	9.06	5.35
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 11.9	< 2.8	1.73	< 2.26	1.55	< 1.96	< 1.98	< 2.16	< 2.23	< 2.01

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03	SB-R-O5-01	SB-R-O5-02	SB-R-O5-03	SB-R-O5-03	SB-R-O5-04
Depths			1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	5/2/2006
Sample Type			N	N	N	N	N	N	N	N	FD	N
Sample Name			SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N	SB-R-O5-011.0N	SB-R-O5-021.5N	SB-R-O5-031.0N	SB-R-O5-031.0FD	SB-R-O5-041.0N
Parent Sample											SB-R-O5-031.0N	
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 2.98	< 0.699	< 0.599	< 0.565	< 0.582	< 0.49	< 0.494	< 0.54	< 0.557	< 0.503
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 11.9	1.41	1.54	< 2.26	1.81	< 1.96	1.61	1.8	1.18	< 2.01
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	118	119	85.6	41.6	41.6	210	113	84.5	63	38.4
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	16.8	30.6	16.5	13.3	14.1	13.3	16	10.9	12	27.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O6-01	SB-R-O6-02	SB-R-O7-01	SB-R-O7-02	SB-R-O7-03	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-011.5N	SB-R-O7-021.0N	SB-R-O7-031.5N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 3200	< 3000	< 3100	< 2700	< 2900	< 3200	< 2600	< 2800	< 3000
Benzene	71-43-2	ug/kg	< 720	< 810	< 760	< 770	< 680	< 720	< 790	< 660	< 690	< 740
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 720	< 810	< 760	< 770	< 680	< 720	< 790	< 660	< 690	< 740
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-O6-01 0.5-1.0 ft 4/18/2006 N SB-R-O6-011.0N	SB-R-O6-02 0.5-1.0 ft 4/26/2006 N SB-R-O6-021.0N	SB-R-O7-01 1.0-1.5 ft 4/18/2006 N SB-R-O7-011.5N	SB-R-O7-02 0.5-1.0 ft 4/18/2006 N SB-R-O7-021.0N	SB-R-O7-03 1.0-1.5 ft 4/18/2006 N SB-R-O7-031.5N	SB-R-O7-04 0.5-1.0 ft 4/18/2006 N SB-R-O7-041.0N	SB-R-O8-01 0.5-1.0 ft 4/17/2006 N SB-R-O8-011.0N	SB-R-O8-02 0.5-1.0 ft 4/18/2006 N SB-R-O8-021.0N	SB-R-O8-03 0.5-1.0 ft 4/28/2006 N SB-R-O8-031.0N	SB-R-O8-04 0.5-1.0 ft 6/29/2006 N SB-R-O8-041.0N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 720	< 810	< 760	< 770	< 680	< 720	< 790	< 660	< 690	< 740
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 720	< 810	< 760	< 770	< 680	< 720	< 790	< 660	< 690	< 740
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2400	< 2400	< 2400	< 2200	< 2300	< 2400	< 2200	< 2200	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O6-01	SB-R-O6-02	SB-R-O7-01	SB-R-O7-02	SB-R-O7-03	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-011.5N	SB-R-O7-021.0N	SB-R-O7-031.5N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 200	< 200	< 200	< 180	40	< 200	< 180	140	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	100	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	< 200	< 200	< 200	< 180	86	< 200	< 180	140	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	55	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	< 400	< 400	< 390	< 370	< 390	< 400	200	< 360	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 190	< 200	< 200	< 200	< 180	71	< 200	< 180	150	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	53	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O6-01	SB-R-O6-02	SB-R-O7-01	SB-R-O7-02	SB-R-O7-03	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-011.5N	SB-R-O7-021.0N	SB-R-O7-031.5N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	< 200	< 200	< 200	< 180	< 190	< 200	< 180	< 180	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	< 20	< 18	< 19	< 19
Aroclor-1221	11104-28-2	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	< 20	< 18	< 19	< 19
Aroclor-1232	11141-16-5	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	< 20	< 18	< 19	< 19
Aroclor-1242	53469-21-9	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	< 20	< 18	< 19	< 19
Aroclor-1248	12672-29-6	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	< 20	< 18	< 19	< 19
Aroclor-1254	11097-69-1	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	18	230	48	< 19
Aroclor-1260	11096-82-5	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	7.1	64	< 19	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 20	< 20	< 20	< 19	< 20	25.1	294	48	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O6-01	SB-R-O6-02	SB-R-O7-01	SB-R-O7-02	SB-R-O7-03	SB-R-O7-04	SB-R-O8-01	SB-R-O8-02	SB-R-O8-03	SB-R-O8-04
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/26/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/17/2006	4/18/2006	4/28/2006	6/29/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O6-011.0N	SB-R-O6-021.0N	SB-R-O7-011.5N	SB-R-O7-021.0N	SB-R-O7-031.5N	SB-R-O7-041.0N	SB-R-O8-011.0N	SB-R-O8-021.0N	SB-R-O8-031.0N	SB-R-O8-041.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 360	< 360	< 360	< 330	< 350	< 360	< 320	< 330	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 350	< 360	< 360	< 360	< 330	< 350	< 360	< 320	< 330	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 360	< 360	< 360	< 330	< 350	< 360	< 320	< 330	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 350	< 360	< 360	< 360	< 330	< 350	< 360	< 320	< 330	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 140000	< 140000	< 130000	< 140000	< 140000	< 130000	< 130000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6900	< 7200	< 7200	< 7100	< 6600	< 7000	< 7200	< 6500	< 6600	< 6800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 870	< 900	< 900	< 890	< 820	< 870	< 900	< 810	< 820	< 850
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 360	< 360	< 360	< 330	< 350	< 360	< 320	< 330	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	1	< 10.1	< 2.34	< 2.32	< 2.15	< 2.24	< 2.34	< 2.1	< 2.08	1.14
Arsenic	7440-38-2	mg/kg	4.16	6.76	5.13	3.53	3.82	22.3	3.63	2.34	2.31	3.59
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.771	1.03	0.744	0.635	0.699	0.578	0.518	0.763	0.486	0.762
Cadmium	7440-43-9	mg/kg	< 0.562	< 2.52	< 2.93	< 2.9	< 2.68	< 2.8	< 0.586	< 2.62	< 0.52	0.641
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	18.9	14.2	10.7	10.8	14.7	19.9	11.3	16.1	17.9	18.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	12.3	12.7	10.4	5.29	5.6	23.2	16.1	4.39	4.73	7.18
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0249	0.0662	0.0214	0.0151	0.0337	0.188	0.0127	0.009	0.0195	0.0124
Nickel	7440-02-0	mg/kg	9.11	18.4	10.1	10.2	11.4	11.8	11.2	8.5	8.15	11
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.25	< 10.1	< 2.34	< 2.32	< 2.15	< 2.24	< 2.34	< 2.1	< 2.08	< 2.28

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-O6-01 0.5-1.0 ft 4/18/2006 N SB-R-O6-011.0N	SB-R-O6-02 0.5-1.0 ft 4/26/2006 N SB-R-O6-021.0N	SB-R-O7-01 1.0-1.5 ft 4/18/2006 N SB-R-O7-011.5N	SB-R-O7-02 0.5-1.0 ft 4/18/2006 N SB-R-O7-021.0N	SB-R-O7-03 1.0-1.5 ft 4/18/2006 N SB-R-O7-031.5N	SB-R-O7-04 0.5-1.0 ft 4/18/2006 N SB-R-O7-041.0N	SB-R-O8-01 0.5-1.0 ft 4/17/2006 N SB-R-O8-011.0N	SB-R-O8-02 0.5-1.0 ft 4/18/2006 N SB-R-O8-021.0N	SB-R-O8-03 0.5-1.0 ft 4/28/2006 N SB-R-O8-031.0N	SB-R-O8-04 0.5-1.0 ft 6/29/2006 N SB-R-O8-041.0N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.562	< 2.52	< 0.586	< 0.58	< 0.537	< 0.559	< 0.586	2.33	< 0.52	< 0.569
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.39	< 10.1	2.45	2.3	2.5	2.53	< 2.34	2.86	1.29	< 2.28
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	58.7	141	62.4	61.6	68.8	47.6	56.5	51.6	45.9	80.8
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	13.6	16.9	16.3	15.5	8.7	14	16.3	7.4	8.5	12.1
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O9-01	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04	SB-R-P6-01	SB-R-P6-02	SB-R-P6-03	SB-R-P7-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/28/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/18/2006	4/18/2006	4/25/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O9-011.5N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N	SB-R-P6-011.0N	SB-R-P6-021.5N	SB-R-P6-031.0N	SB-R-P7-011.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2900	< 2900	< 2800	< 2800	NA	< 2800	< 3100	< 2800	< 3400	< 2800
Benzene	71-43-2	ug/kg	< 730	< 740	< 710	< 700	NA	< 700	< 780	< 690	< 840	< 710
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 730	< 740	< 710	< 700	NA	< 700	< 780	< 690	< 840	< 710
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O9-01	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04	SB-R-P6-01	SB-R-P6-02	SB-R-P6-03	SB-R-P7-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/28/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/18/2006	4/18/2006	4/25/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O9-011.5N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N	SB-R-P6-011.0N	SB-R-P6-021.5N	SB-R-P6-031.0N	SB-R-P7-011.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 730	< 740	< 710	< 700	NA	< 700	< 780	< 690	< 840	< 710
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 730	< 740	< 710	< 700	NA	< 700	< 780	< 690	< 840	< 710
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2300	< 2300	NA	< 2400	< 2400	< 2400	< 2200	< 2600	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O9-01	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04	SB-R-P6-01	SB-R-P6-02	SB-R-P6-03	SB-R-P7-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/28/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/18/2006	4/18/2006	4/25/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O9-011.5N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N	SB-R-P6-011.0N	SB-R-P6-021.5N	SB-R-P6-031.0N	SB-R-P7-011.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	96
Benzo[a]pyrene	50-32-8	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	100
Benzo[b]fluoranthene	205-99-2	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	80	< 180	< 210	130
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	69
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400	< 390	< 390	NA	< 400	< 400	< 390	< 370	< 430	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	69	< 180	< 210	92
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	58
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O9-01	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04	SB-R-P6-01	SB-R-P6-02	SB-R-P6-03	SB-R-P7-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/28/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/18/2006	4/18/2006	4/25/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O9-011.5N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N	SB-R-P6-011.0N	SB-R-P6-021.5N	SB-R-P6-031.0N	SB-R-P7-011.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 200	< 190	< 190	NA	< 200	< 200	< 200	< 180	< 210	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Aroclor-1221	11104-28-2	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Aroclor-1232	11141-16-5	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Aroclor-1242	53469-21-9	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Aroclor-1248	12672-29-6	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Aroclor-1254	11097-69-1	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Aroclor-1260	11096-82-5	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 20	< 20	< 20	< 20	NA	< 20	< 20	< 19	< 22	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O9-01	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04	SB-R-P6-01	SB-R-P6-02	SB-R-P6-03	SB-R-P7-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/28/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/18/2006	4/18/2006	4/25/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O9-011.5N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N	SB-R-P6-011.0N	SB-R-P6-021.5N	SB-R-P6-031.0N	SB-R-P7-011.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360	< 350	< 340	< 360	NA	< 350	< 350	< 330	< 380	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 350	< 340	< 360	NA	< 350	< 350	< 330	< 380	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 350	< 340	< 360	NA	< 350	< 350	< 330	< 380	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 350	< 340	< 360	NA	< 350	< 350	< 330	< 380	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 140000	< 140000	NA	< 140000	< 140000	< 130000	< 150000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7100	< 6900	< 6900	< 7200	NA	< 7000	< 7100	< 6600	< 7700	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 890	< 870	< 860	< 890	NA	< 880	< 890	< 830	< 960	< 860
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 350	< 340	< 360	NA	< 350	< 350	< 330	< 380	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.3	1.92	< 1.99	NA	< 2	< 1.98	< 2.3	1.24	< 2.49	< 22.4
Arsenic	7440-38-2	mg/kg	4.33	5.28	5.46	NA	6.93	5.16	4.4	3.3	2.92	< 22.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.728	0.726	0.575	NA	0.806	0.61	0.717	0.768	0.941	0.774
Cadmium	7440-43-9	mg/kg	< 0.576	0.489	0.326	NA	< 0.5	0.492	< 2.87	< 0.539	< 0.622	< 5.61
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	7.46	13.7	15	NA	23.4	15.8	12	12	8.18	17.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	7.37	7.07	7.47	NA	9.44	8.35	11.8	4.62	6.48	38.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0321	0.0219	0.0347	NA	0.0288	0.0342	0.0245	0.0106	0.0361	0.0239
Nickel	7440-02-0	mg/kg	9.92	11.1	14	NA	17	15.6	10.5	8.7	9.03	11.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.3	< 2.25	< 1.99	NA	< 2	< 1.98	< 2.3	< 2.16	< 2.49	< 22.4

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-O9-01	SB-R-P5-01	SB-R-P5-02	SB-R-P5-03	SB-R-P5-03	SB-R-P5-04	SB-R-P6-01	SB-R-P6-02	SB-R-P6-03	SB-R-P7-01
Depths			1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/28/2006	4/25/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/18/2006	4/18/2006	4/25/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-O9-011.5N	SB-R-P5-011.0N	SB-R-P5-021.0N	SB-R-P5-031.0N	SB-R-P5-031.0N1440	SB-R-P5-041.0N	SB-R-P6-011.0N	SB-R-P6-021.5N	SB-R-P6-031.0N	SB-R-P7-011.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.576	< 0.562	< 0.498	NA	< 0.5	< 0.495	< 0.574	< 0.539	< 0.622	< 5.61
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	1.57	1.99	1.06	NA	< 2	< 1.98	2.44	1.69	2.26	< 22.4
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	58.5	61.4	110	NA	82	96	70.6	48.4	108	259
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	15.7	13.6	12.9	16.2	16.2	14.6	15.4	9.1	22	12.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N
Parent Sample			SB-R-P7-011.0N							SB-R-Q7-011N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2800	< 2900	< 2600	< 2700	< 3100	< 2800	< 3000	< 3300	< 2900	< 3200	< 2800
Benzene	71-43-2	ug/kg	< 690	< 720	< 640	< 670	< 770	< 710	< 740	< 810	< 730	< 800	< 690
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 690	< 720	< 640	< 670	< 770	< 710	< 740	< 810	< 730	< 800	< 690
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N
Parent Sample			SB-R-P7-011.0N							SB-R-Q7-011N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 690	< 720	< 640	< 670	< 770	< 710	< 740	< 810	< 730	< 800	< 690
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 690	< 720	< 640	< 670	< 770	< 710	< 740	< 810	< 730	< 800	< 690
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2300	< 2300	< 2200	< 2500	< 2300	< 2400	< 2400	< 2400	< 2500	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N
Parent Sample			SB-R-P7-011.0N							SB-R-Q7-011N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	94	< 200	< 200	< 190	< 210	41	< 200	< 200	< 200	< 210	< 190
Benzo[a]pyrene	50-32-8	ug/kg	87	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	130	< 200	< 200	< 190	< 210	57	< 200	< 200	< 200	< 210	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	51	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 360	< 390	< 390	< 370	< 410	< 380	< 400	< 400	< 400	< 420	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	90	< 200	< 200	< 190	< 210	44	< 200	< 200	< 200	< 210	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	49	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N
Parent Sample			SB-R-P7-011.0N							SB-R-Q7-011N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 180	< 200	< 200	< 190	< 210	< 190	< 200	< 200	< 200	< 210	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 22	< 19
Aroclor-1221	11104-28-2	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 22	< 19
Aroclor-1232	11141-16-5	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 22	< 19
Aroclor-1242	53469-21-9	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 22	< 19
Aroclor-1248	12672-29-6	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 22	< 19
Aroclor-1254	11097-69-1	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	< 22	< 19
Aroclor-1260	11096-82-5	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	7.6	< 19
Polychlorinated biphenyls	1336-36-3	ug/kg	< 19	< 20	< 20	< 19	< 21	< 19	< 20	< 20	< 20	7.6	< 19

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N
Parent Sample			SB-R-P7-011.0N							SB-R-Q7-011N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 380	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 380	< 340
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 380	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 380	< 340
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 140000	< 140000	< 140000	< 150000	< 140000	< 140000	< 140000	< 140000	< 150000	< 130000
Nitroglycerin	55-63-0	ug/kg	< 6500	< 7000	< 7000	< 6800	< 7500	< 6800	< 7200	< 7100	< 7100	< 7600	< 6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 820	< 880	< 880	< 840	< 930	< 850	< 900	< 890	< 890	< 950	< 840
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 350	< 350	< 340	< 370	< 340	< 360	< 360	< 360	< 380	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.14	< 2.34	< 2.3	< 1.98	< 2.49	< 2.2	< 2.34	< 2.35	< 2.3	< 2.53	< 2.24
Arsenic	7440-38-2	mg/kg	4.26	4.26	4.39	5.79	3.36	4.25	2.89	2.99	3.68	6.22	2.49
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.799	0.803	0.641	0.617	1.03	0.295	0.164	0.149	0.689	0.736	0.283
Cadmium	7440-43-9	mg/kg	< 2.67	< 2.93	< 2.87	0.275	< 0.622	< 0.55	< 0.585	< 0.587	0.103	< 0.634	< 0.561
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	16	11.7	15.6	18.8	11.6	15.1	6.52	5.86	13	27.2	11.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	19.8	17.7	6.54	7.62	9.23	7.95	10	8.24	5.36	24.7	3.82
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0181	0.0681	0.0343	0.028	0.0137	0.0056	0.0178	0.0175	0.0176	0.0511	0.0108
Nickel	7440-02-0	mg/kg	8.2	10.5	13.8	15.3	10.1	10.8	6.3	5.98	9.98	9.44	8.25
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.14	< 2.34	< 2.3	< 1.98	< 2.49	< 2.2	< 2.34	< 2.35	< 2.3	< 2.53	< 2.24

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N
Sample Name			SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N
Parent Sample			SB-R-P7-011.0N							SB-R-Q7-011N			
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.534	< 0.585	< 0.575	< 0.495	< 0.622	< 0.55	< 0.585	< 0.587	< 0.576	< 0.634	< 0.561
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	3.11	2.67	2.84	1.17	< 2.49	< 2.2	1.55	< 2.35	< 2.3	2.25	1.5
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	120	68.3	69.3	92.4	80	50.2	39.3	42.2	41.1	87.2	51.4
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	8.2	14.6	14.7	11.2	19.6	11.7	17	15.7	15.7	21.1	10.9
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-R7-01	SB-R-R7-02	SD-C10-1-01	SD-C10-3-01	SD-C10-3-01	SD-C10-4-01	SD-C11-1-01	SD-C14-1-01	SD-C9-1-01	SD-D10-1-01	SD-F8-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2006	4/25/2006	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/1/2001	4/12/2001	4/25/2001	5/1/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-R7-011N	SB-R-R7-021N	SD-C10-1-011N	SD-C10-3-011N	SD-C10-3-011.5N	SD-C10-4-011N	SD-C11-1-011N	SD-C14-1-011N	SD-C9-1-011N	SD-D10-1-011N	SD-F8-2-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	< 230	< 440	NA	< 300	< 480	< 260	< 270	< 260	< 240
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	< 2300	< 4400	NA	< 3000	< 4800	< 2600	< 2700	< 2600	< 2400
Acrylonitrile	107-13-1	ug/kg	< 2500	< 2900	< 460	< 870	NA	< 610	< 960	< 520	< 540	< 510	< 470
Benzene	71-43-2	ug/kg	< 630	< 720	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Bromodichloromethane	75-27-4	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Bromoform	75-25-2	ug/kg	NA	NA	< 230	< 220	NA	< 150	< 240	< 130	< 270	< 130	< 240
Bromomethane	74-83-9	ug/kg	NA	NA	< 230	< 440	NA	< 300	< 480	< 260	< 270	< 260	< 240
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Chlorobenzene	108-90-7	ug/kg	< 630	< 720	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Chloroethane	75-00-3	ug/kg	NA	NA	< 230	< 440	NA	< 300	< 480	< 260	< 270	< 260	< 240
Chloroform	67-66-3	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Chloromethane	74-87-3	ug/kg	NA	NA	< 230	< 440	NA	< 300	< 480	< 260	< 270	< 260	< 240
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-R7-01	SB-R-R7-02	SD-C10-1-01	SD-C10-3-01	SD-C10-3-01	SD-C10-4-01	SD-C11-1-01	SD-C14-1-01	SD-C9-1-01	SD-D10-1-01	SD-F8-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2006	4/25/2006	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/1/2001	4/12/2001	4/25/2001	5/1/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-R7-011N	SB-R-R7-021N	SD-C10-1-011N	SD-C10-3-011N	SD-C10-3-011.5N	SD-C10-4-011N	SD-C11-1-011N	SD-C14-1-011N	SD-C9-1-011N	SD-D10-1-011N	SD-F8-2-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 630	< 720	< 230	< 440	NA	< 300	< 480	< 260	< 270	< 260	< 240
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 630	< 720	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Toluene	108-88-3	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Trichloroethene	79-01-6	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	< 230	< 440	NA	< 300	< 480	< 260	< 270	< 260	< 240
Vinyl Chloride	75-01-4	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Xylenes (total)	1330-20-7	ug/kg	NA	NA	< 120	< 220	NA	< 150	< 240	< 130	< 130	< 130	< 120
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 920	< 200	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 11000	< 2400	NA	NA	< 820	NA	NA	NA	< 670	< 750	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 920	< 200	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 920	< 200	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	< 210	NA	NA	NA	< 170	< 190	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-R7-01	SB-R-R7-02	SD-C10-1-01	SD-C10-3-01	SD-C10-3-01	SD-C10-4-01	SD-C11-1-01	SD-C14-1-01	SD-C9-1-01	SD-D10-1-01	SD-F8-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2006	4/25/2006	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/1/2001	4/12/2001	4/25/2001	5/1/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-R7-011N	SB-R-R7-021N	SD-C10-1-011N	SD-C10-3-011N	SD-C10-3-011.5N	SD-C10-4-011N	SD-C11-1-011N	SD-C14-1-011N	SD-C9-1-011N	SD-D10-1-011N	SD-F8-2-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	< 210	NA	NA	NA	< 170	< 190	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	610	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	720	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	180	NA	NA	NA	< 33	2500	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	< 820	NA	NA	NA	< 670	< 750	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	590	< 200	NA	NA	670	NA	NA	NA	120	2900	NA
Benzo[a]pyrene	50-32-8	ug/kg	570	< 200	NA	NA	380	NA	NA	NA	150	2500	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	990	61	NA	NA	770	NA	NA	NA	210	4300	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	310	NA	NA	NA	110	1300	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	400	< 200	NA	NA	280	NA	NA	NA	76	1900	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 1800	< 400	NA	NA	190	NA	NA	NA	320	420	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 920	< 200	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	750	51	NA	NA	760	NA	NA	NA	170	4400	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 920	< 200	NA	NA	99	NA	NA	NA	< 33	500	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 920	< 200	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 920	< 200	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	1500	NA	NA	NA	240	6200	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	1000	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	< 210	NA	NA	NA	< 170	< 190	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	210	< 200	NA	NA	390	NA	NA	NA	110	1700	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-R7-01	SB-R-R7-02	SD-C10-1-01	SD-C10-3-01	SD-C10-3-01	SD-C10-4-01	SD-C11-1-01	SD-C14-1-01	SD-C9-1-01	SD-D10-1-01	SD-F8-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2006	4/25/2006	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/1/2001	4/12/2001	4/25/2001	5/1/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-R7-011N	SB-R-R7-021N	SD-C10-1-011N	SD-C10-3-011N	SD-C10-3-011.5N	SD-C10-4-011N	SD-C11-1-011N	SD-C14-1-011N	SD-C9-1-011N	SD-D10-1-011N	SD-F8-2-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 40	NA	NA	NA	< 33	62	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	< 210	NA	NA	NA	< 67	< 190	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 920	< 200	NA	NA	< 40	NA	NA	NA	< 33	< 37	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 920	< 200	NA	NA	< 40	NA	NA	NA	< 33	55	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	< 210	NA	NA	NA	< 170	< 190	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	1200	NA	NA	NA	140	4000	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	< 82	NA	NA	NA	< 67	< 75	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	1400	NA	NA	NA	280	5300	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	< 19	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	< 19	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	< 19	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	< 19	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	< 19	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	26	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	7.8	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	33.8	< 21	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-R7-01	SB-R-R7-02	SD-C10-1-01	SD-C10-3-01	SD-C10-3-01	SD-C10-4-01	SD-C11-1-01	SD-C14-1-01	SD-C9-1-01	SD-D10-1-01	SD-F8-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2006	4/25/2006	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/1/2001	4/12/2001	4/25/2001	5/1/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-R7-011N	SB-R-R7-021N	SD-C10-1-011N	SD-C10-3-011N	SD-C10-3-011.5N	SD-C10-4-011N	SD-C11-1-011N	SD-C14-1-011N	SD-C9-1-011N	SD-D10-1-011N	SD-F8-2-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 360	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 360	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 360	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 360	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 140000	NA	NA	< 74000	NA	NA	NA	< 60000	< 67000	NA
Nitroglycerin	55-63-0	ug/kg	< 6700	< 7200	NA	NA	< 2500	NA	NA	NA	< 2000	< 2200	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 830	< 900	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	< 2500	NA	NA	NA	< 2000	< 2200	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 360	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 120	NA	NA	NA	< 99	< 110	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.13	< 2.39	NA	NA	2.6	NA	NA	NA	< 0.91	< 0.72	NA
Arsenic	7440-38-2	mg/kg	56.1	42.4	NA	NA	7.9	NA	NA	NA	2.7	3.6	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.303	0.262	NA	NA	0.045	NA	NA	NA	0.52	0.24	NA
Cadmium	7440-43-9	mg/kg	< 0.533	< 0.597	NA	NA	< 0.065	NA	NA	NA	< 0.077	< 0.061	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	6.9	NA	NA	NA	14.6	13.1	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.7	21.2	NA	NA	12	NA	NA	NA	18.1	16.4	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	19.2	53.5	NA	NA	5490	NA	NA	NA	68.8	62.8	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.065	0.108	NA	NA	0.1	NA	NA	NA	0.029	0.057	NA
Nickel	7440-02-0	mg/kg	10.3	9.23	NA	NA	2.9	NA	NA	NA	8.8	7.2	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.13	1.68	NA	NA	0.64	NA	NA	NA	< 0.67	0.66	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SB-R-R7-01	SB-R-R7-02	SD-C10-1-01	SD-C10-3-01	SD-C10-3-01	SD-C10-4-01	SD-C11-1-01	SD-C14-1-01	SD-C9-1-01	SD-D10-1-01	SD-F8-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2006	4/25/2006	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/1/2001	4/12/2001	4/25/2001	5/1/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-R7-011N	SB-R-R7-021N	SD-C10-1-011N	SD-C10-3-011N	SD-C10-3-011.5N	SD-C10-4-011N	SD-C11-1-011N	SD-C14-1-011N	SD-C9-1-011N	SD-D10-1-011N	SD-F8-2-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	< 0.533	< 0.597	NA	NA	< 0.17	NA	NA	NA	< 0.2	< 0.15	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.13	< 2.39	NA	NA	< 1	NA	NA	NA	< 1.2	0.97	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	43	68.6	NA	NA	14.5	NA	NA	NA	80.5	46.7	NA
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	9.8	17.1	NA	NA	18.4	NA	NA	NA	28.7	10.1	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	5600	NA	NA	NA	17200	9500	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	< 10000	< 12000	NA	< 13000	< 15000	< 12000	< 10000	< 11000	< 10000
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	< 10000	< 12000	NA	< 13000	< 15000	< 12000	< 10000	< 11000	< 10000
Ethanol	64-17-5	ug/kg	NA	NA	< 10000	< 12000	NA	< 13000	< 15000	< 12000	< 10000	< 11000	< 10000
Ethyl ether	60-29-7	ug/kg	NA	NA	< 10000	< 12000	NA	< 13000	< 15000	< 12000	< 10000	< 11000	< 10000
Methanol	67-56-1	ug/kg	NA	NA	< 10000	< 12000	NA	< 13000	< 15000	< 12000	< 10000	< 11000	< 10000
N-butyl ether	142-96-1	ug/kg	NA	NA	< 10000	< 12000	NA	< 13000	< 15000	< 12000	< 10000	< 11000	< 10000
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	95.1	NA	NA	NA	87.8	98.3	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	100	NA	NA	NA	100	100	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	100	NA	NA	NA	100	100	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	60.8	NA	NA	NA	33.8	47.7	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	2.4	NA	NA	NA	2.1	1.5	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	33	NA	NA	NA	17.6	29.2	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	82.7	NA	NA	NA	68.4	73.9	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	15.8	NA	NA	NA	8.9	12.9	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	78.8	NA	NA	NA	61.3	69.6	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	75.3	NA	NA	NA	53.6	65.3	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	6.4	NA	NA	NA	4.5	4.7	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-F9-1-01 0.5-1.0 ft 4/25/2001 N SD-F9-1-011N	SD-F9-1-01 1.0-1.5 ft 4/25/2001 N SD-F9-1-011.5N	SD-F9-2-01 0.5-1.0 ft 5/1/2001 N SD-F9-2-011N	SD-F9-2-01 1.0-1.5 ft 5/1/2001 N SD-F9-2-011.5N	SD-I10-2-01 0.5-1.0 ft 4/18/2001 N SD-I10-2-011N	SD-I10-2-01 1.0-1.5 ft 4/18/2001 N SD-I10-2-011.5N	SD-I7-1-01 0.5-1.0 ft 4/19/2001 N SD-I7-1-011N	SD-I7-1-01 1.0-1.5 ft 4/19/2001 N SD-I7-1-011.5N	SD-I8-1-01 0.5-1.0 ft 4/19/2001 N SD-I8-1-011N	SD-J10-1-01 0.5-1.0 ft 4/20/2001 N SD-J10-1-011N	SD-J10-1-01 1.0-1.5 ft 4/20/2001 N SD-J10-1-011.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 250	NA	< 320	NA	< 440	NA	< 330	NA	< 290	< 290	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2500	NA	< 3200	NA	< 4400	NA	< 3300	NA	< 2900	< 2900	NA
Acrylonitrile	107-13-1	ug/kg	< 510	NA	< 630	NA	< 890	NA	< 660	NA	< 580	< 590	NA
Benzene	71-43-2	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Bromodichloromethane	75-27-4	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Bromoform	75-25-2	ug/kg	< 250	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Bromomethane	74-83-9	ug/kg	< 250	NA	< 320	NA	< 440	NA	< 330	NA	< 290	< 290	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Chlorobenzene	108-90-7	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Chloroethane	75-00-3	ug/kg	< 250	NA	< 320	NA	< 440	NA	< 330	NA	< 290	< 290	NA
Chloroform	67-66-3	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Chloromethane	74-87-3	ug/kg	< 250	NA	< 320	NA	< 440	NA	< 330	NA	< 290	< 290	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-F9-1-01	SD-F9-1-01	SD-F9-2-01	SD-F9-2-01	SD-I10-2-01	SD-I10-2-01	SD-I7-1-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-J10-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2001	4/25/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/20/2001	4/20/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F9-1-011N	SD-F9-1-011.5N	SD-F9-2-011N	SD-F9-2-011.5N	SD-I10-2-011N	SD-I10-2-011.5N	SD-I7-1-011N	SD-I7-1-011.5N	SD-I8-1-011N	SD-J10-1-011N	SD-J10-1-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds (cont.)													
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 250	NA	< 320	NA	< 440	NA	< 330	NA	< 290	< 290	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Toluene	108-88-3	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Trichloroethene	79-01-6	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 250	NA	< 320	NA	< 440	NA	< 330	NA	< 290	< 290	NA
Vinyl Chloride	75-01-4	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Xylenes (total)	1330-20-7	ug/kg	< 130	NA	< 160	NA	< 220	NA	< 170	NA	< 140	< 150	NA
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 670	NA	< 890	NA	< 900	NA	< 830	< 830	NA	< 1600
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	8500	NA	< 89	NA	< 90	NA	< 83	< 83	NA	7700
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	350	NA	< 44	NA	< 44	NA	< 41	< 41	NA	210
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
2-Chlorophenol	95-57-8	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 170	NA	< 230	NA	< 230	NA	< 210	< 210	NA	< 410
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-F9-1-01 0.5-1.0 ft 4/25/2001 N SD-F9-1-011N	SD-F9-1-01 1.0-1.5 ft 4/25/2001 N SD-F9-1-011.5N	SD-F9-2-01 0.5-1.0 ft 5/1/2001 N SD-F9-2-011N	SD-F9-2-01 1.0-1.5 ft 5/1/2001 N SD-F9-2-011.5N	SD-I10-2-01 0.5-1.0 ft 4/18/2001 N SD-I10-2-011N	SD-I10-2-01 1.0-1.5 ft 4/18/2001 N SD-I10-2-011.5N	SD-I7-1-01 0.5-1.0 ft 4/19/2001 N SD-I7-1-011N	SD-I7-1-01 1.0-1.5 ft 4/19/2001 N SD-I7-1-011.5N	SD-I8-1-01 0.5-1.0 ft 4/19/2001 N SD-I8-1-011N	SD-J10-1-01 0.5-1.0 ft 4/20/2001 N SD-J10-1-011N	SD-J10-1-01 1.0-1.5 ft 4/20/2001 N SD-J10-1-011.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 170	NA	< 230	NA	< 230	NA	< 210	< 210	NA	< 410
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	42	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Acenaphthylene	208-96-8	ug/kg	NA	38	NA	< 44	NA	48	NA	< 41	< 41	NA	< 83
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	150	NA	< 44	NA	51	NA	< 41	< 41	NA	93
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 670	NA	< 890	NA	< 900	NA	< 830	< 830	NA	< 1600
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	460	NA	70	NA	150	NA	< 41	< 41	NA	270
Benzo[a]pyrene	50-32-8	ug/kg	NA	490	NA	85	NA	160	NA	< 41	< 41	NA	350
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	720	NA	250	NA	220	NA	< 41	75	NA	1200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	330	NA	130	NA	130	NA	< 41	< 41	NA	180
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	300	NA	110	NA	90	NA	< 41	< 41	NA	430
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	100	NA	120	NA	< 90	NA	< 83	100	NA	< 160
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	550	NA	150	NA	200	NA	< 41	49	NA	580
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	99	NA	< 44	NA	< 44	NA	< 41	< 41	NA	99
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	380	NA	140	NA	< 90	NA	< 83	770	NA	< 160
Dimethylphthalate	131-11-3	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
Di-n-butylphthalate	84-74-2	ug/kg	NA	140	NA	1500	NA	< 90	NA	< 83	1200	NA	< 160
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
Fluoranthene	206-44-0	ug/kg	NA	870	NA	260	NA	290	NA	< 41	50	NA	510
Fluorene	86-73-7	ug/kg	NA	42	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Hexachlorobenzene	118-74-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 170	NA	< 230	NA	< 230	NA	< 210	< 210	NA	< 410
Hexachloroethane	67-72-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	370	NA	100	NA	130	NA	< 41	< 41	NA	230
Isophorone	78-59-1	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-F9-1-01	SD-F9-1-01	SD-F9-2-01	SD-F9-2-01	SD-I10-2-01	SD-I10-2-01	SD-I7-1-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-J10-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2001	4/25/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/20/2001	4/20/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F9-1-011N	SD-F9-1-011.5N	SD-F9-2-011N	SD-F9-2-011.5N	SD-I10-2-011N	SD-I10-2-011.5N	SD-I7-1-011N	SD-I7-1-011.5N	SD-I8-1-011N	SD-J10-1-011N	SD-J10-1-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (cont.)													
Naphthalene	91-20-3	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 67	NA	< 230	NA	< 90	NA	< 83	< 83	NA	< 160
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 33	NA	< 44	NA	< 44	NA	< 41	< 41	NA	< 83
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	490	NA	300	NA	< 44	NA	< 41	650	NA	< 83
Pentachlorophenol	87-86-5	ug/kg	NA	< 170	NA	< 230	NA	< 230	NA	< 210	< 210	NA	< 410
Phenanthrene	85-01-8	ug/kg	NA	560	NA	120	NA	170	NA	< 41	< 41	NA	160
Phenol	108-95-2	ug/kg	NA	< 67	NA	< 89	NA	< 90	NA	< 83	< 83	NA	< 160
Pyrene	129-00-0	ug/kg	NA	910	NA	230	NA	320	NA	< 41	45	NA	510
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides													
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls													
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-F9-1-01 0.5-1.0 ft 4/25/2001 N SD-F9-1-011N	SD-F9-1-01 1.0-1.5 ft 4/25/2001 N SD-F9-1-011.5N	SD-F9-2-01 0.5-1.0 ft 5/1/2001 N SD-F9-2-011N	SD-F9-2-01 1.0-1.5 ft 5/1/2001 N SD-F9-2-011.5N	SD-I10-2-01 0.5-1.0 ft 4/18/2001 N SD-I10-2-011N	SD-I10-2-01 1.0-1.5 ft 4/18/2001 N SD-I10-2-011.5N	SD-I7-1-01 0.5-1.0 ft 4/19/2001 N SD-I7-1-011N	SD-I7-1-01 1.0-1.5 ft 4/19/2001 N SD-I7-1-011.5N	SD-I8-1-01 0.5-1.0 ft 4/19/2001 N SD-I8-1-011N	SD-J10-1-01 0.5-1.0 ft 4/20/2001 N SD-J10-1-011N	SD-J10-1-01 1.0-1.5 ft 4/20/2001 N SD-J10-1-011.5N
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives and Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	6920	NA	< 120
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
2-Nitrotoluene	88-72-2	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
3-Nitrotoluene	99-08-1	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
4-Nitrotoluene	99-99-0	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
Nitrocellulose	9004-70-0	ug/kg	NA	176000	NA	300000	NA	< 80000	NA	< 74000	500000	NA	1300000
Nitroglycerin	55-63-0	ug/kg	NA	< 2000	NA	< 2700	NA	< 2700	NA	< 2500	< 5000	NA	< 2500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 2000	NA	< 2700	NA	< 2700	NA	< 2500	< 2500	NA	< 2500
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 120
Tetryl	479-45-8	ug/kg	NA	< 99	NA	< 130	NA	< 130	NA	< 120	< 120	NA	< 250
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.79	NA	< 0.87	NA	< 0.87	NA	< 0.8	< 0.8	NA	< 0.65
Arsenic	7440-38-2	mg/kg	NA	10.6	NA	4.2	NA	4.7	NA	6.1	8	NA	14.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.63	NA	0.66	NA	0.73	NA	0.84	0.63	NA	0.61
Cadmium	7440-43-9	mg/kg	NA	< 0.067	NA	< 0.073	NA	< 0.074	NA	< 0.068	< 0.068	NA	< 0.055
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	22.2	NA	25.5	NA	19	NA	20.8	161	NA	14.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	331	NA	58.5	NA	15.4	NA	12.9	38.7	NA	58.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	150	NA	32.9	NA	18.8	NA	9.9	578	NA	39.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.17	NA	0.16	NA	0.73	NA	0.048	0.11	NA	0.091
Nickel	7440-02-0	mg/kg	NA	14.2	NA	15	NA	11.3	NA	11	11.1	NA	9.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	< 0.58	NA	1.1	NA	< 0.64	NA	< 0.59	< 0.59	NA	1.2

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-F9-1-01	SD-F9-1-01	SD-F9-2-01	SD-F9-2-01	SD-I10-2-01	SD-I10-2-01	SD-I7-1-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-J10-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/25/2001	4/25/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/20/2001	4/20/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F9-1-011N	SD-F9-1-011.5N	SD-F9-2-011N	SD-F9-2-011.5N	SD-I10-2-011N	SD-I10-2-011.5N	SD-I7-1-011N	SD-I7-1-011.5N	SD-I8-1-011N	SD-J10-1-011N	SD-J10-1-011.5N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Metals (cont.)													
Silver	7440-22-4	mg/kg	NA	< 0.17	NA	< 0.19	NA	< 0.19	NA	< 0.17	< 0.17	NA	< 0.14
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1	NA	1.2	NA	3.1	NA	2.8	2	NA	< 0.85
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	94.3	NA	250	NA	96.3	NA	41.7	97.3	NA	104
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	18.2	NA	25	NA	25.3	NA	19.4	19.2	NA	19.3
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	15900	NA	28200	NA	12200	NA	12100	19200	NA	50300
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 10000	NA	< 13000	NA	< 13000	NA	< 12000	NA	< 12000	< 12000	NA
Di-N-Propyl Ether	111-43-3	ug/kg	< 10000	NA	< 13000	NA	< 13000	NA	< 12000	NA	< 12000	< 12000	NA
Ethanol	64-17-5	ug/kg	< 10000	NA	< 13000	NA	< 13000	NA	< 12000	NA	< 12000	< 12000	NA
Ethyl ether	60-29-7	ug/kg	< 10000	NA	< 13000	NA	< 13000	NA	< 12000	NA	< 12000	< 12000	NA
Methanol	67-56-1	ug/kg	< 10000	NA	< 13000	NA	< 13000	NA	< 12000	NA	< 12000	< 12000	NA
N-butyl ether	142-96-1	ug/kg	< 10000	NA	< 13000	NA	< 13000	NA	< 12000	NA	< 12000	< 12000	NA
Grain Size Distribution													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	99.9	NA	100	NA	90.5	NA	100	99.9	NA	87.2
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	100	NA	100	NA	100	NA	100	100	NA	100
SIEVE 3 inch, % passing	ARC-	%	NA	100	NA	100	NA	100	NA	100	100	NA	100
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	53	NA	53.8	NA	46.7	NA	63.4	55.4	NA	22.4
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	2.7	NA	4.3	NA	3.8	NA	1.2	5.5	NA	1.3
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	30.4	NA	32.6	NA	32	NA	25.7	35.5	NA	14.8
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	93.8	NA	87.3	NA	76.8	NA	98.8	77.6	NA	59.3
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	15.1	NA	18.4	NA	19	NA	12	21.2	NA	9.3
SIEVE, 6 PHI, % passing	ARC-	%	NA	88.9	NA	83.2	NA	70.3	NA	95.7	72.6	NA	48.4
SIEVE, 8 PHI, % passing	ARC-	%	NA	76.4	NA	78.8	NA	62.3	NA	88.1	69.6	NA	37.4
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	6.7	NA	9.8	NA	9.1	NA	4.7	11.6	NA	4.4
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013
Sample Type			FD	N	N	N	N	N	FD	N
Sample Name			SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115
Parent Sample			SD-P4-1-012N						SO-R2-C-14-1_20131115	
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,1,2-Trichloroethane	79-00-5	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	< 11	< 12	< 12	< 11	< 13
1,1-Dichloroethane	75-34-3	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,1-Dichloroethene	75-35-4	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
1,2-Dichloroethane	107-06-2	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,2-Dichloropropane	78-87-5	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
2-Butanone	78-93-3	ug/kg	NA	NA	NA	< 11	< 12	10	< 11	12
2-Chloroethylvinylether	110-75-8	ug/kg	< 430	< 590	< 960	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	< 11	< 12	< 12	< 11	< 13
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	< 11	< 12	< 12	< 11	< 13
Acetone	67-64-1	ug/kg	NA	NA	NA	48	130	110	33	130
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 4300	< 5900	< 9500	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 850	< 1200	< 1900	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Bromodichloromethane	75-27-4	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Bromoform	75-25-2	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Bromomethane	74-83-9	ug/kg	< 430	< 590	< 960	< 6	< 6	< 6	< 5	< 6
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
Carbon Tetrachloride	56-23-5	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Chlorobenzene	108-90-7	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Chloroethane	75-00-3	ug/kg	< 430	< 590	< 960	< 6	< 6	< 6	< 5	< 6
Chloroform	67-66-3	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Chloromethane	74-87-3	ug/kg	< 430	< 590	< 960	< 6	< 6	< 6	< 5	< 6
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
Dibromochloromethane	124-48-1	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
Ethylbenzene	100-41-4	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	< 6	3	< 6	< 5	< 6
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013
Sample Type			FD	N	N	N	N	N	FD	N
Sample Name			SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115
Parent Sample			SD-P4-1-012N						SO-R2-C-14-1_20131115	
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds (cont.)										
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
Methylene Chloride	75-09-2	ug/kg	< 430	< 590	< 960	< 6	< 6	< 6	< 5	< 6
MTBE	1634-04-4	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	< 6	< 6	< 6	< 5	< 6
Tetrachloroethene	127-18-4	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Toluene	108-88-3	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Trichloroethene	79-01-6	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Trichlorofluoromethane	75-69-4	ug/kg	< 430	< 590	< 960	< 6	< 6	< 6	< 5	< 6
Vinyl Chloride	75-01-4	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Xylenes (total)	1330-20-7	ug/kg	< 210	< 300	< 480	< 6	< 6	< 6	< 5	< 6
Semivolatile Organic Compounds										
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 120	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 120	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 120	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 120	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 120	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 2500	< 1200	< 1100	< 1200	< 1100	< 1300
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 42
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	< 20	< 19	< 20	< 19	< 22
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 250	< 390	< 370	< 400	< 370	< 430
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	< 200	< 190	< 200	< 190	< 210
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 630	< 590	< 560	< 600	< 560	< 640
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013
Sample Type			FD	N	N	N	N	N	FD	N
Sample Name			SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115
Parent Sample			SD-P4-1-012N						SO-R2-C-14-1_20131115	
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	< 200	< 190	< 200	< 190	< 210
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 630	< 590	< 560	< 600	< 560	< 640
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Acetophenone	98-86-2	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
Anthracene	120-12-7	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Atrazine	1912-24-9	ug/kg	NA	NA	NA	< 200	< 190	< 200	< 190	< 210
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	< 200	< 190	< 200	< 190	300
Benzidine	92-87-5	ug/kg	NA	NA	< 2500	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 120	< 20	4	< 20	< 19	10
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 120	< 20	6	< 20	< 19	16
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	< 120	< 20	7	< 20	< 19	17
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 120	< 20	4	< 20	< 19	14
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 120	< 20	4	< 20	< 19	< 22
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	140
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	< 210
Caprolactam	105-60-2	ug/kg	NA	NA	NA	< 200	< 190	< 200	< 190	< 210
Carbazole	86-74-8	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
Chrysene	218-01-9	ug/kg	NA	NA	< 120	< 20	6	5	< 19	14
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	< 39	< 37	< 40	< 37	< 43
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	< 210
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	< 210
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	< 210
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 250	< 200	< 190	< 200	< 190	< 210
Fluoranthene	206-44-0	ug/kg	NA	NA	< 120	< 20	11	< 20	< 19	21
Fluorene	86-73-7	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 630	< 590	< 560	< 600	< 560	< 640
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 120	< 200	< 190	< 200	< 190	< 210
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 120	< 20	4	< 20	< 19	< 22
Isophorone	78-59-1	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013
Sample Type			FD	N	N	N	N	N	FD	N
Sample Name			SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115
Parent Sample			SD-P4-1-012N						SO-R2-C-14-1_20131115	
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
Naphthalene	91-20-3	ug/kg	NA	NA	< 120	< 20	< 19	< 20	< 19	< 22
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 630	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 120	< 39	< 37	< 40	< 37	< 43
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 630	< 200	< 190	< 200	< 190	< 220
Phenanthrene	85-01-8	ug/kg	NA	NA	< 120	< 20	10	< 20	< 19	15
Phenol	108-95-2	ug/kg	NA	NA	< 250	< 39	< 37	< 40	< 37	< 43
Pyrene	129-00-0	ug/kg	NA	NA	< 120	4	12	< 20	< 19	23
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides										
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls										
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013
Sample Type			FD	N	N	N	N	N	FD	N
Sample Name			SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115
Parent Sample			SD-P4-1-012N						SO-R2-C-14-1_20131115	
CONSTITUENT	***CAS NO.***	***UNITS***								
Explosives and Energetics										
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	< 360	< 330	< 360	< 340	< 390
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	< 360	< 330	< 360	< 340	< 390
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	< 360	< 330	< 360	< 340	< 390
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 220000	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 7400	< 7100	< 6700	< 7300	< 6800	< 7800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 370	< 890	< 840	< 910	< 850	< 970
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	< 7400	< 7100	< 6700	< 7300	< 6800	< 7800
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 370	370	< 330	< 360	< 340	< 390
Tetryl	479-45-8	ug/kg	NA	NA	< 370	< 360	< 330	< 360	< 340	< 390
Metals										
Aluminum	7429-90-5	mg/kg	NA	NA	NA	22700	28400	18300	12500	15900
Antimony	7440-36-0	mg/kg	NA	NA	< 0.65	< 2.3	< 2.23	< 2.39	< 2.24	< 2.59
Arsenic	7440-38-2	mg/kg	NA	NA	1.4	7.58	6.29	6.6	3.49	5.14
Barium	7440-39-3	mg/kg	NA	NA	NA	71.3	68.8	63.9	40.7	60.4
Beryllium	7440-41-7	mg/kg	NA	NA	0.43	0.801	0.833	0.709	0.706	0.781
Cadmium	7440-43-9	mg/kg	NA	NA	0.13	< 0.575	< 2.79	< 0.599	< 2.8	< 0.647
Calcium	7440-70-2	mg/kg	NA	NA	NA	279	517	795	854	1330
Chromium	7440-47-3	mg/kg	NA	NA	4.5	21.5	29.8	17	13.9	16.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	5.41	8.58	4.43	7.32	5.6
Copper	7440-50-8	mg/kg	NA	NA	6	11.5	31.8	12.5	16.3	11.6
Iron	7439-89-6	mg/kg	NA	NA	NA	25700	37900	32600	30000	29300
Lead	7439-92-1	mg/kg	NA	NA	34.1	11.7	8.98	19.1	5.52	28
Magnesium	7439-95-4	mg/kg	NA	NA	NA	2120	3310	1640	1970	2390
Manganese	7439-96-5	mg/kg	NA	NA	NA	412	178	301	301	474
Mercury	7439-97-6	mg/kg	NA	NA	0.1	0.0264	0.0545	0.0399	< 0.108	0.11
Nickel	7440-02-0	mg/kg	NA	NA	3.1	11.3	19.3	7.02	9.24	10.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	704	831	544	539	608
Selenium	7782-49-2	mg/kg	NA	NA	0.88	1.37	1.43	1.24	< 2.24	< 2.59

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013
Sample Type			FD	N	N	N	N	N	FD	N
Sample Name			SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115
Parent Sample			SD-P4-1-012N						SO-R2-C-14-1_20131115	
CONSTITUENT	***CAS NO.***	***UNITS***								
Metals (cont.)										
Silver	7440-22-4	mg/kg	NA	NA	0.14	< 0.575	< 0.557	< 0.599	< 2.8	< 0.647
Sodium	7440-23-5	mg/kg	NA	NA	NA	30.3	143	48.4	93	170
Thallium	7440-28-0	mg/kg	NA	NA	< 0.85	< 3.45	0.761	< 3.59	< 3.36	< 3.88
Vanadium	7440-62-2	mg/kg	NA	NA	NA	43.1	54.1	40	39.6	36.6
Zinc	7440-66-6	mg/kg	NA	NA	29.7	56.5	55.6	48.1	41.4	63.9
Miscellaneous										
Percent Moisture	ARC-MOIST	%dw	NA	NA	72.9	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	205000	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	< 19000	< 37000	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	< 19000	< 37000	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	< 19000	< 37000	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	< 19000	< 37000	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	< 19000	< 37000	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	< 19000	< 37000	NA	NA	NA	NA	NA
Grain Size Distribution										
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	97.7	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	98.7	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	100	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	79.5	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	7.2	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	59.1	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	96	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	39.3	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	94.9	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	92	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	18.6	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft
Collection Date			11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013	11/14/2013	11/12/2013
Sample Type			N	FD	N	N	N	N	N
Sample Name			SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112
Parent Sample				SO-R2-E-9-1_20131115					
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds									
1,1,1-Trichloroethane	71-55-6	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,1,2-Trichloroethane	79-00-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	< 11	< 16	< 16	< 12	< 11	< 11	< 11
1,1-Dichloroethane	75-34-3	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,1-Dichloroethene	75-35-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,2-Dibromoethane	106-93-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,2-Dichlorobenzene	95-50-1	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,2-Dichloroethane	107-06-2	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,2-Dichloropropane	78-87-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,3-Dichlorobenzene	541-73-1	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
1,4-Dichlorobenzene	106-46-7	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
2-Butanone	78-93-3	ug/kg	< 11	13	29	< 12	< 11	< 11	4
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	< 11	< 16	< 16	< 12	< 11	< 11	< 11
4-Methyl-2-Pentanone	108-10-1	ug/kg	< 11	< 16	< 16	< 12	< 11	< 11	< 11
Acetone	67-64-1	ug/kg	19	290	400	21	52	70	98
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Bromodichloromethane	75-27-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Bromoform	75-25-2	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Bromomethane	74-83-9	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Carbon disulfide	75-15-0	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Carbon Tetrachloride	56-23-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Chlorobenzene	108-90-7	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Chloroethane	75-00-3	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Chloroform	67-66-3	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Chloromethane	74-87-3	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Cyclohexane	110-82-7	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Dibromochloromethane	124-48-1	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Dichlorodifluoromethane	75-71-8	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Ethylbenzene	100-41-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Methyl Acetate	79-20-9	ug/kg	< 5	< 8	5	< 6	< 6	< 6	< 6

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft
Collection Date			11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013	11/14/2013	11/12/2013
Sample Type			N	FD	N	N	N	N	N
Sample Name			SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112
Parent Sample				SO-R2-E-9-1_20131115					
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds (cont.)									
Methylcyclohexane	108-87-2	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Methylene Chloride	75-09-2	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
MTBE	1634-04-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Tetrachloroethene	127-18-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Toluene	108-88-3	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Trichloroethene	79-01-6	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Trichlorofluoromethane	75-69-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Vinyl Chloride	75-01-4	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Xylenes (total)	1330-20-7	ug/kg	< 5	< 8	< 8	< 6	< 6	< 6	< 6
Semivolatile Organic Compounds									
1,1'-Biphenyl	92-52-4	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2,4-Dinitrophenol	51-28-5	ug/kg	< 1200	< 1100	< 11000	< 1300	< 11000	< 1100	< 5500
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
2,6-Dinitrotoluene	606-20-2	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2-Chloronaphthalene	91-58-7	ug/kg	< 39	< 36	< 370	< 41	< 370	< 38	< 180
2-Chlorophenol	95-57-8	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2-Methylnaphthalene	91-57-6	ug/kg	5	< 19	< 190	< 21	< 190	< 19	< 93
2-Methylphenol	95-48-7	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2-Nitroaniline	88-74-4	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2-Nitrophenol	88-75-5	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 400	< 370	< 3700	< 420	< 3700	< 380	< 1800
3-Nitroaniline	99-09-2	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 600	< 550	< 5600	< 630	< 5600	< 570	< 2700
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft
Collection Date			11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013	11/14/2013	11/12/2013
Sample Type			N	FD	N	N	N	N	N
Sample Name			SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112
Parent Sample				SO-R2-E-9-1_20131115					
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
4-Chloroaniline	106-47-8	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
4-Nitroaniline	100-01-6	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
4-Nitrophenol	100-02-7	ug/kg	< 600	< 550	< 5600	< 630	< 5600	< 570	< 2700
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	5	< 19	< 190	< 21	< 190	< 19	< 93
Acenaphthylene	208-96-8	ug/kg	30	12	< 190	< 21	60	< 19	53
Acetophenone	98-86-2	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Anthracene	120-12-7	ug/kg	24	8	< 190	< 21	< 190	< 19	52
Atrazine	1912-24-9	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Benzaldehyde	100-52-7	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	58	23	< 190	8	100	< 19	160
Benzo[a]pyrene	50-32-8	ug/kg	72	35	< 190	12	130	< 19	170
Benzo[b]fluoranthene	205-99-2	ug/kg	110	54	71	13	210	< 19	270
Benzo[g,h,i]perylene	191-24-2	ug/kg	58	< 19	< 190	6	96	< 19	110
Benzo[k]fluoranthene	207-08-9	ug/kg	52	25	< 190	5	85	< 19	110
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 200	< 190	< 1900	< 210	< 1900	< 190	< 930
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Caprolactam	105-60-2	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Carbazole	86-74-8	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Chrysene	218-01-9	ug/kg	91	49	53	9	150	< 19	240
Dibenzo[a,h]anthracene	53-70-3	ug/kg	11	< 19	< 190	7	< 190	< 19	47
Dibenzofuran	132-64-9	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Diethylphthalate	84-66-2	ug/kg	< 200	< 180	1400	< 210	< 1900	< 190	< 910
Dimethylphthalate	131-11-3	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Di-n-octylphthalate	117-84-0	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Fluoranthene	206-44-0	ug/kg	140	80	71	19	280	< 19	340
Fluorene	86-73-7	ug/kg	7	< 19	< 190	< 21	< 190	< 19	< 93
Hexachlorobenzene	118-74-1	ug/kg	< 20	< 19	< 190	< 21	< 190	< 19	< 93
Hexachlorobutadiene	87-68-3	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 600	< 550	< 5600	< 630	< 5600	< 570	< 2700
Hexachloroethane	67-72-1	ug/kg	< 200	< 180	< 1900	< 210	< 1900	< 190	< 910
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	51	< 19	38	7	72	< 19	120
Isophorone	78-59-1	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft
Collection Date			11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013	11/14/2013	11/12/2013
Sample Type			N	FD	N	N	N	N	N
Sample Name			SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112
Parent Sample				SO-R2-E-9-1_20131115					
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
Naphthalene	91-20-3	ug/kg	11	11	< 190	< 21	< 190	< 19	22
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 40	< 37	760	< 42	< 370	< 38	< 180
Pentachlorophenol	87-86-5	ug/kg	< 200	< 190	< 1900	< 210	< 1900	< 190	< 930
Phenanthrene	85-01-8	ug/kg	90	50	43	10	140	< 19	180
Phenol	108-95-2	ug/kg	< 40	< 37	< 370	< 42	< 370	< 38	< 180
Pyrene	129-00-0	ug/kg	150	65	68	19	280	< 19	330
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA
Pesticides									
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft
Collection Date			11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013	11/14/2013	11/12/2013
Sample Type			N	FD	N	N	N	N	N
Sample Name			SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112
Parent Sample				SO-R2-E-9-1_20131115					
CONSTITUENT	***CAS NO.***	***UNITS***							
Explosives and Energetics									
1,2-Dinitrobenzene	528-29-0	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
1-Nitronaphthalene	86-57-7	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
2-Nitrotoluene	88-72-2	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
3-Nitrotoluene	99-08-1	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
4-Nitrotoluene	99-99-0	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 7200	2300	93000	< 7600	< 6700	< 6900	< 6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 900	< 830	< 850	< 950	< 840	< 860	< 830
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7200	< 6700	< 6800	< 7600	< 6700	< 6900	< 6700
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
Tetryl	479-45-8	ug/kg	< 360	< 330	< 340	< 380	< 340	< 340	< 330
Metals									
Aluminum	7429-90-5	mg/kg	18900	8240	8800	17200	19700	19900	15800
Antimony	7440-36-0	mg/kg	< 2.4	< 2.18	< 2.19	< 2.52	< 2.17	< 2.25	< 2.18
Arsenic	7440-38-2	mg/kg	5.68	7.01	5.41	3.87	2.83	5.67	10.7
Barium	7440-39-3	mg/kg	59.5	50.7	111	48	70.1	83.6	86
Beryllium	7440-41-7	mg/kg	0.812	0.38	0.613	0.535	0.764	0.892	0.732
Cadmium	7440-43-9	mg/kg	< 0.6	< 0.545	0.0854	< 0.631	0.269	< 0.563	< 1.09
Calcium	7440-70-2	mg/kg	583	214	263	383	1220	773	816
Chromium	7440-47-3	mg/kg	17.2	13.8	8.52	14.5	15.9	18.1	20.7
Cobalt	7440-48-4	mg/kg	6.2	1.31	3.03	2.47	6.84	10	7.49
Copper	7440-50-8	mg/kg	14.1	10.5	16	7.89	22.4	27.4	20.7
Iron	7439-89-6	mg/kg	26500	9110	10400	26400	22400	31600	30000
Lead	7439-92-1	mg/kg	15.7	62.3	50.3	10.1	16.1	9.76	18.5
Magnesium	7439-95-4	mg/kg	1770	446	539	1250	2200	2780	2280
Manganese	7439-96-5	mg/kg	179	191	2270	86.2	310	660	527
Mercury	7439-97-6	mg/kg	0.0285	0.16	0.204	0.0354	0.036	0.0478	0.031
Nickel	7440-02-0	mg/kg	11.8	7.28	5.9	6.36	10.3	16.7	12.8
Potassium	7440-09-7	mg/kg	479	335	318	309	682	835	988
Selenium	7782-49-2	mg/kg	1.24	1.23	< 2.19	1.67	< 2.17	< 2.25	< 2.18

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1	SO-R2-G-7-1	SO-R2-H-10-1
Depths			0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft	0.2-0.7 ft	0.3-0.8 ft
Collection Date			11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013	11/14/2013	11/12/2013
Sample Type			N	FD	N	N	N	N	N
Sample Name			SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112
Parent Sample				SO-R2-E-9-1_20131115					
CONSTITUENT	***CAS NO.***	***UNITS***							
Metals (cont.)									
Silver	7440-22-4	mg/kg	< 0.6	< 0.545	0.294	< 0.631	< 0.542	< 0.563	0.885
Sodium	7440-23-5	mg/kg	45	< 109	< 109	33.9	151	81.8	69.3
Thallium	7440-28-0	mg/kg	< 3.6	< 3.27	2.73	< 3.78	< 3.25	0.764	< 3.26
Vanadium	7440-62-2	mg/kg	34.8	18.9	17.3	34.4	35.5	40.9	46
Zinc	7440-66-6	mg/kg	54.4	35.9	41.2	36.7	72.8	53	94.2
Miscellaneous									
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution									
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-H-9-1 0.1-0.6 ft 11/14/2013 N SO-R2-H-9-1_20131114	SO-R2-I-13-2 0.0-0.5 ft 11/11/2013 N SO-R2-I-13-2_20131111	SO-R2-J-5-1 0.2-0.7 ft 11/13/2013 N SO-R2-J-5-1_20131113	SO-R2-J-5-2 0.1-0.6 ft 11/13/2013 N SO-R2-J-5-2_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-K-5-1_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 FD SO-DUP-03_20131113 SO-R2-K-5-1_20131113	SO-R2-K-9-1 0.5-1.0 ft 11/15/2013 N SO-R2-K-9-1_20131115
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds									
1,1,1-Trichloroethane	71-55-6	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,1,2-Trichloroethane	79-00-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	< 12	< 20	< 14	< 12	< 14	< 13	< 13
1,1-Dichloroethane	75-34-3	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,1-Dichloroethene	75-35-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,2-Dibromoethane	106-93-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,2-Dichlorobenzene	95-50-1	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,2-Dichloroethane	107-06-2	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,2-Dichloropropane	78-87-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,3-Dichlorobenzene	541-73-1	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
1,4-Dichlorobenzene	106-46-7	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
2-Butanone	78-93-3	ug/kg	< 12	< 20	6	< 12	< 14	< 13	8
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	< 12	< 20	< 14	< 12	< 14	< 13	< 13
4-Methyl-2-Pentanone	108-10-1	ug/kg	< 12	< 20	< 14	< 12	< 14	< 13	< 13
Acetone	67-64-1	ug/kg	56	84	130	20	49	72	150
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 6	< 10	1	< 6	< 7	< 6	< 7
Bromodichloromethane	75-27-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Bromoform	75-25-2	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Bromomethane	74-83-9	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Carbon disulfide	75-15-0	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Carbon Tetrachloride	56-23-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Chlorobenzene	108-90-7	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Chloroethane	75-00-3	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Chloroform	67-66-3	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Chloromethane	74-87-3	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Cyclohexane	110-82-7	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Dibromochloromethane	124-48-1	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Dichlorodifluoromethane	75-71-8	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Ethylbenzene	100-41-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	< 6	7	< 7	< 6	< 7	< 6	< 7
Methyl Acetate	79-20-9	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-H-9-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-5-1	SO-R2-K-5-1	SO-R2-K-9-1
Depths			0.1-0.6 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft
Collection Date			11/14/2013	11/11/2013	11/13/2013	11/13/2013	11/13/2013	11/13/2013	11/15/2013
Sample Type			N	N	N	N	N	FD	N
Sample Name			SO-R2-H-9-1_20131114	SO-R2-I-13-2_20131111	SO-R2-J-5-1_20131113	SO-R2-J-5-2_20131113	SO-R2-K-5-1_20131113	SO-DUP-03_20131113	SO-R2-K-9-1_20131115
Parent Sample								SO-R2-K-5-1_20131113	
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds (cont.)									
Methylcyclohexane	108-87-2	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Methylene Chloride	75-09-2	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
MTBE	1634-04-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Tetrachloroethene	127-18-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Toluene	108-88-3	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Trichloroethene	79-01-6	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Trichlorofluoromethane	75-69-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Vinyl Chloride	75-01-4	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Xylenes (total)	1330-20-7	ug/kg	< 6	< 10	< 7	< 6	< 7	< 6	< 7
Semivolatile Organic Compounds									
1,1'-Biphenyl	92-52-4	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2,4-Dichlorophenol	120-83-2	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2,4-Dimethylphenol	105-67-9	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2,4-Dinitrophenol	51-28-5	ug/kg	< 1100	< 12000	< 12000	< 11000	< 1100	< 1100	< 1300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
2,6-Dinitrotoluene	606-20-2	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2-Chloronaphthalene	91-58-7	ug/kg	< 38	< 410	< 390	< 360	< 37	< 36	< 42
2-Chlorophenol	95-57-8	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2-Methylnaphthalene	91-57-6	ug/kg	< 19	< 210	44	< 190	< 19	< 19	< 22
2-Methylphenol	95-48-7	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2-Nitroaniline	88-74-4	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2-Nitrophenol	88-75-5	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 380	< 4200	< 3900	< 3700	< 370	< 370	< 430
3-Nitroaniline	99-09-2	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 570	< 6200	< 5900	< 5500	< 560	< 550	< 640
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-H-9-1 0.1-0.6 ft 11/14/2013 N SO-R2-H-9-1_20131114	SO-R2-I-13-2 0.0-0.5 ft 11/11/2013 N SO-R2-I-13-2_20131111	SO-R2-J-5-1 0.2-0.7 ft 11/13/2013 N SO-R2-J-5-1_20131113	SO-R2-J-5-2 0.1-0.6 ft 11/13/2013 N SO-R2-J-5-2_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-K-5-1_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 FD SO-DUP-03_20131113 SO-R2-K-5-1_20131113	SO-R2-K-9-1 0.5-1.0 ft 11/15/2013 N SO-R2-K-9-1_20131115
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
4-Chloroaniline	106-47-8	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
4-Nitroaniline	100-01-6	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
4-Nitrophenol	100-02-7	ug/kg	< 570	< 6200	< 5900	< 5500	< 560	< 550	< 640
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 19	< 210	47	< 190	< 19	< 19	< 22
Acenaphthylene	208-96-8	ug/kg	< 19	< 210	200	< 190	< 19	< 19	< 22
Acetophenone	98-86-2	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Anthracene	120-12-7	ug/kg	< 19	59	270	< 190	< 19	< 19	< 22
Atrazine	1912-24-9	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Benzaldehyde	100-52-7	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	1200
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 19	98	1400	60	< 19	< 19	< 22
Benzo[a]pyrene	50-32-8	ug/kg	6	97	2000	85	4	< 19	13
Benzo[b]fluoranthene	205-99-2	ug/kg	6	150	2700	130	4	< 19	14
Benzo[g,h,i]perylene	191-24-2	ug/kg	5	100	1300	72	4	< 19	9
Benzo[k]fluoranthene	207-08-9	ug/kg	5	< 210	1200	59	< 19	< 19	< 22
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 190	< 2100	< 2000	< 1900	< 190	< 190	92
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Caprolactam	105-60-2	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Carbazole	86-74-8	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Chrysene	218-01-9	ug/kg	5	150	1600	82	< 19	< 19	15
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 19	< 210	270	< 190	< 19	< 19	< 22
Dibenzofuran	132-64-9	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Diethylphthalate	84-66-2	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Dimethylphthalate	131-11-3	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 2100	970	< 1800	< 190	< 180	< 210
Di-n-octylphthalate	117-84-0	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Fluoranthene	206-44-0	ug/kg	9	250	2600	82	5	< 19	10
Fluorene	86-73-7	ug/kg	< 19	< 210	53	< 190	< 19	< 19	< 22
Hexachlorobenzene	118-74-1	ug/kg	< 19	< 210	< 200	< 190	< 19	< 19	< 22
Hexachlorobutadiene	87-68-3	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 570	< 6200	< 5900	< 5500	< 560	< 550	< 640
Hexachloroethane	67-72-1	ug/kg	< 190	< 2100	< 2000	< 1800	< 190	< 180	< 210
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	4	75	1100	63	< 19	< 19	10
Isophorone	78-59-1	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-H-9-1 0.1-0.6 ft 11/14/2013 N SO-R2-H-9-1_20131114	SO-R2-I-13-2 0.0-0.5 ft 11/11/2013 N SO-R2-I-13-2_20131111	SO-R2-J-5-1 0.2-0.7 ft 11/13/2013 N SO-R2-J-5-1_20131113	SO-R2-J-5-2 0.1-0.6 ft 11/13/2013 N SO-R2-J-5-2_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-K-5-1_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 FD SO-DUP-03_20131113 SO-R2-K-5-1_20131113	SO-R2-K-9-1 0.5-1.0 ft 11/15/2013 N SO-R2-K-9-1_20131115
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
Naphthalene	91-20-3	ug/kg	< 19	90	96	< 190	< 19	< 19	< 22
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 38	< 420	< 390	1500	< 37	< 37	< 43
Pentachlorophenol	87-86-5	ug/kg	< 190	< 2100	< 2000	< 1900	< 190	< 190	< 220
Phenanthrene	85-01-8	ug/kg	6	190	670	< 190	5	< 19	11
Phenol	108-95-2	ug/kg	< 38	< 420	< 390	< 370	< 37	< 37	< 43
Pyrene	129-00-0	ug/kg	9	230	2600	110	6	4	10
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA
Pesticides									
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-H-9-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-5-1	SO-R2-K-5-1	SO-R2-K-9-1
Depths			0.1-0.6 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft
Collection Date			11/14/2013	11/11/2013	11/13/2013	11/13/2013	11/13/2013	11/13/2013	11/15/2013
Sample Type			N	N	N	N	N	FD	N
Sample Name			SO-R2-H-9-1_20131114	SO-R2-I-13-2_20131111	SO-R2-J-5-1_20131113	SO-R2-J-5-2_20131113	SO-R2-K-5-1_20131113	SO-DUP-03_20131113	SO-R2-K-9-1_20131115
Parent Sample								SO-R2-K-5-1_20131113	
CONSTITUENT	***CAS NO.***	***UNITS***							
Explosives and Energetics									
1,2-Dinitrobenzene	528-29-0	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
1,4-Dinitrobenzene	100-25-4	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
1-Nitronaphthalene	86-57-7	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
2-Nitrotoluene	88-72-2	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
3-Nitrotoluene	99-08-1	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
4-Nitrotoluene	99-99-0	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 6900	< 7500	< 7000	5100	< 6700	< 6600	< 7700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 870	< 940	< 880	< 820	< 840	< 820	< 970
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 6900	< 7500	< 7000	< 6600	< 6700	< 6600	< 7700
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
Tetryl	479-45-8	ug/kg	< 350	< 380	< 350	< 330	< 340	< 330	< 390
Metals									
Aluminum	7429-90-5	mg/kg	14800	4320	14800	10600	19300	20900	19500
Antimony	7440-36-0	mg/kg	< 2.26	1.68	< 2.3	< 2.2	< 2.21	< 10.9	< 2.57
Arsenic	7440-38-2	mg/kg	5.68	16	14.3	3.47	1.73	1.11	26.8
Barium	7440-39-3	mg/kg	65	22.8	129	90.6	44.7	48.4	126
Beryllium	7440-41-7	mg/kg	0.789	< 0.62	0.591	0.4	0.498	0.542	0.561
Cadmium	7440-43-9	mg/kg	< 0.566	< 0.62	0.709	0.515	0.376	0.29	< 3.22
Calcium	7440-70-2	mg/kg	1140	225	12800	18900	820	822	382
Chromium	7440-47-3	mg/kg	15.7	9.05	20.4	12.7	15.2	20.6	19.6
Cobalt	7440-48-4	mg/kg	6.54	1.13	5.63	3.55	4.72	5.47	3.93
Copper	7440-50-8	mg/kg	26.6	16.3	54.5	34	21.6	18.4	12.5
Iron	7439-89-6	mg/kg	31700	15500	27900	18300	25400	27600	40400
Lead	7439-92-1	mg/kg	21.7	147	179	42.6	23.3	13.2	20
Magnesium	7439-95-4	mg/kg	2000	231	2070	2960	1810	2550	1960
Manganese	7439-96-5	mg/kg	484	28.5	455	169	129	177	609
Mercury	7439-97-6	mg/kg	0.13	0.331	25	0.176	0.0425	0.0277	0.0273
Nickel	7440-02-0	mg/kg	11.3	5.16	11.3	6.62	7.53	10.1	10.9
Potassium	7440-09-7	mg/kg	636	279	1020	773	508	507	888
Selenium	7782-49-2	mg/kg	1.54	< 2.48	< 2.3	< 2.2	< 2.21	< 2.17	1.17

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-H-9-1 0.1-0.6 ft 11/14/2013 N SO-R2-H-9-1_20131114	SO-R2-I-13-2 0.0-0.5 ft 11/11/2013 N SO-R2-I-13-2_20131111	SO-R2-J-5-1 0.2-0.7 ft 11/13/2013 N SO-R2-J-5-1_20131113	SO-R2-J-5-2 0.1-0.6 ft 11/13/2013 N SO-R2-J-5-2_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-K-5-1_20131113	SO-R2-K-5-1 0.0-0.5 ft 11/13/2013 FD SO-DUP-03_20131113 SO-R2-K-5-1_20131113	SO-R2-K-9-1 0.5-1.0 ft 11/15/2013 N SO-R2-K-9-1_20131115
CONSTITUENT	***CAS NO.***	***UNITS***							
Metals (cont.)									
Silver	7440-22-4	mg/kg	< 0.566	< 0.62	< 0.575	< 0.549	< 0.551	< 2.72	< 0.644
Sodium	7440-23-5	mg/kg	78.9	< 124	117	116	62.3	74.6	78.8
Thallium	7440-28-0	mg/kg	< 3.4	< 3.72	< 3.45	< 3.29	< 3.31	< 3.26	< 3.86
Vanadium	7440-62-2	mg/kg	36.3	27.6	32.5	23.2	32	34.7	37.2
Zinc	7440-66-6	mg/kg	84.7	104	202	95.9	91	116	52.8
Miscellaneous									
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution									
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-N-4-1 0.2-0.7 ft 11/12/2013 N SO-R2-N-4-1_20131112	SO-R2-P-4-1 0.3-0.8 ft 11/13/2013 N SO-R2-P-4-1_20131113	SO-R2-Q-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-Q-5-1_20131113	SO-R2-R-7-1 0.0-0.5 ft 11/12/2013 N SO-R2-R-7-1_20131112	SO-R2-R-7-2 0.3-0.8 ft 11/12/2013 N SO-R2-R-7-2_20131112	TP-R-A12-426-1 0.5-1.0 ft 8/15/2006 N TP-R-A12-426-11.0N	TP-R-A12-426-2 0.5-1.0 ft 8/16/2006 N TP-R-A12-426-21.0N
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds									
1,1,1-Trichloroethane	71-55-6	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	< 11	< 15	< 13	< 12	< 15	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
2-Butanone	78-93-3	ug/kg	< 11	6	10	< 12	12	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	< 11	< 15	< 13	< 12	< 15	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	< 11	< 15	< 13	< 12	< 15	NA	NA
Acetone	67-64-1	ug/kg	19	130	210	31	220	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Bromoform	75-25-2	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Bromomethane	74-83-9	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Carbon disulfide	75-15-0	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Chloroethane	75-00-3	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Chloroform	67-66-3	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Chloromethane	74-87-3	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Cyclohexane	110-82-7	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Methyl Acetate	79-20-9	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-N-4-1 0.2-0.7 ft 11/12/2013 N SO-R2-N-4-1_20131112	SO-R2-P-4-1 0.3-0.8 ft 11/13/2013 N SO-R2-P-4-1_20131113	SO-R2-Q-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-Q-5-1_20131113	SO-R2-R-7-1 0.0-0.5 ft 11/12/2013 N SO-R2-R-7-1_20131112	SO-R2-R-7-2 0.3-0.8 ft 11/12/2013 N SO-R2-R-7-2_20131112	TP-R-A12-426-1 0.5-1.0 ft 8/15/2006 N TP-R-A12-426-11.0N	TP-R-A12-426-2 0.5-1.0 ft 8/16/2006 N TP-R-A12-426-21.0N
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds (cont.)									
Methylcyclohexane	108-87-2	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
MTBE	1634-04-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Toluene	108-88-3	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Trichloroethene	79-01-6	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Xylenes (total)	1330-20-7	ug/kg	< 6	< 7	< 7	< 6	< 7	NA	NA
Semivolatile Organic Compounds									
1,1'-Biphenyl	92-52-4	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 190	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 1100	< 13000	< 1200	< 1200	< 1200	< 2300	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 2200	< 190	< 200	< 190	< 190	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 36	< 430	< 39	< 39	< 39	< 190	< 190
2-Chloronaphthalene	91-58-7	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	< 18	< 220	< 20	< 20	< 20	NA	NA
2-Methylphenol	95-48-7	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2-Nitroaniline	88-74-4	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 360	< 4300	< 390	< 390	< 390	NA	NA
3-Nitroaniline	99-09-2	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 540	< 6500	< 580	< 590	< 580	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-N-4-1 0.2-0.7 ft 11/12/2013 N SO-R2-N-4-1_20131112	SO-R2-P-4-1 0.3-0.8 ft 11/13/2013 N SO-R2-P-4-1_20131113	SO-R2-Q-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-Q-5-1_20131113	SO-R2-R-7-1 0.0-0.5 ft 11/12/2013 N SO-R2-R-7-1_20131112	SO-R2-R-7-2 0.3-0.8 ft 11/12/2013 N SO-R2-R-7-2_20131112	TP-R-A12-426-1 0.5-1.0 ft 8/15/2006 N TP-R-A12-426-11.0N	TP-R-A12-426-2 0.5-1.0 ft 8/16/2006 N TP-R-A12-426-21.0N
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
4-Chloroaniline	106-47-8	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
4-Nitroaniline	100-01-6	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 540	< 6500	< 580	< 590	< 580	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 18	< 220	< 20	< 20	< 20	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 18	< 220	< 20	< 20	< 20	NA	NA
Acetophenone	98-86-2	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Anthracene	120-12-7	ug/kg	< 18	< 220	< 20	< 20	< 20	NA	NA
Atrazine	1912-24-9	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
Benzaldehyde	100-52-7	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 18	< 220	7	< 20	9	< 190	< 190
Benzo[a]pyrene	50-32-8	ug/kg	6	< 220	8	5	15	< 190	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	4	50	15	5	25	< 190	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	7	< 220	8	5	17	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 18	< 220	6	4	12	< 190	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 180	< 2200	< 200	< 200	< 200	< 390	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 2200	< 190	< 200	< 190	< 190	< 190
Caprolactam	105-60-2	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
Carbazole	86-74-8	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Chrysene	218-01-9	ug/kg	< 18	59	13	< 20	20	< 190	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 18	< 220	< 20	< 20	9	< 190	< 190
Dibenzofuran	132-64-9	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 2200	< 190	< 200	< 190	< 190	< 190
Dimethylphthalate	131-11-3	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 2200	< 190	< 200	< 190	< 190	< 190
Di-n-octylphthalate	117-84-0	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
Fluoranthene	206-44-0	ug/kg	< 18	82	17	< 20	19	NA	NA
Fluorene	86-73-7	ug/kg	< 18	< 220	< 20	< 20	< 20	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 18	< 220	< 20	< 20	< 20	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 540	< 6500	< 580	< 590	< 580	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 180	< 2200	< 190	< 200	< 190	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	5	< 220	8	4	11	< 190	< 190
Isophorone	78-59-1	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-N-4-1 0.2-0.7 ft 11/12/2013 N SO-R2-N-4-1_20131112	SO-R2-P-4-1 0.3-0.8 ft 11/13/2013 N SO-R2-P-4-1_20131113	SO-R2-Q-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-Q-5-1_20131113	SO-R2-R-7-1 0.0-0.5 ft 11/12/2013 N SO-R2-R-7-1_20131112	SO-R2-R-7-2 0.3-0.8 ft 11/12/2013 N SO-R2-R-7-2_20131112	TP-R-A12-426-1 0.5-1.0 ft 8/15/2006 N TP-R-A12-426-11.0N	TP-R-A12-426-2 0.5-1.0 ft 8/16/2006 N TP-R-A12-426-21.0N
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
Naphthalene	91-20-3	ug/kg	< 18	53	7	< 20	4	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 36	< 430	< 39	< 39	< 39	< 190	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 36	< 430	< 39	< 39	< 39	< 190	< 190
Pentachlorophenol	87-86-5	ug/kg	< 180	< 2200	< 200	< 200	< 200	NA	NA
Phenanthrene	85-01-8	ug/kg	< 18	85	14	< 20	12	NA	NA
Phenol	108-95-2	ug/kg	< 36	< 430	< 39	< 39	< 39	NA	NA
Pyrene	129-00-0	ug/kg	< 18	67	18	< 20	20	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA
Pesticides									
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			SO-R2-N-4-1	SO-R2-P-4-1	SO-R2-Q-5-1	SO-R2-R-7-1	SO-R2-R-7-2	TP-R-A12-426-1	TP-R-A12-426-2
Depths			0.2-0.7 ft	0.3-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			11/12/2013	11/13/2013	11/13/2013	11/12/2013	11/12/2013	8/15/2006	8/16/2006
Sample Type			N	N	N	N	N	N	N
Sample Name			SO-R2-N-4-1_20131112	SO-R2-P-4-1_20131113	SO-R2-Q-5-1_20131113	SO-R2-R-7-1_20131112	SO-R2-R-7-2_20131112	TP-R-A12-426-11.0N	TP-R-A12-426-21.0N
Parent Sample									
CONSTITUENT	***CAS NO.***	***UNITS***							
Explosives and Energetics									
1,2-Dinitrobenzene	528-29-0	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 390	< 350	< 350	< 360	< 350	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 390	< 350	< 350	< 360	< 350	1100
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 390	< 350	< 350	< 360	< 350	< 350
2-Nitrotoluene	88-72-2	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 330	< 390	< 350	< 350	< 360	< 690	< 700
4-Nitrotoluene	99-99-0	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	95000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 6600	< 7700	< 7000	< 7100	< 7100	< 6900	< 7000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 820	< 970	< 880	< 890	< 890	< 870	< 870
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 6600	< 7700	< 7000	< 7100	< 7100	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 390	< 350	< 350	< 360	< 350	< 350
Tetryl	479-45-8	ug/kg	< 330	< 390	< 350	< 350	< 360	NA	NA
Metals									
Aluminum	7429-90-5	mg/kg	16800	22300	20900	28200	24800	NA	NA
Antimony	7440-36-0	mg/kg	< 2.15	< 2.56	< 2.31	< 2.34	< 2.34	NA	NA
Arsenic	7440-38-2	mg/kg	5.81	9.65	2.97	9.86	7.04	NA	NA
Barium	7440-39-3	mg/kg	62.2	65.7	47.3	96.2	118	NA	NA
Beryllium	7440-41-7	mg/kg	0.638	0.898	0.958	0.833	0.956	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.536	0.455	0.346	< 0.585	< 0.586	NA	NA
Calcium	7440-70-2	mg/kg	1040	473	718	390	711	NA	NA
Chromium	7440-47-3	mg/kg	15.9	18.2	16.4	28.4	23.4	NA	NA
Cobalt	7440-48-4	mg/kg	6.34	5.63	3.52	6.46	7.25	NA	NA
Copper	7440-50-8	mg/kg	12.6	16	11.4	16.1	10.8	NA	NA
Iron	7439-89-6	mg/kg	27900	27900	26700	34100	27400	NA	NA
Lead	7439-92-1	mg/kg	9.65	24.3	16.6	15.4	23.8	NA	NA
Magnesium	7439-95-4	mg/kg	2310	1810	1450	3050	2100	NA	NA
Manganese	7439-96-5	mg/kg	342	934	378	202	838	NA	NA
Mercury	7439-97-6	mg/kg	0.0168	0.0862	0.0708	0.0236	0.0647	NA	NA
Nickel	7440-02-0	mg/kg	9.21	9.45	7.86	13.1	11.5	NA	NA
Potassium	7440-09-7	mg/kg	563	585	366	1010	824	NA	NA
Selenium	7782-49-2	mg/kg	< 2.15	1.3	< 2.31	< 2.34	< 2.34	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SO-R2-N-4-1 0.2-0.7 ft 11/12/2013 N SO-R2-N-4-1_20131112	SO-R2-P-4-1 0.3-0.8 ft 11/13/2013 N SO-R2-P-4-1_20131113	SO-R2-Q-5-1 0.0-0.5 ft 11/13/2013 N SO-R2-Q-5-1_20131113	SO-R2-R-7-1 0.0-0.5 ft 11/12/2013 N SO-R2-R-7-1_20131112	SO-R2-R-7-2 0.3-0.8 ft 11/12/2013 N SO-R2-R-7-2_20131112	TP-R-A12-426-1 0.5-1.0 ft 8/15/2006 N TP-R-A12-426-11.0N	TP-R-A12-426-2 0.5-1.0 ft 8/16/2006 N TP-R-A12-426-21.0N
CONSTITUENT	***CAS NO.***	***UNITS***							
Metals (cont.)									
Silver	7440-22-4	mg/kg	0.541	< 0.639	< 0.578	0.758	0.648	NA	NA
Sodium	7440-23-5	mg/kg	82.3	43	46.6	32.5	33.9	NA	NA
Thallium	7440-28-0	mg/kg	< 3.22	< 3.83	< 3.47	< 3.51	< 3.52	NA	NA
Vanadium	7440-62-2	mg/kg	32.4	32.3	31.9	54.1	48.2	NA	NA
Zinc	7440-66-6	mg/kg	122	102	87.4	70.7	80	NA	NA
Miscellaneous									
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	13.6	13.9
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution									
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-A13-625-2 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-21.0N	TP-R-A13-625-3 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-31.0N	TP-R-C11-8572C-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572C-11.0N	TP-R-C11-8572D-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572D-11.0N	TP-R-C13-666-4 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-41.0N	TP-R-D11-2031-1 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-11.0N	TP-R-D11-2031-2 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-21.0N	TP-R-D11-2031-3 1.0-1.5 ft 8/15/2006 N TP-R-D11-2031-31.5N
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-A13-625-2	TP-R-A13-625-3	TP-R-C11-8572C-1	TP-R-C11-8572D-1	TP-R-C13-666-4	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-D11-2031-3
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			8/16/2006	8/16/2006	8/15/2006	8/15/2006	8/17/2006	8/15/2006	8/15/2006	8/15/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A13-625-21.0N	TP-R-A13-625-31.0N	TP-R-C11-8572C-11.0N	TP-R-C11-8572D-11.0N	TP-R-C13-666-41.0N	TP-R-D11-2031-11.0N	TP-R-D11-2031-21.0N	TP-R-D11-2031-31.5N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds (cont.)										
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds										
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 200	< 170	< 180	< 180	< 180	< 180	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2300	< 2100	< 2200	< 2200	< 2100	< 2200	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	< 200	< 170	< 180	< 180	< 180	26000	1500
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	< 200	< 170	90	< 180	< 180	23000	950
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-A13-625-2 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-21.0N	TP-R-A13-625-3 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-31.0N	TP-R-C11-8572C-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572C-11.0N	TP-R-C11-8572D-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572D-11.0N	TP-R-C13-666-4 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-41.0N	TP-R-D11-2031-1 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-11.0N	TP-R-D11-2031-2 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-21.0N	TP-R-D11-2031-3 1.0-1.5 ft 8/15/2006 N TP-R-D11-2031-31.5N
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	< 200	< 170	41	< 180	< 180	< 180	120
Benzo[a]pyrene	50-32-8	ug/kg	< 200	< 200	< 170	79	< 180	< 180	< 180	130
Benzo[b]fluoranthene	205-99-2	ug/kg	< 200	< 200	< 170	370	< 180	< 180	< 180	330
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	< 200	< 170	250	< 180	< 180	< 180	130
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	< 390	< 350	160	< 370	< 350	< 360	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 200	< 170	< 180	< 180	< 180	< 180	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	< 200	< 170	69	< 180	< 180	< 180	200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 200	< 170	71	< 180	< 180	< 180	68
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 200	< 200	< 170	550	< 180	< 180	< 180	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 200	< 200	< 170	340	< 180	< 180	< 180	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 200	< 200	< 170	180	< 180	< 180	< 180	180
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-A13-625-2	TP-R-A13-625-3	TP-R-C11-8572C-1	TP-R-C11-8572D-1	TP-R-C13-666-4	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-D11-2031-3
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			8/16/2006	8/16/2006	8/15/2006	8/15/2006	8/17/2006	8/15/2006	8/15/2006	8/15/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A13-625-21.0N	TP-R-A13-625-31.0N	TP-R-C11-8572C-11.0N	TP-R-C11-8572D-11.0N	TP-R-C13-666-41.0N	TP-R-D11-2031-11.0N	TP-R-D11-2031-21.0N	TP-R-D11-2031-31.5N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 200	< 170	< 180	< 180	< 180	< 180	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 200	< 200	< 170	240	< 180	< 180	< 180	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides										
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls										
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-A13-625-2 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-21.0N	TP-R-A13-625-3 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-31.0N	TP-R-C11-8572C-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572C-11.0N	TP-R-C11-8572D-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572D-11.0N	TP-R-C13-666-4 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-41.0N	TP-R-D11-2031-1 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-11.0N	TP-R-D11-2031-2 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-21.0N	TP-R-D11-2031-3 1.0-1.5 ft 8/15/2006 N TP-R-D11-2031-31.5N
CONSTITUENT	***CAS NO.***	***UNITS***								
Explosives and Energetics										
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 350	< 310	< 330	180	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	180	260	< 310	< 330	15000	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 350	< 310	< 330	1700	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 710	< 700	< 630	< 650	1700	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	< 130000	950000	< 130000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 7100	< 7000	< 6300	12000	11000	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 890	< 880	< 780	< 810	< 830	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 350	< 310	< 330	< 330	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-A13-625-2 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-21.0N	TP-R-A13-625-3 0.5-1.0 ft 8/16/2006 N TP-R-A13-625-31.0N	TP-R-C11-8572C-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572C-11.0N	TP-R-C11-8572D-1 0.5-1.0 ft 8/15/2006 N TP-R-C11-8572D-11.0N	TP-R-C13-666-4 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-41.0N	TP-R-D11-2031-1 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-11.0N	TP-R-D11-2031-2 0.5-1.0 ft 8/15/2006 N TP-R-D11-2031-21.0N	TP-R-D11-2031-3 1.0-1.5 ft 8/15/2006 N TP-R-D11-2031-31.5N
CONSTITUENT	***CAS NO.***	***UNITS***								
Metals (cont.)										
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous										
Percent Moisture	ARC-MOIST	%dw	15.3	14.6	4.1	7.8	9.8	6.1	7.7	11.8
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution										
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-E9-2119/E9-1-1	TP-R-E9-2119/E9-1-2	TP-R-E9-2119/E9-1-3	TP-R-E9-2119/E9-1-4	TP-R-F10-2094-1	TP-R-G8-2110-1	TP-R-G8-2110-2
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006
Sample Type			N	N	N	N	N	N	N
Sample Name			TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-31.0N	TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-11.5N	TP-R-G8-2110-11.5N	TP-R-G8-2110-21.5N
Parent Sample									
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds									
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-E9-2119/E9-1-1	TP-R-E9-2119/E9-1-2	TP-R-E9-2119/E9-1-3	TP-R-E9-2119/E9-1-4	TP-R-F10-2094-1	TP-R-G8-2110-1	TP-R-G8-2110-2
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006
Sample Type			N	N	N	N	N	N	N
Sample Name			TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-31.0N	TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-11.5N	TP-R-G8-2110-11.5N	TP-R-G8-2110-21.5N
Parent Sample									
CONSTITUENT	***CAS NO.***	***UNITS***							
Volatile Organic Compounds (cont.)									
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds									
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 170	< 180	< 180	< 170	< 1800	< 170	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	< 2200	< 2200	< 2100	< 22000	< 2100	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 170	< 180	< 180	< 170	< 1800	< 170	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	< 170	< 180	< 180	< 170	< 1800	< 170	< 180
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-E9-2119/E9-1-1	TP-R-E9-2119/E9-1-2	TP-R-E9-2119/E9-1-3	TP-R-E9-2119/E9-1-4	TP-R-F10-2094-1	TP-R-G8-2110-1	TP-R-G8-2110-2
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006
Sample Type			N	N	N	N	N	N	N
Sample Name			TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-31.0N	TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-11.5N	TP-R-G8-2110-11.5N	TP-R-G8-2110-21.5N
Parent Sample									
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	53	< 180	< 180	200	< 1800	60	37
Benzo[a]pyrene	50-32-8	ug/kg	170	39	< 180	190	410	52	39
Benzo[b]fluoranthene	205-99-2	ug/kg	260	55	< 180	1300	1700	72	53
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	87	< 180	< 180	440	710	41	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 350	< 360	< 360	< 350	< 3600	< 350	< 350
Butylbenzylphthalate	85-68-7	ug/kg	< 170	< 180	< 180	< 170	< 1800	< 170	< 180
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	61	< 180	< 180	240	< 1800	79	52
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 170	< 180	< 180	86	< 1800	< 170	< 180
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	540	290	< 180	850	< 1800	< 170	< 180
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	80	72	< 180	140	< 1800	< 170	< 180
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	63	< 180	< 180	360	< 1800	< 170	< 180
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-E9-2119/E9-1-1	TP-R-E9-2119/E9-1-2	TP-R-E9-2119/E9-1-3	TP-R-E9-2119/E9-1-4	TP-R-F10-2094-1	TP-R-G8-2110-1	TP-R-G8-2110-2
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006
Sample Type			N	N	N	N	N	N	N
Sample Name			TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-31.0N	TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-11.5N	TP-R-G8-2110-11.5N	TP-R-G8-2110-21.5N
Parent Sample									
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (cont.)									
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 170	< 180	< 180	< 170	< 1800	< 170	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	340	280	< 180	390	< 1800	170	290
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA
Pesticides									
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-E9-2119/E9-1-1	TP-R-E9-2119/E9-1-2	TP-R-E9-2119/E9-1-3	TP-R-E9-2119/E9-1-4	TP-R-F10-2094-1	TP-R-G8-2110-1	TP-R-G8-2110-2
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/9/2006
Sample Type			N	N	N	N	N	N	N
Sample Name			TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-31.0N	TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-11.5N	TP-R-G8-2110-11.5N	TP-R-G8-2110-21.5N
Parent Sample									
CONSTITUENT	***CAS NO.***	***UNITS***							
Explosives and Energetics									
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 310	< 320	< 330	< 310	< 330	< 310	< 320
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 310	140	160	200	< 330	660	< 320
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	200	380	< 330	500	< 330	< 310	< 320
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 630	< 650	< 650	< 620	< 650	< 620	< 630
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	590000	440000	< 130000	730000	3200000	< 120000	110000
Nitroglycerin	55-63-0	ug/kg	15000	30000	< 6500	37000	10000	< 6200	4500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 790	< 810	< 810	< 780	< 820	< 780	< 790
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 310	150	< 330	< 310	< 330	< 310	< 320
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA
Metals									
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-E9-2119/E9-1-1 0.5-1.0 ft 8/9/2006 N TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-2 0.5-1.0 ft 8/9/2006 N TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-3 0.5-1.0 ft 8/9/2006 N TP-R-E9-2119/E9-1-31.0N	TP-R-E9-2119/E9-1-4 1.0-1.5 ft 8/9/2006 N TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-1 1.0-1.5 ft 8/9/2006 N TP-R-F10-2094-11.5N	TP-R-G8-2110-1 1.0-1.5 ft 8/9/2006 N TP-R-G8-2110-11.5N	TP-R-G8-2110-2 1.0-1.5 ft 8/9/2006 N TP-R-G8-2110-21.5N
CONSTITUENT	***CAS NO.***	***UNITS***							
Metals (cont.)									
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Miscellaneous									
Percent Moisture	ARC-MOIST	%dw	4.7	7	7.9	3.5	8	3.7	4.8
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution									
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-G8-2110-3 0.5-1.0 ft 8/18/2006 N TP-R-G8-2110-31.0N	TP-R-G8-2110-4 1.0-1.5 ft 8/18/2006 N TP-R-G8-2110-41.5N	TP-R-G9-4-1 0.5-1.0 ft 8/8/2006 N TP-R-G9-4-11.0N	TP-R-G9-4-2 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-21.5N	TP-R-G9-4-3 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-31.5N	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1530	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1535	TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-041.5N1200
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 2900	< 3000	< 3200	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	< 710	< 750	< 790	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 710	< 750	< 790	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-G8-2110-3 0.5-1.0 ft 8/18/2006 N TP-R-G8-2110-31.0N	TP-R-G8-2110-4 1.0-1.5 ft 8/18/2006 N TP-R-G8-2110-41.5N	TP-R-G9-4-1 0.5-1.0 ft 8/8/2006 N TP-R-G9-4-11.0N	TP-R-G9-4-2 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-21.5N	TP-R-G9-4-3 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-31.5N	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1530	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1535	TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-041.5N1200
CONSTITUENT	***CAS NO.***	***UNITS***								
Volatile Organic Compounds (cont.)										
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 710	< 750	< 790	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 710	< 750	< 790	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds										
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
1,4-Dichlorobenzene	106-46-7	ug/kg	< 870	< 180	< 190	< 200	< 210	NA	< 200	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
2,4-Dinitrophenol	51-28-5	ug/kg	< 10000	< 2100	< 2300	< 2400	< 2500	NA	< 2400	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	570	< 180	< 190	< 200	< 210	NA	< 200	< 200
2,6-Dinitrotoluene	606-20-2	ug/kg	< 870	< 180	< 190	< 200	< 210	NA	< 200	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	< 400	< 390
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	< 610	< 590
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-G8-2110-3 0.5-1.0 ft 8/18/2006 N TP-R-G8-2110-31.0N	TP-R-G8-2110-4 1.0-1.5 ft 8/18/2006 N TP-R-G8-2110-41.5N	TP-R-G9-4-1 0.5-1.0 ft 8/8/2006 N TP-R-G9-4-11.0N	TP-R-G9-4-2 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-21.5N	TP-R-G9-4-3 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-31.5N	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1530	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1535	TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-041.5N1200
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	< 610	< 590
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 4000	< 3900
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	3100	130	< 190	< 200	68	NA	71	< 200
Benzo[a]pyrene	50-32-8	ug/kg	2500	100	< 190	< 200	57	NA	57	< 200
Benzo[b]fluoranthene	205-99-2	ug/kg	16000	250	< 190	< 200	100	NA	91	< 200
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	58	< 200
Benzo[k]fluoranthene	207-08-9	ug/kg	6700	150	< 190	< 200	< 210	NA	57	< 200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 1700	< 360	< 380	< 400	< 420	NA	< 400	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 870	< 180	< 190	< 200	< 210	NA	< 200	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	8600	190	< 190	< 200	170	NA	98	< 200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	1100	< 180	< 190	< 200	< 210	NA	< 200	< 200
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 870	< 180	< 190	< 200	< 210	NA	< 200	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Di-n-butylphthalate	84-74-2	ug/kg	810	< 180	< 190	< 200	< 210	NA	< 200	< 200
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	170	< 200
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	< 610	< 590
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	3500	49	< 190	< 200	< 210	NA	200	< 200
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-G8-2110-3 0.5-1.0 ft 8/18/2006 N TP-R-G8-2110-31.0N	TP-R-G8-2110-4 1.0-1.5 ft 8/18/2006 N TP-R-G8-2110-41.5N	TP-R-G9-4-1 0.5-1.0 ft 8/8/2006 N TP-R-G9-4-11.0N	TP-R-G9-4-2 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-21.5N	TP-R-G9-4-3 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-31.5N	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1530	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1535	TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-041.5N1200
CONSTITUENT	***CAS NO.***	***UNITS***								
Semivolatile Organic Compounds (cont.)										
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	< 200	< 200
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 870	< 180	< 190	< 200	< 210	NA	< 200	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	3600	570	< 190	< 200	< 210	NA	< 200	< 200
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	< 610	< 590
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	81	< 200
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	67	< 200
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	150	< 200
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides										
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls										
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	< 19	< 20	< 21	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-G8-2110-3 0.5-1.0 ft 8/18/2006 N TP-R-G8-2110-31.0N	TP-R-G8-2110-4 1.0-1.5 ft 8/18/2006 N TP-R-G8-2110-41.5N	TP-R-G9-4-1 0.5-1.0 ft 8/8/2006 N TP-R-G9-4-11.0N	TP-R-G9-4-2 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-21.5N	TP-R-G9-4-3 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-31.5N	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1530	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1535	TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-041.5N1200
CONSTITUENT	***CAS NO.***	***UNITS***								
Explosives and Energetics										
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
1,3-Dinitrobenzene	99-65-0	ug/kg	< 310	< 320	< 340	< 360	< 370	NA	< 360	< 350
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
2,4,6-Trinitrotoluene	118-96-7	ug/kg	520	< 320	< 340	< 360	< 370	NA	< 360	< 350
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 310	< 320	< 340	< 360	< 370	NA	< 360	< 350
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 630	< 640	< 690	< 720	< 750	NA	< 730	< 710
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	< 10000	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
Nitrocellulose	9004-70-0	ug/kg	1000000	120000	< 140000	< 150000	< 150000	NA	< 150000	130000
Nitroglycerin	55-63-0	ug/kg	82000	< 6400	< 6900	< 7200	< 7500	NA	< 7300	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 780	< 800	< 860	< 900	< 930	NA	< 910	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	< 7300	< 7100
RDX (Cyclonite)	121-82-4	ug/kg	< 310	< 320	< 340	< 360	< 370	NA	< 360	< 350
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	< 360	< 350
Metals										
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 2.22	< 2.36	< 2.47	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	3.7	1.14	21.7	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.198	0.13	0.498	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	< 0.556	0.103	0.65	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	26.5	8.27	40	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	69.9	4.71	47.1	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.0945	0.236	0.296	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	10.5	6.57	10.4	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	< 2.22	< 2.36	< 2.47	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-G8-2110-3 0.5-1.0 ft 8/18/2006 N TP-R-G8-2110-31.0N	TP-R-G8-2110-4 1.0-1.5 ft 8/18/2006 N TP-R-G8-2110-41.5N	TP-R-G9-4-1 0.5-1.0 ft 8/8/2006 N TP-R-G9-4-11.0N	TP-R-G9-4-2 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-21.5N	TP-R-G9-4-3 1.0-1.5 ft 8/8/2006 N TP-R-G9-4-31.5N	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1530	TP-R-H8-01A-01 1.0-1.5 ft 12/19/2006 N TP-R-H8-01A-011.5N1535	TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-041.5N1200
CONSTITUENT	***CAS NO.***	***UNITS***								
Metals (cont.)										
Silver	7440-22-4	mg/kg	NA	NA	< 0.556	< 0.59	< 0.616	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 2.22	< 2.36	< 2.47	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	452	108	155	NA	NA	NA
Miscellaneous										
Percent Moisture	ARC-MOIST	%dw	4.2	6.7	12.7	16.9	19.7	NA	17.5	15.4
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution										
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-04N1200	TP-R-H8-01B-02 1.0-1.5 ft 12/20/2006 N TP-R-H8-01B-02N1440	TP-R-H8-01B-04 1.0-1.5 ft 12/21/2006 N TP-R-H8-01B-041.5N800	TP-R-H8-01B-05 1.0-1.5 ft 12/21/2006 N TP-R-H8-01B-051.5N820	TP-R-J7-1-1 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-11.0N	TP-R-J7-1-2 1.0-1.5 ft 7/28/2006 N TP-R-J7-1-21.5N	TP-R-J7-1-3 1.0-1.5 ft 7/28/2006 N TP-R-J7-1-31.5N	TP-R-J7-1-4 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-41.0N	TP-R-J7-1-5 1.0-1.5 ft 7/28/2006 N TP-R-J7-1-51.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-H8-01A-04	TP-R-H8-01B-02	TP-R-H8-01B-04	TP-R-H8-01B-05	TP-R-J7-1-1	TP-R-J7-1-2	TP-R-J7-1-3	TP-R-J7-1-4	TP-R-J7-1-5
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			12/20/2006	12/20/2006	12/21/2006	12/21/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-H8-01A-04N1200	TP-R-H8-01B-02N1440	TP-R-H8-01B-041.5N800	TP-R-H8-01B-051.5N820	TP-R-J7-1-11.0N	TP-R-J7-1-21.5N	TP-R-J7-1-31.5N	TP-R-J7-1-41.0N	TP-R-J7-1-51.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds (cont.)											
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 2300	< 2300	< 2200	< 2300	< 2200	< 2200	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 380	< 380	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 580	< 580	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-H8-01A-04	TP-R-H8-01B-02	TP-R-H8-01B-04	TP-R-H8-01B-05	TP-R-J7-1-1	TP-R-J7-1-2	TP-R-J7-1-3	TP-R-J7-1-4	TP-R-J7-1-5
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			12/20/2006	12/20/2006	12/21/2006	12/21/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-H8-01A-04N1200	TP-R-H8-01B-02N1440	TP-R-H8-01B-041.5N800	TP-R-H8-01B-051.5N820	TP-R-J7-1-11.0N	TP-R-J7-1-21.5N	TP-R-J7-1-31.5N	TP-R-J7-1-41.0N	TP-R-J7-1-51.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 580	< 580	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 190	49	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 190	53	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 3800	< 3800	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	44	210	< 180	< 190	< 180	< 180	< 180
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 190	250	< 180	< 190	< 180	< 180	< 180
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	51	350	< 180	< 190	< 180	41	< 180
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 190	100	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 190	200	< 180	< 190	< 180	< 180	< 180
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 380	< 380	< 370	< 380	< 360	< 370	< 370
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	46	350	< 180	< 190	< 180	37	< 180
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 190	44	< 180	< 190	< 180	< 180	< 180
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	75	580	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 580	< 580	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	< 190	150	< 180	< 190	< 180	< 180	< 180
Isophorone	78-59-1	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-H8-01A-04	TP-R-H8-01B-02	TP-R-H8-01B-04	TP-R-H8-01B-05	TP-R-J7-1-1	TP-R-J7-1-2	TP-R-J7-1-3	TP-R-J7-1-4	TP-R-J7-1-5
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			12/20/2006	12/20/2006	12/21/2006	12/21/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-H8-01A-04N1200	TP-R-H8-01B-02N1440	TP-R-H8-01B-041.5N800	TP-R-H8-01B-051.5N820	TP-R-J7-1-11.0N	TP-R-J7-1-21.5N	TP-R-J7-1-31.5N	TP-R-J7-1-41.0N	TP-R-J7-1-51.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
Naphthalene	91-20-3	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 190	< 190	< 180	< 190	< 180	< 180	< 180
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 190	44	< 180	< 190	< 180	< 180	< 180
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 580	< 580	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	< 190	290	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	< 190	< 190	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	57	580	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls											
Aroclor-1016	12674-11-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	11104-28-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	11141-16-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	53469-21-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	12672-29-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	11097-69-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	11096-82-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-H8-01A-04	TP-R-H8-01B-02	TP-R-H8-01B-04	TP-R-H8-01B-05	TP-R-J7-1-1	TP-R-J7-1-2	TP-R-J7-1-3	TP-R-J7-1-4	TP-R-J7-1-5
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			12/20/2006	12/20/2006	12/21/2006	12/21/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-H8-01A-04N1200	TP-R-H8-01B-02N1440	TP-R-H8-01B-041.5N800	TP-R-H8-01B-051.5N820	TP-R-J7-1-11.0N	TP-R-J7-1-21.5N	TP-R-J7-1-31.5N	TP-R-J7-1-41.0N	TP-R-J7-1-51.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Explosives and Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 350	< 350	< 330	< 340	< 330	< 330	< 330
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 350	< 350	< 330	< 340	< 330	< 330	< 330
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 350	< 350	< 330	< 340	< 330	< 330	< 330
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 690	< 690	< 660	< 690	< 650	< 660	< 660
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	0	0	< 9900	< 10000	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 140000	74000	< 130000	< 140000	< 130000	< 130000	< 130000
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 6900	< 6900	< 6600	< 6900	< 6500	< 6600	< 6600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	NA	NA	< 860	< 860	< 820	< 860	< 820	< 820	< 830
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	< 6900	< 6900	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 350	< 350	< 330	< 340	< 330	< 330	< 330
Tetryl	479-45-8	ug/kg	NA	NA	< 350	< 350	NA	NA	NA	NA	NA
Metals											
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-H8-01A-04 1.0-1.5 ft 12/20/2006 N TP-R-H8-01A-04N1200	TP-R-H8-01B-02 1.0-1.5 ft 12/20/2006 N TP-R-H8-01B-02N1440	TP-R-H8-01B-04 1.0-1.5 ft 12/21/2006 N TP-R-H8-01B-041.5N800	TP-R-H8-01B-05 1.0-1.5 ft 12/21/2006 N TP-R-H8-01B-051.5N820	TP-R-J7-1-1 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-11.0N	TP-R-J7-1-2 1.0-1.5 ft 7/28/2006 N TP-R-J7-1-21.5N	TP-R-J7-1-3 1.0-1.5 ft 7/28/2006 N TP-R-J7-1-31.5N	TP-R-J7-1-4 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-41.0N	TP-R-J7-1-5 1.0-1.5 ft 7/28/2006 N TP-R-J7-1-51.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Metals (cont.)											
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	NA	NA	13.2	13.2	8.9	12.7	8	8.9	9.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution											
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-J7-1-6	TP-R-J7-1-7	TP-R-K5-1-3	TP-R-K5-1-4	TP-R-K5-1-5	TP-R-K5-2-1	TP-R-K5-2-2	TP-R-K5-2-3	TP-R-K5-2-4	TP-R-K5-2-5
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/28/2006	7/28/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/26/2006	7/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-K5-1-31.0N	TP-R-K5-1-41.5N	TP-R-K5-1-51.0N	TP-R-K5-2-11.0N	TP-R-K5-2-21.0N	TP-R-K5-2-31.0N	TP-R-K5-2-41.0N	TP-R-K5-2-51.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	< 3500	< 3400	< 3500	< 3700	< 4000	< 4400	< 2800	< 3400
Benzene	71-43-2	ug/kg	NA	NA	< 860	< 850	< 870	< 910	< 990	< 1100	< 690	< 850
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	< 860	< 850	< 870	< 910	< 990	< 1100	< 690	< 850
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-J7-1-6	TP-R-J7-1-7	TP-R-K5-1-3	TP-R-K5-1-4	TP-R-K5-1-5	TP-R-K5-2-1	TP-R-K5-2-2	TP-R-K5-2-3	TP-R-K5-2-4	TP-R-K5-2-5
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/28/2006	7/28/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/26/2006	7/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-K5-1-31.0N	TP-R-K5-1-41.5N	TP-R-K5-1-51.0N	TP-R-K5-2-11.0N	TP-R-K5-2-21.0N	TP-R-K5-2-31.0N	TP-R-K5-2-41.0N	TP-R-K5-2-51.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds (cont.)												
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	< 860	< 850	< 870	< 910	< 990	< 1100	< 690	< 850
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	< 860	< 850	< 870	< 910	< 990	< 1100	< 690	< 850
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 180	< 2200	< 2100	< 1100	< 2300	< 1300	< 1200	< 190	< 220
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2200	< 27000	< 26000	< 13000	< 27000	< 15000	< 14000	< 2300	< 2700
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 180	1100	< 2100	2600	< 2300	20000	< 1200	< 190	< 220
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 180	< 2200	< 2100	300	< 2300	< 1300	< 1200	< 190	< 220
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-J7-1-6	TP-R-J7-1-7	TP-R-K5-1-3	TP-R-K5-1-4	TP-R-K5-1-5	TP-R-K5-2-1	TP-R-K5-2-2	TP-R-K5-2-3	TP-R-K5-2-4	TP-R-K5-2-5
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/28/2006	7/28/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/26/2006	7/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-K5-1-31.0N	TP-R-K5-1-41.5N	TP-R-K5-1-51.0N	TP-R-K5-2-11.0N	TP-R-K5-2-21.0N	TP-R-K5-2-31.0N	TP-R-K5-2-41.0N	TP-R-K5-2-51.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 180	< 180	3400	42000	6600	1300	3000	640	62	690
Benzo[a]pyrene	50-32-8	ug/kg	< 180	< 180	3100	37000	5700	3200	2000	1200	58	550
Benzo[b]fluoranthene	205-99-2	ug/kg	< 180	< 180	5000	48000	8000	3400	3300	1300	93	830
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 180	< 180	1700	19000	3500	990	1500	510	< 190	310
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 370	< 4400	< 4300	< 2200	< 4500	< 2600	< 2400	< 380	< 450
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 180	< 2200	< 2100	< 1100	< 2300	< 1300	< 1200	< 190	< 220
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 180	< 180	3900	38000	6600	1900	3500	1200	78	670
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	< 180	820	6500	1400	3100	740	890	< 190	120
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 180	1000	< 2100	< 1100	< 2300	< 1300	< 1200	< 190	< 220
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 180	2100	930	1400	< 2300	9100	< 1200	< 190	< 220
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 180	< 180	2300	23000	3700	3300	1800	1000	< 190	340
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-J7-1-6 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-61.0N	TP-R-J7-1-7 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-71.0N	TP-R-K5-1-3 0.5-1.0 ft 7/27/2006 N TP-R-K5-1-31.0N	TP-R-K5-1-4 1.0-1.5 ft 7/27/2006 N TP-R-K5-1-41.5N	TP-R-K5-1-5 0.5-1.0 ft 7/27/2006 N TP-R-K5-1-51.0N	TP-R-K5-2-1 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-11.0N	TP-R-K5-2-2 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-21.0N	TP-R-K5-2-3 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-31.0N	TP-R-K5-2-4 0.5-1.0 ft 7/26/2006 N TP-R-K5-2-41.0N	TP-R-K5-2-5 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-51.0N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (cont.)												
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 180	< 2200	< 2100	< 1100	< 2300	< 1300	< 1200	< 190	< 220
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 180	< 180	1400	< 2100	1600	< 2300	< 1300	< 1200	< 190	< 220
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides												
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1016	12674-11-2	ug/kg	NA	NA	< 230	< 22	< 110	< 23	< 260	< 24	< 19	< 23
Aroclor-1221	11104-28-2	ug/kg	NA	NA	< 230	< 22	< 110	< 23	< 260	< 24	< 19	< 23
Aroclor-1232	11141-16-5	ug/kg	NA	NA	< 230	< 22	< 110	< 23	< 260	< 24	< 19	< 23
Aroclor-1242	53469-21-9	ug/kg	NA	NA	< 230	< 22	< 110	< 23	< 260	< 24	< 19	< 23
Aroclor-1248	12672-29-6	ug/kg	NA	NA	< 230	< 22	< 110	< 23	< 260	< 24	< 19	< 23
Aroclor-1254	11097-69-1	ug/kg	NA	NA	< 230	70	290	25	550	25	< 19	14
Aroclor-1260	11096-82-5	ug/kg	NA	NA	1100	130	< 110	55	< 260	74	< 19	< 23
Polychlorinated biphenyls	1336-36-3	ug/kg	NA	NA	1100	200	290	80	550	99	< 19	14

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-J7-1-6	TP-R-J7-1-7	TP-R-K5-1-3	TP-R-K5-1-4	TP-R-K5-1-5	TP-R-K5-2-1	TP-R-K5-2-2	TP-R-K5-2-3	TP-R-K5-2-4	TP-R-K5-2-5
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/28/2006	7/28/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/26/2006	7/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-K5-1-31.0N	TP-R-K5-1-41.5N	TP-R-K5-1-51.0N	TP-R-K5-2-11.0N	TP-R-K5-2-21.0N	TP-R-K5-2-31.0N	TP-R-K5-2-41.0N	TP-R-K5-2-51.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives and Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 330	< 400	< 380	< 390	< 410	< 460	< 420	< 340	< 400
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 330	< 400	270	290	< 410	< 460	< 420	< 340	< 400
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 330	< 400	< 380	< 390	< 410	< 460	< 420	< 340	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 660	< 660	< 800	< 770	< 780	< 810	< 930	< 850	< 690	< 810
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 130000	250000	65000	290000	< 160000	120000	< 170000	< 140000	< 160000
Nitroglycerin	55-63-0	ug/kg	< 6600	< 6600	7900	< 7700	< 7800	< 8100	< 9300	< 8500	< 6900	< 8100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 830	< 830	< 1000	< 960	< 970	< 1000	< 1200	< 1100	< 860	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 330	< 400	< 380	< 390	< 410	< 460	< 420	< 340	< 400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.2	NA	7.63	8.69	18.7	< 2.63	6.84	831	4.78	< 2.67
Arsenic	7440-38-2	mg/kg	2.7	NA	168	30.4	207	9.33	20.7	260	5.64	6.31
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.166	NA	0.521	0.656	0.356	0.244	0.312	0.411	0.781	0.827
Cadmium	7440-43-9	mg/kg	0.0979	NA	3.97	18.7	38.3	3.14	0.759	105	0.244	< 0.667
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	9.94	NA	416	12100	489	325	6640	347	839	43.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	23	NA	2570	2670	2820	863	2320	98500	588	146
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.277	NA	167	81.8	50.9	10.9	197	19.8	12.1	1.86
Nickel	7440-02-0	mg/kg	5.34	NA	90.8	33.7	73.9	51.4	104	34.7	12.5	11.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.2	NA	9.58	3.28	< 12.7	< 2.63	57.9	< 2.75	< 2.22	< 2.67

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-J7-1-6 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-61.0N	TP-R-J7-1-7 0.5-1.0 ft 7/28/2006 N TP-R-J7-1-71.0N	TP-R-K5-1-3 0.5-1.0 ft 7/27/2006 N TP-R-K5-1-31.0N	TP-R-K5-1-4 1.0-1.5 ft 7/27/2006 N TP-R-K5-1-41.5N	TP-R-K5-1-5 0.5-1.0 ft 7/27/2006 N TP-R-K5-1-51.0N	TP-R-K5-2-1 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-11.0N	TP-R-K5-2-2 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-21.0N	TP-R-K5-2-3 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-31.0N	TP-R-K5-2-4 0.5-1.0 ft 7/26/2006 N TP-R-K5-2-41.0N	TP-R-K5-2-5 0.5-1.0 ft 7/27/2006 N TP-R-K5-2-51.0N
CONSTITUENT	***CAS NO.***	***UNITS***										
Metals (cont.)												
Silver	7440-22-4	mg/kg	< 0.55	NA	1.65	0.94	1.23	0.652	7.85	3.65	0.509	0.316
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.2	NA	< 2.61	< 2.56	< 12.7	< 2.63	< 3.06	4.07	< 2.22	< 2.67
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	11.5	NA	5450	6920	9150	1190	3190	42000	315	138
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	9.1	9.4	24.9	22	22.8	26.1	35.2	29.4	12.7	25.8
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-M5-3-2 1.0-1.5 ft 7/21/2006 N TP-R-M5-3-21.5N	TP-R-M5-3-6 1.0-1.5 ft 7/24/2006 N TP-R-M5-3-61.5N	TP-R-M8-1-1 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-11.5N	TP-R-M8-1-10 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-101.0N	TP-R-M8-1-11 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-111.5N	TP-R-M8-1-13 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-131.0N	TP-R-M8-1-15 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-151.5N	TP-R-M8-1-2 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-21.5N	TP-R-M8-1-22 1.0-1.5 ft 7/25/2006 N TP-R-M8-1-221.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2800	< 2500	< 3300	< 2700	< 2700	< 3000	< 2700	< 2600	< 2500
Benzene	71-43-2	ug/kg	< 700	< 630	< 820	< 670	< 670	< 760	< 680	< 650	140
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 700	< 630	< 820	< 670	< 670	< 760	< 680	< 650	< 640
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M5-3-2	TP-R-M5-3-6	TP-R-M8-1-1	TP-R-M8-1-10	TP-R-M8-1-11	TP-R-M8-1-13	TP-R-M8-1-15	TP-R-M8-1-2	TP-R-M8-1-22
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			7/21/2006	7/24/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/19/2006	7/25/2006
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M5-3-21.5N	TP-R-M5-3-61.5N	TP-R-M8-1-11.5N	TP-R-M8-1-101.0N	TP-R-M8-1-111.5N	TP-R-M8-1-131.0N	TP-R-M8-1-151.5N	TP-R-M8-1-21.5N	TP-R-M8-1-221.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds (cont.)											
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 700	< 630	980	< 670	< 670	< 760	< 680	< 650	< 640
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 700	< 630	< 820	< 670	< 670	< 760	< 680	< 650	< 640
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 180	< 210	< 190	< 180	< 190	< 180	< 180	< 200
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2200	< 2500	< 2200	< 2200	< 2300	< 2100	< 2200	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	< 180	< 210	< 190	< 180	890	< 180	100	360
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 180	< 210	< 190	< 180	57	< 180	< 180	< 200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-M5-3-2 1.0-1.5 ft 7/21/2006 N TP-R-M5-3-21.5N	TP-R-M5-3-6 1.0-1.5 ft 7/24/2006 N TP-R-M5-3-61.5N	TP-R-M8-1-1 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-11.5N	TP-R-M8-1-10 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-101.0N	TP-R-M8-1-11 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-111.5N	TP-R-M8-1-13 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-131.0N	TP-R-M8-1-15 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-151.5N	TP-R-M8-1-2 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-21.5N	TP-R-M8-1-22 1.0-1.5 ft 7/25/2006 N TP-R-M8-1-221.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 180	100	180	3800	72	< 180	53	350
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 180	84	230	3200	93	< 180	64	360
Benzo[b]fluoranthene	205-99-2	ug/kg	53	< 180	180	390	4600	130	< 180	130	490
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 180	< 210	130	1800	71	< 180	37	250
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 370	< 420	< 370	< 360	< 380	< 360	< 370	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 180	< 210	< 190	< 180	< 190	< 180	< 180	< 200
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	44	< 180	180	290	3600	84	< 180	79	320
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 180	< 210	40	540	< 190	< 180	< 180	50
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 190	< 180	< 210	< 190	< 180	< 190	< 180	< 180	< 200
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	150	< 180	< 210	< 190	< 180	< 190	< 180	140	330
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 180	< 210	180	1900	79	< 180	50	230
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M5-3-2	TP-R-M5-3-6	TP-R-M8-1-1	TP-R-M8-1-10	TP-R-M8-1-11	TP-R-M8-1-13	TP-R-M8-1-15	TP-R-M8-1-2	TP-R-M8-1-22
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			7/21/2006	7/24/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/19/2006	7/25/2006
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M5-3-21.5N	TP-R-M5-3-61.5N	TP-R-M8-1-11.5N	TP-R-M8-1-101.0N	TP-R-M8-1-111.5N	TP-R-M8-1-131.0N	TP-R-M8-1-151.5N	TP-R-M8-1-21.5N	TP-R-M8-1-221.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 180	< 210	< 190	< 180	< 190	< 180	< 180	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	40	< 180	< 210	< 190	< 180	630	< 180	100	180
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls											
Aroclor-1016	12674-11-2	ug/kg	< 19	< 19	< 21	< 19	< 19	< 97	< 18	< 19	< 20
Aroclor-1221	11104-28-2	ug/kg	< 19	< 19	< 21	< 19	< 19	< 97	< 18	< 19	< 20
Aroclor-1232	11141-16-5	ug/kg	< 19	< 19	< 21	< 19	< 19	< 97	< 18	< 19	< 20
Aroclor-1242	53469-21-9	ug/kg	< 19	< 19	< 21	< 19	< 19	< 97	< 18	< 19	< 20
Aroclor-1248	12672-29-6	ug/kg	< 19	< 19	< 21	< 19	< 19	< 97	< 18	< 19	< 20
Aroclor-1254	11097-69-1	ug/kg	43	< 19	< 21	< 19	< 19	340	< 18	< 19	< 20
Aroclor-1260	11096-82-5	ug/kg	72	< 19	< 21	< 19	< 19	< 97	< 18	15	< 20
Polychlorinated biphenyls	1336-36-3	ug/kg	115	< 19	< 21	< 19	< 19	340	< 18	15	< 20

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-M5-3-2 1.0-1.5 ft 7/21/2006 N TP-R-M5-3-21.5N	TP-R-M5-3-6 1.0-1.5 ft 7/24/2006 N TP-R-M5-3-61.5N	TP-R-M8-1-1 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-11.5N	TP-R-M8-1-10 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-101.0N	TP-R-M8-1-11 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-111.5N	TP-R-M8-1-13 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-131.0N	TP-R-M8-1-15 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-151.5N	TP-R-M8-1-2 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-21.5N	TP-R-M8-1-22 1.0-1.5 ft 7/25/2006 N TP-R-M8-1-221.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Explosives and Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 340	< 330	< 380	< 330	< 330	< 340	< 320	< 330	550
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 340	< 330	< 380	< 330	< 330	< 340	< 320	< 330	2000
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 340	< 330	< 380	< 330	< 330	< 340	< 320	< 330	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 670	< 660	< 760	< 670	< 650	< 680	< 640	< 660	< 710
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 130000	< 150000	< 130000	< 130000	< 140000	< 130000	< 130000	190000
Nitroglycerin	55-63-0	ug/kg	< 6700	< 6600	< 7600	< 6700	< 6500	< 6800	< 6400	< 6600	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 840	< 830	< 950	< 840	< 820	< 850	< 810	< 820	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 340	< 330	< 380	< 330	< 330	< 340	< 320	< 330	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals											
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.16	< 2.19	< 2.5	< 2.21	< 2.14	1.44	2.01	< 2.19	< 2.3
Arsenic	7440-38-2	mg/kg	8.1	4.73	21.1	2.75	5.48	4.17	13.2	4.78	7.59
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.752	0.622	3.32	0.484	0.9	0.632	0.698	0.372	0.594
Cadmium	7440-43-9	mg/kg	0.286	0.673	< 0.625	0.387	0.63	0.441	0.627	< 0.548	0.375
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	40.5	16.3	31.6	11	15.7	14.6	18.8	19.2	47.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	618	11.3	71.3	7.16	6.89	10.7	7.5	37.5	446
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2.12	0.0256	0.294	0.0407	0.0222	0.0293	0.0239	0.0342	0.159
Nickel	7440-02-0	mg/kg	9.07	11.8	15.4	7.17	13.7	8.6	14.9	9.55	10.1
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.16	< 2.19	< 2.5	< 2.21	< 2.14	< 2.23	< 2.07	< 2.19	< 2.3

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-M5-3-2 1.0-1.5 ft 7/21/2006 N TP-R-M5-3-21.5N	TP-R-M5-3-6 1.0-1.5 ft 7/24/2006 N TP-R-M5-3-61.5N	TP-R-M8-1-1 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-11.5N	TP-R-M8-1-10 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-101.0N	TP-R-M8-1-11 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-111.5N	TP-R-M8-1-13 0.5-1.0 ft 7/20/2006 N TP-R-M8-1-131.0N	TP-R-M8-1-15 1.0-1.5 ft 7/20/2006 N TP-R-M8-1-151.5N	TP-R-M8-1-2 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-21.5N	TP-R-M8-1-22 1.0-1.5 ft 7/25/2006 N TP-R-M8-1-221.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Metals (cont.)											
Silver	7440-22-4	mg/kg	0.491	< 0.546	0.884	< 0.553	< 0.534	< 0.558	< 0.516	0.346	0.878
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.16	< 2.19	3.54	< 2.21	< 2.14	< 2.23	< 2.07	< 2.19	< 2.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	227	61.6	59.5	38.6	52.8	54.1	57.6	35.1	265
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	11.1	9.4	20.8	10.4	8.2	12.2	6.9	8.8	15.6
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution											
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-M8-1-4 0.5-1.0 ft 7/19/2006 N TP-R-M8-1-41.0N	TP-R-M8-1-5 0.5-1.0 ft 7/19/2006 N TP-R-M8-1-51.0N	TP-R-M8-1-6 0.5-1.0 ft 7/19/2006 N TP-R-M8-1-61.0N	TP-R-M8-1-7 0.5-1.0 ft 7/19/2006 N TP-R-M8-1-71.0N	TP-R-M8-1-8 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-81.5N	TP-R-M8-1-9 1.0-1.5 ft 7/19/2006 N TP-R-M8-1-91.5N	UD-06 0.0-0.7 ft 9/15/1999 N UD-060.67N	UD-06 0.0-1.0 ft 9/15/1999 N UD-061N	UD-08 0.0-1.5 ft 9/20/1999 N UD-081.5N
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1211
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	75-05-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	< 2500	NA	< 2422
Acrylonitrile	107-13-1	ug/kg	< 2700	< 3300	< 4100	< 2900	< 2600	< 2900	< 625	NA	< 606
Benzene	71-43-2	ug/kg	< 670	< 810	< 1000	< 720	2000	< 720	< 625	NA	< 606
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1211
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Chlorobenzene	108-90-7	ug/kg	< 670	< 810	< 1000	< 720	< 660	< 720	< 625	NA	< 606
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1211
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	< 1250	NA	636
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	UD-06	UD-06	UD-08
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.0-0.7 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	9/15/1999	9/15/1999	9/20/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	UD-060.67N	UD-061N	UD-081.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Volatile Organic Compounds (cont.)											
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 670	< 810	< 1000	< 720	< 660	< 720	< 430	NA	< 515
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 670	< 810	< 1000	< 720	< 660	< 720	< 625	NA	< 606
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 625	NA	< 606
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 1250	NA	< 1211
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	< 180	< 180	< 290	< 180	< 890	< 180	NA	< 390	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	< 2200	< 2200	< 3400	< 2200	< 11000	< 2100	NA	< 1900	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	< 180	< 180	< 290	< 180	< 890	< 180	NA	< 390	< 390
2,6-Dinitrotoluene	606-20-2	ug/kg	< 180	< 180	< 290	< 180	< 890	< 180	NA	< 390	< 390
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 780	< 780
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1900	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	UD-06	UD-06	UD-08
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.0-0.7 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	9/15/1999	9/15/1999	9/20/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	UD-060.67N	UD-061N	UD-081.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1900	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 180	< 180	< 290	< 180	1500	160	NA	< 390	33
Benzo[a]pyrene	50-32-8	ug/kg	< 180	< 180	< 290	< 180	2400	210	NA	< 390	31
Benzo[b]fluoranthene	205-99-2	ug/kg	< 180	< 180	91	< 180	9400	270	NA	< 390	< 390
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Benzo[k]fluoranthene	207-08-9	ug/kg	< 180	< 180	< 290	< 180	3700	97	NA	< 390	< 390
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 370	< 360	< 570	< 360	< 1800	< 360	NA	100	34
Butylbenzylphthalate	85-68-7	ug/kg	< 180	< 180	< 290	< 180	< 890	< 180	NA	< 390	< 390
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 180	< 180	71	< 180	2300	180	NA	< 390	< 390
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 180	< 180	< 290	< 180	1200	46	NA	< 390	< 390
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 180	< 180	< 290	< 180	< 890	< 180	NA	< 390	< 390
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Di-n-butylphthalate	84-74-2	ug/kg	< 180	< 180	140	< 180	< 890	< 180	NA	72	< 390
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 180	< 180	< 290	< 180	2700	150	NA	< 390	< 390
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	UD-06	UD-06	UD-08
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.0-0.7 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	9/15/1999	9/15/1999	9/20/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	UD-060.67N	UD-061N	UD-081.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Semivolatile Organic Compounds (cont.)											
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 180	< 180	< 290	< 180	< 890	< 180	NA	< 390	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	37	< 180	< 290	< 180	14000	< 180	NA	< 390	< 390
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1900	< 1900
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	36
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 390	< 390
Total PAHs	ARC-TPAH	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides											
4-4-DDD	72-54-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
4-4-DDE	72-55-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
4-4-DDT	50-29-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
a-BHC	319-84-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Aldrin	309-00-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
alpha-Chlordane	5103-71-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
b-BHC	319-85-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
d-BHC	319-86-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Dieldrin	60-57-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
Endosulfan I	959-98-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Endosulfan II	33213-65-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
Endosulfan Sulfate	1031-07-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
Endrin	72-20-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
Endrin Aldehyde	7421-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
Endrin Ketone	53494-70-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 3.9
gamma-Chlordane	5103-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Heptachlor	76-44-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Heptachlor Epoxide	1024-57-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Lindane	58-89-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9
Methoxychlor	72-43-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 19	< 19
Toxaphene	8001-35-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 190	< 190
Polychlorinated Biphenyls											
Aroclor-1016	12674-11-2	ug/kg	< 19	< 19	< 29	< 18	< 18	< 18	NA	< 20	< 20
Aroclor-1221	11104-28-2	ug/kg	< 19	< 19	< 29	< 18	< 18	< 18	NA	< 20	< 20
Aroclor-1232	11141-16-5	ug/kg	< 19	< 19	< 29	< 18	< 18	< 18	NA	< 20	< 20
Aroclor-1242	53469-21-9	ug/kg	< 19	< 19	< 29	< 18	< 18	< 18	NA	< 20	< 20
Aroclor-1248	12672-29-6	ug/kg	< 19	< 19	< 29	< 18	< 18	< 18	NA	< 20	< 20
Aroclor-1254	11097-69-1	ug/kg	14	25	23	< 18	< 18	< 18	NA	< 20	< 20
Aroclor-1260	11096-82-5	ug/kg	< 19	6.3	26	< 18	< 18	< 18	NA	< 39	< 39
Polychlorinated biphenyls	1336-36-3	ug/kg	14	31.3	49	< 18	< 18	< 18	NA	< 39	< 39

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	UD-06	UD-06	UD-08
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.0-0.7 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	9/15/1999	9/15/1999	9/20/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	UD-060.67N	UD-061N	UD-081.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Explosives and Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trichlorobenzene	108-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 190	< 230
1,3-Dinitrobenzene	99-65-0	ug/kg	< 330	< 330	< 520	< 330	< 320	< 320	NA	< 190	< 230
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 330	< 330	< 520	< 330	< 320	< 320	NA	< 190	< 230
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 330	< 330	< 520	< 330	< 320	< 320	NA	< 190	< 230
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380	< 450
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380	< 450
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 660	< 660	< 1000	< 650	< 640	< 640	NA	< 190	< 230
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380	< 450
Diazodinitrophenol	87-31-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 190	< 230
Nitrocellulose	9004-70-0	ug/kg	< 130000	< 130000	< 210000	< 130000	1100000	< 130000	NA	67700	109000
Nitroglycerin	55-63-0	ug/kg	< 6600	< 6600	58000	< 6500	< 6400	< 6400	NA	< 5000	< 5000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	2691-41-0	ug/kg	< 820	< 820	< 1300	< 810	< 800	< 800	NA	< 380	< 450
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 330	< 330	< 520	< 330	< 320	< 320	NA	< 380	< 450
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380	< 450
Metals											
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 2.15	< 2.18	< 3.34	< 2.11	< 2.02	< 2.07	NA	< 1.1	< 1.1
Arsenic	7440-38-2	mg/kg	2.23	2.52	5.23	2.54	3.06	2.83	NA	5.9	7.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.434	0.477	0.315	0.398	0.49	0.491	NA	0.69	0.75
Cadmium	7440-43-9	mg/kg	< 0.537	< 0.546	< 0.834	< 0.527	< 0.506	< 0.519	NA	0.17	< 0.64
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	17.3	15.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	12.2	20.2	22.6	13	22.5	14.7	NA	11.7	13.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	8.44	19.2	77.6	7.7	11.7	5.76	NA	37.5	28.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0129	0.0994	0.136	< 0.101	0.0954	< 0.0992	NA	0.05	0.06
Nickel	7440-02-0	mg/kg	10.3	9.35	6.51	6.29	9.14	6.8	NA	7.2	10.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.15	< 2.18	< 3.34	< 2.11	< 2.02	< 2.07	NA	< 1.5	1

Appendix A.1 - Ecological Risk Assessment Dataset - Soil
Hercules Incorporated - Kenvil Works
Kenvil, New Jersey

Location ID			TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	UD-06	UD-06	UD-08
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.0-0.7 ft	0.0-1.0 ft	0.0-1.5 ft
Collection Date			7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	9/15/1999	9/15/1999	9/20/1999
Sample Type			N	N	N	N	N	N	N	N	N
Sample Name			TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	UD-060.67N	UD-061N	UD-081.5N
Parent Sample											
CONSTITUENT	***CAS NO.***	***UNITS***									
Metals (cont.)											
Silver	7440-22-4	mg/kg	0.231	0.251	0.524	0.27	0.292	0.226	NA	< 0.66	< 0.64
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.15	< 2.18	< 3.34	< 2.11	< 2.02	< 2.07	NA	< 2.2	< 2.1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	38	46.8	125	34.1	46.4	33.8	NA	41	298
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	8.8	8.4	41.8	7.9	5.9	6.4	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	18100	11800
Phenolics, Total Recoverable	64743-03-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size Distribution											
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	11.4	11
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	24.5	26.7
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	38.2	41.8
SIEVE 0.375 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	25.9	20.5

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01	SW-L5-1-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1
Date Collected:		04/19/01	04/19/01	04/24/01	04/24/01	04/26/01	04/26/01	04/26/01	04/26/01	04/20/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U
Acrolein	ug/L	NA	40 U	40 U	40 U [40 U]	40 U	40 U	NA	40 U	40 U
Acrylonitrile	ug/L	NA	4.0 U	4.0 U	4.0 U [4.0 U]	4.0 U	4.0 U	NA	4.0 U	4.0 U
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	NA	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
CFC-11	ug/L	NA	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorodibromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroethane	ug/L	NA	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dichloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Tribromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
Xylenes (total)	ug/L	NA	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
1,2-Diphenylhydrazine	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
2,4-Dichlorophenol	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2,4-Dimethylphenol	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2,4-Dinitrophenol	ug/L	19 U	NA	20 U	20 U [19 U]	19 U	NA	20 U	20 U	20 U
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
2-Chloronaphthalene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2-Chlorophenol	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	NA	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01	SW-L5-1-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1
Date Collected:		04/19/01	04/19/01	04/24/01	04/24/01	04/26/01	04/26/01	04/26/01	04/26/01	04/20/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U	NA	3.0 U	3.0 U [3.0 U]	3.0 U	NA	3.0 U	3.0 U	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
4-Chloro-3-Methylphenol	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	10 U	NA	10 U	10 U [10 U]	10 U	NA	10 U	10 U	10 U
Acenaphthene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Acenaphthylene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U	NA	20 U	20 U [19 U]	19 U	NA	20 U	20 U	20 U
Benzo(a)Anthracene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Benzo(a)Pyrene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Benzo(k)Fluoranthene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Benzyl Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
bis(2-Chloroethoxy)methane	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Dibenzo(a,h)Anthracene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Dimethyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Fluorene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	5.0 U	5.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Naphthalene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Nitrobenzene_SVOCs	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
N-nitrosodiphenylamine	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	NA	3.0 U	3.0 U [3.0 U]	3.0 U	NA	3.0 U	3.0 U	3.0 U
Phenanthrene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
Phenol	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01	SW-L5-1-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1
Date Collected:		04/19/01	04/19/01	04/24/01	04/24/01	04/26/01	04/26/01	04/26/01	04/26/01	04/20/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U	NA	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U
TPH										
Amyl Alcohol	ug/L	NA	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U
Di-n-propyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U
Ethanol	ug/L	NA	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U
Ethyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U
Methanol	ug/L	NA	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U
n-Butyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	NA	5,900 U	5,900 U [5,900 U]	5,900 U	NA	5,900 U	5,900 U	5,900 U
Beryllium_Filtered	ug/L	640 U	NA	640 U	640 U [640 U]	640 U	NA	640 U	640 U	640 U
Cadmium_Filtered	ug/L	640 U	NA	640 U	640 U [640 U]	640 U	NA	640 U	640 U	640 U
Chromium_Filtered	ug/L	1,700 U	NA	1,700 U	1,700 U [1,700 U]	1,700 U	NA	1,700 U	1,700 U	1,700 U
Copper_Filtered	ug/L	2,400 U	NA	2,400 U	2,400 U [2,400 U]	2,400 U	NA	2,400 U	2,400 U	2,400 U
Lead_Filtered	ug/L	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U
Mercury_Filtered	ug/L	26.0 UBN	NA	26.0 UBN	26.0 UN [26.0 UN]	26.0 U*	NA	26.0 U*	0.0690 B*	26.0 UBN
Nickel_Filtered	ug/L	1,600 U	NA	2.30 B	3.10 B [1,600 U]	1,600 U	NA	1,600 U	1.90 B	1.80 B
Selenium_Filtered	ug/L	4,300 U	NA	4,300 U	4,300 U [4,300 U]	4,300 U	NA	4,300 U	4,300 U	4,300 U
Silver_Filtered	ug/L	1,300 U	NA	1,300 U	1,300 U [1,300 U]	1,300 U	NA	1,300 U	1,300 U	1,300 U
Thallium_Filtered	ug/L	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U
Zinc_Filtered	ug/L	10.5 B	NA	5.40 B	5.70 B [5.30 B]	18.9 B	NA	49.9	291	6.30 B
Arsenic_Filtered	ug/L	3,700 U	NA	3,700 U	3,700 U [3,700 U]	3,700 U	NA	3,700 U	3,700 U	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	NA	5,900 U	5,900 U [5,900 U]	5,900 U	NA	5,900 U	5,900 U	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	NA	NA	640 U [640 U]	640 U	NA	640 U	640 U	640 U
Cadmium	ug/L	640 U	NA	640 U	640 U [640 U]	640 U	NA	640 U	640 U	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	NA	1,700 U	2.60 B [1,700 U]	1,700 U	NA	1,700 U	1,700 U	1,700 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2.70 B	NA	2,400 U	2,400 U [2,400 U]	2,400 U	NA	2,400 UB	2,400 UB	2,400 U
Lead	ug/L	10.1 B	NA	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 UB	NA	26.0 U	26.0 U [26.0 UB]	26.0 UN*	NA	0.0270 BN*	26.0 UN*	26.0 U
Nickel	ug/L	1,600 U	NA	1,600 U	1,600 U [1,600 U]	1,600 UN*	NA	1,600 UN*	1,600 UN*	1,600 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	NA	4,300 U	4,300 U [4,300 U]	4,300 U	NA	4,300 U	4,300 U	4,300 U
Silver	ug/L	1,300 U	NA	1,300 U	1,300 U [1,300 U]	1,300 U	NA	1,300 U	1,300 U	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	16.3 B	NA	8.90 B	7.60 B [8.00 B]	3,200 UB	NA	44.9	44.0	25.3
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	NA	3,700 U	3,700 U [3,700 U]	3,700 UB	NA	3,700 U	3,700 UB	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-J5-2-01	SW-J5-2-01	SW-K4-1-01	SW-K5-1-01	SW-K5-2-01	SW-K5-3-01	SW-K5-3-01	SW-K5-4-01	SW-L5-1-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1
Date Collected:		04/19/01	04/19/01	04/24/01	04/24/01	04/26/01	04/26/01	04/26/01	04/26/01	04/20/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
2-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
3-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
4-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
HMX	ug/L	0.4 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
Nitrocellulose	ug/L	500 U	NA	500 U	500 U [500 U]	500 U	NA	500 U	500 U	500 U
Nitroglycerin	ug/L	120 U	NA	120 U	120 U [120 U]	120 U	NA	120 U	120 U	120 U
Pentaerythritol Tetranitrate	ug/L	4 U	NA	4 U	4 U [4 U]	4 U	NA	4 U	4 U	4 U
RDX	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
Tetryl	ug/L	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	5 U	5 U	NA
GenChem										
Hardness (as CaCO3)	ug/L	272,000	NA	72,000	56,000	140,000	NA	52,000	28,000	144,000
Oxygen	ug/L	11,620	NA	10,690	10,870	10,350	NA	10,400	11,330	11,740
pH_GenChem	SU	7.17	NA	6.86	6.57	6.9	NA	6.04	6.31	7.42
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-M5-1-01	SW-M5-1-01	SW-M5-2-01
Sample Depth(ft):		0.5 - 1	2.5 - 3	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/09/01	04/09/01	04/09/01	04/09/01	04/05/01	04/05/01	04/24/01	04/24/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U
Acrolein	ug/L	40 U [40 U]	NA	40 U	NA	40 U [40 U]	NA	40 U	NA	40 U
Acrylonitrile	ug/L	4.0 U [4.0 U]	NA	4.0 U	NA	4.0 U [4.0 U]	NA	4.0 U	NA	4.0 U
Benzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Bromodichloromethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Bromomethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
CFC-11	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U
Chlorobenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Chlorodibromomethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Chloroethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U
Chloroform	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Chloromethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Dichloromethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U
Ethylbenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Tetrachloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Toluene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Tribromomethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Trichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Vinyl Chloride	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
Xylenes (total)	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
1,2-Diphenylhydrazine	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
2,4-Dichlorophenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2,4-Dimethylphenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2,4-Dinitrophenol	ug/L	NA	20 U [20 U]	NA	20 U	NA	19 U [19 U]	NA	19 U	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
2-Chloronaphthalene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2-Chlorophenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	5.0 U [5.0 U]	NA	5.0 U	NA	5.0 U [5.0 U]	NA	5.0 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-M5-1-01	SW-M5-1-01	SW-M5-2-01
Sample Depth(ft):		0.5 - 1	2.5 - 3	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/09/01	04/09/01	04/09/01	04/09/01	04/05/01	04/05/01	04/24/01	04/24/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
3,3-Dichlorobenzidine	ug/L	NA	3.0 U [3.0 U]	NA	3.0 U	NA	3.0 U [3.0 U]	NA	3.0 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
4-Chlorophenyl phenyl ether	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	10 U [10 U]	NA	10 U	NA	10 U [10 U]	NA	9.0 U	NA
Acenaphthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Acenaphthylene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	20 U [20 U]	NA	20 U	NA	19 U [19 U]	NA	19 U	NA
Benzo(a)Anthracene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Benzo(a)Pyrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Benzo(b)fluoranthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Benzo(g,h,i)perylene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Benzo(k)Fluoranthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Benzyl Butyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Bis(2-Chloroethyl)ether	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Dibenzo(a,h)Anthracene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Dimethyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Di-N-Butyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Di-n-Octyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Fluoranthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Hexachloro-1,3-Butadiene	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Hexachlorobenzene	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5.0 U [5.0 U]	NA	5.0 U	NA	5.0 U [5.0 U]	NA	5.0 U	NA
Hexachloroethane	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Naphthalene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Nitrobenzene_SVOCs	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
N-Nitrosodimethylamine	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
N-nitrosodiphenylamine	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	3.0 U [3.0 U]	NA	3.0 U	NA	3.0 U [3.0 U]	NA	3.0 U	NA
Phenanthrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
Phenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-M5-1-01	SW-M5-1-01	SW-M5-2-01
Sample Depth(ft):		0.5 - 1	2.5 - 3	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/09/01	04/09/01	04/09/01	04/09/01	04/05/01	04/05/01	04/24/01	04/24/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U [1.0 U]	NA	0.90 U	NA
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U
Ethanol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U
Ethyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U
Methanol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	NA	5,900 U [5,900 U]	NA	5,900 U	NA	5,900 U [5,900 U]	NA	5,900 U	NA
Beryllium_Filtered	ug/L	NA	640 U [640 U]	NA	640 U	NA	640 U [640 U]	NA	640 U	NA
Cadmium_Filtered	ug/L	NA	640 U [640 U]	NA	640 U	NA	640 U [640 U]	NA	640 U	NA
Chromium_Filtered	ug/L	NA	1,700 U [1,700 U]	NA	1,700 U	NA	1,700 U [1,700 U]	NA	1,700 U	NA
Copper_Filtered	ug/L	NA	2,400 U [2,400 U]	NA	2,400 U	NA	2,400 U [7.60 B]	NA	2,400 U	NA
Lead_Filtered	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	8,800 U [8,800 U]	NA	8,800 U	NA
Mercury_Filtered	ug/L	NA	26.0 U [26.0 U]	NA	26.0 U	NA	26.0 U [26.0 U]	NA	26.0 U*	NA
Nickel_Filtered	ug/L	NA	1,600 U [1,600 U]	NA	1,600 U	NA	1,600 U [7.70 B]	NA	1,600 U	NA
Selenium_Filtered	ug/L	NA	4,300 U [4,300 U]	NA	4,300 U	NA	4,300 U [4,300 U]	NA	4,300 U	NA
Silver_Filtered	ug/L	NA	1,300 U [1,300 U]	NA	1,300 U	NA	1,300 U [1,300 U]	NA	1,300 U	NA
Thallium_Filtered	ug/L	NA	8,800 U [8,800 U]	NA	8,800 UB	NA	8,800 U [8,800 U]	NA	8,800 U	NA
Zinc_Filtered	ug/L	NA	21.5 B [23.0 B]	NA	22.0 B	NA	16.3 B [32.7]	NA	33.4	NA
Arsenic_Filtered	ug/L	NA	3,700 U [3,700 U]	NA	3,700 U	NA	3,700 U [3,700 U]	NA	3,700 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5,900 U [5,900 U]	NA	5,900 U	NA	5,900 U [5,900 U]	NA	5,900 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	640 U [640 U]	NA	640 U	NA	640 U [640 U]	NA	640 U	NA
Cadmium	ug/L	NA	640 U [640 U]	NA	640 U	NA	640 U [640 U]	NA	640 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	1,700 U [1,700 U]	NA	1,700 U	NA	1,700 U [1,700 U]	NA	1,700 U	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	2,400 UB [2,400 UB]	NA	2,400 U	NA	2,400 U [2,400 U]	NA	2,400 UB	NA
Lead	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	8,800 U [8,800 U]	NA	8,800 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	26.0 U [26.0 U]	NA	26.0 U	NA	26.0 U [26.0 U]	NA	26.0 UN*	NA
Nickel	ug/L	NA	1,600 U [1,600 U]	NA	1,600 U	NA	1,600 U [1,600 U]	NA	1,600 UN*	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	4,300 U [4,300 U]	NA	4,300 U	NA	4,300 U [4,300 U]	NA	4,300 U	NA
Silver	ug/L	NA	1,300 U [1,300 U]	NA	1,300 U	NA	1,300 U [1,300 U]	NA	1,300 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	8,800 U [8,800 U]	NA	8,800 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	24.6 B [23.5 B]	NA	24.4 B	NA	22.7 B [23.3 B]	NA	31.2	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	3,700 U [3,700 U]	NA	3,700 U	NA	3,700 U [3,700 U]	NA	3,700 UB	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
1,3-Dinitrobenzene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-L5-2-01	SW-L5-2-01	SW-L5-3-01	SW-L5-3-01	SW-L6-1-01	SW-L6-1-01	SW-M5-1-01	SW-M5-1-01	SW-M5-2-01
Sample Depth(ft):		0.5 - 1	2.5 - 3	0.5 - 1	2.5 - 3	0.5 - 1	3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/09/01	04/09/01	04/09/01	04/09/01	04/05/01	04/05/01	04/24/01	04/24/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
2,4-Dinitrotoluene_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
2-Nitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
3-Nitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
4-Nitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
HMX	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
Nitrobenzene_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
Nitrocellulose	ug/L	NA	500 U [500 U]	NA	500 U	NA	500 U [500 U]	NA	500 U	NA
Nitroglycerin	ug/L	NA	120 U [120 U]	NA	120 U	NA	120 U [120 U]	NA	120 U	NA
Pentaerythritol Tetranitrate	ug/L	NA	4 U [4 U]	NA	4 U	NA	4 U [4 U]	NA	8 U	NA
RDX	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
Tetryl	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	0.2 U [0.2 U]	NA	0.4 U	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	46,000	NA	52,000	NA	76,000	NA	48,000	NA
Oxygen	ug/L	NA	14,150	NA	13,250	NA	7,750	NA	9,310	NA
pH_GenChem	SU	NA	6.32	NA	6.49	NA	7.16	NA	5.34	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-M5-2-01	SW-M5-3-01	SW-M5-3-01	SW-M6-1-01	SW-M6-1-01	SW-M6-2-01	SW-M6-2-01	SW-M6-3-01	SW-M6-3-01
Sample Depth(ft):		3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1	5.5 - 6	0.5 - 1	3.5 - 4	0.5 - 1	3.5 - 4
Date Collected:		04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,1-Dichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,1-Dichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
2-Chloroethyl vinyl ether	ug/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA
Acrolein	ug/L	NA	40 U	NA	40 U	NA	40 U	NA	40 U	NA
Acrylonitrile	ug/L	NA	4.0 U	NA	4.0 U	NA	4.0 U	NA	4.0 U	NA
Benzene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Bromodichloromethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Bromomethane	ug/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA
Carbon Tetrachloride	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
CFC-11	ug/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA
Chlorobenzene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Chlorodibromomethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Chloroethane	ug/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA
Chloroform	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Chloromethane	ug/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Dichloromethane	ug/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA
Ethylbenzene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Tetrachloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Toluene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Tribromomethane	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Trichloroethene	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Vinyl Chloride	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Xylenes (total)	ug/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,2-Diphenylhydrazine	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
2,4-Dichlorophenol	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2,4-Dimethylphenol	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2,4-Dinitrophenol	ug/L	19 U	NA	20 U	NA	20 U	NA	20 U	NA	19 U
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
2-Chloronaphthalene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2-Chlorophenol	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-M5-2-01	SW-M5-3-01	SW-M5-3-01	SW-M6-1-01	SW-M6-1-01	SW-M6-2-01	SW-M6-2-01	SW-M6-3-01	SW-M6-3-01
Sample Depth(ft):		3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1	5.5 - 6	0.5 - 1	3.5 - 4	0.5 - 1	3.5 - 4
Date Collected:		04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
4-Chloro-3-Methylphenol	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
4-Chlorophenyl phenyl ether	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U
Acenaphthene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Acenaphthylene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U	NA	20 U	NA	20 U	NA	20 U	NA	19 U
Benzo(a)Anthracene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Benzo(a)Pyrene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Benzo(b)fluoranthene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Benzo(g,h,i)perylene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Benzo(k)Fluoranthene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Benzyl Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
bis(2-Chloroethoxy)methane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Bis(2-Chloroethyl)ether	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 J
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Dibenzo(a,h)Anthracene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
Dimethyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
Fluoranthene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Fluorene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
Hexachlorobenzene	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U
Hexachloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Naphthalene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Nitrobenzene_SVOCs	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
N-nitrosodiphenylamine	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U
Phenanthrene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Phenol	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-M5-2-01 3.5 - 4 04/19/01 FS	SW-M5-3-01 0.5 - 1 04/19/01 FS	SW-M5-3-01 1.5 - 2 04/19/01 FS	SW-M6-1-01 0.5 - 1 04/19/01 FS	SW-M6-1-01 5.5 - 6 04/19/01 FS	SW-M6-2-01 0.5 - 1 04/19/01 FS	SW-M6-2-01 3.5 - 4 04/19/01 FS	SW-M6-3-01 0.5 - 1 04/19/01 FS	SW-M6-3-01 3.5 - 4 04/19/01 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
TPH										
Amyl Alcohol	ug/L	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Di-n-propyl ether	ug/L	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Ethanol	ug/L	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Ethyl ether	ug/L	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Methanol	ug/L	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
n-Butyl ether	ug/L	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA	1,000 U	NA
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U
Beryllium_Filtered	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	NA	640 U
Cadmium_Filtered	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	NA	640 U
Chromium_Filtered	ug/L	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U
Copper_Filtered	ug/L	2,400 U	NA	2,400 U	NA	2,400 U	NA	2,400 U	NA	2,400 U
Lead_Filtered	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U
Mercury_Filtered	ug/L	26.0 U	NA	26.0 U	NA	26.0 U	NA	26.0 U	NA	26.0 U
Nickel_Filtered	ug/L	1,600 U	NA	1,600 U	NA	1,600 U	NA	1,600 U	NA	1,600 U
Selenium_Filtered	ug/L	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U
Silver_Filtered	ug/L	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U
Thallium_Filtered	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U
Zinc_Filtered	ug/L	12.5 B	NA	14.6 B	NA	18.4 B	NA	12.7 B	NA	3,200 UB
Arsenic_Filtered	ug/L	3,700 U	NA	3,700 U	NA	3,700 U	NA	3,700 U	NA	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	NA	640 U
Cadmium	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	NA	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 U	NA	2.50 B	NA	2,400 U	NA	2,400 U	NA	2.60 B
Lead	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 U	NA	26.0 U	NA	26.0 U	NA	26.0 U	NA	26.0 U
Nickel	ug/L	1,600 UB	NA	1,600 U	NA	1,600 U	NA	1,600 U	NA	1,600 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U
Silver	ug/L	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,200 UB	NA	3,200 UB	NA	3,200 UB	NA	3,200 UB	NA	3,200 UB
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	NA	3,700 U	NA	3,700 U	NA	3,700 U	NA	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-M5-2-01	SW-M5-3-01	SW-M5-3-01	SW-M6-1-01	SW-M6-1-01	SW-M6-2-01	SW-M6-2-01	SW-M6-3-01	SW-M6-3-01
Sample Depth(ft):		3.5 - 4	0.5 - 1	1.5 - 2	0.5 - 1	5.5 - 6	0.5 - 1	3.5 - 4	0.5 - 1	3.5 - 4
Date Collected:		04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
2-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
3-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
4-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
HMX	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Nitrocellulose	ug/L	500 U	NA	500 U	NA	500 U	NA	500 U	NA	500 U
Nitroglycerin	ug/L	120 U	NA	120 U	NA	120 U	NA	120 U	NA	120 U
Pentaerythritol Tetranitrate	ug/L	4 U	NA	4 U	NA	4 U	NA	4 U	NA	4 U
RDX	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Tetryl	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	44,000	NA	32,000	NA	50,000	NA	69,000	NA	64,000
Oxygen	ug/L	11,290	NA	9,030	NA	9,560	NA	9,870	NA	10,190
pH_GenChem	SU	7.71	NA	7.53	NA	7.33	NA	7.38	NA	7.17
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-M7-1-01	SW-M7-1-01	SW-M7-2-01	SW-N5-1-01	SW-N5-2-01	SW-N5-2-01	SW-N5-3-01	SW-N5-3-01	SW-N5-4-01
Sample Depth(ft):		0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1	0.5 - 1	13.5 - 14	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/24/01	04/25/01	04/24/01	04/24/01	04/25/01	04/25/01	04/25/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U
Acrolein	ug/L	40 U	NA	40 U	40 U	40 U	NA	40 U	NA	40 U
Acrylonitrile	ug/L	4.0 U	NA	4.0 U	4.0 U	4.0 U	NA	4.0 U	NA	4.0 U
Benzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Bromomethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
CFC-11	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Chlorodibromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Chloroethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U
Chloroform	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Chloromethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Dichloromethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Toluene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Tribromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Trichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
Xylenes (total)	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
1,2-Diphenylhydrazine	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
2,4-Dichlorophenol	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2,4-Dimethylphenol	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	19 U	NA	20 U	NA	19 U	20 U
2,4-Dinitrotoluene_SVOCs	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
2-Chloronaphthalene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2-Chlorophenol	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-M7-1-01	SW-M7-1-01	SW-M7-2-01	SW-N5-1-01	SW-N5-2-01	SW-N5-2-01	SW-N5-3-01	SW-N5-3-01	SW-N5-4-01
Sample Depth(ft):		0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1	0.5 - 1	13.5 - 14	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/24/01	04/25/01	04/24/01	04/24/01	04/25/01	04/25/01	04/25/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
3,3-Dichlorobenzidine	ug/L	NA	3.0 U	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
4-Chloro-3-Methylphenol	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	10 U	10 U	10 U	NA	10 U	NA	9.0 U	10 U
Acenaphthene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Acenaphthylene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	20 U	20 U	19 U	NA	20 U	NA	19 U	20 U
Benzo(a)Anthracene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Benzo(a)Pyrene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Benzo(b)fluoranthene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Benzo(g,h,i)perylene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Benzo(k)Fluoranthene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Benzyl Butyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
bis(2-Chloroethoxy)methane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Dibenzo(a,h)Anthracene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Dimethyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Di-N-Butyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Di-n-Octyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Fluoranthene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Fluorene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Hexachloro-1,3-Butadiene	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Hexachlorobenzene	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U
Hexachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Naphthalene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Nitrobenzene_SVOCs	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
N-Nitrosodimethylamine	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
N-nitrosodiphenylamine	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	3.0 U	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U
Phenanthrene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
Phenol	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-M7-1-01 0.5 - 1 04/05/01 FS	SW-M7-1-01 1.5 - 2 04/05/01 FS	SW-M7-2-01 0.5 - 1 04/24/01 FS	SW-N5-1-01 0.5 - 1 04/25/01 FS	SW-N5-2-01 0.5 - 1 04/24/01 FS	SW-N5-2-01 13.5 - 14 04/24/01 FS	SW-N5-3-01 0.5 - 1 04/25/01 FS	SW-N5-3-01 1.5 - 2 04/25/01 FS	SW-N5-4-01 0.5 - 1 04/25/01 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	0.90 U	1.0 U
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U
Ethanol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U
Ethyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U
Methanol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	NA	5,900 U	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U
Beryllium_Filtered	ug/L	NA	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U
Cadmium_Filtered	ug/L	NA	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U
Chromium_Filtered	ug/L	NA	1,700 UB	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U
Copper_Filtered	ug/L	NA	2.90 B	2,400 U	2,400 U	NA	2,400 U	NA	2,400 U	2.90 B
Lead_Filtered	ug/L	NA	8,800 U	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	9.20 B
Mercury_Filtered	ug/L	NA	26.0 U	26.0 UBN	26.0 U*	NA	26.0 U*	NA	26.0 U*	26.0 U*
Nickel_Filtered	ug/L	NA	1,600 U	3.70 B	1,600 U	NA	1,600 U	NA	1,600 U	1,600 U
Selenium_Filtered	ug/L	NA	4,300 U	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U
Silver_Filtered	ug/L	NA	1,300 U	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U
Thallium_Filtered	ug/L	NA	9.70 B	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U
Zinc_Filtered	ug/L	NA	20.8 B	17.2 B	32.7	NA	43.6	NA	32.0	38.6
Arsenic_Filtered	ug/L	NA	3.80 B	3,700 U	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5,900 U	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	5,900 UB
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U
Cadmium	ug/L	NA	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	1,700 UB	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	2.40 B	5.50 B	2,400 UB	NA	2,400 UB	NA	2,400 UB	2,400 UB
Lead	ug/L	NA	8,800 U	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	16.9 B
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	26.0 U	26.0 U	26.0 UN*	NA	26.0 UN*	NA	26.0 UN*	0.160 BN*
Nickel	ug/L	NA	1,600 U	4.20 B	1,600 UN*	NA	1,600 UN*	NA	1.90 BN*	3.60 BN*
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	4,300 U	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U
Silver	ug/L	NA	1,300 U	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	8,800 U	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	21.2 B	65.6	33.2	NA	41.0	NA	35.3	419
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	3,700 U	3,700 U	3,700 UB	NA	10.3	NA	3,700 UB	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
1,3-Dinitrobenzene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-M7-1-01	SW-M7-1-01	SW-M7-2-01	SW-N5-1-01	SW-N5-2-01	SW-N5-2-01	SW-N5-3-01	SW-N5-3-01	SW-N5-4-01
Sample Depth(ft):		0.5 - 1	1.5 - 2	0.5 - 1	0.5 - 1	0.5 - 1	13.5 - 14	0.5 - 1	1.5 - 2	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/24/01	04/25/01	04/24/01	04/24/01	04/25/01	04/25/01	04/25/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
2-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
3-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
4-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
HMX	ug/L	NA	0.2 U	0.2 U	1 U	NA	0.4 U	NA	0.9 U	0.2 U
Nitrobenzene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
Nitrocellulose	ug/L	NA	500 U	500 U	500 U	NA	500 U	NA	500 U	500 U
Nitroglycerin	ug/L	NA	120 U	120 U	120 U	NA	120 U	NA	120 U	120 U
Pentaerythritol Tetranitrate	ug/L	NA	4 U	4 U	4 U	NA	8 U	NA	4 U	4 U
RDX	ug/L	NA	0.2 U	0.2 U	1 U	NA	0.4 U	NA	0.9 U	0.2 U
Tetryl	ug/L	NA	0.2 U	0.2 U	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	52,000	68,000	94,000	NA	60,000	NA	86,000	68,000
Oxygen	ug/L	NA	6,200	9,900	8,580	NA	9,160	NA	8,880	9,990
pH_GenChem	SU	NA	7.11	6.91	5.28	NA	5.61	NA	5.19	4.47
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-N5-5-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N7-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	04/24/01	04/24/01	04/24/01	04/24/01	04/24/01	04/23/01	04/23/01	04/23/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U
Acrolein	ug/L	40 U [40 U]	40 U	40 U	40 U	40 U	40 U	NA	40 U	40 U
Acrylonitrile	ug/L	4.0 U [4.0 U]	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NA	4.0 U	4.0 U
Benzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
CFC-11	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorodibromomethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroethane	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U
Chloroform	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dichloromethane	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U
Ethylbenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Tribromomethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Diphenylhydrazine	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
2,4-Dichlorophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2,4-Dimethylphenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2,4-Dinitrophenol	ug/L	19 U [19 U]	20 U	19 U	19 U	20 U	19 U	20 U	NA	20 U
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
2-Chloronaphthalene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2-Chlorophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-N5-5-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N7-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	04/24/01	04/24/01	04/24/01	04/24/01	04/24/01	04/23/01	04/23/01	04/23/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U [3.0 U]	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	NA	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
4-Chloro-3-Methylphenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
4-Chlorophenyl phenyl ether	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	NA	10 U
Acenaphthene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Acenaphthylene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U [19 U]	20 U	19 U	19 U	20 U	19 U	20 U	NA	20 U
Benzo(a)Anthracene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Benzo(a)Pyrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Benzo(b)fluoranthene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Benzo(g,h,i)perylene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Benzo(k)Fluoranthene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Benzyl Butyl Phthalate	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
bis(2-Chloroethoxy)methane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bis(2-Chloroethyl)ether	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Dibenzo(a,h)Anthracene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Dimethyl Phthalate	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Fluoranthene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Fluorene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Hexachlorobenzene	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U
Hexachloroethane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Naphthalene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Nitrobenzene_SVOCs	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
N-nitrosodiphenylamine	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U [3.0 U]	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	NA	3.0 U
Phenanthrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Phenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-N5-5-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N7-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	04/24/01	04/24/01	04/24/01	04/24/01	04/24/01	04/23/01	04/23/01	04/23/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
TPH										
Amyl Alcohol	ug/L	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U
Di-n-propyl ether	ug/L	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U
Ethanol	ug/L	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U
Ethyl ether	ug/L	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U
Methanol	ug/L	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U
n-Butyl ether	ug/L	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U [5,900 U]	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U	NA	5,900 U
Beryllium_Filtered	ug/L	640 U [640 U]	640 U	640 U	640 U	640 U	640 U	640 U	NA	640 U
Cadmium_Filtered	ug/L	640 U [640 U]	640 U	640 U	640 U	640 U	640 U	640 U	NA	640 U
Chromium_Filtered	ug/L	1,700 U [1,700 U]	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U	NA	1,700 U
Copper_Filtered	ug/L	2,400 U [2,400 U]	2,400 U	2,400 U	2,400 U	2,400 U	2,400 U	2,400 U	NA	2,400 U
Lead_Filtered	ug/L	8,800 U [8,800 U]	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U
Mercury_Filtered	ug/L	26.0 U* [0.0570 B*]	26.0 U*	26.0 UN	26.0 UN	26.0 UN	26.0 UN	26.0 UN	NA	26.0 UN
Nickel_Filtered	ug/L	1,600 U [1,600 U]	1,600 U	2.20 B	2.80 B	2.40 B	1.80 B	2.50 B	NA	1,600 U
Selenium_Filtered	ug/L	4,300 U [4,300 U]	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U	NA	4,300 U
Silver_Filtered	ug/L	1,300 U [1,300 U]	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	NA	1,300 U
Thallium_Filtered	ug/L	8,800 U [8,800 U]	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U
Zinc_Filtered	ug/L	33.9 [35.8]	16.6 B	4.80 B	22.2 B	22.8 B	5.80 B	18.6 B	NA	9.80 B
Arsenic_Filtered	ug/L	3,700 U [3,700 U]	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U	NA	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U [5,900 U]	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U	NA	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U [640 U]	640 U	640 U	640 U	640 U	640 U	640 U	NA	640 U
Cadmium	ug/L	640 U [640 U]	640 U	640 U	640 U	640 U	640 U	640 U	NA	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U [22.4 B]	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U	NA	1,700 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 UB [2,400 UB]	3.20 B	2,400 U	2,400 U	2,400 U	2,400 U	2,400 U	NA	2,400 U
Lead	ug/L	8,800 U [8,800 U]	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 UN* [26.0 UN*]	26.0 UN*	26.0 U	26.0 UB	26.0 U	26.0 U	26.0 U	NA	26.0 UB
Nickel	ug/L	2.30 BN* [178 N*]	1,600 UN*	1,600 U	1,600 U	1,600 U	1,600 U	1,600 U	NA	1,600 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U [4,300 U]	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U	NA	4,300 U
Silver	ug/L	1,300 U [1,300 U]	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	NA	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U [8,800 U]	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	40.5 [34.8]	19.2 B	6.00 B	18.4 B	26.2	14.2 B	12.7 B	NA	9.80 B
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 UB [3,700 U]	9.20 B	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U	NA	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-N5-5-01	SW-N7-1-01	SW-N7-2-01	SW-N7-3-01	SW-N7-4-01	SW-N7-5-01	SW-N7-6-01	SW-N7-6-01	SW-N7-7-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	04/24/01	04/24/01	04/24/01	04/24/01	04/24/01	04/23/01	04/23/01	04/23/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
2-Nitrotoluene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
3-Nitrotoluene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
4-Nitrotoluene	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
HMX	ug/L	0.7 U [0.7 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Nitrocellulose	ug/L	500 U [500 U]	500 U	500 U	500 U	500 U	500 U	500 U	NA	500 U
Nitroglycerin	ug/L	120 U [120 U]	120 U	120 U	120 U	120 U	120 U	120 U	NA	120 U
Pentaerythritol Tetranitrate	ug/L	4 U [4 U]	4 U	4 U	4 U	4 U	4 U	4 U	NA	4 U
RDX	ug/L	0.7 U [0.7 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Tetryl	ug/L	0.2 U [0.2 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	72,000	64,000	16,000	14,000	8,000	12,000	22,000	NA	14
Oxygen	ug/L	9,420	10,380	8,630	9,330	9,480	8,710	9,410	NA	8,350
pH_GenChem	SU	5.13	6.61	6.6	6.5	6.19	6.53	5.65	NA	6.05
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-1-01	SW-O4-2-01	SW-O4-3-01	SW-O4-4-01	SW-O4-4-01	SW-O4-5-01	SW-O4-6-01	SW-O4-9-01	SW-O4-9-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/06/01	04/06/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	2.0 U
Acrolein	ug/L	40 U	40 U [40 U]	40 U	40 U	NA	40 U	40 U	NA	40 U
Acrylonitrile	ug/L	4.0 U	4.0 U [4.0 U]	4.0 U	4.0 U	NA	4.0 U	4.0 U	NA	4.0 U
Benzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Bromomethane	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
CFC-11	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Chlorodibromomethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Chloroethane	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	2.0 U
Chloroform	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Chloromethane	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Dichloromethane	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	2.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Toluene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Tribromomethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
1,2-Diphenylhydrazine	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
2,4-Dichlorophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2,4-Dimethylphenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2,4-Dinitrophenol	ug/L	20 U	23 U [19 U]	19 U	NA	20 U	19 U	19 U	19 U	NA
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
2-Chloronaphthalene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2-Chlorophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	6.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-1-01	SW-O4-2-01	SW-O4-3-01	SW-O4-4-01	SW-O4-4-01	SW-O4-5-01	SW-O4-6-01	SW-O4-9-01	SW-O4-9-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/06/01	04/06/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
3,3-Dichlorobenzidine	ug/L	3.0 U	4.0 U [3.0 U]	3.0 U	NA	3.0 U	3.0 U	3.0 U	3.0 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	1.0 U [1.0 U]	6.0 J	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
4-Chloro-3-Methylphenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
4-Chlorophenyl phenyl ether	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	10 U	12 U [10 U]	10 U	NA	10 U	10 U	10 U	9.0 U	NA
Acenaphthene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Acenaphthylene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	20 U	23 U [19 U]	19 U	NA	20 U	19 U	19 U	19 U	NA
Benzo(a)Anthracene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Benzo(a)Pyrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Benzo(b)fluoranthene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Benzo(g,h,i)perylene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Benzo(k)Fluoranthene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
bis(2-Chloroethoxy)methane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Bis(2-Chloroethyl)ether	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Dibenzo(a,h)Anthracene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Dimethyl Phthalate	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Fluoranthene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Fluorene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Hexachlorobenzene	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	6.0 U [5.0 U]	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Naphthalene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Nitrobenzene_SVOCs	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U [2.0 U]	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
N-nitrosodiphenylamine	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	4.0 U [3.0 U]	3.0 U	NA	3.0 U	3.0 U	3.0 U	3.0 U	NA
Phenanthrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
Phenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-O4-1-01 0.5 - 1 04/04/01 FS	SW-O4-2-01 0.5 - 1 04/04/01 FS	SW-O4-3-01 0.5 - 1 04/04/01 FS	SW-O4-4-01 0.5 - 1 04/04/01 FS	SW-O4-4-01 1 - 1.5 04/04/01 FS	SW-O4-5-01 0.5 - 1 04/04/01 FS	SW-O4-6-01 0.5 - 1 04/04/01 FS	SW-O4-9-01 0.25 - 0.75 04/06/01 FS	SW-O4-9-01 0.5 - 1 04/06/01 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	NA	1.0 U	1.0 U	1.0 U	0.90 U	NA
TPH										
Amyl Alcohol	ug/L	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U	NA	1,000 U
Di-n-propyl ether	ug/L	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U	NA	1,000 U
Ethanol	ug/L	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U	NA	1,000 U
Ethyl ether	ug/L	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U	NA	1,000 U
Methanol	ug/L	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U	NA	1,000 U
n-Butyl ether	ug/L	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	NA	1,000 U	1,000 U	NA	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	5,900 U [5,900 U]	5,900 U	NA	5,900 U	5,900 U	5,900 U	5,900 U	NA
Beryllium_Filtered	ug/L	640 U	640 U [640 U]	640 U	NA	640 U	640 U	640 U	640 U	NA
Cadmium_Filtered	ug/L	640 U	640 U [0.740 B]	640 U	NA	640 U	640 U	640 U	640 U	NA
Chromium_Filtered	ug/L	1,700 U	1,700 U [1,700 U]	1,700 U	NA	1,700 U	1,700 U	1,700 U	1,700 U	NA
Copper_Filtered	ug/L	2,400 U	2,400 U [2,400 U]	2,400 U	NA	2,400 U	2,400 U	2,400 U	4.90 B	NA
Lead_Filtered	ug/L	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Mercury_Filtered	ug/L	26.0 U	26.0 U [26.0 U]	0.0260 B	NA	0.0260 B	26.0 U	26.0 U	26.0 U	NA
Nickel_Filtered	ug/L	1,600 U	1,600 U [2.20 B]	1.70 B	NA	1.60 B	1,600 U	1,600 U	2.60 B	NA
Selenium_Filtered	ug/L	4,300 U	4,300 U [4,300 U]	4,300 U	NA	4,300 U	4,300 U	4,300 U	4,300 U	NA
Silver_Filtered	ug/L	1,300 U	1,300 U [1,300 U]	1,300 U	NA	1,300 U	1,300 U	1,300 U	1,300 U	NA
Thallium_Filtered	ug/L	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Zinc_Filtered	ug/L	49.2	31.4 [33.2]	26.8	NA	22.5 B	10.0 B	9.50 B	23.7 B	NA
Arsenic_Filtered	ug/L	3,700 U	3,700 U [3,700 U]	3,700 U	NA	3,700 U	3,700 U	3,700 U	3,700 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	5,900 U [5,900 U]	5,900 U	NA	5,900 U	5,900 U	5,900 U	5,900 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	640 U [640 U]	640 U	NA	640 U	640 U	640 U	640 U	NA
Cadmium	ug/L	640 U	640 U [640 U]	640 U	NA	640 U	640 U	640 U	640 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	1,700 U [1,700 U]	1,700 U	NA	1,700 U	1,700 U	1,700 U	1,700 U	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	9.80 B	8.00 B [2,400 U]	9.80 B	NA	7.80 B	7.30 B	5.90 B	2,400 U	NA
Lead	ug/L	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 U	0.0430 B [26.0 U]	26.0 U	NA	0.0330 B	26.0 U	26.0 U	0.0670 B	NA
Nickel	ug/L	9.10 B	2.90 B [1.90 B]	4.10 B	NA	2.80 B	5.20 B	3.10 B	1,600 U	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	4,300 U [4,300 U]	4,300 U	NA	4,300 U	4,300 U	4,300 U	4,300 U	NA
Silver	ug/L	1,300 U	1,300 U [1,300 U]	1,300 U	NA	1,300 U	1,300 U	1,300 U	1,300 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	8,800 U [8,800 U]	8,800 U	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	100	40.2 [32.1]	40.3	NA	29.2	20.9 B	16.3 B	18.8 B	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	3,700 U [3,700 U]	3,700 U	NA	3,700 U	3,700 U	3,700 U	3,700 U	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-1-01	SW-O4-2-01	SW-O4-3-01	SW-O4-4-01	SW-O4-4-01	SW-O4-5-01	SW-O4-6-01	SW-O4-9-01	SW-O4-9-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/04/01	04/06/01	04/06/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2-Nitrotoluene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
3-Nitrotoluene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
4-Nitrotoluene	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
HMX	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nitrocellulose	ug/L	500 U	500 U [500 U]	500 U	NA	500 U	500 U	500 U	500 U	NA
Nitroglycerin	ug/L	120 U	120 U [120 U]	120 U	NA	120 U	120 U	120 U	120 U	NA
Pentaerythritol Tetranitrate	ug/L	4 U	4 U [4 U]	4 U	NA	4 U	4 U	4 U	4 U	NA
RDX	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Tetryl	ug/L	0.2 U	0.2 U [0.2 U]	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	76,000	88,000	120,000	NA	80,000	42,000	56,000	46,000	NA
Oxygen	ug/L	9,020	7,050	5,200	NA	7,090	6,600	7,010	6,800	NA
pH_GenChem	SU	6.31	5.87	5.96	NA	5.9	5.86	5.78	7.22	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-10-01	SW-O4-10-01	SW-O5-1-01	SW-O5-2-01	SW-O5-2-01	SW-P4-1-01	SW-P4-2-01	SW-Q4-1-01	SW-R2-L-5-2
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	
Date Collected:		04/06/01	04/06/01	04/06/01	04/09/01	04/09/01	04/23/01	04/23/01	04/23/01	11/04/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2-Chloroethyl vinyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Acrolein	ug/L	NA	40 U	40 U	40 U	NA	40 U [40 U]	40 U	40 U	NA
Acrylonitrile	ug/L	NA	4.0 U	4.0 U	4.0 U	NA	4.0 U [4.0 U]	4.0 U	4.0 U	NA
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bromomethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
CFC-11	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Chlorodibromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Chloroethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Chloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U [2.0 U]	2.0 U	2.0 U	NA
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Dichloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Tribromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Xylenes (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U [1.0 U]	1.0 U	1.0 U	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,2,4-Trichlorobenzene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Dichlorobenzene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Diphenylhydrazine	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,3-Dichlorobenzene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,4-Dichlorobenzene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
2,4,6-Trichlorophenol	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	1.0 U
2,4-Dichlorophenol	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2,4-Dimethylphenol	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2,4-Dinitrophenol	ug/L	19 U	NA	19 U	NA	19 U	19 U [21 U]	19 U	20 U	31 U
2,4-Dinitrotoluene_SVOCs	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	1.0 U
2-Chloronaphthalene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2-Chlorophenol	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	15 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-10-01	SW-O4-10-01	SW-O5-1-01	SW-O5-2-01	SW-O5-2-01	SW-P4-1-01	SW-P4-2-01	SW-Q4-1-01	SW-R2-L-5-2
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	
Date Collected:		04/06/01	04/06/01	04/06/01	04/09/01	04/09/01	04/23/01	04/23/01	04/23/01	11/04/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
2-Nitrophenol	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U	5.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
4-Bromophenyl phenyl ether	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	1.0 U
4-Chloro-3-Methylphenol	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
4-Nitrophenol	ug/L	9.0 U	NA	9.0 U	NA	9.0 U	10 U [10 U]	10 U	10 U	31 U
Acenaphthene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Acenaphthylene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Anthracene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzidine	ug/L	19 U	NA	19 U	NA	19 U	19 U [21 U]	19 U	20 U	NA
Benzo(a)Anthracene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Benzo(a)Pyrene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Benzo(b)fluoranthene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Benzo(g,h,i)perylene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Benzo(k)Fluoranthene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Benzyl Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	15 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Chrysene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Dibenzo(a,h)Anthracene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Diethyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	5.0 U
Dimethyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	5.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	5.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	5.0 U
Fluoranthene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Fluorene	ug/L	0.90 U	NA	0.90 U	NA	NA	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	1.0 U
Hexachlorobenzene	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	0.50 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	15 U
Hexachloroethane	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	5.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Naphthalene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 J [1.0 U]	1.0 U	1.0 U	0.50 U
Nitrobenzene_SVOCs	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
N-nitrosodiphenylamine	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Pentachlorophenol	ug/L	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U	5.0 U
Phenanthrene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
Phenol	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-10-01	SW-O4-10-01	SW-O5-1-01	SW-O5-2-01	SW-O5-2-01	SW-P4-1-01	SW-P4-2-01	SW-Q4-1-01	SW-R2-L-5-2
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	
Date Collected:		04/06/01	04/06/01	04/06/01	04/09/01	04/09/01	04/23/01	04/23/01	04/23/01	11/04/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	0.90 U	NA	NA	NA	NA
Pyrene	ug/L	0.90 U	NA	0.90 U	NA	0.90 U	1.0 U [1.0 U]	1.0 U	1.0 U	0.50 U
TPH										
Amyl Alcohol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U [1,000 U]	1,000 U	1,000 U	NA
Di-n-propyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U [1,000 U]	1,000 U	1,000 U	NA
Ethanol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U [1,000 U]	1,000 U	1,000 U	NA
Ethyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U [1,000 U]	1,000 U	1,000 U	NA
Methanol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U [1,000 U]	1,000 U	1,000 U	NA
n-Butyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U [1,000 U]	1,000 U	1,000 U	NA
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U [5,900 U]	5,900 U	5,900 U	NA
Beryllium_Filtered	ug/L	640 U	NA	640 U	NA	640 U	640 U [640 U]	640 U	640 U	NA
Cadmium_Filtered	ug/L	640 U	NA	640 U	NA	640 U	640 U [640 U]	640 U	640 U	NA
Chromium_Filtered	ug/L	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U [1,700 U]	1,700 U	1,700 U	NA
Copper_Filtered	ug/L	3.80 B	NA	6.70 B	NA	2,400 U	2.90 B [2.60 B]	2,400 U	2,400 U	NA
Lead_Filtered	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	NA
Mercury_Filtered	ug/L	26.0 U	NA	26.0 U	NA	26.0 U	26.0 UN [26.0 UN]	26.0 UBN	26.0 UBN	NA
Nickel_Filtered	ug/L	1.70 B	NA	7.60 B	NA	1,600 U	3.10 B [3.10 B]	3.20 B	1,600 U	NA
Selenium_Filtered	ug/L	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U [4,300 U]	4,300 U	4,300 U	NA
Silver_Filtered	ug/L	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U [1,300 U]	1,300 U	1,300 U	NA
Thallium_Filtered	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	NA
Zinc_Filtered	ug/L	18.1 B	NA	30.3	NA	12.7 B	26.2 [25.4]	28.1	25.8	NA
Arsenic_Filtered	ug/L	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U [3,700 U]	3,700 U	3,700 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	474
Antimony	ug/L	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U [5,900 U]	5,900 U	5,900 U	0.340 J
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	33.7
Beryllium	ug/L	640 U	NA	640 U	NA	640 U	640 U [640 U]	640 U	640 U	5.00 U
Cadmium	ug/L	640 U	NA	640 U	NA	640 U	640 U [640 U]	640 U	640 U	5.00 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	9,140
Chromium	ug/L	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U [1,700 U]	1,700 U	1,700 U	15.0 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Copper	ug/L	2,400 U	NA	2,400 U	NA	2,400 U	3.20 B [2.80 B]	2,400 U	2,400 U	5.90 J
Lead	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	14.0
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3,770
Mercury	ug/L	26.0 U	NA	26.0 U	NA	26.0 U	26.0 UB [26.0 UB]	26.0 UB	26.0 UB	0.200 U
Nickel	ug/L	1.70 B	NA	1,600 U	NA	1,600 U	2.40 B [2.70 B]	2.20 B	1,600 U	10.0 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	820
Selenium	ug/L	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U [4,300 U]	4,300 U	4,300 U	20.0 U
Silver	ug/L	1,300 U	NA	1,300 U	NA	1,300 U	2.80 B [1,300 U]	1,300 U	1,300 U	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5,490
Thallium	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	0.500 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Zinc	ug/L	23.1 B	NA	12.8 B	NA	11.3 B	27.7 [26.9]	31.8	29.2	21.8
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	23.0
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	838
Arsenic	ug/L	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U [3,700 U]	3,700 U	3,700 U	1.90 J
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.60 U
1,3,5-Trinitrobenzene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
1,3-Dinitrobenzene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.60 U
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.60 U

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-O4-10-01	SW-O4-10-01	SW-O5-1-01	SW-O5-2-01	SW-O5-2-01	SW-P4-1-01	SW-P4-2-01	SW-Q4-1-01	SW-R2-L-5-2
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	
Date Collected:		04/06/01	04/06/01	04/06/01	04/09/01	04/09/01	04/23/01	04/23/01	04/23/01	11/04/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	2.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	1.3 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
2-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.75 U
3-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	1.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
4-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	1.2 U
HMX	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	2.0 U
Nitrobenzene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
Nitrocellulose	ug/L	500 U	NA	500 U	NA	500 U	500 U [500 U]	500 U	500 U	NA
Nitroglycerin	ug/L	120 U	NA	120 U	NA	120 U	120 U [120 U]	120 U	120 U	15 U
Pentaerythritol Tetranitrate	ug/L	4 U	NA	4 U	NA	4 U	4 U [4 U]	4 U	4 U	18 U
RDX	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.50 U
Tetryl	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	0.60 U
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	52,000	NA	40,000	NA	46,000	42,000	24,000	44,000	38,700
Oxygen	ug/L	7,750	NA	11,150	NA	12,500	10,710	10,500	9,380	NA
pH_GenChem	SU	5.8	NA	4.78	NA	4.28	5.7	4.93	4.66	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	7.2

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-6-1	SW-R2-N-5-1	SW-R2-N-5-2	SW-R4-1-01	SW-R-J5-01	SW-R-J5-02
Sample Depth(ft):							0.5 - 1	0 - 0.5	0 - 0.5
Date Collected:		11/04/13	11/04/13	11/05/13	11/05/13	11/05/13	04/23/01	04/05/06	04/05/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
VOCs									
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	40 U [40 U]	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	4.0 U [4.0 U]	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
SVOCs									
1,1-Biphenyl	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
2,4,5-Trichlorophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U [2.0 U]	NA	NA
2,4-Dichlorophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
2,4-Dimethylphenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
2,4-Dinitrophenol	ug/L	30 U	31 U [31 U]	31 U	32 U	31 U	22 U [19 U]	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	1.0 U [1.0 U]	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U [2.0 U]	NA	NA
2-Chloronaphthalene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
2-Chlorophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	15 U	15 U [15 U]	15 U	16 U	16 U	5.0 U [5.0 U]	NA	NA
2-Methylnaphthalene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-6-1	SW-R2-N-5-1	SW-R2-N-5-2	SW-R4-1-01	SW-R-J5-01	SW-R-J5-02
Sample Depth(ft):							0.5 - 1	0 - 0.5	0 - 0.5
Date Collected:		11/04/13	11/04/13	11/05/13	11/05/13	11/05/13	04/23/01	04/05/06	04/05/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
2-Nitroaniline	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
3,3-Dichlorobenzidine	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	3.0 U [3.0 U]	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
3-Nitroaniline	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U [2.0 U]	NA	NA
4-Chloro-3-Methylphenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
4-Chlorophenyl phenyl ether	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
4-Methylphenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	5.0	1.0 U	NA	NA	NA
4-Nitroaniline	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
4-Nitrophenol	ug/L	30 U	31 U [31 U]	31 U	32 U	31 U	11 U [10 U]	NA	NA
Acenaphthene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Acenaphthylene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Acetophenone	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
Anthracene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Atrazine	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzaldehyde	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	22 U [19 U]	NA	NA
Benzo(a)Anthracene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Benzo(a)Pyrene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Benzo(b)fluoranthene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Benzo(g,h,i)perylene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Benzo(k)Fluoranthene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Benzyl Butyl Phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	2.0 U [2.0 U]	NA	NA
bis(2-Chloroethoxy)methane	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
Bis(2-Chloroethyl)ether	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U [12]	5.0 U	5.0 U	5.0 U	2.0 U [2.0 U]	NA	NA
Caprolactam	ug/L	15 U	15 U [15 U]	15 U	16 U	16 U	NA	NA	NA
Carbazole	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
Chrysene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Dibenzo(a,h)Anthracene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Dibenzofuran	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
Diethyl Phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	2.0 U [2.0 U]	NA	NA
Dimethyl Phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	2.0 U [2.0 U]	NA	NA
Di-N-Butyl Phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	2.0 U [2.0 U]	NA	NA
Di-n-Octyl Phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	2.0 U [2.0 U]	NA	NA
Fluoranthene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Fluorene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Hexachloro-1,3-Butadiene	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.0 U [2.0 U]	NA	NA
Hexachlorobenzene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	2.0 U [2.0 U]	NA	NA
Hexachlorocyclopentadiene	ug/L	15 U	15 U [15 U]	15 U	16 U	16 U	5.0 U [5.0 U]	NA	NA
Hexachloroethane	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	1.0 U [1.0 U]	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Naphthalene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Nitrobenzene_SVOCs	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	2.0 U [2.0 U]	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
N-nitrosodiphenylamine	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA
p-Chloroaniline	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	NA	NA	NA
Pentachlorophenol	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	3.0 U [3.0 U]	NA	NA
Phenanthrene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
Phenol	ug/L	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-6-1	SW-R2-N-5-1	SW-R2-N-5-2	SW-R4-1-01	SW-R-J5-01	SW-R-J5-02
Sample Depth(ft):							0.5 - 1	0 - 0.5	0 - 0.5
Date Collected:		11/04/13	11/04/13	11/05/13	11/05/13	11/05/13	04/23/01	04/05/06	04/05/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	0.50 U	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	1.0 U [1.0 U]	NA	NA
TPH									
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	1,000 U [1,000 U]	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	1,000 U [1,000 U]	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	1,000 U [1,300 J]	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	1,000 U [1,000 U]	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	1,000 U [1,000 U]	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	1,000 U [1,000 U]	NA	NA
Metals - Filtered									
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	5,900 U [5,900 U]	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	640 U [640 U]	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	640 U [640 U]	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	1,700 U [1,700 U]	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	2,400 U [2,400 U]	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	8,800 U [8,800 U]	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	26.0 UN [26.0 UBN]	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	2.30 B [1.90 B]	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	4,300 U [4,300 U]	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	1,300 U [1,300 U]	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	8,800 U [8,800 U]	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	28.2 [28.4]	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	3,700 U [3,700 U]	NA	NA
Metals									
Aluminum	ug/L	200 U	200 U [88.1 J]	200 U	605	433	NA	NA	NA
Antimony	ug/L	0.410 J	1.00 U [1.00 U]	1.00 U	1.00 U	1.00 U	5,900 U [5,900 U]	NA	NA
Barium	ug/L	25.2	24.6 [25.5]	20.9	33.2	25.6	NA	NA	NA
Beryllium	ug/L	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	640 U [640 U]	NA	NA
Cadmium	ug/L	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	640 U [640 U]	NA	NA
Calcium	ug/L	8,400	9,010 [9,140]	9,030	3,030	2,480	NA	NA	NA
Chromium	ug/L	15.0 U	15.0 U [15.0 U]	15.0 U	15.0 U	15.0 U	1,700 U [1,700 U]	NA	NA
Cobalt	ug/L	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	NA	NA	NA
Copper	ug/L	10.0 U	10.0 U [2.70 J]	10.0 U	5.20 J	10.0 U	2,400 U [7.90 B]	114	435
Lead	ug/L	1.10	2.10 [2.50]	0.990 J	5.00	2.90	8,800 U [55.2]	260	1,240
Magnesium	ug/L	3,560	3,640 [3,700]	3,700	901	730	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	26.0 U [26.0 U]	0.200 U	0.200 U
Nickel	ug/L	10.0 U	10.0 U [10.0 U]	10.0 U	10.0 U	10.0 U	1.80 B [2.70 B]	NA	NA
Potassium	ug/L	674	570 [634]	608	1,100	1,390	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	4,300 U [4,300 U]	100 U	100 U
Silver	ug/L	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	1,300 U [1,300 U]	25.0 U	12.2 J
Sodium	ug/L	5,340	5,250 [5,330]	5,230	1,270	1,650	NA	NA	NA
Thallium	ug/L	0.500 U	0.500 U [0.500 U]	0.500 U	0.500 U	0.500 U	8,800 U [8,800 U]	149	100 U
Vanadium	ug/L	5.00 U	5.00 U [5.00 U]	5.00 U	4.30 J	5.00 U	NA	NA	NA
Zinc	ug/L	2.10 J	2.50 J [2.60 J]	20.0 U	20.4	11.6 J	32.9 [55.4]	930	4,560
Manganese	ug/L	12.7	15.3 [16.5]	9.20	140	87.7	NA	NA	NA
Iron	ug/L	178 J	202 [204]	184 J	1,080	874	NA	NA	NA
Arsenic	ug/L	1.30 J	1.30 J [1.50 J]	0.890 J	1.30 J	1.10 J	3,700 U [3,700 U]	100 U	72.6 J
Explosives									
1,2-Dinitrobenzene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	NA	NA
1,3-Dinitrobenzene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	NA	NA
1,4-Dinitrobenzene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	NA	NA	NA
1-Nitronaphthalene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-M-5-1	SW-R2-M-5-2	SW-R2-M-6-1	SW-R2-N-5-1	SW-R2-N-5-2	SW-R4-1-01	SW-R-J5-01	SW-R-J5-02
Sample Depth(ft):							0.5 - 1	0 - 0.5	0 - 0.5
Date Collected:		11/04/13	11/04/13	11/05/13	11/05/13	11/05/13	04/23/01	04/05/06	04/05/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	2.0 U	2.0 U [2 U]	2.0 U	2.0 U	2.0 U	0.2 U [0.2 U]	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	0.2 U [0.2 U]	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	1.3 U	1.3 U [1.3 U]	1.3 U	1.3 U	1.3 U	0.2 U [0.2 U]	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	0.6 U	0.6 U
2-Nitrotoluene	ug/L	0.75 U	0.75 U [0.75 U]	0.75 U	0.75 U	0.75 U	0.2 U [0.2 U]	NA	NA
3-Nitrotoluene	ug/L	1.2 U	1.2 U [1.2 U]	1.2 U	1.2 U	1.2 U	0.2 U [0.2 U]	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	0.6 U	0.6 U
4-Nitrotoluene	ug/L	1.2 U	1.2 U [1.2 U]	1.2 U	1.2 U	1.2 U	0.2 U [0.2 U]	NA	NA
HMX	ug/L	2.0 U	2.0 U [2 U]	2.0 U	2.0 U	2.0 U	0.2 U [0.2 U]	2 U	2 U
Nitrobenzene_Explosives	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	500 U [500 U]	NA	NA
Nitroglycerin	ug/L	15 U	15 U [15 U]	15 U	15 U	15 U	120 U [120 U]	NA	NA
Pentaerythritol Tetranitrate	ug/L	18 U	18 U [18 U]	18 U	18 U	18 U	4 U [4 U]	NA	NA
RDX	ug/L	0.50 U	0.50 U [0.5 U]	0.50 U	0.50 U	0.50 U	0.2 U [0.2 U]	0.6 U	0.6 U
Tetryl	ug/L	0.60 U	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.2 U [0.2 U]	NA	NA
Perchlorate									
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
GenChem									
Hardness (as CaCO3)	ug/L	36,900	38,900 [38,800]	38,600	25,000 U	25,000 U	18,000	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	8,510	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	4.87	NA	NA
FIELD									
pH_Field	SU	7.2	7.2 [7.2]	7.2	4.6	4.6	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	5.50 J	NA	14.0	NA	8.50 J	NA	1.90 J	NA
Lead_Filtered	ug/L	NA	10.1 J	NA	19.9 J	NA	11.1 J	NA	20.0 U	NA
Mercury_Filtered	ug/L	NA	0.240	NA	0.150 J	NA	0.320	NA	0.0890 J	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	10.3 J	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA
Silver_Filtered	ug/L	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA
Thallium_Filtered	ug/L	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA
Zinc_Filtered	ug/L	NA	504	NA	153	NA	349	NA	49.8	NA
Arsenic_Filtered	ug/L	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	0.6 U	NA	NA	NA	2.2 U	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-01	SW-R-K5-01	SW-R-K5-02	SW-R-K5-02	SW-R-K5-03	SW-R-K5-03	SW-R-K5-04	SW-R-K5-04	SW-R-K5-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06	04/12/06	03/30/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	NA	0.6 U	NA	0.6 U	NA	0.6 U	NA	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	NA	0.6 U	NA	0.6 U	NA	0.6 U	NA	0.6 U
2-Nitrotoluene	ug/L	NA	NA	0.6 U	NA	NA	NA	0.6 U	NA	NA
3-Nitrotoluene	ug/L	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	NA	0.6 U	NA	0.6 U	NA	0.6 U	NA	0.6 U
4-Nitrotoluene	ug/L	NA	NA	1.2 U	NA	NA	NA	1.2 U	NA	NA
HMX	ug/L	2 U	NA	40 U	NA	2 U	NA	40 U	NA	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	NA	12 U	NA	0.6 U	NA	12 U	NA	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11	SW-R-L7-01	SW-R-L7-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1.25 - 1.75	0 - 0.5
Date Collected:		04/12/06	03/30/06	03/30/06	03/30/06	04/05/06	04/05/06	04/05/06	04/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11	SW-R-L7-01	SW-R-L7-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1.25 - 1.75	0 - 0.5
Date Collected:		04/12/06	03/30/06	03/30/06	03/30/06	04/05/06	04/05/06	04/05/06	04/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11	SW-R-L7-01	SW-R-L7-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1.25 - 1.75	0 - 0.5
Date Collected:		04/12/06	03/30/06	03/30/06	03/30/06	04/05/06	04/05/06	04/05/06	04/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	72.4	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	40.0	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	0.140 J	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	150	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	10.0 U	217	2.50 J	420	423	871	10.0 U	4.70 J
Lead	ug/L	NA	20.0 U	584	20.0 U	1,420	1,260	3,000	20.0 U	11.3 J
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.200 U	0.230	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	20.0 U	100 U	20.0 U	100 U	100 U	100 U	20.0 U	20.0 U
Silver	ug/L	NA	5.00 U	25.0 U	5.00 U	25.0 U	25.0 U	11.8 J	5.00 U	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	20.0 U	100 U	20.0 U	104	100 U	100 U	20.0 U	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	28.6	7,620	16.6 J	2,680	2,430	4,380	11.0 J	25.7
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	20.0 U	100 U	20.0 U	54.1 J	100 U	176	20.0 U	20.0 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-K5-05	SW-R-K5-06	SW-R-K5-07	SW-R-K5-08	SW-R-K5-09	SW-R-K5-10	SW-R-K5-11	SW-R-L7-01	SW-R-L7-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1.25 - 1.75	0 - 0.5
Date Collected:		04/12/06	03/30/06	03/30/06	03/30/06	04/05/06	04/05/06	04/05/06	04/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	NA	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	NA	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-L7-03	SW-R-L7-04	SW-R-L7-05	SW-R-M6-01	SW-R-M6-02	SW-R-M6-03	SW-R-M6-04	SW-R-M6-05	SW-R-M6-06
Sample Depth(ft):		0 - 0.5	0 - 0.75	0 - 3	0.25 - 0.75	0.5 - 1	0.75 - 1.25	0.75 - 1.25	1 - 1.5	0.25 - 0.75
Date Collected:		07/06/06	07/06/06	07/06/06	04/06/06	04/06/06	04/06/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-L7-03	SW-R-L7-04	SW-R-L7-05	SW-R-M6-01	SW-R-M6-02	SW-R-M6-03	SW-R-M6-04	SW-R-M6-05	SW-R-M6-06
Sample Depth(ft):		0 - 0.5	0 - 0.75	0 - 3	0.25 - 0.75	0.5 - 1	0.75 - 1.25	0.75 - 1.25	1 - 1.5	0.25 - 0.75
Date Collected:		07/06/06	07/06/06	07/06/06	04/06/06	04/06/06	04/06/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)Pyrene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-R-L7-03 0 - 0.5 07/06/06 FS	SW-R-L7-04 0 - 0.75 07/06/06 FS	SW-R-L7-05 0 - 3 07/06/06 FS	SW-R-M6-01 0.25 - 0.75 04/06/06 FS	SW-R-M6-02 0.5 - 1 04/06/06 FS	SW-R-M6-03 0.75 - 1.25 04/06/06 FS	SW-R-M6-04 0.75 - 1.25 04/06/06 FS	SW-R-M6-05 1 - 1.5 04/06/06 FS	SW-R-M6-06 0.25 - 0.75 04/06/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	10.0 U	3.40 J	10.0 U	NA	NA	NA	NA	NA	NA
Lead	ug/L	15.0 U	12.5 J	15.0 U	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U	0.200 U	NA	NA	NA	NA	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA	NA	NA
Silver	ug/L	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	10.8 J	18.8 J	20.0 U	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA	NA	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-L7-03	SW-R-L7-04	SW-R-L7-05	SW-R-M6-01	SW-R-M6-02	SW-R-M6-03	SW-R-M6-04	SW-R-M6-05	SW-R-M6-06
Sample Depth(ft):		0 - 0.5	0 - 0.75	0 - 3	0.25 - 0.75	0.5 - 1	0.75 - 1.25	0.75 - 1.25	1 - 1.5	0.25 - 0.75
Date Collected:		07/06/06	07/06/06	07/06/06	04/06/06	04/06/06	04/06/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-07	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13	SW-R-M6-14	SW-R-M6-15
Sample Depth(ft):		0 - 3	0 - 3.5	0 - 3.5	0 - 3.5	0 - 3	0 - 4	0 - 3	0 - 4	0 - 4
Date Collected:		06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	07/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-07	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13	SW-R-M6-14	SW-R-M6-15
Sample Depth(ft):		0 - 3	0 - 3.5	0 - 3.5	0 - 3.5	0 - 3	0 - 4	0 - 3	0 - 4	0 - 4
Date Collected:		06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	07/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)Pyrene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)Fluoranthene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-07	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13	SW-R-M6-14	SW-R-M6-15
Sample Depth(ft):		0 - 3	0 - 3.5	0 - 3.5	0 - 3.5	0 - 3	0 - 4	0 - 3	0 - 4	0 - 4
Date Collected:		06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	07/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Lead	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Silver	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-07	SW-R-M6-08	SW-R-M6-09	SW-R-M6-10	SW-R-M6-11	SW-R-M6-12	SW-R-M6-13	SW-R-M6-14	SW-R-M6-15
Sample Depth(ft):		0 - 3	0 - 3.5	0 - 3.5	0 - 3.5	0 - 3	0 - 4	0 - 3	0 - 4	0 - 4
Date Collected:		06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	06/30/06	07/06/06	07/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-01	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04
Sample Depth(ft):		0 - 3	0 - 3	0 - 4	0 - 3	0.5 - 1	0 - 0.5	0.25 - 0.75	0.5 - 1	0.5 - 1
Date Collected:		07/06/06	07/06/06	07/06/06	07/06/06	07/06/06	04/05/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-01	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04
Sample Depth(ft):		0 - 3	0 - 3	0 - 4	0 - 3	0.5 - 1	0 - 0.5	0.25 - 0.75	0.5 - 1	0.5 - 1
Date Collected:		07/06/06	07/06/06	07/06/06	07/06/06	07/06/06	04/05/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-01	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04
Sample Depth(ft):		0 - 3	0 - 3	0 - 4	0 - 3	0.5 - 1	0 - 0.5	0.25 - 0.75	0.5 - 1	0.5 - 1
Date Collected:		07/06/06	07/06/06	07/06/06	07/06/06	07/06/06	04/05/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	10.0 U	NA	10.0 U	10.0 U	10.0 U	10.3	10.0 U [10.0 U]	10.0 U	3.10 J
Lead	ug/L	15.0 U	NA	15.0 U	15.0 U	15.0 U	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	NA	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U [0.200 U]	0.200 U	0.200 U
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U
Silver	ug/L	5.00 U	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	20.0 U	NA	20.0 U	20.0 U	20.0 U	39.6	52.6 [29.4]	36.8	95.5
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M6-16	SW-R-M6-17	SW-R-M6-18	SW-R-M6-19	SW-R-M6-20	SW-R-M7-01	SW-R-M7-02	SW-R-M7-03	SW-R-M7-04
Sample Depth(ft):		0 - 3	0 - 3	0 - 4	0 - 3	0.5 - 1	0 - 0.5	0.25 - 0.75	0.5 - 1	0.5 - 1
Date Collected:		07/06/06	07/06/06	07/06/06	07/06/06	07/06/06	04/05/06	04/06/06	04/06/06	04/06/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M7-05	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.25 - 0.75	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		04/06/06	04/06/06	04/06/06	07/06/06	04/05/06	04/05/06	04/07/06	04/12/06	04/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M7-05	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.25 - 0.75	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		04/06/06	04/06/06	04/06/06	07/06/06	04/05/06	04/05/06	04/07/06	04/12/06	04/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M7-05	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.25 - 0.75	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		04/06/06	04/06/06	04/06/06	07/06/06	04/05/06	04/05/06	04/07/06	04/12/06	04/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	10.0 U	10.0 U [10.0 U]
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	8.50 J	10.7 J [9.00 J]
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	0.200 U	0.200 U [0.200 U]
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	20.0 U [20.0 U]
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	5.00 U	5.00 U [5.00 U]
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	20.0 U [20.0 U]
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	24.8	25.9 [25.9]
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	20.0 U [20.0 U]
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	4.90 J	11.0	9.60 J	2.90 J	2.80 J [3.00 J]
Lead	ug/L	20.0 U	20.0 U	20.0 U	15.0 U	10.2 J	22.0	35.6	20.0 U	20.0 U [11.0 J]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U [0.200 U]
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Silver	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U [5.00 U]
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	71.2	11.9 J	12.9 J	20.0 U	43.8	67.6	61.3	28.6	29.2 [31.1]
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-M7-05	SW-R-M7-06	SW-R-M7-07	SW-R-M7-08	SW-R-N5-01	SW-R-N5-02	SW-R-N5-03	SW-R-N5-04	SW-R-N5-05
Sample Depth(ft):		0.25 - 0.75	0.5 - 1	0.25 - 0.75	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		04/06/06	04/06/06	04/06/06	07/06/06	04/05/06	04/05/06	04/07/06	04/12/06	04/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	40 U	40 U	2 U	2 U	2 U [2 U]
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	12 U	12 U	0.6 U	0.6 U	0.6 U [0.6 U]
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perchlorate										
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-N5-06	SW-R-N7-01	SW-R-N7-02	SW-R-O4-01	SW-R-O5-01	SW-R-O5-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5	1 - 1.5
Date Collected:		05/18/06	04/05/06	04/05/06	04/06/06	05/18/06	05/18/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS
VOCs							
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA
SVOCs							
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-N5-06	SW-R-N7-01	SW-R-N7-02	SW-R-O4-01	SW-R-O5-01	SW-R-O5-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5	1 - 1.5
Date Collected:		05/18/06	04/05/06	04/05/06	04/06/06	05/18/06	05/18/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-N5-06	SW-R-N7-01	SW-R-N7-02	SW-R-O4-01	SW-R-O5-01	SW-R-O5-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5	1 - 1.5
Date Collected:		05/18/06	04/05/06	04/05/06	04/06/06	05/18/06	05/18/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA
TPH							
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA
Metals - Filtered							
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	10.0 U	10.0 U
Lead_Filtered	ug/L	NA	NA	NA	NA	20.0 U	20.0 U
Mercury_Filtered	ug/L	NA	NA	NA	NA	0.200 U	0.200 U
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	20.0 U	20.0 U
Silver_Filtered	ug/L	NA	NA	NA	NA	5.00 U	5.00 U
Thallium_Filtered	ug/L	NA	NA	NA	NA	20.0 U	20.0 U
Zinc_Filtered	ug/L	NA	NA	NA	NA	9.10 J	11.1 J
Arsenic_Filtered	ug/L	NA	NA	NA	NA	20.0 U	20.0 U
Metals							
Aluminum	ug/L	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA
Copper	ug/L	17.5	36.4	4.90 J	10.0 U	NA	NA
Lead	ug/L	25.6	27.1	20.0 U	20.0 U	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U	0.200 U	0.200 U	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA
Silver	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA
Zinc	ug/L	119	1,160	78.3	9.70 J	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	45.8	20.0 U	20.0 U	NA	NA
Explosives							
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA

Appendix A2. Ecological Risk Assessment Dataset - Northern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-N5-06	SW-R-N7-01	SW-R-N7-02	SW-R-O4-01	SW-R-O5-01	SW-R-O5-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5	1 - 1.5
Date Collected:		05/18/06	04/05/06	04/05/06	04/06/06	05/18/06	05/18/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	60 U	0.6 U	0.6 U	0.6 U	60 U	60 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	60 U	0.6 U	0.6 U	0.6 U	60 U	60 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	60 U	0.6 U	0.6 U	0.6 U	60 U	60 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA
HMX	ug/L	200 U	2 U	2 U	2 U	200 U	200 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA
RDX	ug/L	60 U	0.6 U	0.6 U	0.6 U	60 U	60 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA
Perchlorate							
Perchlorate	ug/L	NA	NA	NA	NA	NA	NA
GenChem							
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA
FIELD							
pH_Field	SU	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-J5-1-01 0.5-1.0 ft 4/19/2001 N SD-J5-1-011N	SD-J5-2-01 0.5-1.0 ft 4/19/2001 N SD-J5-2-011N	SD-K4-1-01 0.5-1.0 ft 4/24/2001 N SD-K4-1-011N	SD-K5-1-01 0.0-0.5 ft 4/24/2001 FD SD-K5-1-010.5FD SD-K5-1-011N	SD-K5-1-01 0.5-1.0 ft 4/24/2001 N SD-K5-1-011N	SD-K5-2-01 0.5-1.0 ft 4/26/2001 N SD-K5-2-011N	SD-K5-3-01 0.5-1.0 ft 4/26/2001 N SD-K5-3-011N	SD-K5-4-01 0.5-1.0 ft 4/26/2001 N SD-K5-4-011N	SD-L5-1-01 0.5-1.0 ft 4/20/2001 N SD-L5-1-011N	SD-L5-2-01 0.0-0.5 ft 4/9/2001 FD SD-L5-2-010.5FD SD-L5-2-011N	SD-L5-2-01 0.5-1.0 ft 4/9/2001 N SD-L5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
1,1,2-Trichloroethane	79-00-5	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
1,1-Dichloroethane	75-34-3	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
1,1-Dichloroethene	75-35-4	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
1,2-Dichloroethane	107-06-2	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
1,2-Dichloropropane	78-87-5	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
2-Chloroethylvinylether	110-75-8	ug/kg	< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540	< 940	< 940
Acrolein	107-02-8	ug/kg	< 17000	< 7200	< 2300	< 2600	< 2300	< 17000	< 7200	< 23000	< 5400	< 9400	< 9400
Acrylonitrile	107-13-1	ug/kg	< 3500	< 1400	< 450	< 510	< 460	< 3400	< 1400	< 4600	< 1100	< 1900	< 1900
Benzene	71-43-2	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Bromodichloromethane	75-27-4	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Bromoform	75-25-2	ug/kg	< 860	< 360	< 230	< 260	< 230	< 850	< 360	< 1200	< 270	< 470	< 470
Bromomethane	74-83-9	ug/kg	< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540	< 940	< 940
Carbon Tetrachloride	56-23-5	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Chlorobenzene	108-90-7	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Chloroethane	75-00-3	ug/kg	< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540	< 940	< 940
Chloroform	67-66-3	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Chloromethane	74-87-3	ug/kg	< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540	< 940	< 940
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Dibromochloromethane	124-48-1	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Ethylbenzene	100-41-4	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Methylene Chloride	75-09-2	ug/kg	< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540	< 940	< 940
Tetrachloroethene	127-18-4	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Toluene	108-88-3	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Trichloroethene	79-01-6	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Trichlorofluoromethane	75-69-4	ug/kg	< 1700	< 720	< 230	< 260	< 230	< 1700	< 720	< 2300	< 540	< 940	< 940
Vinyl Chloride	75-01-4	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470
Xylenes (total)	1330-20-7	ug/kg	< 860	< 360	< 110	< 130	< 110	< 850	< 360	< 1200	< 270	< 470	< 470

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-J5-1-01	SD-J5-2-01	SD-K4-1-01	SD-K5-1-01	SD-K5-1-01	SD-K5-2-01	SD-K5-3-01	SD-K5-4-01	SD-L5-1-01	SD-L5-2-01	SD-L5-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/20/2001	4/9/2001	4/9/2001
Sample Type			N	N	N	FD	N	N	N	N	N	FD	N
Sample Name			SD-J5-1-011N	SD-J5-2-011N	SD-K4-1-011N	SD-K5-1-010.5FD	SD-K5-1-011N	SD-K5-2-011N	SD-K5-3-011N	SD-K5-4-011N	SD-L5-1-011N	SD-L5-2-010.5FD	SD-L5-2-011N
Parent Sample						SD-K5-1-011N						SD-L5-2-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-J5-1-01	SD-J5-2-01	SD-K4-1-01	SD-K5-1-01	SD-K5-1-01	SD-K5-2-01	SD-K5-3-01	SD-K5-4-01	SD-L5-1-01	SD-L5-2-01	SD-L5-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/24/2001	4/24/2001	4/24/2001	4/26/2001	4/26/2001	4/26/2001	4/20/2001	4/9/2001	4/9/2001
Sample Type			N	N	N	FD	N	N	N	N	N	FD	N
Sample Name			SD-J5-1-011N	SD-J5-2-011N	SD-K4-1-011N	SD-K5-1-010.5FD	SD-K5-1-011N	SD-K5-2-011N	SD-K5-3-011N	SD-K5-4-011N	SD-L5-1-011N	SD-L5-2-010.5FD	SD-L5-2-011N
Parent Sample						SD-K5-1-011N						SD-L5-2-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-J5-1-01 0.5-1.0 ft 4/19/2001 N SD-J5-1-011N	SD-J5-2-01 0.5-1.0 ft 4/19/2001 N SD-J5-2-011N	SD-K4-1-01 0.5-1.0 ft 4/24/2001 N SD-K4-1-011N	SD-K5-1-01 0.0-0.5 ft 4/24/2001 FD SD-K5-1-010.5FD SD-K5-1-011N	SD-K5-1-01 0.5-1.0 ft 4/24/2001 N SD-K5-1-011N	SD-K5-2-01 0.5-1.0 ft 4/26/2001 N SD-K5-2-011N	SD-K5-3-01 0.5-1.0 ft 4/26/2001 N SD-K5-3-011N	SD-K5-4-01 0.5-1.0 ft 4/26/2001 N SD-K5-4-011N	SD-L5-1-01 0.5-1.0 ft 4/20/2001 N SD-L5-1-011N	SD-L5-2-01 0.0-0.5 ft 4/9/2001 FD SD-L5-2-010.5FD SD-L5-2-011N	SD-L5-2-01 0.5-1.0 ft 4/9/2001 N SD-L5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-J5-1-01 0.5-1.0 ft 4/19/2001 N SD-J5-1-011N	SD-J5-2-01 0.5-1.0 ft 4/19/2001 N SD-J5-2-011N	SD-K4-1-01 0.5-1.0 ft 4/24/2001 N SD-K4-1-011N	SD-K5-1-01 0.0-0.5 ft 4/24/2001 FD SD-K5-1-010.5FD SD-K5-1-011N	SD-K5-1-01 0.5-1.0 ft 4/24/2001 N SD-K5-1-011N	SD-K5-2-01 0.5-1.0 ft 4/26/2001 N SD-K5-2-011N	SD-K5-3-01 0.5-1.0 ft 4/26/2001 N SD-K5-3-011N	SD-K5-4-01 0.5-1.0 ft 4/26/2001 N SD-K5-4-011N	SD-L5-1-01 0.5-1.0 ft 4/20/2001 N SD-L5-1-011N	SD-L5-2-01 0.0-0.5 ft 4/9/2001 FD SD-L5-2-010.5FD SD-L5-2-011N	SD-L5-2-01 0.5-1.0 ft 4/9/2001 N SD-L5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 63000	< 28000	< 10000	NA	< 10000	< 70000	< 26000	< 84000	< 21000	NA	< 42000
Di-N-Propyl Ether	111-43-3	ug/kg	< 63000	< 28000	< 10000	NA	< 10000	< 70000	< 26000	< 84000	< 21000	NA	< 42000
Ethanol	64-17-5	ug/kg	< 63000	< 28000	< 10000	NA	< 10000	< 70000	< 26000	< 84000	< 21000	NA	< 42000
Ethyl ether	60-29-7	ug/kg	< 63000	< 28000	< 10000	NA	< 10000	< 70000	< 26000	< 84000	< 21000	NA	< 42000
Methanol	67-56-1	ug/kg	< 63000	< 28000	< 10000	NA	< 10000	< 70000	< 26000	< 84000	< 21000	NA	< 42000
N-butyl ether	142-96-1	ug/kg	< 63000	< 28000	< 10000	NA	< 10000	< 70000	< 26000	< 84000	< 21000	NA	< 42000
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-1-01	SD-M5-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01
Depths			0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/24/2001	4/24/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011N	SD-L6-1-011FD	SD-M5-1-011N	SD-M5-1-011.5N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N
Parent Sample				SD-L6-1-011N		SD-L6-1-011N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
1,1,2-Trichloroethane	79-00-5	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
1,1-Dichloroethane	75-34-3	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
1,1-Dichloroethene	75-35-4	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
1,2-Dichloroethane	107-06-2	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
1,2-Dichloropropane	78-87-5	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
2-Chloroethylvinylether	110-75-8	ug/kg	< 900	< 1000	< 580	NA	< 280	NA	< 690	< 560	< 3000	< 270	< 340
Acrolein	107-02-8	ug/kg	< 9000	< 10000	< 5800	NA	< 2800	NA	< 6900	< 5500	< 30000	< 2700	< 3400
Acrylonitrile	107-13-1	ug/kg	< 1800	< 2000	< 1200	NA	< 560	NA	< 1400	< 1100	< 6000	< 550	< 670
Benzene	71-43-2	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Bromodichloromethane	75-27-4	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Bromoform	75-25-2	ug/kg	< 450	< 510	< 290	NA	< 280	NA	< 340	< 280	< 1500	< 140	< 170
Bromomethane	74-83-9	ug/kg	< 900	< 1000	< 580	NA	< 280	NA	< 690	< 560	< 3000	< 270	< 340
Carbon Tetrachloride	56-23-5	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Chlorobenzene	108-90-7	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Chloroethane	75-00-3	ug/kg	< 900	< 1000	< 580	NA	< 280	NA	< 690	< 560	< 3000	< 270	< 340
Chloroform	67-66-3	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Chloromethane	74-87-3	ug/kg	< 900	< 1000	< 580	NA	< 280	NA	< 690	< 560	< 3000	< 270	< 340
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Dibromochloromethane	124-48-1	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Ethylbenzene	100-41-4	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Methylene Chloride	75-09-2	ug/kg	< 900	< 1000	< 580	NA	< 280	NA	< 690	< 560	< 3000	< 270	< 340
Tetrachloroethene	127-18-4	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Toluene	108-88-3	ug/kg	< 450	660	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Trichloroethene	79-01-6	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Trichlorofluoromethane	75-69-4	ug/kg	< 900	< 1000	< 580	NA	< 280	NA	< 690	< 560	< 3000	< 270	< 340
Vinyl Chloride	75-01-4	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170
Xylenes (total)	1330-20-7	ug/kg	< 450	< 510	< 290	NA	< 140	NA	< 340	< 280	< 1500	< 140	< 170

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-1-01	SD-M5-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01
Depths			0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/24/2001	4/24/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011N	SD-L6-1-011FD	SD-M5-1-011N	SD-M5-1-011.5N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N
Parent Sample				SD-L6-1-011N		SD-L6-1-011N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	< 2800	NA	< 670	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	< 720	NA	< 170	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	< 720	NA	< 170	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	< 2800	NA	< 670	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	230	NA	48	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	210	NA	< 33	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	420	NA	48	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	270	NA	< 33	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	170	NA	< 33	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-1-01	SD-M5-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01
Depths			0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/24/2001	4/24/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011N	SD-L6-1-011FD	SD-M5-1-011N	SD-M5-1-011.5N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N
Parent Sample				SD-L6-1-011N		SD-L6-1-011N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	< 280	NA	230	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	380	NA	78	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	580	NA	60	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	< 720	NA	< 170	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	270	NA	< 33	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	< 140	NA	< 33	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	160	NA	< 33	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	< 720	NA	< 170	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	270	NA	< 33	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	< 280	NA	< 67	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	490	NA	53	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-1-01	SD-M5-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01
Depths			0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/24/2001	4/24/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011N	SD-L6-1-011FD	SD-M5-1-011N	SD-M5-1-011.5N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N
Parent Sample				SD-L6-1-011N		SD-L6-1-011N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	< 250000	NA	< 60000	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 8400	NA	< 2000	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	< 8400	NA	< 2000	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 420	NA	< 100	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	< 2.7	NA	1.2	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	10.8	NA	2.7	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	0.86	NA	0.73	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	0.5	NA	< 0.079	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	24.5	NA	18.6	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	45.7	NA	20.4	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	132	NA	12.6	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	0.33	NA	0.02	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	17.7	NA	25.3	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	< 2	NA	< 0.69	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	< 0.59	NA	0.25	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	< 3.6	NA	2	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	214	NA	106	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-L5-3-01	SD-L6-1-01	SD-L6-1-01	SD-L6-1-01	SD-M5-1-01	SD-M5-1-01	SD-M5-2-01	SD-M5-3-01	SD-M6-1-01	SD-M6-2-01	SD-M6-3-01
Depths			0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/9/2001	4/5/2001	4/5/2001	4/5/2001	4/24/2001	4/24/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			SD-L5-3-011N	SD-L6-1-010.5FD	SD-L6-1-011N	SD-L6-1-011FD	SD-M5-1-011N	SD-M5-1-011.5N	SD-M5-2-011N	SD-M5-3-011N	SD-M6-1-011N	SD-M6-2-011N	SD-M6-3-011N
Parent Sample				SD-L6-1-011N		SD-L6-1-011N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	76.3	NA	30.8	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	96000	NA	9900	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 40000	NA	< 23000	< 42000	< 9900	NA	< 32000	< 20000	< 120000	< 13000	< 15000
Di-N-Propyl Ether	111-43-3	ug/kg	< 40000	NA	< 23000	< 42000	< 9900	NA	< 32000	< 20000	< 120000	< 13000	< 15000
Ethanol	64-17-5	ug/kg	< 40000	NA	< 23000	< 42000	< 9900	NA	< 32000	< 20000	< 120000	< 13000	< 15000
Ethyl ether	60-29-7	ug/kg	< 40000	NA	< 23000	< 42000	< 9900	NA	< 32000	< 20000	< 120000	< 13000	< 15000
Methanol	67-56-1	ug/kg	< 40000	NA	< 23000	< 42000	< 9900	NA	< 32000	< 20000	< 120000	< 13000	< 15000
N-butyl ether	142-96-1	ug/kg	< 40000	NA	< 23000	< 42000	< 9900	NA	< 32000	< 20000	< 120000	< 13000	< 15000
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	100	NA	100	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	100	NA	100	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	100	NA	100	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	74.8	NA	62.8	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	5.4	NA	3.9	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	51.2	NA	42.6	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	88.2	NA	86	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	35.6	NA	21.3	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	87.4	NA	82.8	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	85.9	NA	75.6	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	16.4	NA	9.9	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-M7-1-01 0.5-1.0 ft 4/5/2001 N SD-M7-1-011N	SD-M7-2-01 0.5-1.0 ft 4/24/2001 N SD-M7-2-011N	SD-M7-2-01 1.0-1.5 ft 4/24/2001 N SD-M7-2-011.5N	SD-N5-1-01 0.5-1.0 ft 4/25/2001 N SD-N5-1-011N	SD-N5-2-01 0.5-1.0 ft 4/24/2001 N SD-N5-2-011N	SD-N5-3-01 0.5-1.0 ft 4/25/2001 N SD-N5-3-011N	SD-N5-4-01 0.5-1.0 ft 4/25/2001 N SD-N5-4-011N	SD-N5-5-01 0.0-0.5 ft 4/25/2001 FD SD-N5-5-010.5FD SD-N5-5-011N	SD-N5-5-01 0.5-1.0 ft 4/25/2001 N SD-N5-5-011N	SD-N5-6-01 0.5-1.0 ft 4/25/2001 N SD-N5-6-011N	SD-N5-6-01 1.0-1.5 ft 4/25/2001 N SD-N5-6-011.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 1100	< 240	NA	< 320	< 240	< 310	< 330	< 290	< 290	< 570	NA
Acrolein	107-02-8	ug/kg	< 11000	< 2400	NA	< 3200	< 2300	< 3100	< 3300	< 2900	< 2900	< 5700	NA
Acrylonitrile	107-13-1	ug/kg	< 2200	< 480	NA	< 630	< 470	< 620	< 660	< 590	< 580	< 1100	NA
Benzene	71-43-2	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Bromodichloromethane	75-27-4	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Bromoform	75-25-2	ug/kg	< 560	< 240	NA	< 160	< 230	< 150	< 160	< 150	< 140	< 290	NA
Bromomethane	74-83-9	ug/kg	< 1100	< 240	NA	< 320	< 240	< 310	< 330	< 290	< 290	< 570	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Chlorobenzene	108-90-7	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Chloroethane	75-00-3	ug/kg	< 1100	< 240	NA	< 320	< 240	< 310	< 330	< 290	< 290	< 570	NA
Chloroform	67-66-3	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Chloromethane	74-87-3	ug/kg	< 1100	< 240	NA	< 320	< 240	< 310	< 330	< 290	< 290	< 570	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Dibromochloromethane	124-48-1	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Ethylbenzene	100-41-4	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Methylene Chloride	75-09-2	ug/kg	< 1100	< 240	NA	< 320	< 240	< 310	< 330	< 290	< 290	< 570	NA
Tetrachloroethene	127-18-4	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Toluene	108-88-3	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Trichloroethene	79-01-6	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 1100	< 240	NA	< 320	< 240	< 310	< 330	< 290	< 290	< 570	NA
Vinyl Chloride	75-01-4	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA
Xylenes (total)	1330-20-7	ug/kg	< 560	< 120	NA	< 160	< 120	< 150	< 160	< 150	< 140	< 290	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-M7-1-01 0.5-1.0 ft 4/5/2001 N SD-M7-1-011N	SD-M7-2-01 0.5-1.0 ft 4/24/2001 N SD-M7-2-011N	SD-M7-2-01 1.0-1.5 ft 4/24/2001 N SD-M7-2-011.5N	SD-N5-1-01 0.5-1.0 ft 4/25/2001 N SD-N5-1-011N	SD-N5-2-01 0.5-1.0 ft 4/24/2001 N SD-N5-2-011N	SD-N5-3-01 0.5-1.0 ft 4/25/2001 N SD-N5-3-011N	SD-N5-4-01 0.5-1.0 ft 4/25/2001 N SD-N5-4-011N	SD-N5-5-01 0.0-0.5 ft 4/25/2001 FD SD-N5-5-010.5FD SD-N5-5-011N	SD-N5-5-01 0.5-1.0 ft 4/25/2001 N SD-N5-5-011N	SD-N5-6-01 0.5-1.0 ft 4/25/2001 N SD-N5-6-011N	SD-N5-6-01 1.0-1.5 ft 4/25/2001 N SD-N5-6-011.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 670	NA	NA	NA	NA	NA	NA	NA	< 1300
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 170	NA	NA	NA	NA	NA	NA	NA	< 330
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 170	NA	NA	NA	NA	NA	NA	NA	< 330
Acenaphthene	83-32-9	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 670	NA	NA	NA	NA	NA	NA	NA	< 1300
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	96	NA	NA	NA	NA	NA	NA	NA	< 64
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	< 64
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	160	NA	NA	NA	NA	NA	NA	NA	< 64
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	76	NA	NA	NA	NA	NA	NA	NA	< 64
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	65	NA	NA	NA	NA	NA	NA	NA	< 64
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-M7-1-01 0.5-1.0 ft 4/5/2001 N SD-M7-1-011N	SD-M7-2-01 0.5-1.0 ft 4/24/2001 N SD-M7-2-011N	SD-M7-2-01 1.0-1.5 ft 4/24/2001 N SD-M7-2-011.5N	SD-N5-1-01 0.5-1.0 ft 4/25/2001 N SD-N5-1-011N	SD-N5-2-01 0.5-1.0 ft 4/24/2001 N SD-N5-2-011N	SD-N5-3-01 0.5-1.0 ft 4/25/2001 N SD-N5-3-011N	SD-N5-4-01 0.5-1.0 ft 4/25/2001 N SD-N5-4-011N	SD-N5-5-01 0.0-0.5 ft 4/25/2001 FD SD-N5-5-010.5FD SD-N5-5-011N	SD-N5-5-01 0.5-1.0 ft 4/25/2001 N SD-N5-5-011N	SD-N5-6-01 0.5-1.0 ft 4/25/2001 N SD-N5-6-011N	SD-N5-6-01 1.0-1.5 ft 4/25/2001 N SD-N5-6-011.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	150
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	180	NA	NA	NA	NA	NA	NA	NA	< 64
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Fluoranthene	206-44-0	ug/kg	NA	NA	140	NA	NA	NA	NA	NA	NA	NA	< 64
Fluorene	86-73-7	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 170	NA	NA	NA	NA	NA	NA	NA	< 330
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	83	NA	NA	NA	NA	NA	NA	NA	< 64
Isophorone	78-59-1	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
Naphthalene	91-20-3	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 33	NA	NA	NA	NA	NA	NA	NA	< 64
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	83	NA	NA	NA	NA	NA	NA	NA	< 64
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 170	NA	NA	NA	NA	NA	NA	NA	< 330
Phenanthrene	85-01-8	ug/kg	NA	NA	99	NA	NA	NA	NA	NA	NA	NA	< 64
Phenol	108-95-2	ug/kg	NA	NA	< 67	NA	NA	NA	NA	NA	NA	NA	< 130
Pyrene	129-00-0	ug/kg	NA	NA	150	NA	NA	NA	NA	NA	NA	NA	< 64

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-M7-1-01 0.5-1.0 ft 4/5/2001 N SD-M7-1-011N	SD-M7-2-01 0.5-1.0 ft 4/24/2001 N SD-M7-2-011N	SD-M7-2-01 1.0-1.5 ft 4/24/2001 N SD-M7-2-011.5N	SD-N5-1-01 0.5-1.0 ft 4/25/2001 N SD-N5-1-011N	SD-N5-2-01 0.5-1.0 ft 4/24/2001 N SD-N5-2-011N	SD-N5-3-01 0.5-1.0 ft 4/25/2001 N SD-N5-3-011N	SD-N5-4-01 0.5-1.0 ft 4/25/2001 N SD-N5-4-011N	SD-N5-5-01 0.0-0.5 ft 4/25/2001 FD SD-N5-5-010.5FD SD-N5-5-011N	SD-N5-5-01 0.5-1.0 ft 4/25/2001 N SD-N5-5-011N	SD-N5-6-01 0.5-1.0 ft 4/25/2001 N SD-N5-6-011N	SD-N5-6-01 1.0-1.5 ft 4/25/2001 N SD-N5-6-011.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
Nitrocellulose	9004-70-0	ug/kg	NA	NA	< 60000	NA	NA	NA	NA	NA	NA	NA	< 120000
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 2000	NA	NA	NA	NA	NA	NA	NA	< 3800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 780
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	< 2000	NA	NA	NA	NA	NA	NA	NA	< 3800
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
Tetryl	479-45-8	ug/kg	NA	NA	< 100	NA	NA	NA	NA	NA	NA	NA	< 190
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 1.1	NA	NA	NA	NA	NA	NA	NA	< 1.2
Arsenic	7440-38-2	mg/kg	NA	NA	4.8	NA	NA	NA	NA	NA	NA	NA	2.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.17	NA	NA	NA	NA	NA	NA	NA	0.29
Cadmium	7440-43-9	mg/kg	NA	NA	0.58	NA	NA	NA	NA	NA	NA	NA	0.22
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	11.2	NA	NA	NA	NA	NA	NA	NA	12.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	103	NA	NA	NA	NA	NA	NA	NA	15.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	1230	NA	NA	NA	NA	NA	NA	NA	26.4
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	2.7	NA	NA	NA	NA	NA	NA	NA	0.082
Nickel	7440-02-0	mg/kg	NA	NA	13.8	NA	NA	NA	NA	NA	NA	NA	6.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	< 0.85	NA	NA	NA	NA	NA	NA	NA	1.3
Silver	7440-22-4	mg/kg	NA	NA	< 0.25	NA	NA	NA	NA	NA	NA	NA	< 0.27
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1.5	NA	NA	NA	NA	NA	NA	NA	< 1.6
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	274	NA	NA	NA	NA	NA	NA	NA	32.8

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-M7-1-01	SD-M7-2-01	SD-M7-2-01	SD-N5-1-01	SD-N5-2-01	SD-N5-3-01	SD-N5-4-01	SD-N5-5-01	SD-N5-5-01	SD-N5-6-01	SD-N5-6-01
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/5/2001	4/24/2001	4/24/2001	4/25/2001	4/24/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001	4/25/2001
Sample Type			N	N	N	N	N	N	N	FD	N	N	N
Sample Name			SD-M7-1-011N	SD-M7-2-011N	SD-M7-2-011.5N	SD-N5-1-011N	SD-N5-2-011N	SD-N5-3-011N	SD-N5-4-011N	SD-N5-5-010.5FD	SD-N5-5-011N	SD-N5-6-011N	SD-N5-6-011.5N
Parent Sample										SD-N5-5-011N			
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	43.9	NA	NA	NA	NA	NA	NA	NA	48.5
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	13300	NA	NA	NA	NA	NA	NA	NA	98200
Amyl alcohol	71-41-0	ug/kg	< 45000	< 10000	NA	< 13000	< 10000	< 13000	< 13000	NA	< 13000	< 19000	NA
Di-N-Propyl Ether	111-43-3	ug/kg	< 45000	< 10000	NA	< 13000	< 10000	< 13000	< 13000	NA	< 13000	< 19000	NA
Ethanol	64-17-5	ug/kg	< 45000	< 10000	NA	< 13000	< 10000	< 13000	< 13000	NA	< 13000	< 19000	NA
Ethyl ether	60-29-7	ug/kg	< 45000	< 10000	NA	< 13000	< 10000	< 13000	< 13000	NA	< 13000	< 19000	NA
Methanol	67-56-1	ug/kg	< 45000	< 10000	NA	< 13000	< 10000	< 13000	< 13000	NA	< 13000	< 19000	NA
N-butyl ether	142-96-1	ug/kg	< 45000	< 10000	NA	< 13000	< 10000	< 13000	< 13000	NA	< 13000	< 19000	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	96	NA	NA	NA	NA	NA	NA	NA	99.9
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	100	NA	NA	NA	NA	NA	NA	NA	100
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	39	NA	NA	NA	NA	NA	NA	NA	63.3
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	2	NA	NA	NA	NA	NA	NA	NA	7.5
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	23.7	NA	NA	NA	NA	NA	NA	NA	45.2
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	69.2	NA	NA	NA	NA	NA	NA	NA	87.5
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	12.6	NA	NA	NA	NA	NA	NA	NA	28.4
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	63.4	NA	NA	NA	NA	NA	NA	NA	84.9
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	55.9	NA	NA	NA	NA	NA	NA	NA	81.3
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	5.5	NA	NA	NA	NA	NA	NA	NA	15.7

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-N7-1-01 0.5-1.0 ft 4/24/2001 N SD-N7-1-011N	SD-N7-2-01 0.5-1.0 ft 4/24/2001 N SD-N7-2-011N	SD-N7-3-01 0.5-1.0 ft 4/24/2001 N SD-N7-3-011N	SD-N7-4-01 0.5-1.0 ft 4/24/2001 N SD-N7-4-011N	SD-N7-5-01 0.5-1.0 ft 4/24/2001 N SD-N7-5-011N	SD-N7-6-01 0.5-1.0 ft 4/23/2001 N SD-N7-6-011N	SD-N7-7-01 0.5-1.0 ft 4/24/2001 N SD-N7-7-011N	SD-O4-10-01 0.5-1.0 ft 4/6/2001 N SD-O4-10-011N	SD-O4-10-01 1.0-1.5 ft 4/6/2001 N SD-O4-10-011.5N	SD-O4-1-01 0.5-1.0 ft 4/4/2001 N SD-O4-1-011N	SD-O4-2-01 0.0-0.5 ft 4/4/2001 FD SD-O4-2-010.5FD SD-O4-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
1,1,2-Trichloroethane	79-00-5	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
1,1-Dichloroethane	75-34-3	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
1,1-Dichloroethene	75-35-4	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
1,2-Dichloroethane	107-06-2	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
1,2-Dichloropropane	78-87-5	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
2-Chloroethylvinylether	110-75-8	ug/kg	< 740	< 250	< 250	< 340	< 240	< 380	< 240	< 350	NA	< 470	< 640
Acrolein	107-02-8	ug/kg	< 7400	< 2500	< 2500	< 3400	< 2400	< 3800	< 2400	< 3500	NA	< 4700	< 6400
Acrylonitrile	107-13-1	ug/kg	< 1500	< 490	< 510	< 680	< 490	< 770	< 480	< 700	NA	< 940	< 1300
Benzene	71-43-2	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Bromodichloromethane	75-27-4	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Bromoform	75-25-2	ug/kg	< 370	< 250	< 250	< 340	< 240	< 190	< 240	< 170	NA	< 240	< 320
Bromomethane	74-83-9	ug/kg	< 740	< 250	< 250	< 340	< 240	< 380	< 240	< 350	NA	< 470	< 640
Carbon Tetrachloride	56-23-5	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Chlorobenzene	108-90-7	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Chloroethane	75-00-3	ug/kg	< 740	< 250	< 250	< 340	< 240	< 380	< 240	< 350	NA	< 470	< 640
Chloroform	67-66-3	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Chloromethane	74-87-3	ug/kg	< 740	< 250	< 250	< 340	< 240	< 380	< 240	< 350	NA	< 470	< 640
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Dibromochloromethane	124-48-1	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Ethylbenzene	100-41-4	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Methylene Chloride	75-09-2	ug/kg	< 740	< 250	< 250	< 340	< 240	< 380	< 240	< 350	NA	< 470	< 640
Tetrachloroethene	127-18-4	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Toluene	108-88-3	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Trichloroethene	79-01-6	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Trichlorofluoromethane	75-69-4	ug/kg	< 740	< 250	< 250	< 340	< 240	< 380	< 240	< 350	NA	< 470	< 640
Vinyl Chloride	75-01-4	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320
Xylenes (total)	1330-20-7	ug/kg	< 370	< 120	< 130	< 170	< 120	< 190	< 120	< 170	NA	< 240	< 320

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-N7-1-01 0.5-1.0 ft 4/24/2001 N SD-N7-1-011N	SD-N7-2-01 0.5-1.0 ft 4/24/2001 N SD-N7-2-011N	SD-N7-3-01 0.5-1.0 ft 4/24/2001 N SD-N7-3-011N	SD-N7-4-01 0.5-1.0 ft 4/24/2001 N SD-N7-4-011N	SD-N7-5-01 0.5-1.0 ft 4/24/2001 N SD-N7-5-011N	SD-N7-6-01 0.5-1.0 ft 4/23/2001 N SD-N7-6-011N	SD-N7-7-01 0.5-1.0 ft 4/24/2001 N SD-N7-7-011N	SD-O4-10-01 0.5-1.0 ft 4/6/2001 N SD-O4-10-011N	SD-O4-10-01 1.0-1.5 ft 4/6/2001 N SD-O4-10-011.5N	SD-O4-1-01 0.5-1.0 ft 4/4/2001 N SD-O4-1-011N	SD-O4-2-01 0.0-0.5 ft 4/4/2001 FD SD-O4-2-010.5FD SD-O4-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 260	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 260	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1000	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-N7-1-01	SD-N7-2-01	SD-N7-3-01	SD-N7-4-01	SD-N7-5-01	SD-N7-6-01	SD-N7-7-01	SD-O4-10-01	SD-O4-10-01	SD-O4-1-01	SD-O4-2-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft
Collection Date			4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/24/2001	4/23/2001	4/24/2001	4/6/2001	4/6/2001	4/4/2001	4/4/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-N7-1-011N	SD-N7-2-011N	SD-N7-3-011N	SD-N7-4-011N	SD-N7-5-011N	SD-N7-6-011N	SD-N7-7-011N	SD-O4-10-011N	SD-O4-10-011.5N	SD-O4-1-011N	SD-O4-2-010.5FD
Parent Sample													SD-O4-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 260	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 260	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-N7-1-01 0.5-1.0 ft 4/24/2001 N SD-N7-1-011N	SD-N7-2-01 0.5-1.0 ft 4/24/2001 N SD-N7-2-011N	SD-N7-3-01 0.5-1.0 ft 4/24/2001 N SD-N7-3-011N	SD-N7-4-01 0.5-1.0 ft 4/24/2001 N SD-N7-4-011N	SD-N7-5-01 0.5-1.0 ft 4/24/2001 N SD-N7-5-011N	SD-N7-6-01 0.5-1.0 ft 4/23/2001 N SD-N7-6-011N	SD-N7-7-01 0.5-1.0 ft 4/24/2001 N SD-N7-7-011N	SD-O4-10-01 0.5-1.0 ft 4/6/2001 N SD-O4-10-011N	SD-O4-10-01 1.0-1.5 ft 4/6/2001 N SD-O4-10-011.5N	SD-O4-1-01 0.5-1.0 ft 4/4/2001 N SD-O4-1-011N	SD-O4-2-01 0.0-0.5 ft 4/4/2001 FD SD-O4-2-010.5FD SD-O4-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 90000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 3000	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 3000	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 150	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 0.97	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1.1	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.41	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 0.082	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	15.1	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 0.22	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	14.2	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.064	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	6.3	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 0.72	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1.3	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	26.5	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-N7-1-01 0.5-1.0 ft 4/24/2001 N SD-N7-1-011N	SD-N7-2-01 0.5-1.0 ft 4/24/2001 N SD-N7-2-011N	SD-N7-3-01 0.5-1.0 ft 4/24/2001 N SD-N7-3-011N	SD-N7-4-01 0.5-1.0 ft 4/24/2001 N SD-N7-4-011N	SD-N7-5-01 0.5-1.0 ft 4/24/2001 N SD-N7-5-011N	SD-N7-6-01 0.5-1.0 ft 4/23/2001 N SD-N7-6-011N	SD-N7-7-01 0.5-1.0 ft 4/24/2001 N SD-N7-7-011N	SD-O4-10-01 0.5-1.0 ft 4/6/2001 N SD-O4-10-011N	SD-O4-10-01 1.0-1.5 ft 4/6/2001 N SD-O4-10-011.5N	SD-O4-1-01 0.5-1.0 ft 4/4/2001 N SD-O4-1-011N	SD-O4-2-01 0.0-0.5 ft 4/4/2001 FD SD-O4-2-010.5FD SD-O4-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	33.7	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	42700	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000	< 15000	NA	< 17000	NA
Di-N-Propyl Ether	111-43-3	ug/kg	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000	< 15000	NA	< 17000	NA
Ethanol	64-17-5	ug/kg	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000	< 15000	NA	< 17000	NA
Ethyl ether	60-29-7	ug/kg	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000	< 15000	NA	< 17000	NA
Methanol	67-56-1	ug/kg	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000	< 15000	NA	< 17000	NA
N-butyl ether	142-96-1	ug/kg	< 30000	< 10000	< 10000	< 10000	< 10000	< 14000	< 10000	< 15000	NA	< 17000	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	95.7	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	56.7	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	2.6	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	24.6	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	94.1	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	12.8	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	92.7	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	84.2	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	6.5	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-O4-2-01 0.5-1.0 ft 4/4/2001 N SD-O4-2-011N	SD-O4-3-01 0.5-1.0 ft 4/4/2001 N SD-O4-3-011N	SD-O4-4-01 0.5-1.0 ft 4/4/2001 N SD-O4-4-011N	SD-O4-5-01 0.5-1.0 ft 4/4/2001 N SD-O4-5-011N	SD-O4-6-01 0.5-1.0 ft 4/4/2001 N SD-O4-6-011N	SD-O4-7-01 0.5-1.0 ft 4/9/2001 N SD-O4-7-011N	SD-O4-8-01 0.5-1.0 ft 4/9/2001 N SD-O4-8-011N	SD-O4-9-01 0.5-1.0 ft 4/6/2001 N SD-O4-9-011N	SD-O5-1-01 0.5-1.0 ft 4/6/2001 N SD-O5-1-011N	SD-O5-2-01 0.5-1.0 ft 4/9/2001 N SD-O5-2-011N	SD-Q4-1-01 0.5-1.0 ft 4/23/2001 N SD-Q4-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1,2-Trichloroethane	79-00-5	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1-Dichloroethane	75-34-3	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,1-Dichloroethene	75-35-4	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,2-Dichloroethane	107-06-2	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
1,2-Dichloropropane	78-87-5	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
2-Chloroethylvinylether	110-75-8	ug/kg	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Acrolein	107-02-8	ug/kg	< 6500	< 6700	< 5500	< 4200	< 6400	< 8100	< 15000	< 3700	< 4000	< 4100	< 5800
Acrylonitrile	107-13-1	ug/kg	< 1300	< 1300	< 1100	< 830	< 1300	< 1600	< 3100	< 730	< 800	< 810	< 1200
Benzene	71-43-2	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Bromodichloromethane	75-27-4	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Bromoform	75-25-2	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Bromomethane	74-83-9	ug/kg	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Carbon Tetrachloride	56-23-5	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Chlorobenzene	108-90-7	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Chloroethane	75-00-3	ug/kg	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Chloroform	67-66-3	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Chloromethane	74-87-3	ug/kg	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Dibromochloromethane	124-48-1	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Ethylbenzene	100-41-4	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Methylene Chloride	75-09-2	ug/kg	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Tetrachloroethene	127-18-4	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Toluene	108-88-3	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Trichloroethene	79-01-6	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Trichlorofluoromethane	75-69-4	ug/kg	< 650	< 670	< 550	< 420	< 640	< 810	< 1500	< 370	< 400	< 410	< 580
Vinyl Chloride	75-01-4	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290
Xylenes (total)	1330-20-7	ug/kg	< 330	< 330	< 280	< 210	< 320	< 400	< 760	< 180	< 200	< 200	< 290

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-O4-2-01	SD-O4-3-01	SD-O4-4-01	SD-O4-5-01	SD-O4-6-01	SD-O4-7-01	SD-O4-8-01	SD-O4-9-01	SD-O5-1-01	SD-O5-2-01	SD-Q4-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/9/2001	4/9/2001	4/6/2001	4/6/2001	4/9/2001	4/23/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-O4-2-011N	SD-O4-3-011N	SD-O4-4-011N	SD-O4-5-011N	SD-O4-6-011N	SD-O4-7-011N	SD-O4-8-011N	SD-O4-9-011N	SD-O5-1-011N	SD-O5-2-011N	SD-Q4-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	NA	< 1700
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 280	NA	NA	< 430
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 280	NA	NA	< 430
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	NA	< 1700
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-O4-2-01	SD-O4-3-01	SD-O4-4-01	SD-O4-5-01	SD-O4-6-01	SD-O4-7-01	SD-O4-8-01	SD-O4-9-01	SD-O5-1-01	SD-O5-2-01	SD-Q4-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/4/2001	4/9/2001	4/9/2001	4/6/2001	4/6/2001	4/9/2001	4/23/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-O4-2-011N	SD-O4-3-011N	SD-O4-4-011N	SD-O4-5-011N	SD-O4-6-011N	SD-O4-7-011N	SD-O4-8-011N	SD-O4-9-011N	SD-O5-1-011N	SD-O5-2-011N	SD-Q4-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 280	NA	NA	< 430
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 280	NA	NA	< 430
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 110	NA	NA	< 170
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 55	NA	NA	< 84

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-O4-2-01 0.5-1.0 ft 4/4/2001 N SD-O4-2-011N	SD-O4-3-01 0.5-1.0 ft 4/4/2001 N SD-O4-3-011N	SD-O4-4-01 0.5-1.0 ft 4/4/2001 N SD-O4-4-011N	SD-O4-5-01 0.5-1.0 ft 4/4/2001 N SD-O4-5-011N	SD-O4-6-01 0.5-1.0 ft 4/4/2001 N SD-O4-6-011N	SD-O4-7-01 0.5-1.0 ft 4/9/2001 N SD-O4-7-011N	SD-O4-8-01 0.5-1.0 ft 4/9/2001 N SD-O4-8-011N	SD-O4-9-01 0.5-1.0 ft 4/6/2001 N SD-O4-9-011N	SD-O5-1-01 0.5-1.0 ft 4/6/2001 N SD-O5-1-011N	SD-O5-2-01 0.5-1.0 ft 4/9/2001 N SD-O5-2-011N	SD-Q4-1-01 0.5-1.0 ft 4/23/2001 N SD-Q4-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 100000	NA	NA	< 150000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3300	NA	NA	< 5100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 3300	NA	NA	< 5100
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 170	NA	NA	< 250
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 1.1	NA	NA	< 0.65
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	1.1
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.57	NA	NA	0.12
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.09	NA	NA	0.15
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	22.2	NA	NA	2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	10.3	NA	NA	4.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	23.2	NA	NA	20.2
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.065	NA	NA	0.046
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	8.8	NA	NA	1.7
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.79	NA	NA	0.84
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.23	NA	NA	< 0.14
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 1.4	NA	NA	< 0.85
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	42.7	NA	NA	10.6

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-O4-2-01 0.5-1.0 ft 4/4/2001 N SD-O4-2-011N	SD-O4-3-01 0.5-1.0 ft 4/4/2001 N SD-O4-3-011N	SD-O4-4-01 0.5-1.0 ft 4/4/2001 N SD-O4-4-011N	SD-O4-5-01 0.5-1.0 ft 4/4/2001 N SD-O4-5-011N	SD-O4-6-01 0.5-1.0 ft 4/4/2001 N SD-O4-6-011N	SD-O4-7-01 0.5-1.0 ft 4/9/2001 N SD-O4-7-011N	SD-O4-8-01 0.5-1.0 ft 4/9/2001 N SD-O4-8-011N	SD-O4-9-01 0.5-1.0 ft 4/6/2001 N SD-O4-9-011N	SD-O5-1-01 0.5-1.0 ft 4/6/2001 N SD-O5-1-011N	SD-O5-2-01 0.5-1.0 ft 4/9/2001 N SD-O5-2-011N	SD-Q4-1-01 0.5-1.0 ft 4/23/2001 N SD-Q4-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	39.8	NA	NA	60.6
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	39000	NA	NA	176000
Amyl alcohol	71-41-0	ug/kg	< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Di-N-Propyl Ether	111-43-3	ug/kg	< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Ethanol	64-17-5	ug/kg	< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Ethyl ether	60-29-7	ug/kg	< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Methanol	67-56-1	ug/kg	< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
N-butyl ether	142-96-1	ug/kg	< 26000	< 28000	< 22000	< 16000	< 26000	< 34000	< 57000	< 17000	< 17000	< 18000	< 25000
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	99.5
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	99.6
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	100	NA	NA	100
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	54.9	NA	NA	59.9
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	0.9	NA	NA	2.5
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	21.1	NA	NA	34.6
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	97.4	NA	NA	92.2
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	10	NA	NA	19.8
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	96.8	NA	NA	91.3
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	84.8	NA	NA	86.1
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	3.7	NA	NA	7.9

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R2-K-5-1 0.0 ft 11/4/2013 N SD-R2-K-5-1_20131104	SD-R2-K-5-2 0.0 ft 11/4/2013 N SD-R2-K-5-2_20131104	SD-R2-O-4-1 0.0 ft 11/5/2013 N SD-R2-0-4-1_20131105	SD-R2-O-4-2 0.0 ft 11/5/2013 N SD-R2-0-4-2_20131105	SD-R2-O-4-3 0.0 ft 11/5/2013 N SD-R2-0-4-3_20131105	SD-R4-1-01 0.0-0.5 ft 4/23/2001 FD SD-R4-1-010.5FD SD-R4-1-011N	SD-R4-1-01 0.5-1.0 ft 4/23/2001 N SD-R4-1-011N	SD-R4-1-01 0.5-1.0 ft 4/23/2001 FD SD-R4-1-011FD SD-R4-1-011N	SD-R-J5-01 0.5-1.0 ft 3/28/2006 N SD-R-J5-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***									
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	< 410	< 520	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	< 4100	< 5200	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	< 830	< 1000	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	< 410	< 520	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	< 410	< 520	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	< 410	< 520	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	< 410	< 520	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	< 410	< 520	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	< 210	< 260	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-K-5-1	SD-R2-K-5-2	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-J5-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			11/4/2013	11/4/2013	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	3/28/2006
Sample Type			N	N	N	N	N	FD	N	FD	N
Sample Name			SD-R2-K-5-1_20131104	SD-R2-K-5-2_20131104	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011N	SD-R4-1-011FD	SD-R-J5-011.0N
Parent Sample								SD-R4-1-011N		SD-R4-1-011N	
CONSTITUENT	***CAS NO.***	***UNIT***									
Semivolatile Organic Compounds											
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
1-Methylnaphthalene	90-12-0	ug/kg	120	< 450	< 5200	83	< 190	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	< 1200	< 1200	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
2-Methylnaphthalene	91-57-6	ug/kg	130	< 450	< 5200	63	< 190	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	< 320	< 300	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	< 320	< 300	NA
Acenaphthene	83-32-9	ug/kg	< 530	< 450	< 5200	< 270	< 190	NA	< 61	< 59	NA
Acenaphthylene	208-96-8	ug/kg	< 530	< 450	< 5200	< 270	< 190	NA	< 61	< 59	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 530	< 450	< 5200	< 270	< 190	NA	< 61	< 59	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 1200	< 1200	NA
Benzo[a]anthracene	56-55-3	ug/kg	170	< 450	< 5200	57	< 190	NA	< 61	< 59	NA
Benzo[a]pyrene	50-32-8	ug/kg	180	89	< 5200	< 270	< 190	NA	< 61	< 59	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	410	210	< 5200	120	49	NA	< 61	< 59	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	160	100	< 5200	86	< 190	NA	< 61	< 59	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	150	95	< 5200	59	< 190	NA	< 61	< 59	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-K-5-1	SD-R2-K-5-2	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-J5-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			11/4/2013	11/4/2013	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	3/28/2006
Sample Type			N	N	N	N	N	FD	N	FD	N
Sample Name			SD-R2-K-5-1_20131104	SD-R2-K-5-2_20131104	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011N	SD-R4-1-011FD	SD-R-J5-011.0N
Parent Sample								SD-R4-1-011N		SD-R4-1-011N	
CONSTITUENT	***CAS NO.***	***UNIT***									
Semivolatile Organic Compounds (Cont.)											
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	360	240	< 5200	110	41	NA	< 61	< 59	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 530	< 450	< 5200	< 270	< 190	NA	< 61	< 59	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Fluoranthene	206-44-0	ug/kg	630	460	1100	180	56	NA	< 61	< 59	NA
Fluorene	86-73-7	ug/kg	210	< 450	< 5200	< 270	< 190	NA	< 61	< 59	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	< 320	< 300	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	150	< 450	< 5200	64	< 190	NA	< 61	< 59	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
Naphthalene	91-20-3	ug/kg	170	< 450	< 5200	90	< 190	NA	< 61	< 59	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	< 61	< 59	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	< 320	< 300	NA
Phenanthrene	85-01-8	ug/kg	380	190	1100	200	49	NA	< 61	< 59	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	< 120	< 120	NA
Pyrene	129-00-0	ug/kg	400	270	1100	160	57	NA	< 61	< 59	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-K-5-1	SD-R2-K-5-2	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-J5-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			11/4/2013	11/4/2013	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	3/28/2006
Sample Type			N	N	N	N	N	FD	N	FD	N
Sample Name			SD-R2-K-5-1_20131104	SD-R2-K-5-2_20131104	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011N	SD-R4-1-011FD	SD-R-J5-011.0N
Parent Sample								SD-R4-1-011N		SD-R4-1-011N	
CONSTITUENT	***CAS NO.***	***UNIT***									
Explosives & Energetics											
1,2-Dinitrobenzene	528-29-0	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	< 780
1,3-Dinitrobenzene	99-65-0	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	< 780
2,6-Dinitrotoluene	606-20-2	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	< 780
2-Nitrotoluene	88-72-2	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	NA
3-Nitrotoluene	99-08-1	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	< 780
4-Nitrotoluene	99-99-0	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	NA
Nitrobenzene	98-95-3	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	< 780
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	< 110000	< 110000	< 310000
Nitroglycerin	55-63-0	ug/kg	< 31000	< 26000	< 61000	< 16000	< 11000	NA	< 3700	< 3600	< 16000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 3900	< 3300	< 7700	< 2000	< 1400	NA	< 190	< 180	< 1900
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 31000	< 26000	< 61000	< 16000	< 11000	NA	< 3700	< 3600	< 16000
RDX (Cyclonite)	121-82-4	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	< 780
Tetryl	479-45-8	ug/kg	< 1600	< 1300	< 3100	< 810	< 550	NA	< 190	< 180	NA
Metals											
Aluminum	7429-90-5	mg/kg	13800	23100	12200	15600	38000	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 10.4	< 8.4	< 198	< 52.7	< 36.3	NA	< 0.64	< 0.64	NA
Arsenic	7440-38-2	mg/kg	10.4	7.05	< 198	< 52.7	< 36.3	NA	0.64	0.9	< 5.17
Barium	7440-39-3	mg/kg	175	164	153	119	191	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	1.85	2.04	< 49.5	< 13.2	< 9.08	NA	0.19	0.2	NA
Cadmium	7440-43-9	mg/kg	1.74	1.17	< 49.5	< 13.2	< 9.08	NA	0.096	0.11	0.535
Calcium	7440-70-2	mg/kg	13200	13300	6970	706	490	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.6	52.1	21.4	16.3	25.8	NA	3.1	3	9.43
Cobalt	7440-48-4	mg/kg	2.97	2.78	< 49.5	< 13.2	1.96	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	52.2	37.4	98.7	31	15	NA	3.6	3.6	18.6
Iron	7439-89-6	mg/kg	23400	10500	9200	2340	4640	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	214	155	214	42.4	39.4	NA	14.6	15	93.3
Magnesium	7439-95-4	mg/kg	1730	2320	1220	443	1240	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	514	164	135	46	25.6	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	1.17	0.761	< 1.01	0.0671	0.166	NA	0.034	0.036	0.177
Nickel	7440-02-0	mg/kg	15.2	14.8	17.5	7.46	17.6	NA	1.8	1.8	6.8
Potassium	7440-09-7	mg/kg	430	460	< 4950	412	665	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	5.49	< 8.4	< 198	< 52.7	< 36.3	NA	< 0.47	0.55	NA
Silver	7440-22-4	mg/kg	< 2.6	< 2.1	< 49.5	5.06	3.12	NA	< 0.14	< 0.14	< 1.29
Sodium	7440-23-5	mg/kg	138	121	< 9910	46.3	37.7	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 15.6	< 12.6	< 297	< 79.1	< 54.5	NA	< 0.83	< 0.83	NA
Vanadium	7440-62-2	mg/kg	36.7	26.6	< 49.5	20.1	26.1	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	219	245	279	67.1	63.2	NA	11.7	12.1	79.7

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-K-5-1	SD-R2-K-5-2	SD-R2-O-4-1	SD-R2-O-4-2	SD-R2-O-4-3	SD-R4-1-01	SD-R4-1-01	SD-R4-1-01	SD-R-J5-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			11/4/2013	11/4/2013	11/5/2013	11/5/2013	11/5/2013	4/23/2001	4/23/2001	4/23/2001	3/28/2006
Sample Type			N	N	N	N	N	FD	N	FD	N
Sample Name			SD-R2-K-5-1_20131104	SD-R2-K-5-2_20131104	SD-R2-0-4-1_20131105	SD-R2-0-4-2_20131105	SD-R2-0-4-3_20131105	SD-R4-1-010.5FD	SD-R4-1-011N	SD-R4-1-011FD	SD-R-J5-011.0N
Parent Sample								SD-R4-1-011N		SD-R4-1-011N	
CONSTITUENT	***CAS NO.***	***UNIT***									
Miscellaneous											
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	46.1	44.1	61.3
Total Organic Carbon	ARC-TOC	mg/kg	244000	192000	227000	105000	39500	NA	83700	61200	35000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	< 18000	< 18000	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	< 18000	< 18000	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	< 18000	< 18000	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	< 18000	< 18000	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	< 18000	< 18000	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	< 18000	< 18000	NA
Grain Size											
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	72.9	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	11	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	58	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	92.7	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	40.3	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	90.4	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	85.1	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	24	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K4-01	SD-R-K5-01	SD-R-K5-02	SD-R-K5-03	SD-R-K5-04	SD-R-K5-05	SD-R-K5-06	SD-R-K5-07	SD-R-K5-08	SD-R-K5-09
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/28/2006	3/27/2006	3/27/2006	3/27/2006	3/27/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-K4-011.0N	SD-R-K5-011.0N	SD-R-K5-021.0N	SD-R-K5-031.0N	SD-R-K5-041.0N	SD-R-K5-051.0N	SD-R-K5-061.0N	SD-R-K5-071.0N	SD-R-K5-081.0N	SD-R-K5-091.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-K4-01 0.5-1.0 ft 3/28/2006 N SD-R-K4-011.0N	SD-R-K5-01 0.5-1.0 ft 3/27/2006 N SD-R-K5-011.0N	SD-R-K5-02 0.5-1.0 ft 3/27/2006 N SD-R-K5-021.0N	SD-R-K5-03 0.5-1.0 ft 3/27/2006 N SD-R-K5-031.0N	SD-R-K5-04 0.5-1.0 ft 3/27/2006 N SD-R-K5-041.0N	SD-R-K5-05 0.5-1.0 ft 3/28/2006 N SD-R-K5-051.0N	SD-R-K5-06 0.5-1.0 ft 3/28/2006 N SD-R-K5-061.0N	SD-R-K5-07 0.5-1.0 ft 3/28/2006 N SD-R-K5-071.0N	SD-R-K5-08 0.5-1.0 ft 3/28/2006 N SD-R-K5-081.0N	SD-R-K5-09 0.5-1.0 ft 3/28/2006 N SD-R-K5-091.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K4-01	SD-R-K5-01	SD-R-K5-02	SD-R-K5-03	SD-R-K5-04	SD-R-K5-05	SD-R-K5-06	SD-R-K5-07	SD-R-K5-08	SD-R-K5-09
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/28/2006	3/27/2006	3/27/2006	3/27/2006	3/27/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-K4-011.0N	SD-R-K5-011.0N	SD-R-K5-021.0N	SD-R-K5-031.0N	SD-R-K5-041.0N	SD-R-K5-051.0N	SD-R-K5-061.0N	SD-R-K5-071.0N	SD-R-K5-081.0N	SD-R-K5-091.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	150	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	< 660	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K4-01	SD-R-K5-01	SD-R-K5-02	SD-R-K5-03	SD-R-K5-04	SD-R-K5-05	SD-R-K5-06	SD-R-K5-07	SD-R-K5-08	SD-R-K5-09
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/28/2006	3/27/2006	3/27/2006	3/27/2006	3/27/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-K4-011.0N	SD-R-K5-011.0N	SD-R-K5-021.0N	SD-R-K5-031.0N	SD-R-K5-041.0N	SD-R-K5-051.0N	SD-R-K5-061.0N	SD-R-K5-071.0N	SD-R-K5-081.0N	SD-R-K5-091.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 870	< 1600	< 1900	< 1900	< 720	< 550	< 1200	< 1700	< 620	< 2200
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 870	< 1600	< 1900	< 1900	< 720	< 550	< 1200	< 1700	< 620	< 2200
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 870	< 1600	< 1900	< 1900	< 720	< 550	< 1200	< 1700	< 620	< 2200
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 870	< 1600	< 1900	< 1900	< 720	< 550	< 1200	< 1700	< 620	< 2200
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 870	< 1600	< 1900	< 1900	< 720	< 550	< 1200	< 1700	< 620	< 2200
Nitrocellulose	9004-70-0	ug/kg	< 300000	< 660000	< 750000	< 780000	< 280000	< 220000	< 480000	< 700000	< 250000	< 900000
Nitroglycerin	55-63-0	ug/kg	< 17000	< 33000	< 38000	< 39000	< 14000	< 11000	< 24000	< 35000	< 12000	< 45000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 2200	< 4100	< 4700	< 4800	< 1800	< 1400	< 3000	< 4400	< 1600	< 5600
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 17000	< 33000	< 38000	< 39000	< 14000	< 11000	< 24000	< 35000	< 12000	< 45000
RDX (Cyclonite)	121-82-4	ug/kg	< 870	< 1600	< 1900	< 1900	< 720	< 550	< 1200	< 1700	< 620	< 2200
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	5.94	10.4	5.53	7.66	4.6	9.51	7.22	10.9	10.3	< 14.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	1.02	0.768	0.614	1.23	0.468	0.718	1.09	1.12	0.971	1.88
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.4	17.7	9.36	8.02	13	20.5	48.6	13.3	19	11
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	26.4	67.6	30.6	32	22.5	32.8	24.3	38.2	11	75.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	105	127	58.9	146	95.6	54.3	84.2	135	21	159
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.221	0.452	0.324	0.356	0.345	0.189	0.525	0.697	0.0939	0.501
Nickel	7440-02-0	mg/kg	14.5	7.47	6.9	8.39	6.23	8.27	8.47	9.83	11.4	8.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.42	< 2.67	< 3.13	< 3.19	< 1.18	< 0.884	< 1.99	< 2.91	< 1.04	< 3.73
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	107	191	115	163	97.1	126	257	199	112	603

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-K4-01 0.5-1.0 ft 3/28/2006 N SD-R-K4-011.0N	SD-R-K5-01 0.5-1.0 ft 3/27/2006 N SD-R-K5-011.0N	SD-R-K5-02 0.5-1.0 ft 3/27/2006 N SD-R-K5-021.0N	SD-R-K5-03 0.5-1.0 ft 3/27/2006 N SD-R-K5-031.0N	SD-R-K5-04 0.5-1.0 ft 3/27/2006 N SD-R-K5-041.0N	SD-R-K5-05 0.5-1.0 ft 3/28/2006 N SD-R-K5-051.0N	SD-R-K5-06 0.5-1.0 ft 3/28/2006 N SD-R-K5-061.0N	SD-R-K5-07 0.5-1.0 ft 3/28/2006 N SD-R-K5-071.0N	SD-R-K5-08 0.5-1.0 ft 3/28/2006 N SD-R-K5-081.0N	SD-R-K5-09 0.5-1.0 ft 3/28/2006 N SD-R-K5-091.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	65.6	81.8	84.2	84.5	58.1	45.6	74.9	82.8	51.7	86.6
Total Organic Carbon	ARC-TOC	mg/kg	180000	95000	71000	53000	25000	30000	190000	77000	88000	290000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	NA	NA	100	70.4	99.9	NA	NA	100	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	NA	NA	100	100	100	NA	NA	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	NA	NA	100	100	100	NA	NA	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	NA	NA	0.5	< 1	< 1	NA	NA	6.3	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	74.2	NA	NA	36.5	55.8	74.2	NA	NA	71.6	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	33.5	NA	NA	30.8	24.7	39.6	NA	NA	42.7	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	NA	NA	0.5	2.5	2.5	NA	NA	9	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	14	NA	NA	7	16	18	NA	NA	25	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	87.7	NA	NA	49.2	64.8	82.6	NA	NA	78.4	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	46.1	NA	NA	32	35.9	51.7	NA	NA	53	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	94.6	NA	NA	67.9	67.5	90.3	NA	NA	89.5	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	97.7	NA	NA	88.4	68.9	94.9	NA	NA	96.8	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	2.5	NA	NA	0.5	5	6	NA	NA	13.5	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	22	NA	NA	14	23	25.5	NA	NA	32	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	59.9	NA	NA	33.8	47.1	64.4	NA	NA	64	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	25	NA	NA	23	20	29	NA	NA	34.8	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	26.6	NA	NA	29.8	19.2	31.6	NA	NA	36.4	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-10	SD-R-K5-11	SD-R-K5-12	SD-R-K5-13	SD-R-K5-14	SD-R-K5-15	SD-R-K5-16	SD-R-K5-17	SD-R-K5-18	SD-R-K5-19	SD-R-K5-20
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/30/2006	3/30/2006	4/7/2006	4/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-K5-101.0N	SD-R-K5-111.0N	SD-R-K5-121.0N	SD-R-K5-131.0N	SD-R-K5-141.0N	SD-R-K5-151.0N	SD-R-K5-161.0N	SD-R-K5-171.0N	SD-R-K5-181.0N	SD-R-K5-191.0N	SD-R-K5-201.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-K5-10 0.5-1.0 ft 3/28/2006 N SD-R-K5-101.0N	SD-R-K5-11 0.5-1.0 ft 3/28/2006 N SD-R-K5-111.0N	SD-R-K5-12 0.5-1.0 ft 3/28/2006 N SD-R-K5-121.0N	SD-R-K5-13 0.5-1.0 ft 3/28/2006 N SD-R-K5-131.0N	SD-R-K5-14 0.5-1.0 ft 3/28/2006 N SD-R-K5-141.0N	SD-R-K5-15 0.5-1.0 ft 3/28/2006 N SD-R-K5-151.0N	SD-R-K5-16 0.5-1.0 ft 3/28/2006 N SD-R-K5-161.0N	SD-R-K5-17 0.5-1.0 ft 3/30/2006 N SD-R-K5-171.0N	SD-R-K5-18 0.5-1.0 ft 3/30/2006 N SD-R-K5-181.0N	SD-R-K5-19 0.5-1.0 ft 4/7/2006 N SD-R-K5-191.0N	SD-R-K5-20 0.5-1.0 ft 4/7/2006 N SD-R-K5-201.0N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-10	SD-R-K5-11	SD-R-K5-12	SD-R-K5-13	SD-R-K5-14	SD-R-K5-15	SD-R-K5-16	SD-R-K5-17	SD-R-K5-18	SD-R-K5-19	SD-R-K5-20
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/30/2006	3/30/2006	4/7/2006	4/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-K5-101.0N	SD-R-K5-111.0N	SD-R-K5-121.0N	SD-R-K5-131.0N	SD-R-K5-141.0N	SD-R-K5-151.0N	SD-R-K5-161.0N	SD-R-K5-171.0N	SD-R-K5-181.0N	SD-R-K5-191.0N	SD-R-K5-201.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-K5-10 0.5-1.0 ft 3/28/2006 N SD-R-K5-101.0N	SD-R-K5-11 0.5-1.0 ft 3/28/2006 N SD-R-K5-111.0N	SD-R-K5-12 0.5-1.0 ft 3/28/2006 N SD-R-K5-121.0N	SD-R-K5-13 0.5-1.0 ft 3/28/2006 N SD-R-K5-131.0N	SD-R-K5-14 0.5-1.0 ft 3/28/2006 N SD-R-K5-141.0N	SD-R-K5-15 0.5-1.0 ft 3/28/2006 N SD-R-K5-151.0N	SD-R-K5-16 0.5-1.0 ft 3/28/2006 N SD-R-K5-161.0N	SD-R-K5-17 0.5-1.0 ft 3/30/2006 N SD-R-K5-171.0N	SD-R-K5-18 0.5-1.0 ft 3/30/2006 N SD-R-K5-181.0N	SD-R-K5-19 0.5-1.0 ft 4/7/2006 N SD-R-K5-191.0N	SD-R-K5-20 0.5-1.0 ft 4/7/2006 N SD-R-K5-201.0N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800	< 1000
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	830	< 2200	< 800	< 1000
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800	< 1000
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800	< 1000
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800	< 1000
Nitrocellulose	9004-70-0	ug/kg	< 710000	< 950000	< 660000	< 760000	< 200000	< 220000	< 170000	< 310000	< 900000	< 320000	< 420000
Nitroglycerin	55-63-0	ug/kg	< 36000	< 48000	< 33000	< 38000	< 9800	< 11000	< 8300	< 16000	< 44000	< 16000	< 21000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 4500	< 6000	< 4100	< 4800	< 1200	< 1400	< 1000	< 2000	< 5600	< 2000	< 2600
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 36000	< 48000	< 33000	< 38000	< 9800	< 11000	< 8300	< 16000	< 44000	< 16000	< 21000
RDX (Cyclonite)	121-82-4	ug/kg	< 1800	< 2400	< 1600	< 1900	< 490	< 550	< 420	< 790	< 2200	< 800	< 1000
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	14.1	10.5	13.6	6.91	< 3.23	< 3.68	2.52	1.84	9.83	< 5.21	4.81
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	2.85	1.12	1.74	1.02	< 0.808	0.433	0.319	1.84	1.29	0.425	1.13
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	18.7	22.3	19	17.7	10.3	8.81	13.8	17	9.65	6.3	15.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	134	81.2	65.6	35.2	6.85	13.9	22.3	584	35.1	134	110
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	213	196	241	93.3	18.8	54.7	25.3	789	138	183	2990
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	2.02	1.28	1.67	0.317	0.0444	0.099	0.506	2.79	0.473	2.37	0.986
Nickel	7440-02-0	mg/kg	16.6	14.1	12.5	12.4	5.59	5.09	12	14.1	9.33	3.21	10
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 2.99	< 3.85	< 2.69	< 3.18	< 0.808	< 0.921	0.292	< 1.32	< 3.67	< 1.3	< 1.67
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	1000	311	286	169	71.2	76.6	320	392	157	236	709

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-10	SD-R-K5-11	SD-R-K5-12	SD-R-K5-13	SD-R-K5-14	SD-R-K5-15	SD-R-K5-16	SD-R-K5-17	SD-R-K5-18	SD-R-K5-19	SD-R-K5-20
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/28/2006	3/30/2006	3/30/2006	4/7/2006	4/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-K5-101.0N	SD-R-K5-111.0N	SD-R-K5-121.0N	SD-R-K5-131.0N	SD-R-K5-141.0N	SD-R-K5-151.0N	SD-R-K5-161.0N	SD-R-K5-171.0N	SD-R-K5-181.0N	SD-R-K5-191.0N	SD-R-K5-201.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	83.3	87.4	81.6	84.3	38.7	45.7	27.9	62	86.5	62.4	71.2
Total Organic Carbon	ARC-TOC	mg/kg	75000	170000	190000	85000	4000	69000	2900	34000	110000	140000	150000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	100	NA	99.9	100	97.4	99.8	NA	99	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	100	NA	100	100	100	100	NA	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	100	NA	100	100	100	100	NA	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	2	NA	2	2.3	3.8	2	NA	2	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	74.9	NA	87.4	88.4	64.8	75.5	NA	54.4	58.2
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	44.4	NA	53.9	56.4	37.5	41.4	NA	22.5	34.7
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	2.5	NA	5	4.5	6.3	5	NA	2	2
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	18	NA	29	31	21	26.5	NA	10	18
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	77.1	NA	91.1	91.3	69.1	86.8	NA	62.4	65.7
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	56.3	NA	66.8	69	46.5	52.3	NA	32.4	41.7
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	87	NA	95.8	96.2	85.6	94	NA	74.9	86
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	92.7	NA	98.3	98.4	88.1	97.6	NA	83	94.4
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	5.5	NA	8.5	9.5	11.3	9	NA	2	6
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	28	NA	38.5	41	28	29.5	NA	16.5	31.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	67.6	NA	79.2	81.9	56.4	64.3	NA	44.4	49.1
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	32.5	NA	43	45.8	30	33.5	NA	16.5	29.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	35.5	NA	45.3	48.1	31.2	34.3	NA	17.3	29.3
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-21	SD-R-L5-01	SD-R-L5-02	SD-R-L5-02	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2006	3/23/2006	11/4/2013	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			SD-R-K5-211.0N	SD-R-L5-011.0N	SD-R2-L-5-02_20131104	SD-R-L5-021N	SD-R-L5-031N	SD-R-L5-041.0N	SD-R-L5-041.0FD	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N
Parent Sample									SD-R-L5-041.0N			
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-21	SD-R-L5-01	SD-R-L5-02	SD-R-L5-02	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2006	3/23/2006	11/4/2013	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			SD-R-K5-211.0N	SD-R-L5-011.0N	SD-R2-L-5-02_20131104	SD-R-L5-021N	SD-R-L5-031N	SD-R-L5-041.0N	SD-R-L5-041.0FD	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N
Parent Sample									SD-R-L5-041.0N			
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 36000	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	4500	< 5900	270	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 4000	< 1200	< 220	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	< 610	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 12000	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 18000	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 18000	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 4000	< 610	< 220	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 4000	< 610	< 220	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 4000	< 610	< 220	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 4000	< 610	53	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	1100	130	67	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	140	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 4000	160	59	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	1000	130	71	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-K5-21 0.5-1.0 ft 4/11/2006 N SD-R-K5-211.0N	SD-R-L5-01 0.5-1.0 ft 3/23/2006 N SD-R-L5-011.0N	SD-R-L5-02 0.0 ft 11/4/2013 N SD-R2-L-5-02_20131104	SD-R-L5-02 0.5-1.0 ft 3/23/2006 N SD-R-L5-021N	SD-R-L5-03 0.5-1.0 ft 3/23/2006 N SD-R-L5-031N	SD-R-L5-04 0.5-1.0 ft 3/23/2006 N SD-R-L5-041.0N	SD-R-L5-04 0.5-1.0 ft 3/23/2006 FD SD-R-L5-041.0FD SD-R-L5-041.0N	SD-R-L5-05 0.5-1.0 ft 3/23/2006 N SD-R-L5-051.0N	SD-R-L5-06 0.5-1.0 ft 3/23/2006 N SD-R-L5-061.0N	SD-R-L5-07 0.5-1.0 ft 3/23/2006 N SD-R-L5-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	< 6100	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 4000	130	79	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 4000	180	< 220	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	< 4000	< 610	100	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 4000	< 610	< 220	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 610	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 18000	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 5900	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	200	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 4000	< 610	< 220	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	1200	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 6100	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	< 4000	< 610	59	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	< 1200	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	< 4000	< 610	120	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-21	SD-R-L5-01	SD-R-L5-02	SD-R-L5-02	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2006	3/23/2006	11/4/2013	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			SD-R-K5-211.0N	SD-R-L5-011.0N	SD-R2-L-5-02_20131104	SD-R-L5-021N	SD-R-L5-031N	SD-R-L5-041.0N	SD-R-L5-041.0FD	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N
Parent Sample									SD-R-L5-041.0N			
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 910	< 730	< 540	< 390	< 1300	< 1000	< 1000	< 1100	< 450	< 510
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 910	< 730	< 540	< 390	< 1300	< 1000	< 1000	< 1100	< 450	< 510
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 910	< 730	< 540	< 390	< 1300	< 1000	< 1000	< 1100	< 450	< 510
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 910	< 730	< 540	< 390	< 1300	< 1000	< 1000	< 1100	< 450	< 510
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 910	< 730	< 540	< 390	< 1300	< 1000	< 1000	< 1100	< 450	< 510
Nitrocellulose	9004-70-0	ug/kg	< 370000	6000000	NA	140000	< 530000	< 410000	< 420000	< 460000	< 180000	< 200000
Nitroglycerin	55-63-0	ug/kg	< 18000	2700000	21000	16000	< 26000	< 20000	< 21000	< 23000	< 9000	< 10000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 2300	< 1800	< 1300	< 970	< 3300	< 2600	< 2600	< 2900	< 1100	< 1300
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 18000	< 15000	< 11000	< 7800	< 26000	< 20000	< 21000	< 23000	< 9000	< 10000
RDX (Cyclonite)	121-82-4	ug/kg	< 910	600	< 540	< 390	< 1300	< 1000	< 1000	< 1100	< 450	< 510
Tetryl	479-45-8	ug/kg	NA	NA	< 540	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	7030	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	< 3.55	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	3.61	5.44	5.29	6.59	12.3	6.58	6.3	8.63	2.84	3.8
Barium	7440-39-3	mg/kg	NA	NA	101	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	0.463	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.317	1.05	0.366	0.754	2.33	1.09	1.12	1.59	0.417	0.582
Calcium	7440-70-2	mg/kg	NA	NA	3720	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15	13.5	13.9	12.7	18.5	17.6	17.2	19	18.7	13.2
Cobalt	7440-48-4	mg/kg	NA	NA	2.64	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	28.2	162	37	17.3	91.9	51.1	55.2	66.5	11.4	26.6
Iron	7439-89-6	mg/kg	NA	NA	11000	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	39	851	259	40.6	238	149	171	190	30.7	41.7
Magnesium	7439-95-4	mg/kg	NA	NA	1890	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	91.3	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0873	0.133	0.254	0.0525	0.928	0.493	0.468	0.843	0.0847	0.177
Nickel	7440-02-0	mg/kg	10.8	12.1	11.9	9.07	14.3	10.3	9.66	11.5	12.8	8.83
Potassium	7440-09-7	mg/kg	NA	NA	665	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	< 3.55	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.49	< 1.19	< 0.887	< 0.643	< 2.2	< 1.67	< 1.71	< 1.85	< 0.735	< 0.815
Sodium	7440-23-5	mg/kg	NA	NA	188	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 5.32	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	21.4	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	127	508	263	164	456	161	166	357	95	131

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-K5-21	SD-R-L5-01	SD-R-L5-02	SD-R-L5-02	SD-R-L5-03	SD-R-L5-04	SD-R-L5-04	SD-R-L5-05	SD-R-L5-06	SD-R-L5-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2006	3/23/2006	11/4/2013	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006	3/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N
Sample Name			SD-R-K5-211.0N	SD-R-L5-011.0N	SD-R2-L-5-02_20131104	SD-R-L5-021N	SD-R-L5-031N	SD-R-L5-041.0N	SD-R-L5-041.0FD	SD-R-L5-051.0N	SD-R-L5-061.0N	SD-R-L5-071.0N
Parent Sample									SD-R-L5-041.0N			
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	67.2	58.7	NA	23	77.3	70.7	71.4	73.8	33.3	41
Total Organic Carbon	ARC-TOC	mg/kg	32000	25000	38700	860	210000	150000	40000	59000	52000	41000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	99.2	90.9	NA	89.2	100	100	100	99.7	99.9	92.2
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	NA	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	NA	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	0.5	NA	1	3.2	1	< 1	1	17.5	7
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	50.1	54.1	NA	46.1	51.6	33.7	51.5	59	67.3	64.2
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	36.2	11.5	NA	15	26.2	18.9	30.1	36.7	54.9	38.6
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	6.5	0.5	NA	1.5	3.2	2	< 1	2.5	17.5	9.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	26.5	1.5	NA	3.5	13	11.8	8.5	20	19	14.8
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	53.6	63	NA	53.3	77.8	52.6	63.4	86.3	69.4	69.4
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	40.9	23.6	NA	24.8	31.8	22.8	35.2	43.5	59.2	48.7
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	81.7	67.8	NA	59.5	89.9	75.2	80	94.4	81.3	78.5
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	90.4	72.3	NA	66.3	95	90.4	93	98	93.7	86.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	15.5	0.5	NA	2.5	3.5	3.5	1	4.5	17.5	13.8
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	31	2.5	NA	6	18.5	13.5	16	29.5	30.5	31.3
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	45.8	40.6	NA	36.3	39.6	27.8	42	50	63.7	58.4
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	32	5.5	NA	9	21	16	19	31	43.5	33
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	32.9	6.4	NA	10.3	22.6	16.6	27	32.3	51	33.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-L5-08 0.5-1.0 ft 3/27/2006 N SD-R-L5-081.0N	SD-R-L5-09 0.5-1.0 ft 3/27/2006 N SD-R-L5-091.0N	SD-R-L5-10 0.5-1.0 ft 3/27/2006 N SD-R-L5-101.0N	SD-R-L5-11 0.5-1.0 ft 4/11/2006 N SD-R-L5-111.0N	SD-R-L5-12 0.5-1.0 ft 7/14/2006 N SD-R-L5-121.0N	SD-R-L5-13 0.5-1.0 ft 7/14/2006 N SD-R-L5-131.0N	SD-R-L6-01 0.5-1.0 ft 3/22/2006 N SD-R-L6-011N	SD-R-L6-02 0.5-1.0 ft 3/22/2006 N SD-R-L6-021N	SD-R-L6-03 0.5-1.0 ft 3/23/2006 N SD-R-L6-031N	SD-R-L6-04 0.5-1.0 ft 4/11/2006 N SD-R-L6-041.0N	SD-R-L6-05 0.5-1.0 ft 4/11/2006 N SD-R-L6-051.0N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11	SD-R-L5-12	SD-R-L5-13	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/27/2006	3/27/2006	3/27/2006	4/11/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N	SD-R-L5-121.0N	SD-R-L5-131.0N	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11	SD-R-L5-12	SD-R-L5-13	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/27/2006	3/27/2006	3/27/2006	4/11/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N	SD-R-L5-121.0N	SD-R-L5-131.0N	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	< 6100	< 5500	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11	SD-R-L5-12	SD-R-L5-13	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/27/2006	3/27/2006	3/27/2006	4/11/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N	SD-R-L5-121.0N	SD-R-L5-131.0N	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 860	< 1000	< 1500	< 1000	< 2200	< 2000	< 890	< 540	< 510	< 780	< 1100
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 860	< 1000	< 1500	< 1000	< 2200	< 2000	< 890	< 540	< 510	< 780	< 1100
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 860	< 1000	< 1500	< 1000	< 2200	< 2000	< 890	< 540	< 510	< 780	< 1100
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 860	< 1000	< 1500	< 1000	< 4400	< 4000	< 890	< 540	< 510	< 780	< 1100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 860	< 1000	< 1500	< 1000	< 2200	< 2000	< 890	< 540	< 510	< 780	< 1100
Nitrocellulose	9004-70-0	ug/kg	< 340000	< 410000	< 620000	< 410000	< 890000	670000	< 360000	< 220000	< 200000	220000	260000
Nitroglycerin	55-63-0	ug/kg	< 17000	< 20000	< 31000	< 20000	< 44000	< 40000	< 18000	4000	< 10000	25000	26000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 2100	< 2500	< 3900	< 2500	< 5500	< 5000	< 2200	< 1300	< 1300	< 2000	< 2900
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 17000	< 20000	< 31000	< 20000	< 44000	< 40000	< 18000	< 11000	< 10000	< 16000	< 23000
RDX (Cyclonite)	121-82-4	ug/kg	< 860	< 1000	< 1500	< 1000	< 2200	< 2000	< 890	< 540	< 510	< 780	< 1100
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	6.21	16.2	7.79	10.7	9.37	11.5	5.73	2.6	1.96	3.52	11
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.868	1.68	0.726	1.67	1.98	1.97	0.61	0.654	0.416	0.769	1.95
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	21.1	24	9.86	23.7	20.3	21.5	18.4	11.5	11	11.6	23.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	44	53.2	35.2	117	52.6	68.5	35.3	19.1	13.1	37.4	110
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	80.1	158	98.6	318	168	277	109	46.2	49.6	183	468
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.377	0.732	0.281	1.49	0.503	0.616	0.164	0.0663	0.101	0.333	0.682
Nickel	7440-02-0	mg/kg	11.2	11.4	8.19	12.6	17.2	17.9	12.9	7.67	7.83	9.66	20.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.42	< 1.64	< 2.5	< 1.63	< 3.57	< 3.28	< 1.43	< 0.863	< 0.821	0.498	< 1.86
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	174	252	114	411	797	746	251	112	208	276	497

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L5-08	SD-R-L5-09	SD-R-L5-10	SD-R-L5-11	SD-R-L5-12	SD-R-L5-13	SD-R-L6-01	SD-R-L6-02	SD-R-L6-03	SD-R-L6-04	SD-R-L6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/27/2006	3/27/2006	3/27/2006	4/11/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/23/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L5-081.0N	SD-R-L5-091.0N	SD-R-L5-101.0N	SD-R-L5-111.0N	SD-R-L5-121.0N	SD-R-L5-131.0N	SD-R-L6-011N	SD-R-L6-021N	SD-R-L6-031N	SD-R-L6-041.0N	SD-R-L6-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	65.1	70.2	80.6	70.5	86.4	84.9	66.4	44.3	40.9	61.6	73.9
Total Organic Carbon	ARC-TOC	mg/kg	9800	180000	290000	200000	190000	230000	100000	37000	20000	110000	220000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	100	NA	100	100	100	98.4	100	99.7	100	99.9
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	NA	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	NA	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	1.5	NA	3	3	< 1	1.5	1.5	0.5	1	5.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	62.9	43.9	NA	67.3	62.8	< 1	79	67.9	79.4	83.1	58.9
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	38.4	22.8	NA	42.8	38.8	< 1	34.3	37.7	46.1	44.8	29.6
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	2.8	3	NA	2.5	4	< 1	2	1.5	2.5	3	7.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	28.3	16.5	NA	15	23	< 1	3.5	2.5	8.5	17	36
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	79.5	71.5	NA	86.9	66.5	82.3	82.5	72.5	82.2	88.3	86
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	46.7	27.6	NA	49.3	45.1	< 1	53.1	49.3	57.9	60.6	36.2
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	89.3	93.3	NA	95.4	94.7	89.9	87.2	79.5	92.3	92.5	93.6
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	95.7	100	NA	98.7	98.9	93.1	90.1	85.5	95.8	94.9	96.9
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	8	4.5	NA	4.5	7	< 1	2.5	1.5	6.5	5.5	13.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	34.5	22.5	NA	28	44	< 1	9.5	10	14.5	31	41.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	54.9	34.1	NA	57.5	49.8	< 1	70.7	59.6	70.2	76	45.5
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	33	27	NA	35.5	34.5	< 1	18.5	23	28.5	32	30
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	32	19.2	NA	38.3	31.5	< 1	23.5	28.4	37.7	34	25.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	88	< 210	NA	140	130
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	100	< 210	NA	150	170
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	130	120
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	91	< 210	NA	120	140
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	140	< 210	NA	230	160
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	140	< 210	NA	240	260
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	< 430	< 210	NA	< 330	< 470
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	200	< 210	NA	280	310

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1400	< 1000	< 540	< 3100	< 5700	< 4900	< 780	< 380	< 380	< 600	< 840
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
Nitrocellulose	9004-70-0	ug/kg	< 570000	< 410000	< 210000	< 610000	< 1100000	< 970000	< 310000	< 150000	< 150000	< 240000	< 330000
Nitroglycerin	55-63-0	ug/kg	< 29000	< 21000	5600	< 31000	< 57000	< 49000	13000	< 7700	< 7600	< 12000	< 17000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 3600	< 2600	< 1300	< 3800	< 7100	< 6100	< 2000	< 960	< 960	< 1500	< 2100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 29000	< 21000	< 11000	< 31000	< 57000	< 49000	< 16000	< 7700	< 7600	< 12000	< 17000
RDX (Cyclonite)	121-82-4	ug/kg	< 1400	< 1000	< 540	< 1500	< 2800	< 2400	< 780	< 380	< 380	< 600	< 840
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	14.8	10.1	2.13	5.4	< 18.3	< 15.6	6.63	3.4	3.01	25.2	5.48
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.824	0.721	0.198	0.907	< 4.58	0.516	1.29	0.543	0.526	1.56	0.565
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	20.9	20	9.27	19.9	13.7	12.7	20.4	10.5	9.81	38	19
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	71.5	62.4	13.4	34.4	20.6	18.4	45.8	10.9	7.67	52.5	41.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	298	304	60.5	86.9	41.2	32.7	128	14.9	4.51	166	184
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.511	0.51	0.106	0.31	0.157	0.0834	0.183	0.0201	0.011	0.224	0.327
Nickel	7440-02-0	mg/kg	17.5	15.5	6.87	14.7	9.8	8.92	20.8	7.59	3.22	20.3	15.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 2.38	< 1.72	< 0.86	< 2.47	< 4.58	< 3.91	< 1.29	< 0.622	< 0.624	< 0.996	< 1.36
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	360	269	150	345	185	165	389	84.3	32	409	368

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L6-06	SD-R-L6-07	SD-R-L6-08	SD-R-L6-09	SD-R-L6-10	SD-R-L6-11	SD-R-L7-01	SD-R-L7-02	SD-R-L7-03	SD-R-L7-04	SD-R-L7-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	4/12/2006	4/12/2006	7/14/2006	7/14/2006	7/14/2006	3/22/2006	3/22/2006	3/22/2006	4/11/2006	4/12/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-L6-061.0N	SD-R-L6-071.0N	SD-R-L6-081.0N	SD-R-L6-091.0N	SD-R-L6-101.0N	SD-R-L6-111.0N	SD-R-L7-011N	SD-R-L7-021N	SD-R-L7-031N	SD-R-L7-041.0N	SD-R-L7-051.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	79	71	44.1	80.5	89.4	87.7	61.6	21.9	21.5	49.8	64.4
Total Organic Carbon	ARC-TOC	mg/kg	54000	52000	21000	190000	300000	260000	65000	4800	3000	59000	25000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	76.6	69.9	100	100	100	100	96.7	100	100	89.4
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	72.8	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	< 1	0.5	1	3	3	0.5	1.5	1.5	< 1	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	59.1	42.6	49.1	48.1	68.2	50.9	74.4	54.6	69.7	86.5	63.1
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	25.1	26.8	23.5	26.5	26.1	21.6	36.2	24.7	18	58.9	38.2
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	2.5	1.5	1	2.5	3	3	2.5	2	1.5	3.5	2.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	16	13.5	8	15	18	25	6	5	1.5	32.5	16
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	68.5	46.6	53	60.4	74.8	56.2	77	59.1	88.4	92.9	68.6
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	33.9	30.2	31.5	31.5	37	29	51.1	35.6	31.9	68.8	46.6
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	75.1	60.4	58.9	87.2	90.7	83.6	80.2	64.2	94.4	95.4	73.9
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	78.4	68.3	62.5	95	97.1	91.3	91.2	69.3	96.2	96.1	77.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	6	4	2.5	4	3	3	4.5	3	1.5	9.5	5.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	23	21	12.5	31	40	36	13	8.5	8	42	25.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	49.4	33.5	41.3	37.9	48.4	35.4	66.2	47.3	50.7	79.1	56.4
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	21	22.5	16.5	24	23	20	21.5	16.5	11	48	29.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	20.2	23.3	18.7	22.1	16.3	14	26.5	18.4	12.5	51.6	32
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-02	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-021.0N	SD-R-M5-031.0N	SD-R-M5-041.0N	SD-R-M5-041.0FD	SD-R-M5-051.0N	SD-R-M5-061.0N
Parent Sample										SD-R-M5-041.0N		
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-02	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-021.0N	SD-R-M5-031.0N	SD-R-M5-041.0N	SD-R-M5-041.0FD	SD-R-M5-051.0N	SD-R-M5-061.0N
Parent Sample										SD-R-M5-041.0N		
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	< 320	< 310
2,6-Dinitrotoluene	606-20-2	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	< 320	< 310
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	< 320	< 310
Acenaphthylene	208-96-8	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	130	< 310
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	120	< 310
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	75	< 460	< 290	55	NA	< 220	< 240	< 240	540	< 310
Benzo[a]pyrene	50-32-8	ug/kg	83	< 460	< 290	< 200	NA	< 220	< 240	< 240	480	< 310
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	290	< 310
Benzo[k]fluoranthene	207-08-9	ug/kg	72	< 460	< 290	< 200	NA	< 220	< 240	< 240	500	< 310
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-02	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-021.0N	SD-R-M5-031.0N	SD-R-M5-041.0N	SD-R-M5-041.0FD	SD-R-M5-051.0N	SD-R-M5-061.0N
Parent Sample										SD-R-M5-041.0N		
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	89	< 460	62	110	NA	< 220	< 240	< 240	660	80
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	95	< 310
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	130	< 460	110	80	NA	< 220	< 240	< 240	740	93
Fluorene	86-73-7	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	< 320	< 310
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	< 320	< 310
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 280	< 460	< 290	< 200	NA	< 220	< 240	< 240	75	< 310
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	150	< 460	85	98	NA	< 220	< 240	< 240	910	110

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-02	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-021.0N	SD-R-M5-031.0N	SD-R-M5-041.0N	SD-R-M5-041.0FD	SD-R-M5-051.0N	SD-R-M5-061.0N
Parent Sample										SD-R-M5-041.0N		
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 510	< 820	< 520	< 360	< 680	< 400	< 440	< 430	< 570	< 550
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 510	< 820	< 520	< 360	< 680	< 400	< 440	< 430	< 570	< 550
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 510	< 820	< 520	< 360	< 680	< 400	< 440	< 430	< 570	< 550
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 510	< 1600	< 1000	< 360	< 680	< 400	< 440	< 430	< 570	< 550
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 510	< 820	< 520	< 360	< 680	< 400	< 440	< 430	< 570	< 550
Nitrocellulose	9004-70-0	ug/kg	< 210000	330000	340000	< 140000	< 270000	< 160000	< 170000	< 170000	< 230000	95000
Nitroglycerin	55-63-0	ug/kg	< 10000	< 16000	< 10000	9000	< 14000	3600	< 8800	3100	20000	< 11000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1300	< 2000	< 1300	< 900	< 1700	< 1000	< 1100	< 1100	< 1400	< 1400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 10000	< 16000	< 10000	< 7200	< 14000	< 8100	< 8800	< 8600	< 11000	< 11000
RDX (Cyclonite)	121-82-4	ug/kg	< 510	< 820	< 520	< 360	< 680	< 400	< 440	< 430	< 570	< 550
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.59	3.25	3.18	20.3	1.98	1.57	1.27	< 2.82	1.96	2.37
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.815	0.675	0.77	0.694	< 1.13	0.191	0.395	0.454	0.364	0.337
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.6	18.3	12.9	13.9	9.7	11.3	9.2	8.18	12.8	9.49
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	80.6	19.6	19.5	16.3	12.6	11.9	24.8	24.1	17.8	28.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	39.4	54.2	110	20.8	32.3	23.6	72	78.8	71.9	143
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0805	0.126	0.147	0.0583	0.0734	0.0043	0.0417	0.108	0.0688	0.147
Nickel	7440-02-0	mg/kg	4.04	12.7	8.78	10.2	8.02	9.69	8.21	7.95	10	7.01
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.815	< 1.37	< 0.864	< 0.589	< 1.13	< 0.652	< 0.719	< 0.705	< 0.919	< 0.907
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	172	254	301	53.8	52.2	148	221	212	196	141

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-L7-06	SD-R-L7-07	SD-R-L7-08	SD-R-M5-01	SD-R-M5-02	SD-R-M5-03	SD-R-M5-04	SD-R-M5-04	SD-R-M5-05	SD-R-M5-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/12/2006	7/14/2006	7/14/2006	3/23/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-R-L7-061.0N	SD-R-L7-071.0N	SD-R-L7-081.0N	SD-R-M5-011N	SD-R-M5-021.0N	SD-R-M5-031.0N	SD-R-M5-041.0N	SD-R-M5-041.0FD	SD-R-M5-051.0N	SD-R-M5-061.0N
Parent Sample										SD-R-M5-041.0N		
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	41	63.4	42.1	16.8	55.7	25.6	31.8	30.5	47.2	45.4
Total Organic Carbon	ARC-TOC	mg/kg	< 920	110000	55000	19000	73000	5300	5800	7100	16000	45000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	99.6	100	100	83.8	83.8	78.2	89	88.4	78.6	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	84.7	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	5	< 1	1.5	0.5	1	1.5	1.5	2	2
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	56.8	84.9	67.2	50.8	37.8	48.4	61.6	67.1	46.4	83.9
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	4.5	69.9	36.7	28.5	19.8	14.6	23.1	25.1	24.1	24
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	6	2.5	4.5	1.5	1.5	1.5	1.5	3	2
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	< 1	33	13	13.5	10	6.5	7	7	10.5	7
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	81.6	87.6	69.1	54	46	54.5	66.9	71.6	48.9	87.8
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	8.4	77.3	47.6	36.2	23.8	24.1	36.6	39.5	31.8	42.4
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	94.4	91	84.9	59.4	52.4	57.8	71.2	77.7	53.6	91.6
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	98.1	93.5	90.7	65.9	58	61.4	75.1	82	56.9	95.9
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	< 1	9	5.5	8	2.3	2.5	2	2	5	2
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	2	53.5	23	19	14	8.5	12	13.5	15.5	13
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	23.3	82.1	59.4	44.5	30	38	51.5	56.4	40.2	65.5
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	2	59	27	22	17	9.5	14.5	16	18	14
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	2.7	61.8	29.5	23.5	18.9	10.1	15.6	17.5	19.5	14.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-07 0.5-1.0 ft 4/11/2006 N SD-R-M5-071.0N	SD-R-M5-08 0.5-1.0 ft 7/14/2006 N SD-R-M5-081.0N	SD-R-M5-09 0.5-1.0 ft 7/14/2006 N SD-R-M5-091.0N	SD-R-M5-10 0.5-1.0 ft 7/14/2006 N SD-R-M5-101.0N	SD-R-M5-11 0.5-1.0 ft 7/14/2006 N SD-R-M5-111.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131.0N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131N	SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-07 0.5-1.0 ft 4/11/2006 N SD-R-M5-071.0N	SD-R-M5-08 0.5-1.0 ft 7/14/2006 N SD-R-M5-081.0N	SD-R-M5-09 0.5-1.0 ft 7/14/2006 N SD-R-M5-091.0N	SD-R-M5-10 0.5-1.0 ft 7/14/2006 N SD-R-M5-101.0N	SD-R-M5-11 0.5-1.0 ft 7/14/2006 N SD-R-M5-111.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131.0N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131N	SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Acenaphthylene	208-96-8	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-07 0.5-1.0 ft 4/11/2006 N SD-R-M5-071.0N	SD-R-M5-08 0.5-1.0 ft 7/14/2006 N SD-R-M5-081.0N	SD-R-M5-09 0.5-1.0 ft 7/14/2006 N SD-R-M5-091.0N	SD-R-M5-10 0.5-1.0 ft 7/14/2006 N SD-R-M5-101.0N	SD-R-M5-11 0.5-1.0 ft 7/14/2006 N SD-R-M5-111.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131.0N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131N	SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	130	NA
Fluorene	86-73-7	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	< 540	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 230	< 20000	< 7200	< 2100	< 5500	NA	< 870	NA	130	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M5-07	SD-R-M5-08	SD-R-M5-09	SD-R-M5-10	SD-R-M5-11	SD-R-M5-12	SD-R-M5-12	SD-R-M5-13	SD-R-M5-13	SD-R-M5-14
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2006	7/14/2006	7/14/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-M5-071.0N	SD-R-M5-081.0N	SD-R-M5-091.0N	SD-R-M5-101.0N	SD-R-M5-111.0N	SD-R-M5-121.0N	SD-R-M5-121N	SD-R-M5-131.0N	SD-R-M5-131N	SD-R-M5-141.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 410	< 3700	< 2600	< 3700	< 2000	NA	< 1600	NA	< 970	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 410	< 3700	< 2600	< 3700	< 2000	NA	< 1600	NA	< 970	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 410	< 3700	< 2600	< 3700	< 2000	NA	< 1600	NA	< 970	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 410	< 7300	< 5200	< 7400	< 4000	NA	< 3100	NA	< 1900	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 410	< 3700	< 2600	< 3700	< 2000	NA	< 1600	NA	< 970	NA
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 1400000	750000	< 1500000	< 790000	NA	< 630000	NA	< 390000	NA
Nitroglycerin	55-63-0	ug/kg	< 8200	< 73000	< 52000	30000	< 40000	NA	< 31000	NA	< 19000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1000	< 9100	< 6500	< 9300	< 5000	NA	< 3900	NA	< 2400	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8200	< 73000	< 52000	< 74000	< 40000	NA	< 31000	NA	< 19000	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 410	< 3700	< 2600	< 3700	< 2000	NA	< 1600	NA	< 970	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.81	< 24.1	41.1	< 24.2	< 12.7	NA	< 10.1	NA	5.14	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.215	1	4.5	2.89	0.904	NA	0.453	NA	0.543	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.72	20.6	106	22.5	16.8	NA	13.5	NA	14.5	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.2	42.2	556	96.9	26.3	NA	23.7	NA	21.3	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	28.8	474	166	240	69.8	NA	63.6	NA	73.1	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0171	0.281	0.269	0.504	0.188	NA	< 0.518	NA	0.188	NA
Nickel	7440-02-0	mg/kg	9.12	12.2	151	20.8	11.8	NA	11.4	NA	11.1	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.665	< 6.04	< 4.22	< 6.05	< 3.18	NA	< 2.52	NA	< 1.61	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	141	435	1100	843	318	NA	288	NA	277	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-07 0.5-1.0 ft 4/11/2006 N SD-R-M5-071.0N	SD-R-M5-08 0.5-1.0 ft 7/14/2006 N SD-R-M5-081.0N	SD-R-M5-09 0.5-1.0 ft 7/14/2006 N SD-R-M5-091.0N	SD-R-M5-10 0.5-1.0 ft 7/14/2006 N SD-R-M5-101.0N	SD-R-M5-11 0.5-1.0 ft 7/14/2006 N SD-R-M5-111.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121.0N	SD-R-M5-12 0.5-1.0 ft 7/27/2006 N SD-R-M5-121N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131.0N	SD-R-M5-13 0.5-1.0 ft 7/27/2006 N SD-R-M5-131N	SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	27	91.8	88.5	91.9	84.9	NA	80.9	NA	69.2	NA
Total Organic Carbon	ARC-TOC	mg/kg	16000	370000	270000	220000	230000	NA	120000	NA	89000	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	98.3	100	100	100	100	100	NA	100	NA	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	NA	100	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	NA	100	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	2	2.5	< 1	< 1	1	3	NA	2	NA	2
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	59.5	60.3	< 1	< 1	56.8	31.2	NA	66	NA	37.4
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	24.7	29.4	< 1	< 1	30.1	21.6	NA	43.7	NA	23.8
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	3	2.5	< 1	< 1	3	3	NA	2	NA	2
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	11	16	< 1	< 1	17	15	NA	15	NA	10
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	69.1	69	79.9	76	79.1	33.2	NA	69	NA	38.4
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	34.2	38.3	< 1	< 1	37.6	25.5	NA	52.4	NA	30.7
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	75.5	90	88.7	87	89.9	59.2	NA	87.5	NA	64
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	81.2	97	94.7	96.9	96.7	75	NA	94.4	NA	78.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	5	2.5	< 1	< 1	5	3	NA	2.5	NA	2
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	16.5	35	< 1	< 1	39	24.5	NA	30	NA	17.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	46.9	48.1	< 1	< 1	45	28.2	NA	60.1	NA	35.2
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	18.5	26	< 1	< 1	28.5	20	NA	35	NA	18
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	19.6	22.3	< 1	< 1	25.3	17.7	NA	37.1	NA	18.9
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151.0N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161.0N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161N	SD-R-M6-01 0.5-1.0 ft 7/14/2006 N SD-R-M6-011.0N	SD-R-M6-02 0.5-1.0 ft 7/14/2006 N SD-R-M6-021.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041.0N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151.0N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161.0N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161N	SD-R-M6-01 0.5-1.0 ft 7/14/2006 N SD-R-M6-011.0N	SD-R-M6-02 0.5-1.0 ft 7/14/2006 N SD-R-M6-021.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041.0N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 580	NA	960	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 580	NA	1000	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 580	NA	850	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 580	NA	600	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M5-14	SD-R-M5-15	SD-R-M5-15	SD-R-M5-16	SD-R-M5-16	SD-R-M6-01	SD-R-M6-02	SD-R-M6-03	SD-R-M6-03	SD-R-M6-04	SD-R-M6-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/14/2006	7/14/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-M5-141N	SD-R-M5-151.0N	SD-R-M5-151N	SD-R-M5-161.0N	SD-R-M5-161N	SD-R-M6-011.0N	SD-R-M6-021.0N	SD-R-M6-031.0N	SD-R-M6-031N	SD-R-M6-041.0N	SD-R-M6-041N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont.)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 580	NA	1000	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	150	NA	2000	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 580	NA	< 2400	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 580	NA	770	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	120	NA	1700	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151.0N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161.0N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161N	SD-R-M6-01 0.5-1.0 ft 7/14/2006 N SD-R-M6-011.0N	SD-R-M6-02 0.5-1.0 ft 7/14/2006 N SD-R-M6-021.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041.0N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1000	NA	< 850	NA	< 660	< 2300	< 3700	NA	< 2100	NA	< 1400
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1000	NA	< 850	NA	< 660	< 2300	< 3700	NA	< 2100	NA	< 1400
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1000	NA	< 850	NA	< 660	< 2300	< 3700	NA	< 2100	NA	< 1400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 2100	NA	< 1700	NA	< 1300	< 4500	< 7300	NA	< 4200	NA	< 2900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1000	NA	< 850	NA	< 660	< 2300	< 3700	NA	< 2100	NA	< 1400
Nitrocellulose	9004-70-0	ug/kg	< 410000	NA	3000000	NA	330000	< 910000	< 1400000	NA	< 850000	NA	< 570000
Nitroglycerin	55-63-0	ug/kg	11000	NA	200000	NA	4900	< 45000	< 73000	NA	< 42000	NA	< 29000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 2600	NA	< 2100	NA	< 1600	< 5700	< 9100	NA	< 5300	NA	< 3600
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 21000	NA	< 17000	NA	< 13000	< 45000	< 73000	NA	< 42000	NA	< 29000
RDX (Cyclonite)	121-82-4	ug/kg	< 1000	NA	< 850	NA	< 660	< 2300	< 3700	NA	< 2100	NA	< 1400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	4.53	NA	26.2	NA	15.9	< 15.2	< 24.4	NA	< 13.8	NA	< 9.34
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.759	NA	0.774	NA	0.649	1.59	0.805	NA	0.476	NA	< 2.33
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	14.5	NA	32	NA	22.4	13.9	13.8	NA	14.7	NA	12.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	35.5	NA	107	NA	101	29.4	23.2	NA	31.6	NA	13.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	111	NA	698	NA	289	36.9	49.1	NA	87	NA	22.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.244	NA	0.365	NA	0.414	0.107	0.69	NA	0.173	NA	0.0825
Nickel	7440-02-0	mg/kg	11.5	NA	18.5	NA	14.3	10.4	9.84	NA	12.1	NA	9.65
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.7	NA	1.32	NA	1.11	< 3.79	< 6.1	NA	< 3.45	NA	< 2.33
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	335	NA	1110	NA	675	205	215	NA	350	NA	289

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-M5-14 0.5-1.0 ft 7/27/2006 N SD-R-M5-141N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151.0N	SD-R-M5-15 0.5-1.0 ft 7/27/2006 N SD-R-M5-151N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161.0N	SD-R-M5-16 0.5-1.0 ft 7/27/2006 N SD-R-M5-161N	SD-R-M6-01 0.5-1.0 ft 7/14/2006 N SD-R-M6-011.0N	SD-R-M6-02 0.5-1.0 ft 7/14/2006 N SD-R-M6-021.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031.0N	SD-R-M6-03 0.5-1.0 ft 7/27/2006 N SD-R-M6-031N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041.0N	SD-R-M6-04 0.5-1.0 ft 7/27/2006 N SD-R-M6-041N
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	71.2	NA	64.8	NA	54.5	86.8	91.8	NA	85.8	NA	79
Total Organic Carbon	ARC-TOC	mg/kg	89000	NA	90000	NA	70000	240000	300000	NA	180000	NA	160000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	100	NA	100	NA	100	100	94.8	NA	100	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	100	NA	100	NA	100	100	100	NA	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	100	NA	100	NA	100	100	100	NA	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	2	NA	2	NA	1	3.5	2	NA	< 1	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	54.5	NA	63.4	NA	69.4	60.4	78.5	NA	85.9	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	33	NA	37.9	NA	40.3	29	48.1	NA	65.8	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	2	NA	2	NA	3	3.5	3.5	NA	0.5	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	11	NA	16	NA	24	13	31	NA	21	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	57.7	NA	68.3	NA	76.4	67.7	83.9	NA	87.6	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	40.6	NA	47.4	NA	48.6	38	58.8	NA	76.1	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	80.8	NA	89.7	NA	89.8	84.5	90.4	NA	94.5	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	90.2	NA	94.6	NA	96.7	94.4	93.6	NA	97.3	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	2	NA	3	NA	6	3.5	7	NA	3	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	21.5	NA	29	NA	54	30	57	NA	30	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	48.9	NA	56.7	NA	56.7	48.1	68	NA	81.9	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	26	NA	30	NA	36	23.5	42	NA	46	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	27.8	NA	30.6	NA	30.8	19.9	36.7	NA	54.7	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M7-01	SD-R-M7-02	SD-R-M7-02	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-M7-06	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/22/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/7/2006	7/14/2006	4/4/2006	4/4/2006	4/4/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SD-R-M7-011N	SD-R-M7-021.0N	SD-R-M7-021.0FD	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-M7-061.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N
Parent Sample					SD-R-M7-021.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M7-01	SD-R-M7-02	SD-R-M7-02	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-M7-06	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/22/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/7/2006	7/14/2006	4/4/2006	4/4/2006	4/4/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SD-R-M7-011N	SD-R-M7-021.0N	SD-R-M7-021.0FD	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-M7-061.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N
Parent Sample					SD-R-M7-021.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	NA	NA	< 480	NA	< 5400	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	NA	NA	< 480	NA	< 5400	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 220	NA	NA	< 480	NA	< 5400	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	580	NA	NA	170	NA	< 5400	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	560	NA	NA	230	NA	< 5400	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1800	NA	NA	830	NA	2100	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	1500	NA	NA	730	NA	1500	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	780	NA	NA	610	NA	1300	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	1600	NA	NA	720	NA	1700	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M7-01	SD-R-M7-02	SD-R-M7-02	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-M7-06	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/22/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/7/2006	7/14/2006	4/4/2006	4/4/2006	4/4/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SD-R-M7-011N	SD-R-M7-021.0N	SD-R-M7-021.0FD	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-M7-061.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N
Parent Sample					SD-R-M7-021.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	2000	NA	NA	1800	NA	2900	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	240	NA	NA	180	NA	< 5400	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	2000	NA	NA	1300	NA	2200	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 220	NA	NA	< 480	NA	< 5400	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 220	NA	NA	< 480	NA	< 5400	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	110	NA	NA	230	NA	< 5400	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	4000	NA	NA	1400	NA	2200	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M7-01	SD-R-M7-02	SD-R-M7-02	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-M7-06	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/22/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/7/2006	7/14/2006	4/4/2006	4/4/2006	4/4/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SD-R-M7-011N	SD-R-M7-021.0N	SD-R-M7-021.0FD	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-M7-061.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N
Parent Sample					SD-R-M7-021.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 400	< 640	< 620	< 860	< 1100	< 1900	< 660	< 370	< 400	< 400
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 400	< 640	< 620	< 860	< 1100	< 1900	< 660	< 370	< 400	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 400	< 640	< 620	< 860	< 1100	< 1900	< 660	< 370	< 400	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 400	< 640	< 620	< 860	< 1100	< 1900	< 1300	< 370	< 400	< 400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 400	< 640	< 620	< 860	< 1100	< 1900	< 660	< 370	< 400	< 400
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 250000	< 250000	< 350000	< 420000	< 780000	< 270000	< 150000	< 160000	< 160000
Nitroglycerin	55-63-0	ug/kg	< 8100	< 13000	< 12000	< 17000	< 21000	< 39000	< 13000	< 7500	< 8000	< 8000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1000	< 1600	< 1500	< 2100	< 2700	< 4900	< 1700	< 930	< 1000	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8100	< 13000	< 12000	< 17000	< 21000	< 39000	< 13000	< 7500	< 8000	< 8000
RDX (Cyclonite)	121-82-4	ug/kg	< 400	< 640	< 620	< 1500	< 1100	< 1900	< 660	< 370	< 400	< 400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	21.7	1.86	2.4	29	7.43	111	4.19	1.17	11.7	2.18
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.399	0.466	0.405	< 7.16	2.1	7.19	0.638	< 0.603	< 0.661	< 0.668
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.03	6.76	6.58	48.9	23.2	13.9	13.1	11.3	15.9	12.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	19.4	14.4	15	64.9	357	76.2	22.3	25.7	14.9	10.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	50.6	50.7	57.4	164	2370	209	76.5	8.75	8.32	12
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.481	0.122	0.137	0.242	11.4	0.807	0.166	0.0148	0.0242	0.0365
Nickel	7440-02-0	mg/kg	7.83	5	5.28	23.9	24.7	36.5	10	6.25	10.8	8.85
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.671	< 1.07	< 0.993	0.968	< 1.71	< 3.25	< 1.1	< 0.603	< 0.661	< 0.668
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	69.9	151	157	239	675	4500	150	294	86.4	58.8

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-M7-01	SD-R-M7-02	SD-R-M7-02	SD-R-M7-03	SD-R-M7-04	SD-R-M7-05	SD-R-M7-06	SD-R-N5-01	SD-R-N5-02	SD-R-N5-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			3/22/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	4/7/2006	7/14/2006	4/4/2006	4/4/2006	4/4/2006
Sample Type			N	N	FD	N	N	N	N	N	N	N
Sample Name			SD-R-M7-011N	SD-R-M7-021.0N	SD-R-M7-021.0FD	SD-R-M7-031.0N	SD-R-M7-041.0N	SD-R-M7-051.0N	SD-R-M7-061.0N	SD-R-N5-011.0N	SD-R-N5-021.0N	SD-R-N5-031.0N
Parent Sample					SD-R-M7-021.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	25.5	53.4	51.6	65.1	71.9	84.6	54.7	19.5	25.1	25.1
Total Organic Carbon	ARC-TOC	mg/kg	4000	40000	120000	130000	970000	360000	62000	6300	15000	35000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	99.8	99.6	99.2	NA	100	88.4	75	96.3	88
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	NA	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	NA	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	1	2.5	< 1	0.95	NA	1	1	< 1	3.3	4.3
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	51.3	74.5	74	53	NA	62.7	67.1	28.2	68.6	61.2
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	14.3	44.1	44.4	20.9	NA	31.2	36.3	3.1	44.1	29
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	1	3	< 1	2	NA	4.5	2	< 1	5.3	5.3
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	1	10	4.5	8.8	NA	24.5	14.5	0.75	19.5	12.3
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	61.3	79.1	77.9	69.5	NA	84.2	71	41.9	77.2	69.4
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	21.5	55.4	55	27.5	NA	38.1	46.4	6.9	51.4	38
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	73.9	90.6	91.1	80.8	NA	94.7	79.4	47.6	85.9	76.6
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	76.6	95.9	95.9	88.7	NA	99.1	83.8	52.7	90.6	81.1
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	1	5	< 1	4	NA	8.5	4	< 1	9.5	7.3
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	6	29	11	14.3	NA	42	24	1	33	21.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	35.2	66.7	66.3	38.2	NA	47.7	58.2	15.1	59.7	49.8
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	9	34	28	16.5	NA	33	27.5	1.8	36.5	23.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	11.2	36	37.1	17.7	NA	25.3	29.7	2.1	38.6	24.7
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N5-04	SD-R-N5-04	SD-R-N5-05	SD-R-N5-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/27/2006	7/27/2006	8/17/2006	8/17/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-N5-041.0N	SD-R-N5-041N	SD-R-N5-051.0N	SD-R-N5-051N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N5-04	SD-R-N5-04	SD-R-N5-05	SD-R-N5-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/27/2006	7/27/2006	8/17/2006	8/17/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-N5-041.0N	SD-R-N5-041N	SD-R-N5-051.0N	SD-R-N5-051N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	< 360	81	160	NA	310	< 500
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	< 360	76	160	NA	330	< 500
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	< 360	57	150	NA	250	< 500
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	< 360	57	110	NA	< 1000	< 500
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-N5-04 0.5-1.0 ft 7/27/2006 N SD-R-N5-041.0N	SD-R-N5-04 0.5-1.0 ft 7/27/2006 N SD-R-N5-041N	SD-R-N5-05 0.5-1.0 ft 8/17/2006 N SD-R-N5-051.0N	SD-R-N5-05 0.5-1.0 ft 8/17/2006 N SD-R-N5-051N	SD-R-N7-01 0.5-1.0 ft 3/30/2006 N SD-R-N7-011.0N	SD-R-N7-02 0.5-1.0 ft 3/30/2006 N SD-R-N7-021.0N	SD-R-N7-03 0.5-1.0 ft 3/30/2006 N SD-R-N7-031.0N	SD-R-N7-04 0.5-1.0 ft 3/30/2006 N SD-R-N7-041.0N	SD-R-N7-05 0.5-1.0 ft 3/30/2006 N SD-R-N7-051.0N	SD-R-N7-06 0.5-1.0 ft 3/30/2006 N SD-R-N7-061.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	< 360	110	260	NA	490	< 500
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	< 360	96	300	NA	480	130
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	< 360	< 220	< 420	NA	< 1000	< 500
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	< 360	< 220	140	NA	< 1000	< 500
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	< 360	150	310	NA	600	150

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N5-04	SD-R-N5-04	SD-R-N5-05	SD-R-N5-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/27/2006	7/27/2006	8/17/2006	8/17/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-N5-041.0N	SD-R-N5-041N	SD-R-N5-051.0N	SD-R-N5-051N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 390	NA	< 430	< 640	< 400	< 760	< 730	< 1800	< 890
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 390	NA	1200	< 640	< 400	< 760	< 730	< 1800	< 890
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 390	NA	280	< 640	< 400	< 760	< 730	< 1800	< 890
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 780	NA	< 870	< 640	< 400	< 760	< 730	< 1800	< 890
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 390	NA	< 430	< 640	< 400	< 760	< 730	< 1800	< 890
Nitrocellulose	9004-70-0	ug/kg	NA	< 150000	NA	150000	< 250000	< 160000	< 300000	< 290000	< 730000	< 350000
Nitroglycerin	55-63-0	ug/kg	NA	< 7800	NA	12000	< 13000	< 7900	< 15000	< 15000	< 36000	< 18000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 980	NA	< 1100	< 1600	< 990	< 1900	< 1800	< 4500	< 2200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 7800	NA	< 8700	< 13000	< 7900	< 15000	< 15000	< 36000	< 18000
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 390	NA	< 430	< 640	< 400	< 760	< 730	< 1800	< 890
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	2.87	NA	3.37	< 4.22	4.94	6.25	3.02	7.31	4.5
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	< 0.632	NA	< 0.716	0.255	< 0.655	0.263	0.375	0.602	0.268
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	18.6	NA	22.8	4.89	21.8	18	13.3	13.6	17.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	17.8	NA	189	12.2	17.7	34.3	24.1	56	26.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	7.63	NA	235	29.3	16.7	90.6	55.1	121	63.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	< 0.126	NA	0.0987	0.114	0.0079	0.24	0.172	0.289	0.131
Nickel	7440-02-0	mg/kg	NA	13.9	NA	9.93	3.86	14	12.7	9.61	14.2	12.5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	< 0.632	NA	< 0.716	< 1.06	0.274	< 1.25	< 1.22	1.46	< 1.46
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	80.7	NA	272	67.4	78.1	111	113	105	71.3

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N5-04	SD-R-N5-04	SD-R-N5-05	SD-R-N5-05	SD-R-N7-01	SD-R-N7-02	SD-R-N7-03	SD-R-N7-04	SD-R-N7-05	SD-R-N7-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/27/2006	7/27/2006	8/17/2006	8/17/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-N5-041.0N	SD-R-N5-041N	SD-R-N5-051.0N	SD-R-N5-051N	SD-R-N7-011.0N	SD-R-N7-021.0N	SD-R-N7-031.0N	SD-R-N7-041.0N	SD-R-N7-051.0N	SD-R-N7-061.0N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	23.2	NA	30.9	53.1	24.4	60.5	58.9	83.4	66.4
Total Organic Carbon	ARC-TOC	mg/kg	NA	8600	NA	16000	90000	4100	52000	27000	27000	37000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	NA	100	NA	99.3	100	92.1	100	NA	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	NA	100	NA	100	100	100	100	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	NA	100	NA	100	100	100	100	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	NA	< 1	NA	1	1.3	1	3	NA	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	59.1	NA	88.1	NA	75.5	69.5	57.5	63.1	NA	65
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	25.6	NA	64.2	NA	44.1	53.5	36.3	31.8	NA	40.4
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	NA	3	NA	3	1.3	4	4	NA	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	5	NA	18	NA	15.5	5.5	17.8	13	NA	4.5
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	78.7	NA	89.3	NA	85	71.2	65.9	74.8	NA	78.5
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	38.4	NA	80.9	NA	54.2	61	42.8	39.2	NA	47.1
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	91.2	NA	92	NA	93.3	95.9	74.8	83.5	NA	86.4
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	97.6	NA	93.4	NA	97	98.4	80	89.2	NA	90.8
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	1	NA	9	NA	6	1.3	8.3	6.3	NA	< 1
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	7	NA	31.5	NA	29.5	24.5	28	26.3	NA	10
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	48.1	NA	86	NA	65.3	66	50	51	NA	55.6
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	13	NA	37	NA	35	41.5	31	27.5	NA	27
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	15.9	NA	42.3	NA	37.5	46.2	32.3	27.9	NA	36.4
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	4/3/2006	4/4/2006	6/5/2006	6/5/2006
Sample Type			N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0N	SD-R-O4-031.0FD
Parent Sample												SD-R-O4-031.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	4/3/2006	4/4/2006	6/5/2006	6/5/2006
Sample Type			N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0N	SD-R-O4-031.0FD
Parent Sample												SD-R-O4-031.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	NA	NA	< 440	< 2700	< 5900	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	NA	NA	< 440	< 2700	< 5900	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	NA	NA	< 440	< 2700	< 5900	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 390	NA	NA	230	< 2700	< 5900	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 390	NA	NA	430	< 2700	< 5900	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 390	NA	NA	1100	< 2700	< 5900	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 390	NA	NA	690	< 2700	< 5900	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	NA	NA	410	< 2700	< 5900	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	NA	NA	530	< 2700	< 5900	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	4/3/2006	4/4/2006	6/5/2006	6/5/2006
Sample Type			N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0N	SD-R-O4-031.0FD
Parent Sample												SD-R-O4-031.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont.)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 390	NA	NA	1300	< 2700	< 5900	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	NA	NA	180	< 2700	< 5900	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	< 390	NA	NA	1000	< 2700	< 5900	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 390	NA	NA	< 440	< 2700	< 5900	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 390	NA	NA	< 440	< 2700	< 5900	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 390	NA	NA	110	< 2700	< 5900	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 390	NA	NA	1200	< 2700	< 5900	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	4/3/2006	4/4/2006	6/5/2006	6/5/2006
Sample Type			N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0N	SD-R-O4-031.0FD
Parent Sample												SD-R-O4-031.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 710	< 480	< 720	< 800	< 960	< 2100	< 1000	< 1200	< 1500	< 1400
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 710	< 480	< 720	< 800	< 960	< 2100	< 1000	< 1200	< 1500	< 1400
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 710	< 480	< 720	< 800	< 960	< 2100	< 1000	< 1200	< 1500	< 1400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 710	< 480	< 720	< 800	< 960	< 2100	< 1000	< 1200	< 1500	< 1400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 710	< 480	< 720	< 800	< 960	< 2100	< 1000	< 1200	< 1500	< 1400
Nitrocellulose	9004-70-0	ug/kg	< 280000	< 190000	< 290000	< 320000	< 380000	< 850000	< 410000	< 480000	< 580000	< 580000
Nitroglycerin	55-63-0	ug/kg	< 14000	< 9500	< 14000	< 16000	< 19000	< 42000	< 21000	< 24000	< 29000	< 29000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1800	< 1200	< 1800	< 2000	< 2400	< 5300	< 2600	< 3000	< 3600	< 3600
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 14000	< 9500	< 14000	< 16000	< 19000	< 42000	< 21000	< 24000	< 29000	< 29000
RDX (Cyclonite)	121-82-4	ug/kg	< 710	< 480	< 720	< 800	< 960	< 2100	< 1000	< 1200	< 1500	< 1400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	2.16	< 3.18	3.45	3.35	43.3	9.75	5.43	3.89	< 9.43	7.08
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.395	< 0.795	0.26	0.62	0.77	1.32	< 1.67	0.392	< 2.36	< 2.37
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	7.98	6.01	8.69	8.46	14.3	7.98	16.6	9.93	7.33	6.61
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	9.23	3.77	14	15.6	32.4	33.9	34.7	42.9	28.4	28.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	43.8	15.9	86.4	93.7	53.4	125	43.2	47.8	30.2	23.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.113	0.0629	0.244	0.248	0.161	0.376	0.108	0.495	0.227	0.178
Nickel	7440-02-0	mg/kg	5.7	3.01	6.1	6.13	14.1	12.3	8.67	8.55	7.76	6.49
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.16	< 0.795	< 1.16	< 1.31	< 1.57	< 3.49	< 1.67	< 1.96	< 2.36	< 2.37
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	44	35.8	42.2	55	81.1	210	79.8	45.6	83.3	89.1

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-N7-07	SD-R-N7-08	SD-R-N7-09	SD-R-N7-10	SD-R-N7-11	SD-R-N7-12	SD-R-O4-01	SD-R-O4-02	SD-R-O4-03	SD-R-O4-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/3/2006	4/3/2006	4/3/2006	4/3/2006	4/7/2006	4/7/2006	4/3/2006	4/4/2006	6/5/2006	6/5/2006
Sample Type			N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-N7-071.0N	SD-R-N7-081.0N	SD-R-N7-091.0N	SD-R-N7-101.0N	SD-R-N7-111.0N	SD-R-N7-121.0N	SD-R-O4-011.0N	SD-R-O4-021.0N	SD-R-O4-031.0N	SD-R-O4-031.0FD
Parent Sample												SD-R-O4-031.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	57.6	37.1	58.1	62.3	68.8	85.8	71	75	79.4	79.3
Total Organic Carbon	ARC-TOC	mg/kg	120000	40000	63000	170000	280000	530000	160000	540000	490000	490000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	96.1	100	100	100	80.3	100	100	100	100	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	1	5	4.5	2	1	1	3.5	9.5	8.5	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	72.1	93.8	76.5	78	37.7	48	90.5	33	62.8	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	36.1	57.1	42.4	42.8	13.6	29.2	59.2	16.9	28.6	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	2.5	6	4.5	2	1	5	4.5	9	8.5	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	17	24	20	18	6	23	29.5	37	30.5	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	78.4	94.5	89.7	94.4	48.4	79	97	77.2	91.6	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	49	70.3	53.8	54.8	20.6	31.6	74.3	20.2	37.1	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	84.9	95.4	96.4	97.5	58.6	92.3	98.2	87.8	95.2	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	88.3	97.6	97.6	97.9	65.9	98.4	98.9	94.6	98.9	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	5	9.5	5.5	3.5	1	9.5	8.5	8	8.5	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	27.5	37	31	29	8	57.5	45	68	52.5	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	62.7	85.1	66.5	68	29.4	37.9	84.7	24.8	48.1	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	27.5	43.5	33.5	32.5	9.5	42.5	46	40	35	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	27.8	48	35.1	34.8	9.9	26	46.9	15.4	22.9	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-O4-04	SD-R-O4-05	SD-R-O4-06	SD-R-O4-07	SD-R-O4-08	SD-R-O4-09	SD-R-O5-01	SD-R-O7-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	6/5/2006	6/6/2006	6/6/2006	6/6/2006	6/6/2006	4/3/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			SD-R-O4-041.0N	SD-R-O4-051.0N	SD-R-O4-061.0N	SD-R-O4-071.0N	SD-R-O4-081.0N	SD-R-O4-091.0N	SD-R-O5-011.0N	SD-R-O7-011.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-O4-04 0.5-1.0 ft 6/5/2006 N SD-R-O4-041.0N	SD-R-O4-05 0.5-1.0 ft 6/5/2006 N SD-R-O4-051.0N	SD-R-O4-06 0.5-1.0 ft 6/6/2006 N SD-R-O4-061.0N	SD-R-O4-07 0.5-1.0 ft 6/6/2006 N SD-R-O4-071.0N	SD-R-O4-08 0.5-1.0 ft 6/6/2006 N SD-R-O4-081.0N	SD-R-O4-09 0.5-1.0 ft 6/6/2006 N SD-R-O4-091.0N	SD-R-O5-01 0.5-1.0 ft 4/3/2006 N SD-R-O5-011.0N	SD-R-O7-01 0.5-1.0 ft 3/30/2006 N SD-R-O7-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***								
Semivolatile Organic Compounds										
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-O4-04	SD-R-O4-05	SD-R-O4-06	SD-R-O4-07	SD-R-O4-08	SD-R-O4-09	SD-R-O5-01	SD-R-O7-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	6/5/2006	6/6/2006	6/6/2006	6/6/2006	6/6/2006	4/3/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			SD-R-O4-041.0N	SD-R-O4-051.0N	SD-R-O4-061.0N	SD-R-O4-071.0N	SD-R-O4-081.0N	SD-R-O4-091.0N	SD-R-O5-011.0N	SD-R-O7-011.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Semivolatile Organic Compounds (Cont.)										
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	83
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 380
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	91

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-O4-04 0.5-1.0 ft 6/5/2006 N SD-R-O4-041.0N	SD-R-O4-05 0.5-1.0 ft 6/5/2006 N SD-R-O4-051.0N	SD-R-O4-06 0.5-1.0 ft 6/6/2006 N SD-R-O4-061.0N	SD-R-O4-07 0.5-1.0 ft 6/6/2006 N SD-R-O4-071.0N	SD-R-O4-08 0.5-1.0 ft 6/6/2006 N SD-R-O4-081.0N	SD-R-O4-09 0.5-1.0 ft 6/6/2006 N SD-R-O4-091.0N	SD-R-O5-01 0.5-1.0 ft 4/3/2006 N SD-R-O5-011.0N	SD-R-O7-01 0.5-1.0 ft 3/30/2006 N SD-R-O7-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***								
Explosives & Energetics										
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1600	< 630	< 1400	< 1100	< 810	< 1100	< 430	< 680
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1600	< 630	< 1400	< 1100	< 810	< 1100	< 430	< 680
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1600	< 630	< 1400	< 1100	< 810	< 1100	< 430	< 680
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1600	< 630	< 1400	< 1100	< 810	< 1100	< 430	< 680
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1600	< 630	< 1400	< 1100	< 810	< 1100	< 430	< 680
Nitrocellulose	9004-70-0	ug/kg	< 620000	< 250000	< 550000	< 450000	< 320000	< 430000	< 170000	< 270000
Nitroglycerin	55-63-0	ug/kg	< 31000	< 13000	< 28000	< 22000	< 16000	< 22000	< 8600	< 14000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 3900	< 1600	< 3500	< 2800	< 2000	< 2700	< 1100	< 1700
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 31000	< 13000	< 28000	< 22000	< 16000	< 22000	< 8600	< 14000
RDX (Cyclonite)	121-82-4	ug/kg	< 1600	< 630	< 1400	< 1100	< 810	< 1100	< 430	< 680
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	9.7	3.74	5.69	3.99	2.68	< 7.03	1.12	2.73
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 2.59	< 1.03	0.341	< 1.85	0.272	< 1.76	< 0.705	0.299
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	5.29	14.5	5.84	5.22	19.7	13	14	15.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	30.7	28.2	53.9	41.8	51.3	47.1	3.66	20.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	29.2	18.5	33.4	25.6	40.7	40.2	9.7	50.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.146	0.0459	0.163	0.146	0.158	0.2	0.0421	0.175
Nickel	7440-02-0	mg/kg	8.54	7.99	10.9	8.57	10.4	7.48	6.12	11.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	1	< 1.03	1.05	0.813	< 1.3	< 1.76	< 0.705	< 1.12
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	179	65.9	929	145	104	43.9	30.4	95.3

Appendix A.3 - Ecological Risk Assessment Dataset
Sediment - Northern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-O4-04	SD-R-O4-05	SD-R-O4-06	SD-R-O4-07	SD-R-O4-08	SD-R-O4-09	SD-R-O5-01	SD-R-O7-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	6/5/2006	6/6/2006	6/6/2006	6/6/2006	6/6/2006	4/3/2006	3/30/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			SD-R-O4-041.0N	SD-R-O4-051.0N	SD-R-O4-061.0N	SD-R-O4-071.0N	SD-R-O4-081.0N	SD-R-O4-091.0N	SD-R-O5-011.0N	SD-R-O7-011.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Miscellaneous										
Percent Moisture	ARC-MOIST	%dw	80.7	52.4	78.3	73.2	62.9	72.1	30.5	55.9
Total Organic Carbon	ARC-TOC	mg/kg	460000	130000	440000	470000	160000	280000	76000	41000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size										
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	99.7	99.3	99.3	98.2	100	99.7	85.6	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	6.5	4	5.5	5	4	5	3	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	64.8	69.3	60.3	58.9	81.6	79.4	45	74.9
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	32.5	40.7	31.4	27.7	56.8	43.3	25.5	50.2
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	6.5	5	8	5	8	5	3.5	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	23	15.5	24.5	24.5	36.5	33	13.5	3
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	92.7	75.4	82.2	75.7	86.4	88.8	48.9	83.1
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	40.4	51.5	38.7	36.3	66.5	55.8	32.1	57.8
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	98.2	81.9	91.6	84.9	91.2	96.7	54.5	91.9
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	99.1	87.1	96.4	88.8	96.7	99.2	58.6	95.7
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	6.5	7.5	13	5.5	13	5.5	6	1.3
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	45.5	23	32	34	46	47	18	11.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	50.5	61.2	48	46.5	75.6	68	39.1	66.6
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	34	28.5	28	26	49	36.5	20	34.8
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	26.9	31.7	26.5	22.5	50.3	32.5	21.3	45.4
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SW-A15-2-01	SW-A15-3-01	SW-B8-1-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/25/01	04/11/01	04/11/01	04/05/01	04/05/01	04/05/01	04/05/01
Sample Type:		FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
Acrolein	ug/L	40 U	40 U	40 U	NA	40 U	40 U	40 U	NA	40 U
Acrylonitrile	ug/L	4.0 U	4.0 U	4.0 U	NA	4.0 U	4.0 U	4.0 U	NA	4.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromomethane	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
CFC-11	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chlorodibromomethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloroethane	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloromethane	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 J	3.0 J	1.0 U	NA	1.0 U	4.0 J	4.0 J	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Dichloromethane	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Tetrachloroethene	ug/L	6	6	1.0 U	NA	1.0 U	6	5	NA	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Tribromomethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 J	1.0 J	NA	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
1,2-Dichlorobenzene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
1,2-Diphenylhydrazine	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
1,3-Dichlorobenzene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
1,4-Dichlorobenzene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
2,4-Dichlorophenol	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2,4-Dimethylphenol	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2,4-Dinitrophenol	ug/L	19 U	19 U	20 U	19 U	NA	19 U	20 U	19 U	NA
2,4-Dinitrotoluene_SVOCs	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
2-Chloronaphthalene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2-Chlorophenol	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-A15-2-01	SW-A15-3-01	SW-B8-1-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/25/01	04/11/01	04/11/01	04/05/01	04/05/01	04/05/01	04/05/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
3,3-Dichlorobenzidine	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	NA	3.0 U	3.0 U	3.0 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
4-Chloro-3-Methylphenol	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
4-Chlorophenyl phenyl ether	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	9.0 U	9.0 U	10 U	10 U	NA	9.0 U	10 U	9.0 U	NA
Acenaphthene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Acenaphthylene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U	19 U	20 U	19 U	NA	19 U	20 U	19 U	NA
Benzo(a)Anthracene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Benzo(a)Pyrene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Benzo(b)fluoranthene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Benzo(g,h,i)perylene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Benzo(k)Fluoranthene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
bis(2-Chloroethoxy)methane	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Bis(2-Chloroethyl)ether	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Dibenzo(a,h)Anthracene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Dimethyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Fluoranthene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Fluorene	ug/L	0.90 U	0.90 U	1.0 U	NA	NA	0.90 U	1.0 U	0.90 U	NA
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Hexachlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Indeno(1,2,3-cd)Pyrene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Naphthalene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Nitrobenzene_SVOCs	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
N-nitrosodiphenylamine	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	NA	3.0 U	3.0 U	3.0 U	NA
Phenanthrene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
Phenol	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-A15-2-01	SW-A15-3-01	SW-B8-1-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/25/01	04/11/01	04/11/01	04/05/01	04/05/01	04/05/01	04/05/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA
Pyrene	ug/L	0.90 U	0.90 U	1.0 U	1.0 U	NA	0.90 U	1.0 U	0.90 U	NA
TPH										
Amyl Alcohol	ug/L	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U
Di-n-propyl ether	ug/L	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U
Ethanol	ug/L	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U
Ethyl ether	ug/L	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U
Methanol	ug/L	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U
n-Butyl ether	ug/L	1,000 U	1,000 U	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	5,900 U	5,900 U	5,900 U	NA	5,900 U	5,900 U	5,900 U	NA
Beryllium_Filtered	ug/L	640 U	640 U	640 U	640 U	NA	640 U	640 U	640 U	NA
Cadmium_Filtered	ug/L	640 U	640 U	640 U	640 U	NA	640 U	640 U	640 U	NA
Chromium_Filtered	ug/L	1,700 U	1,700 U	1,700 U	1,700 U	NA	1,700 U	1,700 U	1,700 U	NA
Copper_Filtered	ug/L	2,400 U	2,400 U	2,400 U	2,400 U	NA	2,400 U	2,400 U	2,400 U	NA
Lead_Filtered	ug/L	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U	8,800 U	8,800 U	NA
Mercury_Filtered	ug/L	26.0 U	26.0 U	26.0 U*	26.0 U	NA	26.0 U	26.0 U	26.0 U	NA
Nickel_Filtered	ug/L	1,600 U	1,600 U	1,600 U	1,600 U	NA	1,600 U	1,600 U	1,600 U	NA
Selenium_Filtered	ug/L	4,300 U	4,300 U	4,300 U	4,300 U	NA	4,300 U	4,300 U	4,300 U	NA
Silver_Filtered	ug/L	1,300 U	1,300 U	1,300 U	1,300 U	NA	1,300 U	1,300 U	1,300 U	NA
Thallium_Filtered	ug/L	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U	8,800 U	8,800 U	NA
Zinc_Filtered	ug/L	3.60 B	4.00 B	13.1 B	4.80 B	NA	3,200 U	3.50 B	3,200 U	NA
Arsenic_Filtered	ug/L	3,700 U	3,700 U	3,700 U	3,700 U	NA	3,700 U	3,700 U	3,700 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	5,900 U	5,900 U	5,900 U	NA	5,900 U	5,900 U	5,900 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	640 U	640 U	640 U	NA	640 U	640 U	640 U	NA
Cadmium	ug/L	640 UB	640 U	640 U	640 U	NA	640 U	640 U	640 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 UB	1,700 U	1,700 U	4.60 B	NA	1,700 U	1,700 U	1,700 U	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	19.0 B	5.40 B	2,400 U	2,400 UB	NA	11.0 B	2,400 U	2,400 U	NA
Lead	ug/L	48.2	8,800 U	8,800 U	14.7 B	NA	12.9 B	8,800 U	8,800 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 U	26.0 U	26.0 UN*	26.0 U	NA	26.0 U	26.0 U	26.0 U	NA
Nickel	ug/L	10.5 B	1,600 U	1,600 UN*	5.60 B	NA	5.40 B	1,600 U	1,600 U	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	4,300 U	5.50 B	4,300 U	NA	4,300 U	4,300 U	4,300 U	NA
Silver	ug/L	1,300 U	1,300 U	1,300 U	1,300 U	NA	1,300 U	1,300 U	1,300 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	8,800 U	8,800 U	8,800 U	NA	8,800 U	8,800 U	8,800 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	73.8	15.3 B	25.5	42	NA	64.2	4.00 B	3,200 U	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	3,700 U	3,700 U	3,700 U	NA	3,700 U	3,700 U	3,700 U	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-A15-2-01	SW-A15-3-01	SW-B8-1-01	SW-B14-2-01	SW-B14-2-01	SW-B15-1-01	SW-B15-2-01	SW-B16-1-01	SW-B16-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.25 - 0.75	0.5 - 1
Date Collected:		04/05/01	04/05/01	04/25/01	04/11/01	04/11/01	04/05/01	04/05/01	04/05/01	04/05/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	0.72	NA	0.2 U	0.2 U	0.2 U	NA
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	0.2 U	0.2 U	0.43 J	NA	0.2 U	0.2 U	0.2 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	0.2 U	0.43 J	NA	0.2 U	0.2 U	0.2 U	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	3.51	NA	0.2 U	0.2 U	0.2 U	NA
2-Nitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
3-Nitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	8.39	NA	0.2 U	0.2 U	0.2 U	NA
4-Nitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
HMX	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
Nitrocellulose	ug/L	500 U	500 U	500 U	500 U	NA	500 U	500 U	500 U	NA
Nitroglycerin	ug/L	120 U	120 U	120 U	120 U	NA	120 U	120 U	120 U	NA
Pentaerythritol Tetranitrate	ug/L	4 U	4 U	4 U	4 U	NA	4 U	4 U	4 U	NA
RDX	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
Tetryl	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA
GenChem										
Hardness (as CaCO3)	ug/L	272,000	246,000	68,000	84,000	NA	316,000	328,000	270,000	NA
Oxygen	ug/L	5,030	4,750	11,530	11,670	NA	6,820	7,200	4,960	NA
pH_GenChem	SU	7.1	7.12	6.67	6.05	NA	7.32	7.48	7.11	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-C9-1-01	SW-C12-1-01	SW-C12-1-01	SW-C12-2-01	SW-C15-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-2-01	SW-D11-1-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	05/02/01	05/02/01	04/13/01	04/11/01	04/11/01	05/09/01	04/04/01	04/17/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
Acrolein	ug/L	40 U	NA	40 U	40 U	40 U	NA	NA	40 U	40 U
Acrylonitrile	ug/L	4.0 U	NA	4.0 U	4.0 U	4.0 U	NA	NA	4.0 U	4.0 U
Benzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Bromomethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
CFC-11	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Chlorodibromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Chloroethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
Chloroform	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Chloromethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Dichloromethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Tribromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,2-Diphenylhydrazine	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
2,4-Dichlorophenol	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2,4-Dimethylphenol	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2,4-Dinitrophenol	ug/L	19 U	20 U	NA	19 U	NA	20 U	NA	20 U	20 U
2,4-Dinitrotoluene_SVOCs	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
2-Chloronaphthalene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2-Chlorophenol	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-C9-1-01	SW-C12-1-01	SW-C12-1-01	SW-C12-2-01	SW-C15-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-2-01	SW-D11-1-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	05/02/01	05/02/01	04/13/01	04/11/01	04/11/01	05/09/01	04/04/01	04/17/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
4-Chloro-3-Methylphenol	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	9.0 U	10 U	NA	10 U	NA	10 U	NA	10 U	10 U
Acenaphthene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Acenaphthylene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U	20 U	NA	19 U	NA	20 U	NA	20 U	20 U
Benzo(a)Anthracene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Benzo(a)Pyrene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Benzo(k)Fluoranthene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
bis(2-Chloroethoxy)methane	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Dibenzo(a,h)Anthracene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Dimethyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Fluoranthene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Fluorene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	NA	NA	1.0 U	1.0 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U
Hexachloroethane	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Naphthalene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Nitrobenzene_SVOCs	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
N-nitrosodiphenylamine	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U
Phenanthrene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Phenol	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-C9-1-01 0.5 - 1 04/25/01 FS	SW-C12-1-01 0 - 0.5 05/02/01 FS	SW-C12-1-01 0.5 - 1 05/02/01 FS	SW-C12-2-01 0.5 - 1 04/13/01 FS	SW-C15-1-01 0.5 - 1 04/11/01 FS	SW-C15-1-01 1 - 1.5 04/11/01 FS	SW-C15-1-01 1 - 1.5 05/09/01 FS	SW-C15-2-01 0.5 - 1 04/04/01 FS	SW-D11-1-01 0.5 - 1 04/17/01 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Pyrene	ug/L	0.90 U	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U
Ethanol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U
Ethyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U
Methanol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U
Beryllium_Filtered	ug/L	640 U	640 U	NA	640 U	NA	640 U	NA	640 U	640 U
Cadmium_Filtered	ug/L	640 U	640 U	NA	640 U	NA	640 U	NA	640 U	640 U
Chromium_Filtered	ug/L	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U
Copper_Filtered	ug/L	2,400 U	2,400 U	NA	2,400 U	NA	2,400 U	NA	2,400 U	2.50 B
Lead_Filtered	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U
Mercury_Filtered	ug/L	26.0 U*	26.0 UB	NA	26.0 U	NA	26.0 U	NA	26.0 U	26.0 U
Nickel_Filtered	ug/L	1,600 U	1,600 U	NA	1,600 U	NA	1,600 U	NA	1,600 U	1,600 U
Selenium_Filtered	ug/L	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U
Silver_Filtered	ug/L	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U
Thallium_Filtered	ug/L	8,800 U	10.0 B	NA	8,800 U	NA	8,800 UB	NA	8,800 U	8,800 U
Zinc_Filtered	ug/L	6.30 B	20.1 B	NA	9.60 B	NA	6.10 B	NA	3,200 U	25.7
Arsenic_Filtered	ug/L	3,700 U	3.90 B	NA	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	640 U	NA	640 U	NA	640 U	NA	640 U	640 U
Cadmium	ug/L	640 U	640 U	NA	640 U	NA	640 U	NA	640 U	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 UB	2.50 B	NA	2,400 U	NA	2,400 UB	NA	2,400 U	2,400 U
Lead	ug/L	8,800 U	11.7 B	NA	16.0 B	NA	8,800 U	NA	8,800 U	57.8
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 UN*	26.0 U	NA	0.0280 B	NA	26.0 U	NA	26.0 U	26.0 U
Nickel	ug/L	1,600 UN*	1,600 U	NA	1,600 U	NA	2.20 B	NA	1,600 U	1,600 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U
Silver	ug/L	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,200 UB	16.9 B	NA	14.5 B	NA	18.7 B	NA	3.40 B	26.2
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 UB	4.40 B	NA	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-C9-1-01	SW-C12-1-01	SW-C12-1-01	SW-C12-2-01	SW-C15-1-01	SW-C15-1-01	SW-C15-1-01	SW-C15-2-01	SW-D11-1-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/25/01	05/02/01	05/02/01	04/13/01	04/11/01	04/11/01	05/09/01	04/04/01	04/17/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	5.9	NA	0.2 U	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.36 J
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	1.11	NA	0.2 U	2.43 J
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	1.11	NA	0.2 U	2.07
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	0.57 J	NA	5.34	NA	3.71	NA	0.2 U	0.2 U
2-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
3-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	1.19	NA	8.97	NA	5.56	NA	0.2 U	0.2 U
4-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
HMX	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Nitrocellulose	ug/L	500 U	500 U	NA	500 U	NA	500 U	500 U	500 U	500 U
Nitroglycerin	ug/L	120 U	120 U	NA	120 U	NA	120 U	NA	120 U	120 U
Pentaerythritol Tetranitrate	ug/L	4 U	4 U	NA	4 U	NA	4 U	NA	4 U	4 U
RDX	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Tetryl	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
GenChem										
Hardness (as CaCO3)	ug/L	40,000	NA	NA	56,000	NA	200,000	NA	260,000	80,000
Oxygen	ug/L	11,220	NA	NA	11,530	NA	11,170	NA	8,150	9,810
pH_GenChem	SU	6.6	NA	NA	6.95	NA	6.32	NA	7.42	6.74
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1
Date Collected:		04/16/01	04/16/01	05/09/01	04/16/01	04/16/01	04/16/01	04/13/01	04/13/01	04/13/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Acrolein	ug/L	40 U	NA	NA	40 U	40 U	40 U	40 U	NA	40 U
Acrylonitrile	ug/L	4.0 U	NA	NA	4.0 U	4.0 U	4.0 U	4.0 U	NA	4.0 U
Benzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromodichloromethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Bromomethane	ug/L	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
CFC-11	ug/L	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Chlorobenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chlorodibromomethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloroethane	ug/L	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Chloroform	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Chloromethane	ug/L	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Dichloromethane	ug/L	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA	2.0 U
Ethylbenzene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Tetrachloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Toluene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Tribromomethane	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Trichloroethene	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Vinyl Chloride	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
Xylenes (total)	ug/L	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,2-Diphenylhydrazine	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
2,4-Dichlorophenol	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2,4-Dimethylphenol	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2,4-Dinitrophenol	ug/L	20 U	21 U	NA	NA	19 U	19 U	19 U	19 U	NA
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
2-Chloronaphthalene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2-Chlorophenol	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1
Date Collected:		04/16/01	04/16/01	05/09/01	04/16/01	04/16/01	04/16/01	04/13/01	04/13/01	04/13/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
3,3-Dichlorobenzidine	ug/L	3.0 U	3.0 U	NA	NA	3.0 U	3.0 U	3.0 U	3.0 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
4-Chloro-3-Methylphenol	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
4-Chlorophenyl phenyl ether	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	10 U	11 U	NA	NA	10 U	10 U	10 U	10 U	NA
Acenaphthene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Acenaphthylene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	20 U	21 U	NA	NA	19 U	19 U	19 U	19 U	NA
Benzo(a)Anthracene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	2.0 J	NA
Benzo(a)Pyrene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	2.0 J	NA
Benzo(b)fluoranthene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	3.0 J	NA
Benzo(g,h,i)perylene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	2.0 J	NA
Benzo(k)Fluoranthene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 J	NA
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
bis(2-Chloroethoxy)methane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Bis(2-Chloroethyl)ether	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	2.0 J	NA
Dibenzo(a,h)Anthracene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Dimethyl Phthalate	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Fluoranthene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	3.0 J	NA
Fluorene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Hexachlorobenzene	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	2.0 J	NA
Naphthalene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
Nitrobenzene_SVOCs	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
N-nitrosodiphenylamine	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	15 U	15 U	NA	NA	15 U	15 U	3.0 U	3.0 U	NA
Phenanthrene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	2.0 J	NA
Phenol	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1
Date Collected:		04/16/01	04/16/01	05/09/01	04/16/01	04/16/01	04/16/01	04/13/01	04/13/01	04/13/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	1.0 U	3.0 J	NA
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	NA	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U
Di-n-propyl ether	ug/L	1,000 U	NA	NA	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U
Ethanol	ug/L	1,000 U	NA	NA	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U
Ethyl ether	ug/L	1,000 U	NA	NA	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U
Methanol	ug/L	1,000 U	NA	NA	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U
n-Butyl ether	ug/L	1,000 U	NA	NA	1,000 U	1,000 U	1,000 U	1,000 U	NA	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	5,900 U	NA	NA	5,900 U	5,900 U	5,900 U	5,900 U	NA
Beryllium_Filtered	ug/L	640 U	640 U	NA	NA	640 U	640 U	640 U	640 U	NA
Cadmium_Filtered	ug/L	640 U	640 U	NA	NA	640 U	640 U	640 U	640 U	NA
Chromium_Filtered	ug/L	1,700 U	1,700 U	NA	NA	1,700 U	1,700 U	1,700 U	1,700 U	NA
Copper_Filtered	ug/L	2.50 B	2,400 U	NA	NA	2,400 U	2,400 U	2,400 U	2,400 U	NA
Lead_Filtered	ug/L	8,800 U	8,800 U	NA	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Mercury_Filtered	ug/L	26.0 U	26.0 U	NA	NA	26.0 U	26.0 U	26.0 U	26.0 U	NA
Nickel_Filtered	ug/L	1,600 U	1,600 U	NA	NA	1,600 U	1,600 U	1.70 B	1,600 U	NA
Selenium_Filtered	ug/L	4,300 U	4,300 U	NA	NA	4,300 U	4,300 U	4.40 B	4,300 U	NA
Silver_Filtered	ug/L	1,300 U	1,300 U	NA	NA	1,300 U	1,300 U	1,300 U	2.10 B	NA
Thallium_Filtered	ug/L	8,800 U	8,800 U	NA	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Zinc_Filtered	ug/L	3,200 U	12.3 B	NA	NA	11.1 B	11.8 B	12.8 B	3,200 U	NA
Arsenic_Filtered	ug/L	3,700 U	3,700 U	NA	NA	3,700 U	3,700 U	3,700 U	3,700 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	5,900 U	NA	NA	5,900 U	5,900 U	5,900 U	5,900 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	640 U	NA	NA	640 U	640 U	640 U	640 U	NA
Cadmium	ug/L	640 U	2.00 B	NA	NA	640 U	640 U	640 U	0.840 B	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	10.8 B	NA	NA	1,700 U	1,700 U	1,700 U	7.20 B	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 UB	32.4	NA	NA	2,400 U	2,400 U	2,400 U	49	NA
Lead	ug/L	8,800 U	304	NA	NA	8,800 U	11.2 B	8,800 U	221	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 UB	26.0 UB	NA	NA	26.0 UB	26.0 UB	0.0640 B	0.200 B	NA
Nickel	ug/L	1,600 U	7.10 B	NA	NA	1,600 U	1,600 U	1,600 U	17.4 B	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	4,300 U	NA	NA	4,300 U	4,300 U	4,300 U	4,300 U	NA
Silver	ug/L	1,300 U	1,300 U	NA	NA	1,300 U	1,300 U	1,300 U	1,300 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	8,800 U	NA	NA	8,800 U	8,800 U	8,800 U	8,800 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,200 UB	135	NA	NA	3,200 UB	3,200 UB	11.5 B	234	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	52.4	NA	NA	3,700 U	3,700 U	3,700 U	33.7	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D12-1-01	SW-D12-2-01	SW-D12-2-01	SW-D12-2-01	SW-D12-3-01	SW-D12-4-01	SW-D13-1-01	SW-D13-2-01	SW-D13-2-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1
Date Collected:		04/16/01	04/16/01	05/09/01	04/16/01	04/16/01	04/16/01	04/13/01	04/13/01	04/13/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	0.2 U	NA	NA	0.78	0.82	0.2 U	0.2 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	NA	0.78	0.82	0.2 U	0.2 U	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	4.38	0.2 U	NA
2-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
3-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	7.3	0.2 U	NA
4-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
HMX	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Nitrocellulose	ug/L	500 U	500 U	500 U	NA	500 U	500 U	500 U	500 U	NA
Nitroglycerin	ug/L	200 U	120 U	NA	NA	120 U	120 U	120 U	120 U	NA
Pentaerythritol Tetranitrate	ug/L	4 U	4 U	NA	NA	4 U	4 U	4 U	4 U	NA
RDX	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
Tetryl	ug/L	0.2 U	0.2 U	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA
GenChem										
Hardness (as CaCO3)	ug/L	80,000	44,000	NA	NA	70,000	80,000	60,000	64,000	NA
Oxygen	ug/L	9,810	12,520	NA	NA	11,050	9,810	10,970	11,330	NA
pH_GenChem	SU	6.74	7.55	NA	NA	6.85	6.74	6.95	7.03	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D13-3-01	SW-D13-3-01	SW-D13-4-01	SW-D13-4-01	SW-D13-5-01	SW-D13-6-01	SW-D13-6-01	SW-D14-1-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1
Date Collected:		04/12/01	04/12/01	04/12/01	04/12/01	04/13/01	04/12/01	04/12/01	04/12/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
VOCs									
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
2-Chloroethyl vinyl ether	ug/L	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA	2.0 U [2.0 U]
Acrolein	ug/L	40 U	NA	40 U	NA	40 U [40 U]	40 U	NA	40 U [40 U]
Acrylonitrile	ug/L	4.0 U	NA	4.0 U	NA	4.0 U [4.0 U]	4.0 U	NA	4.0 U [4.0 U]
Benzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Bromomethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA	2.0 U [2.0 U]
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
CFC-11	ug/L	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA	2.0 U [2.0 U]
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Chlorodibromomethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Chloroethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA	2.0 U [2.0 U]
Chloroform	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Chloromethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA	2.0 U [2.0 U]
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Dichloromethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA	2.0 U [2.0 U]
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Toluene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Tribromomethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Trichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
Xylenes (total)	ug/L	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	1.0 U	NA	1.0 U [1.0 U]
SVOCs									
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
1,2-Dichlorobenzene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
1,2-Diphenylhydrazine	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
1,3-Dichlorobenzene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
1,4-Dichlorobenzene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2,2-Oxybis(1-Chloropropane)	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
2,4-Dichlorophenol	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2,4-Dimethylphenol	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2,4-Dinitrophenol	ug/L	NA	19 U	NA	19 U	21 U [20 U]	NA	19 U	19 U [20 U]
2,4-Dinitrotoluene_SVOCs	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
2,6-Dinitrotoluene_SVOCs	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
2-Chloronaphthalene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2-Chlorophenol	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
2-Methyl-4,6-dinitrophenol	ug/L	NA	5.0 U	NA	5.0 U	5.0 U [5.0 U]	NA	5.0 U	5.0 U [5.0 U]
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D13-3-01	SW-D13-3-01	SW-D13-4-01	SW-D13-4-01	SW-D13-5-01	SW-D13-6-01	SW-D13-6-01	SW-D14-1-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1
Date Collected:		04/12/01	04/12/01	04/12/01	04/12/01	04/13/01	04/12/01	04/12/01	04/12/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
3,3-Dichlorobenzidine	ug/L	NA	3.0 U	NA	3.0 U	3.0 U [3.0 U]	NA	3.0 U	3.0 U [3.0 U]
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
4-Chloro-3-Methylphenol	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
4-Chlorophenyl phenyl ether	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	10 U	NA	9.0 U	10 U [10 U]	NA	9.0 U	10 U [10 U]
Acenaphthene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Acenaphthylene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	19 U	NA	19 U	21 U [20 U]	NA	19 U	19 U [20 U]
Benzo(a)Anthracene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Benzo(a)Pyrene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Benzo(b)fluoranthene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Benzo(g,h,i)perylene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Benzo(k)Fluoranthene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Benzyl Butyl Phthalate	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
bis(2-Chloroethoxy)methane	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Bis(2-Chloroethyl)ether	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Bis(2-Ethylhexyl)phthalate	ug/L	NA	2.0 U	NA	2.0 J	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Dibenzo(a,h)Anthracene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Dimethyl Phthalate	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Di-N-Butyl Phthalate	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Di-n-Octyl Phthalate	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Fluoranthene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Fluorene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Hexachloro-1,3-Butadiene	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Hexachlorobenzene	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	NA	5.0 U	5.0 U [5.0 U]	NA	5.0 U	5.0 U [5.0 U]
Hexachloroethane	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Indeno(1,2,3-cd)Pyrene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Naphthalene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Nitrobenzene_SVOCs	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
N-Nitrosodimethylamine	ug/L	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]	NA	2.0 U	2.0 U [2.0 U]
N-Nitrosodi-N-Propylamine	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
N-nitrosodiphenylamine	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	3.0 U	NA	3.0 U	3.0 U [3.0 U]	NA	3.0 U	3.0 U [3.0 U]
Phenanthrene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
Phenol	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-D13-3-01 0.5 - 1 04/12/01 FS	SW-D13-3-01 1 - 1.5 04/12/01 FS	SW-D13-4-01 0.5 - 1 04/12/01 FS	SW-D13-4-01 1 - 1.5 04/12/01 FS	SW-D13-5-01 0.5 - 1 04/13/01 FS	SW-D13-6-01 0.5 - 1 04/12/01 FS	SW-D13-6-01 1 - 1.5 04/12/01 FS	SW-D14-1-01 0.5 - 1 04/12/01 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	1.0 U	NA	0.90 U	1.0 U [1.0 U]	NA	0.90 U	1.0 U [1.0 U]
TPH									
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U [1,000 U]	1,000 U	NA	1,000 U [1,000 U]
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U [1,000 U]	1,000 U	NA	1,000 U [1,000 U]
Ethanol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U [1,000 U]	1,000 U	NA	1,000 U [1,000 U]
Ethyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U [1,000 U]	1,000 U	NA	1,000 U [1,000 U]
Methanol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U [1,000 U]	1,000 U	NA	1,000 U [1,000 U]
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U [1,000 U]	1,000 U	NA	1,000 U [1,000 U]
Metals - Filtered									
Antimony_Filtered	ug/L	NA	5,900 U	NA	5,900 U	5,900 U [5,900 U]	NA	5,900 U	5,900 U [5,900 U]
Beryllium_Filtered	ug/L	NA	640 U	NA	640 U	640 U [640 U]	NA	640 U	640 U [640 U]
Cadmium_Filtered	ug/L	NA	640 U	NA	640 U	640 UB [640 U]	NA	640 U	640 U [640 U]
Chromium_Filtered	ug/L	NA	1,700 U	NA	1,700 U	1,700 U [1,700 U]	NA	1,700 U	1,700 U [1,700 U]
Copper_Filtered	ug/L	NA	2,400 U	NA	2,400 U	2,400 U [2,400 U]	NA	2,400 U	2,400 U [2,400 U]
Lead_Filtered	ug/L	NA	8,800 U	NA	8,800 U	17.5 B [8,800 U]	NA	8,800 U	8,800 U [8,800 U]
Mercury_Filtered	ug/L	NA	26.0 U	NA	26.0 U	26.0 U [26.0 U]	NA	26.0 U	26.0 U [26.0 U]
Nickel_Filtered	ug/L	NA	1,600 U	NA	1,600 U	1,600 U [1,600 U]	NA	1,600 U	1,600 U [1,600 U]
Selenium_Filtered	ug/L	NA	4,300 U	NA	4,300 U	4,300 U [4,300 U]	NA	4,300 U	4,300 U [4.50 B]
Silver_Filtered	ug/L	NA	1,300 U	NA	1,300 U	1,300 U [1,300 U]	NA	1,300 U	1,300 U [1,300 U]
Thallium_Filtered	ug/L	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	NA	8,800 U	8,800 U [8,800 U]
Zinc_Filtered	ug/L	NA	9.30 B	NA	9.80 B	3,200 U [5.60 B]	NA	8.80 B	3,200 U [3,200 U]
Arsenic_Filtered	ug/L	NA	3,700 U	NA	3,700 U	3,700 U [3,700 U]	NA	3,700 U	3,700 U [3,700 U]
Metals									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5,900 U	NA	5,900 U	5,900 U [5,900 U]	NA	5,900 U	5,900 U [5,900 U]
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	640 U	NA	640 U	640 U [640 U]	NA	640 U	640 U [640 U]
Cadmium	ug/L	NA	640 U	NA	640 U	640 U [640 U]	NA	640 U	640 U [640 U]
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	1,700 U	NA	1,700 U	1,700 U [1,700 U]	NA	1,700 U	1,700 U [1,700 U]
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	2,400 U	NA	2,400 U	2,400 U [2,400 U]	NA	2,400 U	2,400 U [2,400 U]
Lead	ug/L	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	NA	8,800 U	23.0 [8,800 U]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	26.0 U	NA	26.0 UB	0.0930 B [26.0 U]	NA	26.0 U	26.0 U [26.0 U]
Nickel	ug/L	NA	1,600 U	NA	1,600 U	1,600 U [1,600 U]	NA	1,600 U	1,600 U [1,600 U]
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	4,300 U	NA	4,300 U	4,300 U [4,300 U]	NA	4,300 U	4,300 U [4,300 U]
Silver	ug/L	NA	1,300 U	NA	1,300 U	1,300 U [1,300 U]	NA	1,300 U	1,300 U [1,300 U]
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	8,800 U	NA	8,800 U	8,800 U [8,800 U]	NA	8,800 U	8,800 U [8,800 U]
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	10.1 B	NA	10.9 B	7.10 B [6.60 B]	NA	10.2 B	22.6 B [6.10 B]
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	3,700 U	NA	3,700 U	3,700 U [3,700 U]	NA	3,700 U	3,700 U [3,700 U]
Explosives									
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
1,3-Dinitrobenzene	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D13-3-01	SW-D13-3-01	SW-D13-4-01	SW-D13-4-01	SW-D13-5-01	SW-D13-6-01	SW-D13-6-01	SW-D14-1-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1
Date Collected:		04/12/01	04/12/01	04/12/01	04/12/01	04/13/01	04/12/01	04/12/01	04/12/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.63 [0.5 J]
2,4-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	0.95	NA	0.84	0.2 U [0.2 U]	NA	0.83	0.2 U [0.2 U]
2,6-Dinitrotoluene_Explosives	ug/L	NA	0.95	NA	0.84	0.2 U [0.2 U]	NA	0.83	0.2 U [0.2 U]
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.2 U	NA	0.52 J	0.2 U [0.2 U]	NA	0.54 J	4.14 [3.82]
2-Nitrotoluene	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
3-Nitrotoluene	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.2 U	NA	0.74	0.2 U [0.2 U]	NA	0.73	3.84 [3.31]
4-Nitrotoluene	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
HMX	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	2.67 [1.81]
Nitrobenzene_Explosives	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
Nitrocellulose	ug/L	NA	500 U	NA	500 U	500 U [500 U]	NA	500 U	500 U [500 U]
Nitroglycerin	ug/L	NA	120 U	NA	200 U	120 U [120 U]	NA	120 U	120 U [200 U]
Pentaerythritol Tetranitrate	ug/L	NA	4 U	NA	4 U	4 U [4 U]	NA	4 U	4 U [4 U]
RDX	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.79 [0.73]
Tetryl	ug/L	NA	0.2 U	NA	0.2 U	0.2 U [0.2 U]	NA	0.2 U	0.2 U [0.2 U]
GenChem									
Hardness (as CaCO3)	ug/L	NA	64,000	NA	80,000	78,000	NA	64,000	0
Oxygen	ug/L	NA	10,340	NA	10,690	12,060	NA	10,880	10,340
pH_GenChem	SU	NA	7.17	NA	7.19	6.46	NA	7.06	6.77
FIELD									
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D14-2-01	SW-D14-3-01	SW-D14-3-01	SW-D14-4-01	SW-D14-4-01	SW-D14-5-01	SW-D14-5-01	SW-D14-5-01	SW-D14-6-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:		04/26/01	04/10/01	04/10/01	04/10/01	04/10/01	04/11/01	05/09/01	04/11/01	04/12/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
2-Chloroethyl vinyl ether	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U	NA
Acrolein	ug/L	40 U	NA	40 U	NA	40 U	NA	NA	40 U	NA
Acrylonitrile	ug/L	4.0 U	NA	4.0 U	NA	4.0 U	NA	NA	4.0 U	NA
Benzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Bromomethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U	NA
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
CFC-11	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U	NA
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Chlorodibromomethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Chloroethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U	NA
Chloroform	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Chloromethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Dichloromethane	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U	NA
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Toluene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Tribromomethane	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Trichloroethene	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
Xylenes (total)	ug/L	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
1,2-Dichlorobenzene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
1,2-Diphenylhydrazine	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
1,3-Dichlorobenzene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
1,4-Dichlorobenzene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2,2-Oxybis(1-Chloropropane)	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
2,4-Dichlorophenol	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2,4-Dimethylphenol	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2,4-Dinitrophenol	ug/L	19 U	19 U	NA	19 U	NA	19 U	NA	NA	19 U
2,4-Dinitrotoluene_SVOCs	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
2-Chloronaphthalene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2-Chlorophenol	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D14-2-01	SW-D14-3-01	SW-D14-3-01	SW-D14-4-01	SW-D14-4-01	SW-D14-5-01	SW-D14-5-01	SW-D14-5-01	SW-D14-6-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:		04/26/01	04/10/01	04/10/01	04/10/01	04/10/01	04/11/01	05/09/01	04/11/01	04/12/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
3,3-Dichlorobenzidine	ug/L	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	NA	NA	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
4-Chloro-3-Methylphenol	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
4-Chlorophenyl phenyl ether	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	9.0 U	9.0 U	NA	10 U	NA	9.0 U	NA	NA	9.0 U
Acenaphthene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Acenaphthylene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U	19 U	NA	19 U	NA	19 U	NA	NA	19 U
Benzo(a)Anthracene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Benzo(a)Pyrene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Benzo(b)fluoranthene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Benzo(g,h,i)perylene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Benzo(k)Fluoranthene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
bis(2-Chloroethoxy)methane	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Bis(2-Chloroethyl)ether	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Dibenzo(a,h)Anthracene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Dimethyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Fluoranthene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Fluorene	ug/L	0.90 U	NA	NA	NA	NA	0.90 U	NA	NA	0.90 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	NA	5.0 U
Hexachloroethane	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Indeno(1,2,3-cd)Pyrene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Naphthalene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Nitrobenzene_SVOCs	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	NA	NA	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
N-nitrosodiphenylamine	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	NA	NA	3.0 U
Phenanthrene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
Phenol	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-D14-2-01 0.5 - 1 04/26/01 FS	SW-D14-3-01 0 - 0.5 04/10/01 FS	SW-D14-3-01 0.5 - 1 04/10/01 FS	SW-D14-4-01 0 - 0.5 04/10/01 FS	SW-D14-4-01 0.5 - 1 04/10/01 FS	SW-D14-5-01 0 - 0.5 04/11/01 FS	SW-D14-5-01 0 - 0.5 05/09/01 FS	SW-D14-5-01 0.5 - 1 04/11/01 FS	SW-D14-6-01 0 - 0.5 04/12/01 FS
Purge Volume	ug/L	NA	0.90 U	NA	1.0 U	NA	NA	NA	NA	NA
Pyrene	ug/L	0.90 U	0.90 U	NA	1.0 U	NA	0.90 U	NA	NA	0.90 U
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA
Ethanol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA
Ethyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA
Methanol	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	NA	NA	5,900 U
Beryllium_Filtered	ug/L	640 U	640 U	NA	640 U	NA	640 U	NA	NA	640 U
Cadmium_Filtered	ug/L	640 U	640 U	NA	640 U	NA	640 U	NA	NA	640 U
Chromium_Filtered	ug/L	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U	NA	NA	1,700 U
Copper_Filtered	ug/L	2,400 U	2,400 U	NA	2,400 U	NA	2,400 U	NA	NA	2,400 U
Lead_Filtered	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	NA	NA	8,800 U
Mercury_Filtered	ug/L	26.0 U*	26.0 U	NA	26.0 U	NA	26.0 U	NA	NA	26.0 U
Nickel_Filtered	ug/L	1,600 U	1,600 U	NA	1,600 U	NA	1,600 U	NA	NA	1,600 U
Selenium_Filtered	ug/L	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	NA	NA	4,300 U
Silver_Filtered	ug/L	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	NA	NA	1,300 U
Thallium_Filtered	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	NA	NA	8,800 U
Zinc_Filtered	ug/L	8.90 B	5.90 B	NA	4.70 B	NA	5.40 B	NA	NA	4.90 B
Arsenic_Filtered	ug/L	3,700 U	3,700 U	NA	3,700 U	NA	3,700 U	NA	NA	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	NA	NA	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	640 U	NA	1.60 B	NA	640 U	NA	NA	640 U
Cadmium	ug/L	640 U	1.40 B	NA	0.950 B	NA	640 U	NA	NA	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	1,700 U	NA	2.80 B	NA	1,700 U	NA	NA	1,700 U
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 U	2,400 UB	NA	2,400 UB	NA	2,400 U	NA	NA	2,400 U
Lead	ug/L	8,800 U	29.9	NA	25.8	NA	8,800 U	NA	NA	8,800 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 UN*	26.0 U	NA	0.0280 B	NA	26.0 U	NA	NA	26.0 U
Nickel	ug/L	1,600 UN*	7.10 B	NA	9.90 B	NA	1,600 U	NA	NA	1,600 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	NA	NA	4,300 U
Silver	ug/L	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	NA	NA	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	10.9 B	NA	NA	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,200 UB	112	NA	51.8	NA	25.5	NA	NA	11.2 B
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	3,700 U	NA	3,700 U	NA	3,700 U	NA	NA	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D14-2-01	SW-D14-3-01	SW-D14-3-01	SW-D14-4-01	SW-D14-4-01	SW-D14-5-01	SW-D14-5-01	SW-D14-5-01	SW-D14-6-01
Sample Depth(ft):		0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0.5 - 1	0 - 0.5
Date Collected:		04/26/01	04/10/01	04/10/01	04/10/01	04/10/01	04/11/01	05/09/01	04/11/01	04/12/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.25 J	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	0.25 J	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
2-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
3-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.33 J	NA	0.2 U	NA	NA	0.2 U
4-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
HMX	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
Nitrocellulose	ug/L	500 U	500 U	NA	500 U	NA	NA	500 U	NA	500 U
Nitroglycerin	ug/L	120 U	120 U	NA	120 U	NA	120 U	NA	NA	120 U
Pentaerythritol Tetranitrate	ug/L	4 U	4 U	NA	4 U	NA	4 U	NA	NA	4 U
RDX	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.26 J	NA	NA	0.2 U
Tetryl	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	NA	0.2 U
GenChem										
Hardness (as CaCO3)	ug/L	92,000	76,000	NA	68,000	NA	112,000	NA	NA	76,000
Oxygen	ug/L	12,040	11,730	NA	10,700	NA	10,500	NA	NA	11,460
pH_GenChem	SU	6.61	6.5	NA	6.36	NA	7.4	NA	NA	7.36
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D14-6-01	SW-D14-7-01	SW-D14-8-01	SW-D15-1-01	SW-E10-1-01	SW-E11-1-01	SW-E11-2-01	SW-E11-3-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5
Date Collected:		04/12/01	04/11/01	04/11/01	04/04/01	04/17/01	04/17/01	04/17/01	04/17/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
VOCs									
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
2-Chloroethyl vinyl ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	NA
Acrolein	ug/L	40 U	40 U	40 U	40 U	40 U	40 U	40 U [40 U]	NA
Acrylonitrile	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U [4.0 U]	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Bromomethane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
CFC-11	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Chlorodibromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Chloroethane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Chloromethane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Dichloromethane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Tribromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	NA
SVOCs									
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Dichlorobenzene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,2-Diphenylhydrazine	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,3-Dichlorobenzene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
1,4-Dichlorobenzene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
2,4-Dichlorophenol	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2,4-Dimethylphenol	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2,4-Dinitrophenol	ug/L	NA	19 U	20 U	20 U	20 U	19 U	19 U [20 U]	20 U
2,4-Dinitrotoluene_SVOCs	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
2-Chloronaphthalene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2-Chlorophenol	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-D14-6-01	SW-D14-7-01	SW-D14-8-01	SW-D15-1-01	SW-E10-1-01	SW-E11-1-01	SW-E11-2-01	SW-E11-3-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5
Date Collected:		04/12/01	04/11/01	04/11/01	04/04/01	04/17/01	04/17/01	04/17/01	04/17/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
3,3-Dichlorobenzidine	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
4-Chloro-3-Methylphenol	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
4-Chlorophenyl phenyl ether	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	9.0 U	10 U	10 U	10 U	10 U	10 U [10 U]	10 U
Acenaphthene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Acenaphthylene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	19 U	20 U	20 U	20 U	19 U	19 U [20 U]	20 U
Benzo(a)Anthracene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Benzo(a)Pyrene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Benzo(b)fluoranthene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Benzo(g,h,i)perylene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Benzo(k)Fluoranthene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Benzyl Butyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
bis(2-Chloroethoxy)methane	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Bis(2-Chloroethyl)ether	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Dibenzo(a,h)Anthracene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Dimethyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Di-N-Butyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Di-n-Octyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Fluoranthene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Fluorene	ug/L	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Hexachloro-1,3-Butadiene	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Hexachlorobenzene	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U
Hexachloroethane	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Naphthalene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Nitrobenzene_SVOCs	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
N-Nitrosodimethylamine	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
N-nitrosodiphenylamine	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	15 U [15 U]	15 U
Phenanthrene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Phenol	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-D14-6-01 0.5 - 1 04/12/01 FS	SW-D14-7-01 0.5 - 1 04/11/01 FS	SW-D14-8-01 0.5 - 1 04/11/01 FS	SW-D15-1-01 0.5 - 1 04/04/01 FS	SW-E10-1-01 0.5 - 1 04/17/01 FS	SW-E11-1-01 0.5 - 1 04/17/01 FS	SW-E11-2-01 0.5 - 1 04/17/01 FS	SW-E11-3-01 0 - 0.5 04/17/01 FS
Purge Volume	ug/L	NA	0.90 U	1.0 U	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	0.90 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
TPH									
Amyl Alcohol	ug/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	NA
Di-n-propyl ether	ug/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	NA
Ethanol	ug/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	NA
Ethyl ether	ug/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	NA
Methanol	ug/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	NA
n-Butyl ether	ug/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	NA
Metals - Filtered									
Antimony_Filtered	ug/L	NA	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U [5,900 U]	5,900 U
Beryllium_Filtered	ug/L	NA	640 U	640 U	640 U	640 U	640 U	640 U [640 U]	640 U
Cadmium_Filtered	ug/L	NA	640 U	640 U	640 U	640 U	640 U	640 U [640 U]	640 U
Chromium_Filtered	ug/L	NA	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U [1,700 U]	1,700 U
Copper_Filtered	ug/L	NA	2,400 U	2,400 U	2,400 U	2,400 U	3.20 B	2.50 B [2.40 B]	2,400 U
Lead_Filtered	ug/L	NA	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U
Mercury_Filtered	ug/L	NA	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U	26.0 U [26.0 U]	26.0 U
Nickel_Filtered	ug/L	NA	1,600 U	1,600 U	2.00 B	2.50 B	1,600 U	1,600 U [1,600 U]	1,600 U
Selenium_Filtered	ug/L	NA	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U [4,300 U]	4,300 U
Silver_Filtered	ug/L	NA	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U [1,300 U]	1,300 U
Thallium_Filtered	ug/L	NA	8,800 U	8,800 UB	8,800 U	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U
Zinc_Filtered	ug/L	NA	6.90 B	4.80 B	6.60 B	27.9	44.3	21.1 B [19.9 B]	8.90 B
Arsenic_Filtered	ug/L	NA	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U	4.40 B [5.30 B]	3,700 U
Metals									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U [5,900 U]	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	640 U	640 U	640 UB	640 U	640 U	640 U [640 U]	640 U
Cadmium	ug/L	NA	640 U	640 U	640 U	640 U	640 U	640 U [640 U]	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	1,700 U	1,700 U	1,700 UB	1,700 U	1,700 U	1,700 U [1,700 U]	5.20 B
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	2,400 UB	2,400 UB	15.9 B	2,400 U	2,400 U	2,400 UB [2,400 U]	21.8 B
Lead	ug/L	NA	8,800 U	8,800 U	31.5	8,800 U	8,800 U	8,800 U [8,800 U]	113
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	26.0 U	26.0 U	0.0260 B	26.0 UB	26.0 UB	26.0 UB [26.0 UB]	26.0 UB
Nickel	ug/L	NA	1,600 U	2.00 B	6.70 B	1,600 U	1,600 U	1,600 U [1,600 U]	5.10 B
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	4,300 U	4,300 U	4,300 U	5.70 B	4,300 U	4,300 U [4,300 U]	4,300 U
Silver	ug/L	NA	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U [1,300 U]	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	5.60 B	17.3 B	84.7	28	48	3,200 UB [3,200 UB]	156
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U [3,700 U]	5.80 B
Explosives									
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
1,3-Dinitrobenzene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-D14-6-01 0.5 - 1 04/12/01 FS	SW-D14-7-01 0.5 - 1 04/11/01 FS	SW-D14-8-01 0.5 - 1 04/11/01 FS	SW-D15-1-01 0.5 - 1 04/04/01 FS	SW-E10-1-01 0.5 - 1 04/17/01 FS	SW-E11-1-01 0.5 - 1 04/17/01 FS	SW-E11-2-01 0.5 - 1 04/17/01 FS	SW-E11-3-01 0 - 0.5 04/17/01 FS
2,4,6-Trinitrotoluene	ug/L	NA	3.11	1.85	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.41 J	1.72	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
2-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
3-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.67	2.77	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
4-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
HMX	ug/L	NA	0.2 U	0.2 U	0.2 U	0.3 U	0.2 U	0.2 U [0.2 U]	0.2 U
Nitrobenzene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Nitrocellulose	ug/L	NA	500 U	500 U	500 U	500 U	690 J	500 U [500 U]	500 U
Nitroglycerin	ug/L	NA	120 U	120 U	120 U	4 U	120 U	350 U [120 U]	400 U
Pentaerythritol Tetranitrate	ug/L	NA	4 U	4 U	4 U	4 U	4 U	4 U [4 U]	4 U
RDX	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
Tetryl	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U
GenChem									
Hardness (as CaCO3)	ug/L	NA	184,000	188,000	224,000	124,000	126,000	48,000	104,000
Oxygen	ug/L	NA	10,200	10,460	5,600	10,130	10,110	10,820	11,340
pH_GenChem	SU	NA	7.19	7.19	7.35	6.45	6.82	6.62	6.92
FIELD									
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E11-3-01	SW-E11-4-01	SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-E14-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	1.5 - 2	0 - 0.5	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/17/01	04/16/01	04/16/01	04/16/01	04/17/01	04/17/01	04/11/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U
Acrolein	ug/L	40 U	40 U	NA	NA	40 U	40 U	NA	40 U	40 U
Acrylonitrile	ug/L	4.0 U	4.0 U	NA	NA	4.0 U	4.0 U	NA	4.0 U	4.0 U
Benzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
CFC-11	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chlorodibromomethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloroethane	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U
Chloroform	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dichloromethane	ug/L	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Tribromomethane	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	20 U	19 U	NA	19 U	19 U	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2-Chlorophenol	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E11-3-01	SW-E11-4-01	SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-E14-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	1.5 - 2	0 - 0.5	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/17/01	04/16/01	04/16/01	04/16/01	04/17/01	04/17/01	04/11/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	3.0 U	3.0 U	NA	3.0 U	3.0 U	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	10 U	9.0 U	NA	10 U	10 U	NA	NA
Acenaphthene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Acenaphthylene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	20 U	19 U	NA	19 U	19 U	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Fluoranthene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Fluorene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Hexachlorobenzene	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	NA
Hexachloroethane	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Naphthalene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	2.0 U	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	15 U	15 U	NA	15 U	15 U	NA	NA
Phenanthrene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
Phenol	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E11-3-01	SW-E11-4-01	SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-E14-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	1.5 - 2	0 - 0.5	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/17/01	04/16/01	04/16/01	04/16/01	04/17/01	04/17/01	04/11/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	1.0 U	0.90 U	NA	1.0 U	1.0 U	NA	NA
TPH										
Amyl Alcohol	ug/L	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U	NA	1,000 U	1,000 U
Di-n-propyl ether	ug/L	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U	NA	1,000 U	1,000 U
Ethanol	ug/L	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U	NA	1,000 U	1,000 U
Ethyl ether	ug/L	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U	NA	1,000 U	1,000 U
Methanol	ug/L	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U	NA	1,000 U	1,000 U
n-Butyl ether	ug/L	1,000 U	1,000 U	NA	NA	1,000 U	1,000 U	NA	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	5,900 U	5,900 U	NA	5,900 U	5,900 U	NA	NA
Beryllium_Filtered	ug/L	NA	NA	640 U	640 U	NA	640 U	640 U	NA	NA
Cadmium_Filtered	ug/L	NA	NA	640 U	640 U	NA	640 U	640 U	NA	NA
Chromium_Filtered	ug/L	NA	NA	1,700 U	1,700 U	NA	1,700 U	1,700 U	NA	NA
Copper_Filtered	ug/L	NA	NA	2,400 U	2.50 B	NA	2.80 B	2.70 B	NA	NA
Lead_Filtered	ug/L	NA	NA	8,800 U	8,800 U	NA	8,800 U	8,800 U	NA	NA
Mercury_Filtered	ug/L	NA	NA	26.0 U	26.0 U	NA	26.0 U	26.0 U	NA	NA
Nickel_Filtered	ug/L	NA	NA	1,600 U	1,600 U	NA	1,600 U	2.10 B	NA	NA
Selenium_Filtered	ug/L	NA	NA	4,300 U	4,300 U	NA	4,300 U	4,300 U	NA	NA
Silver_Filtered	ug/L	NA	NA	1,300 U	1,300 U	NA	1,300 U	1,300 U	NA	NA
Thallium_Filtered	ug/L	NA	NA	8,800 U	8,800 U	NA	8,800 U	8,800 U	NA	NA
Zinc_Filtered	ug/L	NA	NA	24.7 B	5.60 B	NA	10.2 B	25.9	NA	NA
Arsenic_Filtered	ug/L	NA	NA	3,700 U	3,700 U	NA	3,700 U	3,700 U	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	5,900 U	5,900 U	NA	5,900 U	5,900 U	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	640 U	640 U	NA	640 U	640 U	NA	NA
Cadmium	ug/L	NA	NA	640 U	640 U	NA	640 U	640 U	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	1,700 U	1,700 U	NA	1,700 U	2.00 B	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	2,400 U	2,400 UB	NA	2,400 UB	18.2 B	NA	NA
Lead	ug/L	NA	NA	8,800 U	8,800 U	NA	8,800 U	42.4	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	26.0 U	26.0 UB	NA	26.0 U	26.0 UB	NA	NA
Nickel	ug/L	NA	NA	1,600 U	1,600 U	NA	1.80 B	4.80 B	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	4,300 U	4,300 U	NA	4,300 U	4,300 U	NA	NA
Silver	ug/L	NA	NA	1,300 U	1,300 U	NA	1,300 U	1,300 U	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	8,800 U	8,800 U	NA	8,800 U	8,800 U	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	30.4	3,200 UB	NA	39.5	55.7	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	3,700 U	3,700 U	NA	3,700 U	14.6	NA	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E11-3-01	SW-E11-4-01	SW-E11-4-01	SW-E12-1-01	SW-E12-1-01	SW-E12-2-01	SW-E12-3-01	SW-E12-3-01	SW-E14-1-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	1.5 - 2	0 - 0.5	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/17/01	04/16/01	04/16/01	04/16/01	04/17/01	04/17/01	04/11/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
2-Nitrotoluene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
3-Nitrotoluene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
4-Nitrotoluene	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
HMX	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
Nitrobenzene_Explosives	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
Nitrocellulose	ug/L	NA	NA	500 U	500 U	NA	500 U	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	200 U	300 U	NA	120 U	200 U	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	4 U	4 U	NA	4 U	4 U	NA	NA
RDX	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
Tetryl	ug/L	NA	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	76	60,000	NA	66,000	60,000	NA	NA
Oxygen	ug/L	NA	NA	10,360	10,640	NA	9,990	9,990	NA	NA
pH_GenChem	SU	NA	NA	6.32	7.17	NA	7.03	5.24	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E14-1-01	SW-E14-1-01	SW-E14-2-01	SW-E14-3-01	SW-E14-3-01	SW-E15-1-01	SW-E15-1-01	SW-E15-2-01	SW-E15-3-01
Sample Depth(ft):		1 - 1.5	1 - 1.5	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/11/01	05/09/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Acrolein	ug/L	NA	NA	40 U	40 U	NA	40 U	NA	40 U	40 U
Acrylonitrile	ug/L	NA	NA	4.0 U	4.0 U	NA	4.0 U	NA	4.0 U	4.0 U
Benzene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Bromodichloromethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	3.0 J	1.0 U
Bromomethane	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
CFC-11	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Chlorobenzene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Chlorodibromomethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	2.0 J	1.0 U
Chloroethane	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Chloroform	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	3.0 J	1.0 U
Chloromethane	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Dichloromethane	ug/L	NA	NA	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Ethylbenzene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Tetrachloroethene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Tribromomethane	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Trichloroethene	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 J	1.0 U
Vinyl Chloride	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Xylenes (total)	ug/L	NA	NA	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
1,2-Dichlorobenzene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
1,2-Diphenylhydrazine	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
1,3-Dichlorobenzene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
1,4-Dichlorobenzene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2,2-Oxybis(1-Chloropropane)	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
2,4-Dichlorophenol	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2,4-Dimethylphenol	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2,4-Dinitrophenol	ug/L	19 U	NA	19 U	NA	19 U	NA	19 U	20 U	19 U
2,4-Dinitrotoluene_SVOCs	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
2-Chloronaphthalene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2-Chlorophenol	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E14-1-01	SW-E14-1-01	SW-E14-2-01	SW-E14-3-01	SW-E14-3-01	SW-E15-1-01	SW-E15-1-01	SW-E15-2-01	SW-E15-3-01
Sample Depth(ft):		1 - 1.5	1 - 1.5	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/11/01	05/09/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
3,3-Dichlorobenzidine	ug/L	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
4-Chloro-3-Methylphenol	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
4-Chlorophenyl phenyl ether	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	9.0 U	NA	10 U	NA	9.0 U	NA	9.0 U	10 U	9.0 U
Acenaphthene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Acenaphthylene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	19 U	NA	19 U	NA	19 U	NA	19 U	20 U	19 U
Benzo(a)Anthracene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Benzo(a)Pyrene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Benzo(b)fluoranthene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Benzo(g,h,i)perylene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Benzo(k)Fluoranthene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Benzyl Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
bis(2-Chloroethoxy)methane	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Bis(2-Chloroethyl)ether	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Dibenzo(a,h)Anthracene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Dimethyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Fluorene	ug/L	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U
Hexachloroethane	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Indeno(1,2,3-cd)Pyrene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Naphthalene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Nitrobenzene_SVOCs	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
N-Nitrosodimethylamine	ug/L	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
N-nitrosodiphenylamine	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	NA	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U	3.0 U
Phenanthrene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Phenol	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-E14-1-01 1 - 1.5 04/11/01 FS	SW-E14-1-01 1 - 1.5 05/09/01 FS	SW-E14-2-01 0.5 - 1 04/10/01 FS	SW-E14-3-01 0.5 - 1 04/10/01 FS	SW-E14-3-01 1.5 - 2 04/10/01 FS	SW-E15-1-01 0.5 - 1 04/10/01 FS	SW-E15-1-01 1 - 1.5 04/10/01 FS	SW-E15-2-01 0.5 - 1 04/10/01 FS	SW-E15-3-01 0.5 - 1 04/10/01 FS
Purge Volume	ug/L	NA	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
Pyrene	ug/L	0.90 U	NA	1.0 U	NA	0.90 U	NA	0.90 U	1.0 U	0.90 U
TPH										
Amyl Alcohol	ug/L	NA	NA	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Di-n-propyl ether	ug/L	NA	NA	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Ethanol	ug/L	NA	NA	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Ethyl ether	ug/L	NA	NA	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Methanol	ug/L	NA	NA	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
n-Butyl ether	ug/L	NA	NA	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U	5,900 U
Beryllium_Filtered	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	640 U	640 U
Cadmium_Filtered	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	640 U	640 U
Chromium_Filtered	ug/L	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U	1,700 U
Copper_Filtered	ug/L	2,400 U	NA	2,400 U	NA	2,400 U	NA	2,400 U	2,400 U	2,400 U
Lead_Filtered	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U	8,800 U
Mercury_Filtered	ug/L	26.0 U	NA	26.0 U	NA	26.0 U	NA	26.0 U	26.0 U	26.0 U
Nickel_Filtered	ug/L	1,600 U	NA	1,600 U	NA	1,600 U	NA	1,600 U	1,600 U	1,600 U
Selenium_Filtered	ug/L	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U	4,300 U
Silver_Filtered	ug/L	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U	1,300 U
Thallium_Filtered	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 UB	8,800 UB	8,800 U
Zinc_Filtered	ug/L	6.40 B	NA	4.50 B	NA	3,200 U	NA	3.80 B	3,200 U	3,200 U
Arsenic_Filtered	ug/L	3,700 U	NA	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	NA	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	640 U	640 U
Cadmium	ug/L	640 U	NA	640 U	NA	640 U	NA	640 U	1.00 B	0.660 B
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	NA	1,700 U	NA	1,700 U	NA	1,700 U	13.7 B	8.50 B
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 U	NA	2,400 UB	NA	2,400 UB	NA	2,400 U	26.8	2,400 UB
Lead	ug/L	8,800 U	NA	21.5	NA	64	NA	8,800 U	130	83.3
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 UB	NA	26.0 U	NA	26.0 U	NA	26.0 U	26.0 U	26.0 U
Nickel	ug/L	1,600 U	NA	1,600 U	NA	2.30 B	NA	1,600 U	5.50 B	12.5 B
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	NA	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U	4,300 U
Silver	ug/L	1,300 U	NA	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	NA	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3.50 B	NA	18.4 B	NA	31.5	NA	3.20 B	126	80.2
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	NA	3,700 U	NA	3,700 U	NA	3,700 U	5.00 B	3.90 B
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E14-1-01	SW-E14-1-01	SW-E14-2-01	SW-E14-3-01	SW-E14-3-01	SW-E15-1-01	SW-E15-1-01	SW-E15-2-01	SW-E15-3-01
Sample Depth(ft):		1 - 1.5	1 - 1.5	0.5 - 1	0.5 - 1	1.5 - 2	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/11/01	05/09/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01	04/10/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.25 J	NA	0.2 U	NA	0.2 U	NA	0.4 J	0.2 U	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.24 J	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	0.24 J	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	0.69	NA	0.73	NA	0.66	NA	0.62	0.2 U	0.2 U
2-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
3-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.8	NA	1.07	NA	1	NA	1.05	0.2 U	0.2 U
4-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
HMX	ug/L	0.2 U	NA	0.2 U	NA	0.4 U	NA	0.2 U	0.2 U	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
Nitrocellulose	ug/L	NA	500 U	500 U	NA	500 U	NA	500 U	500 U	500 U
Nitroglycerin	ug/L	120 U	NA	120 U	NA	120 U	NA	120 U	120 U	120 U
Pentaerythritol Tetranitrate	ug/L	4 U	NA	4 U	NA	4 U	NA	4 U	4 U	4 U
RDX	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
Tetryl	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U
GenChem										
Hardness (as CaCO3)	ug/L	84,000	NA	124,000	NA	112,000	NA	128,000	264,000	232,000
Oxygen	ug/L	10,620	NA	10,520	NA	10,900	NA	11,870	13,890	11,920
pH_GenChem	SU	7.59	NA	7.42	NA	7.28	NA	7.38	7.52	7.31
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E16-1-01	SW-E16-1-01	SW-E16-2-01	SW-E16-3-01	SW-F10-1-01	SW-F10-1-01	SW-F11-1-01	SW-F11-1-01	SW-F11-2-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/10/01	04/10/01	04/10/01	04/10/01	05/01/01	05/01/01	05/09/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Acrolein	ug/L	NA	40 U	40 U	40 U	NA	40 U	NA	40 U	40 U
Acrylonitrile	ug/L	NA	4.0 U	4.0 U	4.0 U	NA	4.0 U	NA	4.0 U	4.0 U
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Bromomethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
CFC-11	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Chlorodibromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Chloroethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Chloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Dichloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Tribromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
Xylenes (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
1,2-Diphenylhydrazine	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
2,4-Dichlorophenol	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2,4-Dimethylphenol	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2,4-Dinitrophenol	ug/L	22 U	NA	19 U	19 U	20 U [20 U]	NA	NA	19 U	19 U
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
2-Chloronaphthalene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2-Chlorophenol	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U [5.0 U]	NA	NA	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E16-1-01	SW-E16-1-01	SW-E16-2-01	SW-E16-3-01	SW-F10-1-01	SW-F10-1-01	SW-F11-1-01	SW-F11-1-01	SW-F11-2-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/10/01	04/10/01	04/10/01	04/10/01	05/01/01	05/01/01	05/09/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U	NA	3.0 U	3.0 U	3.0 U [3.0 U]	NA	NA	3.0 U	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
4-Chloro-3-Methylphenol	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	11 U	NA	9.0 U	9.0 U	10 U [10 U]	NA	NA	10 U	10 U
Acenaphthene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Acenaphthylene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	22 U	NA	19 U	19 U	20 U [20 U]	NA	NA	19 U	19 U
Benzo(a)Anthracene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Benzo(a)Pyrene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Benzo(b)fluoranthene	ug/L	1.0 J	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Benzo(g,h,i)perylene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Benzo(k)Fluoranthene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Benzyl Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
bis(2-Chloroethoxy)methane	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 J	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Dibenzo(a,h)Anthracene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Dimethyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Fluoranthene	ug/L	2.0 J	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Fluorene	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	NA	5.0 U	5.0 U	5.0 U [5.0 U]	NA	NA	5.0 U	5.0 U
Hexachloroethane	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Naphthalene	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Nitrobenzene_SVOCs	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]	NA	NA	2.0 U	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
N-nitrosodiphenylamine	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	NA	3.0 U	3.0 U	3.0 U [3.0 U]	NA	NA	3.0 U	3.0 U
Phenanthrene	ug/L	1.0 J	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
Phenol	ug/L	1.0 U	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-E16-1-01 0 - 0.5 04/10/01 FS	SW-E16-1-01 0.5 - 1 04/10/01 FS	SW-E16-2-01 0.5 - 1 04/10/01 FS	SW-E16-3-01 0.5 - 1 04/10/01 FS	SW-F10-1-01 0 - 0.5 05/01/01 FS	SW-F10-1-01 0.5 - 1 05/01/01 FS	SW-F11-1-01 0 - 0.5 05/09/01 FS	SW-F11-1-01 0.5 - 1 04/18/01 FS	SW-F11-2-01 0.5 - 1 04/18/01 FS
Purge Volume	ug/L	1.0 U	NA	0.90 U	0.90 U	NA	NA	NA	NA	NA
Pyrene	ug/L	2.0 J	NA	0.90 U	0.90 U	1.0 U [1.0 U]	NA	NA	1.0 U	1.0 U
TPH										
Amyl Alcohol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Di-n-propyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Ethanol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Ethyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Methanol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
n-Butyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	NA	5,900 U	5,900 U	5,900 U [5,900 U]	NA	NA	5,900 U	5,900 U
Beryllium_Filtered	ug/L	640 U	NA	640 U	640 U	640 U [640 U]	NA	NA	640 U	640 U
Cadmium_Filtered	ug/L	640 U	NA	640 U	640 U	640 U [640 U]	NA	NA	640 U	640 U
Chromium_Filtered	ug/L	1,700 U	NA	1,700 U	1,700 U	1,700 U [1,700 U]	NA	NA	1,700 U	1,700 U
Copper_Filtered	ug/L	2,400 U	NA	2,400 U	2,400 U	3.20 B [2,400 U]	NA	NA	2,400 U	2,400 U
Lead_Filtered	ug/L	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]	NA	NA	8,800 U	8,800 U
Mercury_Filtered	ug/L	26.0 U	NA	26.0 U	26.0 U	26.0 U [26.0 UB]	NA	NA	26.0 U	26.0 U
Nickel_Filtered	ug/L	1,600 U	NA	1,600 U	1,600 U	1.70 B [1,600 U]	NA	NA	2.30 B	3.30 B
Selenium_Filtered	ug/L	4,300 U	NA	4,300 U	4,300 U	4,300 U [4,300 U]	NA	NA	4,300 U	4,300 U
Silver_Filtered	ug/L	1,300 U	NA	1,300 U	1,300 U	1,300 U [1,300 U]	NA	NA	1,300 U	1,300 U
Thallium_Filtered	ug/L	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]	NA	NA	8,800 U	8,800 U
Zinc_Filtered	ug/L	4.40 B	NA	3.70 B	5.10 B	89.6 [84.6]	NA	NA	31.4	37.7
Arsenic_Filtered	ug/L	3,700 U	NA	3,700 U	3,700 U	3,700 U [3,700 U]	NA	NA	3,700 U	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	6.10 B	NA	5,900 U	5,900 U	5,900 U [5,900 U]	NA	NA	12.0 B	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	21.7	NA	640 U	640 U	640 U [640 U]	NA	NA	640 U	640 U
Cadmium	ug/L	8.60 B	NA	640 U	640 U	640 U [640 U]	NA	NA	640 U	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	31.8	NA	1,700 U	1,700 U	1,700 U [1,700 U]	NA	NA	1,700 U	1.80 B
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	94.2	NA	2,400 U	2,400 U	2.90 B [3.20 B]	NA	NA	5.10 B	2.80 B
Lead	ug/L	308	NA	8,800 U	8,800 U	8,800 U [8,800 U]	NA	NA	8,800 U	8,800 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	7.7	NA	26.0 U	26.0 U	26.0 U [26.0 UB]	NA	NA	26.0 U	26.0 U
Nickel	ug/L	91.3	NA	1,600 U	1,600 U	1,600 U [1.70 B]	NA	NA	1,600 UB	1,600 UB
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	7.50 B	NA	4,300 U	4,300 U	4,300 U [4,300 U]	NA	NA	4,300 U	4,300 U
Silver	ug/L	1,300 U	NA	1,300 U	1,300 U	1,300 U [1,300 U]	NA	NA	1,300 U	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]	NA	NA	8,800 U	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,330	NA	5.50 B	6.40 B	89.1 [91.5]	NA	NA	35	50.4
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	14.7	NA	3,700 U	3,700 U	3,700 U [3,700 U]	NA	NA	4.10 B	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
1,3-Dinitrobenzene	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-E16-1-01	SW-E16-1-01	SW-E16-2-01	SW-E16-3-01	SW-F10-1-01	SW-F10-1-01	SW-F11-1-01	SW-F11-1-01	SW-F11-2-01
Sample Depth(ft):		0 - 0.5	0.5 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0.5 - 1	0 - 0.5	0.5 - 1	0.5 - 1
Date Collected:		04/10/01	04/10/01	04/10/01	04/10/01	05/01/01	05/01/01	05/09/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	NA	0.86	0.91	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	NA	0.2 U	0.3 J	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	NA	0.2 U	0.3 J	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	NA	0.69	0.73	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
2-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
3-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	NA	1.21	1.31	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
4-Nitrotoluene	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
HMX	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
Nitrobenzene_Explosives	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
Nitrocellulose	ug/L	500 U	NA	500 U	500 U	500 U [500 U]	NA	500 U	NA	500 U
Nitroglycerin	ug/L	120 U	NA	120 U	120 U	120 U [120 U]	NA	NA	120 U	120 U
Pentaerythritol Tetranitrate	ug/L	4 U	NA	4 U	4 U	4 U [4 U]	NA	NA	4 U	4 U
RDX	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
Tetryl	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]	NA	NA	0.2 U	0.2 U
GenChem										
Hardness (as CaCO3)	ug/L	0	NA	132,000	124,000	NA	NA	NA	68,000	80,000
Oxygen	ug/L	0	NA	12,570	13,000	NA	NA	NA	9,570	9,530
pH_GenChem	SU	0	NA	6.99	6.93	NA	NA	NA	6.95	6.39
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-F13-1-01	SW-F13-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-2-01	SW-F14-2-01	SW-F14-2-01	SW-G12-1-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	1.5 - 2	0.5 - 1	1.5 - 2	1.5 - 2	0.5 - 1
Date Collected:		04/16/01	04/16/01	04/13/01	04/13/01	05/09/01	04/11/01	04/11/01	05/09/01	04/16/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
1,1-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
1,1-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
1,2-Dichloroethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
1,2-Dichloropropane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	NA	2.0 U
Acrolein	ug/L	40 U [40 U]	NA	40 U	NA	NA	40 U	NA	NA	40 U
Acrylonitrile	ug/L	4.0 U [4.0 U]	NA	4.0 U	NA	NA	4.0 U	NA	NA	4.0 U
Benzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Bromodichloromethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Bromomethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	NA	2.0 U
Carbon Tetrachloride	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
CFC-11	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	NA	2.0 U
Chlorobenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Chlorodibromomethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Chloroethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	NA	2.0 U
Chloroform	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Chloromethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	NA	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Dichloromethane	ug/L	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	NA	2.0 U
Ethylbenzene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Tetrachloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Toluene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Tribromomethane	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Trichloroethene	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Vinyl Chloride	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
Xylenes (total)	ug/L	1.0 U [1.0 U]	NA	1.0 U	NA	NA	1.0 U	NA	NA	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
1,2-Dichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
1,2-Diphenylhydrazine	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
1,3-Dichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
1,4-Dichlorobenzene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2,2-Oxybis(1-Chloropropane)	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
2,4-Dichlorophenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2,4-Dimethylphenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2,4-Dinitrophenol	ug/L	NA	19 U [19 U]	NA	19 U	NA	NA	19 U	NA	20 U
2,4-Dinitrotoluene_SVOCs	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
2-Chloronaphthalene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2-Chlorophenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	5.0 U	NA	5.0 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-F13-1-01	SW-F13-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-1-01	SW-F14-2-01	SW-F14-2-01	SW-F14-2-01	SW-G12-1-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	1.5 - 2	0.5 - 1	1.5 - 2	1.5 - 2	0.5 - 1
Date Collected:		04/16/01	04/16/01	04/13/01	04/13/01	05/09/01	04/11/01	04/11/01	05/09/01	04/16/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
3,3-Dichlorobenzidine	ug/L	NA	3.0 U [3.0 U]	NA	3.0 U	NA	NA	3.0 U	NA	3.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
4-Chloro-3-Methylphenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
4-Chlorophenyl phenyl ether	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	10 U [10 U]	NA	10 U	NA	NA	9.0 U	NA	10 U
Acenaphthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Acenaphthylene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	19 U [19 U]	NA	19 U	NA	NA	19 U	NA	20 U
Benzo(a)Anthracene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Benzo(a)Pyrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Benzo(b)fluoranthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Benzo(g,h,i)perylene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Benzo(k)Fluoranthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Benzyl Butyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
bis(2-Chloroethoxy)methane	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Bis(2-Chloroethyl)ether	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Dibenzo(a,h)Anthracene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Dimethyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Di-N-Butyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Di-n-Octyl Phthalate	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Fluoranthene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Fluorene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Hexachloro-1,3-Butadiene	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Hexachlorobenzene	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
Hexachlorocyclopentadiene	ug/L	NA	5.0 U [5.0 U]	NA	5.0 U	NA	NA	5.0 U	NA	5.0 U
Hexachloroethane	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Naphthalene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Nitrobenzene_SVOCs	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
N-Nitrosodimethylamine	ug/L	NA	2.0 U [2.0 U]	NA	2.0 U	NA	NA	2.0 U	NA	2.0 U
N-Nitrosodi-N-Propylamine	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
N-nitrosodiphenylamine	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	3.0 U [3.0 U]	NA	3.0 U	NA	NA	3.0 U	NA	3.0 U
Phenanthrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
Phenol	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-F13-1-01 0.5 - 1 04/16/01 FS	SW-F13-1-01 1 - 1.5 04/16/01 FS	SW-F14-1-01 0.5 - 1 04/13/01 FS	SW-F14-1-01 1 - 1.5 04/13/01 FS	SW-F14-1-01 1.5 - 2 05/09/01 FS	SW-F14-2-01 0.5 - 1 04/11/01 FS	SW-F14-2-01 1.5 - 2 04/11/01 FS	SW-F14-2-01 1.5 - 2 05/09/01 FS	SW-G12-1-01 0.5 - 1 04/16/01 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	0.90 U	NA	1.0 U
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA	NA	1,000 U
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA	NA	1,000 U
Ethanol	ug/L	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA	NA	1,000 U
Ethyl ether	ug/L	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA	NA	1,000 U
Methanol	ug/L	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA	NA	1,000 U
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	NA	NA	1,000 U	NA	NA	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	NA	5,900 U [5,900 U]	NA	5,900 U	NA	NA	5,900 U	NA	5,900 U
Beryllium_Filtered	ug/L	NA	640 U [640 U]	NA	640 U	NA	NA	640 U	NA	640 U
Cadmium_Filtered	ug/L	NA	640 U [640 U]	NA	640 U	NA	NA	640 U	NA	640 U
Chromium_Filtered	ug/L	NA	1,700 U [1,700 U]	NA	1,700 U	NA	NA	1,700 U	NA	1,700 U
Copper_Filtered	ug/L	NA	2,400 U [2,400 U]	NA	2,400 U	NA	NA	2,400 U	NA	2,400 U
Lead_Filtered	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	NA	8,800 U	NA	8,800 U
Mercury_Filtered	ug/L	NA	26.0 U [26.0 U]	NA	26.0 U	NA	NA	26.0 U	NA	26.0 U
Nickel_Filtered	ug/L	NA	1,600 U [1,600 U]	NA	9.20 B	NA	NA	1,600 U	NA	1,600 U
Selenium_Filtered	ug/L	NA	4,300 U [4,300 U]	NA	5.20 B	NA	NA	4,300 U	NA	4.50 B
Silver_Filtered	ug/L	NA	1,300 U [1,300 U]	NA	1,300 U	NA	NA	1,300 U	NA	1,300 U
Thallium_Filtered	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	NA	8,800 U	NA	11.6 B
Zinc_Filtered	ug/L	NA	5.00 B [8.60 B]	NA	4.00 B	NA	NA	3.40 B	NA	12.0 B
Arsenic_Filtered	ug/L	NA	3,700 U [3,700 U]	NA	3,700 U	NA	NA	3,700 U	NA	3,700 U
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5,900 U [5,900 U]	NA	5,900 U	NA	NA	5,900 U	NA	5,900 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	640 U [640 U]	NA	640 U	NA	NA	640 U	NA	640 U
Cadmium	ug/L	NA	640 U [640 U]	NA	640 U	NA	NA	640 U	NA	640 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	1,700 U [1,700 U]	NA	1,700 U	NA	NA	1,700 U	NA	3.40 B
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	2,400 U [2,400 U]	NA	2,400 U	NA	NA	2,400 U	NA	2,400 U
Lead	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	NA	8,800 U	NA	51.9
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	26.0 U [0.0300 B]	NA	26.0 U	NA	NA	26.0 U	NA	26.0 U
Nickel	ug/L	NA	1,600 U [1,600 U]	NA	1,600 U	NA	NA	1,600 U	NA	1,600 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	4,300 U [4,300 U]	NA	4,300 U	NA	NA	4,300 U	NA	4,300 U
Silver	ug/L	NA	1,300 U [1,300 U]	NA	1,300 U	NA	NA	1,300 U	NA	1,300 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	8,800 U [8,800 U]	NA	8,800 U	NA	NA	8,800 U	NA	8,800 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	5.40 B [6.20 B]	NA	5.20 B	NA	NA	6.80 B	NA	31.9
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	3,700 U [3,700 U]	NA	3,700 U	NA	NA	3,700 U	NA	3,700 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
1,3-Dinitrobenzene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-F13-1-01 0.5 - 1 04/16/01 FS	SW-F13-1-01 1 - 1.5 04/16/01 FS	SW-F14-1-01 0.5 - 1 04/13/01 FS	SW-F14-1-01 1 - 1.5 04/13/01 FS	SW-F14-1-01 1.5 - 2 05/09/01 FS	SW-F14-2-01 0.5 - 1 04/11/01 FS	SW-F14-2-01 1.5 - 2 04/11/01 FS	SW-F14-2-01 1.5 - 2 05/09/01 FS	SW-G12-1-01 0.5 - 1 04/16/01 FS
2,4,6-Trinitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
2,6-Dinitrotoluene_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
2-Nitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
3-Nitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
4-Nitrotoluene	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
HMX	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
Nitrobenzene_Explosives	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
Nitrocellulose	ug/L	NA	500 U [500 U]	NA	500 U	NA	NA	NA	500 U	500 U
Nitroglycerin	ug/L	NA	120 U [120 U]	NA	NA	120 U	NA	120 U	NA	120 U
Pentaerythritol Tetranitrate	ug/L	NA	4 U [4 U]	NA	4 U	NA	NA	4 U	NA	4 U
RDX	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
Tetryl	ug/L	NA	0.2 U [0.2 U]	NA	0.2 U	NA	NA	0.2 U	NA	0.2 U
GenChem										
Hardness (as CaCO3)	ug/L	NA	104,000	NA	138,000	NA	NA	146,000	NA	180,000
Oxygen	ug/L	NA	11,760	NA	10,700	NA	NA	10,870	NA	11,920
pH_GenChem	SU	NA	7.39	NA	7.49	NA	NA	7.59	NA	6.98
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H5-1-01	SW-H7-1-01	SW-H7-2-01	SW-H8-2-01	SW-H8-3-01	SW-H8-4-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/18/01	04/20/01	04/19/01	04/19/01	04/18/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2-Chloroethyl vinyl ether	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Acrolein	ug/L	40 U	NA	40 U	40 U	40 U	40 U [40 U]	40 U	40 U	40 U
Acrylonitrile	ug/L	4.0 U	NA	4.0 U	4.0 U	4.0 U	4.0 U [4.0 U]	4.0 U	4.0 U	4.0 U
Benzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Carbon Tetrachloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
CFC-11	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Chloroform	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Dichloromethane	ug/L	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Ethylbenzene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Tribromomethane	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,2-Diphenylhydrazine	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,3-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
1,4-Dichlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
2,4-Dichlorophenol	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2,4-Dimethylphenol	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2,4-Dinitrophenol	ug/L	NA	20 U	20 U	20 U	20 U	20 U [20 U]	21 U	19 U	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
2-Chloronaphthalene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2-Chlorophenol	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H5-1-01	SW-H7-1-01	SW-H7-2-01	SW-H8-2-01	SW-H8-3-01	SW-H8-4-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/18/01	04/20/01	04/19/01	04/19/01	04/18/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
3,3-Dichlorobenzidine	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
4-Chloro-3-Methylphenol	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
4-Chlorophenyl phenyl ether	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	10 U	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	NA
Acenaphthene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Acenaphthylene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	20 U	20 U	20 U	20 U	20 U [20 U]	21 U	19 U	NA
Benzo(a)Anthracene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Benzo(a)Pyrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Benzo(b)fluoranthene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Benzo(g,h,i)perylene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Benzo(k)Fluoranthene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Benzyl Butyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
bis(2-Chloroethoxy)methane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bis(2-Chloroethyl)ether	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Dibenzo(a,h)Anthracene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Dimethyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Di-N-Butyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Di-n-Octyl Phthalate	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Fluoranthene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Fluorene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Hexachloro-1,3-Butadiene	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Hexachlorobenzene	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
Hexachlorocyclopentadiene	ug/L	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	NA
Hexachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Naphthalene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Nitrobenzene_SVOCs	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
N-Nitrosodimethylamine	ug/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
N-nitrosodiphenylamine	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U [3.0 U]	3.0 U	3.0 U	NA
Phenanthrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
Phenol	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H5-1-01	SW-H7-1-01	SW-H7-2-01	SW-H8-2-01	SW-H8-3-01	SW-H8-4-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/18/01	04/20/01	04/19/01	04/19/01	04/18/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	NA
TPH										
Amyl Alcohol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U
Di-n-propyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U
Ethanol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U
Ethyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U
Methanol	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U
n-Butyl ether	ug/L	1,000 U	NA	1,000 U	1,000 U	1,000 U	1,000 U [1,000 U]	1,000 U	1,000 U	1,000 U
Metals - Filtered										
Antimony_Filtered	ug/L	NA	5,900 U	5,900 U	5,900 U	5,900 U	5,900 U [5,900 U]	5,900 U	5,900 U	NA
Beryllium_Filtered	ug/L	NA	640 U	640 U	640 U	640 U	640 U [640 U]	640 U	640 U	NA
Cadmium_Filtered	ug/L	NA	640 U	640 U	640 U	640 U	640 U [640 U]	640 U	640 U	NA
Chromium_Filtered	ug/L	NA	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U [1,700 U]	1,700 U	1,700 U	NA
Copper_Filtered	ug/L	NA	3.40 B	3.80 B	4.40 B	2,400 U	3.20 B [2,400 U]	2,400 U	2,400 U	NA
Lead_Filtered	ug/L	NA	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	NA
Mercury_Filtered	ug/L	NA	26.0 U	26.0 U	26.0 UN	26.0 U	26.0 U [26.0 U]	26.0 U	26.0 U	NA
Nickel_Filtered	ug/L	NA	1,600 U	1,600 U	2.40 B	1,600 U	1,600 U [1,600 U]	1,600 U	1,600 U	NA
Selenium_Filtered	ug/L	NA	4,300 U	4,300 U	4,300 U	4,300 U	4,300 U [4,300 U]	4,300 U	4,300 U	NA
Silver_Filtered	ug/L	NA	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U [1,300 U]	1,300 U	1,300 U	NA
Thallium_Filtered	ug/L	NA	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	NA
Zinc_Filtered	ug/L	NA	3,200 U	15.1 B	36.8	3.80 B	9.50 B [4.90 B]	3,200 U	3.60 B	NA
Arsenic_Filtered	ug/L	NA	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U [3,700 U]	3,700 U	3,700 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	5,900 U	5,900 U	5,900 U	5,900 U	6.30 B [5,900 U]	5,900 U	5,900 U	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	640 U	640 U	640 U	640 U	640 U [640 U]	640 U	640 U	NA
Cadmium	ug/L	NA	640 U	640 U	640 U	640 U	640 U [640 U]	640 U	640 U	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	1,700 U	1,700 U	1,700 U	1,700 U	1,700 U [1,700 U]	2.80 B	1,700 U	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	2,400 U	2,400 UB	6.70 B	2,400 U	2,400 U [2,400 U]	4.40 B	2,400 U	NA
Lead	ug/L	NA	8,800 U	24.7	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	26.0 UB	26.0 UB	26.0 UB	26.0 U	26.0 U [26.0 U]	26.0 U	26.0 U	NA
Nickel	ug/L	NA	1,600 U	1,600 U	1,600 U	1,600 U	1,600 U [1,600 U]	1,600 UB	1,600 U	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	4,300 U	4,300 U	4,300 U	4.60 B	4,300 U [4,300 U]	4,300 U	4,300 U	NA
Silver	ug/L	NA	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U [1,300 U]	1,300 U	1,300 U	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	8,800 U	8,800 U	8,800 U	8,800 U	8,800 U [8,800 U]	8,800 U	8,800 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	3,200 UB	3,200 UB	79.8	3,200 U	3,200 U [3,200 U]	3,200 UB	3,200 U	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	3,700 U	3,700 U	3,700 U	3,700 U	3,700 U [3,700 U]	3,700 U	3,700 U	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
1,3-Dinitrobenzene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-G12-2-01	SW-G12-2-01	SW-G12-3-01	SW-H5-1-01	SW-H7-1-01	SW-H7-2-01	SW-H8-2-01	SW-H8-3-01	SW-H8-4-01
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		04/17/01	04/17/01	04/18/01	04/20/01	04/19/01	04/19/01	04/18/01	04/18/01	04/18/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
2,4-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
2-Amino-4,6-dinitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
2-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
3-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
4-Amino-2,6-dinitrotoluene	ug/L	NA	0.2 U	0.53 J	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
4-Nitrotoluene	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
HMX	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Nitrobenzene_Explosives	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Nitrocellulose	ug/L	NA	500 U	500 U	500 U	500 U	500 U [500 U]	500 U	500 U	NA
Nitroglycerin	ug/L	NA	120 U	120 U	120 U	120 U	120 U [120 U]	120 U	120 U	NA
Pentaerythritol Tetranitrate	ug/L	NA	4 U	4 U	4 U	4 U	4 U [4 U]	4 U	4 U	NA
RDX	ug/L	NA	0.2 U	0.82	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
Tetryl	ug/L	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	0.2 U	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	124,000	144,000	76,000	100,000	92,000	92,000	92,000	NA
Oxygen	ug/L	NA	9,670	11,210	11,020	11,690	10,600	9,260	9,930	NA
pH_GenChem	SU	NA	7.19	7	7.6	7.75	7.68	7.72	7.62	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-H8-4-01	SW-H11-1-01	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I5-1-01	SW-I5-2-01
Sample Depth(ft):		1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/18/01	04/18/01	04/18/01	04/17/01	04/17/01	04/17/01	04/17/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
1,1,2-Trichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
1,2-Dichloropropane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
2-Chloroethyl vinyl ether	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]
Acrolein	ug/L	NA	40 U	40 U	40 U	NA	40 U	NA	40 U	40 U [40 U]
Acrylonitrile	ug/L	NA	4.0 U	4.0 U	4.0 U	NA	4.0 U	NA	4.0 U	4.0 U [4.0 U]
Benzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Bromodichloromethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Bromomethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]
Carbon Tetrachloride	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
CFC-11	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]
Chlorobenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Chlorodibromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Chloroethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]
Chloroform	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Chloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]
cis-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Dichloromethane	ug/L	NA	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U [2.0 U]
Ethylbenzene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Tetrachloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Toluene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
trans-1,2-Dichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Tribromomethane	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Trichloroethene	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Vinyl Chloride	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
Xylenes (total)	ug/L	NA	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U [1.0 U]
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Diphenylhydrazine	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
2,4-Dichlorophenol	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2,4-Dimethylphenol	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2,4-Dinitrophenol	ug/L	20 U	19 U	20 U	NA	19 U	NA	20 U	19 U	20 U [19 U]
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
2-Chloronaphthalene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2-Chlorophenol	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U [5.0 U]
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-H8-4-01	SW-H11-1-01	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I5-1-01	SW-I5-2-01
Sample Depth(ft):		1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/18/01	04/18/01	04/18/01	04/17/01	04/17/01	04/17/01	04/17/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
3,3-Dichlorobenzidine	ug/L	3.0 U	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U	3.0 U [3.0 U]
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
4-Chloro-3-Methylphenol	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
4-Chlorophenyl phenyl ether	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	10 U	10 U	10 U	NA	10 U	NA	10 U	10 U	10 U [10 U]
Acenaphthene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Acenaphthylene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	20 U	19 U	20 U	NA	19 U	NA	20 U	19 U	20 U [19 U]
Benzo(a)Anthracene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Benzo(a)Pyrene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Benzo(b)fluoranthene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Benzo(g,h,i)perylene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Benzo(k)Fluoranthene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
bis(2-Chloroethoxy)methane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Bis(2-Chloroethyl)ether	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Dibenzo(a,h)Anthracene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Dimethyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Fluoranthene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Fluorene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Hexachlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U [5.0 U]
Hexachloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Naphthalene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Nitrobenzene_SVOCs	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U	2.0 U	2.0 U [2.0 U]
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
N-nitrosodiphenylamine	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	3.0 U	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U	3.0 U	3.0 U [3.0 U]
Phenanthrene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
Phenol	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-H8-4-01	SW-H11-1-01	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I5-1-01	SW-I5-2-01
Sample Depth(ft):		1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/18/01	04/18/01	04/18/01	04/17/01	04/17/01	04/17/01	04/17/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U	1.0 U	1.0 U [1.0 U]
TPH										
Amyl Alcohol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U [1,000 U]
Di-n-propyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U [1,000 U]
Ethanol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U [1,000 U]
Ethyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U [1,000 U]
Methanol	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U [1,000 U]
n-Butyl ether	ug/L	NA	1,000 U	1,000 U	1,000 U	NA	1,000 U	NA	1,000 U	1,000 U [1,000 U]
Metals - Filtered										
Antimony_Filtered	ug/L	5,900 U	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U	5,900 U [5,900 U]
Beryllium_Filtered	ug/L	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U	640 U [640 U]
Cadmium_Filtered	ug/L	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U	640 U [640 U]
Chromium_Filtered	ug/L	1,700 U	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U	1,700 U [1,700 U]
Copper_Filtered	ug/L	2,400 U	2,400 U	3.00 B	NA	3.50 B	NA	3.20 B	2,400 U	2,400 U [2,400 U]
Lead_Filtered	ug/L	8,800 U	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]
Mercury_Filtered	ug/L	26.0 U	26.0 U	26.0 U	NA	26.0 U	NA	26.0 U	26.0 U	26.0 U [26.0 U]
Nickel_Filtered	ug/L	1,600 U	1,600 U	1,600 U	NA	1,600 U	NA	1,600 U	1,600 U	1,600 U [1,600 U]
Selenium_Filtered	ug/L	4,300 U	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U	4,300 U [4,300 U]
Silver_Filtered	ug/L	1,300 U	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U	1,300 U [1,300 U]
Thallium_Filtered	ug/L	8,800 U	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]
Zinc_Filtered	ug/L	3,200 U	5.00 B	31.4	NA	3,200 U	NA	3,200 U	5.60 B	7.20 B [8.20 B]
Arsenic_Filtered	ug/L	3,700 U	3,700 U	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U	3,700 U [3,700 U]
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	5,900 U	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U	5,900 U	5,900 U [5,900 U]
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U	640 U [640 U]
Cadmium	ug/L	640 U	640 U	640 U	NA	640 U	NA	640 U	640 U	640 U [640 U]
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	1,700 U	2.50 B	1,700 U	NA	1,700 U	NA	1,700 U	1,700 U	1,700 U [1,700 U]
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2,400 U	7.40 B	2,400 UB	NA	2,400 U	NA	2,400 U	2,400 U	2,400 U [2,400 U]
Lead	ug/L	8,800 U	137	10.9 B	NA	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	26.0 U	26.0 U	26.0 UB	NA	26.0 UB	NA	26.0 UB	26.0 U	26.0 U [26.0 U]
Nickel	ug/L	1,600 UB	1,600 UB	1.90 B	NA	1,600 U	NA	1,600 U	1,600 U	1,600 U [1,600 U]
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	4,300 U	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U	4,300 U	4,300 U [4,300 U]
Silver	ug/L	1,300 U	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U	1,300 U	1,300 U [1,300 U]
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	8,800 U	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U	8,800 U	8,800 U [8,800 U]
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,200 U	3,200 UB	63.7	NA	3,200 UB	NA	3,200 UB	5.60 B	3,200 UB [3,200 UB]
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	3,700 U	6.00 B	3,700 U	NA	3,700 U	NA	3,700 U	3,700 U	3,700 U [3,700 U]
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-H8-4-01	SW-H11-1-01	SW-H12-1-01	SW-H12-2-01	SW-H12-2-01	SW-H12-3-01	SW-H12-3-01	SW-I5-1-01	SW-I5-2-01
Sample Depth(ft):		1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1
Date Collected:		04/18/01	04/18/01	04/18/01	04/17/01	04/17/01	04/17/01	04/17/01	04/19/01	04/19/01
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.38 J	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	1.29	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
2-Nitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
3-Nitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	3.19	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
4-Nitrotoluene	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
HMX	ug/L	0.2 U	0.3 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
Nitrocellulose	ug/L	500 U	500 U	NA	500 U	NA	500 U	NA	500 U	500 U [500 U]
Nitroglycerin	ug/L	120 U	120 U	120 U	NA	120 U	NA	120 U	120 U	120 U [120 U]
Pentaerythritol Tetranitrate	ug/L	4 U	4 U	4 U	NA	4 U	NA	4 U	4 U	4 U [4 U]
RDX	ug/L	0.2 U	1.59	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
Tetryl	ug/L	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U [0.2 U]
GenChem										
Hardness (as CaCO3)	ug/L	95,000	180,000	84,000	NA	108,000	NA	100,000	100,000	96,000
Oxygen	ug/L	9,350	10,360	11,950	NA	9,710	NA	9,470	11,880	11,440
pH_GenChem	SU	7.68	6.81	6.64	NA	7.87	NA	7.61	7.56	7.63
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-I6-1-01	SW-I10-1-01	SW-I11-1-01	SW-I11-1-01	SW-I11-2-01	SW-I11-2-01	SW-K11-1-01	SW-R2-B-15-1
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	1.5 - 2	0 - 0.5	0.5 - 1	0.5 - 1	
Date Collected:		04/19/01	04/18/01	04/18/01	04/18/01	05/09/01	04/18/01	04/19/01	11/06/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
VOCs									
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
2-Chloroethyl vinyl ether	ug/L	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA
Acrolein	ug/L	40 U	40 U	40 U	NA	NA	40 U	40 U	NA
Acrylonitrile	ug/L	4.0 U	4.0 U	4.0 U	NA	NA	4.0 U	4.0 U	NA
Benzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Bromomethane	ug/L	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
CFC-11	ug/L	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Chlorodibromomethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Chloroethane	ug/L	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Chloromethane	ug/L	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Dichloromethane	ug/L	2.0 U	2.0 U	2.0 U	NA	NA	2.0 U	2.0 U	NA
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Toluene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Tribromomethane	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA
SVOCs									
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	NA
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	NA
1,2-Diphenylhydrazine	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	NA
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	NA
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	NA
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
2,4,6-Trichlorophenol	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	1.0 U
2,4-Dichlorophenol	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
2,4-Dimethylphenol	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
2,4-Dinitrophenol	ug/L	19 U	21 U	NA	19 U	NA	20 U [19 U]	19 U	32 U
2,4-Dinitrotoluene_SVOCs	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA
2,6-Dinitrotoluene_SVOCs	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	1.0 U
2-Chloronaphthalene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
2-Chlorophenol	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U [5.0 U]	5.0 U	16 U
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	0.50 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-I6-1-01	SW-I10-1-01	SW-I11-1-01	SW-I11-1-01	SW-I11-2-01	SW-I11-2-01	SW-K11-1-01	SW-R2-B-15-1
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	1.5 - 2	0 - 0.5	0.5 - 1	0.5 - 1	
Date Collected:		04/19/01	04/18/01	04/18/01	04/18/01	05/09/01	04/18/01	04/19/01	11/06/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
2-Nitrophenol	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
3,3-Dichlorobenzidine	ug/L	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U [3.0 U]	3.0 U	5.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
4-Bromophenyl phenyl ether	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	1.0 U
4-Chloro-3-Methylphenol	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
4-Nitrophenol	ug/L	10 U	10 U	NA	10 U	NA	10 U [10 U]	9.0 U	32 U
Acenaphthene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.50 U
Acenaphthylene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.50 U
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Anthracene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.50 U
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzidine	ug/L	19 U	21 U	NA	19 U	NA	20 U [19 U]	19 U	NA
Benzo(a)Anthracene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.10 J
Benzo(a)Pyrene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.20 J
Benzo(b)fluoranthene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.20 J
Benzo(g,h,i)perylene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.20 J
Benzo(k)Fluoranthene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.10 J
Benzyl Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	16 U
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Chrysene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.20 J
Dibenzo(a,h)Anthracene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.50 U
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Diethyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	5.0 U
Dimethyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	5.0 U
Di-N-Butyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	5.0 U
Di-n-Octyl Phthalate	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	5.0 U
Fluoranthene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.30 J
Fluorene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.50 U
Hexachloro-1,3-Butadiene	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	1.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	0.50 U
Hexachlorocyclopentadiene	ug/L	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U [5.0 U]	5.0 U	16 U
Hexachloroethane	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	5.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.10 J
Naphthalene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.50 U
Nitrobenzene_SVOCs	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
N-Nitrosodimethylamine	ug/L	2.0 U	2.0 U	NA	2.0 U	NA	2.0 U [2.0 U]	2.0 U	NA
N-Nitrosodi-N-Propylamine	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
N-nitrosodiphenylamine	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 U
Pentachlorophenol	ug/L	3.0 U	3.0 U	NA	3.0 U	NA	3.0 U [3.0 U]	3.0 U	5.0 U
Phenanthrene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.10 J
Phenol	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	1.0 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-I6-1-01 0.5 - 1 04/19/01 FS	SW-I10-1-01 0.5 - 1 04/18/01 FS	SW-I11-1-01 0.5 - 1 04/18/01 FS	SW-I11-1-01 1.5 - 2 04/18/01 FS	SW-I11-2-01 0 - 0.5 05/09/01 FS	SW-I11-2-01 0.5 - 1 04/18/01 FS	SW-K11-1-01 0.5 - 1 04/19/01 FS	SW-R2-B-15-1 11/06/13 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	1.0 U	1.0 U	NA	1.0 U	NA	1.0 U [1.0 U]	0.90 U	0.40 J
TPH									
Amyl Alcohol	ug/L	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U [1,000 U]	1,000 U	NA
Di-n-propyl ether	ug/L	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U [1,000 U]	1,000 U	NA
Ethanol	ug/L	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U [1,000 U]	1,000 U	NA
Ethyl ether	ug/L	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U [1,000 U]	1,000 U	NA
Methanol	ug/L	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U [1,000 U]	1,000 U	NA
n-Butyl ether	ug/L	1,000 U	1,000 U	1,000 U	NA	NA	1,000 U [1,000 U]	1,000 U	NA
Metals - Filtered									
Antimony_Filtered	ug/L	5,900 U	5,900 U	NA	5,900 U	NA	5,900 U [5,900 U]	5,900 U	NA
Beryllium_Filtered	ug/L	640 U	640 U	NA	640 U	NA	640 U [640 U]	640 U	NA
Cadmium_Filtered	ug/L	640 U	640 U	NA	640 U	NA	640 U [640 U]	640 U	NA
Chromium_Filtered	ug/L	1,700 U	1,700 U	NA	1,700 U	NA	1,700 U [1,700 U]	1,700 U	NA
Copper_Filtered	ug/L	2,400 U	2,400 U	NA	2,400 U	NA	3.70 B [3.60 B]	2,400 U	NA
Lead_Filtered	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U [8,800 U]	8,800 U	NA
Mercury_Filtered	ug/L	26.0 U	26.0 U	NA	26.0 U	NA	26.0 U [26.0 U]	26.0 UN	NA
Nickel_Filtered	ug/L	1,600 U	1,600 U	NA	1,600 U	NA	1,600 U [1,600 U]	1,600 U	NA
Selenium_Filtered	ug/L	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U [4,300 U]	4,300 U	NA
Silver_Filtered	ug/L	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U [1,300 U]	1,300 U	NA
Thallium_Filtered	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U [8,800 U]	8,800 U	NA
Zinc_Filtered	ug/L	3.60 B	3.40 B	NA	4.10 B	NA	3.80 B [3.40 B]	8.10 B	NA
Arsenic_Filtered	ug/L	3,700 U	3,700 U	NA	3,700 U	NA	3,700 U [3,700 U]	3,700 U	NA
Metals									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	646
Antimony	ug/L	7.50 B	7.00 B	NA	5,900 U	NA	5,900 U [5,900 U]	5,900 U	1.00 U
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	63.7
Beryllium	ug/L	640 U	640 U	NA	640 U	NA	640 U [640 U]	640 U	5.00 U
Cadmium	ug/L	640 U	640 U	NA	640 U	NA	640 U [640 U]	640 U	5.00 U
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	61,700
Chromium	ug/L	1.90 B	1.90 B	NA	1,700 U	NA	1,700 U [1,700 U]	1,700 U	2.50 J
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	5.00 U
Copper	ug/L	2,400 U	2.50 B	NA	2.80 B	NA	2,400 U [2,400 U]	2,400 U	10.0 U
Lead	ug/L	8,800 U	8,800 U	NA	8.90 B	NA	8,800 U [8,800 U]	8,800 U	5
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	26,300
Mercury	ug/L	26.0 U	26.0 U	NA	26.0 U	NA	26.0 UB [26.0 UB]	26.0 U	0.200 U
Nickel	ug/L	1,600 U	1,600 U	NA	1,600 UB	NA	1,600 U [1,600 U]	1,600 U	10.0 U
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	3,860
Selenium	ug/L	4,300 U	4,300 U	NA	4,300 U	NA	4,300 U [4,300 U]	4,300 U	20.0 U
Silver	ug/L	1,300 U	1,300 U	NA	1,300 U	NA	1,300 U [1,300 U]	1,300 U	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	82,000
Thallium	ug/L	8,800 U	8,800 U	NA	8,800 U	NA	8,800 U [8,800 U]	8,800 U	0.500 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	2.00 J
Zinc	ug/L	3,200 UB	3,200 UB	NA	3,200 UB	NA	3,200 UB [3,200 UB]	18.0 B	15.0 J
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	416
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	2,290
Arsenic	ug/L	3,700 U	3,700 U	NA	3,700 U	NA	3,700 U [3,700 U]	3,700 U	0.550 J
Explosives									
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	0.60 U
1,3,5-Trinitrobenzene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
1,3-Dinitrobenzene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	0.60 U
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	0.60 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-I6-1-01 0.5 - 1 04/19/01 FS	SW-I10-1-01 0.5 - 1 04/18/01 FS	SW-I11-1-01 0.5 - 1 04/18/01 FS	SW-I11-1-01 1.5 - 2 04/18/01 FS	SW-I11-2-01 0 - 0.5 05/09/01 FS	SW-I11-2-01 0.5 - 1 04/18/01 FS	SW-K11-1-01 0.5 - 1 04/19/01 FS	SW-R2-B-15-1 11/06/13 FS
2,4,6-Trinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
2,4-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	2.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	NA
2,6-Dinitrotoluene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	1.3 U
2-Amino-4,6-dinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
2-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.75 U
3-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	1.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
4-Nitrotoluene	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	1.2 U
HMX	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	2.0 U
Nitrobenzene_Explosives	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
Nitrocellulose	ug/L	500 U	500 U	NA	500 U	500 U	NA	500 U	NA
Nitroglycerin	ug/L	120 U	120 U	NA	120 U	NA	120 U [120 U]	120 U	15 U
Pentaerythritol Tetranitrate	ug/L	4 U	4 U	NA	4 U	NA	4 U [4 U]	4 U	18 U
RDX	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.50 U
Tetryl	ug/L	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U [0.2 U]	0.2 U	0.60 U
GenChem									
Hardness (as CaCO3)	ug/L	92,000	88,000	NA	96,000	NA	102,000	26,000	265,000
Oxygen	ug/L	11,690	9,880	NA	10,880	NA	11,060	10,730	NA
pH_GenChem	SU	7.75	6.62	NA	7.5	NA	7.23	7.25	NA
FIELD									
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	7.7

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-B-15-2	SW-R2-D-12-1	SW-R2-D-12-3	SW-R2-E-16-1	SW-R2-E-16-3	SW-R2-F-14-1	SW-R2-F-14-2	SW-R2-G-12-2
Sample Depth(ft):									
Date Collected:		11/06/13	11/06/13	11/06/13	11/05/13	11/05/13	11/05/13	11/05/13	11/05/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
VOCs									
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs									
1,1-Biphenyl	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,6-Trichlorophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4-Dichlorophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4-Dimethylphenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4-Dinitrophenol	ug/L	30 U [32 U]	32 U	31 U	31 U	31 U	31 U	31 U	31 U
2,4-Dinitrotoluene_SVOCs	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chloronaphthalene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Methyl-4,6-dinitrophenol	ug/L	15 U [16 U]	16 U	15 U	15 U	15 U	15 U	16 U	16 U
2-Methylnaphthalene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-B-15-2	SW-R2-D-12-1	SW-R2-D-12-3	SW-R2-E-16-1	SW-R2-E-16-3	SW-R2-F-14-1	SW-R2-F-14-2	SW-R2-G-12-2
Sample Depth(ft):									
Date Collected:		11/06/13	11/06/13	11/06/13	11/05/13	11/05/13	11/05/13	11/05/13	11/05/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitroaniline	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Nitrophenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
3,3-Dichlorobenzidine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
3-Nitroaniline	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Bromophenyl phenyl ether	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chloro-3-Methylphenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorophenyl phenyl ether	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methylphenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitroaniline	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Nitrophenol	ug/L	30 U [32 U]	32 U	31 U	31 U	31 U	31 U	31 U	31 U
Acenaphthene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Acenaphthylene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Acetophenone	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Anthracene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Atrazine	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzaldehyde	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	0.10 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo(a)Pyrene	ug/L	0.20 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo(b)fluoranthene	ug/L	0.20 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo(g,h,i)perylene	ug/L	0.10 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo(k)Fluoranthene	ug/L	0.10 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzyl Butyl Phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bis(2-Chloroethyl)ether	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bis(2-Ethylhexyl)phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	ug/L	15 U [16 U]	16 U	15 U	15 U	15 U	15 U	16 U	16 U
Carbazole	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	ug/L	0.20 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibenzo(a,h)Anthracene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibenzofuran	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethyl Phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-N-Butyl Phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-Octyl Phthalate	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	ug/L	0.40 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Fluorene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Hexachloro-1,3-Butadiene	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobenzene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Hexachlorocyclopentadiene	ug/L	15 U [16 U]	16 U	15 U	15 U	15 U	15 U	16 U	16 U
Hexachloroethane	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)Pyrene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Naphthalene	ug/L	0.50 U [0.50 U]	0.50 U	0.50 U	0.9	0.50 U	0.50 U	0.10 J	0.50 U
Nitrobenzene_SVOCs	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
N-nitrosodiphenylamine	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
p-Chloroaniline	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	ug/L	0.20 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Phenol	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R2-B-15-2 11/06/13 FS	SW-R2-D-12-1 11/06/13 FS	SW-R2-D-12-3 11/06/13 FS	SW-R2-E-16-1 11/05/13 FS	SW-R2-E-16-3 11/05/13 FS	SW-R2-F-14-1 11/05/13 FS	SW-R2-F-14-2 11/05/13 FS	SW-R2-G-12-2 11/05/13 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	0.30 J [0.50 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
TPH									
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered									
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Metals									
Aluminum	ug/L	1,430 [1,430]	219	512	200 U	148 J	107 J	200 U	200 U
Antimony	ug/L	0.460 J [0.570 J]	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Barium	ug/L	70.6 [72.9]	99.4	133	37.8	39.4	38.3	37.5	37.8
Beryllium	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	ug/L	1.00 J [1.20 J]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Calcium	ug/L	25,000 [25,300]	19,100	19,700	36,300	36,100	57,600	56,500	51,100
Chromium	ug/L	6.50 J [6.00 J]	15.0 U	2.00 J	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Cobalt	ug/L	12.4 [11.9]	5.00 U	2.10 J	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Copper	ug/L	10.5 [11.1]	10.0 U	6.90 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Lead	ug/L	22.5 [21.6]	17.1	39.6	0.350 J	0.730 J	1.9	0.540 J	1.00 U
Magnesium	ug/L	9,730 [9,860]	7,890	7,980	14,600	14,400	22,300	21,900	20,800
Mercury	ug/L	0.0800 J [0.0620 J]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	ug/L	7.40 J [6.90 J]	10.0 U	1.60 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Potassium	ug/L	3,180 [4,130]	2,040	1,930	1,990	1,960	1,750	1,810	3,100
Selenium	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Silver	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Sodium	ug/L	53,100 [53,600]	54,700	54,900	72,200	71,600	82,700	89,600	86,600
Thallium	ug/L	0.500 U [0.500 U]	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Vanadium	ug/L	5.60 [5.60]	5.00 U	2.20 J	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Zinc	ug/L	61.7 [61.5]	20.9	42.1	20.0 U	2.10 J	20.0 U	20.0 U	20.0 U
Manganese	ug/L	1,620 [1,670]	1,490	2,060	631	739	100	75.6	210
Iron	ug/L	21,000 [21,000]	12,400	28,000	926	1,450	275	118 J	142 J
Arsenic	ug/L	3.80 [4.20]	2.1	5	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Explosives									
1,2-Dinitrobenzene	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
1,3,5-Trinitrobenzene	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
1,3-Dinitrobenzene	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
1,4-Dinitrobenzene	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
1-Nitronaphthalene	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R2-B-15-2	SW-R2-D-12-1	SW-R2-D-12-3	SW-R2-E-16-1	SW-R2-E-16-3	SW-R2-F-14-1	SW-R2-F-14-2	SW-R2-G-12-2
Sample Depth(ft):									
Date Collected:		11/06/13	11/06/13	11/06/13	11/05/13	11/05/13	11/05/13	11/05/13	11/05/13
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
2,4-Dinitrotoluene_Explosives	ug/L	2.0 U [2 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	1.3 U [1.3 U]	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2-Amino-4,6-dinitrotoluene	ug/L	0.70 U [0.36 J]	0.60 U	0.60 U	0.31 J	0.60 U	0.60 U	0.60 U	0.60 U
2-Nitrotoluene	ug/L	0.75 U [0.75 U]	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
3-Nitrotoluene	ug/L	1.2 U [1.2 U]	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-Amino-2,6-dinitrotoluene	ug/L	0.70 U [0.92]	0.60 U	0.60 U	0.9	0.77	0.60 U	0.60 U	0.60 U
4-Nitrotoluene	ug/L	1.2 U [1.2 U]	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
HMX	ug/L	2.0 U [2 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Nitrobenzene_Explosives	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	15 U [15 U]	15 U	15 U	15 U	15 U	15 U	15 U	15 U
Pentaerythritol Tetranitrate	ug/L	18 U [18 U]	18 U	18 U	18 U	18 U	18 U	18 U	18 U
RDX	ug/L	0.50 U [0.5 U]	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetryl	ug/L	0.60 U [0.6 U]	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
GenChem									
Hardness (as CaCO3)	ug/L	111,000 [108,000]	87,000	88,400	154,000	155,000	237,000	236,000	222,000
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA
FIELD									
pH_Field	SU	6.9 [7]	6.9	6.9	7.4	7.4	8	8	7.7

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-A15-02	SW-R-A15-03	SW-R-A15-04	SW-R-A15-05	SW-R-A15-06	SW-R-A15-07	SW-R-A15-08	SW-R-B14-01	SW-R-B14-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-A15-02	SW-R-A15-03	SW-R-A15-04	SW-R-A15-05	SW-R-A15-06	SW-R-A15-07	SW-R-A15-08	SW-R-B14-01	SW-R-B14-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-A15-02 0 - 0.5 07/11/06 FS	SW-R-A15-03 0 - 0.5 07/11/06 FS	SW-R-A15-04 0.25 - 0.75 07/11/06 FS	SW-R-A15-05 0 - 0.5 07/11/06 FS	SW-R-A15-06 0 - 0.5 07/11/06 FS	SW-R-A15-07 0 - 0.5 07/11/06 FS	SW-R-A15-08 0 - 0.5 07/11/06 FS	SW-R-B14-01 0 - 0.5 07/11/06 FS	SW-R-B14-02 0 - 0.5 07/11/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	10.4	25.1	10.0 U	3.20 J	19.9	66.8	2.20 J	72.8	60.6
Lead	ug/L	15.0 U	67.6	15.0 U	15.0 U	38.2	120	15.0 U	152	115
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U	0.0630 J	0.200 U	0.200 U	0.200 U	0.200 U	0.740 J	0.24
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	40.0 U	40.0 U
Silver	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	10.0 U	10.0 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	40.0 U	40.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	44.6	72.7	12.3 J	26.5	86.5	639	25.6	470	476
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	40.0 U	40.0 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-A15-02 0 - 0.5 07/11/06 FS	SW-R-A15-03 0 - 0.5 07/11/06 FS	SW-R-A15-04 0.25 - 0.75 07/11/06 FS	SW-R-A15-05 0 - 0.5 07/11/06 FS	SW-R-A15-06 0 - 0.5 07/11/06 FS	SW-R-A15-07 0 - 0.5 07/11/06 FS	SW-R-A15-08 0 - 0.5 07/11/06 FS	SW-R-B14-01 0 - 0.5 07/11/06 FS	SW-R-B14-02 0 - 0.5 07/11/06 FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	1.7	2.5
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	2.4	4.5
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 J	0.6 U	5.5	8.9
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SW-R-B15-01	SW-R-B15-02	SW-R-B15-03	SW-R-B15-04	SW-R-B15-05	SW-R-B15-06	SW-R-B15-06	SW-R-B15-06	SW-R-B15-07
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	999	0 - 0.5
Date Collected:		07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	08/16/06	08/16/06	07/11/06
Sample Type:		FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	NA	NA	5.0 U
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U	4.0 J	5.0 U	6	NA	NA	0.90 J
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-B15-01	SW-R-B15-02	SW-R-B15-03	SW-R-B15-04	SW-R-B15-05	SW-R-B15-06	SW-R-B15-06	SW-R-B15-06	SW-R-B15-07
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	999	0 - 0.5
Date Collected:		07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	07/11/06	08/16/06	08/16/06	07/11/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-B15-01 0 - 0.5 07/11/06 FS	SW-R-B15-02 0 - 0.5 07/11/06 FS	SW-R-B15-03 0 - 0.5 07/11/06 FS	SW-R-B15-04 0 - 0.5 07/11/06 FS	SW-R-B15-05 0 - 0.5 07/11/06 FS	SW-R-B15-06 0 - 0.5 07/11/06 FS	SW-R-B15-06 0 - 0.5 08/16/06 FS	SW-R-B15-06 999 08/16/06 FS	SW-R-B15-07 0 - 0.5 07/11/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	42.7	12.6	2.50 J	88.3	215	NA	35.7	NA	NA
Lead	ug/L	66.1	17.4	15.0 U	343	1,020	NA	119	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U	0.200 U	0.620 J	2.6	NA	2.00 U	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	20.0 U	40.0 U	28.4 J	NA	20.0 U	NA	NA
Silver	ug/L	5.00 U	5.00 U	5.00 U	10.0 U	10.0 U	NA	5.00 U	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	40.0 U	40.0 U	NA	NA	20.0 U	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	229	108	27.2	453	1,640	NA	1,600	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	20.0 U	20.0 U	40.0 U	49.8	NA	20.0 U	NA	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-B15-01 0 - 0.5 07/11/06 FS	SW-R-B15-02 0 - 0.5 07/11/06 FS	SW-R-B15-03 0 - 0.5 07/11/06 FS	SW-R-B15-04 0 - 0.5 07/11/06 FS	SW-R-B15-05 0 - 0.5 07/11/06 FS	SW-R-B15-06 0 - 0.5 07/11/06 FS	SW-R-B15-06 0 - 0.5 08/16/06 FS	SW-R-B15-06 999 08/16/06 FS	SW-R-B15-07 0 - 0.5 07/11/06 FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	NA	NA	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	NA	NA	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.32 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	NA	NA	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	NA	NA	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-B15-08	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C12-04	SW-R-C15-01	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04
Sample Depth(ft):		0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	05/24/06	05/24/06	05/24/06	05/24/06	06/08/06	06/08/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	2.0 J	NA	NA	NA	NA	NA	NA	5.0 U	1.0 J
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-B15-08	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C12-04	SW-R-C15-01	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04
Sample Depth(ft):		0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	05/24/06	05/24/06	05/24/06	05/24/06	06/08/06	06/08/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-B15-08	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C12-04	SW-R-C15-01	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04
Sample Depth(ft):		0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	05/24/06	05/24/06	05/24/06	05/24/06	06/08/06	06/08/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	6.80 J	28.4	7.70 J	140	10.0 U	5.00 J [11.3]	NA	NA
Lead	ug/L	NA	570	652	27	69.3	20.0 U	8.10 J [21.0]	NA	NA
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U [0.200 U]	NA	NA
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]	NA	NA
Silver	ug/L	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U [5.00 U]	NA	NA
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	19.8 J	407	117	187	8.70 J	50.0 [107]	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	20.0 U	15.2 J	20.0 U	26	20.0 U	20.0 U [20.0 U]	NA	NA
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-B15-08	SW-R-C12-01	SW-R-C12-02	SW-R-C12-03	SW-R-C12-04	SW-R-C15-01	SW-R-C15-02	SW-R-C15-03	SW-R-C15-04
Sample Depth(ft):		0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	05/24/06	05/24/06	05/24/06	05/24/06	06/08/06	06/08/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	1.2	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	3.2	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D11-01	SW-R-D11-02	SW-R-D11-03	SW-R-D11-04	SW-R-D12-01	SW-R-D12-02	SW-R-D12-03	SW-R-D12-04	SW-R-D12-05
Sample Depth(ft):		0.25 - 0.75	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		05/24/06	05/24/06	05/24/06	06/07/06	05/18/06	06/07/06	06/07/06	06/08/06	06/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D11-01	SW-R-D11-02	SW-R-D11-03	SW-R-D11-04	SW-R-D12-01	SW-R-D12-02	SW-R-D12-03	SW-R-D12-04	SW-R-D12-05
Sample Depth(ft):		0.25 - 0.75	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0.5 - 1	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		05/24/06	05/24/06	05/24/06	06/07/06	05/18/06	06/07/06	06/07/06	06/08/06	06/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-D11-01 0.25 - 0.75 05/24/06 FS	SW-R-D11-02 0.25 - 0.75 05/24/06 FS	SW-R-D11-03 0.25 - 0.75 05/24/06 FS	SW-R-D11-04 0 - 0.5 06/07/06 FS	SW-R-D12-01 0.5 - 1 05/18/06 FS	SW-R-D12-02 0 - 0.5 06/07/06 FS	SW-R-D12-03 0 - 0.5 06/07/06 FS	SW-R-D12-04 0 - 0.5 06/08/06 FS	SW-R-D12-05 0 - 0.5 06/12/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	400	13.5	1,030	18.8	10.0 U	58.9	103	5.10 J	231
Lead	ug/L	571	42.2	2,320	70.9	20.0 U	267	379	27.4	1,320
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	1.9	0.200 U	0.440 J	0.200 U	0.200 U	0.200 U	0.410 J	0.200 U	0.0840 J
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	100 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	21.8
Silver	ug/L	5.00 U	5.00 U	25.0 U	1.80 J	5.00 U	15.9	11.6	5.00 U	12.2
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	100 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	3,750	183	3,650	186	14.0 J	551	1,260	71.3	2,480
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	38.9	20.0 U	50.8 J	16.4 J	20.0 U	39	47.9	20.0 U	173
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-R-D11-01 0.25 - 0.75 05/24/06 FS	SW-R-D11-02 0.25 - 0.75 05/24/06 FS	SW-R-D11-03 0.25 - 0.75 05/24/06 FS	SW-R-D11-04 0 - 0.5 06/07/06 FS	SW-R-D12-01 0.5 - 1 05/18/06 FS	SW-R-D12-02 0 - 0.5 06/07/06 FS	SW-R-D12-03 0 - 0.5 06/07/06 FS	SW-R-D12-04 0 - 0.5 06/08/06 FS	SW-R-D12-05 0 - 0.5 06/12/06 FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D12-06	SW-R-D12-07	SW-R-D12-08	SW-R-D13-01	SW-R-D13-02	SW-R-D13-03	SW-R-D13-04	SW-R-D13-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0.5 - 1
Date Collected:		06/12/06	06/12/06	06/12/06	05/18/06	05/18/06	05/18/06	05/18/06	05/24/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
VOCs									
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs									
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	1.0 J	NA	5.0 U [5.0 U]
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	4.0 J	NA	1.0 J [1.0 J]
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	3.0 J	NA	1.0 J [1.0 J]
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D12-06	SW-R-D12-07	SW-R-D12-08	SW-R-D13-01	SW-R-D13-02	SW-R-D13-03	SW-R-D13-04	SW-R-D13-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0.5 - 1
Date Collected:		06/12/06	06/12/06	06/12/06	05/18/06	05/18/06	05/18/06	05/18/06	05/24/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	5.0 U	NA	5.0 U [5.0 U]
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-D12-06 0 - 0.5 06/12/06 FS	SW-R-D12-07 0 - 0.5 06/12/06 FS	SW-R-D12-08 0.25 - 0.75 06/12/06 FS	SW-R-D13-01 0 - 0.5 05/18/06 FS	SW-R-D13-02 0 - 0.5 05/18/06 FS	SW-R-D13-03 0.25 - 0.75 05/18/06 FS	SW-R-D13-04 0 - 0.5 05/18/06 FS	SW-R-D13-05 0.5 - 1 05/24/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
TPH									
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered									
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U [10.0 U]
Lead_Filtered	ug/L	NA	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U [20.0 U]
Mercury_Filtered	ug/L	NA	NA	NA	0.200 U	NA	0.200 U	NA	0.0720 J [0.200 U]
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U [20.0 U]
Silver_Filtered	ug/L	NA	NA	NA	5.00 U	NA	5.00 U	NA	5.00 U [5.00 U]
Thallium_Filtered	ug/L	NA	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U [20.0 U]
Zinc_Filtered	ug/L	NA	NA	NA	9.80 J	NA	8.20 J	NA	13.3 J [6.60 J]
Arsenic_Filtered	ug/L	NA	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U [20.0 U]
Metals									
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	135	216	10.0 U	NA	30.4	10.0 U	2.20 J	10.0 J [11.4]
Lead	ug/L	385	1,160	9.20 J	NA	281	20.0 U	20.0 U	131 [137]
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.0750 J	0.200 U	0.200 U	NA	0.200 U	0.200 U	0.200 U	0.200 U [0.200 U]
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	71.9	20.0 U	NA	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Silver	ug/L	15.1	16.2	5.00 U	NA	8.4	5.00 U	5.00 U	5.00 U [5.00 U]
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	32.1	20.0 U	NA	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	1,790	2,630	28.9	NA	478	8.60 J	8.50 J	131 [129]
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	33.4	304	20.0 U	NA	31.9	20.0 U	20.0 U	20.0 U [13.6 J]
Explosives									
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D12-06	SW-R-D12-07	SW-R-D12-08	SW-R-D13-01	SW-R-D13-02	SW-R-D13-03	SW-R-D13-04	SW-R-D13-05
Sample Depth(ft):		0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5	0.5 - 1
Date Collected:		06/12/06	06/12/06	06/12/06	05/18/06	05/18/06	05/18/06	05/18/06	05/24/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U [2 U]
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
GenChem									
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA
FIELD									
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D13-06	SW-R-D13-07	SW-R-D13-08	SW-R-D14-01	SW-R-D14-02	SW-R-D14-03	SW-R-D14-04	SW-R-D14-05	SW-R-D14-06
Sample Depth(ft):		0 - 0.5	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		06/12/06	06/12/06	06/12/06	05/18/06	05/18/06	05/18/06	07/13/06	07/13/06	07/13/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D13-06	SW-R-D13-07	SW-R-D13-08	SW-R-D14-01	SW-R-D14-02	SW-R-D14-03	SW-R-D14-04	SW-R-D14-05	SW-R-D14-06
Sample Depth(ft):		0 - 0.5	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		06/12/06	06/12/06	06/12/06	05/18/06	05/18/06	05/18/06	07/13/06	07/13/06	07/13/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	50 U	5.0 U	5.0 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-D13-06 0 - 0.5 06/12/06 FS	SW-R-D13-07 0.25 - 0.75 06/12/06 FS	SW-R-D13-08 0.25 - 0.75 06/12/06 FS	SW-R-D14-01 0 - 0.5 05/18/06 FS	SW-R-D14-02 0.25 - 0.75 05/18/06 FS	SW-R-D14-03 0 - 0.5 05/18/06 FS	SW-R-D14-04 0 - 0.5 07/13/06 FS	SW-R-D14-05 0 - 0.5 07/13/06 FS	SW-R-D14-06 0 - 0.5 07/13/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	NA	NA	NA	5.00 J	2.10 J	NA	5.90 J	23.5	8.40 J
Lead	ug/L	NA	NA	NA	21.1	20.0 U	NA	19.3	153	22.3
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	0.200 U	0.200 U	NA	0.200 U	0.200 U	0.200 U
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	NA	NA	NA	20.0 U	20.0 U	NA	20.0 U	20.0 U	20.0 U
Silver	ug/L	NA	NA	NA	5.00 U	5.00 U	NA	5.00 U	5.00 U	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	10.4 J	20.0 U	NA	20.0 U	20.0 U	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	NA	NA	NA	19.8 J	6.60 J	NA	50.3	812	55.2
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	NA	NA	NA	20.0 U	20.0 U	NA	20.0 U	20.0 U	20.0 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-D13-06 0 - 0.5 06/12/06 FS	SW-R-D13-07 0.25 - 0.75 06/12/06 FS	SW-R-D13-08 0.25 - 0.75 06/12/06 FS	SW-R-D14-01 0 - 0.5 05/18/06 FS	SW-R-D14-02 0.25 - 0.75 05/18/06 FS	SW-R-D14-03 0 - 0.5 05/18/06 FS	SW-R-D14-04 0 - 0.5 07/13/06 FS	SW-R-D14-05 0 - 0.5 07/13/06 FS	SW-R-D14-06 0 - 0.5 07/13/06 FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	11	0.87	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	16	2.4	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	21	2.4	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.52 J	0.6 U	0.3 J	0.6 U	0.6 U	0.47 J
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D14-07	SW-R-D15-01	SW-R-D15-02	SW-R-D15-03	SW-R-D16-01	SW-R-D16-02	SW-R-D16-03	SW-R-E10-01	SW-R-E11-01
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5
Date Collected:		07/13/06	06/08/06	06/08/06	06/08/06	06/08/06	06/08/06	06/08/06	05/24/06	06/07/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	57 U	63 U	61 U	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D14-07	SW-R-D15-01	SW-R-D15-02	SW-R-D15-03	SW-R-D16-01	SW-R-D16-02	SW-R-D16-03	SW-R-E10-01	SW-R-E11-01
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5
Date Collected:		07/13/06	06/08/06	06/08/06	06/08/06	06/08/06	06/08/06	06/08/06	05/24/06	06/07/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	1.0 J	5.0 U	5.0 U	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	1.0 J	5.0 U	5.0 U	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-D14-07 0 - 0.5 07/13/06 FS	SW-R-D15-01 0 - 0.5 06/08/06 FS	SW-R-D15-02 0 - 0.5 06/08/06 FS	SW-R-D15-03 0 - 0.5 06/08/06 FS	SW-R-D16-01 0 - 0.5 06/08/06 FS	SW-R-D16-02 0 - 0.5 06/08/06 FS	SW-R-D16-03 0 - 0.5 06/08/06 FS	SW-R-E10-01 0.25 - 0.75 05/24/06 FS	SW-R-E11-01 0 - 0.5 06/07/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	5.00 U	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	14.4 J	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	61.5	10.0 U	21.5	30	55.9	23.5	26.1	NA	69.2
Lead	ug/L	102	20.0 U	48.1	268	279	69.3	115	NA	270
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.0810 J	0.200 U	0.200 U	0.620 J	0.0720 J	1.5	NA	0.200 U
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	100 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA	20.0 U
Silver	ug/L	25.0 U	5.00 U	5.00 U	2.70 J	2.90 J	5.00 U	5.00 U	NA	2.40 J
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	100 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	926	15.2 J	224	798	2,060	724	1,500	NA	733
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	100 U	20.0 U	20.0 U	10.3 J	20.0 U	20.0 U	20.0 U	NA	153
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-D14-07	SW-R-D15-01	SW-R-D15-02	SW-R-D15-03	SW-R-D16-01	SW-R-D16-02	SW-R-D16-03	SW-R-E10-01	SW-R-E11-01
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75	0 - 0.5
Date Collected:		07/13/06	06/08/06	06/08/06	06/08/06	06/08/06	06/08/06	06/08/06	05/24/06	06/07/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.97	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E11-02	SW-R-E14-01	SW-R-E14-02	SW-R-E14-03	SW-R-E15-01	SW-R-E15-02	SW-R-E15-03	SW-R-E15-04	SW-R-E15-05
Sample Depth(ft):		0 - 0.5	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		06/07/06	07/13/06	07/13/06	07/13/06	06/07/06	06/07/06	06/07/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	5.0 U	5.0 U	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	5.0 U	5.0 U	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E11-02	SW-R-E14-01	SW-R-E14-02	SW-R-E14-03	SW-R-E15-01	SW-R-E15-02	SW-R-E15-03	SW-R-E15-04	SW-R-E15-05
Sample Depth(ft):		0 - 0.5	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		06/07/06	07/13/06	07/13/06	07/13/06	06/07/06	06/07/06	06/07/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-E11-02 0 - 0.5 06/07/06 FS	SW-R-E14-01 1.25 - 1.75 07/13/06 FS	SW-R-E14-02 1.25 - 1.75 07/13/06 FS	SW-R-E14-03 1.25 - 1.75 07/13/06 FS	SW-R-E15-01 0 - 0.5 06/07/06 FS	SW-R-E15-02 0 - 0.5 06/07/06 FS	SW-R-E15-03 0 - 0.5 06/07/06 FS	SW-R-E15-04 0 - 0.5 07/12/06 FS	SW-R-E15-05 0 - 0.5 07/12/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	17.8	4.50 J	12.6	10.0 U	10.0 U	6.00 J	99	34.7	14.5
Lead	ug/L	32.9	45.2	223	15.0 U	20.0 U	21	375	174	114
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	0.200 U	0.110 J	0.200 U	0.200 U	0.0580 J	1.00 U	0.27	0.0730 J
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	15.5 J	13.8 J	20.0 U
Silver	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	4.20 J	5.00 U	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	86.9	23	79.2	8.60 J	20.0 U	79.2	910	571	71.4
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	23.1	20.0 U	13.4 J	20.0 U	20.0 U	20.0 U	17.7 J	11.9 J	20.0 U
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E11-02	SW-R-E14-01	SW-R-E14-02	SW-R-E14-03	SW-R-E15-01	SW-R-E15-02	SW-R-E15-03	SW-R-E15-04	SW-R-E15-05
Sample Depth(ft):		0 - 0.5	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		06/07/06	07/13/06	07/13/06	07/13/06	06/07/06	06/07/06	06/07/06	07/12/06	07/12/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.33 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.41 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.72	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.5	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	9.3	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E15-06	SW-R-E15-07	SW-R-E15-08	SW-R-E15-09	SW-R-E16-01	SW-R-F10-01	SW-R-F10-02	SW-R-F11-01	SW-R-F11-02
Sample Depth(ft):		0.75 - 1.25	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	07/13/06	07/13/06	07/13/06	06/07/06	05/24/06	05/24/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E15-06	SW-R-E15-07	SW-R-E15-08	SW-R-E15-09	SW-R-E16-01	SW-R-F10-01	SW-R-F10-02	SW-R-F11-01	SW-R-F11-02
Sample Depth(ft):		0.75 - 1.25	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	07/13/06	07/13/06	07/13/06	06/07/06	05/24/06	05/24/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Benzo(a)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	1.0 J
Benzo(b)fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	1.0 J	2.0 J
Benzo(g,h,i)perylene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	1.0 J
Benzo(k)Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	NA	NA	NA	NA	NA	NA	NA	5.0 U	1.0 J
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E15-06	SW-R-E15-07	SW-R-E15-08	SW-R-E15-09	SW-R-E16-01	SW-R-F10-01	SW-R-F10-02	SW-R-F11-01	SW-R-F11-02
Sample Depth(ft):		0.75 - 1.25	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	07/13/06	07/13/06	07/13/06	06/07/06	05/24/06	05/24/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	20.0 U	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	0.200 U	0.200 U	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	20.0 U	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	5.00 U	5.00 U	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	20.0 U	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	29.4	28.4	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	20.0 U	20.0 U	NA	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	12.8 [13.2]	6.00 J	3.50 J	10.0 U	10.0 U	NA	NA	121	2,400
Lead	ug/L	82.6 [83.2]	12.9 J	15.0 U	15.0 U	20.0 U	NA	NA	125	1,320
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U [0.0760 J]	0.200 U	0.200 U	0.200 U	0.200 U	NA	NA	3.7	13
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	20.0 U	400 U
Silver	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	5.00 U	100 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	20.0 U	400 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	76.8 [74.7]	100	276	20.0 U	20.0 U	NA	NA	614	2,460
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	43.5	469
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-E15-06	SW-R-E15-07	SW-R-E15-08	SW-R-E15-09	SW-R-E16-01	SW-R-F10-01	SW-R-F10-02	SW-R-F11-01	SW-R-F11-02
Sample Depth(ft):		0.75 - 1.25	1.25 - 1.75	1.25 - 1.75	1.25 - 1.75	0.25 - 0.75	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Date Collected:		07/12/06	07/13/06	07/13/06	07/13/06	06/07/06	05/24/06	05/24/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	1.1 [1.2]	0.7	0.78	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.81 [0.88]	0.9	0.88	0.37 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	1.4 [1.4]	1.5	1.5	0.6	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.29 J [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-F11-03	SW-R-F14-01	SW-R-F14-02	SW-R-F14-03	SW-R-F14-04	SW-R-F14-05	SW-R-F14-06	SW-R-F14-07	SW-R-G11-01
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5
Date Collected:		05/09/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
VOCs										
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
2,6-Dinitrotoluene_SVOCs	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-F11-03	SW-R-F14-01	SW-R-F14-02	SW-R-F14-03	SW-R-F14-04	SW-R-F14-05	SW-R-F14-06	SW-R-F14-07	SW-R-G11-01
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5
Date Collected:		05/09/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Benzo(a)Pyrene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Benzo(b)fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Benzo(g,h,i)perylene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Benzo(k)Fluoranthene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	NA	NA	NA	NA	NA	NA	NA	50 U
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Type:	Units	SW-R-F11-03 0 - 0.5 05/09/06 FS	SW-R-F14-01 0 - 0.5 05/19/06 FS	SW-R-F14-02 0 - 0.5 05/19/06 FS	SW-R-F14-03 0 - 0.5 05/19/06 FS	SW-R-F14-04 0.25 - 0.75 05/19/06 FS	SW-R-F14-05 0.25 - 0.75 05/19/06 FS	SW-R-F14-06 0.25 - 0.75 05/19/06 FS	SW-R-F14-07 0 - 0.5 05/19/06 FS	SW-R-G11-01 0 - 0.5 05/09/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH										
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered										
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	10.0 U	10.0 U [10.0 U]	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA
Lead_Filtered	ug/L	NA	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA
Mercury_Filtered	ug/L	NA	0.200 U	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA
Silver_Filtered	ug/L	NA	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	NA
Thallium_Filtered	ug/L	NA	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA
Zinc_Filtered	ug/L	NA	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA
Arsenic_Filtered	ug/L	NA	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA
Metals										
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	2.60 J	NA	NA	NA	NA	NA	NA	NA	155
Lead	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	3,210
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	0.200 U	NA	NA	NA	NA	NA	NA	NA	3.6
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	20.0 U
Silver	ug/L	5.00 U	NA	NA	NA	NA	NA	NA	NA	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	28.1	NA	NA	NA	NA	NA	NA	NA	1,440
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20.0 U	NA	NA	NA	NA	NA	NA	NA	162
Explosives										
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-F11-03	SW-R-F14-01	SW-R-F14-02	SW-R-F14-03	SW-R-F14-04	SW-R-F14-05	SW-R-F14-06	SW-R-F14-07	SW-R-G11-01
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75	0.25 - 0.75	0.25 - 0.75	0 - 0.5	0 - 0.5
Date Collected:		05/09/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/19/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U [2 U]	2 U	2 U	2 U	2 U	2 U	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
GenChem										
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD										
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-G12-01	SW-R-G12-02	SW-R-G12-03	SW-R-G12-04	SW-R-H11-01	SW-R-I11-01	SW-R-I11-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		05/09/06	05/09/06	06/12/06	06/12/06	05/09/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS
VOCs								
1,1,1-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrolein	ug/L	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/L	NA	NA	NA	NA	NA	NA	NA
CFC-11	ug/L	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/L	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/L	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ug/L	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ug/L	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/L	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene_SVOCs	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_SVOCs	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
2,6-Dinitrotoluene_SVOCs	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
2-Chloronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-G12-01	SW-R-G12-02	SW-R-G12-03	SW-R-G12-04	SW-R-H11-01	SW-R-I11-01	SW-R-I11-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		05/09/06	05/09/06	06/12/06	06/12/06	05/09/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS
2-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/L	NA	NA	NA	NA	NA	NA	NA
Acetophenone	ug/L	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
Atrazine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzidine	ug/L	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(a)Pyrene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Benzo(k)Fluoranthene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Benzyl Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/L	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Caprolactam	ug/L	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U [5.0 U]	5.0 U
Dibenzo(a,h)Anthracene	ug/L	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene_SVOCs	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ug/L	NA	NA	NA	NA	NA	NA	NA
p-Chloroaniline	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/L	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Type:	Units	SW-R-G12-01 0 - 0.5 05/09/06 FS	SW-R-G12-02 0 - 0.5 05/09/06 FS	SW-R-G12-03 0 - 0.5 06/12/06 FS	SW-R-G12-04 0 - 0.5 06/12/06 FS	SW-R-H11-01 0 - 0.5 05/09/06 FS	SW-R-I11-01 0 - 0.5 05/09/06 FS	SW-R-I11-02 0.25 - 0.75 05/09/06 FS
Purge Volume	ug/L	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	ug/L	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethanol	ug/L	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Methanol	ug/L	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA
Metals - Filtered								
Antimony_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Lead_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Mercury_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Nickel_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Silver_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic_Filtered	ug/L	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	213	29.8	10.0 U	138	12.5	2.80 J [2.90 J]	2.10 J
Lead	ug/L	2,970	253	20.0 U	1,010	33.4	20.0 U [20.0 U]	20.0 U
Magnesium	ug/L	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	4	0.200 U	0.200 U	0.0790 J	0.200 U	0.200 U [0.200 U]	0.200 U
Nickel	ug/L	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	10.0 J	20.0 U	20.0 U	21	20.0 U	20.0 U [20.0 U]	20.0 U
Silver	ug/L	5.00 U	5.00 U	5.00 U	5	5.00 U	5.00 U [5.00 U]	5.00 U
Sodium	ug/L	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]	20.0 U
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	1,390	162	19.4 J	4,450	66.5	20.0 U [20.0 U]	20.0 U
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	185	27.7	20.0 U	106	20.0 U	20.0 U [20.0 U]	20.0 U
Explosives								
1,2-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	ug/L	NA	NA	NA	NA	NA	NA	NA

Appendix A4. Ecological Risk Assessment Dataset - Southern Drainage Area Surface Water
Kenvil Works Facility
Kenvil, New Jersey

Location ID:		SW-R-G12-01	SW-R-G12-02	SW-R-G12-03	SW-R-G12-04	SW-R-H11-01	SW-R-I11-01	SW-R-I11-02
Sample Depth(ft):		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.25 - 0.75
Date Collected:		05/09/06	05/09/06	06/12/06	06/12/06	05/09/06	05/09/06	05/09/06
Sample Type:	Units	FS	FS	FS	FS	FS	FS	FS
2,4,6-Trinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U
2,4-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U
2-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U
4-Nitrotoluene	ug/L	NA	NA	NA	NA	NA	NA	NA
HMX	ug/L	2 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U
Nitrobenzene_Explosives	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	ug/L	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	ug/L	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	ug/L	NA	NA	NA	NA	NA	NA	NA
RDX	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U [0.6 U]	0.6 U
Tetryl	ug/L	NA	NA	NA	NA	NA	NA	NA
GenChem								
Hardness (as CaCO3)	ug/L	NA	NA	NA	NA	NA	NA	NA
Oxygen	ug/L	NA	NA	NA	NA	NA	NA	NA
pH_GenChem	SU	NA	NA	NA	NA	NA	NA	NA
FIELD								
pH_Field	SU	NA	NA	NA	NA	NA	NA	NA

Notes:
ug/L = micrograms per liter
NA = not available/applicable
U = The compound was analyzed for but not detected. The Associated value is the compound qantitation limit
J = Estimated concentration
SU = Standard units

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-A15-2-01	SD-A15-3-01	SD-B13-4-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-B8-1-01	SD-C11-2-01	SD-C11-3-01	SD-C11-3-01	SD-C11-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft
Collection Date			4/5/2001	4/5/2001	5/1/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-A15-2-011N	SD-A15-3-011N	SD-B13-4-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-B8-1-011N	SD-C11-2-011N	SD-C11-3-011N	SD-C11-3-011.5N	SD-C11-4-010.5FD
Parent Sample															SD-C11-4-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,1,2-Trichloroethane	79-00-5	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,1-Dichloroethene	75-35-4	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,2-Dichloropropane	78-87-5	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 2000	< 2200	< 270	< 410	< 510	< 1400	< 1800	< 290	< 220	< 400	< 270	NA	< 280
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 20000	< 22000	< 2700	< 4100	< 5100	< 14000	< 19000	< 2900	< 2200	< 4000	< 2700	NA	< 2800
Acrylonitrile	107-13-1	ug/kg	< 4000	< 4400	< 540	< 830	< 1000	< 2900	< 3700	< 580	< 440	< 800	< 540	NA	< 550
Benzene	71-43-2	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Bromodichloromethane	75-27-4	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Bromoform	75-25-2	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 220	< 200	< 140	NA	< 140
Bromomethane	74-83-9	ug/kg	< 2000	< 2200	< 270	< 410	< 510	< 1400	< 1800	< 290	< 220	< 400	< 270	NA	< 280
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Chlorobenzene	108-90-7	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Chloroethane	75-00-3	ug/kg	< 2000	< 2200	< 270	< 410	< 510	< 1400	< 1800	< 290	< 220	< 400	< 270	NA	< 280
Chloroform	67-66-3	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Chloromethane	74-87-3	ug/kg	< 2000	< 2200	< 270	< 410	< 510	< 1400	< 1800	< 290	< 220	< 400	< 270	NA	< 280
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 2000	< 2200	< 270	< 410	< 510	< 1400	< 1800	< 290	< 220	< 400	< 270	NA	< 280
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 980	< 1100	< 130	< 210	< 260	1300	1700	< 150	< 110	< 200	< 140	NA	< 140
Toluene	108-88-3	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Trichloroethene	79-01-6	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Trichlorofluoromethane	75-69-4	ug/kg	< 2000	< 2200	< 270	< 410	< 510	< 1400	< 1800	< 290	< 220	< 400	< 270	NA	< 280
Vinyl Chloride	75-01-4	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140
Xylenes (total)	1330-20-7	ug/kg	< 980	< 1100	< 130	< 210	< 260	< 720	< 920	< 150	< 110	< 200	< 140	NA	< 140

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-A15-2-01	SD-A15-3-01	SD-B13-4-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-B8-1-01	SD-C11-2-01	SD-C11-3-01	SD-C11-3-01	SD-C11-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft
Collection Date			4/5/2001	4/5/2001	5/1/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-A15-2-011N	SD-A15-3-011N	SD-B13-4-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-B8-1-011N	SD-C11-2-011N	SD-C11-3-011N	SD-C11-3-011.5N	SD-C11-4-010.5FD
Parent Sample															SD-C11-4-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 810	< 670	NA	NA	< 850	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	150	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 210	< 170	NA	NA	< 210	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 210	< 170	NA	NA	< 210	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	48	< 33	NA	NA	< 42	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	170	130	NA	NA	< 42	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 810	< 670	NA	NA	< 850	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	480	450	NA	NA	< 42	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	500	430	NA	NA	< 42	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	570	500	NA	NA	50	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	280	290	NA	NA	< 42	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	230	250	NA	NA	< 42	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-A15-2-01	SD-A15-3-01	SD-B13-4-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-B8-1-01	SD-C11-2-01	SD-C11-3-01	SD-C11-3-01	SD-C11-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft
Collection Date			4/5/2001	4/5/2001	5/1/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-A15-2-011N	SD-A15-3-011N	SD-B13-4-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-B8-1-011N	SD-C11-2-011N	SD-C11-3-011N	SD-C11-3-011.5N	SD-C11-4-010.5FD
Parent Sample															SD-C11-4-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	460	540	NA	NA	< 85	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	200	NA	NA	< 85	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	600	520	NA	NA	55	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	87	97	NA	NA	< 42	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	180	NA	NA	< 85	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	86	NA	NA	< 85	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	1100	980	NA	NA	46	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	46	< 33	NA	NA	< 42	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 210	< 170	NA	NA	< 210	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	310	330	NA	NA	< 42	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 40	< 33	NA	NA	< 42	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 210	< 170	NA	NA	< 210	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	480	400	NA	NA	44	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 81	< 67	NA	NA	< 85	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	1100	730	NA	NA	< 42	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-A15-2-01	SD-A15-3-01	SD-B13-4-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-B8-1-01	SD-C11-2-01	SD-C11-3-01	SD-C11-3-01	SD-C11-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft
Collection Date			4/5/2001	4/5/2001	5/1/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-A15-2-011N	SD-A15-3-011N	SD-B13-4-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-B8-1-011N	SD-C11-2-011N	SD-C11-3-011N	SD-C11-3-011.5N	SD-C11-4-010.5FD
Parent Sample															SD-C11-4-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 72000	< 60000	NA	NA	< 76000	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2400	< 2000	NA	NA	< 2500	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2400	< 2000	NA	NA	< 2500	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 120	< 98	NA	NA	< 130	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.78	< 0.85	NA	NA	< 0.82	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.71	1.9	NA	NA	30.2	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.35	0.49	NA	NA	0.76	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.066	< 0.072	NA	NA	< 0.07	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	10.8	27.5	NA	NA	14.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	11	44.3	NA	NA	37.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	84.6	49.4	NA	NA	334	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.37	0.014	NA	NA	0.031	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	6.7	17.2	NA	NA	9.4	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.57	< 0.63	NA	NA	1.1	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 0.17	< 0.18	NA	NA	< 0.18	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	< 1	< 1.1	NA	NA	2.5	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	63.9	153	NA	NA	71	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-A15-2-01	SD-A15-3-01	SD-B13-4-01	SD-B14-2-01	SD-B14-4-01	SD-B15-1-01	SD-B15-2-01	SD-B16-1-01	SD-B8-1-01	SD-C11-2-01	SD-C11-3-01	SD-C11-3-01	SD-C11-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft
Collection Date			4/5/2001	4/5/2001	5/1/2001	4/11/2001	4/12/2001	4/5/2001	4/5/2001	4/5/2001	4/25/2001	5/2/2001	5/2/2001	5/2/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-A15-2-011N	SD-A15-3-011N	SD-B13-4-011N	SD-B14-2-011N	SD-B14-4-011N	SD-B15-1-011N	SD-B15-2-011N	SD-B16-1-011N	SD-B8-1-011N	SD-C11-2-011N	SD-C11-3-011N	SD-C11-3-011.5N	SD-C11-4-010.5FD
Parent Sample															SD-C11-4-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	17.1	23.3	NA	NA	20.9	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	4400	4800	NA	NA	116000	NA
Amyl alcohol	71-41-0	ug/kg	< 80000	< 88000	< 12000	< 18000	< 20000	< 56000	< 68000	< 12000	< 10000	< 18000	< 13000	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	< 80000	< 88000	< 12000	< 18000	< 20000	< 56000	< 68000	< 12000	< 10000	< 18000	< 13000	NA	NA
Ethanol	64-17-5	ug/kg	< 80000	< 88000	< 12000	< 18000	< 20000	< 56000	< 68000	< 12000	< 10000	< 18000	< 13000	NA	NA
Ethyl ether	60-29-7	ug/kg	< 80000	< 88000	< 12000	< 18000	< 20000	< 56000	< 68000	< 12000	< 10000	< 18000	< 13000	NA	NA
Methanol	67-56-1	ug/kg	< 80000	< 88000	< 12000	< 18000	< 20000	< 56000	< 68000	< 12000	< 10000	< 18000	< 13000	NA	NA
N-butyl ether	142-96-1	ug/kg	< 80000	< 88000	< 12000	< 18000	< 20000	< 56000	< 68000	< 12000	< 10000	< 18000	< 13000	NA	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	91.1	97.1	NA	NA	100	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	100	100	NA	NA	100	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	100	100	NA	NA	100	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	45.1	44.4	NA	NA	55.7	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	1.1	1.1	NA	NA	1.4	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	24.7	25.3	NA	NA	27.7	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	63.3	74.5	NA	NA	92.3	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	12.2	9.7	NA	NA	11.7	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	58.3	66.9	NA	NA	86.3	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	53.8	59.5	NA	NA	80.1	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	4.6	3.1	NA	NA	4.9	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-C11-4-01 0.5-1.0 ft 5/2/2001 N SD-C11-4-011N	SD-C12-1-01 0.5-1.0 ft 5/2/2001 N SD-C12-1-011N	SD-C12-2-01 0.5-1.0 ft 4/13/2001 N SD-C12-2-011N	SD-C13-1-01 0.5-1.0 ft 5/1/2001 N SD-C13-1-011N	SD-C14-2-01 0.5-1.0 ft 4/12/2001 N SD-C14-2-011N	SD-C14-2-01 1.0-1.5 ft 4/12/2001 N SD-C14-2-011.5N	SD-C15-1-01 0.5-1.0 ft 4/11/2001 N SD-C15-1-011N	SD-C15-2-01 0.5-1.0 ft 4/4/2001 N SD-C15-2-011N	SD-D11-1-01 0.5-1.0 ft 4/17/2001 N SD-D11-1-011N	SD-D11-2-01 0.5-1.0 ft 5/2/2001 N SD-D11-2-011N	SD-D12-1-01 0.5-1.0 ft 4/16/2001 N SD-D12-1-011N	SD-D12-2-01 0.5-1.0 ft 4/16/2001 N SD-D12-2-011N	SD-D12-3-01 0.5-1.0 ft 4/16/2001 N SD-D12-3-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,1,2-Trichloroethane	79-00-5	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,1-Dichloroethene	75-35-4	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,2-Dichloropropane	78-87-5	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 290	< 340	< 1100	< 270	< 340	NA	< 770	< 1200	< 490	< 530	< 450	< 530	< 530
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 2900	< 3400	< 11000	< 2700	< 3400	NA	< 7700	< 12000	< 4900	< 5300	< 4500	< 5300	< 5300
Acrylonitrile	107-13-1	ug/kg	< 570	< 680	< 2200	< 540	< 670	NA	< 1500	< 2300	< 970	< 1100	< 910	< 1100	< 1100
Benzene	71-43-2	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Bromodichloromethane	75-27-4	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Bromoform	75-25-2	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Bromomethane	74-83-9	ug/kg	< 290	< 340	< 1100	< 270	< 340	NA	< 770	< 1200	< 490	< 530	< 450	< 530	< 530
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Chlorobenzene	108-90-7	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Chloroethane	75-00-3	ug/kg	< 290	< 340	< 1100	< 270	< 340	NA	< 770	< 1200	< 490	< 530	< 450	< 530	< 530
Chloroform	67-66-3	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Chloromethane	74-87-3	ug/kg	< 290	< 340	< 1100	< 270	< 340	NA	< 770	< 1200	< 490	< 530	< 450	< 530	< 530
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 290	< 340	< 1100	< 270	< 340	NA	< 770	< 1200	< 490	< 530	< 450	< 530	< 530
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Toluene	108-88-3	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Trichloroethene	79-01-6	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Trichlorofluoromethane	75-69-4	ug/kg	< 290	< 340	< 1100	< 270	< 340	NA	< 770	< 1200	< 490	< 530	< 450	< 530	< 530
Vinyl Chloride	75-01-4	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270
Xylenes (total)	1330-20-7	ug/kg	< 140	< 170	< 540	< 130	< 170	NA	< 390	< 580	< 240	< 270	< 230	< 270	< 270

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-C11-4-01	SD-C12-1-01	SD-C12-2-01	SD-C13-1-01	SD-C14-2-01	SD-C14-2-01	SD-C15-1-01	SD-C15-2-01	SD-D11-1-01	SD-D11-2-01	SD-D12-1-01	SD-D12-2-01	SD-D12-3-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/2/2001	5/2/2001	4/13/2001	5/1/2001	4/12/2001	4/12/2001	4/11/2001	4/4/2001	4/17/2001	5/2/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-C11-4-011N	SD-C12-1-011N	SD-C12-2-011N	SD-C13-1-011N	SD-C14-2-011N	SD-C14-2-011.5N	SD-C15-1-011N	SD-C15-2-011N	SD-D11-1-011N	SD-D11-2-011N	SD-D12-1-011N	SD-D12-2-011N	SD-D12-3-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	< 890	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	250	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	< 230	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	< 230	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	< 890	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-C11-4-01	SD-C12-1-01	SD-C12-2-01	SD-C13-1-01	SD-C14-2-01	SD-C14-2-01	SD-C15-1-01	SD-C15-2-01	SD-D11-1-01	SD-D11-2-01	SD-D12-1-01	SD-D12-2-01	SD-D12-3-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/2/2001	5/2/2001	4/13/2001	5/1/2001	4/12/2001	4/12/2001	4/11/2001	4/4/2001	4/17/2001	5/2/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-C11-4-011N	SD-C12-1-011N	SD-C12-2-011N	SD-C13-1-011N	SD-C14-2-011N	SD-C14-2-011.5N	SD-C15-1-011N	SD-C15-2-011N	SD-D11-1-011N	SD-D11-2-011N	SD-D12-1-011N	SD-D12-2-011N	SD-D12-3-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	53	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	< 230	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	< 230	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	< 89	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	< 44	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-C11-4-01	SD-C12-1-01	SD-C12-2-01	SD-C13-1-01	SD-C14-2-01	SD-C14-2-01	SD-C15-1-01	SD-C15-2-01	SD-D11-1-01	SD-D11-2-01	SD-D12-1-01	SD-D12-2-01	SD-D12-3-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/2/2001	5/2/2001	4/13/2001	5/1/2001	4/12/2001	4/12/2001	4/11/2001	4/4/2001	4/17/2001	5/2/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-C11-4-011N	SD-C12-1-011N	SD-C12-2-011N	SD-C13-1-011N	SD-C14-2-011N	SD-C14-2-011.5N	SD-C15-1-011N	SD-C15-2-011N	SD-D11-1-011N	SD-D11-2-011N	SD-D12-1-011N	SD-D12-2-011N	SD-D12-3-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	700	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	730	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	500	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	< 80000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	< 2700	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 130	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	0.92	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	5.4	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	0.72	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	0.11	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	20.7	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	19.5	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	69.2	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	0.14	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	11.7	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	1.1	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	< 0.18	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	< 1.1	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	163	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-C11-4-01	SD-C12-1-01	SD-C12-2-01	SD-C13-1-01	SD-C14-2-01	SD-C14-2-01	SD-C15-1-01	SD-C15-2-01	SD-D11-1-01	SD-D11-2-01	SD-D12-1-01	SD-D12-2-01	SD-D12-3-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/2/2001	5/2/2001	4/13/2001	5/1/2001	4/12/2001	4/12/2001	4/11/2001	4/4/2001	4/17/2001	5/2/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-C11-4-011N	SD-C12-1-011N	SD-C12-2-011N	SD-C13-1-011N	SD-C14-2-011N	SD-C14-2-011.5N	SD-C15-1-011N	SD-C15-2-011N	SD-D11-1-011N	SD-D11-2-011N	SD-D12-1-011N	SD-D12-2-011N	SD-D12-3-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	34.3	NA	NA	NA	24.8	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	39400	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 13000	< 15000	< 46000	< 13000	< 13000	NA	< 31000	< 47000	< 19000	< 21000	< 19000	< 19000	< 22000
Di-N-Propyl Ether	111-43-3	ug/kg	< 13000	< 15000	< 46000	< 13000	< 13000	NA	< 31000	< 47000	< 19000	< 21000	< 19000	< 19000	< 22000
Ethanol	64-17-5	ug/kg	< 13000	< 15000	< 46000	< 13000	< 13000	NA	< 31000	< 47000	< 19000	< 21000	< 19000	< 19000	< 22000
Ethyl ether	60-29-7	ug/kg	< 13000	< 15000	< 46000	< 13000	< 13000	NA	< 31000	< 47000	< 19000	< 21000	< 19000	< 19000	< 22000
Methanol	67-56-1	ug/kg	< 13000	< 15000	< 46000	< 13000	< 13000	NA	< 31000	< 47000	< 19000	< 21000	< 19000	< 19000	< 22000
N-butyl ether	142-96-1	ug/kg	< 13000	< 15000	< 46000	< 13000	< 13000	NA	< 31000	< 47000	< 19000	< 21000	< 19000	< 19000	< 22000
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	94.7	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	31	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	18.2	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	64.1	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	9.1	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	53.9	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	45.7	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D12-4-01	SD-D13-1-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-D14-3-01	SD-D14-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/16/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N	N	N
Sample Name			SD-D12-4-011N	SD-D13-1-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-D14-3-011N	SD-D14-4-011N
Parent Sample								SD-D13-5-011N			SD-D14-1-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,1,2-Trichloroethane	79-00-5	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,1-Dichloroethene	75-35-4	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,2-Dichloropropane	78-87-5	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 670	< 320	< 810	< 810	< 510	< 730	< 520	< 580	< 930	< 1100	< 2300	< 490	< 650
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 6700	< 3200	< 8100	< 8100	< 5100	< 7300	< 5200	< 5800	< 9300	< 11000	< 23000	< 5000	< 6500
Acrylonitrile	107-13-1	ug/kg	< 1300	< 640	< 1600	< 1600	< 1000	< 1500	< 1000	< 1200	< 1900	< 2200	< 4600	< 990	< 1300
Benzene	71-43-2	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Bromodichloromethane	75-27-4	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Bromoform	75-25-2	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Bromomethane	74-83-9	ug/kg	< 670	< 320	< 810	< 810	< 510	< 730	< 520	< 580	< 930	< 1100	< 2300	< 490	< 650
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Chlorobenzene	108-90-7	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Chloroethane	75-00-3	ug/kg	< 670	< 320	< 810	< 810	< 510	< 730	< 520	< 580	< 930	< 1100	< 2300	< 490	< 650
Chloroform	67-66-3	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Chloromethane	74-87-3	ug/kg	< 670	< 320	< 810	< 810	< 510	< 730	< 520	< 580	< 930	< 1100	< 2300	< 490	< 650
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 670	< 320	< 810	< 810	< 510	< 730	< 520	< 580	< 930	< 1100	< 2300	< 490	< 650
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Toluene	108-88-3	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Trichloroethene	79-01-6	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Trichlorofluoromethane	75-69-4	ug/kg	< 670	< 320	< 810	< 810	< 510	< 730	< 520	< 580	< 930	< 1100	< 2300	< 490	< 650
Vinyl Chloride	75-01-4	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320
Xylenes (total)	1330-20-7	ug/kg	< 330	< 160	< 410	< 410	< 250	< 370	< 260	< 290	< 470	< 550	< 1200	< 250	< 320

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D12-4-01	SD-D13-1-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-D14-3-01	SD-D14-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/16/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N	N	N
Sample Name			SD-D12-4-011N	SD-D13-1-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-D14-3-011N	SD-D14-4-011N
Parent Sample								SD-D13-5-011N			SD-D14-1-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D12-4-01	SD-D13-1-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-D14-3-01	SD-D14-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/16/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N	N	N
Sample Name			SD-D12-4-011N	SD-D13-1-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-D14-3-011N	SD-D14-4-011N
Parent Sample								SD-D13-5-011N			SD-D14-1-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D12-4-01	SD-D13-1-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-D14-3-01	SD-D14-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/16/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N	N	N
Sample Name			SD-D12-4-011N	SD-D13-1-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-D14-3-011N	SD-D14-4-011N
Parent Sample								SD-D13-5-011N			SD-D14-1-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D12-4-01	SD-D13-1-01	SD-D13-2-01	SD-D13-3-01	SD-D13-4-01	SD-D13-5-01	SD-D13-5-01	SD-D13-6-01	SD-D14-1-01	SD-D14-1-01	SD-D14-2-01	SD-D14-3-01	SD-D14-4-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/16/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/13/2001	4/13/2001	4/12/2001	4/12/2001	4/12/2001	4/26/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	FD	N	N	FD	N	N	N	N
Sample Name			SD-D12-4-011N	SD-D13-1-011N	SD-D13-2-011N	SD-D13-3-011N	SD-D13-4-011N	SD-D13-5-010.5FD	SD-D13-5-011N	SD-D13-6-011N	SD-D14-1-010.5FD	SD-D14-1-011N	SD-D14-2-011N	SD-D14-3-011N	SD-D14-4-011N
Parent Sample								SD-D13-5-011N			SD-D14-1-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 19000	< 16000	< 29000	< 29000	< 20000	NA	< 25000	< 19000	NA	< 38000	< 96000	< 21000	< 25000
Di-N-Propyl Ether	111-43-3	ug/kg	< 19000	< 16000	< 29000	< 29000	< 20000	NA	< 25000	< 19000	NA	< 38000	< 96000	< 21000	< 25000
Ethanol	64-17-5	ug/kg	< 19000	< 16000	< 29000	< 29000	< 20000	NA	< 25000	< 19000	NA	< 38000	< 96000	< 21000	< 25000
Ethyl ether	60-29-7	ug/kg	< 19000	< 16000	< 29000	< 29000	< 20000	NA	< 25000	< 19000	NA	< 38000	< 96000	< 21000	< 25000
Methanol	67-56-1	ug/kg	< 19000	< 16000	< 29000	< 29000	< 20000	NA	< 25000	< 19000	NA	< 38000	< 96000	< 21000	< 25000
N-butyl ether	142-96-1	ug/kg	< 19000	< 16000	< 29000	< 29000	< 20000	NA	< 25000	< 19000	NA	< 38000	< 96000	< 21000	< 25000
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-D14-5-01 0.5-1.0 ft 4/11/2001 N SD-D14-5-011N	SD-D14-5-01 1.0-1.5 ft 4/11/2001 N SD-D14-5-011.5N	SD-D14-6-01 0.5-1.0 ft 4/12/2001 N SD-D14-6-011N	SD-D14-6-01 1.0-1.5 ft 4/12/2001 N SD-D14-6-011.5N	SD-D14-7-01 0.5-1.0 ft 4/11/2001 N SD-D14-7-011N	SD-D14-8-01 0.5-1.0 ft 4/11/2001 N SD-D14-8-011N	SD-D15-1-01 0.5-1.0 ft 4/4/2001 N SD-D15-1-011N	SD-E10-1-01 0.5-1.0 ft 4/17/2001 N SD-E10-1-011N	SD-E10-1-01 1.0-1.5 ft 4/17/2001 N SD-E10-1-011.5N	SD-E11-1-01 0.5-1.0 ft 4/17/2001 N SD-E11-1-011N	SD-E11-2-01 0.0-0.5 ft 4/17/2001 FD SD-E11-2-010.5FD SD-E11-2-011N	SD-E11-2-01 0.5-1.0 ft 4/17/2001 N SD-E11-2-011N	SD-E11-3-01 0.5-1.0 ft 4/17/2001 N SD-E11-3-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
1,1,2-Trichloroethane	79-00-5	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
1,1-Dichloroethene	75-35-4	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
1,2-Dichloropropane	78-87-5	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 380	NA	< 310	NA	< 370	< 380	< 510	< 410	NA	< 460	< 350	< 320	< 470
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 3800	NA	< 3100	NA	< 3700	< 3800	< 5100	< 4100	NA	< 460	< 3500	< 3200	< 4700
Acrylonitrile	107-13-1	ug/kg	< 760	NA	< 620	NA	< 740	< 770	< 1000	< 820	NA	< 460	< 700	< 630	< 930
Benzene	71-43-2	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Bromodichloromethane	75-27-4	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Bromoform	75-25-2	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
Bromomethane	74-83-9	ug/kg	< 380	NA	< 310	NA	< 370	< 380	< 510	< 410	NA	< 460	< 350	< 320	< 470
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Chlorobenzene	108-90-7	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
Chloroethane	75-00-3	ug/kg	< 380	NA	< 310	NA	< 370	< 380	< 510	< 410	NA	< 460	< 350	< 320	< 470
Chloroform	67-66-3	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Chloromethane	74-87-3	ug/kg	< 380	NA	< 310	NA	< 370	< 380	< 510	< 410	NA	< 460	< 350	< 320	< 470
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 380	NA	< 310	NA	< 370	< 380	< 510	< 410	NA	< 460	< 350	< 320	< 470
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Toluene	108-88-3	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230
Trichloroethene	79-01-6	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Trichlorofluoromethane	75-69-4	ug/kg	< 380	NA	< 310	NA	< 370	< 380	< 510	< 410	NA	< 460	< 350	< 320	< 470
Vinyl Chloride	75-01-4	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 230	< 170	< 160	< 230
Xylenes (total)	1330-20-7	ug/kg	< 190	NA	< 160	NA	< 190	< 190	< 250	< 210	NA	< 460	< 170	< 160	< 230

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-D14-5-01 0.5-1.0 ft 4/11/2001 N SD-D14-5-011N	SD-D14-5-01 1.0-1.5 ft 4/11/2001 N SD-D14-5-011.5N	SD-D14-6-01 0.5-1.0 ft 4/12/2001 N SD-D14-6-011N	SD-D14-6-01 1.0-1.5 ft 4/12/2001 N SD-D14-6-011.5N	SD-D14-7-01 0.5-1.0 ft 4/11/2001 N SD-D14-7-011N	SD-D14-8-01 0.5-1.0 ft 4/11/2001 N SD-D14-8-011N	SD-D15-1-01 0.5-1.0 ft 4/4/2001 N SD-D15-1-011N	SD-E10-1-01 0.5-1.0 ft 4/17/2001 N SD-E10-1-011N	SD-E10-1-01 1.0-1.5 ft 4/17/2001 N SD-E10-1-011.5N	SD-E11-1-01 0.5-1.0 ft 4/17/2001 N SD-E11-1-011N	SD-E11-2-01 0.0-0.5 ft 4/17/2001 FD SD-E11-2-010.5FD SD-E11-2-011N	SD-E11-2-01 0.5-1.0 ft 4/17/2001 N SD-E11-2-011N	SD-E11-3-01 0.5-1.0 ft 4/17/2001 N SD-E11-3-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 1200	NA	< 930	< 950	< 1100	NA	NA	< 1100	< 1200	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 290	NA	< 240	< 240	< 280	NA	NA	< 280	< 310	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 290	NA	< 240	< 240	< 280	NA	NA	< 280	< 310	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	150	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 1200	NA	< 930	< 950	< 1100	NA	NA	< 1100	< 1200	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 57	NA	< 46	< 47	78	NA	NA	120	230	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 57	NA	< 46	< 47	91	NA	NA	110	240	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 57	NA	< 46	< 47	120	NA	NA	190	390	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	110	180	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	78	160	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-D14-5-01 0.5-1.0 ft 4/11/2001 N SD-D14-5-011N	SD-D14-5-01 1.0-1.5 ft 4/11/2001 N SD-D14-5-011.5N	SD-D14-6-01 0.5-1.0 ft 4/12/2001 N SD-D14-6-011N	SD-D14-6-01 1.0-1.5 ft 4/12/2001 N SD-D14-6-011.5N	SD-D14-7-01 0.5-1.0 ft 4/11/2001 N SD-D14-7-011N	SD-D14-8-01 0.5-1.0 ft 4/11/2001 N SD-D14-8-011N	SD-D15-1-01 0.5-1.0 ft 4/4/2001 N SD-D15-1-011N	SD-E10-1-01 0.5-1.0 ft 4/17/2001 N SD-E10-1-011N	SD-E10-1-01 1.0-1.5 ft 4/17/2001 N SD-E10-1-011.5N	SD-E11-1-01 0.5-1.0 ft 4/17/2001 N SD-E11-1-011N	SD-E11-2-01 0.0-0.5 ft 4/17/2001 FD SD-E11-2-010.5FD SD-E11-2-011N	SD-E11-2-01 0.5-1.0 ft 4/17/2001 N SD-E11-2-011N	SD-E11-3-01 0.5-1.0 ft 4/17/2001 N SD-E11-3-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	130	130	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 57	NA	< 46	< 47	94	NA	NA	150	230	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	340	< 120	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	1500	850	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	< 57	NA	< 46	< 47	160	NA	NA	230	540	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 290	NA	< 240	< 240	< 280	NA	NA	< 280	< 310	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 57	NA	< 46	< 47	57	NA	NA	95	190	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	< 55	< 60	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 57	NA	< 46	< 47	< 55	NA	NA	1200	290	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 290	NA	< 240	< 240	< 280	NA	NA	< 830	< 310	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	< 57	NA	< 46	< 47	90	NA	NA	170	360	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	< 120	NA	< 93	< 95	< 110	NA	NA	< 110	< 120	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	< 57	NA	< 46	< 47	170	NA	NA	260	490	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D14-5-01	SD-D14-5-01	SD-D14-6-01	SD-D14-6-01	SD-D14-7-01	SD-D14-8-01	SD-D15-1-01	SD-E10-1-01	SD-E10-1-01	SD-E11-1-01	SD-E11-2-01	SD-E11-2-01	SD-E11-3-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2001	4/11/2001	4/12/2001	4/12/2001	4/11/2001	4/11/2001	4/4/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-D14-5-011N	SD-D14-5-011.5N	SD-D14-6-011N	SD-D14-6-011.5N	SD-D14-7-011N	SD-D14-8-011N	SD-D15-1-011N	SD-E10-1-011N	SD-E10-1-011.5N	SD-E11-1-011N	SD-E11-2-010.5FD	SD-E11-2-011N	SD-E11-3-011N
Parent Sample													SD-E11-2-011N		
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 170	NA	200	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	< 100000	NA	< 83000	< 85000	< 100000	NA	NA	248000	400000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 3400	NA	< 2800	< 2800	< 3300	NA	NA	< 3300	< 3600	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 3400	NA	< 2800	< 2800	< 3300	NA	NA	< 3300	< 3600	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	< 170	NA	< 140	< 140	< 170	NA	NA	< 170	< 180	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 1.1	NA	< 0.89	< 0.91	< 1.1	NA	NA	1.2	< 1.2	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	< 0.63	NA	0.69	1	1.8	NA	NA	8.9	4.5	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.28	NA	0.43	0.83	0.6	NA	NA	< 0.031	< 0.034	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	< 0.092	NA	< 0.075	0.11	0.18	NA	NA	< 0.091	< 0.099	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	18.9	NA	12.7	18.8	15.1	NA	NA	13.5	7.8	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	4.2	NA	14.4	12.2	7.2	NA	NA	59.2	26.3	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	2.9	NA	11.8	4.7	12.7	NA	NA	365	138	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.0043	NA	0.055	< 0.0035	0.097	NA	NA	0.5	0.28	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	4.5	NA	6.1	8.5	5.4	NA	NA	10.7	5.1	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	< 0.8	NA	< 0.66	< 0.67	< 0.79	NA	NA	1.8	< 0.87	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	< 0.23	NA	< 0.19	0.31	< 0.23	NA	NA	< 0.23	< 0.25	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1.4	NA	< 1.2	< 1.2	< 1.4	NA	NA	1.6	< 1.5	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	51.5	NA	47.3	52.9	41.2	NA	NA	94.9	89.7	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-D14-5-01	SD-D14-5-01	SD-D14-6-01	SD-D14-6-01	SD-D14-7-01	SD-D14-8-01	SD-D15-1-01	SD-E10-1-01	SD-E10-1-01	SD-E11-1-01	SD-E11-2-01	SD-E11-2-01	SD-E11-3-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/11/2001	4/11/2001	4/12/2001	4/12/2001	4/11/2001	4/11/2001	4/4/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N	N
Sample Name			SD-D14-5-011N	SD-D14-5-011.5N	SD-D14-6-011N	SD-D14-6-011.5N	SD-D14-7-011N	SD-D14-8-011N	SD-D15-1-011N	SD-E10-1-011N	SD-E10-1-011.5N	SD-E11-1-011N	SD-E11-2-010.5FD	SD-E11-2-011N	SD-E11-3-011N
Parent Sample													SD-E11-2-011N		
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	41.8	NA	27.8	29.4	40.2	NA	NA	39.6	44.7	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	17000	NA	5600	8100	15600	NA	NA	14600	32900	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 17000	NA	< 14000	NA	< 14000	< 17000	< 22000	< 17000	NA	< 18000	NA	< 14000	< 20000
Di-N-Propyl Ether	111-43-3	ug/kg	< 17000	NA	< 14000	NA	< 14000	< 17000	< 22000	< 17000	NA	< 18000	NA	< 14000	< 20000
Ethanol	64-17-5	ug/kg	< 17000	NA	< 14000	NA	< 14000	< 17000	< 22000	< 17000	NA	< 18000	NA	< 14000	< 20000
Ethyl ether	60-29-7	ug/kg	< 17000	NA	< 14000	NA	< 14000	< 17000	< 22000	< 17000	NA	< 18000	NA	< 14000	< 20000
Methanol	67-56-1	ug/kg	< 17000	NA	< 14000	NA	< 14000	< 17000	< 22000	< 17000	NA	< 18000	NA	< 14000	24000
N-butyl ether	142-96-1	ug/kg	< 17000	NA	< 14000	NA	< 14000	< 17000	< 22000	< 17000	NA	< 18000	NA	< 14000	< 20000
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	99.9	NA	99.9	100	98.2	NA	NA	86.4	100	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	100	NA	100	100	100	NA	NA	91.5	100	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	100	NA	100	100	100	NA	NA	100	100	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	55.6	NA	43.6	47.4	53.6	NA	NA	55.2	87.2	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	1.4	NA	0.9	1	1.3	NA	NA	1.6	3.3	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	36.8	NA	17.9	25.6	32.4	NA	NA	41.4	71.2	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	80.8	NA	75.7	83.2	80.7	NA	NA	82	97.6	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	17.3	NA	9.1	10.7	12.9	NA	NA	19.7	40.3	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	75.3	NA	66	77.4	75.1	NA	NA	76.9	95.7	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	69.2	NA	58.4	70.9	70.5	NA	NA	69.5	93.1	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	6.1	NA	3	4	4.2	NA	NA	6.8	11.8	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-E14-1-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01	SD-E15-3-01	SD-E16-1-01	SD-E16-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/17/2001	4/16/2001	4/16/2001	4/17/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-E14-1-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N	SD-E15-3-011.5N	SD-E16-1-011N	SD-E16-1-011.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 420	< 310	< 610	< 400	< 1100	< 1500	< 1100	< 290	< 610	< 510	NA	< 370	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 4200	< 3100	< 6100	< 4000	< 11000	< 15000	< 11000	< 2900	< 6100	< 5100	NA	< 3700	NA
Acrylonitrile	107-13-1	ug/kg	< 840	< 610	< 1200	< 790	< 2300	< 3100	< 2200	< 580	< 1200	< 1000	NA	< 740	NA
Benzene	71-43-2	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Bromodichloromethane	75-27-4	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Bromoform	75-25-2	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Bromomethane	74-83-9	ug/kg	< 420	< 310	< 610	< 400	< 1100	< 1500	< 1100	< 290	< 610	< 510	NA	< 370	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Chlorobenzene	108-90-7	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Chloroethane	75-00-3	ug/kg	< 420	< 310	< 610	< 400	< 1100	< 1500	< 1100	< 290	< 610	< 510	NA	< 370	NA
Chloroform	67-66-3	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Chloromethane	74-87-3	ug/kg	< 420	< 310	< 610	< 400	< 1100	< 1500	< 1100	< 290	< 610	< 510	NA	< 370	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 420	< 310	< 610	< 400	< 1100	< 1500	< 1100	< 290	< 610	< 510	NA	< 370	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Toluene	108-88-3	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Trichloroethene	79-01-6	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 420	< 310	< 610	< 400	< 1100	< 1500	< 1100	< 290	< 610	< 510	NA	< 370	NA
Vinyl Chloride	75-01-4	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA
Xylenes (total)	1330-20-7	ug/kg	< 210	< 150	< 300	< 200	< 580	< 770	< 540	< 150	< 300	< 250	NA	< 180	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-E14-1-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01	SD-E15-3-01	SD-E16-1-01	SD-E16-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/17/2001	4/16/2001	4/16/2001	4/17/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-E14-1-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N	SD-E15-3-011.5N	SD-E16-1-011N	SD-E16-1-011.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1400	NA	< 1200
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 360	NA	< 300
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 360	NA	< 300
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1400	NA	< 1200
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93	NA	< 58
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	NA	< 58
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	NA	< 58
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79	NA	< 58
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-E14-1-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01	SD-E15-3-01	SD-E16-1-01	SD-E16-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/17/2001	4/16/2001	4/16/2001	4/17/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-E14-1-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N	SD-E15-3-011.5N	SD-E16-1-011N	SD-E16-1-011.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120	NA	< 58
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	NA	63
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 360	NA	< 300
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78	NA	< 58
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 69	NA	< 58
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 360	NA	< 300
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	< 58
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	NA	< 120
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	260	NA	66

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-E14-1-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01	SD-E15-3-01	SD-E16-1-01	SD-E16-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/17/2001	4/16/2001	4/16/2001	4/17/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-E14-1-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N	SD-E15-3-011.5N	SD-E16-1-011N	SD-E16-1-011.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130000	NA	< 110000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4200	NA	< 3500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4200	NA	< 3500
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 180
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.4	NA	< 1.1
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9	NA	< 0.67
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.36	NA	0.4
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	NA	0.11
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.8	NA	6.4
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.8	NA	11.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63	NA	9.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.51	NA	0.039
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5	NA	5
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 0.84
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.29	NA	< 0.25
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.8	NA	< 1.5
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56.7	NA	51.3

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E11-4-01	SD-E12-1-01	SD-E12-2-01	SD-E12-3-01	SD-E14-1-01	SD-E14-2-01	SD-E14-3-01	SD-E15-1-01	SD-E15-2-01	SD-E15-3-01	SD-E15-3-01	SD-E16-1-01	SD-E16-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			4/17/2001	4/16/2001	4/16/2001	4/17/2001	4/11/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001	4/10/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-E11-4-011N	SD-E12-1-011N	SD-E12-2-011N	SD-E12-3-011N	SD-E14-1-011N	SD-E14-2-011N	SD-E14-3-011N	SD-E15-1-011N	SD-E15-2-011N	SD-E15-3-011N	SD-E15-3-011.5N	SD-E16-1-011N	SD-E16-1-011.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	52.2	NA	43
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35700	NA	26400
Amyl alcohol	71-41-0	ug/kg	< 19000	< 14000	< 24000	< 17000	< 45000	< 57000	< 43000	< 14000	< 22000	< 21000	NA	< 18000	NA
Di-N-Propyl Ether	111-43-3	ug/kg	< 19000	< 14000	< 24000	< 17000	< 45000	< 57000	< 43000	< 14000	< 22000	< 21000	NA	< 18000	NA
Ethanol	64-17-5	ug/kg	< 19000	< 14000	< 24000	< 17000	< 45000	< 57000	< 43000	< 14000	< 22000	< 21000	NA	< 18000	NA
Ethyl ether	60-29-7	ug/kg	< 19000	< 14000	< 24000	< 17000	< 45000	< 57000	< 43000	< 14000	< 22000	< 21000	NA	< 18000	NA
Methanol	67-56-1	ug/kg	< 19000	< 14000	< 24000	< 17000	65000	< 57000	52000	< 14000	< 22000	< 21000	NA	< 18000	NA
N-butyl ether	142-96-1	ug/kg	< 19000	< 14000	< 24000	< 17000	< 45000	< 57000	< 43000	< 14000	< 22000	< 21000	NA	< 18000	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	99.7	NA	100
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	100
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	100
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68.1	NA	46.2
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	NA	1.9
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44.4	NA	28.4
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	92.6	NA	91.1
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.5	NA	12.8
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89.2	NA	85.9
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.9	NA	77.1
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.8	NA	5.3

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E16-2-01	SD-E16-2-01	SD-E16-3-01	SD-F10-1-01	SD-F10-1-01	SD-F10-2-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/10/2001	4/10/2001	4/10/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N	FD	N	FD
Sample Name			SD-E16-2-011N	SD-E16-2-011.5N	SD-E16-3-011N	SD-F10-1-010.5FD	SD-F10-1-011N	SD-F10-2-011N	SD-F10-2-011.5N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F13-1-010.5FD	SD-F13-1-011N	SD-F13-1-011FD
Parent Sample						SD-F10-1-011N							SD-F13-1-011N		SD-F13-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 370	NA	< 420	< 320	< 340	< 310	NA	< 640	< 360	< 380	< 330	< 340	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 3700	NA	< 4200	< 3200	< 3400	< 3100	NA	< 6400	< 3600	< 3800	< 3300	< 3400	NA
Acrylonitrile	107-13-1	ug/kg	< 740	NA	< 850	< 630	< 670	< 630	NA	< 1300	< 730	< 770	< 660	< 680	NA
Benzene	71-43-2	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Bromodichloromethane	75-27-4	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Bromoform	75-25-2	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Bromomethane	74-83-9	ug/kg	< 370	NA	< 420	< 320	< 340	< 310	NA	< 640	< 360	< 380	< 330	< 340	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Chlorobenzene	108-90-7	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Chloroethane	75-00-3	ug/kg	< 370	NA	< 420	< 320	< 340	< 310	NA	< 640	< 360	< 380	< 330	< 340	NA
Chloroform	67-66-3	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Chloromethane	74-87-3	ug/kg	< 370	NA	< 420	< 320	< 340	< 310	NA	< 640	< 360	< 380	< 330	< 340	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 370	NA	< 420	< 320	< 340	< 310	NA	< 640	< 360	< 380	< 330	< 340	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Toluene	108-88-3	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Trichloroethene	79-01-6	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 370	NA	< 420	< 320	< 340	< 310	NA	< 640	< 360	< 380	< 330	< 340	NA
Vinyl Chloride	75-01-4	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA
Xylenes (total)	1330-20-7	ug/kg	< 190	NA	< 210	< 160	< 170	< 160	NA	< 320	< 180	< 190	< 170	< 170	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E16-2-01	SD-E16-2-01	SD-E16-3-01	SD-F10-1-01	SD-F10-1-01	SD-F10-2-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/10/2001	4/10/2001	4/10/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N	FD	N	FD
Sample Name			SD-E16-2-011N	SD-E16-2-011.5N	SD-E16-3-011N	SD-F10-1-010.5FD	SD-F10-1-011N	SD-F10-2-011N	SD-F10-2-011.5N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F13-1-010.5FD	SD-F13-1-011N	SD-F13-1-011FD
Parent Sample						SD-F10-1-011N							SD-F13-1-011N		SD-F13-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 1000	NA	NA	NA	NA	< 9100	NA	NA	NA	NA	< 930	< 980
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
2-Chlorophenol	95-57-8	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 260	NA	NA	NA	NA	< 2300	NA	NA	NA	NA	< 240	< 250
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 260	NA	NA	NA	NA	< 2300	NA	NA	NA	NA	< 240	< 250
Acenaphthene	83-32-9	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	85
Acenaphthylene	208-96-8	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	63	250
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	110	550
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 1000	NA	NA	NA	NA	< 9100	NA	NA	NA	NA	< 930	< 980
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	280	1200
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	310	1200
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 50	NA	NA	NA	NA	640	NA	NA	NA	NA	500	1700
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	230	770
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	220	690
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E16-2-01	SD-E16-2-01	SD-E16-3-01	SD-F10-1-01	SD-F10-1-01	SD-F10-2-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/10/2001	4/10/2001	4/10/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N	FD	N	FD
Sample Name			SD-E16-2-011N	SD-E16-2-011.5N	SD-E16-3-011N	SD-F10-1-010.5FD	SD-F10-1-011N	SD-F10-2-011N	SD-F10-2-011.5N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F13-1-010.5FD	SD-F13-1-011N	SD-F13-1-011FD
Parent Sample						SD-F10-1-011N							SD-F13-1-011N		SD-F13-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	360	1300
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	60	230
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Dimethylphthalate	131-11-3	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Fluoranthene	206-44-0	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	760	3200
Fluorene	86-73-7	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	160	310
Hexachlorobenzene	118-74-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 260	NA	NA	NA	NA	< 2300	NA	NA	NA	NA	< 240	< 250
Hexachloroethane	67-72-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	260	880
Isophorone	78-59-1	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
Naphthalene	91-20-3	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 100	NA	NA	NA	NA	< 2300	NA	NA	NA	NA	< 93	< 98
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	< 46	< 48
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 50	NA	NA	NA	NA	14000	NA	NA	NA	NA	1100	1300
Pentachlorophenol	87-86-5	ug/kg	NA	< 260	NA	NA	NA	NA	< 2300	NA	NA	NA	NA	< 240	< 250
Phenanthrene	85-01-8	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	490	2100
Phenol	108-95-2	ug/kg	NA	< 100	NA	NA	NA	NA	< 910	NA	NA	NA	NA	< 93	< 98
Pyrene	129-00-0	ug/kg	NA	< 50	NA	NA	NA	NA	< 450	NA	NA	NA	NA	680	2800

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E16-2-01	SD-E16-2-01	SD-E16-3-01	SD-F10-1-01	SD-F10-1-01	SD-F10-2-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/10/2001	4/10/2001	4/10/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N	FD	N	FD
Sample Name			SD-E16-2-011N	SD-E16-2-011.5N	SD-E16-3-011N	SD-F10-1-010.5FD	SD-F10-1-011N	SD-F10-2-011N	SD-F10-2-011.5N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F13-1-010.5FD	SD-F13-1-011N	SD-F13-1-011FD
Parent Sample						SD-F10-1-011N							SD-F13-1-011N		SD-F13-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	< 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	< 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	< 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
2-Nitrotoluene	88-72-2	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
3-Nitrotoluene	99-08-1	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
4-Nitrotoluene	99-99-0	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
Nitrobenzene	98-95-3	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
Nitrocellulose	9004-70-0	ug/kg	NA	< 90000	NA	NA	NA	NA	2200000	NA	NA	NA	NA	215000	197000
Nitroglycerin	55-63-0	ug/kg	NA	< 3000	NA	NA	NA	NA	50400	NA	NA	NA	NA	< 2800	< 2900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 3000	NA	NA	NA	NA	< 2700	NA	NA	NA	NA	< 2800	< 2900
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 150	NA	NA	NA	NA	560	NA	NA	NA	NA	< 140	< 150
Tetryl	479-45-8	ug/kg	NA	< 150	NA	NA	NA	NA	< 140	NA	NA	NA	NA	< 140	< 150
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.96	NA	NA	NA	NA	1.2	NA	NA	NA	NA	< 0.87	< 0.95
Arsenic	7440-38-2	mg/kg	NA	0.74	NA	NA	NA	NA	9.4	NA	NA	NA	NA	2.8	2.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.19	NA	NA	NA	NA	0.55	NA	NA	NA	NA	0.3	0.39
Cadmium	7440-43-9	mg/kg	NA	< 0.081	NA	NA	NA	NA	0.45	NA	NA	NA	NA	0.11	< 0.081
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	14.7	NA	NA	NA	NA	12.4	NA	NA	NA	NA	21.4	17.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	3	NA	NA	NA	NA	123	NA	NA	NA	NA	10.4	10.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	6.9	NA	NA	NA	NA	81.5	NA	NA	NA	NA	73.1	65.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.01	NA	NA	NA	NA	0.87	NA	NA	NA	NA	0.56	0.57
Nickel	7440-02-0	mg/kg	NA	2.6	NA	NA	NA	NA	9.8	NA	NA	NA	NA	5	4.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	< 0.71	NA	NA	NA	NA	0.98	NA	NA	NA	NA	< 0.64	< 0.7
Silver	7440-22-4	mg/kg	NA	< 0.21	NA	NA	NA	NA	0.23	NA	NA	NA	NA	< 0.19	< 0.21
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1.3	NA	NA	NA	NA	< 1.2	NA	NA	NA	NA	< 1.1	< 1.2
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	24.6	NA	NA	NA	NA	245	NA	NA	NA	NA	85	81.8

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-E16-2-01	SD-E16-2-01	SD-E16-3-01	SD-F10-1-01	SD-F10-1-01	SD-F10-2-01	SD-F10-2-01	SD-F11-1-01	SD-F11-2-01	SD-F12-1-01	SD-F13-1-01	SD-F13-1-01	SD-F13-1-01
Depths			0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/10/2001	4/10/2001	4/10/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	4/18/2001	4/18/2001	4/17/2001	4/16/2001	4/16/2001	4/16/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N	FD	N	FD
Sample Name			SD-E16-2-011N	SD-E16-2-011.5N	SD-E16-3-011N	SD-F10-1-010.5FD	SD-F10-1-011N	SD-F10-2-011N	SD-F10-2-011.5N	SD-F11-1-011N	SD-F11-2-011N	SD-F12-1-011N	SD-F13-1-010.5FD	SD-F13-1-011N	SD-F13-1-011FD
Parent Sample						SD-F10-1-011N							SD-F13-1-011N		SD-F13-1-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	33.5	NA	NA	NA	NA	26.4	NA	NA	NA	NA	28.1	31.8
Total Organic Carbon	ARC-TOC	mg/kg	NA	25900	NA	NA	NA	NA	32000	NA	NA	NA	NA	13500	22600
Amyl alcohol	71-41-0	ug/kg	< 15000	NA	< 17000	NA	< 14000	< 14000	NA	< 22000	< 14000	< 16000	NA	< 14000	< 15000
Di-N-Propyl Ether	111-43-3	ug/kg	< 15000	NA	< 17000	NA	< 14000	< 14000	NA	< 22000	< 14000	< 16000	NA	< 14000	< 15000
Ethanol	64-17-5	ug/kg	< 15000	NA	< 17000	NA	< 14000	< 14000	NA	< 22000	< 14000	< 16000	NA	< 14000	< 15000
Ethyl ether	60-29-7	ug/kg	< 15000	NA	< 17000	NA	< 14000	< 14000	NA	< 22000	< 14000	< 16000	NA	< 14000	< 15000
Methanol	67-56-1	ug/kg	< 15000	NA	< 17000	NA	< 14000	< 14000	NA	< 22000	< 14000	< 16000	NA	< 14000	< 15000
N-butyl ether	142-96-1	ug/kg	< 15000	NA	< 17000	NA	< 14000	< 14000	NA	< 22000	< 14000	< 16000	NA	< 14000	< 15000
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	96.3	NA	NA	NA	NA	100	NA	NA	NA	NA	99.6	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	100	NA	NA	NA	NA	100	NA	NA	NA	NA	100	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	100	NA	NA	NA	NA	100	NA	NA	NA	NA	100	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	43.4	NA	NA	NA	NA	56	NA	NA	NA	NA	66.9	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	0.6	NA	NA	NA	NA	2.7	NA	NA	NA	NA	1.1	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	23.9	NA	NA	NA	NA	38.4	NA	NA	NA	NA	46.1	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	78.4	NA	NA	NA	NA	78.8	NA	NA	NA	NA	85.6	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	8.9	NA	NA	NA	NA	20.1	NA	NA	NA	NA	16.9	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	72	NA	NA	NA	NA	74.7	NA	NA	NA	NA	79.6	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	63.9	NA	NA	NA	NA	70.5	NA	NA	NA	NA	74.7	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	2.5	NA	NA	NA	NA	7.9	NA	NA	NA	NA	4.7	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-F14-1-01	SD-F14-2-01	SD-F14-2-01	SD-G12-1-01	SD-G12-2-01	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-H12-2-01	SD-H12-3-01	SD-H5-1-01	SD-H7-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2001	4/11/2001	4/11/2001	4/16/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/17/2001	4/17/2001	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F14-1-011N	SD-F14-2-011N	SD-F14-2-011.5N	SD-G12-1-011N	SD-G12-2-011N	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-H12-2-011N	SD-H12-3-011N	SD-H5-1-011N	SD-H7-1-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,1,2-Trichloroethane	79-00-5	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,1-Dichloroethene	75-35-4	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,2-Dichloropropane	78-87-5	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 300	< 420	NA	< 460	< 290	< 490	< 340	< 340	< 420	< 410	< 310	< 330	< 340
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 3000	< 4200	NA	< 4600	< 2900	< 4900	< 3400	< 3400	< 4200	< 4100	< 3100	< 3300	< 3400
Acrylonitrile	107-13-1	ug/kg	< 600	< 840	NA	< 920	< 590	< 970	< 670	< 680	< 830	< 820	< 630	< 660	< 670
Benzene	71-43-2	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Bromodichloromethane	75-27-4	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Bromoform	75-25-2	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Bromomethane	74-83-9	ug/kg	< 300	< 420	NA	< 460	< 290	< 490	< 340	< 340	< 420	< 410	< 310	< 330	< 340
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Chlorobenzene	108-90-7	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Chloroethane	75-00-3	ug/kg	< 300	< 420	NA	< 460	< 290	< 490	< 340	< 340	< 420	< 410	< 310	< 330	< 340
Chloroform	67-66-3	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Chloromethane	74-87-3	ug/kg	< 300	< 420	NA	< 460	< 290	< 490	< 340	< 340	< 420	< 410	< 310	< 330	< 340
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 300	< 420	NA	< 460	< 290	< 490	< 340	< 340	< 420	< 410	< 310	< 330	< 340
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Toluene	108-88-3	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Trichloroethene	79-01-6	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Trichlorofluoromethane	75-69-4	ug/kg	< 300	< 420	NA	< 460	< 290	< 490	< 340	< 340	< 420	< 410	< 310	< 330	< 340
Vinyl Chloride	75-01-4	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170
Xylenes (total)	1330-20-7	ug/kg	< 150	< 210	NA	< 230	< 150	< 240	< 170	< 170	< 210	< 200	< 160	< 170	< 170

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-F14-1-01	SD-F14-2-01	SD-F14-2-01	SD-G12-1-01	SD-G12-2-01	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-H12-2-01	SD-H12-3-01	SD-H5-1-01	SD-H7-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2001	4/11/2001	4/11/2001	4/16/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/17/2001	4/17/2001	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F14-1-011N	SD-F14-2-011N	SD-F14-2-011.5N	SD-G12-1-011N	SD-G12-2-011N	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-H12-2-011N	SD-H12-3-011N	SD-H5-1-011N	SD-H7-1-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 940	NA	< 1000	< 1200	NA	NA	NA	NA	< 1200	< 910	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 240	NA	< 260	< 300	NA	NA	NA	NA	< 290	< 230	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 240	NA	< 260	< 300	NA	NA	NA	NA	< 290	< 230	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 46	NA	61	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 46	NA	76	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 940	NA	< 1000	< 1200	NA	NA	NA	NA	< 1200	< 910	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	120	NA	270	160	NA	NA	NA	NA	130	91	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	150	NA	270	160	NA	NA	NA	NA	120	110	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	220	NA	350	240	NA	NA	NA	NA	250	170	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	110	NA	200	110	NA	NA	NA	NA	130	83	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	110	NA	130	90	NA	NA	NA	NA	100	70	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-F14-1-01	SD-F14-2-01	SD-F14-2-01	SD-G12-1-01	SD-G12-2-01	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-H12-2-01	SD-H12-3-01	SD-H5-1-01	SD-H7-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2001	4/11/2001	4/11/2001	4/16/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/17/2001	4/17/2001	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F14-1-011N	SD-F14-2-011N	SD-F14-2-011.5N	SD-G12-1-011N	SD-G12-2-011N	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-H12-2-011N	SD-H12-3-011N	SD-H5-1-011N	SD-H7-1-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	160	NA	370	270	NA	NA	NA	NA	190	140	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 46	NA	61	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	260	NA	610	430	NA	NA	NA	NA	200	200	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 240	NA	< 260	< 300	NA	NA	NA	NA	< 290	< 230	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	110	NA	200	110	NA	NA	NA	NA	150	82	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 46	NA	< 50	< 58	NA	NA	NA	NA	< 57	< 45	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	420	NA	540	87	NA	NA	NA	NA	< 57	330	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 240	NA	< 260	< 300	NA	NA	NA	NA	< 290	< 230	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	180	NA	360	220	NA	NA	NA	NA	76	100	NA	NA	NA
Phenol	108-95-2	ug/kg	< 94	NA	< 100	< 120	NA	NA	NA	NA	< 120	< 91	NA	NA	NA
Pyrene	129-00-0	ug/kg	260	NA	610	370	NA	NA	NA	NA	170	210	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-F14-1-01	SD-F14-2-01	SD-F14-2-01	SD-G12-1-01	SD-G12-2-01	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-H12-2-01	SD-H12-3-01	SD-H5-1-01	SD-H7-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2001	4/11/2001	4/11/2001	4/16/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/17/2001	4/17/2001	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F14-1-011N	SD-F14-2-011N	SD-F14-2-011.5N	SD-G12-1-011N	SD-G12-2-011N	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-H12-2-011N	SD-H12-3-011N	SD-H5-1-011N	SD-H7-1-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 84000	NA	< 91000	< 110000	NA	NA	NA	NA	< 100000	< 82000	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 2800	NA	< 3000	< 3500	NA	NA	NA	NA	< 3500	< 2700	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 2800	NA	< 3000	< 3500	NA	NA	NA	NA	< 3500	< 2700	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 140	NA	< 150	< 180	NA	NA	NA	NA	< 170	< 140	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	< 0.88	NA	< 0.98	1.2	NA	NA	NA	NA	1.2	< 0.86	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.1	NA	3.1	7.1	NA	NA	NA	NA	10	4.4	NA	NA	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	< 0.026	NA	0.39	0.49	NA	NA	NA	NA	0.53	0.84	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.075	NA	< 0.083	0.28	NA	NA	NA	NA	< 0.095	< 0.073	NA	NA	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	15.7	NA	27.9	15.4	NA	NA	NA	NA	12.4	60.7	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	6.4	NA	16.3	26.1	NA	NA	NA	NA	28.9	36.2	NA	NA	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	70	NA	87.7	453	NA	NA	NA	NA	310	25.1	NA	NA	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.26	NA	0.43	0.68	NA	NA	NA	NA	0.49	0.58	NA	NA	NA
Nickel	7440-02-0	mg/kg	3.6	NA	6	8.3	NA	NA	NA	NA	6.3	10.2	NA	NA	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 0.65	NA	0.98	1.2	NA	NA	NA	NA	1.1	< 0.63	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.19	NA	< 0.21	0.26	NA	NA	NA	NA	< 0.24	< 0.19	NA	NA	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1.2	NA	< 1.3	< 1.5	NA	NA	NA	NA	< 1.5	3.2	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	55.4	NA	66.8	76.7	NA	NA	NA	NA	51.7	108	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-F14-1-01	SD-F14-2-01	SD-F14-2-01	SD-G12-1-01	SD-G12-2-01	SD-G12-3-01	SD-H11-1-01	SD-H11-2-01	SD-H12-1-01	SD-H12-2-01	SD-H12-3-01	SD-H5-1-01	SD-H7-1-01
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/13/2001	4/11/2001	4/11/2001	4/16/2001	4/17/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/17/2001	4/17/2001	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-F14-1-011N	SD-F14-2-011N	SD-F14-2-011.5N	SD-G12-1-011N	SD-G12-2-011N	SD-G12-3-011N	SD-H11-1-011N	SD-H11-2-011N	SD-H12-1-011N	SD-H12-2-011N	SD-H12-3-011N	SD-H5-1-011N	SD-H7-1-011N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	28.6	NA	33.9	43.1	NA	NA	NA	NA	42.1	26.6	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	18200	NA	13200	39000	NA	NA	NA	NA	54900	22100	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	< 14000	< 15000	NA	< 18000	< 13000	< 16000	< 16000	< 13000	< 17000	< 14000	< 14000	< 15000	< 14000
Di-N-Propyl Ether	111-43-3	ug/kg	< 14000	< 15000	NA	< 18000	< 13000	< 16000	< 16000	< 13000	< 17000	< 14000	< 14000	< 15000	< 14000
Ethanol	64-17-5	ug/kg	< 14000	< 15000	NA	< 18000	< 13000	< 16000	< 16000	< 13000	< 17000	< 14000	< 14000	< 15000	< 14000
Ethyl ether	60-29-7	ug/kg	< 14000	< 15000	NA	< 18000	< 13000	< 16000	< 16000	< 13000	< 17000	< 14000	< 14000	< 15000	< 14000
Methanol	67-56-1	ug/kg	< 14000	< 15000	NA	< 18000	< 13000	< 16000	< 16000	< 13000	< 17000	< 14000	< 14000	< 15000	< 14000
N-butyl ether	142-96-1	ug/kg	< 14000	< 15000	NA	< 18000	< 13000	< 16000	< 16000	< 13000	< 17000	< 14000	< 14000	< 15000	< 14000
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	87.6	NA	93	89.3	NA	NA	NA	NA	87.9	85	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	100	NA	100	100	NA	NA	NA	NA	100	99.9	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	100	NA	100	100	NA	NA	NA	NA	100	100	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	37.8	NA	40.3	37.4	NA	NA	NA	NA	61.5	47.6	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	0.6	NA	1	1.8	NA	NA	NA	NA	4.9	2.7	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	22.1	NA	23.6	23.3	NA	NA	NA	NA	45.9	40.6	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	58.1	NA	61.6	59.4	NA	NA	NA	NA	82.4	62	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	8.6	NA	10.8	12.8	NA	NA	NA	NA	28.2	30.8	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	52.1	NA	55.8	51.7	NA	NA	NA	NA	79.5	59	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	46.9	NA	50.9	45.9	NA	NA	NA	NA	76.4	56	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	2.5	NA	3.6	5.2	NA	NA	NA	NA	12.5	6.7	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-H7-2-01	SD-H7-2-01	SD-H7-2-01	SD-H8-4-01	SD-H8-4-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			FD	N	FD	N	N	N	FD	N	FD	N	FD	N	FD
Sample Name			SD-H7-2-010.5FD	SD-H7-2-011N	SD-H7-2-011FD	SD-H8-4-011N	SD-H8-4-011.5N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011N	SD-I11-2-011FD	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011N	SD-I5-2-011FD
Parent Sample			SD-H7-2-011N		SD-H7-2-011N				SD-I11-2-011N		SD-I11-2-011N		SD-I5-2-011N		SD-I5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 340	< 330	NA	< 330	NA	< 400	< 320	< 400	NA	< 280	< 350	< 290	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 3400	< 3200	NA	< 3300	NA	< 4000	< 3200	< 4000	NA	< 2800	< 3500	< 3000	NA
Acrylonitrile	107-13-1	ug/kg	< 670	< 650	NA	< 650	NA	< 790	< 640	< 800	NA	< 570	< 710	< 590	NA
Benzene	71-43-2	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Bromodichloromethane	75-27-4	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Bromoform	75-25-2	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Bromomethane	74-83-9	ug/kg	< 340	< 330	NA	< 330	NA	< 400	< 320	< 400	NA	< 280	< 350	< 290	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Chlorobenzene	108-90-7	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Chloroethane	75-00-3	ug/kg	< 340	< 330	NA	< 330	NA	< 400	< 320	< 400	NA	< 280	< 350	< 290	NA
Chloroform	67-66-3	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Chloromethane	74-87-3	ug/kg	< 340	< 330	NA	< 330	NA	< 400	< 320	< 400	NA	< 280	< 350	< 290	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 340	< 330	NA	< 330	NA	< 400	< 320	< 400	NA	< 280	< 350	< 290	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Toluene	108-88-3	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Trichloroethene	79-01-6	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 340	< 330	NA	< 330	NA	< 400	< 320	< 400	NA	< 280	< 350	< 290	NA
Vinyl Chloride	75-01-4	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA
Xylenes (total)	1330-20-7	ug/kg	< 170	< 160	NA	< 160	NA	< 200	< 160	< 200	NA	< 140	< 180	< 150	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-H7-2-01	SD-H7-2-01	SD-H7-2-01	SD-H8-4-01	SD-H8-4-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			FD	N	FD	N	N	N	FD	N	FD	N	FD	N	FD
Sample Name			SD-H7-2-010.5FD	SD-H7-2-011N	SD-H7-2-011FD	SD-H8-4-011N	SD-H8-4-011.5N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011N	SD-I11-2-011FD	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011N	SD-I5-2-011FD
Parent Sample			SD-H7-2-011N		SD-H7-2-011N				SD-I11-2-011N		SD-I11-2-011N		SD-I5-2-011N		SD-I5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 880	6000	NA	< 890	< 950	NA	< 1000	< 890	< 850	NA	< 900	< 980
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
2-Chlorophenol	95-57-8	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 220	< 240	NA	< 230	< 240	NA	< 260	< 230	< 220	NA	< 230	< 250
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 220	540	NA	< 230	< 240	NA	< 260	< 230	< 220	NA	< 230	< 250
Acenaphthene	83-32-9	ug/kg	NA	< 43	60	NA	< 44	< 47	NA	< 50	79	< 42	NA	< 44	< 48
Acenaphthylene	208-96-8	ug/kg	NA	180	350	NA	84	140	NA	< 50	170	< 42	NA	< 44	< 48
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	210	510	NA	110	210	NA	61	510	< 42	NA	< 44	< 48
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 880	< 950	NA	< 890	< 950	NA	< 1000	< 890	< 850	NA	< 900	< 980
Benzo[a]anthracene	56-55-3	ug/kg	NA	680	1600	NA	310	670	NA	170	1200	< 42	NA	120	140
Benzo[a]pyrene	50-32-8	ug/kg	NA	700	1600	NA	320	610	NA	190	1000	< 42	NA	93	110
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	790	2000	NA	390	860	NA	260	1300	< 42	NA	130	220
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	460	1000	NA	240	470	NA	150	720	< 42	NA	60	< 48
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	350	730	NA	140	320	NA	110	560	< 42	NA	50	72
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-H7-2-01	SD-H7-2-01	SD-H7-2-01	SD-H8-4-01	SD-H8-4-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			FD	N	FD	N	N	N	FD	N	FD	N	FD	N	FD
Sample Name			SD-H7-2-010.5FD	SD-H7-2-011N	SD-H7-2-011FD	SD-H8-4-011N	SD-H8-4-011.5N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011N	SD-I11-2-011FD	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011N	SD-I5-2-011FD
Parent Sample			SD-H7-2-011N		SD-H7-2-011N				SD-I11-2-011N		SD-I11-2-011N		SD-I5-2-011N		SD-I5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	1400	< 89	97	NA	< 90	< 98
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	750	1800	NA	350	780	NA	240	1200	< 42	NA	130	140
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	120	300	NA	70	140	NA	< 50	200	< 42	NA	< 44	< 48
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Dimethylphthalate	131-11-3	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 88	< 95	NA	370	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Fluoranthene	206-44-0	ug/kg	NA	1300	3200	NA	650	1400	NA	360	2900	< 42	NA	310	250
Fluorene	86-73-7	ug/kg	NA	90	220	NA	< 44	59	NA	< 50	310	< 42	NA	< 44	< 48
Hexachlorobenzene	118-74-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 220	< 240	NA	< 230	< 240	NA	< 260	< 230	< 220	NA	< 230	< 250
Hexachloroethane	67-72-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	470	1000	NA	240	500	NA	150	750	< 42	NA	75	< 48
Isophorone	78-59-1	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
Naphthalene	91-20-3	ug/kg	NA	< 43	85	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 43	< 47	NA	< 44	< 47	NA	< 50	< 44	< 42	NA	< 44	< 48
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	56	< 47	NA	< 44	240	NA	78	270	< 42	NA	< 44	< 48
Pentachlorophenol	87-86-5	ug/kg	NA	< 220	< 240	NA	< 230	< 240	NA	< 260	< 230	< 220	NA	< 230	< 250
Phenanthrene	85-01-8	ug/kg	NA	690	1700	NA	360	830	NA	230	2400	< 42	NA	200	57
Phenol	108-95-2	ug/kg	NA	< 88	< 95	NA	< 89	< 95	NA	< 100	< 89	< 85	NA	< 90	< 98
Pyrene	129-00-0	ug/kg	NA	1400	3100	NA	650	1200	NA	400	2600	< 42	NA	240	200

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-H7-2-01	SD-H7-2-01	SD-H7-2-01	SD-H8-4-01	SD-H8-4-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			FD	N	FD	N	N	N	FD	N	FD	N	FD	N	FD
Sample Name			SD-H7-2-010.5FD	SD-H7-2-011N	SD-H7-2-011FD	SD-H8-4-011N	SD-H8-4-011.5N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011N	SD-I11-2-011FD	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011N	SD-I5-2-011FD
Parent Sample			SD-H7-2-011N		SD-H7-2-011N				SD-I11-2-011N		SD-I11-2-011N		SD-I5-2-011N		SD-I5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
2-Nitrotoluene	88-72-2	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
3-Nitrotoluene	99-08-1	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
4-Nitrotoluene	99-99-0	ug/kg	NA	< 130	< 280	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
Nitrobenzene	98-95-3	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
Nitrocellulose	9004-70-0	ug/kg	NA	< 78000	< 85000	NA	< 80000	< 85000	NA	< 92000	< 80000	< 76000	NA	< 80000	< 88000
Nitroglycerin	55-63-0	ug/kg	NA	< 130	< 2800	NA	< 2700	< 2800	NA	< 3100	< 2700	< 2500	NA	< 2700	< 2900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 130	< 2800	NA	< 2700	< 2800	NA	< 3100	< 2700	< 2500	NA	< 2700	< 2900
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 130	< 140	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
Tetryl	479-45-8	ug/kg	NA	< 130	< 280	NA	< 130	< 140	NA	< 150	< 130	< 130	NA	< 130	< 150
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	< 0.84	< 0.92	NA	< 0.84	< 0.92	NA	< 0.99	< 0.86	0.91	NA	1.9	< 0.95
Arsenic	7440-38-2	mg/kg	NA	3.3	6.5	NA	3.7	5.7	NA	4.5	6.8	3.9	NA	4.5	4.9
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.44	0.66	NA	0.6	0.58	NA	0.39	0.5	0.73	NA	0.75	0.45
Cadmium	7440-43-9	mg/kg	NA	< 0.071	< 0.078	NA	< 0.071	< 0.078	NA	< 0.084	< 0.073	< 0.069	NA	< 0.073	< 0.081
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	10.5	19.4	NA	14.1	66.5	NA	10	28.6	6.3	NA	8.7	11.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	22.9	20.1	NA	14.6	28.6	NA	16.6	63.1	8.3	NA	13	18.1
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	20.6	37.3	NA	314	35	NA	20	29.1	14.2	NA	22.1	31.8
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.59	0.7	NA	0.54	0.32	NA	0.56	0.96	0.011	NA	0.022	0.018
Nickel	7440-02-0	mg/kg	NA	12.1	12.4	NA	8.4	9.7	NA	8.4	16.3	3.7	NA	5.2	6.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	< 0.62	< 0.68	NA	< 0.62	< 0.68	NA	< 0.73	< 0.64	< 0.6	NA	4.7	< 0.7
Silver	7440-22-4	mg/kg	NA	< 0.18	< 0.2	NA	< 0.18	< 0.2	NA	< 0.21	< 0.19	< 0.17	NA	< 0.19	< 0.21
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	3.3	4.5	NA	3.1	4.1	NA	3	5.8	5.4	NA	11.1	3.3
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	79.4	116	NA	89.4	120	NA	102	1100	123	NA	167	114

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-H7-2-01	SD-H7-2-01	SD-H7-2-01	SD-H8-4-01	SD-H8-4-01	SD-I11-1-01	SD-I11-2-01	SD-I11-2-01	SD-I11-2-01	SD-I5-1-01	SD-I5-2-01	SD-I5-2-01	SD-I5-2-01
Depths			0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/19/2001	4/19/2001	4/19/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/19/2001
Sample Type			FD	N	FD	N	N	N	FD	N	FD	N	FD	N	FD
Sample Name			SD-H7-2-010.5FD	SD-H7-2-011N	SD-H7-2-011FD	SD-H8-4-011N	SD-H8-4-011.5N	SD-I11-1-011N	SD-I11-2-010.5FD	SD-I11-2-011N	SD-I11-2-011FD	SD-I5-1-011N	SD-I5-2-010.5FD	SD-I5-2-011N	SD-I5-2-011FD
Parent Sample			SD-H7-2-011N		SD-H7-2-011N				SD-I11-2-011N		SD-I11-2-011N		SD-I5-2-011N		SD-I5-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	23.5	29.7	NA	25	29.2	NA	34.5	24.7	21.3	NA	25.4	31.8
Total Organic Carbon	ARC-TOC	mg/kg	NA	11200	11900	NA	13600	14600	NA	16200	10000	14000	NA	11200	39400
Amyl alcohol	71-41-0	ug/kg	NA	< 13000	< 14000	< 13000	NA	< 14000	NA	< 15000	< 13000	< 13000	NA	< 13000	< 15000
Di-N-Propyl Ether	111-43-3	ug/kg	NA	< 13000	< 14000	< 13000	NA	< 14000	NA	< 15000	< 13000	< 13000	NA	< 13000	< 15000
Ethanol	64-17-5	ug/kg	NA	< 13000	< 14000	< 13000	NA	< 14000	NA	< 15000	< 13000	< 13000	NA	< 13000	< 15000
Ethyl ether	60-29-7	ug/kg	NA	< 13000	< 14000	< 13000	NA	< 14000	NA	< 15000	< 13000	< 13000	NA	< 13000	< 15000
Methanol	67-56-1	ug/kg	NA	< 13000	< 14000	< 13000	NA	< 14000	NA	< 15000	< 13000	< 13000	NA	< 13000	< 15000
N-butyl ether	142-96-1	ug/kg	NA	< 13000	< 14000	< 13000	NA	< 14000	NA	< 15000	< 13000	< 13000	NA	< 13000	< 15000
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	96	NA	NA	91.8	98	NA	100	NA	91.8	NA	100	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	100	NA	NA	100	100	NA	100	NA	100	NA	100	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	100	NA	NA	100	100	NA	100	NA	100	NA	100	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	41.5	NA	NA	55.1	45.2	NA	36.2	NA	34.8	NA	52.9	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	2.3	NA	NA	2.9	1.8	NA	1.1	NA	1.1	NA	1.4	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	29.8	NA	NA	36.5	25.4	NA	18.4	NA	20.2	NA	32.5	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	65.6	NA	NA	80	77.7	NA	79.8	NA	63	NA	78.7	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	16.3	NA	NA	18.5	11.5	NA	7.5	NA	9	NA	12	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	59.9	NA	NA	76	72.9	NA	68.5	NA	55.8	NA	72.5	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	53.9	NA	NA	70.2	67.4	NA	57.6	NA	48.6	NA	65.7	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	6.4	NA	NA	8.1	4.5	NA	3	NA	3.2	NA	4.2	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-I6-1-01	SD-I6-1-01	SD-R2-C-11-1	SD-R2-C-12-6	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-D-14-1	SD-R2-E-10-1	SD-R2-E-10-2	SD-R2-E-13-1
Depths			0.5-1.0 ft	1.0-1.5 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Collection Date			4/19/2001	4/19/2001	11/6/2013	11/6/2013	11/6/2013	11/6/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-I6-1-011N	SD-I6-1-011.5N	SD-R2-C-11-1_20131106	SD-R2-C-12-6_20131106	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-D-14-1_20131105	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R2-E-13-1_20131106
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 4500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 890	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 450	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	< 220	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-I6-1-01	SD-I6-1-01	SD-R2-C-11-1	SD-R2-C-12-6	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-D-14-1	SD-R2-E-10-1	SD-R2-E-10-2	SD-R2-E-13-1
Depths			0.5-1.0 ft	1.0-1.5 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Collection Date			4/19/2001	4/19/2001	11/6/2013	11/6/2013	11/6/2013	11/6/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-I6-1-011N	SD-I6-1-011.5N	SD-R2-C-11-1_20131106	SD-R2-C-12-6_20131106	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-D-14-1_20131105	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R2-E-13-1_20131106
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	< 520	< 300	< 2400	< 4000	< 1500	< 780	120	< 420
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 1100	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	< 520	< 300	< 2400	< 4000	< 1500	< 780	120	100
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 270	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 270	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 52	< 520	< 300	< 2400	< 4000	< 1500	< 780	< 480	< 420
Acenaphthylene	208-96-8	ug/kg	NA	< 52	< 520	< 300	< 2400	< 4000	< 1500	< 780	180	< 420
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 52	< 520	< 300	< 2400	< 4000	< 1500	< 780	170	< 420
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 1100	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 52	< 520	120	< 2400	< 4000	< 1500	170	440	150
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 52	< 520	130	< 2400	< 4000	< 1500	200	410	200
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	74	170	230	570	< 4000	350	390	730	360
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 52	< 520	130	< 2400	< 4000	< 1500	200	280	170
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 52	< 520	84	< 2400	< 4000	< 1500	170	280	110
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-I6-1-01	SD-I6-1-01	SD-R2-C-11-1	SD-R2-C-12-6	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-D-14-1	SD-R2-E-10-1	SD-R2-E-10-2	SD-R2-E-13-1
Depths			0.5-1.0 ft	1.0-1.5 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Collection Date			4/19/2001	4/19/2001	11/6/2013	11/6/2013	11/6/2013	11/6/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-I6-1-011N	SD-I6-1-011.5N	SD-R2-C-11-1_20131106	SD-R2-C-12-6_20131106	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-D-14-1_20131105	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R2-E-13-1_20131106
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	59	190	200	520	< 4000	< 1500	400	660	270
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 52	< 520	< 300	< 2400	< 4000	< 1500	< 780	110	< 420
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	89	260	260	850	< 4000	520	490	660	430
Fluorene	86-73-7	ug/kg	NA	< 52	< 520	< 300	< 2400	< 4000	< 1500	< 780	< 480	< 420
Hexachlorobenzene	118-74-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 270	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 52	< 520	93	< 2400	< 4000	< 1500	170	260	160
Isophorone	78-59-1	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 52	< 520	< 300	< 2400	< 4000	< 1500	< 780	160	150
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 52	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 270	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	< 52	150	140	500	< 4000	< 1500	380	300	290
Phenol	108-95-2	ug/kg	NA	< 110	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	74	180	270	990	< 4000	470	440	700	400

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-I6-1-01	SD-I6-1-01	SD-R2-C-11-1	SD-R2-C-12-6	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-D-14-1	SD-R2-E-10-1	SD-R2-E-10-2	SD-R2-E-13-1
Depths			0.5-1.0 ft	1.0-1.5 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Collection Date			4/19/2001	4/19/2001	11/6/2013	11/6/2013	11/6/2013	11/6/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-I6-1-011N	SD-I6-1-011.5N	SD-R2-C-11-1_20131106	SD-R2-C-12-6_20131106	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-D-14-1_20131105	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R2-E-13-1_20131106
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
2-Nitrotoluene	88-72-2	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
3-Nitrotoluene	99-08-1	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
4-Nitrotoluene	99-99-0	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
Nitrobenzene	98-95-3	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
Nitrocellulose	9004-70-0	ug/kg	NA	< 95000	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	< 3200	< 16000	8100	< 25000	< 43000	< 90000	< 26000	43000	< 71000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 160	< 2000	< 1100	< 3100	< 5400	< 11000	< 3300	< 1900	< 8800
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 3200	< 16000	< 9100	< 25000	< 43000	< 90000	< 26000	< 15000	< 71000
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
Tetryl	479-45-8	ug/kg	NA	< 160	< 800	< 450	< 1200	< 2200	< 4500	< 1300	< 760	< 3500
Metals												
Aluminum	7429-90-5	mg/kg	NA	NA	9770	6970	9620	8460	1670	5250	18000	4630
Antimony	7440-36-0	mg/kg	NA	< 1	5.67	< 3.44	< 9.25	< 15.9	< 296	< 91.3	< 27.2	< 24.2
Arsenic	7440-38-2	mg/kg	NA	7.5	88.1	4.6	5.07	< 15.9	< 296	< 91.3	43.1	10.4
Barium	7440-39-3	mg/kg	NA	NA	215	66.4	117	82.4	64.1	128	186	82.3
Beryllium	7440-41-7	mg/kg	NA	0.85	< 1.51	0.287	0.745	0.913	< 73.9	< 22.8	1.02	< 6.05
Cadmium	7440-43-9	mg/kg	NA	< 0.087	0.908	0.536	1.03	1.04	< 73.9	< 22.8	2.62	1.65
Calcium	7440-70-2	mg/kg	NA	NA	1430	1920	16200	6580	16500	14500	2690	47200
Chromium	7440-47-3	mg/kg	NA	13.2	15.2	11.1	20.6	14.4	< 222	15.4	20.2	14.9
Cobalt	7440-48-4	mg/kg	NA	NA	1.97	2.42	3.6	5.85	< 73.9	14.8	10	2.6
Copper	7440-50-8	mg/kg	NA	12.4	65.8	21.3	31.6	23.6	< 148	61.2	67.9	50
Iron	7439-89-6	mg/kg	NA	NA	9610	16700	13400	12400	22200	44300	109000	10900
Lead	7439-92-1	mg/kg	NA	25.9	2470	732	84.4	105	81	12500	109	222
Magnesium	7439-95-4	mg/kg	NA	NA	722	917	2320	1370	2060	1830	2660	6000
Manganese	7439-96-5	mg/kg	NA	NA	40.3	90.9	331	384	2400	1360	309	697
Mercury	7439-97-6	mg/kg	NA	0.046	0.74	0.274	0.207	0.1	0.219	0.68	0.397	0.485
Nickel	7440-02-0	mg/kg	NA	7.7	8.22	7.28	8.53	10.6	< 148	32.3	20.8	17.2
Potassium	7440-09-7	mg/kg	NA	NA	777	396	416	324	< 7390	< 2280	699	489
Selenium	7782-49-2	mg/kg	NA	1.5	< 6.06	< 3.44	5.58	< 15.9	< 296	< 91.3	< 54.4	< 24.2
Silver	7440-22-4	mg/kg	NA	< 0.22	0.866	0.382	0.943	1.58	< 73.9	8.68	< 1.36	2.4
Sodium	7440-23-5	mg/kg	NA	NA	205	220	692	304	< 14800	< 4570	251	808
Thallium	7440-28-0	mg/kg	NA	7.7	< 9.08	< 5.16	< 13.9	< 23.8	< 443	< 137	< 8.16	< 36.3
Vanadium	7440-62-2	mg/kg	NA	NA	26.2	24.8	33.8	25.7	< 73.9	42.2	41.1	33.3
Zinc	7440-66-6	mg/kg	NA	186	117	113	132	117	207	82.3	464	185

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-I6-1-01	SD-I6-1-01	SD-R2-C-11-1	SD-R2-C-12-6	SD-R2-C-15-1	SD-R2-C-15-2	SD-R2-D-14-1	SD-R2-E-10-1	SD-R2-E-10-2	SD-R2-E-13-1
Depths			0.5-1.0 ft	1.0-1.5 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft
Collection Date			4/19/2001	4/19/2001	11/6/2013	11/6/2013	11/6/2013	11/6/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SD-I6-1-011N	SD-I6-1-011.5N	SD-R2-C-11-1_20131106	SD-R2-C-12-6_20131106	SD-R2-C-15-1_20131106	SD-R2-C-15-2_20131106	SD-R2-D-14-1_20131105	SD-R2-E-10-1_20131106	SD-R2-E-10-2_20131106	SD-R2-E-13-1_20131106
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	37.1	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	19300	73400	16700	91100	213000	258000	216000	50700	316000
Amyl alcohol	71-41-0	ug/kg	< 16000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	< 16000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	< 16000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	< 16000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	< 16000	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	< 16000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	57.6	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	2.9	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	34.4	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	91.8	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	19.9	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	85.9	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	76.4	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	8.4	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-E-16-1	SD-R2-E16-3	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-A15-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.5-1.0 ft
Collection Date			11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/6/2013	11/6/2013	6/29/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-A15-011.0N
Parent Sample								SD-R2-G-12-3_20131105				
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	< 12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	< 12	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	< 12	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	< 12	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	19	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	< 6	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R2-E-16-1 0.0 ft 11/5/2013 N SD-R2-E-16-1_20131105	SD-R2-E16-3 0.0 ft 11/5/2013 N SD-R2-E16-3_20131105	SD-R2-F-14-1 0.0 ft 11/5/2013 N SD-R2-F-14-1_20131105	SD-R2-F-14-2 0.0 ft 11/5/2013 N SD-R2-F-14-2_20131105	SD-R2-G-12-1 0.0 ft 11/5/2013 N SD-R2-G-12-1_20131105	SD-R2-G-12-3 0.0 ft 11/5/2013 FD DUP-02_20131105 SD-R2-G-12-3_20131105	SD-R2-G-12-3 0.0 ft 11/5/2013 N SD-R2-G-12-3_20131105	SD-R2-G-12-4 0.0 ft 11/6/2013 N SD-R2-G-12-4_20131106	SD-R2-G-12-5 0.0 ft 11/6/2013 N SD-R2-G-12-5_20131106	SD-R-A15-01 0.5-1.0 ft 6/29/2006 N SD-R-A15-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,1'-Biphenyl	92-52-4	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	< 130	810	170	< 3900	< 170	< 220	< 470	< 500	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 41000	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	< 700	< 130	780	180	< 3900	< 170	< 220	< 470	< 500	NA
2-Methylphenol	95-48-7	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 14000	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 21000	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 21000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 700	< 130	480	< 520	< 3900	< 170	< 220	< 470	< 500	NA
Acenaphthylene	208-96-8	ug/kg	< 700	39	2400	510	< 3900	35	65	190	260	NA
Acetophenone	98-86-2	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 700	37	2100	410	< 3900	< 170	60	220	280	NA
Atrazine	1912-24-9	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	190	88	4300	1100	< 3900	76	200	400	670	NA
Benzo[a]pyrene	50-32-8	ug/kg	210	110	4200	1400	< 3900	110	290	540	960	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	290	140	5500	2300	820	170	430	890	1300	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	170	95	2700	1100	< 3900	87	230	500	850	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	160	64	2100	810	< 3900	89	190	< 470	590	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R2-E-16-1 0.0 ft 11/5/2013 N SD-R2-E-16-1_20131105	SD-R2-E16-3 0.0 ft 11/5/2013 N SD-R2-E16-3_20131105	SD-R2-F-14-1 0.0 ft 11/5/2013 N SD-R2-F-14-1_20131105	SD-R2-F-14-2 0.0 ft 11/5/2013 N SD-R2-F-14-2_20131105	SD-R2-G-12-1 0.0 ft 11/5/2013 N SD-R2-G-12-1_20131105	SD-R2-G-12-3 0.0 ft 11/5/2013 FD DUP-02_20131105 SD-R2-G-12-3_20131105	SD-R2-G-12-3 0.0 ft 11/5/2013 N SD-R2-G-12-3_20131105	SD-R2-G-12-4 0.0 ft 11/6/2013 N SD-R2-G-12-4_20131106	SD-R2-G-12-5 0.0 ft 11/6/2013 N SD-R2-G-12-5_20131106	SD-R-A15-01 0.5-1.0 ft 6/29/2006 N SD-R-A15-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (Cont)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 7000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	230	110	6600	1600	< 3900	120	300	710	1200	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 700	< 130	560	250	< 3900	< 170	50	160	260	NA
Dibenzofuran	132-64-9	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	360	170	11000	2900	960	220	560	1000	1600	NA
Fluorene	86-73-7	ug/kg	< 700	< 130	1500	230	< 3900	< 170	< 220	< 470	110	NA
Hexachlorobenzene	118-74-1	ug/kg	< 700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 21000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 6900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	150	59	2200	890	< 3900	78	180	420	640	NA
Isophorone	78-59-1	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 700	< 130	770	170	< 3900	< 170	< 220	< 470	190	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 7000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	240	93	9700	1800	< 3900	150	280	550	900	NA
Phenol	108-95-2	ug/kg	< 1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	390	200	13000	3100	960	230	550	990	1900	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-E-16-1	SD-R2-E16-3	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-A15-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.5-1.0 ft
Collection Date			11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/6/2013	11/6/2013	6/29/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-A15-011.0N
Parent Sample								SD-R2-G-12-3_20131105				
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,2-Dinitrobenzene	528-29-0	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
1-Nitronaphthalene	86-57-7	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 500	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
2-Nitrotoluene	88-72-2	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
3-Nitrotoluene	99-08-1	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
4-Nitrotoluene	99-99-0	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
Nitrobenzene	98-95-3	ug/kg	< 410	< 380	< 1100	< 1500	< 12000	< 500	< 660	< 830	< 740	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 8200	< 7500	< 22000	< 30000	< 46000	< 10000	< 13000	< 17000	< 15000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1000	< 940	< 2700	< 3800	< 5700	< 1300	< 1600	< 2100	< 1900	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8200	< 7500	< 22000	< 30000	< 46000	< 10000	< 13000	< 17000	< 15000	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 410	< 380	< 1100	< 1500	< 2300	< 500	< 660	< 830	< 740	NA
Tetryl	479-45-8	ug/kg	< 410	< 380	< 1100	< 1500	< 6500	< 500	< 660	< 830	< 740	NA
Metals												
Aluminum	7429-90-5	mg/kg	6240	4910	18300	16300	6210	6330	7350	15900	21700	NA
Antimony	7440-36-0	mg/kg	< 2.69	< 25.1	< 7.69	< 101	< 151	< 3.33	< 43.5	< 5.49	< 5.82	NA
Arsenic	7440-38-2	mg/kg	1.34	< 25.1	22.6	< 101	< 151	4.57	< 43.5	22.6	11.3	NA
Barium	7440-39-3	mg/kg	39.5	31.9	71.1	78.2	52.8	52	50.8	380	144	NA
Beryllium	7440-41-7	mg/kg	0.281	< 6.28	1.41	< 25.1	< 37.8	0.463	< 10.9	0.483	1.02	NA
Cadmium	7440-43-9	mg/kg	< 0.673	< 6.28	1.53	< 25.1	< 37.8	< 0.833	< 10.9	3.3	1.12	NA
Calcium	7440-70-2	mg/kg	1780	2150	10600	10200	10000	2330	2820	6340	5100	NA
Chromium	7440-47-3	mg/kg	12.2	15.5	246	64.5	53.1	17.8	22.2	73.3	74.5	NA
Cobalt	7440-48-4	mg/kg	4.08	2.95	8.81	10.4	< 37.8	5.51	4.59	40.6	10.3	NA
Copper	7440-50-8	mg/kg	16.3	10.5	91.6	58	92.5	18.5	18.3	44.1	56.8	NA
Iron	7439-89-6	mg/kg	23100	13700	28300	17700	12600	32800	19400	72400	24300	NA
Lead	7439-92-1	mg/kg	56.2	40.1	1120	386	720	21.3	36.2	92.6	123	NA
Magnesium	7439-95-4	mg/kg	1390	1480	3080	3330	2460	1920	1380	2540	3090	NA
Manganese	7439-96-5	mg/kg	394	109	66.7	118	81.8	501	137	7280	371	NA
Mercury	7439-97-6	mg/kg	0.119	0.0348	11	4.26	2.97	0.17	0.334	3.33	3.94	NA
Nickel	7440-02-0	mg/kg	6.76	4.74	17.2	21.1	28	5.69	7.55	18.3	20.2	NA
Potassium	7440-09-7	mg/kg	362	551	639	481	< 3780	415	< 1090	766	891	NA
Selenium	7782-49-2	mg/kg	< 2.69	< 25.1	< 7.69	< 101	< 151	< 3.33	< 43.5	4.17	< 5.82	NA
Silver	7440-22-4	mg/kg	< 0.673	< 6.28	2.98	11.1	13.4	0.363	3.76	2.46	0.864	NA
Sodium	7440-23-5	mg/kg	134	< 1260	624	< 5030	< 7560	210	< 2180	474	498	NA
Thallium	7440-28-0	mg/kg	< 4.04	< 37.7	< 11.5	< 151	< 227	< 5	< 65.3	< 8.23	< 8.73	NA
Vanadium	7440-62-2	mg/kg	24	13.6	43.5	49.1	62.4	23.7	22	41.3	50.7	NA
Zinc	7440-66-6	mg/kg	74.2	62.9	390	371	140	102	105	438	350	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R2-E-16-1	SD-R2-E16-3	SD-R2-F-14-1	SD-R2-F-14-2	SD-R2-G-12-1	SD-R2-G-12-3	SD-R2-G-12-3	SD-R2-G-12-4	SD-R2-G-12-5	SD-R-A15-01
Depths			0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.0 ft	0.5-1.0 ft
Collection Date			11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/5/2013	11/6/2013	11/6/2013	6/29/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N
Sample Name			SD-R2-E-16-1_20131105	SD-R2-E16-3_20131105	SD-R2-F-14-1_20131105	SD-R2-F-14-2_20131105	SD-R2-G-12-1_20131105	DUP-02_20131105	SD-R2-G-12-3_20131105	SD-R2-G-12-4_20131106	SD-R2-G-12-5_20131106	SD-R-A15-011.0N
Parent Sample								SD-R2-G-12-3_20131105				
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	10000	4160	78700	53400	226000	9820	34000	60800	32400	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.4
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.9
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	7
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	42.7
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.6
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	48.7
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	56.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.7
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	5
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-A15-01	SD-R-A15-02	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-A15-011N	SD-R-A15-021N	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4600
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-A15-01	SD-R-A15-02	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-A15-011N	SD-R-A15-021N	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-A15-01	SD-R-A15-02	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-A15-011N	SD-R-A15-021N	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250	NA	< 230	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-A15-01	SD-R-A15-02	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-A15-011N	SD-R-A15-021N	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 350	< 1900	NA	< 1600	< 2400	< 1800	< 560	< 450	NA	< 440	NA	< 420	< 1800
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 350	< 1900	NA	< 1600	< 2400	< 1800	< 560	< 450	NA	< 440	NA	< 420	< 1800
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 1900	NA	< 1600	< 2400	< 1800	440	< 450	NA	< 440	NA	1300	< 1800
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 350	< 1900	NA	< 1600	< 2400	< 1800	< 560	590	NA	< 440	NA	740	< 3500
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 350	< 1900	NA	< 1600	< 2400	< 1800	< 560	< 450	NA	< 440	NA	< 420	< 1800
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 760000	NA	< 650000	< 960000	< 740000	130000	< 180000	NA	< 180000	NA	< 170000	< 690000
Nitroglycerin	55-63-0	ug/kg	< 7000	< 38000	NA	< 32000	< 48000	< 37000	< 11000	< 9000	NA	< 8900	NA	< 8400	< 35000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 870	< 4700	NA	< 4000	< 6000	< 4600	< 1400	< 1100	NA	< 1100	NA	< 1100	< 4400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7000	< 38000	NA	< 32000	< 48000	< 37000	< 11000	< 9000	NA	< 8900	NA	< 8400	< 35000
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 1900	NA	< 1600	< 2400	< 1800	< 560	< 450	NA	< 440	NA	< 420	< 1800
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.37	< 12.1	NA	< 10.8	< 15.6	8.87	< 3.64	1.73	NA	1.97	NA	1.62	< 11.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.176	0.965	NA	2.09	0.529	1.1	< 0.909	< 0.746	NA	0.395	NA	0.766	0.906
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.6	49.4	NA	28.1	117	35.6	17.7	13	NA	11.7	NA	9.39	20.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	6.57	39	NA	41.6	22.8	34	5.42	8.14	NA	9.48	NA	4.52	23.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	44.5	112	NA	206	65.5	116	4.43	4.51	NA	20.5	NA	7.87	93.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0133	0.12	NA	0.246	< 0.748	0.0844	< 0.185	0.0297	NA	0.0663	NA	< 0.135	0.218
Nickel	7440-02-0	mg/kg	3.4	13.3	NA	13.3	8.52	11.4	3.48	4.97	NA	7.8	NA	8.13	9.21
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.576	< 3.03	NA	< 2.69	< 3.89	< 3.02	< 0.909	< 0.746	NA	< 0.718	NA	< 0.695	< 2.92
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	39.9	161	NA	340	46.2	161	18.1	32.8	NA	38.3	NA	23.7	175

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-A15-01	SD-R-A15-02	SD-R-A15-03	SD-R-A15-03	SD-R-A15-04	SD-R-A15-05	SD-R-B14-01	SD-R-B14-02	SD-R-B14-03	SD-R-B14-03	SD-R-B14-04	SD-R-B14-04	SD-R-B15-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/13/2006	6/13/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	7/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-A15-011N	SD-R-A15-021N	SD-R-A15-031.0N	SD-R-A15-031N	SD-R-A15-041N	SD-R-A15-051N	SD-R-B14-011.0N	SD-R-B14-021.0N	SD-R-B14-031.0N	SD-R-B14-031N	SD-R-B14-041.0N	SD-R-B14-041N	SD-R-B15-011.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	14	84	NA	81.4	87.4	83.6	46.1	33	NA	32.4	NA	28.8	82.9
Total Organic Carbon	ARC-TOC	mg/kg	2800	190000	NA	100000	310000	430000	15000	13000	NA	28000	NA	16000	98000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	NA	99.8	NA	NA	NA	89.8	99.7	89.5	NA	89.3	NA	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	NA	100	NA	NA	NA	100	100	100	NA	100	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	NA	100	NA	NA	NA	100	100	100	NA	100	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	NA	9	NA	NA	NA	1	1.5	< 1	NA	< 1	NA	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	NA	71.8	NA	NA	NA	73	58.8	50	NA	67	NA	70.9
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	NA	48.4	NA	NA	NA	22.8	21.5	16.4	NA	10.6	NA	27.3
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	NA	11	NA	NA	NA	1	1.5	2	NA	1	NA	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	NA	50	NA	NA	NA	5	5	6	NA	2.5	NA	9
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	NA	80.2	NA	NA	NA	77.4	67.1	54.5	NA	78.5	NA	85.9
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	NA	55	NA	NA	NA	40.6	31.5	24.9	NA	22.5	NA	36.5
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	NA	89.5	NA	NA	NA	80.3	73.9	60.2	NA	83.4	NA	97.2
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	NA	95.5	NA	NA	NA	82.7	80.6	65.9	NA	86.9	NA	97.9
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	NA	15	NA	NA	NA	2	2	3	NA	1.5	NA	1
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	NA	90	NA	NA	NA	10	11	10	NA	4.5	NA	19
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	NA	62.2	NA	NA	NA	60.3	46.4	39.7	NA	43.7	NA	50
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	NA	57	NA	NA	NA	13	14	12	NA	5.5	NA	20
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	NA	44.2	NA	NA	NA	15.1	16.5	12.8	NA	6.3	NA	20.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-B15-02 0.5-1.0 ft 7/25/2006 N SD-R-B15-021.0N	SD-R-B15-02 0.5-1.0 ft 7/25/2006 FD SD-R-B15-021.0FD SD-R-B15-021.0N	SD-R-B15-03 0.5-1.0 ft 7/25/2006 N SD-R-B15-031.0N	SD-R-B15-04 0.5-1.0 ft 7/25/2006 N SD-R-B15-041.0N	SD-R-B15-05 0.5-1.0 ft 7/25/2006 N SD-R-B15-051.0N	SD-R-B15-06 0.5-1.0 ft 7/26/2006 N SD-R-B15-061.0N	SD-R-B15-07 0.5-1.0 ft 7/26/2006 N SD-R-B15-071.0N	SD-R-B15-08 0.5-1.0 ft 7/26/2006 N SD-R-B15-081.0N	SD-R-B16-01 0.5-1.0 ft 6/28/2006 N SD-R-B16-011.0N	SD-R-B16-01 0.5-1.0 ft 6/28/2006 N SD-R-B16-011N	SD-R-B8-01 0.5-1.0 ft 6/23/2006 N SD-R-B8-011.0N	SD-R-C11-01 0.5-1.0 ft 5/18/2006 N SD-R-C11-011.0N	SD-R-C11-02 0.5-1.0 ft 5/25/2006 N SD-R-C11-021.0N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 5700	< 6300	< 4800	2500	6700	NA	NA	< 4700	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-B8-01	SD-R-C11-01	SD-R-C11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/23/2006	5/18/2006	5/25/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-B15-021.0N	SD-R-B15-021.0FD	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-B8-011.0N	SD-R-C11-011.0N	SD-R-C11-021.0N
Parent Sample				SD-R-B15-021.0N											
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 270	NA	NA	< 250
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 270	NA	NA	< 250
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 270	NA	NA	< 250
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	81	NA	NA	< 250
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	NA	< 250
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	560	NA	NA	< 250
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	720	NA	NA	< 250
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	530	NA	NA	< 250
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	390	NA	NA	< 250
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-B8-01	SD-R-C11-01	SD-R-C11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/23/2006	5/18/2006	5/25/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-B15-021.0N	SD-R-B15-021.0FD	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-B8-011.0N	SD-R-C11-011.0N	SD-R-C11-021.0N
Parent Sample				SD-R-B15-021.0N											
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	710	NA	NA	< 250
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	91	NA	NA	< 250
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA	< 250
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	59	NA	NA	< 250
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 270	NA	NA	< 250
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	650	NA	NA	< 250
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400	NA	NA	64

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-B8-01	SD-R-C11-01	SD-R-C11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/23/2006	5/18/2006	5/25/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-B15-021.0N	SD-R-B15-021.0FD	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-B8-011.0N	SD-R-C11-011.0N	SD-R-C11-021.0N
Parent Sample				SD-R-B15-021.0N											
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300	NA	< 490	< 390	< 560	< 450
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300	NA	< 490	< 390	< 560	< 450
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300	NA	< 490	< 390	< 560	< 450
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 5000	< 5000	< 4300	< 3800	< 5200	< 3900	< 4100	< 4700	NA	< 490	< 390	< 560	< 450
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300	NA	< 490	< 390	< 560	< 450
Nitrocellulose	9004-70-0	ug/kg	< 1000000	< 1000000	< 860000	< 750000	< 1000000	< 780000	< 820000	< 940000	NA	< 200000	< 160000	< 220000	< 180000
Nitroglycerin	55-63-0	ug/kg	< 50000	< 50000	< 43000	< 38000	< 52000	< 39000	< 41000	< 47000	NA	< 9900	< 7700	< 11000	< 9000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 6200	< 6200	< 5400	< 4700	< 6500	< 4900	< 5100	< 5800	NA	< 1200	< 970	< 1400	< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 50000	< 50000	< 43000	< 38000	< 52000	< 39000	< 41000	< 47000	NA	< 9900	< 7700	< 11000	< 9000
RDX (Cyclonite)	121-82-4	ug/kg	< 2500	< 2500	< 2100	< 1900	< 2600	< 1900	< 2000	< 2300	NA	< 490	< 390	< 560	< 450
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	8.63	< 16.2	10.4	< 12.3	NA	< 12.5	12.1	< 15.1	NA	2.49	< 2.57	33	3.46
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 4.09	< 4.05	< 3.54	< 3.06	NA	1.37	1.53	< 3.76	NA	0.428	< 3.22	0.156	< 0.739
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.3	13.6	24.7	55.8	NA	70.3	28.3	9.52	NA	14.6	20	5.28	8.77
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	14.2	13.9	14.5	16.1	NA	33.1	30.7	16.8	NA	19.9	21.9	16	16.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	31.8	28.9	30.5	5.27	NA	174	126	60.7	NA	49.8	19.8	959	699
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0.809	0.0885	0.132	< 0.591	NA	0.132	0.129	0.171	NA	0.0542	< 0.126	0.272	0.323
Nickel	7440-02-0	mg/kg	5.25	< 8.1	5.8	4.55	NA	13	11.2	5.6	NA	6.9	16	2.63	6.54
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 4.09	< 4.05	< 3.54	< 3.06	NA	< 3.12	< 3.3	< 3.76	NA	< 0.824	0.223	< 0.888	< 0.739
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	68.3	71.1	68.1	28.8	NA	155	173	68.9	NA	81.5	90.2	31	44.9

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-B15-02	SD-R-B15-02	SD-R-B15-03	SD-R-B15-04	SD-R-B15-05	SD-R-B15-06	SD-R-B15-07	SD-R-B15-08	SD-R-B16-01	SD-R-B16-01	SD-R-B8-01	SD-R-C11-01	SD-R-C11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/23/2006	5/18/2006	5/25/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-B15-021.0N	SD-R-B15-021.0FD	SD-R-B15-031.0N	SD-R-B15-041.0N	SD-R-B15-051.0N	SD-R-B15-061.0N	SD-R-B15-071.0N	SD-R-B15-081.0N	SD-R-B16-011.0N	SD-R-B16-011N	SD-R-B8-011.0N	SD-R-C11-011.0N	SD-R-C11-021.0N
Parent Sample				SD-R-B15-021.0N											
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	87.9	87.9	86	84	88.4	84.6	85.3	87.1	NA	39.3	22.3	46.4	33.7
Total Organic Carbon	ARC-TOC	mg/kg	380000	320000	220000	200000	420000	110000	68000	380000	NA	14000	7800	7600	15000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	99.8	99.8	98.5	100	100	100	99.2	100	97.6	NA	97.3	100	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100	100	NA	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	NA	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	< 1	3.5	3.5	< 1	1.5	< 1	< 1	< 1	NA	< 1	1	1.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	< 1	< 1	77.5	76.1	< 1	69.9	68.1	< 1	44.9	NA	57.8	66.7	50.2
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	< 1	< 1	48.6	64.9	< 1	45	34.3	< 1	10.2	NA	8.9	31.3	19.8
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	< 1	3.5	8	< 1	3	< 1	< 1	0.5	NA	< 1	5.5	3
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	< 1	< 1	23	30	< 1	19.5	21	< 1	3	NA	1	18	10.5
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	73.8	78.6	82.4	77.4	63.5	87.8	74.4	66.7	57.4	NA	64.2	74.5	56.1
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	< 1	< 1	59.7	71.9	< 1	51.4	44	< 1	19	NA	23.1	42.6	28.8
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	88.5	90.6	92.3	84.5	81	95.2	88.5	83.1	64.1	NA	72.6	82.2	80
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	94.7	95.2	96.4	92.2	93.5	98	97.4	94.9	71.1	NA	81.3	87.2	88.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	< 1	< 1	3.5	16.5	< 1	6	1	< 1	1	NA	< 1	10.5	5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	< 1	< 1	47.5	45	< 1	33	36	< 1	6	NA	3	24	13.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	< 1	< 1	68.6	74.4	< 1	58.8	54.4	< 1	32.5	NA	43.5	55.7	40.7
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	< 1	< 1	40	51	< 1	33.5	30	< 1	6.5	NA	4	25	15.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	< 1	< 1	37.9	54.2	< 1	35	26.3	< 1	7	NA	4.8	26.2	16.3
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C11-03	SD-R-C11-04	SD-R-C11-05	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05	SD-R-C12-06	SD-R-C12-07	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	6/6/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-C11-031.0N	SD-R-C11-041.0N	SD-R-C11-051.0N	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-011.0N	SD-R-C13-021.0N	SD-R-C13-021.0FD
Parent Sample															SD-R-C13-021.0N
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C11-03	SD-R-C11-04	SD-R-C11-05	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05	SD-R-C12-06	SD-R-C12-07	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	6/6/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-C11-031.0N	SD-R-C11-041.0N	SD-R-C11-051.0N	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-011.0N	SD-R-C13-021.0N	SD-R-C13-021.0FD
Parent Sample															SD-R-C13-021.0N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	280	NA	NA	NA	NA	< 250	< 310	410	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	75	NA	NA	NA	NA	< 250	< 310	< 270	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 280	NA	NA	NA	NA	55	< 310	< 270	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 280	NA	NA	NA	NA	< 250	< 310	53	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 280	NA	NA	NA	NA	180	64	57	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	350	NA	NA	NA	NA	710	260	200	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	230	NA	NA	NA	NA	840	210	230	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	170	NA	NA	NA	NA	610	170	180	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	170	NA	NA	NA	NA	250	180	170	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C11-03	SD-R-C11-04	SD-R-C11-05	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05	SD-R-C12-06	SD-R-C12-07	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	6/6/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-C11-031.0N	SD-R-C11-041.0N	SD-R-C11-051.0N	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-011.0N	SD-R-C13-021.0N	SD-R-C13-021.0FD
Parent Sample															SD-R-C13-021.0N
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	340	NA	NA	NA	NA	650	260	260	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	63	NA	NA	NA	NA	290	77	< 270	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	450	NA	NA	NA	NA	610	230	300	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 280	NA	NA	NA	NA	70	< 310	< 270	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 280	NA	NA	NA	NA	< 250	< 310	< 270	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	140	NA	NA	NA	NA	880	190	160	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	870	NA	NA	NA	NA	1300	590	630	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C11-03	SD-R-C11-04	SD-R-C11-05	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05	SD-R-C12-06	SD-R-C12-07	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	6/6/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-C11-031.0N	SD-R-C11-041.0N	SD-R-C11-051.0N	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-011.0N	SD-R-C13-021.0N	SD-R-C13-021.0FD
Parent Sample															SD-R-C13-021.0N
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 490	< 500	< 520	< 1200	< 850	< 540	< 450	< 560	< 480	< 380	< 410	< 430	< 430
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	940	840	< 520	< 1200	< 850	< 540	< 450	< 560	< 480	< 380	< 410	< 430	< 430
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	780	810	< 520	< 1200	< 850	< 540	< 450	< 560	< 480	< 380	< 410	< 430	< 430
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	1100	660	< 520	< 1200	< 850	< 540	< 450	< 560	< 480	< 380	< 410	< 430	< 430
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	250	460	< 520	< 1200	< 850	< 540	340	< 560	610	< 380	< 410	< 430	< 430
Nitrocellulose	9004-70-0	ug/kg	< 190000	< 200000	< 210000	< 460000	< 340000	< 210000	< 180000	< 220000	< 190000	< 150000	< 160000	< 170000	< 170000
Nitroglycerin	55-63-0	ug/kg	< 9700	< 10000	< 10000	< 23000	< 17000	< 11000	< 9000	< 11000	< 9600	< 7700	< 8100	< 8500	< 8500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1200	< 1300	< 1300	< 2900	< 2100	< 1300	< 1100	< 1400	< 1200	< 960	< 1000	< 1100	< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 9700	< 10000	< 10000	< 23000	< 17000	< 11000	< 9000	< 11000	< 9600	< 7700	< 8100	< 8500	< 8500
RDX (Cyclonite)	121-82-4	ug/kg	< 490	< 500	< 520	< 1200	< 850	< 540	< 450	< 560	< 480	< 380	< 410	< 430	< 430
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	59.8	8.69	14	192	7.23	9.63	11.4	6.18	28.8	1.67	2.24	2.34	1.99
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.802	< 0.807	< 0.835	< 9.56	0.421	0.356	< 0.72	< 0.911	0.306	< 0.609	< 0.669	< 0.685	< 0.696
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	43.1	12	5.09	14.5	11	10	10.2	23.4	18.5	13.9	11.8	9.13	8.61
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	37.4	31.7	46.9	51.6	28.5	20.6	11.5	25.2	13.3	11.2	26	13.4	11.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	422	1760	884	467	68.5	674	2690	1500	920	1090	12	20.1	20.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.407	0.162	0.227	0.201	0.222	0.738	0.585	0.411	0.339	0.0423	0.0278	0.046	0.0557
Nickel	7440-02-0	mg/kg	12.2	8.53	1.56	26.8	14.4	8.82	4.56	10.3	9	6.48	13.5	6.95	6.04
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	0.43	0.311	< 0.835	< 9.56	< 1.38	0.293	0.305	< 0.911	0.298	0.259	< 0.669	< 0.685	< 0.696
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	175	97	13.6	157	84.1	107	72.7	186	133	76.4	54.9	42.2	44.1

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C11-03	SD-R-C11-04	SD-R-C11-05	SD-R-C12-01	SD-R-C12-02	SD-R-C12-03	SD-R-C12-04	SD-R-C12-05	SD-R-C12-06	SD-R-C12-07	SD-R-C13-01	SD-R-C13-02	SD-R-C13-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/25/2006	5/25/2006	6/6/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/25/2006	5/23/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-C11-031.0N	SD-R-C11-041.0N	SD-R-C11-051.0N	SD-R-C12-011.0N	SD-R-C12-021.0N	SD-R-C12-031.0N	SD-R-C12-041.0N	SD-R-C12-051.0N	SD-R-C12-061.0N	SD-R-C12-071.0N	SD-R-C13-011.0N	SD-R-C13-021.0N	SD-R-C13-021.0FD
Parent Sample															SD-R-C13-021.0N
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	38.3	40.4	42.4	74.1	64.6	44.1	33.2	46.2	37.5	21.8	26	29.8	29.6
Total Organic Carbon	ARC-TOC	mg/kg	17000	26000	21000	230000	160000	48000	23000	36000	32000	2400	6400	16000	13000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	94.1	92.1	100	76.6	100	100	100	100	100	100	99.6	93.3	97.4
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100	100	100	99.6	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	4.5	0.5	0.5	2	3	2	4	5.5	5.5	4	< 1	< 1	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	53.5	50.9	62.8	33.3	75	59	64.3	41.9	51.9	56.1	55.4	38.6	38.1
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	36.1	25.6	24.5	19.2	34.6	24.6	23.8	28.9	32	24.5	8.7	4.2	4
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	6	2	2	2	4.5	3.5	4.5	7	6.5	4.5	< 1	< 1	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	20	9.5	11	12	15	11	12.5	18	17	11	0.5	< 1	< 1
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	55.8	55.6	69.6	41.2	79.6	64.7	69.2	44.5	54.3	59.6	62.4	48.6	47.4
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	41.6	34.6	35.1	22.7	49.2	33.9	35.2	32.7	39.9	34.2	24.5	9	9.6
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	77.9	63.5	81.7	51.2	90.1	75.4	83.8	71.7	89.7	83.4	69.9	56.5	55.8
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	85.4	70.7	88.5	59.1	95.1	85	91.8	89.6	96.7	91.9	77.1	64.7	64.1
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	9.5	4	5	2	6.5	5.5	7	9.5	9	6	< 1	< 1	< 1
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	28	16	17.5	22.5	21	18	16	24.5	23.5	16	3	1	1
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	48.6	44	51.3	27.4	66	47.9	51.6	37.5	47.4	47	45.6	24.9	25.6
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	32	19	19.5	19	26.5	19.5	18.5	26	27	19	4.5	2.5	2.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	33.4	20.5	20.5	17.1	29	20.9	19.2	26.9	28.1	19.9	4.9	2.9	3.1
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C13-03	SD-R-C13-04	SD-R-C15-01	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/25/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-C13-031N	SD-R-C13-041.0N	SD-R-C15-011.0N	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C13-03	SD-R-C13-04	SD-R-C15-01	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/25/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-C13-031N	SD-R-C13-041.0N	SD-R-C15-011.0N	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 1300	NA	NA	< 280	NA	< 320	NA	< 280	NA	< 300	NA	< 320	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 1300	NA	NA	< 280	NA	< 320	NA	< 280	NA	< 300	NA	< 320	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 1300	NA	NA	< 280	NA	< 320	NA	< 280	NA	< 300	NA	< 320	NA
Acenaphthylene	208-96-8	ug/kg	< 1300	NA	NA	< 280	NA	71	NA	58	NA	62	NA	190	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 1300	NA	NA	63	NA	160	NA	210	NA	200	NA	280	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 1300	NA	NA	170	NA	520	NA	560	NA	680	NA	1000	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 1300	NA	NA	180	NA	530	NA	480	NA	680	NA	1000	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 1300	NA	NA	120	NA	350	NA	300	NA	450	NA	590	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 1300	NA	NA	86	NA	240	NA	190	NA	320	NA	530	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C13-03	SD-R-C13-04	SD-R-C15-01	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/25/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-C13-031N	SD-R-C13-041.0N	SD-R-C15-011.0N	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 1300	NA	NA	210	NA	570	NA	620	NA	770	NA	1200	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 1300	NA	NA	< 280	NA	99	NA	65	NA	120	NA	150	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	270	NA	NA	350	NA	950	NA	1200	NA	1300	NA	1800	NA
Fluorene	86-73-7	ug/kg	< 1300	NA	NA	< 280	NA	< 320	NA	67	NA	< 300	NA	96	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 1300	NA	NA	< 280	NA	< 320	NA	< 280	NA	< 300	NA	< 320	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	280	NA	NA	220	NA	570	NA	800	NA	700	NA	1000	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	360	NA	NA	380	NA	1100	NA	1300	NA	1300	NA	1700	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C13-03	SD-R-C13-04	SD-R-C15-01	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/25/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-C13-031N	SD-R-C13-041.0N	SD-R-C15-011.0N	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 2300	< 780	NA	< 500	NA	< 580	NA	< 500	NA	< 550	NA	< 580	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 2300	< 780	NA	< 500	NA	< 580	NA	< 500	NA	< 550	NA	< 580	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 2300	< 780	NA	< 500	NA	< 580	NA	< 500	NA	< 550	NA	< 580	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 2300	< 780	NA	< 500	NA	< 580	NA	< 500	NA	< 550	NA	< 580	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 2300	< 780	NA	< 500	NA	< 580	NA	< 500	NA	< 550	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 920000	< 310000	NA	< 200000	NA	< 230000	NA	< 200000	NA	< 220000	NA	< 230000	NA
Nitroglycerin	55-63-0	ug/kg	< 46000	< 16000	NA	< 9900	NA	< 12000	NA	< 10000	NA	< 11000	NA	< 12000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 5700	< 2000	NA	< 1200	NA	< 1400	NA	< 1300	NA	< 1400	NA	< 1400	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 46000	< 16000	NA	< 9900	NA	< 12000	NA	< 10000	NA	< 11000	NA	< 12000	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 2300	< 780	NA	< 500	NA	< 580	NA	< 500	NA	< 550	NA	< 580	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	90.2	19	NA	2.17	NA	3.99	NA	< 3.26	NA	< 3.54	NA	1.98	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	3.33	< 1.3	NA	0.558	NA	1.12	NA	0.277	NA	0.5	NA	0.563	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	16.4	17.9	NA	9.58	NA	8.12	NA	7.18	NA	11.3	NA	27.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	57.2	9.51	NA	7.66	NA	20.4	NA	5.69	NA	13.3	NA	14.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	318	967	NA	25.3	NA	35.8	NA	19.6	NA	56.7	NA	74.7	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.305	1.95	NA	0.0337	NA	0.179	NA	< 0.164	NA	0.0513	NA	0.0229	NA
Nickel	7440-02-0	mg/kg	29.2	4.29	NA	7.81	NA	10.8	NA	3.1	NA	5.77	NA	6.64	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 3.82	< 1.3	NA	< 0.804	NA	< 0.935	NA	< 0.814	NA	< 0.884	NA	< 0.954	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	549	25.2	NA	74.3	NA	184	NA	44.6	NA	104	NA	93.8	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C13-03	SD-R-C13-04	SD-R-C15-01	SD-R-C15-01	SD-R-C15-02	SD-R-C15-02	SD-R-C15-03	SD-R-C15-03	SD-R-C15-04	SD-R-C15-04	SD-R-C15-05	SD-R-C15-05	SD-R-C15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/25/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-C13-031N	SD-R-C13-041.0N	SD-R-C15-011.0N	SD-R-C15-011N	SD-R-C15-021.0N	SD-R-C15-021N	SD-R-C15-031.0N	SD-R-C15-031N	SD-R-C15-041.0N	SD-R-C15-041N	SD-R-C15-051.0N	SD-R-C15-051N	SD-R-C15-061.0N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	86.9	61.6	NA	39.6	NA	48.1	NA	40.4	NA	45.1	NA	48.1	NA
Total Organic Carbon	ARC-TOC	mg/kg	410000	38000	NA	6600	NA	24000	NA	3800	NA	26000	NA	15000	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	100	96.8	NA	100	NA	100	NA	100	NA	100	NA	95.9
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	100	100	NA	100	NA	100	NA	100	NA	100	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	100	100	NA	100	NA	100	NA	100	NA	100	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	3.5	< 1	NA	< 1	NA	2	NA	2	NA	< 1	NA	1.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	65	59.9	NA	90.5	NA	88.4	NA	91.6	NA	84.4	NA	74.3
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	38.8	24.1	NA	26.5	NA	28.1	NA	41.7	NA	31.1	NA	21.5
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	5.5	< 1	NA	< 1	NA	2	NA	2	NA	< 1	NA	1.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	16.5	3	NA	4.5	NA	4.5	NA	6	NA	4	NA	5
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	70.2	63.5	NA	94.8	NA	93.7	NA	94.9	NA	89.7	NA	79.6
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	51.5	36.2	NA	48.3	NA	50	NA	60.7	NA	53.4	NA	38.5
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	82.4	68.9	NA	96.7	NA	97.3	NA	97.6	NA	93.1	NA	84.1
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	93.8	74.5	NA	97.8	NA	98.4	NA	98.9	NA	95.7	NA	87.6
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	8.5	1	NA	1	NA	2	NA	3	NA	1	NA	2.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	24.5	7	NA	7	NA	9	NA	12.5	NA	8	NA	10
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	59.9	49.5	NA	73.9	NA	74.8	NA	80.3	NA	72.8	NA	59.5
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	28	10	NA	10	NA	12.5	NA	17	NA	13	NA	13
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	29.4	12	NA	11.9	NA	15	NA	20.1	NA	16.2	NA	14.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C15-06	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C9-01	SD-R-C9-02	SD-R-C9-03	SD-R-C9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/28/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/23/2006	6/23/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-C15-061N	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0N	SD-R-C16-011N	SD-R-C16-011.0FD	SD-R-C16-011FD	SD-R-C9-011.0N	SD-R-C9-021.0N	SD-R-C9-031.0N	SD-R-C9-041.0N
Parent Sample										SD-R-C16-011N	SD-R-C16-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 2500	NA	3800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C15-06	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C9-01	SD-R-C9-02	SD-R-C9-03	SD-R-C9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/28/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/23/2006	6/23/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-C15-061N	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0N	SD-R-C16-011N	SD-R-C16-011.0FD	SD-R-C16-011FD	SD-R-C9-011.0N	SD-R-C9-021.0N	SD-R-C9-031.0N	SD-R-C9-041.0N
Parent Sample										SD-R-C16-011N	SD-R-C16-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds															
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 240	< 670	< 1100	NA	NA	NA	< 230	NA	< 230	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 240	< 670	< 1100	NA	NA	NA	< 230	NA	< 230	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	99	< 670	< 1100	NA	NA	NA	71	NA	51	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 240	< 670	< 1100	NA	NA	NA	210	NA	130	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	150	< 670	< 1100	NA	NA	NA	440	NA	300	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	370	< 670	< 1100	NA	NA	NA	1500	NA	970	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	390	< 670	< 1100	NA	NA	NA	1500	NA	1100	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	260	< 670	< 1100	NA	NA	NA	1000	NA	690	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	180	< 670	< 1100	NA	NA	NA	710	NA	480	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C15-06	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C9-01	SD-R-C9-02	SD-R-C9-03	SD-R-C9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/28/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/23/2006	6/23/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-C15-061N	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0N	SD-R-C16-011N	SD-R-C16-011.0FD	SD-R-C16-011FD	SD-R-C9-011.0N	SD-R-C9-021.0N	SD-R-C9-031.0N	SD-R-C9-041.0N
Parent Sample										SD-R-C16-011N	SD-R-C16-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	450	150	< 1100	NA	NA	NA	1600	NA	1100	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	51	< 670	< 1100	NA	NA	NA	260	NA	190	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	860	240	< 1100	NA	NA	NA	2600	NA	1800	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	100	< 670	< 1100	NA	NA	NA	130	NA	93	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	57	< 670	< 1100	NA	NA	NA	< 230	NA	< 230	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	630	< 670	< 1100	NA	NA	NA	1500	NA	1000	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	830	210	< 1100	NA	NA	NA	3300	NA	2300	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C15-06	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C9-01	SD-R-C9-02	SD-R-C9-03	SD-R-C9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/28/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/23/2006	6/23/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-C15-061N	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0N	SD-R-C16-011N	SD-R-C16-011.0FD	SD-R-C16-011FD	SD-R-C9-011.0N	SD-R-C9-021.0N	SD-R-C9-031.0N	SD-R-C9-041.0N
Parent Sample										SD-R-C16-011N	SD-R-C16-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Explosives & Energetics															
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 440	< 1200	< 2000	< 2500	< 2100	NA	< 420	NA	< 410	< 380	< 370	< 360	< 360
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 440	< 1200	< 2000	< 2500	< 2100	NA	< 420	NA	< 410	< 380	< 370	< 360	< 360
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 440	< 1200	< 2000	< 2500	< 2100	NA	< 420	NA	< 410	< 380	< 370	< 360	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 440	< 2400	< 4000	< 4900	< 4300	NA	< 420	NA	< 410	< 380	< 370	< 360	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 440	< 1200	< 2000	< 2500	< 2100	NA	< 420	NA	< 410	< 380	< 370	< 360	< 360
Nitrocellulose	9004-70-0	ug/kg	< 180000	< 480000	< 810000	< 980000	< 840000	NA	< 170000	NA	< 160000	< 150000	< 150000	< 140000	< 150000
Nitroglycerin	55-63-0	ug/kg	< 8700	< 24000	< 40000	< 49000	< 43000	NA	< 8400	NA	< 8200	< 7500	< 7400	< 7300	< 7300
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1100	< 3000	< 5000	< 6100	< 5300	NA	< 1100	NA	< 1000	< 940	< 920	< 910	< 910
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8700	< 24000	< 40000	< 49000	< 43000	NA	< 8400	NA	< 8200	< 7500	< 7400	< 7300	< 7300
RDX (Cyclonite)	121-82-4	ug/kg	< 440	< 1200	< 2000	< 2500	< 2100	NA	< 420	NA	< 410	< 380	< 370	< 360	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals															
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.7	4.62	< 13.2	8.2	6.93	NA	< 2.77	NA	< 2.66	3.15	3.08	< 2.35	2.69
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.313	0.699	0.502	< 4.02	< 3.51	NA	0.262	NA	0.301	< 3.11	< 2.96	< 2.94	< 3.03
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	32.2	21.1	14.5	41.4	68.3	NA	4.99	NA	5.85	30.8	16.1	14.3	30.3
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.2	18.1	17	14.3	8.11	NA	5.75	NA	6.81	16.6	14	14.6	14
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	99.7	50.2	19.1	6.92	10.6	NA	29.4	NA	64.3	7.28	8.24	12.1	11.5
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0208	0.133	0.131	0.0976	0.0867	NA	0.0255	NA	0.0357	0.0261	0.0188	< 0.117	< 0.115
Nickel	7440-02-0	mg/kg	5.48	7.58	5.78	< 8.04	< 7.02	NA	3.06	NA	3.76	15.5	10.1	8.36	11
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.719	< 1.94	< 3.3	< 4.02	< 3.51	NA	< 0.693	NA	< 0.666	0.312	0.231	0.271	0.461
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	68.5	104	54.4	35.5	26.5	NA	48.3	NA	53.6	42.1	41.5	69.1	53.9

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-C15-06	SD-R-C15-07	SD-R-C15-08	SD-R-C15-09	SD-R-C15-10	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C16-01	SD-R-C9-01	SD-R-C9-02	SD-R-C9-03	SD-R-C9-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/28/2006	7/25/2006	7/26/2006	7/26/2006	7/26/2006	6/28/2006	6/28/2006	6/28/2006	6/28/2006	6/23/2006	6/23/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-C15-061N	SD-R-C15-071.0N	SD-R-C15-081.0N	SD-R-C15-091.0N	SD-R-C15-101.0N	SD-R-C16-011.0N	SD-R-C16-011N	SD-R-C16-011.0FD	SD-R-C16-011FD	SD-R-C9-011.0N	SD-R-C9-021.0N	SD-R-C9-031.0N	SD-R-C9-041.0N
Parent Sample										SD-R-C16-011N	SD-R-C16-011N				
CONSTITUENT	***CAS NO.***	***UNIT***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	31.1	75	85	87.8	85.9	NA	28.6	NA	26.4	20.3	18.8	17.5	17.5
Total Organic Carbon	ARC-TOC	mg/kg	17000	180000	290000	330000	250000	NA	5300	NA	2200	1700	2800	4000	2900
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	99.9	97.9	100	98.8	100	NA	100	NA	98.4	100	98.4	98.3
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	100	100	100	100	100	NA	100	NA	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	100	100	100	100	100	NA	100	NA	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	< 1	5	< 1	< 1	< 1	NA	< 1	NA	4	3	< 1	0.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	88.6	55.4	< 1	< 1	75.1	NA	75.1	NA	43.8	31.6	35.4	42.5
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	72	22.9	< 1	< 1	22.4	NA	22.1	NA	32.6	21.1	4.1	12.1
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	3	7	< 1	< 1	< 1	NA	< 1	NA	5	3.5	< 1	1.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	25.5	20	< 1	< 1	3	NA	2.5	NA	19	11.5	1	7
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	91.2	68.5	55.1	47.9	80.8	NA	80.9	NA	46.1	35.8	42.7	51.8
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	78.5	30.5	< 1	< 1	42.9	NA	43.2	NA	35.5	23.4	10.3	18.7
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	95.5	78.1	67.3	63.8	86.5	NA	87.1	NA	74.5	68.5	50.9	70.5
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	97.8	85.1	79	81.9	90.9	NA	92	NA	91.6	90.5	61	78.9
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	7	9	< 1	< 1	1	NA	1	NA	8	6	< 1	2.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	41	32.5	< 1	< 1	6.5	NA	6.5	NA	27	16.5	2	8
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	83.7	43.1	< 1	< 1	61.7	NA	62.3	NA	39.6	26.9	23.7	30.8
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	53	22	< 1	< 1	9	NA	9	NA	29	18	2	8.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	58.3	19	< 1	< 1	10.3	NA	10.3	NA	30.6	19.4	2.3	9.1
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D11-01	SD-R-D11-02	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D11-06	SD-R-D11-07	SD-R-D11-08	SD-R-D11-09	SD-R-D11-09	SD-R-D12-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/18/2006	5/18/2006	5/18/2006	5/18/2006	5/15/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			SD-R-D11-011.0N	SD-R-D11-021.0N	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0N	SD-R-D11-051.0FD	SD-R-D11-061.0N	SD-R-D11-071.0N	SD-R-D11-081.0N	SD-R-D11-091.0N	SD-R-D11-091.0FD	SD-R-D12-011.0N
Parent Sample								SD-R-D11-051.0N					SD-R-D11-091.0N	
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-D11-01 0.5-1.0 ft 5/16/2006 N SD-R-D11-011.0N	SD-R-D11-02 0.5-1.0 ft 5/16/2006 N SD-R-D11-021.0N	SD-R-D11-03 0.5-1.0 ft 5/16/2006 N SD-R-D11-031.0N	SD-R-D11-04 0.5-1.0 ft 5/16/2006 N SD-R-D11-041.0N	SD-R-D11-05 0.5-1.0 ft 5/16/2006 N SD-R-D11-051.0N	SD-R-D11-05 0.5-1.0 ft 5/16/2006 FD SD-R-D11-051.0FD SD-R-D11-051.0N	SD-R-D11-06 0.5-1.0 ft 5/16/2006 N SD-R-D11-061.0N	SD-R-D11-07 0.5-1.0 ft 5/18/2006 N SD-R-D11-071.0N	SD-R-D11-08 0.5-1.0 ft 5/18/2006 N SD-R-D11-081.0N	SD-R-D11-09 0.5-1.0 ft 5/18/2006 N SD-R-D11-091.0N	SD-R-D11-09 0.5-1.0 ft 5/18/2006 FD SD-R-D11-091.0FD SD-R-D11-091.0N	SD-R-D12-01 0.5-1.0 ft 5/15/2006 N SD-R-D12-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-D11-01 0.5-1.0 ft 5/16/2006 N SD-R-D11-011.0N	SD-R-D11-02 0.5-1.0 ft 5/16/2006 N SD-R-D11-021.0N	SD-R-D11-03 0.5-1.0 ft 5/16/2006 N SD-R-D11-031.0N	SD-R-D11-04 0.5-1.0 ft 5/16/2006 N SD-R-D11-041.0N	SD-R-D11-05 0.5-1.0 ft 5/16/2006 N SD-R-D11-051.0N	SD-R-D11-05 0.5-1.0 ft 5/16/2006 FD SD-R-D11-051.0FD SD-R-D11-051.0N	SD-R-D11-06 0.5-1.0 ft 5/16/2006 N SD-R-D11-061.0N	SD-R-D11-07 0.5-1.0 ft 5/18/2006 N SD-R-D11-071.0N	SD-R-D11-08 0.5-1.0 ft 5/18/2006 N SD-R-D11-081.0N	SD-R-D11-09 0.5-1.0 ft 5/18/2006 N SD-R-D11-091.0N	SD-R-D11-09 0.5-1.0 ft 5/18/2006 FD SD-R-D11-091.0FD SD-R-D11-091.0N	SD-R-D12-01 0.5-1.0 ft 5/15/2006 N SD-R-D12-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 260
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D11-01	SD-R-D11-02	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D11-06	SD-R-D11-07	SD-R-D11-08	SD-R-D11-09	SD-R-D11-09	SD-R-D12-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/18/2006	5/18/2006	5/18/2006	5/18/2006	5/15/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			SD-R-D11-011.0N	SD-R-D11-021.0N	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0N	SD-R-D11-051.0FD	SD-R-D11-061.0N	SD-R-D11-071.0N	SD-R-D11-081.0N	SD-R-D11-091.0N	SD-R-D11-091.0FD	SD-R-D12-011.0N
Parent Sample								SD-R-D11-051.0N					SD-R-D11-091.0N	
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 620	< 440	< 510	< 520	< 380	< 400	< 460	< 520	< 450	< 390	< 390	< 460
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 620	< 440	< 510	< 520	< 380	< 400	< 460	< 520	< 450	< 390	< 390	< 460
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 620	< 440	< 510	< 520	< 380	< 400	< 460	< 520	< 450	< 390	< 390	< 460
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 620	< 440	< 510	< 520	< 380	< 400	< 460	< 520	< 450	< 390	< 390	< 460
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 620	< 440	< 510	< 520	< 380	< 400	< 460	< 520	< 450	< 390	< 390	< 460
Nitrocellulose	9004-70-0	ug/kg	1500000	< 180000	220000	320000	< 150000	< 160000	210000	100000	< 180000	< 160000	< 150000	99000
Nitroglycerin	55-63-0	ug/kg	15000	< 8900	< 10000	< 10000	< 7600	< 8000	< 9200	< 10000	< 9000	< 7900	< 7800	< 9300
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1600	< 1100	< 1300	< 1300	< 950	< 990	< 1200	< 1300	< 1100	< 980	< 980	< 1200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 12000	< 8900	< 10000	< 10000	< 7600	< 8000	< 9200	< 10000	< 9000	< 7900	< 7800	< 9300
RDX (Cyclonite)	121-82-4	ug/kg	< 620	< 440	< 510	< 520	< 380	< 400	< 460	< 520	< 450	< 390	< 390	< 460
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	10.3	3.22	3.9	4.6	5.53	5.25	1.91	8.43	12	10.3	8.03	7.14
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	1.46	0.475	0.896	0.929	0.813	0.892	0.717	0.164	< 0.739	< 0.643	< 0.632	1.43
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	21.5	11.6	10.9	16.7	28.2	21.8	43.8	4.2	4.14	6.37	4.04	13.8
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	162	25.8	28.5	42.8	14.1	17.9	4.56	5.48	6.53	3.69	3.27	28.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	1250	151	132	207	32.3	46.5	32.8	148000	1250	1550	1830	156
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.96	0.161	0.277	0.305	0.0884	0.148	0.0052	0.37	0.237	0.024	0.0342	0.214
Nickel	7440-02-0	mg/kg	13.4	7.79	8.41	6.69	8.11	4.04	5.32	2.27	1.94	1.8	1.35	10.4
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.02	< 0.718	< 0.827	0.338	< 0.628	0.349	< 0.763	< 0.873	< 0.739	< 0.643	< 0.632	1.45
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	315	31.7	111	112	54.4	56.8	27.7	37.9	35.6	15.8	15.3	145

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D11-01	SD-R-D11-02	SD-R-D11-03	SD-R-D11-04	SD-R-D11-05	SD-R-D11-05	SD-R-D11-06	SD-R-D11-07	SD-R-D11-08	SD-R-D11-09	SD-R-D11-09	SD-R-D12-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/18/2006	5/18/2006	5/18/2006	5/18/2006	5/15/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	FD	N
Sample Name			SD-R-D11-011.0N	SD-R-D11-021.0N	SD-R-D11-031.0N	SD-R-D11-041.0N	SD-R-D11-051.0N	SD-R-D11-051.0FD	SD-R-D11-061.0N	SD-R-D11-071.0N	SD-R-D11-081.0N	SD-R-D11-091.0N	SD-R-D11-091.0FD	SD-R-D12-011.0N
Parent Sample								SD-R-D11-051.0N					SD-R-D11-091.0N	
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	51.9	32.4	40.7	42.3	21.2	24.6	35.1	42.7	33	23.8	23.2	35.2
Total Organic Carbon	ARC-TOC	mg/kg	38000	15000	15000	7400	12000	12000	9600	15000	24000	610	1200	23000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	99.9	100	100	92.9	100	99.1	100	97.5	100	100	98.6	94.9
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3	0.5	< 1	1.5	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	95.4	61.4	76.2	71.8	48.9	52.3	68.1	50.6	61	65.3	71.8	40.2
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	51.5	18	27.4	36.3	16.9	19.7	10.6	18.1	25	12.2	15.2	9.8
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	< 1	< 1	< 1	0.5	1	< 1	3	2.5	1	2.5	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	13	4	6	6	4	4	2.5	7	11	2	4.5	2
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	97.5	71.9	85	77.4	57.7	58.1	77.9	54.2	72.4	77.3	77.3	50.3
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	79.2	37.7	45.7	52.2	27.7	31.2	25	28	34.6	25.4	34.7	16.7
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	98.8	80.2	89.3	80.7	63	63.8	86.3	72.5	77.3	83.7	83.3	58.5
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	99.4	88	92.6	83.6	69.9	70.8	93.2	78.2	84.1	88.4	88.7	66.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	2	2	2	2	1.5	2.5	2	4	5	1	3	< 1
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	23	6.5	12	13.5	7	8	4	10.5	17	5.5	7	5.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	91.2	52.4	64.8	64.4	39.2	43.3	49.2	41.8	48.5	44.4	55.8	27.2
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	28.5	8	14.5	18	9	11	5.5	13	19.5	7.5	8	6
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	33.5	9.5	16.8	20.8	10.4	12.5	6.5	13.4	20.7	8.4	9.2	6.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-D12-02 0.5-1.0 ft 5/15/2006 N SD-R-D12-021.0N	SD-R-D12-03 0.5-1.0 ft 5/15/2006 N SD-R-D12-031.0N	SD-R-D12-04 0.5-1.0 ft 5/15/2006 N SD-R-D12-041.0N	SD-R-D12-05 0.5-1.0 ft 5/15/2006 N SD-R-D12-051.0N	SD-R-D12-06 0.5-1.0 ft 5/15/2006 N SD-R-D12-061.0N	SD-R-D12-07 0.5-1.0 ft 5/15/2006 N SD-R-D12-071.0N	SD-R-D12-08 0.5-1.0 ft 5/15/2006 N SD-R-D12-081.0N	SD-R-D12-09 0.5-1.0 ft 5/16/2006 N SD-R-D12-091.0N	SD-R-D12-10 0.5-1.0 ft 5/16/2006 N SD-R-D12-101.0N	SD-R-D12-11 0.5-1.0 ft 5/16/2006 N SD-R-D12-111.0N	SD-R-D12-12 0.5-1.0 ft 5/16/2006 N SD-R-D12-121.0N	SD-R-D13-01 0.5-1.0 ft 5/4/2006 N SD-R-D13-011.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D12-02	SD-R-D12-03	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-08	SD-R-D12-09	SD-R-D12-10	SD-R-D12-11	SD-R-D12-12	SD-R-D13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D12-021.0N	SD-R-D12-031.0N	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-081.0N	SD-R-D12-091.0N	SD-R-D12-101.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D13-011.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 250	< 450	< 260	< 250	< 230	< 240	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 450	< 260	< 250	< 230	< 240	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 250	< 450	< 260	< 250	< 230	< 240	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 250	< 450	< 260	< 250	< 230	180	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 250	< 450	< 260	< 250	< 230	350	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 250	< 450	82	< 250	< 230	970	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 250	< 450	< 260	< 250	< 230	790	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 250	< 450	< 260	< 250	< 230	430	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 250	< 450	< 260	< 250	< 230	450	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D12-02	SD-R-D12-03	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-08	SD-R-D12-09	SD-R-D12-10	SD-R-D12-11	SD-R-D12-12	SD-R-D13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D12-021.0N	SD-R-D12-031.0N	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-081.0N	SD-R-D12-091.0N	SD-R-D12-101.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D13-011.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 250	< 450	110	< 250	< 230	890	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 250	< 450	< 260	< 250	< 230	130	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	< 250	300	110	< 250	< 230	1400	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 250	< 450	< 260	< 250	< 230	66	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 250	< 450	< 260	< 250	< 230	< 240	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 250	210	62	< 250	< 230	720	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	54	610	200	< 250	78	2600	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D12-02	SD-R-D12-03	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-08	SD-R-D12-09	SD-R-D12-10	SD-R-D12-11	SD-R-D12-12	SD-R-D13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D12-021.0N	SD-R-D12-031.0N	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-081.0N	SD-R-D12-091.0N	SD-R-D12-101.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D13-011.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 450	< 810	< 470	< 440	< 410	< 440	< 580	< 650	< 410	< 430	< 390	< 2300
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 450	< 810	< 470	< 440	< 410	< 440	< 580	< 650	< 410	< 430	< 390	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 450	< 810	< 470	< 440	< 410	< 440	< 580	< 650	< 410	< 430	< 390	< 2300
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 450	< 810	< 470	< 440	< 410	< 440	< 580	< 650	< 410	< 430	< 390	< 2300
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 450	< 810	< 470	< 440	< 410	< 440	< 580	< 650	< 410	< 430	< 390	< 2300
Nitrocellulose	9004-70-0	ug/kg	< 180000	< 320000	420000	< 180000	74000	< 180000	< 230000	< 260000	< 160000	< 170000	< 150000	< 920000
Nitroglycerin	55-63-0	ug/kg	< 9100	< 16000	< 9300	< 8800	< 8100	< 8800	< 12000	< 13000	< 8200	< 8500	< 7700	< 47000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1100	< 2000	< 1200	< 1100	< 1000	< 1100	< 1500	< 1600	< 1000	< 1100	< 970	< 5800
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 9100	< 16000	< 9300	< 8800	< 8100	< 8800	< 12000	< 13000	< 8200	< 8500	< 7700	< 47000
RDX (Cyclonite)	121-82-4	ug/kg	< 450	< 810	< 470	< 440	< 410	< 440	< 580	< 650	< 410	< 430	< 390	< 2300
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.34	15.7	6.23	1.12	1.66	3.23	< 3.89	4.08	1.59	35.9	3.24	75.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.523	0.626	0.656	0.52	0.636	0.363	0.414	0.58	0.704	0.782	< 0.632	0.814
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	8.39	19.9	11.7	19	9.13	15.4	21.5	13.9	14.7	8.99	11.9	32.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	10.9	17.7	35.3	3.3	24.7	8.13	4.74	32	7.27	25.5	12.2	44.6
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	106	1060	410	7.39	119	43.3	6.47	298	43.8	82	12.8	1320
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.307	7.4	0.449	< 0.143	0.0837	0.163	0.0246	0.576	0.015	0.0869	0.0093	4.62
Nickel	7440-02-0	mg/kg	4.41	7.31	6.23	3.84	4.29	3.77	6.23	11.4	5.63	29.4	6.26	16.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.748	0.943	< 0.745	< 0.728	< 0.646	< 0.71	0.504	< 1.06	< 0.656	< 3.52	< 0.632	< 3.84
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	40.3	71.3	90.3	27.6	49.8	29.2	30.6	78.2	44.8	294	46.3	253

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D12-02	SD-R-D12-03	SD-R-D12-04	SD-R-D12-05	SD-R-D12-06	SD-R-D12-07	SD-R-D12-08	SD-R-D12-09	SD-R-D12-10	SD-R-D12-11	SD-R-D12-12	SD-R-D13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/16/2006	5/16/2006	5/16/2006	5/16/2006	5/4/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D12-021.0N	SD-R-D12-031.0N	SD-R-D12-041.0N	SD-R-D12-051.0N	SD-R-D12-061.0N	SD-R-D12-071.0N	SD-R-D12-081.0N	SD-R-D12-091.0N	SD-R-D12-101.0N	SD-R-D12-111.0N	SD-R-D12-121.0N	SD-R-D13-011.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	33.8	62.8	35.5	32	26.3	31.6	48.6	54.1	26.7	29.7	22.4	87.1
Total Organic Carbon	ARC-TOC	mg/kg	4900	66000	7400	6900	3000	3000	19000	29000	4500	21000	1100	190000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	100	100	100	100	95.1	99.4	99.9	100	100	100	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100	100	100	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	< 1	< 1	< 1	< 1	< 1	2	2	< 1	< 1	< 1	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	78.9	69.6	82.5	87.8	73.3	64	77.5	86.5	75.7	69.7	72.1	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	20	47.2	35.3	30.6	16.7	18.9	24	50.8	21.8	12.9	14.1	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	2	< 1	< 1	< 1	0.5	2	2	1	< 1	< 1	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	1.5	17	7	5	2	3	4.5	15.5	7	2.5	3	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	82.4	71.6	86.6	90.1	79.7	67.3	89.1	92.7	82.7	75.1	81.3	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	46	60.9	63.9	57.7	36	36	45.8	70	41.6	30.2	34.1	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	89.6	87.6	92.6	94.4	87.4	74.5	93.3	96.2	88.4	83.1	88.1	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	94.6	95.5	96.7	97.4	94.3	81	95.5	97.9	92.1	89.2	93.8	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	< 1	7	1	0.5	< 1	1	2	3.5	3	< 1	1	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	5	24	10.5	9	4	7.5	8.5	27.5	9	7	4.5	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	70.7	67	76.7	78.9	59.2	55.5	64.9	80.5	62.5	56.1	56.4	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	8	30	15	13.5	7.5	9	11	31.5	12.5	8.5	6.5	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	9.7	34.2	18	16.8	8.9	11.1	13.3	34.2	13.6	9.8	7.4	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-D13-02 0.5-1.0 ft 5/17/2006 N SD-R-D13-021.0N	SD-R-D13-03 0.5-1.0 ft 5/17/2006 N SD-R-D13-031.0N	SD-R-D13-04 0.5-1.0 ft 5/17/2006 N SD-R-D13-041.0N	SD-R-D13-05 0.5-1.0 ft 5/17/2006 N SD-R-D13-051.0N	SD-R-D13-06 0.5-1.0 ft 5/17/2006 N SD-R-D13-061.0N	SD-R-D13-07 0.5-1.0 ft 5/17/2006 N SD-R-D13-071.0N	SD-R-D13-07 0.5-1.0 ft 5/17/2006 FD SD-R-D13-071.0FD SD-R-D13-071.0N	SD-R-D13-08 0.5-1.0 ft 5/17/2006 N SD-R-D13-081.0N	SD-R-D13-09 0.5-1.0 ft 5/17/2006 N SD-R-D13-091.0N	SD-R-D13-10 0.5-1.0 ft 5/17/2006 N SD-R-D13-101.0N	SD-R-D13-11 0.5-1.0 ft 5/23/2006 N SD-R-D13-111.0N	SD-R-D13-12 0.5-1.0 ft 5/23/2006 N SD-R-D13-121.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-D13-02 0.5-1.0 ft 5/17/2006 N SD-R-D13-021.0N	SD-R-D13-03 0.5-1.0 ft 5/17/2006 N SD-R-D13-031.0N	SD-R-D13-04 0.5-1.0 ft 5/17/2006 N SD-R-D13-041.0N	SD-R-D13-05 0.5-1.0 ft 5/17/2006 N SD-R-D13-051.0N	SD-R-D13-06 0.5-1.0 ft 5/17/2006 N SD-R-D13-061.0N	SD-R-D13-07 0.5-1.0 ft 5/17/2006 N SD-R-D13-071.0N	SD-R-D13-07 0.5-1.0 ft 5/17/2006 FD SD-R-D13-071.0FD SD-R-D13-071.0N	SD-R-D13-08 0.5-1.0 ft 5/17/2006 N SD-R-D13-081.0N	SD-R-D13-09 0.5-1.0 ft 5/17/2006 N SD-R-D13-091.0N	SD-R-D13-10 0.5-1.0 ft 5/17/2006 N SD-R-D13-101.0N	SD-R-D13-11 0.5-1.0 ft 5/23/2006 N SD-R-D13-111.0N	SD-R-D13-12 0.5-1.0 ft 5/23/2006 N SD-R-D13-121.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	< 300	< 780
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	< 300	< 780
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	< 300	< 780
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	< 300	< 780
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	120	< 780
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	290	320	NA	NA	NA	320	NA	130	390	160
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 1300	250	NA	NA	NA	330	NA	120	370	< 780
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 1300	150	NA	NA	NA	210	NA	< 470	310	< 780
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 1300	140	NA	NA	NA	200	NA	< 470	200	< 780
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-02	SD-R-D13-03	SD-R-D13-04	SD-R-D13-05	SD-R-D13-06	SD-R-D13-07	SD-R-D13-07	SD-R-D13-08	SD-R-D13-09	SD-R-D13-10	SD-R-D13-11	SD-R-D13-12
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-D13-021.0N	SD-R-D13-031.0N	SD-R-D13-041.0N	SD-R-D13-051.0N	SD-R-D13-061.0N	SD-R-D13-071.0N	SD-R-D13-071.0FD	SD-R-D13-081.0N	SD-R-D13-091.0N	SD-R-D13-101.0N	SD-R-D13-111.0N	SD-R-D13-121.0N
Parent Sample									SD-R-D13-071.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	350	350	NA	NA	NA	470	NA	190	470	< 780
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	87	< 780
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	560	470	NA	NA	NA	500	NA	210	830	290
Fluorene	86-73-7	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	< 300	< 780
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 1300	< 570	NA	NA	NA	< 550	NA	< 470	< 300	< 780
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	290	180	NA	NA	NA	160	NA	< 470	440	170
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	540	420	NA	NA	NA	560	NA	230	800	280

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-02	SD-R-D13-03	SD-R-D13-04	SD-R-D13-05	SD-R-D13-06	SD-R-D13-07	SD-R-D13-07	SD-R-D13-08	SD-R-D13-09	SD-R-D13-10	SD-R-D13-11	SD-R-D13-12
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-D13-021.0N	SD-R-D13-031.0N	SD-R-D13-041.0N	SD-R-D13-051.0N	SD-R-D13-061.0N	SD-R-D13-071.0N	SD-R-D13-071.0FD	SD-R-D13-081.0N	SD-R-D13-091.0N	SD-R-D13-101.0N	SD-R-D13-111.0N	SD-R-D13-121.0N
Parent Sample									SD-R-D13-071.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1600	< 2500	< 2300	< 1000	< 1300	< 620	< 670	< 990	< 570	< 850	< 540	< 1400
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1600	< 2500	< 2300	< 1000	< 1300	< 620	< 670	< 990	< 570	< 850	< 540	< 1400
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1600	< 2500	< 2300	< 1000	< 1300	< 620	< 670	< 990	< 570	< 850	< 540	< 1400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1600	< 2500	< 2300	< 1000	< 1300	< 620	< 670	< 990	< 570	< 850	< 540	< 1400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1600	< 2500	< 2300	< 1000	< 1300	< 620	< 670	< 990	< 570	< 850	< 540	< 1400
Nitrocellulose	9004-70-0	ug/kg	240000	< 1000000	350000	270000	< 500000	170000	240000	380000	380000	120000	< 220000	< 560000
Nitroglycerin	55-63-0	ug/kg	< 32000	< 51000	< 47000	< 21000	< 25000	< 12000	< 13000	< 20000	< 11000	< 17000	< 11000	< 28000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 4000	< 6400	< 5900	< 2600	< 3200	< 1600	< 1700	< 2500	< 1400	< 2100	< 1300	< 3500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 32000	< 51000	< 47000	< 21000	< 25000	< 12000	< 13000	< 20000	< 11000	< 17000	< 11000	< 28000
RDX (Cyclonite)	121-82-4	ug/kg	< 1600	< 2500	< 2300	< 1000	< 1300	< 620	< 670	< 990	< 570	< 850	< 540	< 1400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	15	30.4	64.7	13	72.4	8.15	12.1	16.2	8.69	11.9	13.7	10.3
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	1.35	1.7	1.31	1.01	0.37	0.826	0.943	1.15	0.723	0.883	< 0.896	2.42
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	10.4	18.4	31	19	23.7	10.8	12.5	20.2	10.9	15.2	16.1	23.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	22.2	49.7	195	33.4	25.7	21.3	25.8	44	32.6	27.4	16	21.5
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	235	464	759	329	631	121	152	312	233	233	1160	398
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.815	1.77	3.33	0.582	14.7	0.193	0.347	0.744	0.666	0.974	7.51	0.629
Nickel	7440-02-0	mg/kg	5.69	12.1	14.3	9.41	5.16	8.24	9.33	16	7.81	9.34	4.67	12
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 2.65	< 4.24	< 3.83	< 1.7	0.96	< 1.04	< 1.09	< 1.63	< 0.947	< 1.39	< 0.896	< 2.34
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	155	327	235	257	48.2	156	197	280	169	157	37.2	102

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-02	SD-R-D13-03	SD-R-D13-04	SD-R-D13-05	SD-R-D13-06	SD-R-D13-07	SD-R-D13-07	SD-R-D13-08	SD-R-D13-09	SD-R-D13-10	SD-R-D13-11	SD-R-D13-12
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/23/2006	5/23/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-D13-021.0N	SD-R-D13-031.0N	SD-R-D13-041.0N	SD-R-D13-051.0N	SD-R-D13-061.0N	SD-R-D13-071.0N	SD-R-D13-071.0FD	SD-R-D13-081.0N	SD-R-D13-091.0N	SD-R-D13-101.0N	SD-R-D13-111.0N	SD-R-D13-121.0N
Parent Sample									SD-R-D13-071.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	81.1	88.2	87.2	70.8	76.4	51.8	55.1	69.6	47.7	64.7	44.2	78.6
Total Organic Carbon	ARC-TOC	mg/kg	34000	280000	130000	48000	36000	13000	34000	65000	31000	64000	14000	200000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	100	100	100	100	99.1	98.8	99.2	100	100	100	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	99.8	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	0.5	< 1	2	1	< 1	1	0.5	0.5	< 1	0.5	2	1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	43.8	42.9	60.2	72.4	74.8	75.4	80	80.2	81.8	85.1	65	31.6
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	16.9	25.3	43.4	23.1	36.6	35.2	36.7	30.8	31.3	36.8	32.5	14.5
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	2.5	< 1	5.5	1	1.5	1	0.5	1	1.5	1.5	4	1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	8	11	32	6	19.5	6.5	6	6.5	2.5	8.5	17.5	5
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	62.5	51	64.6	86.7	95.7	85.3	89.7	90.5	88.7	93.1	74.1	39.3
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	23.2	30	49	41.7	44.7	53.4	54.8	56.6	58	63.3	43.1	18.9
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	79.7	69.1	80.5	94.6	98.3	91.3	94.7	93.9	92.4	95.1	80.9	59.7
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	91.9	87.6	91.4	97.4	99.3	94.8	96.8	95.8	94.8	97.3	86.7	75
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	4	2	11	1.5	4.5	1.5	3	3	2.5	3.5	7	2
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	15	26	62	11	29.5	12	13	12.5	6.5	13.5	25.5	8
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	32.2	35.6	54.4	59.2	59.1	66.8	69.9	71.4	73.7	78.8	56.2	24.8
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	14	24	46	13	30	15.5	17	14	11.5	16.5	28	11.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	13.3	21.7	39.3	14.6	30.4	17.9	19.4	14.8	14.2	19.1	28.5	12.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-12	SD-R-D13-13	SD-R-D13-14	SD-R-D13-15	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-D14-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/23/2006	6/23/2006	7/26/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/29/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D13-121.0FD	SD-R-D13-131.0N	SD-R-D13-141.0N	SD-R-D13-151.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-D14-071.0N
Parent Sample			SD-R-D13-121.0N										
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-12	SD-R-D13-13	SD-R-D13-14	SD-R-D13-15	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-D14-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/23/2006	6/23/2006	7/26/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/29/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D13-121.0FD	SD-R-D13-131.0N	SD-R-D13-141.0N	SD-R-D13-151.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-D14-071.0N
Parent Sample			SD-R-D13-121.0N										
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 650	NA	NA	< 1100	NA	NA	< 30000	NA	NA	< 310	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 650	NA	NA	< 1100	NA	NA	< 30000	NA	NA	< 310	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 650	NA	NA	< 1100	NA	NA	140000	NA	NA	250	NA
Acenaphthylene	208-96-8	ug/kg	< 650	NA	NA	< 1100	NA	NA	900000	NA	NA	340	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 650	NA	NA	< 1100	NA	NA	1100000	NA	NA	200	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	360	NA	NA	< 1100	NA	NA	1500000	NA	NA	540	NA
Benzo[a]pyrene	50-32-8	ug/kg	360	NA	NA	< 1100	NA	NA	900000	NA	NA	630	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	290	NA	NA	< 1100	NA	NA	470000	NA	NA	490	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	200	NA	NA	< 1100	NA	NA	580000	NA	NA	390	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-12	SD-R-D13-13	SD-R-D13-14	SD-R-D13-15	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-D14-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/23/2006	6/23/2006	7/26/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/29/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D13-121.0FD	SD-R-D13-131.0N	SD-R-D13-141.0N	SD-R-D13-151.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-D14-071.0N
Parent Sample			SD-R-D13-121.0N										
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	430	NA	NA	< 1100	NA	NA	1100000	NA	NA	650	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 650	NA	NA	< 1100	NA	NA	180000	NA	NA	120	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	770	NA	NA	< 1100	NA	NA	3500000	NA	NA	1600	NA
Fluorene	86-73-7	ug/kg	< 650	NA	NA	< 1100	NA	NA	1200000	NA	NA	98	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 650	NA	NA	< 1100	NA	NA	240000	NA	NA	< 310	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	400	NA	NA	< 1100	NA	NA	5300000	NA	NA	240	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	770	NA	NA	< 1100	NA	NA	2600000	NA	NA	1300	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-12	SD-R-D13-13	SD-R-D13-14	SD-R-D13-15	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-D14-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/23/2006	6/23/2006	7/26/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/29/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D13-121.0FD	SD-R-D13-131.0N	SD-R-D13-141.0N	SD-R-D13-151.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-D14-071.0N
Parent Sample			SD-R-D13-121.0N										
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1200	< 550	< 2900	< 2000	< 2200	< 1400	< 540	< 820	< 2900	< 550	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	1400	< 550	< 2900	< 2000	< 2200	< 1400	19000	< 820	< 2900	< 550	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1200	< 550	< 2900	< 2000	< 2200	< 1400	< 540	< 820	< 2900	< 550	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1200	< 550	< 2900	< 4000	< 2200	< 1400	< 540	< 820	< 2900	< 550	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1200	< 550	< 2900	< 2000	< 2200	< 1400	< 54000	< 820	< 2900	< 550	NA
Nitrocellulose	9004-70-0	ug/kg	< 470000	< 220000	< 1100000	< 810000	< 880000	< 540000	< 210000	420000	< 1200000	200000	NA
Nitroglycerin	55-63-0	ug/kg	< 24000	< 11000	< 57000	< 40000	< 44000	< 27000	< 11000	< 16000	< 59000	< 11000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 2900	< 1400	< 7100	< 5000	< 5500	< 3400	< 1300	< 2000	< 7400	< 1400	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 24000	< 11000	< 57000	< 40000	< 44000	< 27000	< 11000	< 16000	< 59000	< 11000	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 1200	< 550	< 2900	< 2000	< 2200	< 1400	< 540	< 820	< 2900	< 550	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	17.2	5.54	55.7	7.53	97.3	40.9	17.2	7.98	16	4.56	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.577	0.245	< 4.62	0.671	1	1.08	< 4.29	0.51	< 4.81	< 0.894	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.3	8	26.9	33.4	46.1	27.7	13.6	23.4	10.9	11.3	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	19.8	8.37	37.8	20.3	82.9	91.8	48.7	217	17.4	50	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	460	335	738	16.7	2090	1160	894	3400	315	532	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.76	0.174	5.74	0.255	6.55	5.22	0.391	0.713	0.285	0.272	NA
Nickel	7440-02-0	mg/kg	9.55	2.66	8.76	8.15	25.1	27.9	12.1	13.1	7.11	6.97	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 1.92	< 0.906	< 4.62	< 3.29	< 3.68	< 2.19	0.561	0.583	< 4.81	< 0.894	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	91.5	31.8	146	68.5	341	426	72	296	81.1	132	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D13-12	SD-R-D13-13	SD-R-D13-14	SD-R-D13-15	SD-R-D14-01	SD-R-D14-02	SD-R-D14-03	SD-R-D14-04	SD-R-D14-05	SD-R-D14-06	SD-R-D14-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/23/2006	6/23/2006	7/26/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/29/2006
Sample Type			FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-D13-121.0FD	SD-R-D13-131.0N	SD-R-D13-141.0N	SD-R-D13-151.0N	SD-R-D14-011.0N	SD-R-D14-021.0N	SD-R-D14-031.0N	SD-R-D14-041.0N	SD-R-D14-051.0N	SD-R-D14-061.0N	SD-R-D14-071.0N
Parent Sample			SD-R-D13-121.0N										
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	74.5	45.9	89.5	85.1	86.4	78	44	63.4	89.8	45.7	NA
Total Organic Carbon	ARC-TOC	mg/kg	210000	36000	35000	210000	310000	110000	56000	36000	420000	9900	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	100	98.4	100	NA	NA	96.7	100	NA	100	98.1
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	NA	NA	100	100	NA	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	NA	NA	100	100	NA	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	2	< 1	4	< 1	NA	NA	1.5	2.5	NA	1.5	2.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	54.2	47.4	67.5	< 1	NA	NA	58.3	90.6	NA	58.8	68.9
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	23.1	9.5	36.9	< 1	NA	NA	23.1	61.3	NA	24.2	29.5
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	2	< 1	4	< 1	NA	NA	1.5	5.5	NA	1.5	6
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	13	1	26.5	< 1	NA	NA	7.5	40	NA	7.5	13
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	66.2	68.5	79.7	58.4	NA	NA	63.3	95.3	NA	64.6	73.9
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	30.9	17.3	45.5	< 1	NA	NA	35.4	73.1	NA	34.4	40.4
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	81.1	80.7	90.3	72.2	NA	NA	69.4	97.7	NA	70.5	79.7
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	93.3	88.1	95.4	84.4	NA	NA	75.4	98.8	NA	76.8	85.7
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	2.5	< 1	4	< 1	NA	NA	2.5	11.5	NA	1.5	8.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	21	3.5	60	< 1	NA	NA	13.5	45	NA	14	20
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	41.4	30.3	55.4	< 1	NA	NA	48.9	83.6	NA	48.2	56.2
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	19.5	6	40	< 1	NA	NA	14.5	47.5	NA	17	23
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	19.6	7.1	30.9	< 1	NA	NA	16.2	48.9	NA	18.2	24.4
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09	SD-R-D14-09	SD-R-D14-09	SD-R-D14-10	SD-R-D15-01	SD-R-D15-01	SD-R-D15-02	SD-R-E10-01	SD-R-E10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/28/2006	6/28/2006	7/7/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D14-091.0FD	SD-R-D14-101.0N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-D15-021.0N	SD-R-E10-011.0N	SD-R-E10-011N
Parent Sample								SD-R-D14-091.0N						
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09	SD-R-D14-09	SD-R-D14-09	SD-R-D14-10	SD-R-D15-01	SD-R-D15-01	SD-R-D15-02	SD-R-E10-01	SD-R-E10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/28/2006	6/28/2006	7/7/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D14-091.0FD	SD-R-D14-101.0N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-D15-021.0N	SD-R-E10-011.0N	SD-R-E10-011N
Parent Sample								SD-R-D14-091.0N						
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	140	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	380	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	410	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	290	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	200	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09	SD-R-D14-09	SD-R-D14-09	SD-R-D14-10	SD-R-D15-01	SD-R-D15-01	SD-R-D15-02	SD-R-E10-01	SD-R-E10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/28/2006	6/28/2006	7/7/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D14-091.0FD	SD-R-D14-101.0N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-D15-021.0N	SD-R-E10-011.0N	SD-R-E10-011N
Parent Sample								SD-R-D14-091.0N						
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	450	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	730	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 460	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	480	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	850	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09	SD-R-D14-09	SD-R-D14-09	SD-R-D14-10	SD-R-D15-01	SD-R-D15-01	SD-R-D15-02	SD-R-E10-01	SD-R-E10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/28/2006	6/28/2006	7/7/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D14-091.0FD	SD-R-D14-101.0N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-D15-021.0N	SD-R-E10-011.0N	SD-R-E10-011N
Parent Sample								SD-R-D14-091.0N						
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 390	NA	< 580	NA	< 530	< 780	< 580	NA	< 820	< 630	NA	< 600
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 390	NA	< 580	NA	< 530	< 780	< 580	NA	< 820	< 630	NA	< 600
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 390	NA	< 580	NA	< 530	< 780	230	NA	< 820	< 630	NA	< 600
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 390	NA	< 580	NA	< 530	< 780	660	NA	< 820	< 630	NA	< 600
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 390	NA	< 580	NA	< 530	< 780	< 580	NA	< 820	< 630	NA	< 600
Nitrocellulose	9004-70-0	ug/kg	< 160000	NA	< 230000	NA	< 210000	< 320000	< 230000	NA	< 330000	< 250000	NA	< 240000
Nitroglycerin	55-63-0	ug/kg	< 7800	NA	< 12000	NA	< 11000	< 16000	< 12000	NA	< 16000	< 13000	NA	< 12000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 980	NA	< 1400	NA	< 1300	< 2000	< 1400	NA	< 2100	< 1600	NA	< 1500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7800	NA	< 12000	NA	< 11000	< 16000	< 12000	NA	< 16000	< 13000	NA	< 12000
RDX (Cyclonite)	121-82-4	ug/kg	< 390	NA	< 580	NA	< 530	< 780	< 580	NA	< 820	< 630	NA	< 600
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.75	NA	3.15	NA	2.23	< 5.07	1.8	NA	8.24	3.18	NA	7.18
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.155	NA	0.326	NA	0.527	0.92	0.547	NA	1.4	0.664	NA	3.8
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.5	NA	7.55	NA	12.6	15.8	19.7	NA	15.5	33.5	NA	15.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	13.6	NA	14.1	NA	15	20.9	31.9	NA	60.7	6.82	NA	306
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	44.7	NA	35.5	NA	39.6	67.5	35.2	NA	73.6	11.9	NA	262
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0229	NA	0.106	NA	0.129	0.2	0.148	NA	0.117	0.0282	NA	4.51
Nickel	7440-02-0	mg/kg	6.35	NA	5.82	NA	6.11	9.49	11.4	NA	9.62	6.11	NA	24.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.646	NA	< 0.937	NA	< 0.878	< 1.27	< 0.963	NA	< 1.36	< 1.05	NA	< 4.83
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	38.1	NA	31.5	NA	97.6	179	88.9	NA	146	72.6	NA	601

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-D14-07	SD-R-D14-08	SD-R-D14-08	SD-R-D14-09	SD-R-D14-09	SD-R-D14-09	SD-R-D14-10	SD-R-D15-01	SD-R-D15-01	SD-R-D15-02	SD-R-E10-01	SD-R-E10-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/29/2006	6/28/2006	6/28/2006	7/7/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N	N
Sample Name			SD-R-D14-071N	SD-R-D14-081.0N	SD-R-D14-081N	SD-R-D14-091.0N	SD-R-D14-091N	SD-R-D14-091.0FD	SD-R-D14-101.0N	SD-R-D15-011.0N	SD-R-D15-011N	SD-R-D15-021.0N	SD-R-E10-011.0N	SD-R-E10-011N
Parent Sample								SD-R-D14-091.0N						
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	23.4	NA	48.2	NA	43.6	61.7	48.1	NA	63.5	52.4	NA	49.7
Total Organic Carbon	ARC-TOC	mg/kg	5200	NA	30000	NA	14000	22000	18000	NA	120000	27000	NA	160000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	95.3	NA	93.6	NA	99.1	98.7	99.6	NA	100	99.9	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	100	NA	99.8	NA	99.8	100	100	NA	100	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	100	NA	100	NA	100	100	100	NA	100	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	1	NA	2	NA	1	3	< 1	NA	2	3	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	61.9	NA	59.3	NA	61.9	59	88.5	NA	76.2	77.3	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	22.2	NA	20.2	NA	23.6	30.8	43.2	NA	23	41.2	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	2	NA	2	NA	2	4	0.5	NA	2	3	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	7.5	NA	11.5	NA	8	14.5	5	NA	7	9	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	70.4	NA	69.5	NA	69.1	65.9	89.9	NA	82.3	84.9	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	32.5	NA	29	NA	34.1	38.3	64.5	NA	39.2	51.9	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	76.3	NA	74.7	NA	75.2	73.8	92.8	NA	88.2	91.3	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	82	NA	80.1	NA	80.1	82.6	94	NA	93.3	96.4	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	3.5	NA	2	NA	3.5	7	2.5	NA	3	3	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	12	NA	14.5	NA	16	21	13	NA	12	27	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	47.8	NA	44.2	NA	49.4	48.5	80.8	NA	60.8	64.8	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	15.5	NA	15.5	NA	17	25	24	NA	15.5	31.5	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	17.5	NA	16.2	NA	18	26.6	30.1	NA	17.7	33.5	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E10-02	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-02	SD-R-E11-03	SD-R-E11-04	SD-R-E11-05	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/13/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	6/13/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-E10-021.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-021.0N	SD-R-E11-031.0N	SD-R-E11-041.0N	SD-R-E11-051.0N	SD-R-E11-061.0N	SD-R-E11-071.0N	SD-R-E11-071.0FD
Parent Sample														SD-R-E11-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E10-02	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-02	SD-R-E11-03	SD-R-E11-04	SD-R-E11-05	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/13/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	6/13/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-E10-021.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-021.0N	SD-R-E11-031.0N	SD-R-E11-041.0N	SD-R-E11-051.0N	SD-R-E11-061.0N	SD-R-E11-071.0N	SD-R-E11-071.0FD
Parent Sample														SD-R-E11-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	< 230	< 270	120	560
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	< 230	< 270	< 260	< 320
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	< 230	< 270	98	< 320
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	200	< 270	< 260	< 320
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	160	< 270	520	< 320
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	150	< 230	NA	NA	230	910	< 270	2800	100
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	160	< 230	NA	NA	290	870	< 270	2400	81
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	130	< 230	NA	NA	210	460	< 270	1400	< 320
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	99	160	NA	NA	140	620	< 270	1500	< 320
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E10-02	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-02	SD-R-E11-03	SD-R-E11-04	SD-R-E11-05	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/13/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	6/13/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-E10-021.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-021.0N	SD-R-E11-031.0N	SD-R-E11-041.0N	SD-R-E11-051.0N	SD-R-E11-061.0N	SD-R-E11-071.0N	SD-R-E11-071.0FD
Parent Sample														SD-R-E11-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	180	< 230	NA	NA	320	1100	< 270	2600	120
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	62	190	< 270	470	< 320
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	220	< 230	NA	NA	420	1100	< 270	4600	180
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	< 230	< 270	120	< 320
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 260	< 230	NA	NA	< 280	< 230	< 270	< 260	< 320
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	80	< 230	NA	NA	160	120	< 270	1700	110
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	200	61	NA	NA	460	1500	< 270	4900	180

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E10-02	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-02	SD-R-E11-03	SD-R-E11-04	SD-R-E11-05	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/13/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	6/13/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-E10-021.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-021.0N	SD-R-E11-031.0N	SD-R-E11-041.0N	SD-R-E11-051.0N	SD-R-E11-061.0N	SD-R-E11-071.0N	SD-R-E11-071.0FD
Parent Sample														SD-R-E11-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 1600	< 560	< 540	< 460	< 410	< 420	< 660	< 500	< 420	< 480	< 470	< 580
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 1600	< 560	< 540	< 460	< 410	< 420	< 660	< 500	< 420	< 480	< 470	< 580
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 1600	< 560	< 540	< 460	< 410	< 420	< 660	< 500	< 420	< 480	< 470	< 580
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 1600	< 560	< 540	< 460	< 410	< 420	< 660	< 500	< 420	< 480	< 470	< 580
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 1600	< 560	< 540	< 460	< 410	< 420	< 660	< 500	< 420	< 480	< 470	< 580
Nitrocellulose	9004-70-0	ug/kg	< 630000	290000	< 220000	< 190000	< 160000	< 170000	< 260000	< 200000	< 170000	< 190000	500000	1100000
Nitroglycerin	55-63-0	ug/kg	< 32000	16000	< 11000	< 9300	< 8100	< 8400	< 13000	< 10000	< 8400	< 9700	< 9500	8500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 3900	< 1400	< 1300	< 1200	< 1000	< 1000	< 1600	< 1300	< 1000	< 1200	< 1200	< 1400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 32000	< 11000	< 11000	< 9300	< 8100	< 8400	< 13000	< 10000	< 8400	< 9700	< 9500	< 12000
RDX (Cyclonite)	121-82-4	ug/kg	< 1600	< 560	< 540	< 460	< 410	< 420	< 660	< 500	< 420	< 480	< 470	< 580
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	44.8	38	8.28	13	61.3	1.52	9.67	8.37	11.8	12.2	6.68	7.86
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 2.55	< 4.69	< 0.89	< 3.76	1.12	< 0.69	0.199	0.517	1.24	< 3.95	< 0.766	< 0.937
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.1	12.1	13.5	15.4	17.6	11.9	14.7	9.5	18.7	12.4	11.7	15
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	179	53.3	40.7	979	23	8.97	28	22	63.9	13.7	65.4	82.4
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	469	53	149	2540	66.7	6.42	43.3	62	44	27.9	234	295
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.437	0.214	0.699	27	0.129	0.0069	0.0972	0.405	0.194	0.0722	0.403	0.469
Nickel	7440-02-0	mg/kg	81.9	8.86	8.55	16.6	6.19	5.32	9.03	8.21	27	6.47	8.64	14.3
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 2.55	< 0.938	< 0.89	< 0.751	< 0.677	< 0.69	< 1.06	< 0.8	< 0.696	< 0.789	0.294	< 0.937
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	1550	126	76.2	322	162	34.2	200	76.9	181	59.2	162	211

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E10-02	SD-R-E10-03	SD-R-E10-04	SD-R-E10-05	SD-R-E11-01	SD-R-E11-02	SD-R-E11-03	SD-R-E11-04	SD-R-E11-05	SD-R-E11-06	SD-R-E11-07	SD-R-E11-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/13/2006	6/13/2006	6/13/2006	6/13/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	6/13/2006	6/23/2006	6/23/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			SD-R-E10-021.0N	SD-R-E10-031.0N	SD-R-E10-041.0N	SD-R-E10-051.0N	SD-R-E11-011.0N	SD-R-E11-021.0N	SD-R-E11-031.0N	SD-R-E11-041.0N	SD-R-E11-051.0N	SD-R-E11-061.0N	SD-R-E11-071.0N	SD-R-E11-071.0FD
Parent Sample														SD-R-E11-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	81	46.7	44.4	35.4	26.1	28.3	54.5	40.5	28.2	37.9	36.6	48.2
Total Organic Carbon	ARC-TOC	mg/kg	62000	53000	38000	12000	7000	13000	65000	29000	8600	16000	58000	64000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	94.3	72.2	83.4	93.5	100	100	100	94.6	100	88.5	99.3
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	96.5	100	86.7	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	1	< 1	1	< 1	< 1	4	1	1	1	< 1	< 1	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	50.9	44.3	48.4	28.9	66.4	79.8	66	78.4	41.5	81.9	59.4	76.4
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	37.4	7.8	27.9	9.4	23.7	26.3	19.5	38.6	11.6	27	22.5	35.1
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	5	< 1	1	< 1	1	4.5	1.5	5	1	1	< 1	0.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	18	3	7	2	6	8.5	8	25	4	10	5	7
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	52.6	58.4	51.3	33.9	74.3	84.2	70	83.8	47.8	89.1	66.4	82.2
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	42.7	16.2	37.3	15.7	36	41.7	37.1	51.1	19.1	45.8	35.2	52.4
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	85.3	64.9	54.5	39.2	78.7	91.9	82.1	90.3	56.7	95.2	71.9	86.6
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	91.1	71.7	57.4	45.3	82.2	96.6	91.4	95.5	69.1	96.8	74.1	90
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	10	0.5	2	0.5	3	6	4	9.5	2	3.5	1	2.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	27	4.5	13	4.5	11	13.5	12.5	27.5	8	16	9	17
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	47.6	31.2	44.3	22.8	52.6	65.9	57.8	67	31.3	66.8	47.4	66.4
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	31	5.5	17	5.5	15	17	13.5	30.5	8.5	18	11.5	20.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	33.5	5.9	20	6.2	17	19.1	14.8	31.9	8.6	19.6	12.9	22.2
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03	SD-R-E14-04	SD-R-E14-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/6/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E12-011.0N	SD-R-E12-011.0FD	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N	SD-R-E14-041.0N	SD-R-E14-051.0N
Parent Sample				SD-R-E12-011.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03	SD-R-E14-04	SD-R-E14-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/6/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E12-011.0N	SD-R-E12-011.0FD	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N	SD-R-E14-041.0N	SD-R-E14-051.0N
Parent Sample				SD-R-E12-011.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 250	< 250	< 310	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	< 310	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 250	< 250	< 310	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 250	< 250	63	53	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 250	< 250	< 310	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	79	79	270	160	NA	NA	NA	72	< 1400	< 1600	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	84	78	310	230	NA	NA	NA	70	< 1400	< 1600	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	65	63	200	170	NA	NA	NA	51	< 1400	< 1600	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	66	60	220	120	NA	NA	NA	41	< 1400	< 1600	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03	SD-R-E14-04	SD-R-E14-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/6/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E12-011.0N	SD-R-E12-011.0FD	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N	SD-R-E14-041.0N	SD-R-E14-051.0N
Parent Sample				SD-R-E12-011.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	110	93	360	260	NA	NA	NA	70	< 1400	< 1600	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 250	< 250	70	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	150	120	450	330	NA	NA	NA	110	330	< 1600	NA	NA
Fluorene	86-73-7	ug/kg	< 250	< 250	< 310	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 250	< 250	< 310	< 260	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	72	60	170	140	NA	NA	NA	< 200	< 1400	< 1600	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	200	160	500	360	NA	NA	NA	100	300	< 1600	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03	SD-R-E14-04	SD-R-E14-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/6/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E12-011.0N	SD-R-E12-011.0FD	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N	SD-R-E14-041.0N	SD-R-E14-051.0N
Parent Sample				SD-R-E12-011.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 440	< 450	< 560	< 460	< 540	NA	< 570	< 360	< 2500	< 2800	< 2500	< 400
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 440	< 450	< 560	< 460	< 540	NA	< 570	< 360	< 2500	< 2800	< 2500	< 400
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 440	< 450	< 560	< 460	< 540	NA	< 570	< 360	< 2500	< 2800	< 2500	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 440	< 450	< 560	< 460	< 540	NA	< 570	< 360	< 2500	< 2800	< 2500	< 400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 440	< 450	< 560	< 460	< 540	NA	< 570	< 360	< 2500	< 2800	< 2500	< 400
Nitrocellulose	9004-70-0	ug/kg	< 180000	< 180000	< 220000	< 180000	< 210000	NA	< 230000	< 140000	< 990000	< 1100000	< 990000	< 160000
Nitroglycerin	55-63-0	ug/kg	< 8800	< 8900	< 11000	< 9200	< 11000	NA	< 11000	< 7100	< 50000	< 56000	< 50000	6700
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1100	< 1100	< 1400	< 1200	< 1300	NA	< 1400	< 890	< 6200	< 7000	< 6200	< 990
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8800	< 8900	< 11000	< 9200	< 11000	NA	< 11000	< 7100	< 50000	< 56000	< 50000	< 7900
RDX (Cyclonite)	121-82-4	ug/kg	< 440	< 450	< 560	< 460	< 540	NA	< 570	< 360	< 2500	< 2800	< 2500	< 400
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	5.39	5.12	16.6	3.1	15.8	NA	8.19	2.64	NA	< 18.3	5.82	< 2.6
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.73	< 0.737	0.684	0.42	< 4.38	NA	0.235	2.37	NA	< 4.58	< 4.09	< 0.649
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	12.3	10.8	10.6	6.65	13.8	NA	7.86	13.1	NA	42.9	25	8.52
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	15.4	16.1	23.5	13.6	17.6	NA	9.81	13.1	NA	14.4	6.88	3.13
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	24.7	23.2	42.1	25.2	89.7	NA	39.3	9.43	NA	54.5	< 16.4	31.3
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.134	0.135	0.333	0.247	0.138	NA	0.0444	0.0205	NA	0.0957	0.0217	0.265
Nickel	7440-02-0	mg/kg	7.1	6.93	17.5	9.66	7.07	NA	4.77	6.12	NA	8.48	3.85	1.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.73	< 0.737	< 0.901	< 0.74	< 4.38	NA	< 0.925	< 0.587	NA	< 4.58	< 4.09	< 0.649
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	64.9	61.3	188	70.7	39.6	NA	31.4	42.8	NA	70.2	24.6	35.4

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E12-01	SD-R-E12-01	SD-R-E12-02	SD-R-E12-03	SD-R-E12-04	SD-R-E12-05	SD-R-E12-05	SD-R-E14-01	SD-R-E14-02	SD-R-E14-03	SD-R-E14-04	SD-R-E14-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/18/2006	5/17/2006	5/17/2006	5/4/2006	5/4/2006	5/4/2006	5/4/2006	6/6/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E12-011.0N	SD-R-E12-011.0FD	SD-R-E12-021.0N	SD-R-E12-031.0N	SD-R-E12-041.0N	SD-R-E12-051.0N	SD-R-E12-051N	SD-R-E14-011.0N	SD-R-E14-021.0N	SD-R-E14-031.0N	SD-R-E14-041.0N	SD-R-E14-051.0N
Parent Sample				SD-R-E12-011.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	32.2	32.8	46.1	35	44	NA	47	15.7	88	89.3	87.9	24.5
Total Organic Carbon	ARC-TOC	mg/kg	9500	2500	18000	16000	28000	NA	42000	170	350000	110000	330000	3900
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	100	99.8	96.7	100	99.6	100	NA	100	NA	NA	NA	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	99.7	100	NA	100	NA	NA	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	NA	100	NA	NA	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	< 1	1.5	< 1	2	2	NA	1.5	NA	NA	NA	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	73.4	73.2	63.6	70.3	67.9	69.9	NA	49.3	NA	NA	NA	84.8
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	20.7	26	23.2	22.6	22.7	25.2	NA	9.5	NA	NA	NA	13.5
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	0.5	< 1	1.5	2.5	2	2	NA	1.5	NA	NA	NA	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	5.5	6	6	9.5	2.5	9	NA	3.5	NA	NA	NA	< 1
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	79.3	78.6	67.4	76.9	80.3	77.7	NA	58.5	NA	NA	NA	90.1
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	38.2	44.5	43.3	39.3	40.3	39.7	NA	20.6	NA	NA	NA	37.5
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	87.4	85.7	74.6	84.2	87	86	NA	64.3	NA	NA	NA	95
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	93.5	91.6	82.8	92	92.1	92	NA	69.3	NA	NA	NA	97.2
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	2.5	0.5	2.5	5.5	2	2	NA	1.5	NA	NA	NA	< 1
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	9.5	11	12	12.5	7	13	NA	6	NA	NA	NA	3
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	60	62.4	57.4	57.2	55.2	57.1	NA	36.5	NA	NA	NA	66.4
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	13	15.5	14.5	15	12.5	19	NA	6.5	NA	NA	NA	6.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	14.6	17.9	16	16.1	15.3	20.9	NA	6.6	NA	NA	NA	8.1
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	130	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	130	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	< 450	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	150	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 360	< 1400	< 820	< 660	< 790	< 920	< 750	< 390	< 410	< 830	< 1200
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 360	< 1400	< 820	1100	< 790	< 920	< 750	< 390	< 410	< 830	< 1200
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360	< 1400	< 820	< 660	< 790	< 920	< 750	< 390	< 410	< 830	490
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360	< 1400	< 820	< 660	< 790	< 920	< 750	< 390	< 410	< 830	570
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 360	< 1400	< 820	1800	< 790	< 920	< 750	< 390	< 410	1500	< 1200
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 590000	< 330000	< 260000	500000	220000	< 300000	< 150000	< 160000	140000	< 490000
Nitroglycerin	55-63-0	ug/kg	< 7200	< 29000	< 16000	< 13000	< 16000	< 18000	< 15000	< 7800	< 8200	< 17000	< 24000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 910	< 3600	< 2000	< 1600	< 2000	< 2300	< 1900	< 970	< 1000	< 2100	< 3000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7200	< 29000	< 16000	< 13000	< 16000	< 18000	< 15000	< 7800	< 8200	< 17000	< 24000
RDX (Cyclonite)	121-82-4	ug/kg	< 360	< 1400	< 820	< 660	< 790	< 920	< 750	< 390	< 410	< 830	< 1200
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.51	11.7	31.8	5.27	5.17	8.36	5.48	2.87	< 2.63	11	< 8.05
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.598	< 2.3	< 1.36	0.346	0.69	0.497	0.819	0.278	0.151	2.38	1.04
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.54	37.1	17.7	11	26.9	62.3	34.3	24.9	9.81	14.2	108
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	3.83	38.6	39	17.2	43.3	47.4	31	9.65	6.35	29.6	25.9
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	32	394	588	213	441	540	327	131	29	254	32.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.0832	1.36	1.74	1.37	0.818	4.14	1.07	0.614	0.23	0.477	0.313
Nickel	7440-02-0	mg/kg	2.82	12.1	13.3	6.69	10	18.3	8.85	3.57	2.66	21.7	15.8
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.598	< 2.3	< 1.36	< 1.06	< 1.3	< 1.47	< 1.22	< 0.636	< 0.659	< 1.36	< 2.01
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	30.9	177	155	86.8	126	311	154	56.9	27	241	117

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E14-06	SD-R-E14-07	SD-R-E14-08	SD-R-E14-09	SD-R-E14-10	SD-R-E15-01	SD-R-E15-02	SD-R-E15-03	SD-R-E15-04	SD-R-E15-05	SD-R-E15-06
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/6/2006	6/23/2006	6/23/2006	7/7/2006	7/7/2006	6/6/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E14-061.0N	SD-R-E14-071.0N	SD-R-E14-081.0N	SD-R-E14-091.0N	SD-R-E14-101.0N	SD-R-E15-011.0N	SD-R-E15-021.0N	SD-R-E15-031.0N	SD-R-E15-041.0N	SD-R-E15-051.0N	SD-R-E15-061.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	17.2	79.3	63.3	54.2	62.2	67.3	59.9	22.9	27	63.7	75.4
Total Organic Carbon	ARC-TOC	mg/kg	1100	180000	76000	15000	68000	110000	71000	31000	2200	84000	40000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	87.7	100	95	100	100	100	100	100	100	100	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	3	< 1	2	2.5	< 1	2	< 1	1.5	< 1	5.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	48.7	70.9	55.7	92.7	86.1	71.9	88.1	82.6	74.6	84.7	79
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	8.3	28.8	15.5	28.5	41.9	47	33.5	13.3	24.4	23.2	57
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	3	< 1	2	2.5	1	2	< 1	1.5	< 1	8
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	1.5	10	3	5	7.5	17	7.5	2	3	3	28
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	52.7	76.3	66.9	95.4	92	76.4	94.1	92	78.6	90.9	82.7
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	22.8	40.7	24.1	56.2	61	59.2	61.4	38.3	44.9	42.4	63.6
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	58.5	85.4	73.1	97.3	95.1	86.6	96.5	96.1	84	93.9	92
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	64.7	89.7	77.9	98.5	97.5	92.5	98.3	98	89.5	96.2	97.4
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	< 1	3	< 1	2	3	3.5	2	< 1	1.5	1	12
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	2	20	7.5	9	15	39	13	4	5.5	9	43
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	38.2	57.9	39.2	80.9	77.7	67.5	78.5	64.8	62.9	67.8	71.5
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	2.5	23	10.5	13	23	37.5	15.5	4.5	8.5	13	50
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	2.9	24.2	12	15.3	28.4	37.5	17.7	5.1	11	14.9	52.5
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-01	SD-R-E16-02	SD-R-E16-03	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/7/2006	7/7/2006	7/7/2006	6/6/2006	6/6/2006	6/6/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E15-071.0N	SD-R-E15-071.0FD	SD-R-E15-081.0N	SD-R-E16-011.0N	SD-R-E16-021.0N	SD-R-E16-031.0N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
Parent Sample				SD-R-E15-071.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-01	SD-R-E16-02	SD-R-E16-03	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/7/2006	7/7/2006	7/7/2006	6/6/2006	6/6/2006	6/6/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E15-071.0N	SD-R-E15-071.0FD	SD-R-E15-081.0N	SD-R-E16-011.0N	SD-R-E16-021.0N	SD-R-E16-031.0N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
Parent Sample				SD-R-E15-071.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	70	< 220	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	90	< 220	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	63	< 220	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	46	< 220	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-01	SD-R-E16-02	SD-R-E16-03	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/7/2006	7/7/2006	7/7/2006	6/6/2006	6/6/2006	6/6/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E15-071.0N	SD-R-E15-071.0FD	SD-R-E15-081.0N	SD-R-E16-011.0N	SD-R-E16-021.0N	SD-R-E16-031.0N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
Parent Sample				SD-R-E15-071.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	81	< 220	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	130	< 220	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 210	< 220	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	72	< 220	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	150	< 220	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-01	SD-R-E16-02	SD-R-E16-03	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/7/2006	7/7/2006	7/7/2006	6/6/2006	6/6/2006	6/6/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E15-071.0N	SD-R-E15-071.0FD	SD-R-E15-081.0N	SD-R-E16-011.0N	SD-R-E16-021.0N	SD-R-E16-031.0N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
Parent Sample				SD-R-E15-071.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 390	< 400	< 640	< 380	< 400	< 440	NA	< 470	NA	< 390	NA	< 470
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 390	< 400	< 640	< 380	< 400	< 440	NA	< 470	NA	< 390	NA	< 470
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 390	< 400	< 640	< 380	< 400	< 440	NA	< 470	NA	< 390	NA	< 470
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 390	< 400	< 640	< 380	< 400	< 440	NA	< 470	NA	< 390	NA	< 470
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 390	< 400	< 640	< 380	< 400	< 440	NA	< 470	NA	< 390	NA	< 470
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 160000	500000	< 150000	< 160000	< 180000	NA	310000	NA	78000	NA	96000
Nitroglycerin	55-63-0	ug/kg	< 7900	< 7900	< 13000	< 7700	< 7900	< 8800	NA	< 9500	NA	< 7900	NA	3600
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 990	< 990	< 1600	< 960	< 990	< 1100	NA	< 1200	NA	< 990	NA	< 1200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7900	< 7900	< 13000	< 7700	< 7900	< 8800	NA	< 9500	NA	< 7900	NA	< 9500
RDX (Cyclonite)	121-82-4	ug/kg	< 390	< 400	< 640	< 380	< 400	< 440	NA	< 470	NA	< 390	NA	< 470
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	1.73	1.5	5.7	1.81	< 2.54	2.26	NA	4.63	NA	2.05	NA	3.45
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.319	0.391	0.46	< 0.619	< 0.635	< 0.71	NA	0.621	NA	0.256	NA	0.505
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.3	18.8	13.9	5.43	5.35	9.06	NA	9.03	NA	29.7	NA	14.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	4.97	5.64	38	8.11	2.13	7.02	NA	63.6	NA	16.9	NA	56.3
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	6.08	9.14	271	16.7	21.4	61.6	NA	40.5	NA	123	NA	44.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.049	0.048	1.28	0.0451	0.0528	0.0779	NA	0.419	NA	0.0692	NA	0.689
Nickel	7440-02-0	mg/kg	4.33	4.91	7.83	3.06	2.3	4.02	NA	7.27	NA	6.97	NA	10.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.645	< 0.643	< 1.05	< 0.619	< 0.635	< 0.71	NA	< 0.789	NA	< 0.651	NA	< 0.791
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	37.1	45.3	71.8	31.5	50.6	58.7	NA	211	NA	95.4	NA	222

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-E15-07	SD-R-E15-07	SD-R-E15-08	SD-R-E16-01	SD-R-E16-02	SD-R-E16-03	SD-R-F10-01	SD-R-F10-01	SD-R-F10-02	SD-R-F10-02	SD-R-F10-03	SD-R-F10-03
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/7/2006	7/7/2006	7/7/2006	6/6/2006	6/6/2006	6/6/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-E15-071.0N	SD-R-E15-071.0FD	SD-R-E15-081.0N	SD-R-E16-011.0N	SD-R-E16-021.0N	SD-R-E16-031.0N	SD-R-F10-011.0N	SD-R-F10-011N	SD-R-F10-021.0N	SD-R-F10-021N	SD-R-F10-031.0N	SD-R-F10-031N
Parent Sample				SD-R-E15-071.0N										
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	24	24.5	52.9	21.6	24.3	31.6	NA	36.6	NA	23.9	NA	36.8
Total Organic Carbon	ARC-TOC	mg/kg	2700	2800	25000	11000	2400	4500	NA	62000	NA	7900	NA	30000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	96.8	96.1	100	98.7	100	100	99.7	NA	100	NA	96.3	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	100	NA	100	NA	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	NA	100	NA	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	1.5	< 1	< 1	< 1	< 1	1.5	NA	0.5	NA	2	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	56.8	55	86.4	61.5	72.3	58.3	66.7	NA	59.5	NA	69.2	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	6.2	7.8	23.5	13.3	14	10	24.5	NA	27.9	NA	40.1	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	1.5	< 1	< 1	< 1	< 1	1.5	NA	2	NA	2.5	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	1	1.5	4	3	1.5	< 1	7	NA	11.5	NA	16	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	65.5	62.4	91	65.9	79	63.2	75.3	NA	66.9	NA	72.5	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	18.1	19.8	41	29.5	31.1	24.9	39.7	NA	39.2	NA	50.5	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	71.6	68.7	93.1	73.3	84.2	70.5	79.1	NA	75.6	NA	78.7	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	77.8	75.5	94.8	81.8	88.7	78.6	83.3	NA	82.3	NA	83	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	< 1	1.5	1	0.5	< 1	< 1	2	NA	5.5	NA	7	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	3	3.5	9	6	4.5	2	13	NA	18.5	NA	28	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	39.1	40.3	69.7	49.3	54.5	44.8	55.4	NA	50.5	NA	62.1	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	3	4.5	12.5	8	6.5	4.5	15.5	NA	20	NA	31	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	3.4	4.9	14.6	8.8	7.7	5.6	16.9	NA	21.1	NA	32.9	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 270	NA	< 340	NA	NA	NA	< 220
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 270	NA	< 340	NA	NA	NA	< 220
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	320	NA	79	NA	NA	NA	< 220
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	660	NA	600	NA	NA	NA	< 220
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	1600	NA	540	NA	NA	NA	< 220
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	6100	NA	1400	NA	NA	NA	< 220
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	2500	NA	1300	NA	NA	NA	< 220
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	1100	NA	1200	NA	NA	NA	< 220
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	2600	NA	1200	NA	NA	NA	< 220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	6100	NA	1900	NA	NA	NA	< 220
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	540	NA	370	NA	NA	NA	< 220
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	7800	NA	1400	NA	NA	NA	< 220
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	300	NA	170	NA	NA	NA	< 220
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	< 270	NA	130	NA	NA	NA	< 220
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	1700	NA	1200	NA	NA	NA	< 220
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	16000	NA	4100	NA	NA	NA	< 220

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 420	NA	< 380	NA	< 490	NA	< 610	NA	< 550	NA	< 390
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 420	NA	< 380	NA	< 490	NA	< 610	NA	< 550	NA	< 390
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 420	NA	< 380	NA	< 490	NA	< 610	NA	< 550	NA	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 420	NA	< 380	NA	< 490	NA	< 610	NA	< 550	NA	< 390
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 420	NA	< 380	NA	< 490	NA	< 610	NA	< 550	NA	< 390
Nitrocellulose	9004-70-0	ug/kg	NA	110000	NA	330000	NA	< 190000	NA	< 240000	NA	< 220000	NA	< 160000
Nitroglycerin	55-63-0	ug/kg	NA	75000	NA	11000	NA	14000	NA	14000	NA	8200	NA	< 7900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 1000	NA	< 940	NA	< 1200	NA	< 1500	NA	< 1400	NA	< 990
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 8400	NA	< 7600	NA	< 9800	NA	< 12000	NA	< 11000	NA	< 7900
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 420	NA	< 380	NA	< 490	NA	< 610	NA	< 550	NA	< 390
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	20.2	NA	2.76	NA	13.1	NA	18.4	NA	6.46	NA	6.54
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	0.92	NA	0.408	NA	0.653	NA	0.736	NA	0.623	NA	0.372
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	20.5	NA	10.5	NA	10.6	NA	17.1	NA	16.6	NA	17.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	110	NA	40.4	NA	31.6	NA	25	NA	18.4	NA	18.8
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	182	NA	29	NA	105	NA	896	NA	26.3	NA	31.7
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	1.45	NA	0.631	NA	1.24	NA	2.66	NA	0.707	NA	0.0844
Nickel	7440-02-0	mg/kg	NA	18.8	NA	10.3	NA	12.9	NA	12.8	NA	10.8	NA	9.47
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	0.328	NA	< 0.611	NA	< 0.804	NA	< 0.994	NA	< 0.887	NA	< 0.639
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	478	NA	98.6	NA	127	NA	93.3	NA	74.7	NA	74.2

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F10-04	SD-R-F10-04	SD-R-F10-05	SD-R-F10-05	SD-R-F11-01	SD-R-F11-01	SD-R-F11-02	SD-R-F11-02	SD-R-F11-03	SD-R-F11-03	SD-R-F11-04	SD-R-F11-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/15/2006	5/15/2006	5/15/2006	5/15/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F10-041.0N	SD-R-F10-041N	SD-R-F10-051.0N	SD-R-F10-051N	SD-R-F11-011.0N	SD-R-F11-011N	SD-R-F11-021.0N	SD-R-F11-021N	SD-R-F11-031.0N	SD-R-F11-031N	SD-R-F11-041.0N	SD-R-F11-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	28.3	NA	20.6	NA	39	NA	50.7	NA	45.3	NA	24
Total Organic Carbon	ARC-TOC	mg/kg	NA	16000	NA	5400	NA	30000	NA	65000	NA	36000	NA	12000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	82.6	NA	93.3	NA	95	NA	99.9	NA	98.5	NA	100	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	NA	100	NA	100	NA	100	NA	100	NA	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	NA	100	NA	100	NA	100	NA	100	NA	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	3	NA	1.5	NA	3	NA	7	NA	4	NA	1.5	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	56.3	NA	66.4	NA	57.6	NA	65.6	NA	46.9	NA	61.8	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	32.6	NA	23.5	NA	29.3	NA	38.4	NA	29.4	NA	29.2	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	3.5	NA	1.5	NA	3	NA	7.5	NA	5	NA	2.5	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	15.5	NA	8	NA	14.5	NA	23.5	NA	15.5	NA	12	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	60.3	NA	73.8	NA	65.6	NA	73.4	NA	51.1	NA	69.1	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	40.3	NA	37.6	NA	37.8	NA	46.4	NA	35.7	NA	39.9	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	66.8	NA	79.3	NA	72	NA	82.4	NA	59.1	NA	74.5	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	71.8	NA	82.9	NA	76.8	NA	89.9	NA	68.5	NA	79.6	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	6	NA	3	NA	4.5	NA	10.5	NA	8	NA	6	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	24	NA	13.5	NA	21	NA	31.5	NA	22.5	NA	19	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	49.3	NA	54.5	NA	48.3	NA	56.3	NA	42	NA	52.5	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	26.5	NA	15.5	NA	23	NA	33	NA	24	NA	22	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	27.8	NA	16.7	NA	24.1	NA	33.3	NA	25.2	NA	23.5	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F11-05	SD-R-F11-05	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-F13-01	SD-R-F13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-F11-051.0N	SD-R-F11-051N	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0N	SD-R-F12-021N	SD-R-F12-021.0FD	SD-R-F12-021FD	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-F13-011.0N	SD-R-F13-011N
Parent Sample									SD-R-F12-021.0N	SD-R-F12-021N				
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F11-05	SD-R-F11-05	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-F13-01	SD-R-F13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-F11-051.0N	SD-R-F11-051N	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0N	SD-R-F12-021N	SD-R-F12-021.0FD	SD-R-F12-021FD	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-F13-011.0N	SD-R-F13-011N
Parent Sample									SD-R-F12-021.0N	SD-R-F12-021N				
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F11-05	SD-R-F11-05	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-F13-01	SD-R-F13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-F11-051.0N	SD-R-F11-051N	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0N	SD-R-F12-021N	SD-R-F12-021.0FD	SD-R-F12-021FD	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-F13-011.0N	SD-R-F13-011N
Parent Sample									SD-R-F12-021.0N	SD-R-F12-021N				
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F11-05	SD-R-F11-05	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-F13-01	SD-R-F13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-F11-051.0N	SD-R-F11-051N	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0N	SD-R-F12-021N	SD-R-F12-021.0FD	SD-R-F12-021FD	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-F13-011.0N	SD-R-F13-011N
Parent Sample									SD-R-F12-021.0N	SD-R-F12-021N				
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 470	NA	< 580	NA	< 470	NA	< 470	NA	< 790	NA	< 390
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 470	NA	< 580	NA	< 470	NA	< 470	NA	< 790	NA	< 390
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 470	NA	< 580	NA	< 470	NA	< 470	NA	< 790	NA	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 470	NA	< 580	NA	< 470	NA	< 470	NA	< 790	NA	< 390
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 470	NA	< 580	NA	< 470	NA	< 470	NA	< 790	NA	< 390
Nitrocellulose	9004-70-0	ug/kg	NA	< 190000	NA	< 230000	NA	< 190000	NA	< 190000	NA	< 320000	NA	< 160000
Nitroglycerin	55-63-0	ug/kg	NA	6700	NA	< 12000	NA	< 9400	NA	< 9400	NA	< 16000	NA	< 7800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 1200	NA	< 1500	NA	< 1200	NA	< 1200	NA	< 2000	NA	< 970
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 9400	NA	< 12000	NA	< 9400	NA	< 9400	NA	< 16000	NA	< 7800
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 470	NA	< 580	NA	< 470	NA	< 470	NA	< 790	NA	< 390
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	22.3	NA	< 19.2	NA	4.04	NA	2.97	NA	< 25.3	NA	5.76
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	0.417	NA	< 4.79	NA	0.367	NA	0.277	NA	< 6.33	NA	< 0.627
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	22	NA	9.93	NA	11.2	NA	9.98	NA	12.5	NA	15.6
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	35.8	NA	4.02	NA	12.6	NA	10.7	NA	8.7	NA	5.09
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	50.1	NA	20	NA	33.5	NA	35.4	NA	116	NA	35.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	2.99	NA	0.123	NA	0.0714	NA	0.0461	NA	0.0894	NA	0.106
Nickel	7440-02-0	mg/kg	NA	15.8	NA	5.26	NA	6.58	NA	6.2	NA	5.5	NA	2.85
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	< 0.772	NA	< 4.79	NA	< 0.762	NA	< 0.766	NA	< 6.33	NA	< 0.627
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	85.1	NA	34.1	NA	37.9	NA	32	NA	42.5	NA	59.9

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F11-05	SD-R-F11-05	SD-R-F12-01	SD-R-F12-01	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-02	SD-R-F12-03	SD-R-F12-03	SD-R-F13-01	SD-R-F13-01
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	FD	FD	N	N	N	N
Sample Name			SD-R-F11-051.0N	SD-R-F11-051N	SD-R-F12-011.0N	SD-R-F12-011N	SD-R-F12-021.0N	SD-R-F12-021N	SD-R-F12-021.0FD	SD-R-F12-021FD	SD-R-F12-031.0N	SD-R-F12-031N	SD-R-F13-011.0N	SD-R-F13-011N
Parent Sample									SD-R-F12-021.0N	SD-R-F12-021N				
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	36.5	NA	48.3	NA	36.3	NA	36	NA	62	NA	22.6
Total Organic Carbon	ARC-TOC	mg/kg	NA	34000	NA	36000	NA	21000	NA	24000	NA	120000	NA	870
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	86.8	NA	99.5	NA	98.4	NA	100	NA	100	NA	91	NA
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	NA	100	NA	100	NA	100	NA	100	NA	100	NA
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	NA	100	NA	100	NA	100	NA	100	NA	100	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	4.5	NA	5.5	NA	1	NA	1	NA	< 1	NA	< 1	NA
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	52.6	NA	64.7	NA	64.5	NA	61.4	NA	68.4	NA	25.8	NA
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	35.6	NA	39.3	NA	27.4	NA	26.7	NA	37.9	NA	1.6	NA
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	5.5	NA	6.5	NA	2.5	NA	2.5	NA	< 1	NA	< 1	NA
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	18.5	NA	19.5	NA	15.5	NA	11	NA	6	NA	< 1	NA
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	55.9	NA	69.7	NA	71	NA	67.7	NA	75.3	NA	33.5	NA
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	42.3	NA	46.6	NA	39.5	NA	38.4	NA	47	NA	5.5	NA
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	62.6	NA	78.4	NA	80.7	NA	77.3	NA	88.1	NA	39.4	NA
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	68.2	NA	86.3	NA	86.4	NA	84.9	NA	94	NA	46.1	NA
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	9	NA	8.5	NA	4.5	NA	3.5	NA	< 1	NA	< 1	NA
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	26	NA	28.5	NA	18.5	NA	16.5	NA	12	NA	0.5	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	48.6	NA	56.6	NA	54.7	NA	52.1	NA	58.4	NA	15.6	NA
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	29.5	NA	34	NA	21	NA	20	NA	26.5	NA	0.5	NA
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	31.7	NA	35.8	NA	22.1	NA	21.5	NA	33.1	NA	0.88	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04	SD-R-F13-05	SD-R-F13-06	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	FD	FD	N
Sample Name			SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-011.0N	SD-R-F14-011N	SD-R-F14-011.0FD	SD-R-F14-011FD	SD-R-F14-021.0N
Parent Sample											SD-R-F14-011.0N	SD-R-F14-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04	SD-R-F13-05	SD-R-F13-06	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	FD	FD	N
Sample Name			SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-011.0N	SD-R-F14-011N	SD-R-F14-011.0FD	SD-R-F14-011FD	SD-R-F14-021.0N
Parent Sample											SD-R-F14-011.0N	SD-R-F14-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	< 220	77	< 260	NA	< 210	NA	< 210	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	< 220	250	180	NA	50	NA	< 210	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	< 220	260	160	NA	53	NA	< 210	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	< 220	240	110	NA	< 210	NA	< 210	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	< 220	200	110	NA	< 210	NA	< 210	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04	SD-R-F13-05	SD-R-F13-06	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	FD	FD	N
Sample Name			SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-011.0N	SD-R-F14-011N	SD-R-F14-011.0FD	SD-R-F14-011FD	SD-R-F14-021.0N
Parent Sample											SD-R-F14-011.0N	SD-R-F14-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	< 220	320	210	NA	55	NA	43	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	47	550	350	NA	77	NA	57	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 220	< 320	< 260	NA	< 210	NA	< 210	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	< 220	410	170	NA	< 210	NA	< 210	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	47	620	380	NA	92	NA	57	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04	SD-R-F13-05	SD-R-F13-06	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	FD	FD	N
Sample Name			SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-011.0N	SD-R-F14-011N	SD-R-F14-011.0FD	SD-R-F14-011FD	SD-R-F14-021.0N
Parent Sample											SD-R-F14-011.0N	SD-R-F14-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 420	< 400	< 400	< 580	< 460	NA	< 380	NA	< 370	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 420	< 400	< 400	< 580	< 460	NA	< 380	NA	< 370	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 420	< 400	< 400	< 580	< 460	NA	< 380	NA	< 370	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 420	< 400	< 400	< 580	< 460	NA	< 380	NA	< 370	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 420	< 400	< 400	< 580	< 460	NA	< 380	NA	< 370	NA
Nitrocellulose	9004-70-0	ug/kg	NA	84000	< 160000	< 160000	110000	< 180000	NA	< 150000	NA	< 150000	NA
Nitroglycerin	55-63-0	ug/kg	NA	7600	< 7900	< 7900	< 12000	< 9200	NA	< 7700	NA	< 7400	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 1000	< 990	< 990	< 1500	< 1200	NA	< 960	NA	< 930	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	< 8300	< 7900	< 7900	< 12000	< 9200	NA	< 7700	NA	< 7400	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 420	< 400	< 400	< 580	< 460	NA	< 380	NA	< 370	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	2.09	2.41	< 2.62	4.81	2.29	NA	1.87	NA	2.36	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	< 0.694	< 0.662	< 0.654	< 0.961	< 0.762	NA	< 0.628	NA	< 0.62	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	10.7	19.6	11.1	28.7	10.1	NA	10.7	NA	7.36	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	5.44	5.6	3.73	15.5	8.34	NA	6.12	NA	9.51	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	44.5	7.61	7.57	37.7	50.4	NA	19.1	NA	22.4	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.151	0.0169	0.0254	0.462	0.0455	NA	0.055	NA	0.0432	NA
Nickel	7440-02-0	mg/kg	NA	3.6	3.25	2.06	7.96	3.15	NA	5.28	NA	5.1	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	< 0.694	< 0.662	< 0.654	< 0.961	< 0.762	NA	3.9	NA	< 0.62	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	64.8	31.4	26.8	111	68.6	NA	53.4	NA	59	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F13-02	SD-R-F13-02	SD-R-F13-03	SD-R-F13-04	SD-R-F13-05	SD-R-F13-06	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-01	SD-R-F14-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006
Sample Type			N	N	N	N	N	N	N	N	FD	FD	N
Sample Name			SD-R-F13-021.0N	SD-R-F13-021N	SD-R-F13-031.0N	SD-R-F13-041.0N	SD-R-F13-051.0N	SD-R-F13-061.0N	SD-R-F14-011.0N	SD-R-F14-011N	SD-R-F14-011.0FD	SD-R-F14-011FD	SD-R-F14-021.0N
Parent Sample											SD-R-F14-011.0N	SD-R-F14-011N	
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	28	24.5	24.3	48.5	35	NA	21.9	NA	19.3	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	1400	12000	1800	11000	3800	NA	1700	NA	870	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	96.5	NA	97.1	94.7	95.2	91.5	99.3	NA	100	NA	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	NA	100	100	100	100	100	NA	100	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	NA	100	100	100	100	100	NA	100	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	NA	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	40.5	NA	62.7	51.4	32.3	45	62	NA	58.7	NA	53.3
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	6.6	NA	18	14.9	5.1	13.2	12.3	NA	8.4	NA	9.5
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	NA	0.5	0.5	< 1	0.5	< 1	NA	< 1	NA	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	1	NA	3.5	3	< 1	1	< 1	NA	< 1	NA	< 1
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	44.8	NA	69.6	55.4	42	47	68.3	NA	68.2	NA	56.9
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	15.3	NA	33.6	25.3	11.3	25.4	28.7	NA	23	NA	27.8
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	69	NA	76.9	62.9	49.2	74.9	77	NA	77.4	NA	65.8
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	75	NA	82.3	71.2	57	80.1	85.9	NA	86.8	NA	76.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	0.5	NA	2	1	< 1	1	< 1	NA	< 1	NA	< 1
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	2.5	NA	8	6	2	5	3.5	NA	3	NA	2
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	30.2	NA	51.6	39.7	21.6	39.6	47.9	NA	42.8	NA	44.1
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	3.5	NA	10.5	8	3	7.5	6	NA	5	NA	2.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	4.5	NA	12.3	9.6	3.1	8.8	7	NA	5.6	NA	3
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G11-01	SD-R-G12-01	SD-R-G12-02	SD-R-G12-03	SD-R-G12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G11-011.0N	SD-R-G12-011.0N	SD-R-G12-021.0N	SD-R-G12-031.0N	SD-R-G12-041.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G11-01	SD-R-G12-01	SD-R-G12-02	SD-R-G12-03	SD-R-G12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G11-011.0N	SD-R-G12-011.0N	SD-R-G12-021.0N	SD-R-G12-031.0N	SD-R-G12-041.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	< 230	< 300	< 200	< 270
2,6-Dinitrotoluene	606-20-2	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	< 230	< 300	< 200	< 270
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	< 230	92	< 200	< 270
Acenaphthylene	208-96-8	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	80	520	< 200	< 270
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	89	570	< 200	< 270
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 200	NA	NA	NA	NA	160	< 230	340	1700	< 200	63
Benzo[a]pyrene	50-32-8	ug/kg	< 200	NA	NA	NA	NA	180	< 230	330	1800	< 200	60
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 200	NA	NA	NA	NA	130	< 230	240	1300	< 200	< 270
Benzo[k]fluoranthene	207-08-9	ug/kg	< 200	NA	NA	NA	NA	81	< 230	200	1000	< 200	< 270
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G11-01	SD-R-G12-01	SD-R-G12-02	SD-R-G12-03	SD-R-G12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G11-011.0N	SD-R-G12-011.0N	SD-R-G12-021.0N	SD-R-G12-031.0N	SD-R-G12-041.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 200	NA	NA	NA	NA	250	< 230	390	2300	< 200	80
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	< 230	260	< 200	< 270
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	51	NA	NA	NA	NA	350	< 230	700	4000	47	120
Fluorene	86-73-7	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	< 230	270	< 200	< 270
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 200	NA	NA	NA	NA	< 250	< 230	< 230	82	< 200	< 270
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 200	NA	NA	NA	NA	270	< 230	410	2700	< 200	< 270
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	56	NA	NA	NA	NA	410	< 230	750	4300	59	100

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G11-01	SD-R-G12-01	SD-R-G12-02	SD-R-G12-03	SD-R-G12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G11-011.0N	SD-R-G12-011.0N	SD-R-G12-021.0N	SD-R-G12-031.0N	SD-R-G12-041.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 370	NA	< 580	NA	< 370	< 450	< 420	< 410	< 540	< 360	< 490
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 370	NA	< 580	NA	< 370	< 450	< 420	< 410	< 540	< 360	< 490
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 370	NA	< 580	NA	< 370	< 450	< 420	< 410	< 540	< 360	< 490
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 370	NA	< 580	NA	< 370	< 450	< 420	< 410	< 540	< 360	< 490
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 370	NA	< 580	NA	< 370	< 450	< 420	< 410	< 540	< 360	< 490
Nitrocellulose	9004-70-0	ug/kg	< 150000	NA	< 230000	NA	110000	< 180000	< 170000	< 170000	< 210000	< 140000	< 190000
Nitroglycerin	55-63-0	ug/kg	< 7300	NA	< 12000	NA	< 7400	< 9000	< 8500	< 8300	< 11000	< 7200	< 9800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 920	NA	< 1500	NA	< 920	< 1100	< 1100	< 1000	< 1300	< 900	< 1200
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7300	NA	< 12000	NA	< 7400	< 9000	< 8500	< 8300	< 11000	< 7200	< 9800
RDX (Cyclonite)	121-82-4	ug/kg	< 370	NA	< 580	NA	< 370	< 450	< 420	< 410	< 540	< 360	< 490
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	2.38	NA	1.66	6.05	NA	3.84	7.96	4.05	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	< 0.95	NA	< 0.608	< 0.729	NA	< 0.67	< 0.875	0.737	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	16.6	NA	9.49	20.6	NA	23.7	91.1	143	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	9.72	NA	4.58	14.8	NA	14.1	29.9	6.5	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	62.9	NA	49.8	65.4	NA	23.9	99.6	5.25	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.429	NA	0.0854	0.829	NA	0.44	2.89	0.099	NA
Nickel	7440-02-0	mg/kg	NA	NA	4.25	NA	2.62	4.73	NA	4.91	12	5.24	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	< 0.95	NA	< 0.608	< 0.729	NA	0.257	0.537	< 0.581	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	83.5	NA	34.9	48.9	NA	72.2	167	42.4	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-F14-02	SD-R-F14-03	SD-R-F14-03	SD-R-F14-04	SD-R-F14-04	SD-R-F14-05	SD-R-G11-01	SD-R-G12-01	SD-R-G12-02	SD-R-G12-03	SD-R-G12-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/11/2006	5/11/2006	5/11/2006	5/11/2006	5/11/2006	6/13/2006	5/12/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-F14-021N	SD-R-F14-031.0N	SD-R-F14-031N	SD-R-F14-041.0N	SD-R-F14-041N	SD-R-F14-051.0N	SD-R-G11-011.0N	SD-R-G12-011.0N	SD-R-G12-021.0N	SD-R-G12-031.0N	SD-R-G12-041.0N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	18.3	NA	48.4	NA	18.6	33.4	29	27.5	44	16.4	38.9
Total Organic Carbon	ARC-TOC	mg/kg	< 430	NA	11000	NA	< 470	18000	6500	16000	17000	1200	29000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	83.3	NA	94.6	NA	98.1	91	95.7	95.8	95.2	97
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	100	NA	100	NA	100	96.9	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	100	NA	100	NA	100	97	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	< 1	NA	< 1	NA	< 1	2.5	1	1	2	0.5
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	40.8	NA	31.8	NA	59.4	50	57.3	76.4	56.9	42.7
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	6.2	NA	3.3	NA	18.8	29.7	22.4	54.9	20.2	18
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	< 1	NA	< 1	NA	< 1	4.5	1	4.5	2	1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	1.5	NA	< 1	NA	2	11.5	6.5	19	5	6
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	44.1	NA	38.6	NA	66.6	51.1	64.7	78.9	62.7	49.5
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	19.5	NA	10.5	NA	35.7	39.5	33.4	67.3	33.4	26.7
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	50.4	NA	43.5	NA	71.6	69.1	72.7	88.3	70.4	58.7
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	57.1	NA	48.8	NA	76.3	78.7	81.4	92.6	76.7	68.6
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	< 1	NA	< 1	NA	1	7	2	9	2	2.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	3	NA	1	NA	6	18.5	11	35	10.5	10.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	35.6	NA	21.6	NA	49.2	46.5	46.2	72.9	46.5	35.2
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	3	NA	1	NA	8	21.5	14	37.5	13	12.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	3.2	NA	1.4	NA	10	23.3	15.9	39.5	14.4	13
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-G12-12	SD-R-H11-01	SD-R-H11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-G12-051.0N	SD-R-G12-051.0FD	SD-R-G12-061N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-G12-121.0N	SD-R-H11-011.0N	SD-R-H11-021.0N
Parent Sample				SD-R-G12-051.0N									
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-G12-12	SD-R-H11-01	SD-R-H11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-G12-051.0N	SD-R-G12-051.0FD	SD-R-G12-061N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-G12-121.0N	SD-R-H11-011.0N	SD-R-H11-021.0N
Parent Sample				SD-R-G12-051.0N									
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	< 230	< 380	NA	< 180	NA	< 220	NA	< 300	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 230	< 380	NA	< 180	NA	< 220	NA	< 300	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 220	< 230	< 380	NA	< 180	NA	< 220	NA	< 300	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 220	< 230	87	NA	< 180	NA	< 220	NA	< 300	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 220	< 230	< 380	NA	< 180	NA	< 220	NA	< 300	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 220	< 230	280	NA	< 180	NA	49	NA	< 300	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 220	< 230	280	NA	< 180	NA	61	NA	< 300	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 220	< 230	210	NA	< 180	NA	47	NA	< 300	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	< 230	310	NA	< 180	NA	< 220	NA	< 300	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-G12-12	SD-R-H11-01	SD-R-H11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-G12-051.0N	SD-R-G12-051.0FD	SD-R-G12-061N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-G12-121.0N	SD-R-H11-011.0N	SD-R-H11-021.0N
Parent Sample				SD-R-G12-051.0N									
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 220	< 230	520	NA	< 180	NA	70	NA	< 300	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	< 230	110	NA	< 180	NA	< 220	NA	< 300	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	< 220	< 230	410	NA	< 180	NA	130	NA	< 300	NA	NA
Fluorene	86-73-7	ug/kg	< 220	< 230	< 380	NA	< 180	NA	< 220	NA	< 300	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 220	< 230	< 380	NA	< 180	NA	< 220	NA	< 300	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 220	< 230	190	NA	< 180	NA	110	NA	< 300	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 220	< 230	350	NA	< 180	NA	120	NA	69	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-G12-12	SD-R-H11-01	SD-R-H11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-G12-051.0N	SD-R-G12-051.0FD	SD-R-G12-061N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-G12-121.0N	SD-R-H11-011.0N	SD-R-H11-021.0N
Parent Sample				SD-R-G12-051.0N									
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 400	< 410	< 690	< 570	< 330	< 980	< 400	< 680	< 540	< 390	< 400
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 400	< 410	< 690	< 570	< 330	< 980	< 400	< 680	< 540	< 390	< 400
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 400	< 410	< 690	< 570	< 330	< 980	< 400	< 680	< 540	< 390	< 400
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 400	< 410	< 690	< 570	< 330	< 980	< 400	< 680	< 540	< 390	< 400
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 400	< 410	< 690	400	< 330	< 980	< 400	< 680	< 540	< 390	< 400
Nitrocellulose	9004-70-0	ug/kg	< 160000	210000	< 280000	< 230000	< 130000	< 390000	58000	< 270000	< 220000	< 160000	< 160000
Nitroglycerin	55-63-0	ug/kg	< 8000	< 8300	< 14000	< 11000	< 6600	< 20000	< 7900	< 14000	< 11000	< 7800	< 8000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1000	< 1000	< 1700	< 1400	< 830	< 2400	< 990	< 1700	< 1400	< 970	< 1000
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8000	< 8300	NA	< 11000	< 6600	< 20000	< 7900	< 14000	6400	< 7800	< 8000
RDX (Cyclonite)	121-82-4	ug/kg	< 400	< 410	< 690	< 570	< 330	< 980	< 400	< 680	< 540	< 390	< 400
Tetryl	479-45-8	ug/kg	NA	NA	< 690	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	28.9	12.1	5.47	6	3.52	18.2	NA	5.64	13.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	< 1.15	0.352	< 0.548	< 1.57	< 0.647	0.911	NA	< 0.649	< 0.632
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	20.3	35.2	8.79	25.9	12.6	24.4	NA	73.1	58.9
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	63.8	63.7	31.6	20.6	12.1	46.1	NA	15.2	11.7
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	992	1990	5.42	118	7.82	337	NA	20.7	25.1
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	1.08	1.36	0.023	0.454	0.099	1.11	NA	0.72	0.88
Nickel	7440-02-0	mg/kg	NA	NA	15.2	24.1	6.38	16.6	6.8	14.6	NA	6.56	5.32
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	< 1.15	< 0.952	< 0.548	< 1.57	< 0.647	0.46	NA	0.542	< 0.632
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	128	130	32	97.6	60.1	209	NA	90.9	105

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-G12-05	SD-R-G12-05	SD-R-G12-06	SD-R-G12-07	SD-R-G12-08	SD-R-G12-09	SD-R-G12-10	SD-R-G12-11	SD-R-G12-12	SD-R-H11-01	SD-R-H11-02
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	4/18/2006	4/18/2006	5/11/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	5/12/2006	4/18/2006	4/18/2006
Sample Type			N	FD	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-G12-051.0N	SD-R-G12-051.0FD	SD-R-G12-061N	SD-R-G12-071.0N	SD-R-G12-081.0N	SD-R-G12-091.0N	SD-R-G12-101.0N	SD-R-G12-111.0N	SD-R-G12-121.0N	SD-R-H11-011.0N	SD-R-H11-021.0N
Parent Sample				SD-R-G12-051.0N									
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	25.4	27.6	56.6	47.5	9.7	69.3	24.2	56.1	44.9	22.9	24.7
Total Organic Carbon	ARC-TOC	mg/kg	3100	9100	16000	4600	280	130000	3400	11000	13000	20000	1500
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	91.6	81	100	96.4	78	99.7	80.2	68.3	93.9	NA	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100	88.6	100	100	NA	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100	100	100	100	NA	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	0.5	1.5	1.5	0.5	< 1	< 1	< 1	< 1	NA	1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	49.5	30.6	64.1	46.1	26.9	70.4	50	25.1	40	NA	57.3
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	10.8	7.7	22.4	17.2	5.8	45.5	23.2	7.1	13.3	NA	17.7
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	1	1	1.5	1.5	0.5	3	1	0.5	1	NA	1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	5	3	6.5	4	2	24	6	3	6	NA	7
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	63.7	37.6	63.1	48.2	35	79.9	54.5	46.9	44.7	NA	65.7
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	17.2	12.7	33.1	31.4	9.7	54.9	33	8.6	19.7	NA	28.1
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	76.1	44.4	71.8	82.2	40.4	89.2	62	54.3	55.4	NA	74.7
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	80.5	51.7	79.1	87	46.2	95.5	63	58.5	65.3	NA	84.6
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	3.5	1.5	2	1.5	1.5	9	3	1.5	3	NA	1.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	6	5	12	7.5	2.5	34	11	5	8.5	NA	12.5
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	31	21.4	44.8	42.1	17.2	63.6	41.9	11.7	29.7	NA	42.9
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	7	6	15	9.5	3.5	36.5	13	5.5	9	NA	13
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	8.2	5.8	16.5	10.8	3.9	37.4	14.4	5.9	10.2	NA	13.4
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SD-R-H11-03 0.5-1.0 ft 4/18/2006 N SD-R-H11-031.0N	SD-R-H11-04 0.5-1.0 ft 5/12/2006 N SD-R-H11-041.0N	SD-R-H11-05 0.5-1.0 ft 5/12/2006 N SD-R-H11-051.0N	SD-R-H11-06 0.5-1.0 ft 5/17/2006 N SD-R-H11-061.0N	SD-R-H11-06 0.5-1.0 ft 5/17/2006 N SD-R-H11-061N	SD-R-H12-01 0.5-1.0 ft 4/18/2006 N SD-R-H12-011.0N	SD-R-H12-02 0.5-1.0 ft 4/18/2006 N SD-R-H12-021.0N	SD-R-H12-03 0.5-1.0 ft 4/18/2006 N SD-R-H12-031.0N	SD-R-H12-04 0.5-1.0 ft 4/18/2006 N SD-R-H12-041.0N	SD-R-H12-05 0.5-1.0 ft 4/18/2006 N SD-R-H12-051.0N	SD-R-H12-06 0.5-1.0 ft 4/18/2006 N SD-R-H12-061.0N	SD-R-H12-07 0.5-1.0 ft 5/17/2006 N SD-R-H12-071.0N
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H11-03	SD-R-H11-04	SD-R-H11-05	SD-R-H11-06	SD-R-H11-06	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06	SD-R-H12-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	5/12/2006	5/12/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-H11-031.0N	SD-R-H11-041.0N	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H11-061N	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N	SD-R-H12-071.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H11-03	SD-R-H11-04	SD-R-H11-05	SD-R-H11-06	SD-R-H11-06	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06	SD-R-H12-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	5/12/2006	5/12/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-H11-031.0N	SD-R-H11-041.0N	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H11-061N	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N	SD-R-H12-071.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	< 210	< 200	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H11-03	SD-R-H11-04	SD-R-H11-05	SD-R-H11-06	SD-R-H11-06	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06	SD-R-H12-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	5/12/2006	5/12/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-H11-031.0N	SD-R-H11-041.0N	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H11-061N	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N	SD-R-H12-071.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 480	< 380	< 360	NA	< 380	< 360	< 350	< 380	< 660	< 380	< 400	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 480	< 380	< 360	NA	< 380	< 360	< 350	< 380	< 660	< 380	< 400	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 480	< 380	< 360	NA	< 380	< 360	< 350	< 380	< 660	< 380	< 400	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 480	< 380	< 360	NA	< 380	< 360	< 350	< 380	< 660	< 380	< 400	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 480	< 380	< 360	NA	< 380	< 360	< 350	< 380	< 660	< 380	< 400	NA
Nitrocellulose	9004-70-0	ug/kg	< 190000	< 150000	140000	NA	< 150000	< 140000	< 140000	< 150000	< 260000	< 150000	< 160000	NA
Nitroglycerin	55-63-0	ug/kg	< 9500	< 7600	< 7100	NA	< 7600	< 7100	< 7100	< 7600	< 13000	< 7500	< 8000	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1200	< 950	< 890	NA	< 960	< 890	< 890	< 950	< 1700	< 940	< 1000	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 9500	< 7600	< 7100	NA	< 7600	< 7100	< 7100	< 7600	< 13000	< 7500	< 8000	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 480	< 380	< 360	NA	< 380	< 360	< 350	< 380	< 660	< 380	< 400	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	8.7	NA	NA	NA	8.78	4.79	5.1	3.57	11.3	2.41	5.39	NA
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.757	NA	NA	NA	0.252	< 2.87	< 2.89	< 3.16	< 1.1	< 3.02	< 3.17	NA
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	19.1	NA	NA	NA	13.7	199	67	46.6	39.6	21.9	23.8	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	20.4	NA	NA	NA	17.3	10.6	11.9	14.4	38.1	10.7	20.8	NA
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	39.1	NA	NA	NA	40.9	16	7.28	17.9	67.8	7.28	24.7	NA
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.456	NA	NA	NA	0.218	0.567	0.0799	0.102	0.829	0.0762	0.682	NA
Nickel	7440-02-0	mg/kg	10.7	NA	NA	NA	6.36	7.55	5.81	9.05	13.9	6.61	9.46	NA
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.757	NA	NA	NA	0.246	0.225	< 0.579	0.344	1.22	0.27	0.661	NA
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	190	NA	NA	NA	45.9	63.5	45.7	81.9	258	64.2	119	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H11-03	SD-R-H11-04	SD-R-H11-05	SD-R-H11-06	SD-R-H11-06	SD-R-H12-01	SD-R-H12-02	SD-R-H12-03	SD-R-H12-04	SD-R-H12-05	SD-R-H12-06	SD-R-H12-07
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			4/18/2006	5/12/2006	5/12/2006	5/17/2006	5/17/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	5/17/2006
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			SD-R-H11-031.0N	SD-R-H11-041.0N	SD-R-H11-051.0N	SD-R-H11-061.0N	SD-R-H11-061N	SD-R-H12-011.0N	SD-R-H12-021.0N	SD-R-H12-031.0N	SD-R-H12-041.0N	SD-R-H12-051.0N	SD-R-H12-061.0N	SD-R-H12-071.0N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	37.1	20.9	16	NA	21.5	15.5	15.3	20.9	54.7	20.5	24.8	NA
Total Organic Carbon	ARC-TOC	mg/kg	3900	13000	3000	NA	4900	< 1000	1000	1900	43000	2600	5600	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	80.2	86.2	75.4	91.3	NA	97.1	92	100	82.2	89.7	87.4	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	NA	100	99.4	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	NA	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	3	< 1	5	NA	0.5	2	6	< 1	4	2	3
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	50.7	41.9	27.7	54	NA	34.1	43.4	74.8	30.2	48.5	39.7	55.5
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	13.8	22.2	14.3	27.8	NA	10.4	22	41.6	16.6	22.5	16.6	29.6
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	0.5	5	2	5	NA	0.5	3	8	1	4	3	4
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	5	12	7.5	11.5	NA	2.5	8.5	19.5	7.5	10.5	7.5	11.5
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	55.7	43.5	30.1	57.8	NA	41.1	47.6	79.7	39.2	50.8	50.7	62
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	23.4	29.7	17.9	35.9	NA	17.4	27.3	52.4	19.8	29.2	20.7	37.8
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	62.7	55.3	37	63.8	NA	49.3	68.4	87.9	44.9	58.6	57.2	70.6
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	69.7	65.3	44.8	69.1	NA	59.5	76.1	93.4	49.9	66.5	63.4	79.2
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	1	7	3.5	6	NA	1.5	5	11	3	5	4.5	5.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	7.5	16	11	18.5	NA	5	14	30	10.5	15.5	12.5	20
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	39	37.5	23	45.6	NA	25.7	35.5	64.2	24	40.2	27.8	47
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	9	18	12	21	NA	7	17	33	12.5	17	13.5	23
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	9.8	18.7	12.4	23	NA	7.7	18.5	34.9	13.8	17.9	13.9	24.6
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	SD-R-H5-01	SD-R-H5-02	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	7/25/2006	7/25/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	SD-R-H5-011.0N	SD-R-H5-021.0N	SD-R-H6-011.0N	SD-R-H6-011.0FD	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
Parent Sample									SD-R-H6-011.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	SD-R-H5-01	SD-R-H5-02	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	7/25/2006	7/25/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	SD-R-H5-011.0N	SD-R-H5-021.0N	SD-R-H6-011.0N	SD-R-H6-011.0FD	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
Parent Sample									SD-R-H6-011.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 220	< 200	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	< 220	270	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	110	270	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	160	720	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	580	1300	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	660	1200	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	730	900	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	390	670	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	SD-R-H5-01	SD-R-H5-02	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	7/25/2006	7/25/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	SD-R-H5-011.0N	SD-R-H5-021.0N	SD-R-H6-011.0N	SD-R-H6-011.0FD	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
Parent Sample									SD-R-H6-011.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	790	1300	NA	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	170	210	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	1300	2700	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	45	340	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	< 220	110	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	560	1900	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	1100	2300	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	SD-R-H5-01	SD-R-H5-02	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	7/25/2006	7/25/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	SD-R-H5-011.0N	SD-R-H5-021.0N	SD-R-H6-011.0N	SD-R-H6-011.0FD	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
Parent Sample									SD-R-H6-011.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 420	NA	< 370	< 400	< 370	< 420	< 410	< 610	< 360	< 460	< 410	< 450
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 420	NA	< 370	< 400	< 370	< 420	< 410	< 610	< 360	< 460	< 410	< 450
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 420	NA	< 370	< 400	< 370	< 420	< 410	< 610	< 360	< 460	< 410	< 450
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 420	NA	< 370	< 810	< 730	< 420	< 410	< 610	< 360	< 460	< 410	< 450
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 420	NA	< 370	< 400	< 370	< 420	< 410	< 610	< 360	< 460	< 410	< 450
Nitrocellulose	9004-70-0	ug/kg	< 170000	NA	< 150000	< 160000	< 150000	< 170000	< 170000	< 240000	< 140000	< 180000	< 160000	< 180000
Nitroglycerin	55-63-0	ug/kg	< 8500	NA	< 7400	< 8100	< 7300	< 8500	< 8300	< 12000	< 7300	< 9100	< 8100	< 9100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1100	NA	< 930	< 1000	< 920	< 1100	< 1000	< 1500	< 910	< 1100	< 1000	< 1100
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 8500	NA	< 7400	< 8100	< 7300	< 8500	< 8300	< 12000	< 7300	< 9100	< 8100	< 9100
RDX (Cyclonite)	121-82-4	ug/kg	< 420	NA	< 370	< 400	< 370	< 420	< 410	< 610	< 360	< 460	< 410	< 450
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	12.2	NA	5.05	3.88	4.14	3.86	4.16	5.75	3.59	4.61	3.76	1.91
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.332	NA	0.216	1.2	2.06	< 0.69	< 0.671	0.256	0.378	0.777	0.418	< 3.79
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	13.6	NA	17.5	39.4	27.6	18.3	18.5	17.1	15.3	11.4	9.23	18.5
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	24.1	NA	19	58.2	41.2	19.5	18.4	25.4	14.2	59.4	20.4	6.55
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	80.2	NA	141	222	90.3	17.1	15.2	48.5	7.75	75.6	77.6	8.32
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.334	NA	0.318	0.0561	0.0379	0.375	0.193	0.332	< 0.113	0.0404	0.0607	0.0652
Nickel	7440-02-0	mg/kg	7.98	NA	9.85	22.2	17.5	13.3	13.5	10.8	10.8	7.07	6.09	8.19
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	0.292	NA	0.261	< 0.648	< 0.587	< 0.69	< 0.671	< 1.01	< 0.583	1.17	< 0.67	< 0.758
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	83.9	NA	59.4	334	345	86.8	85	237	71	155	96.4	146

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-H12-07	SD-R-H12-08	SD-R-H12-08	SD-R-H5-01	SD-R-H5-02	SD-R-H6-01	SD-R-H6-01	SD-R-H6-02	SD-R-I5-01	SD-R-I5-02	SD-R-I5-03	SD-R-I5-04
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/17/2006	5/17/2006	5/17/2006	7/25/2006	7/25/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006	4/11/2006	6/5/2006
Sample Type			N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			SD-R-H12-071N	SD-R-H12-081.0N	SD-R-H12-081N	SD-R-H5-011.0N	SD-R-H5-021.0N	SD-R-H6-011.0N	SD-R-H6-011.0FD	SD-R-H6-021.0N	SD-R-I5-011.0N	SD-R-I5-021.0N	SD-R-I5-031.0N	SD-R-I5-041.0N
Parent Sample									SD-R-H6-011.0N					
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	29.1	NA	19	25.8	18.1	29	27.7	50.9	17.6	34.2	26.1	34
Total Organic Carbon	ARC-TOC	mg/kg	10000	NA	3700	36000	22000	20000	9200	40000	910	17000	3000	41000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	NA	97.7	NA	100	97.4	89.6	74	100	97.6	100	100	100
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	NA	100	NA	100	100	100	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	NA	100	NA	100	100	100	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	NA	4.5	NA	< 1	2.5	6	5	1	4	< 1	< 1	6
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	NA	60.2	NA	71.7	39.3	72.2	57.2	71.4	28.3	63.9	57.6	86.4
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	NA	35.1	NA	35	15.1	47.8	38.7	38.7	18.1	16.4	13.4	65
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	NA	5	NA	< 1	3.5	8	6.5	2	4	< 1	< 1	9.5
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	NA	16	NA	9	8	25	19.5	15.5	10.5	6	5	28
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	NA	64.3	NA	82.5	49.9	74.9	60.1	76	32.6	73.4	67.4	87.8
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	NA	43.4	NA	49.5	19.8	58.3	46.3	50	20.4	30.2	26.3	74.6
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	NA	76.3	NA	90.5	58.4	79.2	64.2	81.9	41.3	80.4	74.1	94.7
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	NA	84.8	NA	95.7	67	81.7	66.5	87.5	50.7	87	81.5	97.5
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	NA	8	NA	2	4.5	12	10.5	5	6	2	2	15.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	NA	25	NA	17	10.5	34	28	24	13.5	7	6.5	46
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	NA	53.3	NA	60.9	28.1	66.9	52.6	62.5	23.9	48.2	44.7	82.5
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	NA	28.5	NA	22.5	12.5	38	30.5	28.5	15.5	7.5	7	52
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	NA	30.2	NA	24.5	12.9	39.8	32.8	31.3	16.5	8.6	8	56
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N
Sample Name			SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Volatile Organic Compounds								
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N
Sample Name			SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Semivolatile Organic Compounds								
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90-12-0	ug/kg	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N
Sample Name			SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Semivolatile Organic Compounds (Cont)								
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	NA
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N
Sample Name			SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Explosives & Energetics								
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 380	< 490	< 390	< 410	< 400	< 360
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 380	< 490	< 390	< 410	< 400	< 360
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 380	< 490	< 390	< 410	< 400	< 360
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 380	< 490	< 390	< 410	< 400	< 360
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 380	< 490	< 390	< 410	< 400	< 360
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 200000	< 150000	< 160000	< 160000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 7700	< 9900	< 7700	< 8200	< 8000	< 7100
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 960	< 1200	< 960	< 1000	< 1000	< 890
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 7700	< 9900	< 7700	< 8200	< 8000	< 7100
RDX (Cyclonite)	121-82-4	ug/kg	< 380	< 490	< 390	< 410	< 400	< 360
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	3.26	6.37	31.6	3.58	6.24	7.33
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	< 3.17	< 0.822	< 0.643	< 0.66	0.867	0.859
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	5.09	18.2	52.8	10.9	10.3	11.2
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	7.94	23.1	7.6	9.27	13.1	8.11
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	13.4	65.7	69.2	26.9	32.7	13.6
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0.125	0.704	0.0225	0.0501	< 0.132	< 0.119
Nickel	7440-02-0	mg/kg	4.62	11.4	13.4	6.59	6.19	5.24
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.634	< 0.822	< 0.643	< 0.66	< 0.647	< 0.583
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	102	229	191	174	177	177

Appendix A.5 - Ecological Risk Assessment Dataset
Sediment - Southern Drainage Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SD-R-I5-05	SD-R-I6-01	SD-R-I6-02	SD-R-I6-03	SD-R-I6-04	SD-R-I6-05
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			6/5/2006	4/4/2006	4/4/2006	4/4/2006	4/11/2006	4/11/2006
Sample Type			N	N	N	N	N	N
Sample Name			SD-R-I5-051.0N	SD-R-I6-011.0N	SD-R-I6-021.0N	SD-R-I6-031.0N	SD-R-I6-041.0N	SD-R-I6-051.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Miscellaneous								
Percent Moisture	ARC-MOIST	%dw	21.9	39.2	22.2	26.5	25	15.9
Total Organic Carbon	ARC-TOC	mg/kg	19000	52000	3800	24000	6700	4200
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA
Grain Size								
ARC-SIEVE 19, % passing	ARC-SIEVE 19	%	96.7	100	87.5	100	96.4	89.8
ARC-SIEVE 37, % passing	ARC-SIEVE 37	%	100	100	100	100	100	100
ARC-SIEVE 75, % passing	ARC-SIEVE 75	%	100	100	100	100	100	100
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA
Sieve, 1 micron, % passing	ARC-SIEVE1U	%	< 1	< 1	< 1	1.3	< 1	< 1
Sieve, 1180 micron, % passing	ARC-SIEVE1.18KU	%	50.4	73.3	31.6	46.5	29.6	24.6
Sieve, 150 micron, % passing	ARC-SIEVE150U	%	8.5	44.3	4.7	7.7	3.3	4.2
Sieve, 2 micron, % passing	ARC-SIEVE2U	%	< 1	3.5	< 1	1.3	< 1	< 1
Sieve, 20 micron, % passing	ARC-SIEVE20U	%	< 1	25	1	2.8	1.5	1.5
Sieve, 2360 micron, % passing	ARC-SIEVE2.36KU	%	63.9	85.1	42.7	62.7	42.2	33.9
Sieve, 300 micron, % passing	ARC-SIEVE300U	%	16.4	52.4	8.5	16.9	6.6	8
Sieve, 3350 micron, % passing	ARC-SIEVE3.35KU	%	72.1	90.6	47.2	69.8	49.8	41.1
Sieve, 4750 micron, % passing	ARC-SIEVE4.75KU	%	80	93.6	50.8	76.6	59.3	50
Sieve, 5 micron, % passing	ARC-SIEVE5U	%	< 1	8	1	1.3	0.5	0.5
Sieve, 50 micron, % passing	ARC-SIEVE50U	%	3	35	3	3.8	3	3
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA
Sieve, 600 micron, % passing	ARC-SIEVE600U	%	30.5	62.1	17.4	31.8	16.6	15.5
Sieve, 64 micron, % passing	ARC-SIEVE64U	%	4.5	41	3.5	5	3	3.5
Sieve, 75 micron, % passing	ARC-SIEVE75U	%	5.5	43.8	3.7	5.5	2.7	3.9
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA

Appendix A - Ecological Risk Assessment Dataset
Table Notes
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Abbreviation	***Definition***
CAS No.	Chemical Abstract Service Number
ug/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
<	constituent not detected at corresponding detection limit
NA	not analyzed
%dw	percent dry weight
%	percent

Appendix B

Soil Analytical Results – Areas of Presumed Remedial Action

Appendix B1. TNT Area Description (Tier I)
Kenvil Works Facility
Kenvil, New Jersey

This area, a conglomerate of adjacent areas of concern, represents one of the earliest developed portions of the site as well as the site of one of the most powerful explosions in the history of the site. This area of the site produced explosives for more than a century; during this period operational procedures and incidental release of materials affected soil and groundwater quality. Areas of stressed vegetation, as well as areas devoid of vegetation (former footprint of Building 666 that exploded in 1917) are visible. Stained soil and discolored water have been observed in a former lagoon area (depression in ground surface) where overburden groundwater interacts with surface soil and discharges becoming surface water. As a result, Hercules has conducted pre-design investigations and laboratory studies as part of a remedial action selection process informing active remediation. Specifically, Hercules is evaluating a combination of source removal, bioremediation, and monitored natural attenuation to address constituent concentrations (primarily TNT and its breakdown products) in this area.

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A11-1-01	A11-1-04	A11-1-04	A11-3-03	A11-3-05	A11-3-05	A11-570-01	A11-570-05	A11-8-02	A11-8-03	A12-7-03	A12-7-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	6/8/2000	10/8/1999	10/8/1999	6/8/2000	6/8/2000	10/14/1999	6/8/2000	10/14/1999	10/14/1999	10/14/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			A11-1-011N	A11-1-041N	A11-1-042N	A11-3-031N	A11-3-051N	A11-3-051.5N	A11-570-012N	A11-570-051N	A11-8-021.5N	A11-8-032N	A12-7-031N	A12-7-031FD
Parent Sample														A12-7-031N
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A11-1-01	A11-1-04	A11-1-04	A11-3-03	A11-3-05	A11-3-05	A11-570-01	A11-570-05	A11-8-02	A11-8-03	A12-7-03	A12-7-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	6/8/2000	10/8/1999	10/8/1999	6/8/2000	6/8/2000	10/14/1999	6/8/2000	10/14/1999	10/14/1999	10/14/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			A11-1-011N	A11-1-041N	A11-1-042N	A11-3-031N	A11-3-051N	A11-3-051.5N	A11-570-012N	A11-570-051N	A11-8-021.5N	A11-8-032N	A12-7-031N	A12-7-031FD
Parent Sample														A12-7-031N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
2,4-Dinitrophenol	51-28-5	ug/kg	< 1900	< 2300	NA	< 2500	< 1900	NA	< 855.182	< 2000	< 780.822	< 2000	< 1900	< 1900
2,4-Dinitrotoluene	121-14-2	ug/kg	51	< 460	NA	< 490	< 380	NA	< 428	55	< 390	< 400	41	46
2,6-Dinitrotoluene	606-20-2	ug/kg	21	< 460	NA	< 490	< 380	NA	< 428	< 400	< 390	< 400	< 380	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
2-Chlorophenol	95-57-8	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
2-Nitrophenol	88-75-5	ug/kg	< 370	< 460	NA	< 490	< 380	NA	NA	< 400	NA	< 400	< 380	< 380
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	< 427.591	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 750	< 910	NA	< 980	< 760	NA	< 855.182	< 800	< 780.822	< 800	< 760	< 760
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1900	< 2300	NA	< 2500	< 1900	NA	< 855.182	< 2000	< 780.822	< 2000	< 1900	< 1900
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
4-Nitrophenol	100-02-7	ug/kg	< 1900	< 2300	NA	< 2500	< 1900	NA	NA	< 2000	NA	< 2000	< 1900	< 1900
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	< 855.182	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Acenaphthylene	208-96-8	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Anthracene	120-12-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Benzidine	92-87-5	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	37	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	67	78
Benzo[a]pyrene	50-32-8	ug/kg	35	< 460	NA	28	< 380	NA	< 427.591	37	< 390.411	< 400	63	75
Benzo[b]fluoranthene	205-99-2	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	80	97
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Benzo[k]fluoranthene	207-08-9	ug/kg	< 370	< 460	NA	< 490	< 380	NA	NA	< 400	NA	< 400	< 380	< 380
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	18	24	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	22	< 380	140
Butylbenzylphthalate	85-68-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Chrysene	218-01-9	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	61	72
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A11-1-01	A11-1-04	A11-1-04	A11-3-03	A11-3-05	A11-3-05	A11-570-01	A11-570-05	A11-8-02	A11-8-03	A12-7-03	A12-7-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	6/8/2000	10/8/1999	10/8/1999	6/8/2000	6/8/2000	10/14/1999	6/8/2000	10/14/1999	10/14/1999	10/14/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			A11-1-011N	A11-1-041N	A11-1-042N	A11-3-031N	A11-3-051N	A11-3-051.5N	A11-570-012N	A11-570-051N	A11-8-021.5N	A11-8-032N	A12-7-031N	A12-7-031FD
Parent Sample														A12-7-031N
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (cont)														
Diethylphthalate	84-66-2	ug/kg	19	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Dimethylphthalate	131-11-3	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Di-n-butylphthalate	84-74-2	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	74
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Fluoranthene	206-44-0	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	98	120
Fluorene	86-73-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Hexachlorobenzene	118-74-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	NA	< 400	NA	< 400	< 380	< 380
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Hexachloroethane	67-72-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Isophorone	78-59-1	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Naphthalene	91-20-3	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 427.591	< 400	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	24000	< 390.411	2200	< 380	19
Pentachlorophenol	87-86-5	ug/kg	< 1900	< 2300	NA	< 2500	< 1900	NA	< 855.182	< 2000	< 780.822	< 2000	< 1900	< 1900
Phenanthrene	85-01-8	ug/kg	25	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Phenol	108-95-2	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	< 380
Pyrene	129-00-0	ug/kg	< 370	< 460	NA	< 490	< 380	NA	< 427.591	< 400	< 390.411	< 400	< 380	97

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A11-1-01	A11-1-04	A11-1-04	A11-3-03	A11-3-05	A11-3-05	A11-570-01	A11-570-05	A11-8-02	A11-8-03	A12-7-03	A12-7-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	6/8/2000	10/8/1999	10/8/1999	6/8/2000	6/8/2000	10/14/1999	6/8/2000	10/14/1999	10/14/1999	10/14/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			A11-1-011N	A11-1-041N	A11-1-042N	A11-3-031N	A11-3-051N	A11-3-051.5N	A11-570-012N	A11-570-051N	A11-8-021.5N	A11-8-032N	A12-7-031N	A12-7-031FD
Parent Sample														A12-7-031N
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 240	< 200	NA	< 240	< 220	NA	NA	NA	< 250	< 240	< 220	< 200
1,3-Dinitrobenzene	99-65-0	ug/kg	< 240	< 200	NA	< 240	< 220	NA	NA	NA	< 250	< 240	< 220	100
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 240	< 200	NA	< 240	< 220	NA	NA	NA	< 250	740	390	440
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 240	< 200	NA	< 240	< 220	NA	NA	NA	< 250	< 240	1300	990
2-Nitrotoluene	88-72-2	ug/kg	< 480	< 400	NA	< 480	< 430	NA	NA	NA	< 500	< 480	< 430	< 400
3-Nitrotoluene	99-08-1	ug/kg	< 480	< 400	NA	< 480	< 430	NA	NA	NA	< 500	< 480	< 430	< 400
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 240	< 200	NA	< 240	< 220	NA	NA	NA	< 250	< 240	980	840
4-Nitrotoluene	99-99-0	ug/kg	< 480	< 400	NA	< 480	< 430	NA	NA	NA	< 500	< 480	< 430	< 400
Nitrobenzene	98-95-3	ug/kg	< 240	< 200	NA	< 240	< 220	NA	NA	NA	< 250	< 240	< 220	< 200
Nitrocellulose	9004-70-0	ug/kg	< 39000	< 44.3	60900	88500	< 41.5	< 39903.09	NA	NA	< 40489.07	103000	84100	102000
Nitroglycerin	55-63-0	ug/kg	< 5368.6	< 6354	< 6000	< 7080	< 5183	< 5690	NA	NA	< 5840	< 5537.1	< 5714.3	< 5279.4
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 480	< 400	NA	< 480	< 430	NA	NA	NA	< 500	< 480	< 430	< 400
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 480	< 400	NA	< 480	< 430	NA	NA	NA	< 500	< 480	< 430	< 400
Tetryl	479-45-8	ug/kg	< 480	< 400	NA	< 480	< 430	NA	NA	NA	< 500	< 480	< 430	< 400
Metals														
Antimony	7440-36-0	mg/kg	< 1	< 0.43	NA	< 0.52	< 0.54	NA	< 0.658053	0.52	< 0.6331	< 0.43	< 0.51	< 0.47
Arsenic	7440-38-2	mg/kg	10.1	4.3	NA	3.2	2.1	NA	2.82	4.5	2.06	2.4	2.7	2
Beryllium	7440-41-7	mg/kg	0.38	0.63	NA	0.36	0.39	NA	0.93	0.61	0.126	0.25	0.1	0.11
Cadmium	7440-43-9	mg/kg	0.34	< 0.26	NA	< 0.31	< 0.32	NA	0.693	< 0.28	< 0.31655	< 0.26	< 0.31	< 0.28
Chromium	7440-47-3	mg/kg	12.7	15.9	NA	10.5	11.2	NA	11.5	14.8	9.08	12.8	5.4	6.9
Copper	7440-50-8	mg/kg	19.8	13.1	NA	56	7	NA	7.98	23.8	5.41	27.6	8	7.2
Lead	7439-92-1	mg/kg	1250	679	NA	305	136	NA	36.7	227	13.9	14.1	75.7	33.9
Mercury	7439-97-6	mg/kg	0.15	0.06	NA	0.05	0.03	NA	0.037	0.37	< 0.0376	0.04	0.03	0.05
Nickel	7440-02-0	mg/kg	10	9.3	NA	6.2	5.7	NA	4.69	10.8	2.49	4.3	2.2	3
Selenium	7782-49-2	mg/kg	1.8	1	NA	0.67	0.59	NA	1.65	1	0.606	0.83	1	0.62
Silver	7440-22-4	mg/kg	0.48	< 0.26	NA	< 0.31	< 0.32	NA	0.316	< 0.28	< 0.31655	< 0.26	< 0.31	< 0.28
Thallium	7440-28-0	mg/kg	< 2	< 0.86	NA	< 1	0.68	NA	< 1.096755	< 0.94	< 1.055166	< 0.87	< 1	< 0.93
Zinc	7440-66-6	mg/kg	424	157	NA	39.1	30	NA	39.6	119	11.8	25.9	9.9	16.9

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A11-1-01	A11-1-04	A11-1-04	A11-3-03	A11-3-05	A11-3-05	A11-570-01	A11-570-05	A11-8-02	A11-8-03	A12-7-03	A12-7-03
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	6/8/2000	10/8/1999	10/8/1999	6/8/2000	6/8/2000	10/14/1999	6/8/2000	10/14/1999	10/14/1999	10/14/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	FD
Sample Name			A11-1-011N	A11-1-041N	A11-1-042N	A11-3-031N	A11-3-051N	A11-3-051.5N	A11-570-012N	A11-570-051N	A11-8-021.5N	A11-8-032N	A12-7-031N	A12-7-031FD
Parent Sample														A12-7-031N
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	73500	NA	NA	NA	14200	NA	NA	27700	NA	13800	16300	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
Clay	ARC-PCLAY	%	6.5	NA	NA	NA	10.9	NA	NA	9.8	NA	20.7	5.3	NA
Gravel	ARC-PGRAVEL	%	54.4	NA	NA	NA	26.9	NA	NA	31.3	NA	33	40.6	NA
Sand	ARC-PSAND	%	33.4	NA	NA	NA	46.6	NA	NA	31.9	NA	28.4	45.4	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	5.6	NA	NA	NA	15.6	NA	NA	27	NA	17.8	8.7	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A12-7-04	A12-7-04	A12-7-04	A12-8-05	B10-20-01	B10-20-01	B10-2178-05	B10-2178-05	B10-3-01	B10-3-03	B10-4-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/14/1999	10/14/1999	11/19/1999	10/14/1999	10/15/1999	10/15/1999	11/19/1999	11/19/1999	6/16/2000	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			A12-7-042N	A12-7-042N10/14/1999	A12-7-042N11/19/1999	A12-8-052N	B10-20-011N	B10-20-011FD	B10-2178-051N	B10-2178-051FD	B10-3-011N	B10-3-032N	B10-4-012N
Parent Sample								B10-20-011N		B10-2178-051N			
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A12-7-04	A12-7-04	A12-7-04	A12-8-05	B10-20-01	B10-20-01	B10-2178-05	B10-2178-05	B10-3-01	B10-3-03	B10-4-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/14/1999	10/14/1999	11/19/1999	10/14/1999	10/15/1999	10/15/1999	11/19/1999	11/19/1999	6/16/2000	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			A12-7-042N	A12-7-042N10/14/1999	A12-7-042N11/19/1999	A12-8-052N	B10-20-011N	B10-20-011FD	B10-2178-051N	B10-2178-051FD	B10-3-011N	B10-3-032N	B10-4-012N
Parent Sample								B10-20-011N		B10-2178-051N			
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 2000	NA	< 4400000	< 2300	< 2700	< 2100	< 1900	< 820	< 2500	< 2200
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 400	NA	< 880000	96	190	9700	12000	< 410	< 490	< 440
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 400	NA	< 880000	25	35	1000	1300	< 410	< 490	< 440
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2-Chlorophenol	95-57-8	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2-Nitrophenol	88-75-5	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 800	NA	< 1800000	< 920	< 1100	< 840	< 770	< 820	< 980	< 890
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 2000	NA	< 4400000	< 930	< 2700	< 2100	< 1900	< 820	< 2500	< 2200
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
4-Nitrophenol	100-02-7	ug/kg	NA	< 2000	NA	< 4400000	< 2300	< 2700	< 2100	< 1900	< 820	< 2500	< 2200
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Acenaphthylene	208-96-8	ug/kg	NA	19	NA	< 880000	26	43	110	92	21.3	< 490	< 440
Anthracene	120-12-7	ug/kg	NA	64	NA	< 880000	31	67	130	120	48.8	< 490	< 440
Benzidine	92-87-5	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	240	NA	< 880000	190	410	530	570	261	69	< 440
Benzo[a]pyrene	50-32-8	ug/kg	NA	200	NA	< 880000	190	390	410	390	214	59	< 440
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	280	NA	< 880000	380	670	1200	1100	285	< 490	< 440
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 400	NA	< 880000	250	300	230	200	145	< 490	< 440
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	100	NA	< 880000	170	320	410	380	< 410	< 490	< 440
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	20	NA	< 880000	74	120	< 420	58	< 410	< 490	< 440
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Chrysene	218-01-9	ug/kg	NA	190	NA	< 880000	280	440	800	810	240	68	< 440
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A12-7-04	A12-7-04	A12-7-04	A12-8-05	B10-20-01	B10-20-01	B10-2178-05	B10-2178-05	B10-3-01	B10-3-03	B10-4-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/14/1999	10/14/1999	11/19/1999	10/14/1999	10/15/1999	10/15/1999	11/19/1999	11/19/1999	6/16/2000	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			A12-7-042N	A12-7-042N10/14/1999	A12-7-042N11/19/1999	A12-8-052N	B10-20-011N	B10-20-011FD	B10-2178-051N	B10-2178-051FD	B10-3-011N	B10-3-032N	B10-4-012N
Parent Sample								B10-20-011N		B10-2178-051N			
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (cont)													
Diethylphthalate	84-66-2	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Dimethylphthalate	131-11-3	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Di-n-butylphthalate	84-74-2	ug/kg	NA	86	NA	< 880000	< 460	< 550	51	320	< 410	< 490	< 440
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Fluoranthene	206-44-0	ug/kg	NA	420	NA	< 880000	360	550	890	1100	568	140	< 440
Fluorene	86-73-7	ug/kg	NA	< 400	NA	< 880000	23	< 550	20	< 380	< 410	< 490	< 440
Hexachlorobenzene	118-74-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Hexachloroethane	67-72-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 400	NA	< 880000	210	300	230	220	110	< 490	< 440
Isophorone	78-59-1	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Naphthalene	91-20-3	ug/kg	NA	< 400	NA	< 880000	< 460	25	36	34	< 410	< 490	< 440
Nitrobenzene	98-95-3	ug/kg	NA	< 400	NA	NA	< 460	< 550	NA	NA	< 410	< 490	< 440
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Pentachlorophenol	87-86-5	ug/kg	NA	< 2000	NA	< 4400000	< 2300	< 2700	< 2100	< 1900	< 820	< 2500	< 2200
Phenanthrene	85-01-8	ug/kg	NA	150	NA	< 880000	200	320	240	300	285	50	< 440
Phenol	108-95-2	ug/kg	NA	< 400	NA	< 880000	< 460	< 550	< 420	< 380	< 410	< 490	< 440
Pyrene	129-00-0	ug/kg	NA	320	NA	< 880000	480	1000	890	1100	498	< 490	< 440

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A12-7-04	A12-7-04	A12-7-04	A12-8-05	B10-20-01	B10-20-01	B10-2178-05	B10-2178-05	B10-3-01	B10-3-03	B10-4-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/14/1999	10/14/1999	11/19/1999	10/14/1999	10/15/1999	10/15/1999	11/19/1999	11/19/1999	6/16/2000	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			A12-7-042N	A12-7-042N10/14/1999	A12-7-042N11/19/1999	A12-8-052N	B10-20-011N	B10-20-011FD	B10-2178-051N	B10-2178-051FD	B10-3-011N	B10-3-032N	B10-4-012N
Parent Sample								B10-20-011N		B10-2178-051N			
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 240	45000	NA	NA	1200	1100	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 240	3100	NA	NA	3700	5200	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	3200	14600000	NA	NA	4600	710	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 240	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	8100	< 220	NA	NA	< 250	< 220	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 480	< 430	NA	NA	210	270	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 480	< 430	NA	NA	< 500	< 430	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	5700	< 220	NA	NA	800	210	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 480	< 430	NA	NA	440	650	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 240	< 220	NA	NA	250	410	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	161000	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	< 6376.5	NA	NA	3300	4100	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	< 480	< 430	NA	NA	< 500	< 430	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	1300	1600	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 480	< 430	NA	NA	< 500	< 430	NA	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	< 480	< 430	NA	NA	< 500	< 430	NA	NA	NA
Metals													
Antimony	7440-36-0	mg/kg	NA	< 0.58	NA	< 0.56	< 11.6	7.7	21.8	2.2	< 0.697	< 0.64	< 0.55
Arsenic	7440-38-2	mg/kg	NA	5.2	NA	6.3	41	37.6	274	334	4.7	4.5	3.6
Beryllium	7440-41-7	mg/kg	NA	0.85	NA	0.67	0.54	0.51	< 30	0.33	0.642	0.77	0.69
Cadmium	7440-43-9	mg/kg	NA	< 0.35	NA	< 0.34	6.1	8.8	< 30	1	0.246	0.05	< 0.33
Chromium	7440-47-3	mg/kg	NA	22.7	NA	22.9	27	39.6	16.6	13.3	16.2	19.1	18.8
Copper	7440-50-8	mg/kg	NA	16.8	NA	874	128	177	48500	211	18.6	18.8	20.6
Lead	7439-92-1	mg/kg	NA	26.9	NA	1290	5570	8400	270	318	213	111	41.7
Mercury	7439-97-6	mg/kg	0.08	NA	NA	0.21	0.49	0.53	0.13	0.15	0.097	0.05	0.04
Nickel	7440-02-0	mg/kg	NA	14.7	NA	17.2	21.3	34.3	71.4	10.7	8.5	11.3	12.7
Selenium	7782-49-2	mg/kg	NA	0.93	NA	1.1	< 11.6	< 12.5	15.8	1	1.23	0.57	< 0.55
Silver	7440-22-4	mg/kg	NA	< 0.35	NA	< 0.34	< 7	3.4	< 30	< 0.22	< 0.348	< 0.38	< 0.33
Thallium	7440-28-0	mg/kg	NA	< 1.2	NA	< 1.1	< 23.2	< 25	< 100	< 0.82	< 1.16	< 1.3	< 1.1
Zinc	7440-66-6	mg/kg	NA	89.8	NA	211	4810	4430	27700	652	35.4	41.8	37.7

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			A12-7-04	A12-7-04	A12-7-04	A12-8-05	B10-20-01	B10-20-01	B10-2178-05	B10-2178-05	B10-3-01	B10-3-03	B10-4-01
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			10/14/1999	10/14/1999	11/19/1999	10/14/1999	10/15/1999	10/15/1999	11/19/1999	11/19/1999	6/16/2000	10/15/1999	10/15/1999
Sample Type			N	N	N	N	N	FD	N	FD	N	N	N
Sample Name			A12-7-042N	A12-7-042N10/14/1999	A12-7-042N11/19/1999	A12-8-052N	B10-20-011N	B10-20-011FD	B10-2178-051N	B10-2178-051FD	B10-3-011N	B10-3-032N	B10-4-012N
Parent Sample								B10-20-011N		B10-2178-051N			
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	6.37	6.58	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	26500	182000	NA	NA	NA	NA	12500	7230
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	16.6	NA	NA	8.6	3	NA	NA	NA	NA	21.4	14.8
Gravel	ARC-PGRAVEL	%	24.5	NA	NA	38.6	70.6	NA	NA	NA	NA	12	19.3
Sand	ARC-PSAND	%	13.9	NA	NA	38.3	23.1	NA	NA	NA	NA	37.3	43.9
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	45	NA	NA	14.5	3.3	NA	NA	NA	NA	29.3	22

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B10-4-02	B10-503-01	B10-503-02	B10-503-06	B10-506-02	B10-506-04	B10-656-02	B10-656-02	B10-7-02	B10-7-10	B11-2-03	B11-2044-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			6/16/2000	10/11/1999	10/11/1999	10/12/1999	10/14/1999	7/21/2000	11/18/1999	10/12/1999	11/18/1999	11/18/1999	10/12/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B10-4-022N	B10-503-012N	B10-503-021N	B10-503-062N	B10-506-021N	B10-506-042N	B10-656-021.5N	B10-656-022N	B10-7-021N	B10-7-101N	B11-2-032N	B11-2044-030.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B10-4-02	B10-503-01	B10-503-02	B10-503-06	B10-506-02	B10-506-04	B10-656-02	B10-656-02	B10-7-02	B10-7-10	B11-2-03	B11-2044-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			6/16/2000	10/11/1999	10/11/1999	10/12/1999	10/14/1999	7/21/2000	11/18/1999	10/12/1999	11/18/1999	11/18/1999	10/12/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B10-4-022N	B10-503-012N	B10-503-021N	B10-503-062N	B10-506-021N	B10-506-042N	B10-656-021.5N	B10-656-022N	B10-7-021N	B10-7-101N	B11-2-032N	B11-2044-030.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	< 779	< 2000	< 1900	< 2100	< 2000	< 876	NA	< 1900	< 1900	< 1900	< 2000	< 2100
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	< 400	< 380	670	< 400	6400	NA	< 390	< 380	120	< 410	< 410
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	< 400	< 380	63	< 400	578	NA	< 390	59	26	< 410	< 410
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2-Chlorophenol	95-57-8	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2-Nitrophenol	88-75-5	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 779	< 800	< 760	< 820	< 800	< 876	NA	< 780	< 760	< 770	< 810	< 820
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 779	< 2000	< 1900	< 2100	< 2000	< 876	NA	< 1900	< 1900	< 1900	< 2000	< 2100
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
4-Nitrophenol	100-02-7	ug/kg	< 779	< 2000	< 1900	< 2100	< 2000	< 876	NA	< 1900	< 1900	< 1900	< 2000	< 2100
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Acenaphthylene	208-96-8	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Anthracene	120-12-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	100	< 380	< 410	< 410
Benzidine	92-87-5	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 380	< 380	NA	< 410
Benzo[a]anthracene	56-55-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	120	< 380	< 410	< 410
Benzo[a]pyrene	50-32-8	ug/kg	< 390	< 400	< 380	< 410	23	< 438	NA	< 390	< 380	< 380	< 410	< 410
Benzo[b]fluoranthene	205-99-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	160	< 380	< 410	< 410
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	NA	NA	< 410	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	< 400	28	< 410	< 400	68.3	NA	22	< 380	< 380	24	200
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Chrysene	218-01-9	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	130	< 380	< 410	< 410
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B10-4-02	B10-503-01	B10-503-02	B10-503-06	B10-506-02	B10-506-04	B10-656-02	B10-656-02	B10-7-02	B10-7-10	B11-2-03	B11-2044-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			6/16/2000	10/11/1999	10/11/1999	10/12/1999	10/14/1999	7/21/2000	11/18/1999	10/12/1999	11/18/1999	11/18/1999	10/12/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B10-4-022N	B10-503-012N	B10-503-021N	B10-503-062N	B10-506-021N	B10-506-042N	B10-656-021.5N	B10-656-022N	B10-7-021N	B10-7-101N	B11-2-032N	B11-2044-030.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Semivolatile Organic Compounds (cont)														
Diethylphthalate	84-66-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Dimethylphthalate	131-11-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Di-n-butylphthalate	84-74-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	120	< 380	< 410	93
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Fluoranthene	206-44-0	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	92	< 380	< 410	< 410
Fluorene	86-73-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Hexachlorobenzene	118-74-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Hexachloroethane	67-72-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Isophorone	78-59-1	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Naphthalene	91-20-3	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Nitrobenzene	98-95-3	ug/kg	< 390	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 410	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Pentachlorophenol	87-86-5	ug/kg	< 779	< 2000	< 1900	< 2100	< 2000	< 876	NA	< 1900	< 1900	< 1900	< 2000	< 2100
Phenanthrene	85-01-8	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	100	< 380	< 410	< 410
Phenol	108-95-2	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	< 380	< 380	< 410	< 410
Pyrene	129-00-0	ug/kg	< 390	< 400	< 380	< 410	< 400	< 438	NA	< 390	260	< 380	< 410	< 410

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B10-4-02	B10-503-01	B10-503-02	B10-503-06	B10-506-02	B10-506-04	B10-656-02	B10-656-02	B10-7-02	B10-7-10	B11-2-03	B11-2044-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			6/16/2000	10/11/1999	10/11/1999	10/12/1999	10/14/1999	7/21/2000	11/18/1999	10/12/1999	11/18/1999	11/18/1999	10/12/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B10-4-022N	B10-503-012N	B10-503-021N	B10-503-062N	B10-506-021N	B10-506-042N	B10-656-021.5N	B10-656-022N	B10-7-021N	B10-7-101N	B11-2-032N	B11-2044-030.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Explosives & Energetics														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 220	< 230	< 217.4	< 210	< 250	NA	< 208.4	< 643468	< 700869	NA	< 150
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 220	< 230	< 217.4	< 210	821	NA	< 208.4	< 643468	< 700869	NA	< 150
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 220	< 230	< 217.4	< 210	< 250	NA	< 208.4	22600000	28900000	NA	85
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	150	< 230	1351.7	< 210	< 250	NA	508.3	< 643468	< 700869	NA	270
2-Nitrotoluene	88-72-2	ug/kg	NA	< 430	< 450	< 434.8	< 420	671	NA	< 416.7	< 1286935	< 1401738	NA	< 310
3-Nitrotoluene	99-08-1	ug/kg	NA	< 430	< 450	< 434.8	< 420	276	NA	< 416.7	< 1286935	< 1401738	NA	< 310
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	150	< 230	1290	< 210	1830	NA	433.8	< 643468	< 700869	NA	200
4-Nitrotoluene	99-99-0	ug/kg	NA	< 430	< 450	< 434.8	< 420	2310	NA	< 416.7	< 1286935	< 1401738	NA	< 310
Nitrobenzene	98-95-3	ug/kg	NA	< 220	< 230	< 217.4	< 210	244	NA	< 208.4	< 643468	< 700869	NA	< 150
Nitrocellulose	9004-70-0	ug/kg	NA	90100	37600	109000	116000	< 46	NA	45500	NA	NA	NA	126000
Nitroglycerin	55-63-0	ug/kg	NA	< 6016.8	< 5386.8	< 5763.5	< 5814.1	< 6610	NA	< 5705.3	< 1400000	< 1300000	NA	2800
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 430	< 450	< 434.8	< 420	< 500	NA	< 416.7	< 1286935	< 1401738	NA	< 310
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 430	< 450	< 434.8	< 420	< 500	NA	< 416.7	< 1286935	< 1401738	NA	< 310
Tetryl	479-45-8	ug/kg	NA	< 430	< 450	< 434.8	< 420	< 500	NA	< 416.7	< 1286935	< 1401738	NA	< 310
Metals														
Antimony	7440-36-0	mg/kg	< 0.682	< 0.47	< 0.51	< 0.47	< 0.51	< 0.496	NA	< 0.5	0.51	0.57	< 0.45	< 0.54
Arsenic	7440-38-2	mg/kg	3.49	4.3	2.3	4	4.8	5.92	NA	4	6.1	5.4	3.5	20
Beryllium	7440-41-7	mg/kg	0.314	0.84	0.54	0.4	0.5	0.735	NA	0.64	0.76	0.45	0.44	0.68
Cadmium	7440-43-9	mg/kg	0.123	0.03	0.7	< 0.28	< 0.31	0.739	NA	< 0.3	0.44	0.05	< 0.27	< 0.33
Chromium	7440-47-3	mg/kg	16.1	21.2	9.5	18.4	17	17.9	NA	18.8	18.4	13	16.6	75.2
Copper	7440-50-8	mg/kg	14.7	15.7	12.2	18	64.1	20.2	NA	16.7	22.1	37.9	13.6	19.9
Lead	7439-92-1	mg/kg	11.6	25.1	162	244	250	21.7	NA	7.3	1080	658	26.6	63.8
Mercury	7439-97-6	mg/kg	0.034	0.03	0.03	0.11	0.09	0.436	NA	0.02	0.07	0.06	0.05	0.04
Nickel	7440-02-0	mg/kg	7.86	11.5	6.7	6.5	10.3	11.8	NA	11.3	10	7.5	5.9	7.8
Selenium	7782-49-2	mg/kg	1.07	0.41	< 0.51	1.1	1.2	1.12	NA	0.74	0.85	0.64	0.74	0.24
Silver	7440-22-4	mg/kg	< 0.341	< 0.28	< 0.31	< 0.28	< 0.31	< 0.248	NA	< 0.3	< 0.28	0.08	< 0.27	< 0.33
Thallium	7440-28-0	mg/kg	< 1.14	< 0.93	< 1	< 0.93	< 1	< 0.827	NA	< 1	< 0.98	< 0.82	0.53	< 1.1
Zinc	7440-66-6	mg/kg	27.5	80.4	366	79.4	50.6	65.4	NA	46.6	281	76.1	30.9	129

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B10-4-02	B10-503-01	B10-503-02	B10-503-06	B10-506-02	B10-506-04	B10-656-02	B10-656-02	B10-7-02	B10-7-10	B11-2-03	B11-2044-03
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
Collection Date			6/16/2000	10/11/1999	10/11/1999	10/12/1999	10/14/1999	7/21/2000	11/18/1999	10/12/1999	11/18/1999	11/18/1999	10/12/1999	11/9/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			B10-4-022N	B10-503-012N	B10-503-021N	B10-503-062N	B10-506-021N	B10-506-042N	B10-656-021.5N	B10-656-022N	B10-7-021N	B10-7-101N	B11-2-032N	B11-2044-030.5N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNIT***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	4.41	NA	5.79	5.36	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	17100	32400	NA	NA	9540	NA	7640	23000	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
Clay	ARC-PCLAY	%	NA	NA	NA	11.8	13	NA	NA	16.1	NA	4.9	13.3	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	28	33.7	NA	NA	20.6	NA	31.1	34.4	NA
Sand	ARC-PSAND	%	NA	NA	NA	33.8	33.4	NA	NA	40.5	NA	53	33.9	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	26.4	19.9	NA	NA	22.8	NA	11	18.4	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B11-2044-05	B11-2044-06	B11-2044C-01	B11-2044C-05	B11-523-01	B11-523-03	B11-602C-07	B11-602C-08	B11-663-04	B12-237-01	B12-3-01
Depths			0.0-0.5 ft	0.0-0.7 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.3 ft
Collection Date			11/9/1999	11/9/1999	11/5/1999	11/5/1999	6/8/2000	10/12/1999	10/14/1999	10/14/1999	10/15/1999	10/14/1999	10/13/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-050.5N	B11-2044-060.7N	B11-2044C-012N	B11-2044C-052N	B11-523-012N	B11-523-032N	B11-602C-071N	B11-602C-081N	B11-663-041N	B12-237-011.5N	B12-3-010.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B11-2044-05	B11-2044-06	B11-2044C-01	B11-2044C-05	B11-523-01	B11-523-03	B11-602C-07	B11-602C-08	B11-663-04	B12-237-01	B12-3-01
Depths			0.0-0.5 ft	0.0-0.7 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.3 ft
Collection Date			11/9/1999	11/9/1999	11/5/1999	11/5/1999	6/8/2000	10/12/1999	10/14/1999	10/14/1999	10/15/1999	10/14/1999	10/13/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-050.5N	B11-2044-060.7N	B11-2044C-012N	B11-2044C-052N	B11-523-012N	B11-523-032N	B11-602C-071N	B11-602C-081N	B11-663-041N	B12-237-011.5N	B12-3-010.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
2,4-Dinitrophenol	51-28-5	ug/kg	< 1900	< 2000	< 1900	< 1900	< 843.64	< 2000	NA	< 1900	< 2100	< 2300	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 400	150	26	347	130	NA	1500	230	1700	98
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 400	57	< 390	33.3	< 410	NA	< 390	62	1600	95
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
2-Chlorophenol	95-57-8	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
2-Nitrophenol	88-75-5	ug/kg	< 370	< 400	< 370	< 390	NA	< 410	NA	< 390	< 420	< 460	< 460
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 421.82	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 750	< 800	< 750	< 780	< 843.64	< 810	NA	< 780	< 830	< 920	< 920
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 1900	< 2000	< 1900	< 1900	< 843.64	< 2000	NA	< 1900	< 2100	< 2300	< 2300
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
4-Nitrophenol	100-02-7	ug/kg	< 1900	< 2000	< 1900	< 1900	NA	< 2000	NA	< 1900	< 2100	< 2300	< 2300
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 843.64	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Acenaphthylene	208-96-8	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	19	39	< 460	< 460
Anthracene	120-12-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	64	58	170	< 460
Benzidine	92-87-5	ug/kg	< 370	< 400	< 370	< 390	169	< 410	NA	< 390	< 420	< 460	< 460
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	< 370	< 400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 370	< 400	< 370	45	619	< 410	NA	560	540	1600	40
Benzo[a]pyrene	50-32-8	ug/kg	< 370	< 400	< 370	40	1160	< 410	NA	520	580	1500	77
Benzo[b]fluoranthene	205-99-2	ug/kg	< 370	< 400	< 370	< 390	786	< 410	NA	770	870	2600	130
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	< 370	< 390	< 421.82	< 410	NA	150	400	630	< 460
Benzo[k]fluoranthene	207-08-9	ug/kg	< 370	< 400	< 370	< 390	NA	< 410	NA	270	210	760	< 460
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	40	310	< 370	< 390	< 421.82	33	NA	22	22	20	23
Butylbenzylphthalate	85-68-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Chrysene	218-01-9	ug/kg	< 370	< 400	< 370	36	602	< 410	NA	< 390	500	1500	83
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 370	< 400	< 370	< 390	461	< 410	NA	< 390	150	230	< 460

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B11-2044-05	B11-2044-06	B11-2044C-01	B11-2044C-05	B11-523-01	B11-523-03	B11-602C-07	B11-602C-08	B11-663-04	B12-237-01	B12-3-01
Depths			0.0-0.5 ft	0.0-0.7 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.3 ft
Collection Date			11/9/1999	11/9/1999	11/5/1999	11/5/1999	6/8/2000	10/12/1999	10/14/1999	10/14/1999	10/15/1999	10/14/1999	10/13/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-050.5N	B11-2044-060.7N	B11-2044C-012N	B11-2044C-052N	B11-523-012N	B11-523-032N	B11-602C-071N	B11-602C-081N	B11-663-041N	B12-237-011.5N	B12-3-010.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (cont)													
Diethylphthalate	84-66-2	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Dimethylphthalate	131-11-3	ug/kg	< 370	44	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Di-n-butylphthalate	84-74-2	ug/kg	92	180	< 370	< 390	186	< 410	NA	< 390	< 420	< 460	< 460
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Fluoranthene	206-44-0	ug/kg	< 370	< 400	< 370	72	98.7	< 410	NA	700	630	2600	< 460
Fluorene	86-73-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Hexachlorobenzene	118-74-1	ug/kg	< 370	< 400	< 370	< 390	NA	< 410	NA	< 390	< 420	< 460	< 460
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Hexachloroethane	67-72-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 370	< 400	< 370	< 390	443	< 410	NA	160	330	640	< 460
Isophorone	78-59-1	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Naphthalene	91-20-3	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 370	< 390	< 421.82	< 410	NA	< 390	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 370	380	< 370	< 390	< 421.82	< 410	NA	78	< 420	< 460	< 460
Pentachlorophenol	87-86-5	ug/kg	< 1900	< 2000	< 1900	< 1900	< 843.64	< 2000	NA	< 1900	< 2100	< 2300	< 2300
Phenanthrene	85-01-8	ug/kg	< 370	< 400	< 370	< 390	75.5	< 410	NA	310	120	380	35
Phenol	108-95-2	ug/kg	< 370	< 400	< 370	< 390	< 421.82	< 410	NA	< 390	< 420	< 460	< 460
Pyrene	129-00-0	ug/kg	< 370	< 400	< 370	< 390	278	< 410	NA	< 390	620	2400	< 460

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B11-2044-05	B11-2044-06	B11-2044C-01	B11-2044C-05	B11-523-01	B11-523-03	B11-602C-07	B11-602C-08	B11-663-04	B12-237-01	B12-3-01
Depths			0.0-0.5 ft	0.0-0.7 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.3 ft
Collection Date			11/9/1999	11/9/1999	11/5/1999	11/5/1999	6/8/2000	10/12/1999	10/14/1999	10/14/1999	10/15/1999	10/14/1999	10/13/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-050.5N	B11-2044-060.7N	B11-2044C-012N	B11-2044C-052N	B11-523-012N	B11-523-032N	B11-602C-071N	B11-602C-081N	B11-663-041N	B12-237-011.5N	B12-3-010.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 130	< 140	NA	NA	NA	NA	< 240	NA	120	< 230	< 192.3
1,3-Dinitrobenzene	99-65-0	ug/kg	< 130	< 140	NA	NA	NA	NA	< 240	NA	< 220	870	< 192.3
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 130	< 140	NA	NA	NA	NA	120	NA	20000	1600	287.5
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 130	160	NA	NA	NA	NA	< 240	NA	< 220	18000	3760.8
2-Nitrotoluene	88-72-2	ug/kg	< 270	< 290	NA	NA	NA	NA	< 480	NA	< 430	< 450	< 384.6
3-Nitrotoluene	99-08-1	ug/kg	< 270	< 290	NA	NA	NA	NA	< 480	NA	< 430	< 450	< 384.6
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 130	120	NA	NA	NA	NA	< 240	NA	2100	8500	1925.4
4-Nitrotoluene	99-99-0	ug/kg	< 270	< 290	NA	NA	NA	NA	< 480	NA	< 430	< 450	< 384.6
Nitrobenzene	98-95-3	ug/kg	< 130	< 140	NA	NA	NA	NA	< 240	NA	< 220	< 230	< 192.3
Nitrocellulose	9004-70-0	ug/kg	116000	407000	NA	NA	NA	NA	97100	NA	94500	124000	141000
Nitroglycerin	55-63-0	ug/kg	< 4900	13000	NA	NA	NA	NA	< 5224.7	NA	< 621.9	< 6973.5	< 6822.4
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 270	< 290	NA	NA	NA	NA	< 480	NA	< 430	< 450	< 384.6
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 270	< 290	NA	NA	NA	NA	< 480	NA	< 430	< 450	< 384.6
Tetryl	479-45-8	ug/kg	< 270	< 290	NA	NA	NA	NA	< 480	NA	< 430	870	< 384.6
Metals													
Antimony	7440-36-0	mg/kg	< 0.32	< 0.48	< 0.53	< 0.54	< 0.633152	0.29	NA	< 2.3	< 0.52	< 5.7	NA
Arsenic	7440-38-2	mg/kg	3.7	10.4	6.1	4.5	3	5.8	NA	7	3.8	28.3	NA
Beryllium	7440-41-7	mg/kg	0.41	0.81	0.63	0.79	0.527	0.47	NA	0.5	0.24	0.46	NA
Cadmium	7440-43-9	mg/kg	< 0.19	1	0.04	< 0.32	0.283	< 0.31	NA	13.1	0.08	1.6	NA
Chromium	7440-47-3	mg/kg	16.6	15.2	14	16.2	11.4	20.6	NA	12.8	11.9	21.6	NA
Copper	7440-50-8	mg/kg	16.2	36	18.1	15.3	10.3	35.5	NA	34.7	21.4	644	NA
Lead	7439-92-1	mg/kg	74.5	489	30.6	24.5	72.4	279	NA	858	176	1540	NA
Mercury	7439-97-6	mg/kg	0.06	0.47	0.03	0.05	0.143	3.1	NA	0.11	0.08	0.08	NA
Nickel	7440-02-0	mg/kg	5	9.1	7.6	6.7	5.99	9.1	NA	10.5	6.2	50.2	NA
Selenium	7782-49-2	mg/kg	0.38	0.26	0.82	0.95	0.717	0.72	NA	1.3	0.64	6.3	NA
Silver	7440-22-4	mg/kg	< 0.19	< 0.29	< 0.32	< 0.32	< 0.316576	< 0.31	NA	0.83	0.13	1.4	NA
Thallium	7440-28-0	mg/kg	< 0.65	< 0.97	< 1.1	< 1.1	< 1.055253	< 1	NA	< 4.5	< 1	< 11.4	NA
Zinc	7440-66-6	mg/kg	68.3	340	123	79.5	37.5	55	NA	3990	134	2720	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B11-2044-05	B11-2044-06	B11-2044C-01	B11-2044C-05	B11-523-01	B11-523-03	B11-602C-07	B11-602C-08	B11-663-04	B12-237-01	B12-3-01
Depths			0.0-0.5 ft	0.0-0.7 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.3 ft
Collection Date			11/9/1999	11/9/1999	11/5/1999	11/5/1999	6/8/2000	10/12/1999	10/14/1999	10/14/1999	10/15/1999	10/14/1999	10/13/1999
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			B11-2044-050.5N	B11-2044-060.7N	B11-2044C-012N	B11-2044C-052N	B11-523-012N	B11-523-032N	B11-602C-071N	B11-602C-081N	B11-663-041N	B12-237-011.5N	B12-3-010.25N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	12000	6850	NA	NA	24000	NA	54400	19700	76000	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	NA	NA	5.3	NA	NA	22.1	NA	10.9	16.4	23.5	NA
Gravel	ARC-PGRAVEL	%	NA	NA	35.7	NA	NA	39.1	NA	29.9	19.2	33.9	NA
Sand	ARC-PSAND	%	NA	NA	47.7	NA	NA	21.7	NA	39.5	42.4	20.1	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	11.2	NA	NA	17.1	NA	19.6	22.1	22.5	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B12-3-02	B12-450-03	B13-682-03	B13-682-04	B13-682-06	B13-724-01	B13-724-01	B13-724-01	B13-724-01	B13-724-05	B13-724-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			10/13/1999	10/15/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	7/21/2000	7/21/2000	7/21/2000	10/8/1999	10/8/1999
Sample Type			N	N	N	N	N	N	FD	N	FD	N	FD
Sample Name			B12-3-022N	B12-450-032N	B13-682-030.8N	B13-682-041.3N	B13-682-061N	B13-724-012N	B13-724-012FD	B13-724-010.5N	B13-724-010.5FD	B13-724-050.5N	B13-724-050.5FD
Parent Sample									B13-724-012N		B13-724-010.5N		B13-724-050.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 620	< 620
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1070	< 1080	< 1200	< 1200
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2140	< 2160	< 2500	< 2500
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 5340	< 5390	< 620	< 620
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1070	< 1080	< 1200	< 1200
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1070	< 1080	< 1200	< 1200
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 1070	< 1080	420	220
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 2140	< 2160	< 620	< 520
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 539	NA	< 620
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 534	< 539	< 620	< 620
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	< 1200
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B12-3-02	B12-450-03	B13-682-03	B13-682-04	B13-682-06	B13-724-01	B13-724-01	B13-724-01	B13-724-01	B13-724-05	B13-724-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			10/13/1999	10/15/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	7/21/2000	7/21/2000	7/21/2000	10/8/1999	10/8/1999
Sample Type			N	N	N	N	N	N	FD	N	FD	N	FD
Sample Name			B12-3-022N	B12-450-032N	B13-682-030.8N	B13-682-041.3N	B13-682-061N	B13-724-012N	B13-724-012FD	B13-724-010.5N	B13-724-010.5FD	B13-724-050.5N	B13-724-050.5FD
Parent Sample									B13-724-012N		B13-724-010.5N		B13-724-050.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2100	< 2400	< 2000	< 2800	< 2300	16800	< 80200	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 420	54	150	800	940	278000	196000	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 420	22	130	200	63	64900	41000	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 830	< 970	< 790	< 1100	< 910	< 8200	< 80200	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2100	< 2400	< 2000	< 2800	< 2300	< 8200	< 80200	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	< 2100	< 2400	< 2000	< 2800	< 2300	< 8200	< 80200	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	< 420	< 480	19	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	< 420	< 480	28	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 420	< 480	140	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 420	< 480	150	57	< 460	< 4100	< 40100	NA	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 420	< 480	180	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 420	< 480	140	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	23	< 480	34	56	< 460	1080	< 40100	NA	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	< 420	< 480	140	52	< 460	< 4100	< 40100	NA	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B12-3-02	B12-450-03	B13-682-03	B13-682-04	B13-682-06	B13-724-01	B13-724-01	B13-724-01	B13-724-01	B13-724-05	B13-724-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			10/13/1999	10/15/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	7/21/2000	7/21/2000	7/21/2000	10/8/1999	10/8/1999
Sample Type			N	N	N	N	N	N	FD	N	FD	N	FD
Sample Name			B12-3-022N	B12-450-032N	B13-682-030.8N	B13-682-041.3N	B13-682-061N	B13-724-012N	B13-724-012FD	B13-724-010.5N	B13-724-010.5FD	B13-724-050.5N	B13-724-050.5FD
Parent Sample									B13-724-012N		B13-724-010.5N		B13-724-050.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (cont)													
Diethylphthalate	84-66-2	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	< 420	< 480	260	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Isophorone	78-59-1	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	< 2100	< 2400	< 2000	< 2800	< 2300	< 8200	< 80200	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	< 420	< 480	98	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	< 420	< 480	< 400	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	< 420	< 480	260	< 560	< 460	< 4100	< 40100	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B12-3-02	B12-450-03	B13-682-03	B13-682-04	B13-682-06	B13-724-01	B13-724-01	B13-724-01	B13-724-01	B13-724-05	B13-724-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			10/13/1999	10/15/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	7/21/2000	7/21/2000	7/21/2000	10/8/1999	10/8/1999
Sample Type			N	N	N	N	N	N	FD	N	FD	N	FD
Sample Name			B12-3-022N	B12-450-032N	B13-682-030.8N	B13-682-041.3N	B13-682-061N	B13-724-012N	B13-724-012FD	B13-724-010.5N	B13-724-010.5FD	B13-724-050.5N	B13-724-050.5FD
Parent Sample									B13-724-012N		B13-724-010.5N		B13-724-050.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 227.2	< 250	< 230	< 210	< 250	32900	36500	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 227.2	< 250	< 230	3900	1000	9110	9850	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 227.2	1700	490	570	9600	39568000	41650000	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 227.2	3100	< 230	< 210	3200	< 250	< 238	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 454.5	< 500	< 450	< 420	< 500	< 500	< 476	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 454.5	< 500	< 450	< 420	< 500	< 500	< 476	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 227.2	2600	< 230	< 210	< 250	< 250	< 238	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 454.5	< 500	< 450	< 420	< 500	< 500	< 476	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 227.2	< 250	< 230	< 210	< 250	< 250	< 238	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 44.7	1140000	121000	258000	453000	1340000	1410000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 5967.3	2298.1	< 5655.5	< 7739	< 6709.8	476000000	410000000	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 454.5	< 500	< 450	< 420	< 500	701	551	NA	NA	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 454.5	< 500	< 450	< 420	< 500	< 500	< 476	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 454.5	< 500	< 450	< 420	1600	< 500	< 476	NA	NA	NA	NA
Metals													
Antimony	7440-36-0	mg/kg	NA	< 0.64	< 0.53	< 0.69	< 0.38	< 0.671	< 0.493	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	5.4	5.2	17	2.7	4.31	3.83	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.8	0.63	0.88	0.64	0.761	0.697	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	0.11	0.99	< 0.41	< 0.23	1.36	1.13	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	15	20.8	20.4	13.7	14.1	13	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	23.5	33.6	43.1	122	31.3	17.9	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	158	156	82.5	74.5	67	43.9	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	0.06	3.8	0.49	0.02	0.21	0.158	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	10.2	11.7	15.5	7.5	7.97	7.11	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	0.5	1.1	1.7	0.53	1.07	1.1	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	< 0.38	< 0.32	< 0.41	< 0.23	< 0.335	< 0.246	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 1.3	< 1.1	< 1.4	0.5	< 1.12	< 0.821	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	77.1	983	127	80.4	136	342	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B12-3-02	B12-450-03	B13-682-03	B13-682-04	B13-682-06	B13-724-01	B13-724-01	B13-724-01	B13-724-01	B13-724-05	B13-724-05
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft
Collection Date			10/13/1999	10/15/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	7/21/2000	7/21/2000	7/21/2000	10/8/1999	10/8/1999
Sample Type			N	N	N	N	N	N	FD	N	FD	N	FD
Sample Name			B12-3-022N	B12-450-032N	B13-682-030.8N	B13-682-041.3N	B13-682-061N	B13-724-012N	B13-724-012FD	B13-724-010.5N	B13-724-010.5FD	B13-724-050.5N	B13-724-050.5FD
Parent Sample									B13-724-012N		B13-724-010.5N		B13-724-050.5N
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	63600	70000	NA	NA	43800	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	20.7	15.7	NA	NA	5.3	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	25.1	22.7	NA	NA	36.5	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	27.3	35.9	NA	NA	50.1	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	27	25.7	NA	NA	8.1	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B13-724-05	B13-724-05	B13-757-04	B13-757-04	B13-8-04	B13-8-05	C10-2176-01	C10-2176-02	C10-2179-03	C10-432-01	C10-432-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.2 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	11/19/1999	11/19/1999	11/19/1999	9/27/2000	7/13/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			B13-724-052N	B13-724-052FD	B13-757-040.2N	B13-757-042FD	B13-8-042N	B13-8-052N	C10-2176-011.5N	C10-2176-021N	C10-2179-030.5N	C10-432-011N	C10-432-021N
Parent Sample				B13-724-052N		B13-757-040.2N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B13-724-05	B13-724-05	B13-757-04	B13-757-04	B13-8-04	B13-8-05	C10-2176-01	C10-2176-02	C10-2179-03	C10-432-01	C10-432-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.2 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	11/19/1999	11/19/1999	11/19/1999	9/27/2000	7/13/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			B13-724-052N	B13-724-052FD	B13-757-040.2N	B13-757-042FD	B13-8-042N	B13-8-052N	C10-2176-011.5N	C10-2176-021N	C10-2179-030.5N	C10-432-011N	C10-432-021N
Parent Sample				B13-724-052N		B13-757-040.2N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
2,4-Dinitrophenol	51-28-5	ug/kg	< 2000	< 1900	< 2300	< 1900	< 1900	< 805	NA	< 2000	< 20000	< 891	< 789.942
2,4-Dinitrotoluene	121-14-2	ug/kg	< 390	39	510	830	< 370	< 403	NA	240	< 4000	< 446	118
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	21	23	36	< 370	< 403	NA	64	< 4000	< 446	< 395
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
2-Chlorophenol	95-57-8	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
2-Nitrophenol	88-75-5	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 780	< 900	< 750	< 750	< 805	NA	< 790	< 8000	< 891	< 789.942
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 2000	< 1900	< 2300	< 1900	< 1900	< 805	NA	< 2000	< 20000	< 891	< 789.942
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
4-Nitrophenol	100-02-7	ug/kg	< 2000	< 1900	< 2300	< 1900	< 1900	< 805	NA	< 2000	< 20000	< 891	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	33	< 4000	< 446	< 394.971
Acenaphthylene	208-96-8	ug/kg	< 390	< 390	23	16	< 370	< 403	NA	230	< 4000	< 446	< 394.971
Anthracene	120-12-7	ug/kg	< 390	< 390	51	< 370	< 370	< 403	NA	360	< 4000	< 446	< 394.971
Benzidine	92-87-5	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 390	29	180	95	< 370	75.7	NA	1900	< 4000	135	212
Benzo[a]pyrene	50-32-8	ug/kg	< 390	25	170	110	< 370	124	NA	1100	< 4000	130	188
Benzo[b]fluoranthene	205-99-2	ug/kg	< 390	< 390	250	170	< 370	329	NA	2300	< 4000	143	270
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	< 390	< 450	< 370	< 370	138	NA	490	< 4000	< 446	92.03
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	< 390	< 450	66	< 370	< 403	NA	920	< 4000	< 446	90.05
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	19	< 450	< 370	< 370	80.9	NA	170	< 4000	25.9	26.46
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Chrysene	218-01-9	ug/kg	< 390	< 390	200	140	< 370	233	NA	1900	< 4000	139	204
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 390	< 450	< 370	< 370	71.3	NA	< 400	< 4000	< 446	< 394.971

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B13-724-05	B13-724-05	B13-757-04	B13-757-04	B13-8-04	B13-8-05	C10-2176-01	C10-2176-02	C10-2179-03	C10-432-01	C10-432-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.2 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	11/19/1999	11/19/1999	11/19/1999	9/27/2000	7/13/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			B13-724-052N	B13-724-052FD	B13-757-040.2N	B13-757-042FD	B13-8-042N	B13-8-052N	C10-2176-011.5N	C10-2176-021N	C10-2179-030.5N	C10-432-011N	C10-432-021N
Parent Sample				B13-724-052N		B13-757-040.2N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (cont)													
Diethylphthalate	84-66-2	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Dimethylphthalate	131-11-3	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Di-n-butylphthalate	84-74-2	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	46	< 4000	< 446	< 394.971
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Fluoranthene	206-44-0	ug/kg	< 390	< 390	< 450	280	< 370	128	NA	2400	< 4000	266	497
Fluorene	86-73-7	ug/kg	< 390	< 390	510	< 370	< 370	< 403	NA	62	< 4000	< 446	< 394.971
Hexachlorobenzene	118-74-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Hexachloroethane	67-72-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	< 390	< 450	< 370	< 370	107	NA	520	< 4000	69.5	94
Isophorone	78-59-1	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	6200	< 4000	< 446	< 394.971
Naphthalene	91-20-3	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 400	< 4000	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	< 394.971
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	100	< 4000	< 446	< 394.971
Pentachlorophenol	87-86-5	ug/kg	< 2000	< 1900	< 2300	< 1900	< 1900	< 805	NA	< 2000	< 20000	< 891	< 789.942
Phenanthrene	85-01-8	ug/kg	< 390	< 390	240	170	< 370	< 403	NA	880	< 4000	158	140
Phenol	108-95-2	ug/kg	< 390	< 390	< 450	< 370	< 370	< 403	NA	< 400	< 4000	< 446	24.88
Pyrene	129-00-0	ug/kg	< 390	< 390	370	220	< 370	141	NA	3400	< 4000	263	245

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B13-724-05	B13-724-05	B13-757-04	B13-757-04	B13-8-04	B13-8-05	C10-2176-01	C10-2176-02	C10-2179-03	C10-432-01	C10-432-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.2 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	11/19/1999	11/19/1999	11/19/1999	9/27/2000	7/13/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			B13-724-052N	B13-724-052FD	B13-757-040.2N	B13-757-042FD	B13-8-042N	B13-8-052N	C10-2176-011.5N	C10-2176-021N	C10-2179-030.5N	C10-432-011N	C10-432-021N
Parent Sample				B13-724-052N		B13-757-040.2N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 250	< 240	< 210	< 200	< 230	< 227	170	NA	NA	< 90.9	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 250	< 240	1500	1700	< 230	< 227	< 250	NA	NA	< 90.9	< 250
2,4,6-Trinitrotoluene	118-96-7	ug/kg	190	96	1600	720	< 230	1450	12000	NA	NA	< 90.9	2290
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 250	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 250	< 240	1500	860	< 230	217	8500	NA	NA	< 90.9	< 250
2-Nitrotoluene	88-72-2	ug/kg	< 500	< 480	< 420	< 400	< 450	< 455	< 500	NA	NA	< 182	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 500	< 480	< 420	< 400	< 450	< 455	< 500	NA	NA	< 182	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 250	< 240	< 210	< 200	< 230	125	6700	NA	NA	< 90.9	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 500	< 480	< 420	< 400	< 450	< 455	< 500	NA	NA	< 182	< 500
Nitrobenzene	98-95-3	ug/kg	< 250	< 240	< 210	< 200	< 230	< 227	< 250	NA	NA	< 90.9	< 250
Nitrocellulose	9004-70-0	ug/kg	126000	< 41000	140000	111000	80500	62700	NA	NA	NA	< 47.6	82300
Nitroglycerin	55-63-0	ug/kg	< 5328.8	< 5530.7	< 6030.5	< 5624.3	< 5016.3	21700	< 4900	NA	NA	< 6680	< 5648.084
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 500	< 480	< 420	< 400	< 450	< 455	< 500	NA	NA	< 182	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	3800	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 500	< 480	< 420	< 400	< 450	< 455	< 500	NA	NA	< 182	< 500
Tetryl	479-45-8	ug/kg	< 500	< 480	150	< 400	< 450	< 455	< 500	NA	NA	< 182	< 500
Metals													
Antimony	7440-36-0	mg/kg	< 0.54	< 0.48	< 0.4	< 0.45	< 0.48	< 0.584	NA	< 0.49	< 0.49	0.91	< 0.684288
Arsenic	7440-38-2	mg/kg	5.3	5.3	8.2	5.1	3.8	4.16	NA	207	274	5.16	6.29
Beryllium	7440-41-7	mg/kg	0.82	0.79	0.74	0.48	0.61	0.652	NA	0.37	0.5	0.791	0.685
Cadmium	7440-43-9	mg/kg	< 0.32	< 0.29	< 0.24	< 0.27	0.06	0.702	NA	< 0.3	< 0.29	0.204	0.3
Chromium	7440-47-3	mg/kg	19.1	18.8	11	12.7	13.7	16.2	NA	76	44	10.3	16.2
Copper	7440-50-8	mg/kg	17.4	15.9	14.6	14.9	12	57.4	NA	28.5	56	12.7	22.2
Lead	7439-92-1	mg/kg	21.4	24.4	69.2	110	21.7	75.1	NA	377	603	96.8	107
Mercury	7439-97-6	mg/kg	0.06	0.05	0.03	0.03	0.04	0.084	NA	0.31	0.12	0.1	0.097
Nickel	7440-02-0	mg/kg	9.1	9.2	9.1	8.8	7.9	9.94	NA	8.9	11.1	7.75	10.4
Selenium	7782-49-2	mg/kg	1.5	1.1	1.2	0.8	0.78	1.08	NA	0.85	0.9	0.487	1.37
Silver	7440-22-4	mg/kg	< 0.32	< 0.29	< 0.24	< 0.27	< 0.29	< 0.292	NA	< 0.3	< 0.29	< 0.386	< 0.342144
Thallium	7440-28-0	mg/kg	< 1.1	< 0.95	< 0.8	< 0.89	< 0.96	< 0.973	NA	< 0.99	< 0.98	< 1.29	< 1.14048
Zinc	7440-66-6	mg/kg	93.5	98.5	62.1	72.1	153	118	NA	101	183	54.7	59.9

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			B13-724-05	B13-724-05	B13-757-04	B13-757-04	B13-8-04	B13-8-05	C10-2176-01	C10-2176-02	C10-2179-03	C10-432-01	C10-432-02
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-0.2 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
Collection Date			10/8/1999	10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	11/19/1999	11/19/1999	11/19/1999	9/27/2000	7/13/2000
Sample Type			N	FD	N	FD	N	N	N	N	N	N	N
Sample Name			B13-724-052N	B13-724-052FD	B13-757-040.2N	B13-757-042FD	B13-8-042N	B13-8-052N	C10-2176-011.5N	C10-2176-021N	C10-2179-030.5N	C10-432-011N	C10-432-021N
Parent Sample				B13-724-052N		B13-757-040.2N							
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	5.73	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	16700	NA	22500	NA	21900	NA	NA	35500	20000	NA	40200
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	13	NA	2.5	NA	6	NA	NA	10.6	6.6	NA	NA
Gravel	ARC-PGRAVEL	%	23.6	NA	60.4	NA	24.1	NA	NA	32.7	32.4	NA	NA
Sand	ARC-PSAND	%	41	NA	31.3	NA	51.4	NA	NA	42.7	29.4	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.6
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48.7
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	88.4
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66.4
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.3
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.9
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59.5
Silt	ARC-PSILT	%	22.4	NA	5.8	NA	18.5	NA	NA	13.9	31.6	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			C10-438-01	C10-438-05	C10-466-02	C11-30-06	C11-7-02	C12-418-04	C13-1-17	C13-133-03	C13-133-05	C13-2-05	D13-273B-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/21/2000	10/8/1999	10/8/1999	11/12/1999	11/12/1999	7/12/2000	11/2/1999	7/6/2000	11/4/1999	4/18/2000	7/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-438-012N	C10-438-052N	C10-466-021N	C11-30-061N	C11-7-021N	C12-418-041.5N	C13-1-172N	C13-133-032N	C13-133-052N	C13-2-052N	D13-273B-042N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			C10-438-01	C10-438-05	C10-466-02	C11-30-06	C11-7-02	C12-418-04	C13-1-17	C13-133-03	C13-133-05	C13-2-05	D13-273B-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/21/2000	10/8/1999	10/8/1999	11/12/1999	11/12/1999	7/12/2000	11/2/1999	7/6/2000	11/4/1999	4/18/2000	7/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-438-012N	C10-438-052N	C10-466-021N	C11-30-061N	C11-7-021N	C12-418-041.5N	C13-1-172N	C13-133-032N	C13-133-052N	C13-2-052N	D13-273B-042N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
1,2-Dichlorobenzene	95-50-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
1,3-Dichlorobenzene	541-73-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
1,4-Dichlorobenzene	106-46-7	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
2,4-Dichlorophenol	120-83-2	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
2,4-Dimethylphenol	105-67-9	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
2,4-Dinitrophenol	51-28-5	ug/kg	< 796	< 2000	< 2000	< 2100	< 1900	< 758.11	NA	< 884.408	< 2000	< 80	< 745.988
2,4-Dinitrotoluene	121-14-2	ug/kg	< 398	< 390	< 410	< 420	230	94.38	NA	< 442	< 390	< 400	< 373
2,6-Dinitrotoluene	606-20-2	ug/kg	< 398	< 390	< 410	< 420	97	< 379	NA	< 442	< 390	< 400	< 373
2-Chloronaphthalene	91-58-7	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
2-Chlorophenol	95-57-8	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
2-Nitrophenol	88-75-5	ug/kg	< 398	< 390	< 410	< 420	< 370	NA	NA	NA	< 390	< 40	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 442.204	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 796	< 780	< 810	< 830	< 750	< 758.11	NA	< 884.408	< 780	< 80	< 745.988
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 796	< 2000	< 2000	< 2100	< 1900	< 758.11	NA	< 884.408	< 2000	< 80	< 745.988
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
4-Nitrophenol	100-02-7	ug/kg	< 796	< 2000	< 2000	< 2100	< 1900	NA	NA	NA	< 2000	< 80	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	< 884.408	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 398	< 390	42	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Acenaphthylene	208-96-8	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	320
Anthracene	120-12-7	ug/kg	< 398	< 390	120	< 420	< 370	< 379.055	NA	< 442.204	27	< 40	661
Benzidine	92-87-5	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 398	< 390	390	85	< 370	< 379.055	NA	133	130	< 40	2170
Benzo[a]pyrene	50-32-8	ug/kg	< 398	< 390	360	47	< 370	< 379.055	NA	136	98	< 40	1780
Benzo[b]fluoranthene	205-99-2	ug/kg	< 398	< 390	580	89	< 370	< 379.055	NA	172	140	< 40	2380
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 398	< 390	140	< 420	< 370	< 379.055	NA	99.5	87	< 40	863
Benzo[k]fluoranthene	207-08-9	ug/kg	< 398	< 390	160	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	800
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	39.4	< 390	24	57	52	< 379.055	NA	26.1	< 390	< 40	< 372.994
Butylbenzylphthalate	85-68-7	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Chrysene	218-01-9	ug/kg	< 398	< 390	400	78	< 370	< 379.055	NA	129	83	< 40	1760
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			C10-438-01	C10-438-05	C10-466-02	C11-30-06	C11-7-02	C12-418-04	C13-1-17	C13-133-03	C13-133-05	C13-2-05	D13-273B-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/21/2000	10/8/1999	10/8/1999	11/12/1999	11/12/1999	7/12/2000	11/2/1999	7/6/2000	11/4/1999	4/18/2000	7/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-438-012N	C10-438-052N	C10-466-021N	C11-30-061N	C11-7-021N	C12-418-041.5N	C13-1-172N	C13-133-032N	C13-133-052N	C13-2-052N	D13-273B-042N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Semivolatile Organic Compounds (cont)													
Diethylphthalate	84-66-2	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	51	< 372.994
Dimethylphthalate	131-11-3	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Di-n-butylphthalate	84-74-2	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Di-n-octylphthalate	117-84-0	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Fluoranthene	206-44-0	ug/kg	< 398	< 390	970	74	< 370	< 379.055	NA	370	190	< 40	3390
Fluorene	86-73-7	ug/kg	< 398	< 390	43	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Hexachlorobenzene	118-74-1	ug/kg	< 398	< 390	< 410	< 420	< 370	NA	NA	NA	< 390	< 40	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Hexachloroethane	67-72-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 398	< 390	130	< 420	< 370	< 379.055	NA	85.8	< 390	< 40	905
Isophorone	78-59-1	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Naphthalene	91-20-3	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Nitrobenzene	98-95-3	ug/kg	< 398	< 390	NA	NA	NA	NA	NA	< 442.204	< 390	< 40	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	NA	< 390	< 40	NA
Pentachlorophenol	87-86-5	ug/kg	< 796	< 2000	< 2000	< 2100	< 1900	< 758.11	NA	< 884.408	< 2000	< 80	< 745.988
Phenanthrene	85-01-8	ug/kg	< 398	< 390	690	32	< 370	< 379.055	NA	99.9	54	< 40	645
Phenol	108-95-2	ug/kg	< 398	< 390	< 410	< 420	< 370	< 379.055	NA	< 442.204	< 390	< 40	< 372.994
Pyrene	129-00-0	ug/kg	< 398	< 390	790	< 420	< 370	< 379.055	NA	207	220	< 40	1880

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			C10-438-01 0.0-2.0 ft 7/21/2000 N C10-438-012N	C10-438-05 0.0-2.0 ft 10/8/1999 N C10-438-052N	C10-466-02 0.0-1.0 ft 10/8/1999 N C10-466-021N	C11-30-06 0.0-1.0 ft 11/12/1999 N C11-30-061N	C11-7-02 0.0-1.0 ft 11/12/1999 N C11-7-021N	C12-418-04 0.0-1.5 ft 7/12/2000 N C12-418-041.5N	C13-1-17 0.0-2.0 ft 11/2/1999 N C13-1-172N	C13-133-03 0.0-2.0 ft 7/6/2000 N C13-133-032N	C13-133-05 0.0-2.0 ft 11/4/1999 N C13-133-052N	C13-2-05 0.0-2.0 ft 4/18/2000 N C13-2-052N	D13-273B-04 0.0-2.0 ft 7/6/2000 N D13-273B-042N
CONSTITUENT	***CAS NO.***	***UNIT***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 210	< 220	1300	< 192.3	< 4200	NA	NA	NA	< 490.2
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 210	< 220	< 2500	< 192.3	< 4200	NA	NA	NA	< 490.2
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 210	< 220	170000	< 192.3	130000	NA	NA	NA	< 490.2
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	< 4200	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 210	< 220	1400	< 192.3	< 4200	NA	NA	NA	< 490.2
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 420	< 430	< 5000	< 384.6	< 8300	NA	NA	NA	< 980.4
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 420	< 430	< 5000	< 384.6	< 8300	NA	NA	NA	< 980.4
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 210	< 220	< 2500	< 192.3	< 4200	NA	NA	NA	< 490.2
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 420	< 430	< 5000	< 384.6	< 8300	NA	NA	NA	< 980.4
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 210	< 220	< 2500	< 192.3	< 4200	NA	NA	NA	< 490.2
Nitrocellulose	9004-70-0	ug/kg	NA	NA	124000	NA	NA	NA	150000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	< 5276.5	< 4900	< 4500	< 5294.479	< 5000	< 442.204	NA	NA	< 373
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	< 420	< 430	< 5000	< 384.6	< 8300	NA	NA	NA	< 980.4
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 420	< 430	< 5000	< 384.6	< 8300	NA	NA	NA	< 980.4
Tetryl	479-45-8	ug/kg	NA	NA	< 420	< 430	< 5000	< 384.6	< 8300	NA	NA	NA	< 980.4
Metals													
Antimony	7440-36-0	mg/kg	< 0.607	0.21	1	< 0.52	< 0.45	< 0.650459	< 0.43	< 0.737007	< 0.52	< 0.6	< 0.647719
Arsenic	7440-38-2	mg/kg	4.01	4.2	6.9	104	6.9	5.1	4.8	4.39	3.3	4.7	2.32
Beryllium	7440-41-7	mg/kg	0.933	0.92	0.3	1.7	0.26	0.614	0.86	0.571	0.74	0.81	0.415
Cadmium	7440-43-9	mg/kg	0.632	< 0.32	< 0.28	1.4	< 0.27	0.293	0.56	0.902	< 0.31	0.9	0.58
Chromium	7440-47-3	mg/kg	14.4	13.6	16.7	17.5	8	14.1	15.8	16.9	15.6	19.3	11.4
Copper	7440-50-8	mg/kg	10.4	10.2	25	38.9	9.3	12.1	13.2	16.1	12	18.2	9.32
Lead	7439-92-1	mg/kg	34.4	29.6	3070	159	57.2	17.3	21.4	23	9.3	10.1	11.4
Mercury	7439-97-6	mg/kg	0.047	0.04	0.26	0.26	0.03	0.032	0.08	0.107	0.04	< 0	0.079
Nickel	7440-02-0	mg/kg	8.28	8.4	8.1	13.6	2.1	7.83	7.7	8.13	8.1	9.3	5.64
Selenium	7782-49-2	mg/kg	1.04	0.75	0.73	9.5	< 0.45	1.42	0.82	1.19	1	1.2	0.703
Silver	7440-22-4	mg/kg	< 0.303	< 0.32	0.2	0.23	< 0.27	< 0.32523	< 0.26	< 0.368503	< 0.31	< 0.3	< 0.323859
Thallium	7440-28-0	mg/kg	< 1.01	0.58	< 0.93	3.4	< 0.91	< 1.084099	< 0.85	< 1.228344	< 1	< 1	< 1.079531
Zinc	7440-66-6	mg/kg	53.8	54.4	159	443	24	54.7	59.7	62.9	48.5	64.2	40.1

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			C10-438-01	C10-438-05	C10-466-02	C11-30-06	C11-7-02	C12-418-04	C13-1-17	C13-133-03	C13-133-05	C13-2-05	D13-273B-04
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
Collection Date			7/21/2000	10/8/1999	10/8/1999	11/12/1999	11/12/1999	7/12/2000	11/2/1999	7/6/2000	11/4/1999	4/18/2000	7/6/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			C10-438-012N	C10-438-052N	C10-466-021N	C11-30-061N	C11-7-021N	C12-418-041.5N	C13-1-172N	C13-133-032N	C13-133-052N	C13-2-052N	D13-273B-042N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNIT***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	5.66	NA	7.91	7.01	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	50200	63900	74300	2180	9760	NA	NA	16300	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	NA	12.9	7.2	4.7	6.1	NA	NA	NA	11.9	NA	NA
Gravel	ARC-PGRAVEL	%	NA	28.4	27.7	37	27.9	NA	NA	NA	29.9	NA	NA
Sand	ARC-PSAND	%	NA	31.3	50.4	43.8	50.1	NA	NA	NA	37.1	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	96.6	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	100	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	84.6	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	31.9	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	92.7	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	54.6	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	37.4	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	69.9	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	43.9	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	27.5	14.7	14.5	15.9	NA	NA	NA	21	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			D13-273B-04	SB-R-A11-01	SB-R-A11-01	SB-R-A12-04	SB-R-B10-02	SB-R-B11-01	SB-R-B11-03	SB-R-B12-04	SB-R-B13-01	SB-R-B13-03
Depths			0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/6/2000	5/23/2006	5/23/2006	5/24/2006	5/25/2006	5/23/2006	5/25/2006	5/24/2006	5/18/2006	5/19/2006
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			D13-273B-042FD	SB-R-A11-011.0N	SB-R-A11-011.0FD	SB-R-A12-041.0N	SB-R-B10-021.0N	SB-R-B11-011.0N	SB-R-B11-031.0N	SB-R-B12-041.0N	SB-R-B13-011.0N	SB-R-B13-031.0N
Parent Sample			D13-273B-042N		SB-R-A11-011.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 2600	< 2600	< 2800	< 3300	< 3100	< 3300	< 2900	< 3000	< 3000
Benzene	71-43-2	ug/kg	NA	< 660	< 650	< 700	< 810	< 770	< 830	< 730	< 740	< 750
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 660	< 650	< 700	< 810	< 770	< 830	< 730	< 740	< 750
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 660	< 650	< 700	< 810	< 770	< 830	< 730	< 740	< 750
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 660	< 650	< 700	< 810	< 770	< 830	< 730	< 740	< 750
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			D13-273B-04	SB-R-A11-01	SB-R-A11-01	SB-R-A12-04	SB-R-B10-02	SB-R-B11-01	SB-R-B11-03	SB-R-B12-04	SB-R-B13-01	SB-R-B13-03
Depths			0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/6/2000	5/23/2006	5/23/2006	5/24/2006	5/25/2006	5/23/2006	5/25/2006	5/24/2006	5/18/2006	5/19/2006
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			D13-273B-042FD	SB-R-A11-011.0N	SB-R-A11-011.0FD	SB-R-A12-041.0N	SB-R-B10-021.0N	SB-R-B11-011.0N	SB-R-B11-031.0N	SB-R-B12-041.0N	SB-R-B13-011.0N	SB-R-B13-031.0N
Parent Sample			D13-273B-042N		SB-R-A11-011.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 376	< 170	< 180	< 190	< 210	< 190	< 210	< 190	< 200	< 190
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 753	< 2100	< 2100	< 2300	< 2500	< 2300	< 2600	< 2300	< 2400	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	< 376	< 170	< 180	< 190	520	1900	< 210	< 190	< 200	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 376	< 170	< 180	< 190	140	130	< 210	< 190	< 200	< 190
2-Chloronaphthalene	91-58-7	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 753	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 753	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	278	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	587	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1840	< 170	< 180	< 190	260	< 190	< 210	< 190	< 200	< 190
Benzo[a]pyrene	50-32-8	ug/kg	1530	< 170	< 180	< 190	210	< 190	< 210	< 190	< 200	41
Benzo[b]fluoranthene	205-99-2	ug/kg	2090	< 170	< 180	49	410	< 190	48	< 190	< 200	53
Benzo[g,h,i]perylene	191-24-2	ug/kg	762	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	694	< 170	< 180	< 190	140	< 190	< 210	< 190	< 200	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 376	< 350	< 350	< 380	< 420	< 390	< 430	< 390	< 400	< 390
Butylbenzylphthalate	85-68-7	ug/kg	< 376	< 170	< 180	< 190	< 210	< 190	< 210	< 190	< 200	< 190
Chrysene	218-01-9	ug/kg	1540	< 170	< 180	< 190	270	< 190	< 210	< 190	< 200	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 376	< 170	< 180	< 190	45	< 190	< 210	< 190	< 200	< 190

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			D13-273B-04	SB-R-A11-01	SB-R-A11-01	SB-R-A12-04	SB-R-B10-02	SB-R-B11-01	SB-R-B11-03	SB-R-B12-04	SB-R-B13-01	SB-R-B13-03
Depths			0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/6/2000	5/23/2006	5/23/2006	5/24/2006	5/25/2006	5/23/2006	5/25/2006	5/24/2006	5/18/2006	5/19/2006
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			D13-273B-042FD	SB-R-A11-011.0N	SB-R-A11-011.0FD	SB-R-A12-041.0N	SB-R-B10-021.0N	SB-R-B11-011.0N	SB-R-B11-031.0N	SB-R-B12-041.0N	SB-R-B13-011.0N	SB-R-B13-031.0N
Parent Sample			D13-273B-042N		SB-R-A11-011.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (cont)												
Diethylphthalate	84-66-2	ug/kg	< 376	< 170	< 180	< 190	< 210	< 190	< 210	< 190	< 200	< 190
Dimethylphthalate	131-11-3	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	119	< 170	< 180	< 190	< 210	< 190	< 210	< 190	< 200	< 190
Di-n-octylphthalate	117-84-0	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	3270	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	79.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	805	< 170	< 180	< 190	150	< 190	< 210	< 190	< 200	< 190
Isophorone	78-59-1	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 376	< 170	< 180	< 190	< 210	< 190	< 210	< 190	< 200	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 170	< 180	< 190	< 210	< 190	< 210	< 190	< 200	< 190
Pentachlorophenol	87-86-5	ug/kg	< 753	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	871	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	< 376	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	1760	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			D13-273B-04	SB-R-A11-01	SB-R-A11-01	SB-R-A12-04	SB-R-B10-02	SB-R-B11-01	SB-R-B11-03	SB-R-B12-04	SB-R-B13-01	SB-R-B13-03
Depths			0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/6/2000	5/23/2006	5/23/2006	5/24/2006	5/25/2006	5/23/2006	5/25/2006	5/24/2006	5/18/2006	5/19/2006
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			D13-273B-042FD	SB-R-A11-011.0N	SB-R-A11-011.0FD	SB-R-A12-041.0N	SB-R-B10-021.0N	SB-R-B11-011.0N	SB-R-B11-031.0N	SB-R-B12-041.0N	SB-R-B13-011.0N	SB-R-B13-031.0N
Parent Sample			D13-273B-042N		SB-R-A11-011.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 480.775	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 480.775	< 310	< 320	< 340	< 380	220	< 390	< 350	< 360	< 350
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 480.775	< 310	< 320	< 340	740	< 350	< 390	< 350	< 360	< 350
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 480.775	< 310	< 320	< 340	630	< 350	< 390	< 350	< 360	< 350
2-Nitrotoluene	88-72-2	ug/kg	< 961.55	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 961.55	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 480.775	< 310	< 320	< 340	640	< 350	< 390	< 350	< 360	< 350
4-Nitrotoluene	99-99-0	ug/kg	< 961.55	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 480.775	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	< 120000	< 130000	< 140000	< 150000	< 140000	< 150000	< 140000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 376	< 6300	< 6300	< 6800	< 7500	< 7000	< 7700	< 7000	< 7200	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 961.55	< 780	< 790	< 850	< 940	< 870	< 960	< 880	< 900	< 870
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 961.55	< 310	< 320	< 340	< 380	< 350	< 390	< 350	< 360	< 350
Tetryl	479-45-8	ug/kg	< 961.55	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Antimony	7440-36-0	mg/kg	< 0.664	< 2.09	< 2.07	0.935	< 2.48	< 2.22	< 2.55	1.07	< 2.33	1.08
Arsenic	7440-38-2	mg/kg	2.45	< 2.09	< 2.07	2.63	3.89	3.09	4.36	4.25	3.21	3.75
Beryllium	7440-41-7	mg/kg	0.418	< 0.522	< 0.518	0.194	0.688	0.318	0.69	0.384	0.729	0.759
Cadmium	7440-43-9	mg/kg	0.537	< 0.522	< 0.518	< 0.557	< 0.621	< 0.554	< 0.636	< 0.579	< 2.92	< 2.83
Chromium	7440-47-3	mg/kg	10.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	8.56	3.2	3.31	5.98	22.4	8.01	11	15.3	10.3	15.2
Lead	7439-92-1	mg/kg	11.6	26.7	28.9	22	234	242	35.7	19.7	8.86	12
Mercury	7439-97-6	mg/kg	0.06	< 0.102	< 0.101	0.0473	0.0963	0.036	0.0724	0.0384	0.0453	0.0404
Nickel	7440-02-0	mg/kg	5.65	1.09	1.14	3	14.3	5.22	9.44	5.12	9.59	9.28
Selenium	7782-49-2	mg/kg	0.644	< 2.09	< 2.07	< 2.23	< 2.48	< 2.22	1.29	< 2.32	< 2.33	< 2.27
Silver	7440-22-4	mg/kg	< 0.332	< 0.522	< 0.518	< 0.557	< 0.621	< 0.554	0.239	< 0.579	< 0.583	< 0.567
Thallium	7440-28-0	mg/kg	< 1.11	< 2.09	< 2.07	< 2.23	< 2.48	< 2.22	< 2.55	< 2.32	< 2.33	< 2.27
Zinc	7440-66-6	mg/kg	40.4	3.22	3.77	14.7	82.2	23.9	46.5	24.1	51.4	58.3

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			D13-273B-04	SB-R-A11-01	SB-R-A11-01	SB-R-A12-04	SB-R-B10-02	SB-R-B11-01	SB-R-B11-03	SB-R-B12-04	SB-R-B13-01	SB-R-B13-03
Depths			0.0-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			7/6/2000	5/23/2006	5/23/2006	5/24/2006	5/25/2006	5/23/2006	5/25/2006	5/24/2006	5/18/2006	5/19/2006
Sample Type			FD	N	FD	N	N	N	N	N	N	N
Sample Name			D13-273B-042FD	SB-R-A11-011.0N	SB-R-A11-011.0FD	SB-R-A12-041.0N	SB-R-B10-021.0N	SB-R-B11-011.0N	SB-R-B11-031.0N	SB-R-B12-041.0N	SB-R-B13-011.0N	SB-R-B13-031.0N
Parent Sample			D13-273B-042N		SB-R-A11-011.0N							
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	4.3	5.4	12	20.3	14.1	22.2	14.5	16.8	13.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SB-R-B13-04	SB-R-B14-01	SB-R-C10-01	SB-R-C12-02	SD-B13-1-01	SD-B13-1-01	SD-B13-2-01	SD-B13-3-01	SD-B13-3-01	SD-C10-2-01
Depths			0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/18/2006	5/25/2006	5/31/2006	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-B13-041.0N	SB-R-B14-011.33N	SB-R-C10-011.0N	SB-R-C12-021.0N	SD-B13-1-011N	SD-B13-1-011.5N	SD-B13-2-011N	SD-B13-3-010.5N	SD-B13-3-011N	SD-C10-2-011N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	< 290	NA	< 280	NA	< 240	< 270
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	< 2900	NA	< 2800	NA	< 2400	< 2700
Acrylonitrile	107-13-1	ug/kg	< 3600	< 3100	< 2800	< 2700	< 590	NA	< 570	NA	< 480	< 540
Benzene	71-43-2	ug/kg	< 900	< 770	< 710	< 660	< 150	NA	< 140	NA	< 120	< 140
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	< 290	NA	< 280	NA	< 240	< 270
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Chlorobenzene	108-90-7	ug/kg	< 900	< 770	< 710	< 660	< 150	NA	< 140	NA	< 120	< 140
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	< 290	NA	< 280	NA	< 240	< 270
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	< 290	NA	< 280	NA	< 240	< 270
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 900	< 770	< 710	< 660	< 290	NA	< 280	NA	< 240	< 270
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 900	< 770	< 710	< 660	< 150	NA	< 140	NA	< 120	< 140
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	< 290	NA	< 280	NA	< 240	< 270
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	< 150	NA	< 140	NA	< 120	< 140

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SB-R-B13-04	SB-R-B14-01	SB-R-C10-01	SB-R-C12-02	SD-B13-1-01	SD-B13-1-01	SD-B13-2-01	SD-B13-3-01	SD-B13-3-01	SD-C10-2-01
Depths			0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/18/2006	5/25/2006	5/31/2006	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-B13-041.0N	SB-R-B14-011.33N	SB-R-C10-011.0N	SB-R-C12-021.0N	SD-B13-1-011N	SD-B13-1-011.5N	SD-B13-2-011N	SD-B13-3-010.5N	SD-B13-3-011N	SD-C10-2-011N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 210	< 200	< 190	< 180	NA	< 40	NA	< 330	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2500	< 2400	< 2200	< 2100	NA	< 800	NA	< 6700	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	430	< 200	< 190	160	NA	160	NA	27000	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	330	< 200	< 190	120	NA	< 40	NA	29000	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	< 200	NA	< 1700	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	< 200	NA	< 1700	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	< 800	NA	< 6700	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	170	< 200	45	< 180	NA	< 40	NA	< 330	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	190	< 200	47	< 180	NA	< 40	NA	< 330	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	320	< 200	72	< 180	NA	< 40	NA	< 330	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	99	< 200	< 190	< 180	NA	< 40	NA	< 330	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 410	< 400	< 370	73	NA	120	NA	< 670	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 210	< 200	< 190	< 180	NA	< 80	NA	< 670	NA	NA
Chrysene	218-01-9	ug/kg	280	< 200	47	< 180	NA	< 40	NA	< 330	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	100	< 200	< 190	< 180	NA	< 40	NA	< 330	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SB-R-B13-04	SB-R-B14-01	SB-R-C10-01	SB-R-C12-02	SD-B13-1-01	SD-B13-1-01	SD-B13-2-01	SD-B13-3-01	SD-B13-3-01	SD-C10-2-01
Depths			0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/18/2006	5/25/2006	5/31/2006	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-B13-041.0N	SB-R-B14-011.33N	SB-R-C10-011.0N	SB-R-C12-021.0N	SD-B13-1-011N	SD-B13-1-011.5N	SD-B13-2-011N	SD-B13-3-010.5N	SD-B13-3-011N	SD-C10-2-011N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Semivolatile Organic Compounds (cont)												
Diethylphthalate	84-66-2	ug/kg	< 210	< 200	< 190	< 180	NA	< 80	NA	< 670	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 210	< 200	< 190	< 180	NA	< 80	NA	< 670	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	< 40	NA	420	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	< 200	NA	< 1700	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	130	< 200	< 190	< 180	NA	< 40	NA	< 330	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	< 200	NA	< 670	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 210	< 200	< 190	< 180	NA	< 40	NA	< 330	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 210	< 200	< 190	< 180	NA	< 40	NA	< 330	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	< 200	NA	< 1700	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	< 40	NA	530	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	< 80	NA	< 670	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	< 40	NA	< 330	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			SB-R-B13-04 0.5-1.0 ft 5/23/2006 N SB-R-B13-041.0N	SB-R-B14-01 0.8-1.3 ft 5/18/2006 N SB-R-B14-011.33N	SB-R-C10-01 0.5-1.0 ft 5/25/2006 N SB-R-C10-011.0N	SB-R-C12-02 0.5-1.0 ft 5/31/2006 N SB-R-C12-021.0N	SD-B13-1-01 0.5-1.0 ft 5/1/2001 N SD-B13-1-011N	SD-B13-1-01 1.0-1.5 ft 5/1/2001 N SD-B13-1-011.5N	SD-B13-2-01 0.5-1.0 ft 5/1/2001 N SD-B13-2-011N	SD-B13-3-01 0.0-0.5 ft 5/1/2001 N SD-B13-3-010.5N	SD-B13-3-01 0.5-1.0 ft 5/1/2001 N SD-B13-3-011N	SD-C10-2-01 0.5-1.0 ft 5/2/2001 N SD-C10-2-011N
CONSTITUENT	***CAS NO.***	***UNIT***										
Explosives & Energetics												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	< 120	NA	< 1000000	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 370	< 360	< 330	< 320	NA	< 120	NA	< 1000000	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 370	< 360	< 330	< 320	NA	660	NA	21000000	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 370	< 360	< 330	< 320	NA	330	NA	< 1000000	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	< 120	NA	< 1000000	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	< 120	NA	< 1000000	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 370	< 360	< 330	< 320	NA	450	NA	< 1000000	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	< 120	NA	< 1000000	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 120	NA	< 1000000	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 150000	< 140000	< 130000	< 130000	NA	< 72000	NA	8000000	NA	NA
Nitroglycerin	55-63-0	ug/kg	< 7500	< 7200	< 6700	< 6400	NA	< 2400	NA	< 20000000	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 930	< 910	< 840	< 800	NA	< 120	NA	< 1000000	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	< 2400	NA	< 20000000	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 370	< 360	< 330	< 320	NA	< 120	NA	< 1000000	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	< 120	NA	< 1000000	NA	NA
Metals												
Antimony	7440-36-0	mg/kg	1.26	1.45	< 2.17	1.09	NA	< 0.76	NA	0.94	NA	NA
Arsenic	7440-38-2	mg/kg	23.1	4.52	2.86	3.71	NA	5.7	NA	4.9	NA	NA
Beryllium	7440-41-7	mg/kg	0.648	0.803	0.569	0.472	NA	0.65	NA	0.21	NA	NA
Cadmium	7440-43-9	mg/kg	< 0.616	< 3.02	< 0.542	< 0.513	NA	< 0.064	NA	< 0.055	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	21.9	NA	7.3	NA	NA
Copper	7440-50-8	mg/kg	28.5	13.1	14.5	14.3	NA	21.7	NA	9.3	NA	NA
Lead	7439-92-1	mg/kg	38.4	8.53	26.7	16.1	NA	44.4	NA	3260	NA	NA
Mercury	7439-97-6	mg/kg	0.123	0.0363	0.0208	< 0.104	NA	0.03	NA	0.13	NA	NA
Nickel	7440-02-0	mg/kg	11.4	9.32	9.66	6.48	NA	11.8	NA	3	NA	NA
Selenium	7782-49-2	mg/kg	< 2.46	< 2.42	< 2.17	< 2.05	NA	2.1	NA	< 0.48	NA	NA
Silver	7440-22-4	mg/kg	< 0.616	< 0.604	< 0.542	< 0.513	NA	< 0.16	NA	0.61	NA	NA
Thallium	7440-28-0	mg/kg	< 2.46	< 2.42	1.67	< 2.05	NA	2	NA	< 0.85	NA	NA
Zinc	7440-66-6	mg/kg	24.1	53.4	38.7	82.6	NA	62.6	NA	21.9	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SB-R-B13-04	SB-R-B14-01	SB-R-C10-01	SB-R-C12-02	SD-B13-1-01	SD-B13-1-01	SD-B13-2-01	SD-B13-3-01	SD-B13-3-01	SD-C10-2-01
Depths			0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/23/2006	5/18/2006	5/25/2006	5/31/2006	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/1/2001	5/2/2001
Sample Type			N	N	N	N	N	N	N	N	N	N
Sample Name			SB-R-B13-041.0N	SB-R-B14-011.33N	SB-R-C10-011.0N	SB-R-C12-021.0N	SD-B13-1-011N	SD-B13-1-011.5N	SD-B13-2-011N	SD-B13-3-010.5N	SD-B13-3-011N	SD-C10-2-011N
Parent Sample												
CONSTITUENT	***CAS NO.***	***UNIT***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	19.6	17.2	10.4	6.2	NA	16.7	NA	NA	NA	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	10400	NA	22900	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	< 12000	NA	< 11000	NA	< 10000	< 11000
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	< 12000	NA	< 11000	NA	< 10000	< 11000
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	< 12000	NA	< 11000	NA	< 10000	< 11000
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	< 12000	NA	< 11000	NA	< 10000	< 11000
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	< 12000	NA	< 11000	NA	< 10000	< 11000
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	< 12000	NA	< 11000	NA	< 10000	< 11000
Grain Size												
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	100	NA	96.5	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	100	NA	100	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	100	NA	100	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	48.3	NA	43.9	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	1.6	NA	1.8	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	26.4	NA	25.8	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	91.4	NA	75.4	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	12.4	NA	12.2	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	86.7	NA	67.9	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	76.7	NA	60.1	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	5.4	NA	4.9	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-A12-1-1	TP-R-A13-625-1	TP-R-A13-625-4	TP-R-A13-625-5	TP-R-A13-625-6	TP-R-B12-1-1	TP-R-B12-1-2	TP-R-B12-1-3
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/14/2006	8/16/2006	8/16/2006	8/16/2006	8/16/2006	8/14/2006	8/14/2006	8/14/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A12-1-11.0N	TP-R-A13-625-11.0N	TP-R-A13-625-41.5N	TP-R-A13-625-51.0N	TP-R-A13-625-61.5N	TP-R-B12-1-11.0N	TP-R-B12-1-21.0N	TP-R-B12-1-31.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-A12-1-1	TP-R-A13-625-1	TP-R-A13-625-4	TP-R-A13-625-5	TP-R-A13-625-6	TP-R-B12-1-1	TP-R-B12-1-2	TP-R-B12-1-3
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/14/2006	8/16/2006	8/16/2006	8/16/2006	8/16/2006	8/14/2006	8/14/2006	8/14/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A12-1-11.0N	TP-R-A13-625-11.0N	TP-R-A13-625-41.5N	TP-R-A13-625-51.0N	TP-R-A13-625-61.5N	TP-R-B12-1-11.0N	TP-R-B12-1-21.0N	TP-R-B12-1-31.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Semivolatile Organic Compounds										
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 19000	< 190	< 190	< 180	< 180	< 190	< 180	< 190
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 220000	< 2200	< 2300	< 2200	< 2100	< 2300	< 2200	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	210000	< 190	< 190	< 180	16000	2400	10000	2200
2,6-Dinitrotoluene	606-20-2	ug/kg	25000	< 190	< 190	< 180	930	84	350	160
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 19000	< 190	< 190	72	59	2600	2300	< 190
Benzo[a]pyrene	50-32-8	ug/kg	< 19000	< 190	< 190	48	49	2000	2000	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	< 19000	< 190	< 190	74	110	2700	2400	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 19000	< 190	< 190	< 180	41	1000	1300	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 37000	< 370	< 380	< 370	< 360	< 380	< 370	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 19000	< 190	< 190	< 180	< 180	< 190	< 180	< 190
Chrysene	218-01-9	ug/kg	< 19000	< 190	< 190	72	71	2700	2400	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 19000	< 190	< 190	< 180	< 180	370	320	< 190

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-A12-1-1	TP-R-A13-625-1	TP-R-A13-625-4	TP-R-A13-625-5	TP-R-A13-625-6	TP-R-B12-1-1	TP-R-B12-1-2	TP-R-B12-1-3
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/14/2006	8/16/2006	8/16/2006	8/16/2006	8/16/2006	8/14/2006	8/14/2006	8/14/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A12-1-11.0N	TP-R-A13-625-11.0N	TP-R-A13-625-41.5N	TP-R-A13-625-51.0N	TP-R-A13-625-61.5N	TP-R-B12-1-11.0N	TP-R-B12-1-21.0N	TP-R-B12-1-31.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Semivolatile Organic Compounds (cont)										
Diethylphthalate	84-66-2	ug/kg	< 19000	< 190	< 190	< 180	< 180	< 190	< 180	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 19000	< 190	< 190	< 180	< 180	< 190	< 180	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 19000	< 190	< 190	< 180	50	1200	1200	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 19000	< 190	< 190	< 180	< 180	< 190	< 180	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 19000	< 190	< 190	< 180	< 180	< 190	< 180	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-A12-1-1	TP-R-A13-625-1	TP-R-A13-625-4	TP-R-A13-625-5	TP-R-A13-625-6	TP-R-B12-1-1	TP-R-B12-1-2	TP-R-B12-1-3
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/14/2006	8/16/2006	8/16/2006	8/16/2006	8/16/2006	8/14/2006	8/14/2006	8/14/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A12-1-11.0N	TP-R-A13-625-11.0N	TP-R-A13-625-41.5N	TP-R-A13-625-51.0N	TP-R-A13-625-61.5N	TP-R-B12-1-11.0N	TP-R-B12-1-21.0N	TP-R-B12-1-31.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Explosives & Energetics										
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	9000	< 340	< 350	< 330	4800	< 340	< 330	< 340
2,4,6-Trinitrotoluene	118-96-7	ug/kg	120000000	1800	100000	200	2800000	25000	970	< 340
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	63000	410	700	< 330	14000	< 340	< 330	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	86000	360	620	< 660	< 640	< 680	< 660	< 690
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	22000000	< 130000	< 140000	< 130000	2100000	< 140000	< 130000	< 140000
Nitroglycerin	55-63-0	ug/kg	< 670000	3300	5400	< 6600	69000	< 6800	< 6600	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 840	< 840	< 870	< 820	360	< 850	< 830	< 860
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 340	< 340	< 350	< 330	< 320	< 340	< 330	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-A12-1-1	TP-R-A13-625-1	TP-R-A13-625-4	TP-R-A13-625-5	TP-R-A13-625-6	TP-R-B12-1-1	TP-R-B12-1-2	TP-R-B12-1-3
Depths			0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/14/2006	8/16/2006	8/16/2006	8/16/2006	8/16/2006	8/14/2006	8/14/2006	8/14/2006
Sample Type			N	N	N	N	N	N	N	N
Sample Name			TP-R-A12-1-11.0N	TP-R-A13-625-11.0N	TP-R-A13-625-41.5N	TP-R-A13-625-51.0N	TP-R-A13-625-61.5N	TP-R-B12-1-11.0N	TP-R-B12-1-21.0N	TP-R-B12-1-31.0N
Parent Sample										
CONSTITUENT	***CAS NO.***	***UNIT***								
Miscellaneous										
Percent Moisture	ARC-MOIST	%dw	10.9	10.5	13.3	8.8	6.5	11.8	9.7	12.5
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size										
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-B12-234-1	TP-R-B12-234-2	TP-R-C13-666-1	TP-R-C13-666-2	TP-R-C13-666-3	TP-R-C13-666-5
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/11/2006	8/11/2006	8/17/2006	8/17/2006	8/16/2006	8/17/2006
Sample Type			N	N	N	N	N	N
Sample Name			TP-R-B12-234-11.5N	TP-R-B12-234-21.5N	TP-R-C13-666-11.5N	TP-R-C13-666-21.5N	TP-R-C13-666-31.0N	TP-R-C13-666-51.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Volatile Organic Compounds								
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-B12-234-1 1.0-1.5 ft 8/11/2006 N TP-R-B12-234-11.5N	TP-R-B12-234-2 1.0-1.5 ft 8/11/2006 N TP-R-B12-234-21.5N	TP-R-C13-666-1 1.0-1.5 ft 8/17/2006 N TP-R-C13-666-11.5N	TP-R-C13-666-2 1.0-1.5 ft 8/17/2006 N TP-R-C13-666-21.5N	TP-R-C13-666-3 0.5-1.0 ft 8/16/2006 N TP-R-C13-666-31.0N	TP-R-C13-666-5 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-51.0N
CONSTITUENT	***CAS NO.***	***UNIT***						
Semivolatile Organic Compounds								
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	< 190	< 200	< 42000	< 190	< 170
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	< 2300	< 2400	< 500000	< 2200	< 2000
2,4-Dinitrotoluene	121-14-2	ug/kg	99	110	3200	280000	< 190	8400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	< 190	1200	73000	< 190	1700
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	< 190	270	< 42000	< 190	290
Benzo[a]pyrene	50-32-8	ug/kg	< 190	< 190	300	< 42000	< 190	420
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	< 190	390	< 42000	< 190	650
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	< 190	190	< 42000	< 190	200
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 390	< 380	< 400	< 83000	< 370	< 330
Butylbenzylphthalate	85-68-7	ug/kg	< 190	< 190	< 200	< 42000	< 190	< 170
Chrysene	218-01-9	ug/kg	39	< 190	310	< 42000	< 190	360
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	< 190	50	< 42000	< 190	74

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-B12-234-1	TP-R-B12-234-2	TP-R-C13-666-1	TP-R-C13-666-2	TP-R-C13-666-3	TP-R-C13-666-5
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			8/11/2006	8/11/2006	8/17/2006	8/17/2006	8/16/2006	8/17/2006
Sample Type			N	N	N	N	N	N
Sample Name			TP-R-B12-234-11.5N	TP-R-B12-234-21.5N	TP-R-C13-666-11.5N	TP-R-C13-666-21.5N	TP-R-C13-666-31.0N	TP-R-C13-666-51.0N
Parent Sample								
CONSTITUENT	***CAS NO.***	***UNIT***						
Semivolatile Organic Compounds (cont)								
Diethylphthalate	84-66-2	ug/kg	< 190	< 190	< 200	< 42000	< 190	< 170
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	< 190	< 200	< 42000	< 190	< 170
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	< 190	210	< 42000	< 190	310
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	< 190	< 200	< 42000	< 190	< 170
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	< 190	< 200	< 42000	< 190	< 170
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-B12-234-1 1.0-1.5 ft 8/11/2006 N TP-R-B12-234-11.5N	TP-R-B12-234-2 1.0-1.5 ft 8/11/2006 N TP-R-B12-234-21.5N	TP-R-C13-666-1 1.0-1.5 ft 8/17/2006 N TP-R-C13-666-11.5N	TP-R-C13-666-2 1.0-1.5 ft 8/17/2006 N TP-R-C13-666-21.5N	TP-R-C13-666-3 0.5-1.0 ft 8/16/2006 N TP-R-C13-666-31.0N	TP-R-C13-666-5 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-51.0N
CONSTITUENT	***CAS NO.***	***UNIT***						
Explosives & Energetics								
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 340	980	< 300	< 340	2300
2,4,6-Trinitrotoluene	118-96-7	ug/kg	240	650	4000000	120000000	350	20000000
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	390	24000	2100	< 340	8200
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 700	280	29000	630	< 670	6700
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	< 140000	1100000	28000000	< 130000	3300000
Nitroglycerin	55-63-0	ug/kg	< 7000	< 6800	130000	10000	< 6700	48000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 870	< 850	< 900	3900	< 840	< 750
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 340	150	190	< 340	570
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA
Metals								
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA

Appendix B.1 - Areas of Presumed Remedial Action Dataset
Soil - TNT Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			TP-R-B12-234-1 1.0-1.5 ft 8/11/2006 N TP-R-B12-234-11.5N	TP-R-B12-234-2 1.0-1.5 ft 8/11/2006 N TP-R-B12-234-21.5N	TP-R-C13-666-1 1.0-1.5 ft 8/17/2006 N TP-R-C13-666-11.5N	TP-R-C13-666-2 1.0-1.5 ft 8/17/2006 N TP-R-C13-666-21.5N	TP-R-C13-666-3 0.5-1.0 ft 8/16/2006 N TP-R-C13-666-31.0N	TP-R-C13-666-5 0.5-1.0 ft 8/17/2006 N TP-R-C13-666-51.0N
CONSTITUENT	***CAS NO.***	***UNIT***						
Miscellaneous								
Percent Moisture	ARC-MOIST	%dw	13.9	12.1	16.9	NA	11.1	NA
pH	ARC-PH	pH units	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA
Grain Size								
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA

Appendix B2. Ammonium Nitrate Area Description (Tier II)
Kenvil Works Facility
Kenvil, New Jersey

From the beginning of production onsite through the end of WWI, off-specification product and residual materials were transported via rail car to the Ammonium Nitrate Area (near the World War I Burning Grounds and wastewater treatment plant; grid cell references H12-237, H13-1, H13-7). The contents of the rail car were emptied down a slope where the materials were incinerated in place on the ground surface. Currently, the area supports sparse vegetation and the ground surface contains a non-combustible fraction of the waste materials (e.g., metal). As a result, Hercules has initiated a remedial action selection process to inform active remediation. Specifically, Hercules plans to excavate surface soil, and consolidate and cap it at a to-be-determined location elsewhere onsite.

Appendix B.2 - Areas of Presumed Remedial Action Dataset
Soil - Ammonium Nitrate Area Former Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			SB-R-I13-01
Depths			0.5-1.0 ft
Collection Date			5/12/2006
Sample Type			N
Sample Name			SB-R-I13-011.0N
Parent Sample			
CONSTITUENT	***CAS NO.***	***UNIT***	
Volatile Organic Compounds			
Acrylonitrile	107-13-1	ug/kg	< 3000
Benzene	71-43-2	ug/kg	< 750
Chlorobenzene	108-90-7	ug/kg	< 750
Methylene Chloride	75-09-2	ug/kg	< 750
Tetrachloroethene	127-18-4	ug/kg	< 750
Semivolatile Organic Compounds			
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400
2,4-Dinitrotoluene	121-14-2	ug/kg	12000
2,6-Dinitrotoluene	606-20-2	ug/kg	2300
Benzo[a]anthracene	56-55-3	ug/kg	260
Benzo[a]pyrene	50-32-8	ug/kg	200
Benzo[b]fluoranthene	205-99-2	ug/kg	850
Benzo[k]fluoranthene	207-08-9	ug/kg	370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 400
Butylbenzylphthalate	85-68-7	ug/kg	< 200
Chrysene	218-01-9	ug/kg	710
Dibenzo[a,h]anthracene	53-70-3	ug/kg	91
Diethylphthalate	84-66-2	ug/kg	< 200
Di-n-butylphthalate	84-74-2	ug/kg	< 200
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	220
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200
N-Nitrosodiphenylamine	86-30-6	ug/kg	150
Explosives & Energetics			
1,3-Dinitrobenzene	99-65-0	ug/kg	< 360
2,4,6-Trinitrotoluene	118-96-7	ug/kg	910
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 360
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 360
Nitrocellulose	9004-70-0	ug/kg	110000
Nitroglycerin	55-63-0	ug/kg	11000
HMX	2691-41-0	ug/kg	< 900
RDX (Cyclonite)	121-82-4	ug/kg	< 360
Metals			
Antimony	7440-36-0	mg/kg	3.53
Arsenic	7440-38-2	mg/kg	104
Beryllium	7440-41-7	mg/kg	0.446
Cadmium	7440-43-9	mg/kg	0.181
Copper	7440-50-8	mg/kg	101
Lead	7439-92-1	mg/kg	1310
Mercury	7439-97-6	mg/kg	1.65
Nickel	7440-02-0	mg/kg	9.61
Selenium	7782-49-2	mg/kg	< 2.4
Silver	7440-22-4	mg/kg	0.338
Thallium	7440-28-0	mg/kg	< 2.4
Zinc	7440-66-6	mg/kg	108
Miscellaneous			
Percent Moisture	ARC-MOIST	%dw	16.5

Appendix B3. B-Line Area Description (Tier II)
Kenvil Works Facility
Kenvil, New Jersey

The B-Line Area – disposal area in grid cell M8-1 served as a disposal area for process waste materials during the period of increased production surrounding World War II (WWII). The area currently consists of a low-lying depression with visible surface debris. Vegetation is moderate to sparse and consists of grasses and shrubs. The area occurs between Duck Pond and an emergent/forested wetland complex.

Given the presence of potential solid waste and/or source material in this area, Hercules is conducting a pre-design investigation to support remedial design focused on targeted removal and offsite disposal.

Appendix B.3 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - Disposal Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-M8-1-19	TP-R-M8-1-20	TP-R-M8-1-21
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			7/25/2006	7/25/2006	7/25/2006
Sample Type			N	N	N
Sample Name			TP-R-M8-1-191.5N	TP-R-M8-1-201.5N	TP-R-M8-1-211.5N
Parent Sample					
CONSTITUENT	***CAS NO.***	***UNITS***			
Volatile Organic Compounds					
Acrylonitrile	107-13-1	ug/kg	< 3300	< 2900	< 3400
Benzene	71-43-2	ug/kg	< 820	< 720	< 850
Chlorobenzene	108-90-7	ug/kg	< 820	< 720	< 850
Methylene Chloride	75-09-2	ug/kg	< 820	< 720	< 850
Tetrachloroethene	127-18-4	ug/kg	< 820	< 720	< 850
Semivolatile Organic Compounds					
1,4-Dichlorobenzene	106-46-7	ug/kg	< 220	< 200	< 230
2,4-Dinitrophenol	51-28-5	ug/kg	< 2700	< 2300	< 2700
2,4-Dinitrotoluene	121-14-2	ug/kg	< 220	< 200	< 230
2,6-Dinitrotoluene	606-20-2	ug/kg	< 220	< 200	< 230
Benzo[a]anthracene	56-55-3	ug/kg	< 220	< 200	110
Benzo[a]pyrene	50-32-8	ug/kg	< 220	< 200	140
Benzo[b]fluoranthene	205-99-2	ug/kg	46	< 200	210
Benzo[k]fluoranthene	207-08-9	ug/kg	< 220	< 200	93
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 450	< 390	< 450
Butylbenzylphthalate	85-68-7	ug/kg	< 220	< 200	< 230
Chrysene	218-01-9	ug/kg	< 220	< 200	140
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 220	< 200	47
Diethylphthalate	84-66-2	ug/kg	< 220	< 200	< 230
Di-n-butylphthalate	84-74-2	ug/kg	< 220	< 200	< 230
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 220	< 200	100
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 220	< 200	< 230
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 220	< 200	< 230

Appendix B.3 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - Disposal Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-M8-1-19	TP-R-M8-1-20	TP-R-M8-1-21
Depths			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
Collection Date			7/25/2006	7/25/2006	7/25/2006
Sample Type			N	N	N
Sample Name			TP-R-M8-1-191.5N	TP-R-M8-1-201.5N	TP-R-M8-1-211.5N
Parent Sample					
CONSTITUENT	***CAS NO.***	***UNITS***			
Explosives & Energetics					
1,3-Dinitrobenzene	99-65-0	ug/kg	< 400	< 350	< 410
2,4,6-Trinitrotoluene	118-96-7	ug/kg	600	140	< 410
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 400	< 350	< 410
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 800	< 700	< 820
Nitrocellulose	9004-70-0	ug/kg	< 160000	< 140000	60000
Nitroglycerin	55-63-0	ug/kg	< 8000	< 7000	< 8200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 1000	< 880	< 1000
RDX (Cyclonite)	121-82-4	ug/kg	< 400	< 350	< 410
Metals					
Antimony	7440-36-0	mg/kg	< 2.57	< 2.32	< 2.69
Arsenic	7440-38-2	mg/kg	3.8	1.11	2.39
Beryllium	7440-41-7	mg/kg	0.212	0.165	0.195
Cadmium	7440-43-9	mg/kg	0.273	0.179	0.605
Copper	7440-50-8	mg/kg	18.7	17.1	17.4
Lead	7439-92-1	mg/kg	26.3	32	23.3
Mercury	7439-97-6	mg/kg	0.028	0.191	0.808
Nickel	7440-02-0	mg/kg	14.4	11.1	10.8
Selenium	7782-49-2	mg/kg	< 2.57	< 2.32	< 2.69
Silver	7440-22-4	mg/kg	< 0.644	< 0.58	< 0.673
Thallium	7440-28-0	mg/kg	< 2.57	< 2.32	< 2.69
Zinc	7440-66-6	mg/kg	441	128	1820
Miscellaneous					
Percent Moisture	ARC-MOIST	%dw	25.3	14.7	26.4

Appendix B4. Diazo Area Description (Tier II)
Kenvil Works Facility
Kenvil, New Jersey

The Diazo Area – diazo ponds in grid cell H8-1 is a remnant operational feature located in the Diazo Area. Historical diazo production processes generated a spent acid sludge that was neutralized via a sodium hydroxide bath and then disposed of in a shallow man-made lagoon (pond). Over time the production process changed and the sludge was managed to reclaim/reuse certain production materials rather than being disposed of. The pond area was covered with soil. SI test pit investigations identified layers of sludge comingled with soil in the location of the former disposal pond. Analytical testing indicates that the sludge does not present chemical concerns. However, the remnant feature will be remediated to better position the site for redevelopment (e.g., soil stability).

Hercules conducted a pre-design investigation in fall 2014 to gather information supporting excavation and stabilization of the material in the Diazo Pond Area. Remedy design is currently underway.

Appendix B.4 - Areas of Presumed Remedial Action Dataset
Soil - Diazo Area - Diazo Ponds
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-H8-01A-02	TP-R-H8-01A-02
Depths			1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/19/2006	12/19/2006
Sample Type			N	N
Sample Name			TP-R-H8-01A-021.5N1610	TP-R-H8-01A-02N1610
Parent Sample				
CONSTITUENT	***CAS NO.***	***UNITS***		
Semivolatile Organic Compounds				
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 190	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 190	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 190	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 190	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 190	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 190	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 190	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 190	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2300	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 190	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 190	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 190	NA
2-Chlorophenol	95-57-8	ug/kg	< 190	NA
2-Nitrophenol	88-75-5	ug/kg	< 190	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 380	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 570	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 190	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 190	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 190	NA
4-Nitrophenol	100-02-7	ug/kg	< 570	NA
Acenaphthene	83-32-9	ug/kg	< 190	NA
Acenaphthylene	208-96-8	ug/kg	< 190	NA
Anthracene	120-12-7	ug/kg	< 190	NA
Benzidine	92-87-5	ug/kg	< 3800	NA
Benzo[a]anthracene	56-55-3	ug/kg	< 190	NA
Benzo[a]pyrene	50-32-8	ug/kg	< 190	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	< 190	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 190	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 190	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 190	NA
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 190	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 190	NA

Appendix B.4 - Areas of Presumed Remedial Action Dataset
Soil - Diazo Area - Diazo Ponds
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-H8-01A-02	TP-R-H8-01A-02
Depths			1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/19/2006	12/19/2006
Sample Type			N	N
Sample Name			TP-R-H8-01A-021.5N1610	TP-R-H8-01A-02N1610
Parent Sample				
CONSTITUENT	***CAS NO.***	***UNITS***		
Semivolatile Organic Compounds (Cont)				
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 380	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 190	NA
Chrysene	218-01-9	ug/kg	< 190	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 190	NA
Diethylphthalate	84-66-2	ug/kg	< 190	NA
Dimethylphthalate	131-11-3	ug/kg	< 190	NA
Di-n-butylphthalate	84-74-2	ug/kg	< 190	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 190	NA
Fluoranthene	206-44-0	ug/kg	< 190	NA
Fluorene	86-73-7	ug/kg	< 190	NA
Hexachlorobenzene	118-74-1	ug/kg	< 190	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 190	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 570	NA
Hexachloroethane	67-72-1	ug/kg	< 190	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 190	NA
Isophorone	78-59-1	ug/kg	< 190	NA
Naphthalene	91-20-3	ug/kg	< 190	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 190	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 190	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 190	NA
Pentachlorophenol	87-86-5	ug/kg	< 570	NA
Phenanthrene	85-01-8	ug/kg	< 190	NA
Phenol	108-95-2	ug/kg	< 190	NA
Pyrene	129-00-0	ug/kg	< 190	NA

Appendix B.4 - Areas of Presumed Remedial Action Dataset
Soil - Diazo Area - Diazo Ponds
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-H8-01A-02	TP-R-H8-01A-02
Depths			1.0-1.5 ft	1.0-1.5 ft
Collection Date			12/19/2006	12/19/2006
Sample Type			N	N
Sample Name			TP-R-H8-01A-021.5N1610	TP-R-H8-01A-02N1610
Parent Sample				
CONSTITUENT	***CAS NO.***	***UNITS***		
Explosives & Energetics				
1,2-Dinitrobenzene	528-29-0	ug/kg	< 340	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 340	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 340	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	< 340	NA
1-Nitronaphthalene	86-57-7	ug/kg	< 340	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 340	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 340	NA
2-Nitrotoluene	88-72-2	ug/kg	< 340	NA
3-Nitrotoluene	99-08-1	ug/kg	< 340	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 680	NA
4-Nitrotoluene	99-99-0	ug/kg	< 340	NA
Diazodinitrophenol	87-31-0	ug/kg	NA	< 10000
Nitrobenzene	98-95-3	ug/kg	< 340	NA
Nitrocellulose	9004-70-0	ug/kg	< 140000	NA
Nitroglycerin	55-63-0	ug/kg	< 6800	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 860	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	< 6800	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 340	NA
Tetryl	479-45-8	ug/kg	< 340	NA
Miscellaneous				
Percent Moisture	ARC-MOIST	%dw	12.3	NA

Appendix B5. Development Area (Tier II)
Kenvil Works Facility
Kenvil, New Jersey

The development area, and old burning ground and adjacent areas of concern to the southwest (grid cell references M5-3, L5-2313, L5-10, L5-2275, L5-539) was used to dispose off-spec and residual energetic materials and was situated in a low-lying area adjacent to Duck Pond to provide a source of water and a buffer from nearby forested areas. Currently, the area supports sparse vegetation and the ground surface contains a non-combustible fraction of the waste materials (e.g., metal). Hercules will address the former burning grounds via a combined remedy involving removal, consolidation, and/or containment of these materials. Pre-design investigations supporting remedial design are underway.

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			L4-4-02	L5-10-04	L5-10-05	L5-11-01	L5-2275-01	L5-2313-12	L5-2313-17	L5-2313-17	L5-5-01	L5-5-01	L5-5-01	L5-5-03	L5-5-03	L5-539-03	L5-9546-03
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/14/2000	4/6/2000	4/6/2000	4/14/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/28/2000	4/28/2000	4/28/2000	7/14/2000	7/14/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N	N	N	N	N
Sample Name			L4-4-021N	L5-10-041.5N	L5-10-052N	L5-11-011N	L5-2275-012N	L5-2313-122N	L5-2313-172N	L5-2313-172FD	L5-5-012N	L5-5-012FD	L5-5-010.5N	L5-5-031N	L5-5-030.5N	L5-539-031.5N	L5-9546-031N
Parent Sample										L5-2313-172N		L5-5-012N					
CONSTITUENT	***CAS NO.***	***UNITS***															
Volatile Organic Compounds																	
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	NA	< 644	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	NA	< 644.3298	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	NA	< 644	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	NA	< 644	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	< 1288.659	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 210	NA	< 2577.319	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	< 1288.659	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	798	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 520	NA	< 644	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	2340	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA	< 644.3298	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA	< 1288.659	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			L4-4-02	L5-10-04	L5-10-05	L5-11-01	L5-2275-01	L5-2313-12	L5-2313-17	L5-2313-17	L5-5-01	L5-5-01	L5-5-01	L5-5-03	L5-5-03	L5-539-03	L5-9546-03
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/14/2000	4/6/2000	4/6/2000	4/14/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/28/2000	4/28/2000	4/28/2000	7/14/2000	7/14/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N	N	N	N	N
Sample Name			L4-4-021N	L5-10-041.5N	L5-10-052N	L5-11-011N	L5-2275-012N	L5-2313-122N	L5-2313-172N	L5-2313-172FD	L5-5-012N	L5-5-012FD	L5-5-010.5N	L5-5-031N	L5-5-030.5N	L5-539-031.5N	L5-9546-031N
Parent Sample										L5-2313-172N		L5-5-012N					
CONSTITUENT	***CAS NO.***	***UNITS***															
Volatile Organic Compounds																	
Semivolatile Organic Compounds																	
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	NA	NA	< 43	< 390
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 78	< 780	NA	< 79	< 110	< 100	< 980	< 78	< 790	NA	< 728.188	NA	< 85	< 790
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	160	710	NA	< 400	510	320	440	490	53	NA	150	NA	< 430	< 3900
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 390	< 3900	NA	< 400	< 550	< 520	< 490	< 390	< 400	NA	< 364	NA	< 430	< 3900
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
2-Chlorophenol	95-57-8	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	NA	NA	< 43	< 390
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 364.094	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 78	< 780	NA	< 79	< 110	< 100	< 980	< 78	< 790	NA	< 728.188	NA	< 85	< 790
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 78	< 780	NA	< 79	< 110	< 100	< 980	< 78	< 790	NA	< 728.188	NA	< 85	< 790
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 78	< 780	NA	< 79	< 110	< 100	< 980	< 78	< 790	NA	NA	NA	< 85	< 790
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 728.188	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	430
Acenaphthylene	208-96-8	ug/kg	NA	< 39	< 390	NA	58	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 39	< 390	NA	110	< 55	120	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 39	< 390	NA	660	86	460	75	< 39	< 400	NA	< 364.094	NA	< 43	2000
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 39	< 390	NA	610	68	290	74	< 39	< 400	NA	< 364.094	NA	< 43	2100
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 39	< 390	NA	780	95	470	< 490	< 39	< 400	NA	< 364.094	NA	< 43	4300
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 39	< 390	NA	350	< 55	140	< 490	< 39	< 400	NA	< 364.094	NA	< 43	910
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 39	< 390	NA	260	< 55	120	< 490	< 39	< 400	NA	< 364.094	NA	< 43	1400
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			L4-4-02	L5-10-04	L5-10-05	L5-11-01	L5-2275-01	L5-2313-12	L5-2313-17	L5-2313-17	L5-5-01	L5-5-01	L5-5-01	L5-5-03	L5-5-03	L5-539-03	L5-9546-03
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/14/2000	4/6/2000	4/6/2000	4/14/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/28/2000	4/28/2000	4/28/2000	7/14/2000	7/14/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N	N	N	N	N
Sample Name			L4-4-021N	L5-10-041.5N	L5-10-052N	L5-11-011N	L5-2275-012N	L5-2313-122N	L5-2313-172N	L5-2313-172FD	L5-5-012N	L5-5-012FD	L5-5-010.5N	L5-5-031N	L5-5-030.5N	L5-539-031.5N	L5-9546-031N
Parent Sample										L5-2313-172N		L5-5-012N					
CONSTITUENT	***CAS NO.***	***UNITS***															
Volatile Organic Compounds																	
Semivolatile Organic Compounds (Cont)																	
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 39	< 390	NA	68	27	29	< 490	73	41	NA	65.54	NA	28	770
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	460	< 43	< 390
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 39	< 390	NA	580	85	400	65	< 39	< 400	NA	< 364.094	NA	< 43	2800
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 39	< 390	NA	87	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	36	39	NA	372	NA	< 43	< 390
Dimethylphthalate	131-11-3	ug/kg	NA	< 39	330	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Di-n-butylphthalate	84-74-2	ug/kg	NA	550	2000	NA	150	590	120	350	380	230	NA	398	NA	57	590
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Fluoranthene	206-44-0	ug/kg	NA	< 39	< 390	NA	1100	150	1100	120	< 39	< 400	NA	< 364.094	NA	< 43	9300
Fluorene	86-73-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	270
Hexachlorobenzene	118-74-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	NA	NA	< 43	< 390
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Hexachloroethane	67-72-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 39	< 390	NA	320	< 55	150	< 490	< 39	< 400	NA	< 364.094	NA	< 43	1000
Isophorone	78-59-1	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Naphthalene	91-20-3	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	370
Nitrobenzene	98-95-3	ug/kg	NA	< 39	< 390	NA	NA	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	110	< 390	NA	170	< 55	< 52	< 490	460	460	NA	349	NA	< 43	< 390
Pentachlorophenol	87-86-5	ug/kg	NA	< 78	< 780	NA	< 79	< 110	< 100	< 980	< 78	< 790	NA	< 728.188	NA	< 85	< 790
Phenanthrene	85-01-8	ug/kg	NA	< 39	< 390	NA	220	70	570	63	< 39	< 400	NA	< 364.094	NA	< 43	6800
Phenol	108-95-2	ug/kg	NA	< 39	< 390	NA	< 40	< 55	< 52	< 490	< 39	< 400	NA	< 364.094	NA	< 43	< 390
Pyrene	129-00-0	ug/kg	NA	< 39	< 390	NA	830	140	1100	140	< 39	< 400	NA	< 364.094	NA	< 43	5300

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			L4-4-02	L5-10-04	L5-10-05	L5-11-01	L5-2275-01	L5-2313-12	L5-2313-17	L5-2313-17	L5-5-01	L5-5-01	L5-5-01	L5-5-03	L5-5-03	L5-539-03	L5-9546-03
Depths			0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
Collection Date			4/14/2000	4/6/2000	4/6/2000	4/14/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/28/2000	4/28/2000	4/28/2000	7/14/2000	7/14/2000	4/14/2000	4/14/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N	N	N	N	N
Sample Name			L4-4-021N	L5-10-041.5N	L5-10-052N	L5-11-011N	L5-2275-012N	L5-2313-122N	L5-2313-172N	L5-2313-172FD	L5-5-012N	L5-5-012FD	L5-5-010.5N	L5-5-031N	L5-5-030.5N	L5-539-031.5N	L5-9546-031N
Parent Sample										L5-2313-172N		L5-5-012N					
CONSTITUENT	***CAS NO.***	***UNITS***															
Volatile Organic Compounds																	
Explosives & Energetics																	
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 25
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 25
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	NA	< 25	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 50
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	NA	< 25	360
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	106000	NA	NA	NA	NA	NA	NA	NA	NA	58800	149000
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	< 600	NA	NA	NA	NA	NA	NA	NA	NA	< 640	21000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 50
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	NA	< 50	< 50
Metals																	
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.88	0.36	1750	NA	31.9	0.52	0.43	0.7	NA	NA	NA	NA	NA	< 0.7	< 0.7
Arsenic	7440-38-2	mg/kg	10.2	1.9	457	NA	24.6	7	5.8	5.5	NA	NA	NA	NA	NA	5.2	5.7
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	1.2	0.59	< 10	NA	0.52	0.49	0.51	0.46	NA	NA	NA	NA	NA	0.66	0.56
Cadmium	7440-43-9	mg/kg	1.2	1.4	< 30	NA	0.54	7.4	5.1	10.2	NA	NA	NA	NA	NA	0.67	0.65
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	24.4	14.2	32	NA	19.7	11.9	14.1	13.4	NA	NA	NA	NA	NA	15.9	105
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	725	24.4	259	NA	216	22.4	18.6	26	NA	NA	NA	NA	NA	80.4	65.2
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	1460	77	56600	NA	78700	156	164	198	NA	NA	NA	NA	NA	698	808
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.33	< 0	0.08	NA	0.2	0.15	0.11	0.07	NA	NA	NA	NA	NA	10.6	0.14
Nickel	7440-02-0	mg/kg	18.6	6.7	25.3	NA	18.9	7.9	8.1	8.1	NA	NA	NA	NA	NA	10.8	10.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	1.5	< 0.5	< 50	NA	< 0.6	0.94	0.78	0.64	NA	NA	NA	NA	NA	0.64	1.1
Silver	7440-22-4	mg/kg	1.1	< 0.3	< 30	NA	7.8	0.36	0.51	0.52	NA	NA	NA	NA	NA	< 0.3	0.67
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	0.57	< 10	NA	4	< 1	< 1	< 1.5	NA	NA	NA	NA	NA	< 1	< 1
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	404	1000	1760	NA	668	929	826	1320	NA	NA	NA	NA	NA	138	169
Miscellaneous																	
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	32100	8510	NA	69000	26200	113000	NA	NA	16200	NA	NA	NA	NA	24400	62500
Grain Size																	
Clay	ARC-PCLAY	%	10.5	14.7	NA	10.3	7	11.3	NA	NA	0	NA	NA	NA	NA	9.5	8.8
Gravel	ARC-PGRAVEL	%	12.1	28.4	NA	5.9	57.3	22	NA	NA	47.7	NA	NA	NA	NA	20.5	36.6
Sand	ARC-PSAND	%	49.3	36.9	NA	45.3	25.4	39.6	NA	NA	40.1	NA	NA	NA	NA	41.4	39.4
Silt	ARC-PSILT	%	28.1	20	NA	38.6	10.3	27.1	NA	NA	12.1	NA	NA	NA	NA	28.6	15.2

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M4-1-02	M4-1-05	M4-1-09	M4-1-11	M4-1-13	M5-13-03	M5-14-04	M5-15-01	M5-15-01	M5-3-01	M5-3-02	M5-3-04	M5-3-07	M5-3-11
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			M4-1-022N	M4-1-051.5N	M4-1-091.5N	M4-1-112N	M4-1-132N	M5-13-031.5N	M5-14-041N	M5-15-011N	M5-15-011FD	M5-3-012N	M5-3-021N	M5-3-041N	M5-3-072N	M5-3-111N
Parent Sample											M5-15-011N					
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M4-1-02	M4-1-05	M4-1-09	M4-1-11	M4-1-13	M5-13-03	M5-14-04	M5-15-01	M5-15-01	M5-3-01	M5-3-02	M5-3-04	M5-3-07	M5-3-11
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			M4-1-022N	M4-1-051.5N	M4-1-091.5N	M4-1-112N	M4-1-132N	M5-13-031.5N	M5-14-041N	M5-15-011N	M5-15-011FD	M5-3-012N	M5-3-021N	M5-3-041N	M5-3-072N	M5-3-111N
Parent Sample											M5-15-011N					
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
Semivolatile Organic Compounds																
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	NA	NA	NA	< 84	< 78	< 83	< 890	NA	< 790	< 780	< 110	< 950
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 390	< 420	< 440	NA	27000	< 3900	150	9700
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 420	< 390	< 420	< 440	NA	3000	< 3900	190	1200
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	< 84	< 78	< 83	< 890	NA	< 790	< 780	< 110	< 950
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	< 84	< 78	< 83	< 890	NA	< 790	< 780	< 110	< 950
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	< 84	< 78	< 83	< 890	NA	< 790	< 780	< 110	< 950
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	19	68	NA	< 400	< 390	< 56	< 480
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	49	NA	< 400	< 390	< 56	< 480
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	NA	NA	NA	51	< 39	< 42	160	NA	< 400	< 390	< 56	360
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	NA	NA	NA	40	< 39	60	260	NA	< 400	< 390	37	260
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	NA	NA	NA	80	< 39	170	450	NA	< 400	< 390	< 56	< 480
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	370	NA	< 400	< 390	< 56	< 480
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	410	NA	< 400	< 390	< 56	< 480
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M4-1-02	M4-1-05	M4-1-09	M4-1-11	M4-1-13	M5-13-03	M5-14-04	M5-15-01	M5-15-01	M5-3-01	M5-3-02	M5-3-04	M5-3-07	M5-3-11
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			M4-1-022N	M4-1-051.5N	M4-1-091.5N	M4-1-112N	M4-1-132N	M5-13-031.5N	M5-14-041N	M5-15-011N	M5-15-011FD	M5-3-012N	M5-3-021N	M5-3-041N	M5-3-072N	M5-3-111N
Parent Sample											M5-15-011N					
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
Semivolatile Organic Compounds (Cont)																
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	NA	NA	NA	68	31	40	190	NA	< 400	< 390	510	1000
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	110	NA	< 400	< 390	< 56	< 480
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	NA	NA	NA	51	< 39	91	380	NA	< 400	< 390	63	600
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	2000	400	160	< 480
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	NA	NA	NA	50	< 39	< 42	< 440	NA	32000	2100	260	470
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	100	< 39	180	600	NA	< 400	< 390	< 56	< 480
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	320	NA	< 400	< 390	< 56	< 480
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	NA	NA	< 56	< 480
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	15000	1900	800	9100
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	< 84	< 78	< 83	< 890	NA	< 790	< 780	< 110	< 950
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	63	25	50	200	NA	< 400	< 390	63	340
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	< 42	< 39	< 42	< 440	NA	< 400	< 390	< 56	< 480
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	110	< 39	150	670	NA	< 400	< 390	< 56	< 480

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M4-1-02	M4-1-05	M4-1-09	M4-1-11	M4-1-13	M5-13-03	M5-14-04	M5-15-01	M5-15-01	M5-3-01	M5-3-02	M5-3-04	M5-3-07	M5-3-11
Depths			0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Sample Name			M4-1-022N	M4-1-051.5N	M4-1-091.5N	M4-1-112N	M4-1-132N	M5-13-031.5N	M5-14-041N	M5-15-011N	M5-15-011FD	M5-3-012N	M5-3-021N	M5-3-041N	M5-3-072N	M5-3-111N
Parent Sample											M5-15-011N					
CONSTITUENT	***CAS NO.***	***UNITS***														
Volatile Organic Compounds																
Explosives & Energetics																
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24	< 25	< 25	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24	< 25	< 25	NA	NA
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24	1300	< 25	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 240	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24	< 25	< 25	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48	< 50	< 50	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48	< 50	< 50	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24	< 25	< 25	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48	< 50	< 50	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24	< 25	< 25	NA	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3560000	8950000	5670000	NA	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	64000	140000	73000	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48	< 50	< 50	NA	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48	4800	< 50	NA	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48	< 50	< 50	NA	NA
Metals																
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	0.84	< 0.6	< 0.6	< 0.7	3.8	0.8	< 0.6	< 0.7	< 0.75	NA	3.2	1.3	14.5	9.4
Arsenic	7440-38-2	mg/kg	3.1	4.1	4.6	6.7	18.6	5.4	6.3	5.9	9.4	NA	103	6.9	108	25.8
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.49	0.57	0.51	0.67	0.48	0.78	0.63	1.1	1.1	NA	0.35	0.3	0.54	0.29
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3	1.9	0.31	0.18	< 0.3	< 0.37	NA	1.4	1.6	7.6	4.6
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	9.6	19.2	15.5	18	41.8	11.3	14.5	21.4	24.5	NA	61.4	24.2	154	92.1
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	11.2	15.7	28.6	34.2	232	16.5	15.2	15.3	24	NA	7050	94.1	9670	1370
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	233	23.8	40	62.6	829	147	38.4	48.3	74.5	NA	742	285	8410	6090
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	< 0	< 0	0.04	0.07	0.35	0.07	0.03	0.1	0.12	NA	0.53	2	1.1	2.1
Nickel	7440-02-0	mg/kg	6.5	12.2	8	8.3	15.7	9.2	9.3	12.8	13.9	NA	10.4	11.8	98.8	42.2
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.54	0.64	0.78	1.1	1	0.75	0.44	0.62	0.76	NA	< 2	0.67	< 8	< 3
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3	6.1	< 0.3	< 0.3	< 0.3	< 0.37	NA	< 1	0.65	8.5	4.6
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	0.86	NA	< 5	< 1	< 16	< 6
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	103	95	82.8	151	3530	65.2	101	113	140	NA	863	1920	22100	5740
Miscellaneous																
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	5970	NA	NA	NA	NA	58900	35200	38100	NA	NA	NA	NA	NA	NA
Grain Size																
Clay	ARC-PCLAY	%	6.3	NA	NA	NA	NA	8.1	8.7	10.9	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	25.9	NA	NA	NA	NA	35.5	47.3	24.8	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	53	NA	NA	NA	NA	27.6	26.8	35.2	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	14.8	NA	NA	NA	NA	28.9	17.2	29.1	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M5-3-16	M5-3-17	M5-3-19	M5-3-19	SB-R-L5-03	SB-R-M5-01	SO-R2-L-4-1	TP-R-M5-3-1	TP-R-M5-3-11	TP-R-M5-3-14	TP-R-M5-3-15	TP-R-M5-3-17
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	1.0-1.5 ft	0.5-1.0 ft	0.1-0.6 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/21/2006	4/21/2006	11/12/2013	7/20/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			M5-3-160.75N	M5-3-170.75N	M5-3-190.75N	M5-3-190.75FD	SB-R-L5-031.5N	SB-R-M5-011.0N	SO-R2-L-4-1_20131112	TP-R-M5-3-11.5N	TP-R-M5-3-111.5N	TP-R-M5-3-141.0N	TP-R-M5-3-151.5N	TP-R-M5-3-171.0N
Parent Sample						M5-3-190.75N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	< 11	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	< 11	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	< 11	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	< 11	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	17	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 4300	< 3000	NA	< 2900	< 2900	< 3300	< 2900	< 3000
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 1100	< 750	< 5	< 730	< 730	< 820	< 720	< 760
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 1100	< 750	< 5	< 730	< 730	< 820	< 720	< 760
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 1100	< 750	< 5	< 730	< 730	< 820	< 720	< 760
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 1100	< 750	< 5	< 730	< 730	< 820	< 720	< 760
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	< 5	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M5-3-16	M5-3-17	M5-3-19	M5-3-19	SB-R-L5-03	SB-R-M5-01	SO-R2-L-4-1	TP-R-M5-3-1	TP-R-M5-3-11	TP-R-M5-3-14	TP-R-M5-3-15	TP-R-M5-3-17
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	1.0-1.5 ft	0.5-1.0 ft	0.1-0.6 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/21/2006	4/21/2006	11/12/2013	7/20/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			M5-3-160.75N	M5-3-170.75N	M5-3-190.75N	M5-3-190.75FD	SB-R-L5-031.5N	SB-R-M5-011.0N	SO-R2-L-4-1_20131112	TP-R-M5-3-11.5N	TP-R-M5-3-111.5N	TP-R-M5-3-141.0N	TP-R-M5-3-151.5N	TP-R-M5-3-171.0N
Parent Sample						M5-3-190.75N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
Semivolatile Organic Compounds														
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 410	< 480	< 4600	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	NA	< 190	< 190	< 210	< 420	< 220
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 810	< 970	< 9300	< 3200	< 2400	< 1100	< 2300	< 2300	< 2500	< 5000	< 2700
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	2100	1400	5600	< 270	< 200	< 190	< 190	190	160	< 420	27000
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	1100	1100	1300	< 270	< 200	< 38	< 190	< 190	120	< 420	2900
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	5	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 810	< 970	< 9300	NA	NA	< 380	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 190	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 810	< 970	< 9300	NA	NA	< 570	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	< 190	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	< 810	< 970	< 9300	NA	NA	< 570	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 19	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 410	< 480	< 4600	NA	NA	5	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	< 410	< 480	< 4600	NA	NA	7	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	< 190	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	< 190	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	< 410	< 480	< 4600	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	20	190	130	400	120	220
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	24	180	220	400	87	460
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	25	410	960	730	450	1100
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 410	< 480	< 4600	NA	NA	20	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	14	190	360	360	120	320
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M5-3-16	M5-3-17	M5-3-19	M5-3-19	SB-R-L5-03	SB-R-M5-01	SO-R2-L-4-1	TP-R-M5-3-1	TP-R-M5-3-11	TP-R-M5-3-14	TP-R-M5-3-15	TP-R-M5-3-17
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	1.0-1.5 ft	0.5-1.0 ft	0.1-0.6 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/21/2006	4/21/2006	11/12/2013	7/20/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			M5-3-160.75N	M5-3-170.75N	M5-3-190.75N	M5-3-190.75FD	SB-R-L5-031.5N	SB-R-M5-011.0N	SO-R2-L-4-1_20131112	TP-R-M5-3-11.5N	TP-R-M5-3-111.5N	TP-R-M5-3-141.0N	TP-R-M5-3-151.5N	TP-R-M5-3-171.0N
Parent Sample						M5-3-190.75N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 410	850	410	< 540	< 390	< 190	< 380	< 380	200	320	110
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	< 190	< 190	< 190	< 210	< 420	< 220
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	< 190	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	23	220	240	440	150	290
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	< 19	42	200	74	< 420	< 220
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	< 38	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 410	1400	1300	< 270	< 200	< 190	120	420	180	< 420	96
Dimethylphthalate	131-11-3	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 190	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 410	42000	26000	< 270	< 200	< 190	170	7700	640	1900	24000
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 190	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	< 410	< 480	< 4600	NA	NA	48	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	< 410	< 480	< 4600	NA	NA	4	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 19	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 570	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 190	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	18	150	310	240	< 420	480
Isophorone	78-59-1	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	< 410	< 480	< 4600	NA	NA	8	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 410	< 480	< 4600	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 410	< 480	< 4600	< 270	< 200	< 38	< 190	< 190	< 210	< 420	< 220
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 410	6000	4800	< 270	< 200	< 38	60	1500	300	1600	2300
Pentachlorophenol	87-86-5	ug/kg	NA	< 810	< 970	< 9300	NA	NA	< 190	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	< 410	< 480	< 4600	NA	NA	30	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	< 410	< 480	< 4600	NA	NA	< 38	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	< 410	< 480	< 4600	NA	NA	38	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M5-3-16	M5-3-17	M5-3-19	M5-3-19	SB-R-L5-03	SB-R-M5-01	SO-R2-L-4-1	TP-R-M5-3-1	TP-R-M5-3-11	TP-R-M5-3-14	TP-R-M5-3-15	TP-R-M5-3-17
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-0.8 ft	1.0-1.5 ft	0.5-1.0 ft	0.1-0.6 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
Collection Date			4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/21/2006	4/21/2006	11/12/2013	7/20/2006	7/25/2006	7/25/2006	7/26/2006	7/26/2006
Sample Type			N	N	N	FD	N	N	N	N	N	N	N	N
Sample Name			M5-3-160.75N	M5-3-170.75N	M5-3-190.75N	M5-3-190.75FD	SB-R-L5-031.5N	SB-R-M5-011.0N	SO-R2-L-4-1_20131112	TP-R-M5-3-11.5N	TP-R-M5-3-111.5N	TP-R-M5-3-141.0N	TP-R-M5-3-151.5N	TP-R-M5-3-171.0N
Parent Sample						M5-3-190.75N								
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
Explosives & Energetics														
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	< 340	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	< 25	< 25	< 250	NA	NA	< 340	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	210	270	500	< 480	< 350	< 340	< 350	160	< 370	< 380	310
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	< 340	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	< 340	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 24	250	< 25	< 250	< 480	< 350	< 340	< 350	< 340	210	< 380	190
2,6-Dinitrotoluene	606-20-2	ug/kg	< 240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	< 25	< 25	< 250	< 480	< 350	< 340	< 350	< 340	< 370	< 380	< 400
2-Nitrotoluene	88-72-2	ug/kg	< 48	< 50	< 50	< 500	NA	NA	< 340	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 48	< 50	< 50	< 500	NA	NA	< 340	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	< 25	< 25	< 250	< 480	< 350	< 340	< 690	< 690	< 750	< 750	< 800
4-Nitrotoluene	99-99-0	ug/kg	< 48	< 50	< 50	< 500	NA	NA	< 340	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	360	< 25	< 25	< 250	NA	NA	< 340	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	1150000	176000	2450000	3110000	< 200000	< 140000	NA	< 140000	310000	390000	1500000	220000
Nitroglycerin	55-63-0	ug/kg	< 600	< 610	46000	36000	< 9700	< 7100	< 6800	12000	4500	7700	65000	< 8000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 48	< 50	< 50	< 500	< 1200	< 880	< 860	< 870	< 860	< 940	750	2600
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	< 6800	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	3200	1100	550	450	< 480	< 350	< 340	< 350	< 340	< 370	5300	10000
Tetryl	479-45-8	ug/kg	< 48	< 50	< 50	< 500	NA	NA	< 340	NA	NA	NA	NA	NA
Metals														
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	17900	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	NA	4.2	13.8	9.2	< 3.19	< 2.31	0.852	4.12	1.37	4.29	11.7	25.1
Arsenic	7440-38-2	mg/kg	NA	22.3	74	66	2.52	2.47	2.46	11.7	15.9	35.9	108	70.4
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	51	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	0.92	0.39	0.31	0.806	0.592	0.538	0.756	0.686	0.485	0.715	0.492
Cadmium	7440-43-9	mg/kg	NA	3.1	9	9	2.89	< 0.577	< 0.571	1.12	0.599	1.95	4.52	34.5
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	1030	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	51.5	119	133	NA	NA	13.5	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	3.73	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	1100	2420	1250	6.86	12.4	12.6	210	34.3	364	1090	1570
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	21700	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	3030	4180	3290	20.4	7.57	15.4	611	185	1840	963	7500
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	2020	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	196	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	4.2	2.5	2	0.0629	0.0176	0.0394	2.52	0.381	1.15	0.518	2.98
Nickel	7440-02-0	mg/kg	NA	323	71.6	81.9	4.13	11.1	7.59	13.2	12.6	30.7	38.4	104
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	407	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	1.8	< 3	2.6	< 3.19	< 2.31	< 2.28	< 2.29	< 2.27	< 2.4	< 2.51	< 13.1
Silver	7440-22-4	mg/kg	NA	7.9	9	9.1	< 0.798	< 0.577	0.428	0.465	< 0.567	11.1	1.21	6.5
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	104	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	< 2	< 6	< 6.8	< 3.19	< 2.31	< 3.42	< 2.29	< 2.27	< 2.4	< 2.51	< 2.63
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	28.4	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	3020	9100	9600	412	89.6	251	400	115	1660	3470	68500
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	38	15	NA	13.4	12.7	19.9	20.3	24.7
Total Organic Carbon	ARC-TOC	mg/kg	NA	43200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
Clay	ARC-PCLAY	%	NA	9.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	46.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	27.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	15.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-M5-3-18	TP-R-M5-3-19	TP-R-M5-3-20	TP-R-M5-3-21	TP-R-M5-3-22	TP-R-M5-3-22	TP-R-M5-3-23	TP-R-M5-3-3	TP-R-M5-3-4	TP-R-M5-3-7	TP-R-M5-3-8
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			7/26/2006	7/26/2006	7/26/2006	7/26/2006	7/25/2006	7/25/2006	7/26/2006	7/21/2006	7/21/2006	7/24/2006	7/24/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			TP-R-M5-3-181.0N	TP-R-M5-3-191.0N	TP-R-M5-3-201.0N	TP-R-M5-3-211.0N	TP-R-M5-3-221.5N	TP-R-M5-3-221.5FD	TP-R-M5-3-231.0N	TP-R-M5-3-31.0N	TP-R-M5-3-41.0N	TP-R-M5-3-71N	TP-R-M5-3-81.5N
Parent Sample								TP-R-M5-3-221.5N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-trifluoroethane (Freon)	76-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	96-12-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	106-93-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	78-93-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	591-78-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	108-10-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	67-64-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 2700	< 3200	< 3500	< 2700	< 2800	< 3000	< 2800	< 3100	< 3200	< 2800	< 3000
Benzene	71-43-2	ug/kg	< 680	91	710	170	99	< 760	< 700	< 780	< 790	< 710	< 760
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	75-15-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 680	< 790	< 860	< 670	< 710	< 760	< 700	< 780	< 790	< 710	< 760
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	110-82-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	75-71-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	98-82-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	79-20-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	108-87-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 680	< 790	< 860	< 670	< 710	< 760	< 700	< 780	< 790	< 710	< 760
MTBE	1634-04-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	100-42-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 680	< 790	< 860	< 670	< 710	< 760	< 700	< 780	< 790	< 710	< 760
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-M5-3-18	TP-R-M5-3-19	TP-R-M5-3-20	TP-R-M5-3-21	TP-R-M5-3-22	TP-R-M5-3-22	TP-R-M5-3-23	TP-R-M5-3-3	TP-R-M5-3-4	TP-R-M5-3-7	TP-R-M5-3-8
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			7/26/2006	7/26/2006	7/26/2006	7/26/2006	7/25/2006	7/25/2006	7/26/2006	7/21/2006	7/21/2006	7/24/2006	7/24/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			TP-R-M5-3-181.0N	TP-R-M5-3-191.0N	TP-R-M5-3-201.0N	TP-R-M5-3-211.0N	TP-R-M5-3-221.5N	TP-R-M5-3-221.5FD	TP-R-M5-3-231.0N	TP-R-M5-3-31.0N	TP-R-M5-3-41.0N	TP-R-M5-3-71N	TP-R-M5-3-81.5N
Parent Sample								TP-R-M5-3-221.5N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
Semivolatile Organic Compounds													
1,1'-Biphenyl	92-52-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 200	< 210	< 190	< 900	< 190	< 190	< 180	< 180	< 200	< 190	< 190
2,4,5-Trichlorophenol	95-95-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 2400	< 2500	< 2300	< 11000	< 2300	< 2300	< 2200	< 2200	< 2400	< 2300	< 2300
2,4-Dinitrotoluene	121-14-2	ug/kg	140	1300	< 190	14000	2600	1700	< 180	< 180	< 200	< 190	< 190
2,6-Dinitrotoluene	606-20-2	ug/kg	68	180	< 190	1100	190	170	< 180	< 180	< 200	< 190	< 190
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95-48-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	106-44-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	98-86-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	1912-24-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	100-52-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	66	< 210	< 190	< 900	110	120	< 180	99	< 200	< 190	< 190
Benzo[a]pyrene	50-32-8	ug/kg	76	< 210	< 190	< 900	200	200	< 180	160	< 200	< 190	< 190
Benzo[b]fluoranthene	205-99-2	ug/kg	370	97	< 190	< 900	950	830	< 180	280	< 200	< 190	< 190
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	120	63	< 190	< 900	400	380	< 180	120	< 200	< 190	< 190
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-M5-3-18	TP-R-M5-3-19	TP-R-M5-3-20	TP-R-M5-3-21	TP-R-M5-3-22	TP-R-M5-3-22	TP-R-M5-3-23	TP-R-M5-3-3	TP-R-M5-3-4	TP-R-M5-3-7	TP-R-M5-3-8
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			7/26/2006	7/26/2006	7/26/2006	7/26/2006	7/25/2006	7/25/2006	7/26/2006	7/21/2006	7/21/2006	7/24/2006	7/24/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			TP-R-M5-3-181.0N	TP-R-M5-3-191.0N	TP-R-M5-3-201.0N	TP-R-M5-3-211.0N	TP-R-M5-3-221.5N	TP-R-M5-3-221.5FD	TP-R-M5-3-231.0N	TP-R-M5-3-31.0N	TP-R-M5-3-41.0N	TP-R-M5-3-71N	TP-R-M5-3-81.5N
Parent Sample								TP-R-M5-3-221.5N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	140	< 410	< 390	< 1800	610	490	< 360	< 360	< 400	< 380	< 380
Butylbenzylphthalate	85-68-7	ug/kg	< 200	< 210	< 190	< 900	< 190	< 190	< 180	< 180	< 200	< 190	< 190
Caprolactam	105-60-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	86-74-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ug/kg	83	< 210	< 190	< 900	220	210	< 180	190	< 200	< 190	< 190
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 200	< 210	< 190	< 900	120	120	< 180	< 180	< 200	< 190	< 190
Dibenzofuran	132-64-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	240	88	< 190	1100	390	340	< 180	< 180	< 200	< 190	< 190
Dimethylphthalate	131-11-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	480	240	< 190	4900	570	390	< 180	< 180	< 200	< 190	< 190
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	47	< 210	< 190	< 900	290	290	< 180	130	< 200	< 190	< 190
Isophorone	78-59-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 200	< 210	< 190	< 900	< 190	< 190	< 180	< 180	< 200	< 190	< 190
N-Nitrosodiphenylamine	86-30-6	ug/kg	810	340	< 190	4700	1200	850	< 180	100	< 200	< 190	< 190
Pentachlorophenol	87-86-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.5 - Areas of Presumed Remedial Action Dataset
Soil - Development Area - Old Burning Ground
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			TP-R-M5-3-18	TP-R-M5-3-19	TP-R-M5-3-20	TP-R-M5-3-21	TP-R-M5-3-22	TP-R-M5-3-22	TP-R-M5-3-23	TP-R-M5-3-3	TP-R-M5-3-4	TP-R-M5-3-7	TP-R-M5-3-8
Depths			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
Collection Date			7/26/2006	7/26/2006	7/26/2006	7/26/2006	7/25/2006	7/25/2006	7/26/2006	7/21/2006	7/21/2006	7/24/2006	7/24/2006
Sample Type			N	N	N	N	N	FD	N	N	N	N	N
Sample Name			TP-R-M5-3-181.0N	TP-R-M5-3-191.0N	TP-R-M5-3-201.0N	TP-R-M5-3-211.0N	TP-R-M5-3-221.5N	TP-R-M5-3-221.5FD	TP-R-M5-3-231.0N	TP-R-M5-3-31.0N	TP-R-M5-3-41.0N	TP-R-M5-3-71N	TP-R-M5-3-81.5N
Parent Sample								TP-R-M5-3-221.5N					
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
Explosives & Energetics													
1,2-Dinitrobenzene	528-29-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 350	< 370	< 350	< 330	< 340	< 340	< 330	< 330	< 360	< 340	< 340
1,4-Dinitrobenzene	100-25-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	86-57-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 350	< 370	< 350	< 330	< 340	290	< 330	< 330	< 360	< 340	< 340
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 350	< 370	< 350	< 330	< 340	< 340	< 330	< 330	< 360	< 340	< 340
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 710	< 740	< 690	< 650	< 680	< 680	< 650	< 650	< 710	< 680	< 690
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	630000	130000	< 140000	3500000	580000	1500000	< 130000	< 130000	< 140000	< 140000	< 140000
Nitroglycerin	55-63-0	ug/kg	18000	5200	< 6900	89000	12000	30000	< 6500	7400	7600	< 6800	< 6900
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 880	< 920	< 870	< 810	< 850	< 850	< 820	< 810	< 890	< 850	< 860
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 350	< 370	< 350	1600	2400	280	< 330	< 330	< 360	< 340	< 340
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals													
Aluminum	7429-90-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/kg	3.34	2.56	< 2.25	< 2.15	3.16	2.65	2.98	0.988	2.29	1.29	1.14
Arsenic	7440-38-2	mg/kg	29.8	10.2	4.62	6.92	10.1	8.81	2.91	5.13	8.62	5.02	4.91
Barium	7440-39-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.677	1.04	0.656	0.341	0.428	0.388	0.645	0.329	1.09	0.723	0.718
Cadmium	7440-43-9	mg/kg	2.28	0.651	0.189	0.423	0.694	0.643	0.123	4.54	0.229	0.628	0.634
Calcium	7440-70-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	321	127	13.4	183	157	128	17.1	806	154	14.5	15
Iron	7439-89-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	753	2300	16.3	672	668	544	552	216	1060	6.67	9.77
Magnesium	7439-95-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.33	0.261	< 0.115	0.244	0.566	2.64	0.0242	0.0857	0.188	< 0.111	0.0203
Nickel	7440-02-0	mg/kg	23	14.7	10.3	7.98	11	9.48	9.21	14.6	17.1	10.8	12.9
Potassium	7440-09-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	< 2.31	< 2.37	< 2.25	< 2.15	< 2.19	< 2.18	< 2.15	3.01	1.16	< 2.21	< 2.24
Silver	7440-22-4	mg/kg	1.03	0.779	< 0.562	< 0.537	0.752	0.578	< 0.538	0.476	1.49	< 0.552	< 0.561
Sodium	7440-23-5	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	< 2.31	< 2.37	< 2.25	< 2.15	< 2.19	< 2.18	< 2.15	< 2.12	2.08	< 2.21	< 2.24
Vanadium	7440-62-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	2060	632	83.2	521	277	231	74.1	139	567	72.4	99.2
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	15.2	18.9	13.6	7.8	11.3	11.8	8	7.7	15.9	12.1	12.6
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B6. Storage Area Description (Tier III)
Kenvil Works Facility
Kenvil, New Jersey

The Storage Area – disposal area in grid cell N6-1 served as a disposal area for process waste materials during the period of increased production associated with WWI and the years that followed. Over time, soil has accumulated at the ground surface and the area has almost entirely revegetated with grasses and shrubs. Miscellaneous debris is present at ground surface in places. Hercules performed a focused removal of large metal debris during site demolition.

Given the presence of potential source material in this area, Hercules will address the removal and/or containment of these materials during the feasibility study (FS) process.

Appendix B.6 - Areas of Presumed Remedial Action Dataset
Soil - Storage Area - Disposal Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M6-1-18	M6-1-18	N6-640-03	N6-640-03	O6-9223-06	O6-9223-07	O6-9223-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/9/2000
Sample Type			N	FD	N	FD	N	N	FD
Sample Name			M6-1-182N	M6-1-182FD	N6-640-031N	N6-640-031FD	O6-9223-061.25N	O6-9223-071.5N	O6-9223-071.5FD
Parent Sample				M6-1-182N		N6-640-031N			O6-9223-071.5N
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds									
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	NA	< 80	< 780	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	NA	< 400	< 390	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	< 400	< 390	NA	NA	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
2-Chlorophenol	95-57-8	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	NA	< 80	< 780	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	NA	< 80	< 780	NA	NA	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 80	< 780	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Acenaphthylene	208-96-8	ug/kg	NA	NA	350	300	NA	NA	NA
Anthracene	120-12-7	ug/kg	NA	NA	330	280	NA	NA	NA
Benzidine	92-87-5	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	NA	1500	1300	NA	NA	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	NA	1500	1100	NA	NA	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	NA	3200	2400	NA	NA	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	NA	740	660	NA	NA	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	NA	1200	930	NA	NA	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA

Appendix B.6 - Areas of Presumed Remedial Action Dataset
Soil - Storage Area - Disposal Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M6-1-18	M6-1-18	N6-640-03	N6-640-03	O6-9223-06	O6-9223-07	O6-9223-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/9/2000
Sample Type			N	FD	N	FD	N	N	FD
Sample Name			M6-1-182N	M6-1-182FD	N6-640-031N	N6-640-031FD	O6-9223-061.25N	O6-9223-071.5N	O6-9223-071.5FD
Parent Sample				M6-1-182N		N6-640-031N			O6-9223-071.5N
CONSTITUENT	***CAS NO.***	***UNITS***							
Semivolatile Organic Compounds (Cont)									
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	NA	34	< 390	NA	NA	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Chrysene	218-01-9	ug/kg	NA	NA	2100	1700	NA	NA	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	NA	300	250	NA	NA	NA
Diethylphthalate	84-66-2	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Dimethylphthalate	131-11-3	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	NA	37	< 390	NA	NA	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Fluoranthene	206-44-0	ug/kg	NA	NA	2300	1800	NA	NA	NA
Fluorene	86-73-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Hexachloroethane	67-72-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	NA	820	710	NA	NA	NA
Isophorone	78-59-1	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	43	36	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Pentachlorophenol	87-86-5	ug/kg	NA	NA	< 80	< 780	NA	NA	NA
Phenanthrene	85-01-8	ug/kg	NA	NA	330	300	NA	NA	NA
Phenol	108-95-2	ug/kg	NA	NA	< 40	< 390	NA	NA	NA
Pyrene	129-00-0	ug/kg	NA	NA	2500	2000	NA	NA	NA

Appendix B.6 - Areas of Presumed Remedial Action Dataset
Soil - Storage Area - Disposal Area
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			M6-1-18	M6-1-18	N6-640-03	N6-640-03	O6-9223-06	O6-9223-07	O6-9223-07
Depths			0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000	5/9/2000
Sample Type			N	FD	N	FD	N	N	FD
Sample Name			M6-1-182N	M6-1-182FD	N6-640-031N	N6-640-031FD	O6-9223-061.25N	O6-9223-071.5N	O6-9223-071.5FD
Parent Sample				M6-1-182N		N6-640-031N			O6-9223-071.5N
CONSTITUENT	***CAS NO.***	***UNITS***							
Explosives & Energetics									
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 250	< 15	< 140	< 25	< 25	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 250	< 15	< 140	< 25	< 25	< 250
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 250	< 15	< 140	< 25	1300	< 250
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 250	NA	NA	NA	NA	< 250
2,6-Dinitrotoluene	606-20-2	ug/kg	< 250	< 250	NA	NA	< 250	< 250	< 250
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 250	< 15	< 140	< 25	< 25	130
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 500	< 29	< 280	< 50	< 50	< 500
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 500	< 29	< 280	< 50	< 50	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 250	< 15	< 140	< 25	< 25	< 250
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 500	< 29	< 280	< 50	< 50	< 500
Nitrobenzene	98-95-3	ug/kg	< 25	< 250	< 15	< 140	< 25	< 25	< 250
Nitrocellulose	9004-70-0	ug/kg	72200	< 40800	97900	242000	< 36000	< 39000	52300
Nitroglycerin	55-63-0	ug/kg	< 610	< 6100	< 590	< 5700	< 540	< 560	11000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 50	< 500	< 29	< 280	< 50	2500	1000000
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 500	< 29	< 280	< 50	< 50	< 500
Tetryl	479-45-8	ug/kg	< 50	< 500	150	< 280	< 50	< 50	< 500
Metals									
Antimony	7440-36-0	mg/kg	NA	NA	1	1.3	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	223	203	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	1.4	0.99	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	1.1	0.5	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	25.7	12.2	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	35.3	28.5	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	127	166	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	0.36	0.33	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	17.1	10.1	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	0.57	0.62	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	0.2	< 0.35	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	< 1	< 1.2	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	605	78.3	NA	NA	NA
Miscellaneous									
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	105000	NA	10400	NA	NA
Grain Size									
Clay	ARC-PCLAY	%	NA	NA	11	NA	15.1	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	38.5	NA	16	NA	NA
Sand	ARC-PSAND	%	NA	NA	32.5	NA	45.4	NA	NA
Silt	ARC-PSILT	%	NA	NA	18	NA	23.5	NA	NA

Appendix B7. B-Line Area – South Description (Tier III)
Kenvil Works Facility
Kenvil, New Jersey

Various areas of concern including process buildings and structures (e.g., basins, sheds) existed at the southern end of the B-Line Area near the terminus of Powder Mill Road. During decommissioning and demolition activities, residual product was observed in soil at various locations in this area and remediated. A review of SI/RI sample results identified an aggregation of locations surrounding former structures that share similar site-related influences approximately 11 acres in size. Hercules will address removal and/or containment these materials during the FS process. Soil samples collected around the DNT Heater House in Figure 3-2 were evaluated in the ERA.

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J10-2-03	J10-2-04	J10-2187-01	J10-2187-05	J10-3-01	J10-5-01	J10-8280-01	J10-8280-01	J10-9122-03	J10-9122-03	J10-9334-01	J11-10-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	9/12/2000	5/25/2000	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/5/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			J10-2-032N	J10-2-040.5N	J10-2187-011N	J10-2187-051N	J10-3-011N	J10-5-012N	J10-8280-011N	J10-8280-011FD	J10-9122-031N	J10-9122-030.5N	J10-9334-010.5N	J11-10-051.5N
Parent Sample										J10-8280-011N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 370	< 540	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2200	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	3240	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	761	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 370	179	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 540	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1100	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J10-2-03	J10-2-04	J10-2187-01	J10-2187-05	J10-3-01	J10-5-01	J10-8280-01	J10-8280-01	J10-9122-03	J10-9122-03	J10-9334-01	J11-10-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	9/12/2000	5/25/2000	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/5/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			J10-2-032N	J10-2-040.5N	J10-2187-011N	J10-2187-051N	J10-3-011N	J10-5-012N	J10-8280-011N	J10-8280-011FD	J10-9122-031N	J10-9122-030.5N	J10-9334-010.5N	J11-10-051.5N
Parent Sample										J10-8280-011N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	NA	NA	< 360	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 370	< 540	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	NA	NA	< 360	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	< 81	< 410	< 744	< 79	NA	< 84	< 80	< 780	69.18	NA	< 720	< 76
2,4-Dinitrotoluene	121-14-2	ug/kg	46	< 2000	< 372	< 400	NA	390	< 400	36	< 370	NA	250000	50000
2,6-Dinitrotoluene	606-20-2	ug/kg	< 410	< 2000	< 372	< 400	NA	360	< 400	< 390	NA	NA	14000	2500
2-Chloronaphthalene	91-58-7	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
2-Chlorophenol	95-57-8	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
2-Nitrophenol	88-75-5	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	NA	NA	< 360	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 370	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 81	< 410	< 744	< 79	NA	< 84	< 80	< 780	NA	NA	< 720	< 76
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 730	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 81	< 410	< 744	< 79	NA	< 84	< 80	< 780	< 730	NA	< 720	< 76
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
4-Nitrophenol	100-02-7	ug/kg	< 81	< 410	< 744	< 79	NA	< 84	< 80	< 780	NA	NA	< 720	< 76
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 730	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	24	350	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	320	19
Acenaphthylene	208-96-8	ug/kg	190	1600	< 372	< 40	NA	22	24	25	31.48	NA	720	30
Anthracene	120-12-7	ug/kg	160	2600	< 372	< 40	NA	45	33	28	24.16	NA	1400	41
Benzidine	92-87-5	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Benzo[a]anthracene	56-55-3	ug/kg	950	12000	< 372	< 40	NA	140	150	130	201	NA	2800	120
Benzo[a]pyrene	50-32-8	ug/kg	750	9100	< 372	< 40	NA	140	150	120	154	NA	4500	160
Benzo[b]fluoranthene	205-99-2	ug/kg	2300	22000	< 372	< 40	NA	340	280	230	455	NA	15000	380
Benzo[g,h,i]perylene	191-24-2	ug/kg	590	5300	< 372	< 40	NA	< 42	82	< 390	< 370	NA	2800	200
Benzo[k]fluoranthene	207-08-9	ug/kg	630	6900	< 372	< 40	NA	130	< 40	< 390	141	NA	4300	170
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J10-2-03	J10-2-04	J10-2187-01	J10-2187-05	J10-3-01	J10-5-01	J10-8280-01	J10-8280-01	J10-9122-03	J10-9122-03	J10-9334-01	J11-10-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	9/12/2000	5/25/2000	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/5/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			J10-2-032N	J10-2-040.5N	J10-2187-011N	J10-2187-051N	J10-3-011N	J10-5-012N	J10-8280-011N	J10-8280-011FD	J10-9122-031N	J10-9122-030.5N	J10-9334-010.5N	J11-10-051.5N
Parent Sample										J10-8280-011N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	< 41	< 200	385	21	NA	26	28	22	97.36	NA	< 360	47
Butylbenzylphthalate	85-68-7	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	< 1100	< 360	< 38
Chrysene	218-01-9	ug/kg	1700	14000	< 372	< 40	NA	150	210	170	263	NA	4600	200
Dibenzo[a,h]anthracene	53-70-3	ug/kg	190	1900	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	1800	< 38
Diethylphthalate	84-66-2	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	330	< 38
Dimethylphthalate	131-11-3	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Di-n-butylphthalate	84-74-2	ug/kg	37	300	6670	440	NA	42	62	53	72.47	NA	760	< 38
Di-n-octylphthalate	117-84-0	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Fluoranthene	206-44-0	ug/kg	1800	17000	< 372	< 40	NA	340	420	290	346	NA	4000	280
Fluorene	86-73-7	ug/kg	< 41	540	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	440	< 38
Hexachlorobenzene	118-74-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	< 540	< 360	< 38
Hexachlorobutadiene	87-68-3	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Hexachloroethane	67-72-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	590	5700	< 372	< 40	NA	< 42	83	< 390	71.74	NA	3000	180
Isophorone	78-59-1	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Naphthalene	91-20-3	ug/kg	42	160	< 372	< 40	NA	< 42	< 40	< 390	NA	NA	< 360	28
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 372	< 40	NA	< 42	NA	NA	< 370	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	< 41	< 200	148	< 40	NA	< 42	< 40	< 390	< 370	NA	8800	1500
Pentachlorophenol	87-86-5	ug/kg	< 81	< 410	< 744	< 79	NA	< 84	< 80	< 780	< 730	NA	< 720	< 76
Phenanthrene	85-01-8	ug/kg	540	8400	< 372	< 40	NA	230	180	120	80.16	NA	2700	170
Phenol	108-95-2	ug/kg	< 41	< 200	< 372	< 40	NA	< 42	< 40	< 390	< 370	NA	< 360	< 38
Pyrene	129-00-0	ug/kg	2200	22000	< 372	< 40	NA	270	350	270	353	NA	8200	380
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J10-2-03	J10-2-04	J10-2187-01	J10-2187-05	J10-3-01	J10-5-01	J10-8280-01	J10-8280-01	J10-9122-03	J10-9122-03	J10-9334-01	J11-10-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	9/12/2000	5/25/2000	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/5/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			J10-2-032N	J10-2-040.5N	J10-2187-011N	J10-2187-051N	J10-3-011N	J10-5-012N	J10-8280-011N	J10-8280-011FD	J10-9122-031N	J10-9122-030.5N	J10-9334-010.5N	J11-10-051.5N
Parent Sample										J10-8280-011N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives & Energetics														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 25	NA	NA	NA	NA	< 25	< 250	NA	NA	< 24	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 25	NA	NA	NA	NA	< 25	< 250	NA	NA	< 24	< 24
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 25	NA	NA	NA	NA	< 25	< 250	NA	NA	< 24	< 24
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 25	NA	NA	NA	NA	< 25	< 250	NA	NA	< 24	< 24
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 50	NA	NA	NA	NA	< 49	< 500	NA	NA	300	< 48
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 50	NA	NA	NA	NA	< 49	< 500	NA	NA	1400	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 25	NA	NA	NA	NA	< 25	< 250	NA	NA	< 24	< 24
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 50	NA	NA	NA	NA	< 49	< 500	NA	NA	320	< 48
Nitrobenzene	98-95-3	ug/kg	< 25	590	NA	NA	NA	NA	< 25	< 250	NA	NA	160	< 24
Nitrocellulose	9004-70-0	ug/kg	121000	156000	NA	NA	NA	NA	< 42000	< 41100	NA	NA	47500000	1380000
Nitroglycerin	55-63-0	ug/kg	< 610	21000	NA	NA	NA	NA	< 600	< 5900	NA	NA	< 520	40000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 50	< 50	NA	NA	NA	NA	< 49	< 500	NA	NA	< 48	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 50	NA	NA	NA	NA	< 49	< 500	NA	NA	< 48	< 48
Tetryl	479-45-8	ug/kg	< 50	< 50	NA	NA	NA	NA	< 49	< 500	NA	NA	< 48	< 48
Metals														
Antimony	7440-36-0	mg/kg	2	2.4	< 0.638	< 0.6	NA	2.7	< 0.7	< 0.67	NA	NA	0.44	< 0.6
Arsenic	7440-38-2	mg/kg	180	154	5.55	10.3	NA	53.4	22.1	24.1	NA	NA	4.7	5.2
Beryllium	7440-41-7	mg/kg	0.42	0.49	0.702	0.63	NA	0.34	0.61	0.48	NA	NA	0.3	0.46
Cadmium	7440-43-9	mg/kg	0.43	0.87	0.897	< 0.3	NA	< 0.3	< 0.3	< 0.33	NA	NA	1.6	0.42
Chromium	7440-47-3	mg/kg	14.9	20	25	21.8	NA	25.6	19.9	18.1	NA	NA	21.1	45.3
Copper	7440-50-8	mg/kg	32.7	213	18.3	13.1	NA	54.1	16.5	17.4	NA	NA	95.5	25.5
Lead	7439-92-1	mg/kg	39.3	99.2	41	16.6	NA	280	40.6	43.1	NA	NA	185	205
Mercury	7439-97-6	mg/kg	0.22	0.13	0.144	0.05	NA	0.21	0.24	0.52	NA	NA	1.3	0.09
Nickel	7440-02-0	mg/kg	11.6	15.6	15.4	12.6	NA	12.4	12.4	10.8	NA	NA	11.2	8.9
Selenium	7782-49-2	mg/kg	1.3	0.91	1.52	< 0.5	NA	0.58	< 0.6	0.42	NA	NA	0.6	< 0.5
Silver	7440-22-4	mg/kg	< 0.3	0.18	< 0.319	< 0.3	NA	< 0.3	< 0.3	< 0.33	NA	NA	0.07	< 0.3
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1.06	2	NA	2.5	2.1	1.9	NA	NA	< 0.9	< 1
Zinc	7440-66-6	mg/kg	40.9	1240	148	76	NA	195	213	80.7	NA	NA	303	140

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J10-2-03	J10-2-04	J10-2187-01	J10-2187-05	J10-3-01	J10-5-01	J10-8280-01	J10-8280-01	J10-9122-03	J10-9122-03	J10-9334-01	J11-10-05
Depths			0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.5 ft
Collection Date			5/5/2000	5/5/2000	9/12/2000	5/25/2000	5/5/2000	5/25/2000	5/25/2000	5/25/2000	5/26/2000	5/26/2000	5/5/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	FD	N	N	N	N
Sample Name			J10-2-032N	J10-2-040.5N	J10-2187-011N	J10-2187-051N	J10-3-011N	J10-5-012N	J10-8280-011N	J10-8280-011FD	J10-9122-031N	J10-9122-030.5N	J10-9334-010.5N	J11-10-051.5N
Parent Sample										J10-8280-011N				
CONSTITUENT	***CAS NO.***	***UNITS***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	94100	NA	NA	33300	30800	28600	31700	NA	5620	NA	30900	38300
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
Clay	ARC-PCLAY	%	2.2	NA	NA	16.5	1.1	13.6	16.8	NA	NA	NA	1.3	2.7
Gravel	ARC-PGRAVEL	%	53.9	NA	NA	29.1	62.8	10.3	33.2	NA	NA	NA	55.8	38.7
Sand	ARC-PSAND	%	33.9	NA	NA	24.8	29.6	38.5	30	NA	NA	NA	35.1	46.3
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	10	NA	NA	29.7	6.6	37.5	19.9	NA	NA	NA	7.8	12.3

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-01	J11-1-01	J11-1-02	J11-1-02	J11-1-03	J11-1-03	J11-1-04	J11-1-04	J11-1-05	J11-1-05	J11-1-06	J11-1-06	J11-1-07
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-011N	J11-1-010.5N	J11-1-021N	J11-1-020.5N	J11-1-031.5N	J11-1-030.5N	J11-1-041.5N	J11-1-040.5N	J11-1-051N	J11-1-050.5N	J11-1-061.5N	J11-1-060.5N	J11-1-071.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 63	NA	< 51	NA	< 563	NA	< 607	NA	< 619	NA	< 651	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 630	NA	120	NA	< 563	NA	< 607	NA	< 619	NA	< 651	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 630	NA	< 510	NA	< 563	NA	< 607	NA	< 619	NA	< 651	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 630	NA	120	NA	< 563	NA	< 607	NA	< 619	NA	< 651	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 130	NA	< 100	NA	< 1126.126	NA	< 1213.592	NA	< 1237.623	NA	< 1302.083	NA
Acrolein	107-02-8	ug/kg	NA	< 250	NA	< 200	NA	< 2252.252	NA	< 2427.184	NA	< 2475.247	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 63	NA	< 51	NA	< 5630.63	NA	< 6067.961	NA	< 6188.118	NA	< 6510.416	NA
Benzene	71-43-2	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Bromoform	75-25-2	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Bromomethane	74-83-9	ug/kg	NA	< 130	NA	< 100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Chloroethane	75-00-3	ug/kg	NA	< 130	NA	< 100	NA	< 1126.126	NA	< 1213.592	NA	< 1237.623	NA	< 1302.083	NA
Chloroform	67-66-3	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Chloromethane	74-87-3	ug/kg	NA	860	NA	< 100	NA	< 1126.126	NA	< 1213.592	NA	< 1237.623	NA	< 1302.083	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	270	NA	320	NA	< 563	NA	< 607	NA	< 619	NA	< 651	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 63	NA	< 51	NA	< 2252.252	NA	< 2427.184	NA	< 2475.247	NA	< 2604.166	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Toluene	108-88-3	ug/kg	NA	180	NA	140	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 63	NA	< 51	NA	< 563.063	NA	< 606.7961	NA	< 618.8118	NA	< 651.0416	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 130	NA	< 100	NA	< 1126.126	NA	< 1213.592	NA	< 1237.623	NA	< 1302.083	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-01	J11-1-01	J11-1-02	J11-1-02	J11-1-03	J11-1-03	J11-1-04	J11-1-04	J11-1-05	J11-1-05	J11-1-06	J11-1-06	J11-1-07
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-011N	J11-1-010.5N	J11-1-021N	J11-1-020.5N	J11-1-031.5N	J11-1-030.5N	J11-1-041.5N	J11-1-040.5N	J11-1-051N	J11-1-050.5N	J11-1-061.5N	J11-1-060.5N	J11-1-071.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
1,2-Dichlorobenzene	95-50-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
1,4-Dichlorobenzene	106-46-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
2,4-Dichlorophenol	120-83-2	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
2,4-Dimethylphenol	105-67-9	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
2,4-Dinitrophenol	51-28-5	ug/kg	< 78	NA	< 76	NA	< 866.334	NA	< 988.79	NA	< 816.292	NA	< 867.25	NA	< 85
2,4-Dinitrotoluene	121-14-2	ug/kg	410	NA	< 380	NA	< 433	NA	< 494	NA	< 408	NA	< 434	NA	< 430
2,6-Dinitrotoluene	606-20-2	ug/kg	< 390	NA	< 380	NA	< 433	NA	< 494	NA	< 408	NA	< 434	NA	< 430
2-Chloronaphthalene	91-58-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
2-Chlorophenol	95-57-8	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
2-Nitrophenol	88-75-5	ug/kg	< 39	NA	< 38	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 43
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 78	NA	< 76	NA	< 866.334	NA	< 988.79	NA	< 816.292	NA	< 867.25	NA	< 85
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 78	NA	< 76	NA	< 866.334	NA	< 988.79	NA	< 816.292	NA	< 867.25	NA	< 85
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
4-Nitrophenol	100-02-7	ug/kg	< 78	NA	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 85
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	< 866.334	NA	< 988.79	NA	< 816.292	NA	< 867.25	NA	NA
Acenaphthene	83-32-9	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Acenaphthylene	208-96-8	ug/kg	21	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Anthracene	120-12-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Benzidine	92-87-5	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Benzo[a]anthracene	56-55-3	ug/kg	100	NA	50	NA	< 433.167	NA	< 494.395	NA	53.1	NA	80.2	NA	89
Benzo[a]pyrene	50-32-8	ug/kg	100	NA	41	NA	< 433.167	NA	51.9	NA	56.3	NA	57.7	NA	69
Benzo[b]fluoranthene	205-99-2	ug/kg	170	NA	70	NA	< 433.167	NA	< 494.395	NA	111	NA	110	NA	80
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Benzo[k]fluoranthene	207-08-9	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-01	J11-1-01	J11-1-02	J11-1-02	J11-1-03	J11-1-03	J11-1-04	J11-1-04	J11-1-05	J11-1-05	J11-1-06	J11-1-06	J11-1-07
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-011N	J11-1-010.5N	J11-1-021N	J11-1-020.5N	J11-1-031.5N	J11-1-030.5N	J11-1-041.5N	J11-1-040.5N	J11-1-051N	J11-1-050.5N	J11-1-061.5N	J11-1-060.5N	J11-1-071.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	44	NA	370	NA	< 433.167	NA	35.1	NA	53.9	NA	36.9	NA	54
Butylbenzylphthalate	85-68-7	ug/kg	< 39	NA	120	NA	< 433.167	< 1130	< 494.395	< 1210	< 408.146	< 1240	< 433.625	< 1300	< 43
Chrysene	218-01-9	ug/kg	120	NA	78	NA	< 433.167	NA	80.6	NA	< 408.146	NA	76.8	NA	75
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Diethylphthalate	84-66-2	ug/kg	< 39	NA	190	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Dimethylphthalate	131-11-3	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Di-n-butylphthalate	84-74-2	ug/kg	1800	NA	5100	NA	< 433.167	NA	331	NA	857	NA	331	NA	230
Di-n-octylphthalate	117-84-0	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Fluoranthene	206-44-0	ug/kg	210	NA	90	NA	< 433.167	NA	144	NA	< 408.146	NA	147	NA	140
Fluorene	86-73-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Hexachlorobenzene	118-74-1	ug/kg	< 39	NA	< 38	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 43
Hexachlorobutadiene	87-68-3	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Hexachloroethane	67-72-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Isophorone	78-59-1	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Naphthalene	91-20-3	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
N-Nitrosodiphenylamine	86-30-6	ug/kg	650	NA	2800	NA	126	NA	52.9	NA	152	NA	35.6	NA	79
Pentachlorophenol	87-86-5	ug/kg	< 78	NA	< 76	NA	< 866.334	NA	< 988.79	NA	< 816.292	NA	< 867.25	NA	< 85
Phenanthrene	85-01-8	ug/kg	130	NA	79	NA	< 433.167	NA	80.1	NA	< 408.146	NA	83.3	NA	71
Phenol	108-95-2	ug/kg	< 39	NA	< 38	NA	< 433.167	NA	< 494.395	NA	< 408.146	NA	< 433.625	NA	< 43
Pyrene	129-00-0	ug/kg	230	NA	100	NA	< 433.167	NA	104	NA	< 408.146	NA	127	NA	160
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-01	J11-1-01	J11-1-02	J11-1-02	J11-1-03	J11-1-03	J11-1-04	J11-1-04	J11-1-05	J11-1-05	J11-1-06	J11-1-06	J11-1-07
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-011N	J11-1-010.5N	J11-1-021N	J11-1-020.5N	J11-1-031.5N	J11-1-030.5N	J11-1-041.5N	J11-1-040.5N	J11-1-051N	J11-1-050.5N	J11-1-061.5N	J11-1-060.5N	J11-1-071.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives & Energetics															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	NA	490	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
2-Nitrotoluene	88-72-2	ug/kg	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
3-Nitrotoluene	99-08-1	ug/kg	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
4-Nitrotoluene	99-99-0	ug/kg	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Nitrobenzene	98-95-3	ug/kg	< 25	NA	< 25	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 24
Nitrocellulose	9004-70-0	ug/kg	1510000	NA	2820000	NA	NA	NA	NA	NA	NA	NA	NA	NA	285000
Nitroglycerin	55-63-0	ug/kg	10000	NA	46000	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 640
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Tetryl	479-45-8	ug/kg	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 48
Metals															
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-01	J11-1-01	J11-1-02	J11-1-02	J11-1-03	J11-1-03	J11-1-04	J11-1-04	J11-1-05	J11-1-05	J11-1-06	J11-1-06	J11-1-07
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.3 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-011N	J11-1-010.5N	J11-1-021N	J11-1-020.5N	J11-1-031.5N	J11-1-030.5N	J11-1-041.5N	J11-1-040.5N	J11-1-051N	J11-1-050.5N	J11-1-061.5N	J11-1-060.5N	J11-1-071.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	50200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
Clay	ARC-PCLAY	%	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	22.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	61.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	12.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-07	J11-1-08	J11-1-08	J11-1-09	J11-1-09	J11-1-10	J11-1-10	J11-1-11	J11-1-11	J11-1-13	J11-1-13	J11-1-14	J11-1-14
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-070.5N	J11-1-081N	J11-1-080.5N	J11-1-091N	J11-1-090.5N	J11-1-101.5N	J11-1-100.5N	J11-1-111.5N	J11-1-110.5N	J11-1-131.5N	J11-1-130.5N	J11-1-141.5N	J11-1-140.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,1,2-Trichloroethane	79-00-5	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,1-Dichloroethane	75-34-3	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,1-Dichloroethene	75-35-4	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 660	NA	< 477	NA	< 543	NA	< 558	NA	< 508	NA	< 607	NA	< 690
1,2-Dichlorobenzene	95-50-1	ug/kg	< 660	NA	< 477	NA	< 543	NA	< 558	NA	< 508	NA	< 607	NA	< 690
1,2-Dichloroethane	107-06-2	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,2-Dichloropropane	78-87-5	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
1,3-Dichlorobenzene	541-73-1	ug/kg	< 660	NA	< 477	NA	< 543	NA	< 558	NA	< 508	NA	< 607	NA	< 690
1,4-Dichlorobenzene	106-46-7	ug/kg	< 660	NA	< 477	NA	< 543	NA	< 558	NA	< 508	NA	< 607	NA	< 690
2-Chloroethylvinylether	110-75-8	ug/kg	< 130	NA	< 954.1985	NA	< 1086.956	NA	< 1116.071	NA	< 1016.26	NA	< 1213.592	NA	< 140
Acrolein	107-02-8	ug/kg	< 270	NA	< 1908.397	NA	< 2173.913	NA	< 2232.142	NA	< 2032.52	NA	< 2427.184	NA	< 270
Acrylonitrile	107-13-1	ug/kg	< 66	NA	< 4770.992	NA	< 5434.782	NA	< 5580.356	NA	< 5081.3	NA	< 6067.961	NA	< 69
Benzene	71-43-2	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Bromodichloromethane	75-27-4	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Bromoform	75-25-2	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Bromomethane	74-83-9	ug/kg	< 130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140
Carbon Tetrachloride	56-23-5	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Chlorobenzene	108-90-7	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Chloroethane	75-00-3	ug/kg	< 130	NA	< 954.1985	NA	< 1086.956	NA	< 1116.071	NA	< 1016.26	NA	< 1213.592	NA	< 140
Chloroform	67-66-3	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Chloromethane	74-87-3	ug/kg	< 130	NA	< 954.1985	NA	< 1086.956	NA	< 1116.071	NA	< 1016.26	NA	< 1213.592	NA	< 140
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Ethylbenzene	100-41-4	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Hexachlorobutadiene	87-68-3	ug/kg	< 660	NA	< 477	NA	< 543	NA	< 558	NA	< 508	NA	< 607	NA	< 690
Methylene Chloride	75-09-2	ug/kg	560	NA	< 1908.397	NA	< 2173.913	NA	< 2232.142	NA	< 2032.52	NA	< 2427.184	NA	< 69
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Toluene	108-88-3	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	228	NA	< 69
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 66	NA	< 477.0992	NA	< 543.4782	NA	< 558.0356	NA	< 508.13	NA	< 606.7961	NA	< 69
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 130	NA	< 954.1985	NA	< 1086.956	NA	< 1116.071	NA	< 1016.26	NA	< 1213.592	NA	< 140
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-07	J11-1-08	J11-1-08	J11-1-09	J11-1-09	J11-1-10	J11-1-10	J11-1-11	J11-1-11	J11-1-13	J11-1-13	J11-1-14	J11-1-14
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-070.5N	J11-1-081N	J11-1-080.5N	J11-1-091N	J11-1-090.5N	J11-1-101.5N	J11-1-100.5N	J11-1-111.5N	J11-1-110.5N	J11-1-131.5N	J11-1-130.5N	J11-1-141.5N	J11-1-140.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 846.668	NA	< 824.186	NA	< 844.094	NA	< 858.156	NA	< 753.21	NA	< 100	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 423	NA	< 412	NA	< 422	NA	< 429	NA	< 377	NA	< 520	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 423	NA	< 412	NA	< 422	NA	< 429	NA	< 377	NA	< 520	NA
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
2-Chlorophenol	95-57-8	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
2-Nitrophenol	88-75-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 846.668	NA	< 824.186	NA	< 844.094	NA	< 858.156	NA	< 753.21	NA	< 100	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 846.668	NA	< 824.186	NA	< 844.094	NA	< 858.156	NA	< 753.21	NA	< 100	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
4-Nitrophenol	100-02-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 100	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	< 846.668	NA	< 824.186	NA	< 844.094	NA	< 858.156	NA	< 753.21	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Acenaphthylene	208-96-8	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Anthracene	120-12-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	33	NA
Benzidine	92-87-5	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Benzo[a]anthracene	56-55-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	95	NA
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	79	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	99	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-07	J11-1-08	J11-1-08	J11-1-09	J11-1-09	J11-1-10	J11-1-10	J11-1-11	J11-1-11	J11-1-13	J11-1-13	J11-1-14	J11-1-14
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-070.5N	J11-1-081N	J11-1-080.5N	J11-1-091N	J11-1-090.5N	J11-1-101.5N	J11-1-100.5N	J11-1-111.5N	J11-1-110.5N	J11-1-131.5N	J11-1-130.5N	J11-1-141.5N	J11-1-140.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	30.1	NA	< 412.093	NA	21.5	NA	< 429.078	NA	32	NA	50	NA
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 423.334	< 954	< 412.093	< 1090	< 422.047	< 1120	< 429.078	< 1020	< 376.605	< 1210	< 52	NA
Chrysene	218-01-9	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	84	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Diethylphthalate	84-66-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Dimethylphthalate	131-11-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Di-n-butylphthalate	84-74-2	ug/kg	NA	623	NA	< 412.093	NA	338	NA	118	NA	418	NA	720	NA
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Fluoranthene	206-44-0	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	150	NA
Fluorene	86-73-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 52	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Hexachloroethane	67-72-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Isophorone	78-59-1	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Naphthalene	91-20-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Nitrobenzene	98-95-3	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	141	NA	30.5	NA	< 422.047	NA	< 429.078	NA	25.6	NA	< 52	NA
Pentachlorophenol	87-86-5	ug/kg	NA	< 846.668	NA	< 824.186	NA	< 844.094	NA	< 858.156	NA	< 753.21	NA	< 100	NA
Phenanthrene	85-01-8	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	110	NA
Phenol	108-95-2	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	< 52	NA
Pyrene	129-00-0	ug/kg	NA	< 423.334	NA	< 412.093	NA	< 422.047	NA	< 429.078	NA	< 376.605	NA	170	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-07	J11-1-08	J11-1-08	J11-1-09	J11-1-09	J11-1-10	J11-1-10	J11-1-11	J11-1-11	J11-1-13	J11-1-13	J11-1-14	J11-1-14
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-070.5N	J11-1-081N	J11-1-080.5N	J11-1-091N	J11-1-090.5N	J11-1-101.5N	J11-1-100.5N	J11-1-111.5N	J11-1-110.5N	J11-1-131.5N	J11-1-130.5N	J11-1-141.5N	J11-1-140.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives & Energetics															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	260000	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 760	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50	NA
Metals															
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-07	J11-1-08	J11-1-08	J11-1-09	J11-1-09	J11-1-10	J11-1-10	J11-1-11	J11-1-11	J11-1-13	J11-1-13	J11-1-14	J11-1-14
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-070.5N	J11-1-081N	J11-1-080.5N	J11-1-091N	J11-1-090.5N	J11-1-101.5N	J11-1-100.5N	J11-1-111.5N	J11-1-110.5N	J11-1-131.5N	J11-1-130.5N	J11-1-141.5N	J11-1-140.5N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-15	J11-1-15	J11-1-17	J11-1-17	J11-1-18	J11-1-18	J11-1-19	J11-1-19	J11-1-20	J11-1-20	J11-14-01	J11-14-03	J11-2188-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			8/1/2000	8/1/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-151N	J11-1-150.5N	J11-1-171N	J11-1-170.5N	J11-1-181N	J11-1-180.5N	J11-1-192N	J11-1-190.5N	J11-1-201N	J11-1-200.5N	J11-14-011N	J11-14-031.25N	J11-2188-031.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Volatile Organic Compounds															
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 477	NA	< 580	NA	< 579	NA	< 619	NA	< 543	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 477	NA	< 580	NA	< 579	NA	< 619	NA	< 543	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 477	NA	< 580	NA	< 579	NA	< 619	NA	< 543	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 477	NA	< 580	NA	< 579	NA	< 619	NA	< 543	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	< 954.1985	NA	< 120	NA	< 1157.407	NA	< 1237.623	NA	< 1086.956	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	< 1908.397	NA	< 230	NA	< 2314.814	NA	< 2475.247	NA	< 2173.913	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	< 4770.992	NA	< 58	NA	< 5787.036	NA	< 6188.118	NA	< 5434.782	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	< 120	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	< 954.1985	NA	< 120	NA	< 1157.407	NA	< 1237.623	NA	< 1086.956	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	< 954.1985	NA	< 120	NA	< 1157.407	NA	< 1237.623	NA	< 1086.956	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 477	NA	< 580	NA	< 579	NA	< 619	NA	< 543	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	< 1908.397	NA	< 58	NA	< 2314.814	NA	< 2475.247	NA	< 2173.913	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	207	NA	< 58	NA	281	NA	342	NA	299	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	< 477.0992	NA	< 58	NA	< 578.7036	NA	< 618.8118	NA	< 543.4782	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	< 954.1985	NA	< 120	NA	< 1157.407	NA	< 1237.623	NA	< 1086.956	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-15	J11-1-15	J11-1-17	J11-1-17	J11-1-18	J11-1-18	J11-1-19	J11-1-19	J11-1-20	J11-1-20	J11-14-01	J11-14-03	J11-2188-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			8/1/2000	8/1/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-151N	J11-1-150.5N	J11-1-171N	J11-1-170.5N	J11-1-181N	J11-1-180.5N	J11-1-192N	J11-1-190.5N	J11-1-201N	J11-1-200.5N	J11-14-011N	J11-14-031.25N	J11-2188-031.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds															
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
1,2-Dichlorobenzene	95-50-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
1,4-Dichlorobenzene	106-46-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
2,4-Dichlorophenol	120-83-2	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
2,4-Dimethylphenol	105-67-9	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
2,4-Dinitrophenol	51-28-5	ug/kg	< 899.87	NA	< 78	NA	< 805.346	NA	< 756.286	NA	< 856.832	NA	< 786	< 750	< 820
2,4-Dinitrotoluene	121-14-2	ug/kg	< 450	NA	83	NA	< 403	NA	< 378	NA	< 428	NA	< 393	< 3700	930
2,6-Dinitrotoluene	606-20-2	ug/kg	< 450	NA	< 390	NA	< 403	NA	< 378	NA	< 428	NA	< 393	< 3700	< 4100
2-Chloronaphthalene	91-58-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
2-Chlorophenol	95-57-8	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
2-Nitrophenol	88-75-5	ug/kg	NA	NA	< 39	NA	NA	NA	NA	NA	NA	NA	< 393	< 370	< 410
2-Nitrotoluene	88-72-2	ug/kg	< 449.935	NA	NA	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 899.87	NA	< 78	NA	< 805.346	NA	< 756.286	NA	< 856.832	NA	< 786	< 750	< 820
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 899.87	NA	< 78	NA	< 805.346	NA	< 756.286	NA	< 856.832	NA	< 786	< 750	< 820
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	NA	NA	< 428.416	NA	< 393	< 370	< 410
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
4-Nitrophenol	100-02-7	ug/kg	NA	NA	< 78	NA	NA	NA	NA	NA	NA	NA	< 786	< 750	< 820
4-Nitrotoluene	99-99-0	ug/kg	< 899.87	NA	NA	NA	< 805.346	NA	< 756.286	NA	< 856.832	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	202	NA	< 393	< 370	< 410
Acenaphthylene	208-96-8	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Anthracene	120-12-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	563	NA	< 393	< 370	< 410
Benzidine	92-87-5	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Benzo[a]anthracene	56-55-3	ug/kg	66.6	NA	140	NA	< 402.673	NA	42.4	NA	1150	NA	< 393	< 370	< 410
Benzo[a]pyrene	50-32-8	ug/kg	68.4	NA	140	NA	< 402.673	NA	< 378.143	NA	952	NA	< 393	< 370	< 410
Benzo[b]fluoranthene	205-99-2	ug/kg	107	NA	200	NA	< 402.673	NA	< 378.143	NA	1750	NA	< 393	< 370	< 410
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 449.935	NA	85	NA	< 402.673	NA	< 378.143	NA	455	NA	< 393	< 370	< 410
Benzo[k]fluoranthene	207-08-9	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	644	NA	< 393	< 370	< 410
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-15	J11-1-15	J11-1-17	J11-1-17	J11-1-18	J11-1-18	J11-1-19	J11-1-19	J11-1-20	J11-1-20	J11-14-01	J11-14-03	J11-2188-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			8/1/2000	8/1/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-151N	J11-1-150.5N	J11-1-171N	J11-1-170.5N	J11-1-181N	J11-1-180.5N	J11-1-192N	J11-1-190.5N	J11-1-201N	J11-1-200.5N	J11-14-011N	J11-14-031.25N	J11-2188-031.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Semivolatile Organic Compounds (Cont)															
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	53.5	NA	62	NA	27.8	NA	< 378.143	NA	138	NA	69.6	760	230
Butylbenzylphthalate	85-68-7	ug/kg	< 449.935	< 954	< 39	NA	< 402.673	< 1160	< 378.143	< 1240	< 428.416	< 1090	< 393	< 370	< 410
Chrysene	218-01-9	ug/kg	80.5	NA	150	NA	< 402.673	NA	< 378.143	NA	1100	NA	< 393	< 370	< 410
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	168	NA	< 393	< 370	< 410
Diethylphthalate	84-66-2	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	67.7	NA	< 393	< 370	< 410
Dimethylphthalate	131-11-3	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Di-n-butylphthalate	84-74-2	ug/kg	765	NA	1900	NA	176	NA	156	NA	3250	NA	4700	8700	11000
Di-n-octylphthalate	117-84-0	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Fluoranthene	206-44-0	ug/kg	144	NA	180	NA	< 402.673	NA	< 378.143	NA	2290	NA	< 393	< 370	< 410
Fluorene	86-73-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	250	NA	< 393	< 370	< 410
Hexachlorobenzene	118-74-1	ug/kg	NA	NA	< 39	NA	NA	NA	NA	NA	NA	NA	< 393	< 370	< 410
Hexachlorobutadiene	87-68-3	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Hexachloroethane	67-72-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 449.935	NA	78	NA	< 402.673	NA	< 378.143	NA	446	NA	< 393	< 370	< 410
Isophorone	78-59-1	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Naphthalene	91-20-3	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Nitrobenzene	98-95-3	ug/kg	< 449.935	NA	NA	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
N-Nitrosodiphenylamine	86-30-6	ug/kg	59.4	NA	1100	NA	273	NA	56.7	NA	188	NA	106	1100	9200
Pentachlorophenol	87-86-5	ug/kg	< 899.87	NA	< 78	NA	< 805.346	NA	< 756.286	NA	< 856.832	NA	< 786	< 750	< 820
Phenanthrene	85-01-8	ug/kg	81.9	NA	67	NA	< 402.673	NA	< 378.143	NA	2050	NA	< 393	< 370	< 410
Phenol	108-95-2	ug/kg	< 449.935	NA	< 39	NA	< 402.673	NA	< 378.143	NA	< 428.416	NA	< 393	< 370	< 410
Pyrene	129-00-0	ug/kg	155	NA	180	NA	< 402.673	NA	< 378.143	NA	2220	NA	< 393	< 370	< 410
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	210	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-15	J11-1-15	J11-1-17	J11-1-17	J11-1-18	J11-1-18	J11-1-19	J11-1-19	J11-1-20	J11-1-20	J11-14-01	J11-14-03	J11-2188-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			8/1/2000	8/1/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-151N	J11-1-150.5N	J11-1-171N	J11-1-170.5N	J11-1-181N	J11-1-180.5N	J11-1-192N	J11-1-190.5N	J11-1-201N	J11-1-200.5N	J11-14-011N	J11-14-031.25N	J11-2188-031.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Explosives & Energetics															
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	< 250	< 24	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	< 250	< 24	< 25
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	< 250	560	180
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	< 250	< 24	< 25
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	< 500	< 48	< 50
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	< 500	< 48	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	< 250	< 24	< 25
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	< 500	< 48	< 50
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 24	NA	NA	NA	NA	NA	NA	NA	< 250	120	250
Nitrocellulose	9004-70-0	ug/kg	NA	NA	521000	NA	NA	NA	NA	NA	NA	NA	336000	1390000	8210000
Nitroglycerin	55-63-0	ug/kg	NA	NA	11000	NA	NA	NA	NA	NA	NA	NA	< 5900	17000	51000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	< 500	< 48	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	< 500	< 48	< 50
Tetryl	479-45-8	ug/kg	NA	NA	< 48	NA	NA	NA	NA	NA	NA	NA	< 500	< 48	< 50
Metals															
Antimony	7440-36-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.694	< 0.6	< 0.7
Arsenic	7440-38-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.14	3.2	20.6
Beryllium	7440-41-7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.498	0.45	0.5
Cadmium	7440-43-9	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.347	0.22	1.2
Chromium	7440-47-3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.7	20	17.3
Copper	7440-50-8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.8	33.8	106
Lead	7439-92-1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.4	20	261
Mercury	7439-97-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038	0.07	0.17
Nickel	7440-02-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.96	8.5	10
Selenium	7782-49-2	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.989	0.43	0.71
Silver	7440-22-4	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.347	< 0.3	< 0.3
Thallium	7440-28-0	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1	< 1	0.76
Zinc	7440-66-6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.4	101	386

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-1-15	J11-1-15	J11-1-17	J11-1-17	J11-1-18	J11-1-18	J11-1-19	J11-1-19	J11-1-20	J11-1-20	J11-14-01	J11-14-03	J11-2188-03
Depths			0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft
Collection Date			8/1/2000	8/1/2000	5/18/2000	5/18/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	5/18/2000	5/23/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			J11-1-151N	J11-1-150.5N	J11-1-171N	J11-1-170.5N	J11-1-181N	J11-1-180.5N	J11-1-192N	J11-1-190.5N	J11-1-201N	J11-1-200.5N	J11-14-011N	J11-14-031.25N	J11-2188-031.25N
Parent Sample															
CONSTITUENT	***CAS NO.***	***UNITS***													
Miscellaneous															
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68500	33800
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size															
Clay	ARC-PCLAY	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	5.8
Gravel	ARC-PGRAVEL	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.3	39.2
Sand	ARC-PSAND	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.6	39.4
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.1	15.6

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-2188-06	J11-2188-08	J11-2296-02	J11-2296-04	J11-2298-04	J11-602A-01	J11-6-03	J11-6-03	J11-6-03	J11-6-03	J11-7-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/23/2000	5/23/2000	9/12/2000	5/25/2000	5/23/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N
Sample Name			J11-2188-061.5N	J11-2188-081.25N	J11-2296-021N	J11-2296-041.5N	J11-2298-041.25N	J11-602A-011.5N	J11-6-031N	J11-6-031FD	J11-6-030.5N	J11-6-030.5FD	J11-7-011N
Parent Sample										J11-6-031N		J11-6-030.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	< 380	< 400	< 590	< 860	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	< 1700	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 2400	< 3400	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	3380	5040	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	< 1700	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	< 1700	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	< 380	< 400	< 590	< 860	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 1200	< 1700	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-2188-06	J11-2188-08	J11-2296-02	J11-2296-04	J11-2298-04	J11-602A-01	J11-6-03	J11-6-03	J11-6-03	J11-6-03	J11-7-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/23/2000	5/23/2000	9/12/2000	5/25/2000	5/23/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N
Sample Name			J11-2188-061.5N	J11-2188-081.25N	J11-2296-021N	J11-2296-041.5N	J11-2298-041.25N	J11-602A-011.5N	J11-6-031N	J11-6-031FD	J11-6-030.5N	J11-6-030.5FD	J11-7-011N
Parent Sample										J11-6-031N		J11-6-030.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	NA	NA	NA	NA	< 38
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 590	< 860	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	NA	NA	NA	NA	< 38
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
2,4-Dinitrophenol	51-28-5	ug/kg	< 75	< 84	< 721	< 81	< 750	NA	< 380	< 400	NA	NA	< 77
2,4-Dinitrotoluene	121-14-2	ug/kg	200	430	< 360	49	2500	NA	< 380	< 400	NA	NA	< 380
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	22	< 360	< 410	< 3700	NA	NA	NA	NA	NA	< 380
2-Chloronaphthalene	91-58-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
2-Chlorophenol	95-57-8	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
2-Nitrophenol	88-75-5	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	NA	NA	NA	NA	< 38
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 75	< 84	< 721	< 81	< 750	NA	NA	NA	NA	NA	< 77
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 75	< 84	< 721	< 81	< 750	NA	< 760	< 800	NA	NA	< 77
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
4-Nitrophenol	100-02-7	ug/kg	< 75	< 84	< 721	< 81	< 750	NA	NA	NA	NA	NA	< 77
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Acenaphthylene	208-96-8	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Anthracene	120-12-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	54.68	< 400	NA	NA	< 38
Benzidine	92-87-5	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Benzo[a]anthracene	56-55-3	ug/kg	46	< 42	41.8	83	< 370	NA	197	93.09	NA	NA	< 38
Benzo[a]pyrene	50-32-8	ug/kg	64	< 42	37.9	87	< 370	NA	166	91.87	NA	NA	< 38
Benzo[b]fluoranthene	205-99-2	ug/kg	170	< 42	< 360	180	< 370	NA	275	183	NA	NA	< 38
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Benzo[k]fluoranthene	207-08-9	ug/kg	< 37	< 42	< 360	70	< 370	NA	< 380	< 400	NA	NA	< 38
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-2188-06	J11-2188-08	J11-2296-02	J11-2296-04	J11-2298-04	J11-602A-01	J11-6-03	J11-6-03	J11-6-03	J11-6-03	J11-7-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/23/2000	5/23/2000	9/12/2000	5/25/2000	5/23/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N
Sample Name			J11-2188-061.5N	J11-2188-081.25N	J11-2296-021N	J11-2296-041.5N	J11-2298-041.25N	J11-602A-011.5N	J11-6-031N	J11-6-031FD	J11-6-030.5N	J11-6-030.5FD	J11-7-011N
Parent Sample										J11-6-031N		J11-6-030.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	240	330	< 360	83	440	NA	39.34	167	NA	NA	20
Butylbenzylphthalate	85-68-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	< 1200	< 1700	< 38
Chrysene	218-01-9	ug/kg	90	< 42	60.6	130	< 370	NA	186	138	NA	NA	54
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Diethylphthalate	84-66-2	ug/kg	< 37	< 42	< 360	180	330	NA	< 380	< 400	NA	NA	< 38
Dimethylphthalate	131-11-3	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Di-n-butylphthalate	84-74-2	ug/kg	3200	4500	225	2900	110000	NA	242	445	NA	NA	< 38
Di-n-octylphthalate	117-84-0	ug/kg	< 37	270	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Fluoranthene	206-44-0	ug/kg	85	< 42	105	230	< 370	NA	450	184	NA	NA	< 38
Fluorene	86-73-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	28.72	< 400	NA	NA	< 38
Hexachlorobenzene	118-74-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	< 590	< 860	< 38
Hexachlorobutadiene	87-68-3	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Hexachloroethane	67-72-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Isophorone	78-59-1	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Naphthalene	91-20-3	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	NA	NA	NA	NA	< 38
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 360	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
N-Nitrosodiphenylamine	86-30-6	ug/kg	340	4700	28.8	210	9700	NA	< 380	< 400	NA	NA	< 38
Pentachlorophenol	87-86-5	ug/kg	< 75	< 84	< 721	< 81	< 750	NA	< 760	< 800	NA	NA	< 77
Phenanthrene	85-01-8	ug/kg	24	< 42	< 360	110	< 370	NA	264	110	NA	NA	66
Phenol	108-95-2	ug/kg	< 37	< 42	< 360	< 41	< 370	NA	< 380	< 400	NA	NA	< 38
Pyrene	129-00-0	ug/kg	< 37	< 42	109	200	< 370	NA	395	203	NA	NA	< 38
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-2188-06	J11-2188-08	J11-2296-02	J11-2296-04	J11-2298-04	J11-602A-01	J11-6-03	J11-6-03	J11-6-03	J11-6-03	J11-7-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/23/2000	5/23/2000	9/12/2000	5/25/2000	5/23/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N
Sample Name			J11-2188-061.5N	J11-2188-081.25N	J11-2296-021N	J11-2296-041.5N	J11-2298-041.25N	J11-602A-011.5N	J11-6-031N	J11-6-031FD	J11-6-030.5N	J11-6-030.5FD	J11-7-011N
Parent Sample										J11-6-031N		J11-6-030.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 24	NA	< 25	< 24	< 25	< 250	< 240	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 24	NA	< 25	< 24	< 25	< 250	< 240	NA	NA	< 25
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 24	NA	170	1300	< 25	< 250	< 240	NA	NA	< 25
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	< 250	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 24	NA	< 25	< 24	< 25	< 250	< 240	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 48	NA	< 50	< 48	< 49	< 500	< 490	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 48	NA	< 50	< 48	< 49	< 500	< 490	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 24	NA	< 25	< 24	< 25	< 250	< 240	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 48	NA	< 50	< 48	< 49	< 500	< 490	NA	NA	< 50
Nitrobenzene	98-95-3	ug/kg	< 25	270	NA	< 25	< 24	< 25	223	170	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	542000	447000	NA	271000	6690000	109000	138000	383000	NA	NA	86900
Nitroglycerin	55-63-0	ug/kg	3800	< 620	NA	8000	1100000	11000	< 5700	7100	NA	NA	< 560
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 50	< 48	NA	< 50	< 48	< 49	< 500	< 490	NA	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 48	NA	< 50	< 48	< 49	< 500	< 490	NA	NA	< 50
Tetryl	479-45-8	ug/kg	< 50	< 48	NA	< 50	< 48	< 49	< 500	< 490	NA	NA	< 50
Metals													
Antimony	7440-36-0	mg/kg	0.91	< 0.7	< 0.636	< 0.7	< 0.6	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/kg	4.8	6.6	6.37	5.2	7.1	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/kg	0.4	0.49	0.558	0.37	0.43	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/kg	0.27	0.3	0.772	< 0.3	0.26	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/kg	11.9	18.1	14.4	12.6	19.7	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/kg	57.5	60.1	20.8	28.4	22	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/kg	22	45.5	34	53.1	13.1	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	mg/kg	0.09	0.04	0.042	0.11	0.04	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/kg	12.6	10.4	9.56	9.8	7.6	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/kg	0.53	< 0.6	1.47	0.96	< 0.5	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.318	< 0.3	< 0.3	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/kg	0.54	< 1	< 1.06	0.7	< 1	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/kg	59.6	200	86.2	85.6	59.9	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-2188-06	J11-2188-08	J11-2296-02	J11-2296-04	J11-2298-04	J11-602A-01	J11-6-03	J11-6-03	J11-6-03	J11-6-03	J11-7-01
Depths			0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/23/2000	5/23/2000	9/12/2000	5/25/2000	5/23/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000
Sample Type			N	N	N	N	N	N	N	FD	N	FD	N
Sample Name			J11-2188-061.5N	J11-2188-081.25N	J11-2296-021N	J11-2296-041.5N	J11-2298-041.25N	J11-602A-011.5N	J11-6-031N	J11-6-031FD	J11-6-030.5N	J11-6-030.5FD	J11-7-011N
Parent Sample										J11-6-031N		J11-6-030.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	85200	7750	11500	9490	NA	NA	NA	10600
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	NA	NA	NA	2.5	4.4	4.1	NA	NA	NA	NA	2.8
Gravel	ARC-PGRAVEL	%	NA	NA	NA	23.1	20.6	23.9	NA	NA	NA	NA	48.7
Sand	ARC-PSAND	%	NA	NA	NA	65.4	49.9	55.8	NA	NA	NA	NA	39.7
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	9.1	25.1	16.2	NA	NA	NA	NA	8.9

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-7-01	J11-8265A-03	J11-8265A-03	J11-8570-01	J11-8570-01	J11-B25-01	J11-B25-02	K10-2-02	K10-2-05	K10-2-05	K10-2197-04
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	7/21/2000	5/25/2000	5/25/2000	9/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	8/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			J11-7-010.5N	J11-8265A-031N	J11-8265A-030.5N	J11-8570-011N	J11-8570-010.5N	J11-B25-011N	J11-B25-021.5N	K10-2-021.5N	K10-2-051.5N	K10-2-051.5FD	K10-2197-042N
Parent Sample												K10-2-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	< 55	NA	< 595	< 380	< 670	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 553	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 553	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	< 55	NA	< 59	NA	< 670	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 553	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 553	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	< 110	NA	< 1191	NA	< 1300	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	< 221	NA	< 2381	NA	< 2700	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	< 55	NA	< 595	NA	3780	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	< 110	NA	< 1191	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	< 110	NA	< 1191	NA	< 1300	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	< 110	NA	< 1191	NA	< 1300	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	< 55	NA	< 59	NA	< 670	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 553	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	< 55	NA	< 789	< 380	< 670	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	< 595	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	< 55	NA	138	NA	< 670	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	< 55	NA	< 595	NA	< 670	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	< 110	NA	< 119	NA	< 1300	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-7-01	J11-8265A-03	J11-8265A-03	J11-8570-01	J11-8570-01	J11-B25-01	J11-B25-02	K10-2-02	K10-2-05	K10-2-05	K10-2197-04
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	7/21/2000	5/25/2000	5/25/2000	9/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	8/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			J11-7-010.5N	J11-8265A-031N	J11-8265A-030.5N	J11-8570-011N	J11-8570-010.5N	J11-B25-011N	J11-B25-021.5N	K10-2-021.5N	K10-2-051.5N	K10-2-051.5FD	K10-2197-042N
Parent Sample												K10-2-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	< 39	NA	NA	NA	< 359	< 37	< 43	< 43	< 410	< 376
1,2-Diphenylhydrazine	122-66-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	< 670	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	< 39	NA	NA	NA	< 359	< 37	< 43	< 43	< 410	< 376
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
2,4,6-Trichlorophenol	88-06-2	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
2,4-Dichlorophenol	120-83-2	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
2,4-Dimethylphenol	105-67-9	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
2,4-Dinitrophenol	51-28-5	ug/kg	NA	< 78	NA	< 380	NA	< 719	< 73	< 87	< 87	< 810	< 752
2,4-Dinitrotoluene	121-14-2	ug/kg	NA	< 390	NA	< 380	NA	78.4	100	< 430	750	< 410	98.5
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	< 390	NA	NA	NA	< 359	< 370	< 430	40	< 410	< 376
2-Chloronaphthalene	91-58-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
2-Chlorophenol	95-57-8	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
2-Nitrophenol	88-75-5	ug/kg	NA	< 39	NA	NA	NA	< 359	< 37	< 43	< 43	< 410	< 376
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	NA	< 78	NA	NA	NA	< 719	< 73	< 87	< 87	< 810	< 752
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	NA	< 78	NA	< 760	NA	< 719	< 73	< 87	< 87	< 810	< 752
4-Bromophenyl-phenylether	101-55-3	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
4-Chloro-3-methylphenol	59-50-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
4-Nitrophenol	100-02-7	ug/kg	NA	< 78	NA	NA	NA	< 719	< 73	< 87	< 87	< 810	< 752
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Acenaphthylene	208-96-8	ug/kg	NA	< 39	NA	< 380	NA	< 359	64	< 43	< 43	< 410	< 376
Anthracene	120-12-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	38	< 43	< 43	< 410	< 376
Benzidine	92-87-5	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Benzo[a]anthracene	56-55-3	ug/kg	NA	31	NA	< 380	NA	252	250	52	41	< 410	110
Benzo[a]pyrene	50-32-8	ug/kg	NA	< 39	NA	< 380	NA	270	320	87	44	34	90.6
Benzo[b]fluoranthene	205-99-2	ug/kg	NA	< 39	NA	< 380	NA	415	530	390	100	64	133
Benzo[g,h,i]perylene	191-24-2	ug/kg	NA	< 39	NA	< 380	NA	184	210	< 43	< 43	< 410	< 376
Benzo[k]fluoranthene	207-08-9	ug/kg	NA	< 39	NA	< 380	NA	127	210	140	< 43	< 410	< 376
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-7-01	J11-8265A-03	J11-8265A-03	J11-8570-01	J11-8570-01	J11-B25-01	J11-B25-02	K10-2-02	K10-2-05	K10-2-05	K10-2197-04
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	7/21/2000	5/25/2000	5/25/2000	9/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	8/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			J11-7-010.5N	J11-8265A-031N	J11-8265A-030.5N	J11-8570-011N	J11-8570-010.5N	J11-B25-011N	J11-B25-021.5N	K10-2-021.5N	K10-2-051.5N	K10-2-051.5FD	K10-2197-042N
Parent Sample												K10-2-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	NA	< 39	NA	79.01	NA	83.7	32	39	< 43	20	23.3
Butylbenzylphthalate	85-68-7	ug/kg	NA	< 39	NA	< 380	< 1300	< 359	< 37	< 43	< 43	< 410	< 376
Chrysene	218-01-9	ug/kg	NA	42	NA	< 380	NA	293	380	120	70	51	106
Dibenzo[a,h]anthracene	53-70-3	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Diethylphthalate	84-66-2	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Dimethylphthalate	131-11-3	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Di-n-butylphthalate	84-74-2	ug/kg	NA	< 39	NA	2430	NA	180	97	470	640	620	< 376
Di-n-octylphthalate	117-84-0	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Fluoranthene	206-44-0	ug/kg	NA	88	NA	< 380	NA	467	660	160	82	< 410	229
Fluorene	86-73-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Hexachlorobenzene	118-74-1	ug/kg	NA	< 39	NA	< 380	< 670	< 359	< 37	< 43	< 43	< 410	< 376
Hexachlorobutadiene	87-68-3	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Hexachlorocyclopentadiene	77-47-4	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Hexachloroethane	67-72-1	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	NA	< 39	NA	< 380	NA	173	190	< 43	< 43	< 410	< 376
Isophorone	78-59-1	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Naphthalene	91-20-3	ug/kg	NA	< 39	NA	NA	NA	< 359	< 37	< 43	< 43	< 410	< 376
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
N-Nitrosodiphenylamine	86-30-6	ug/kg	NA	< 39	NA	424	NA	88.8	< 37	< 43	110	< 410	< 376
Pentachlorophenol	87-86-5	ug/kg	NA	< 78	NA	< 760	NA	< 719	< 73	< 87	< 87	< 810	< 752
Phenanthrene	85-01-8	ug/kg	NA	66	NA	25.4	NA	137	170	76	31	< 410	63.5
Phenol	108-95-2	ug/kg	NA	< 39	NA	< 380	NA	< 359	< 37	< 43	< 43	< 410	< 376
Pyrene	129-00-0	ug/kg	NA	86	NA	< 380	NA	576	520	140	< 43	< 410	182
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-7-01	J11-8265A-03	J11-8265A-03	J11-8570-01	J11-8570-01	J11-B25-01	J11-B25-02	K10-2-02	K10-2-05	K10-2-05	K10-2197-04
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	7/21/2000	5/25/2000	5/25/2000	9/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	8/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			J11-7-010.5N	J11-8265A-031N	J11-8265A-030.5N	J11-8570-011N	J11-8570-010.5N	J11-B25-011N	J11-B25-021.5N	K10-2-021.5N	K10-2-051.5N	K10-2-051.5FD	K10-2197-042N
Parent Sample												K10-2-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	< 23	NA	< 240	NA	< 250	< 25	< 25	< 25	< 250	< 250
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	< 23	NA	< 240	NA	< 250	< 25	< 25	< 25	< 250	< 250
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	< 23	NA	247	NA	< 250	< 25	< 25	< 25	< 250	< 250
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	< 23	NA	< 240	NA	< 250	< 25	< 25	< 25	< 250	< 250
2-Nitrotoluene	88-72-2	ug/kg	NA	< 45	NA	< 490	NA	< 500	< 50	< 50	< 49	< 490	< 500
3-Nitrotoluene	99-08-1	ug/kg	NA	< 45	NA	< 490	NA	< 500	< 50	< 50	< 49	< 490	< 500
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	< 23	NA	< 240	NA	< 250	< 25	< 25	< 25	< 250	< 250
4-Nitrotoluene	99-99-0	ug/kg	NA	< 45	NA	< 490	NA	< 500	< 50	< 50	< 49	< 490	< 500
Nitrobenzene	98-95-3	ug/kg	NA	< 23	NA	140	NA	< 250	< 25	240	< 25	< 250	< 250
Nitrocellulose	9004-70-0	ug/kg	NA	375000	NA	552000	NA	397000	57000	1440000	1170000	92700	< 39.3
Nitroglycerin	55-63-0	ug/kg	NA	< 550	NA	4850	NA	< 5270	< 550	< 640	< 650	< 6100	< 5640
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	< 45	NA	< 490	NA	< 500	< 50	< 50	< 49	< 490	< 500
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	< 45	NA	< 490	NA	< 500	< 50	< 50	< 49	< 490	< 500
Tetryl	479-45-8	ug/kg	NA	< 45	NA	< 490	NA	< 500	< 50	< 50	< 49	< 490	< 500
Metals													
Antimony	7440-36-0	mg/kg	NA	< 0.6	NA	< 0.666	NA	2.6	< 0.6	< 0.7	< 0.7	< 0.68	< 0.645
Arsenic	7440-38-2	mg/kg	NA	4	NA	4.77	NA	3.06	3.6	5.8	8.2	5.7	3.2
Beryllium	7440-41-7	mg/kg	NA	0.22	NA	0.534	NA	0.244	0.32	0.57	0.66	0.71	0.418
Cadmium	7440-43-9	mg/kg	NA	0.08	NA	0.338	NA	0.77	0.74	0.21	0.4	0.3	< 0.322
Chromium	7440-47-3	mg/kg	NA	8.9	NA	16.2	NA	11.7	11.3	17.1	18.1	18.5	13
Copper	7440-50-8	mg/kg	NA	20	NA	33.9	NA	25.6	25.6	15	21.6	21.8	12.5
Lead	7439-92-1	mg/kg	NA	31.3	NA	28	NA	58.6	38.2	50.2	60.8	47.2	10.1
Mercury	7439-97-6	mg/kg	NA	0.09	NA	0.058	NA	0.055	0.13	0.12	0.07	0.08	< 0.035
Nickel	7440-02-0	mg/kg	NA	7.9	NA	9.36	NA	7.4	8.9	11.8	12.6	11.5	6.57
Selenium	7782-49-2	mg/kg	NA	1	NA	0.747	NA	0.921	< 0.5	< 0.6	0.38	0.73	0.578
Silver	7440-22-4	mg/kg	NA	< 0.3	NA	< 0.333	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.34	< 0.322
Thallium	7440-28-0	mg/kg	NA	< 1	NA	< 1.11	NA	< 1	1.1	1.8	2.3	1.9	0.798
Zinc	7440-66-6	mg/kg	NA	25.8	NA	72.4	NA	67.8	64.4	111	137	136	60

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			J11-7-01	J11-8265A-03	J11-8265A-03	J11-8570-01	J11-8570-01	J11-B25-01	J11-B25-02	K10-2-02	K10-2-05	K10-2-05	K10-2197-04
Depths			0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
Collection Date			5/25/2000	5/18/2000	7/21/2000	5/25/2000	5/25/2000	9/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	8/1/2000
Sample Type			N	N	N	N	N	N	N	N	N	FD	N
Sample Name			J11-7-010.5N	J11-8265A-031N	J11-8265A-030.5N	J11-8570-011N	J11-8570-010.5N	J11-B25-011N	J11-B25-021.5N	K10-2-021.5N	K10-2-051.5N	K10-2-051.5FD	K10-2197-042N
Parent Sample												K10-2-051.5N	
CONSTITUENT	***CAS NO.***	***UNITS***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	28200	NA	28700	NA	NA	55300	29400	NA	NA	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size													
Clay	ARC-PCLAY	%	NA	1.7	NA	NA	NA	NA	5.1	0	NA	NA	NA
Gravel	ARC-PGRAVEL	%	NA	32.5	NA	NA	NA	NA	58.3	46	NA	NA	NA
Sand	ARC-PSAND	%	NA	49.6	NA	NA	NA	NA	29.6	35.3	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	16.2	NA	NA	NA	NA	7	18.7	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K10-2197-05	K10-2197A-01	K10-2197A-05	K10-2266-04	K10-2266-05	K10-5-02	K10-5-04	K10-6-02	K10-6-02	K10-6-04	K10-6-04	K11-1-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K10-2197-051.25N	K10-2197A-011N	K10-2197A-051.25N	K10-2266-041N	K10-2266-051.5N	K10-5-021.5N	K10-5-041N	K10-6-021.5N	K10-6-020.5N	K10-6-041N	K10-6-040.5N	K11-1-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 550	NA	< 700	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 550	NA	< 700	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 550	NA	< 700	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 550	NA	< 700	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 110	NA	< 140	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 220	NA	< 280	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 110	NA	< 140	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 110	NA	< 140	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 110	NA	< 140	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 550	NA	< 700	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 55	NA	< 70	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 110	NA	< 140	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K10-2197-05	K10-2197A-01	K10-2197A-05	K10-2266-04	K10-2266-05	K10-5-02	K10-5-04	K10-6-02	K10-6-02	K10-6-04	K10-6-04	K11-1-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K10-2197-051.25N	K10-2197A-011N	K10-2197A-051.25N	K10-2266-041N	K10-2266-051.5N	K10-5-021.5N	K10-5-041N	K10-6-021.5N	K10-6-020.5N	K10-6-041N	K10-6-040.5N	K11-1-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds														
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
1,2-Dichlorobenzene	95-50-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
1,4-Dichlorobenzene	106-46-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2,4-Dichlorophenol	120-83-2	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2,4-Dimethylphenol	105-67-9	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2,4-Dinitrophenol	51-28-5	ug/kg	< 750	< 80	< 740	< 77	< 80	< 72	< 74	< 78	NA	< 78	NA	< 75
2,4-Dinitrotoluene	121-14-2	ug/kg	990	66	450	820	96	< 360	< 370	< 390	NA	< 390	NA	61
2,6-Dinitrotoluene	606-20-2	ug/kg	< 3700	< 400	< 3700	350	66	< 360	< 370	< 390	NA	< 390	NA	< 370
2-Chloronaphthalene	91-58-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2-Chlorophenol	95-57-8	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2-Nitrophenol	88-75-5	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 750	< 80	< 740	< 77	< 80	< 72	< 74	< 78	NA	< 78	NA	< 75
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 750	< 80	< 740	< 77	< 80	< 72	< 74	< 78	NA	< 78	NA	< 75
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
4-Nitrophenol	100-02-7	ug/kg	< 750	< 80	< 740	< 77	< 80	< 72	< 74	< 78	NA	< 78	NA	< 75
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Acenaphthylene	208-96-8	ug/kg	< 370	< 40	< 370	31	39	< 36	94	< 39	NA	< 39	NA	130
Anthracene	120-12-7	ug/kg	< 370	< 40	< 370	24	56	< 36	67	< 39	NA	< 39	NA	97
Benzidine	92-87-5	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Benzo[a]anthracene	56-55-3	ug/kg	< 370	70	< 370	68	170	< 36	420	< 39	NA	< 39	NA	390
Benzo[a]pyrene	50-32-8	ug/kg	< 370	84	< 370	64	140	32	390	< 39	NA	24	NA	540
Benzo[b]fluoranthene	205-99-2	ug/kg	< 370	370	< 370	110	310	89	840	< 39	NA	< 39	NA	700
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 370	130	< 370	96	140	< 36	270	< 39	NA	< 39	NA	500
Benzo[k]fluoranthene	207-08-9	ug/kg	< 370	140	< 370	< 38	110	< 36	200	< 39	NA	< 39	NA	220
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K10-2197-05	K10-2197A-01	K10-2197A-05	K10-2266-04	K10-2266-05	K10-5-02	K10-5-04	K10-6-02	K10-6-02	K10-6-04	K10-6-04	K11-1-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K10-2197-051.25N	K10-2197A-011N	K10-2197A-051.25N	K10-2266-041N	K10-2266-051.5N	K10-5-021.5N	K10-5-041N	K10-6-021.5N	K10-6-020.5N	K10-6-041N	K10-6-040.5N	K11-1-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Semivolatile Organic Compounds (Cont)														
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	1100	99	190	190	1000	< 36	22	24	NA	24	NA	< 37
Butylbenzylphthalate	85-68-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Chrysene	218-01-9	ug/kg	< 370	86	< 370	80	200	47	470	< 39	NA	< 39	NA	510
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	89	< 39	NA	< 39	NA	130
Diethylphthalate	84-66-2	ug/kg	2900	3000	10000	600	1300	< 36	< 37	< 39	NA	< 39	NA	140
Dimethylphthalate	131-11-3	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Di-n-butylphthalate	84-74-2	ug/kg	48000	4300	10000	24000	20000	66	950	1100	NA	2700	NA	4700
Di-n-octylphthalate	117-84-0	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Fluoranthene	206-44-0	ug/kg	< 370	120	< 370	82	360	< 36	480	< 39	NA	< 39	NA	790
Fluorene	86-73-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	42
Hexachlorobenzene	118-74-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Hexachlorobutadiene	87-68-3	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Hexachloroethane	67-72-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 370	130	< 370	78	130	< 36	270	< 39	NA	< 39	NA	430
Isophorone	78-59-1	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Naphthalene	91-20-3	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	< 40	< 36	< 37	< 39	NA	< 39	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
N-Nitrosodiphenylamine	86-30-6	ug/kg	10000	730	5000	3200	1800	< 36	73	87	NA	280	NA	1000
Pentachlorophenol	87-86-5	ug/kg	< 750	< 80	< 740	< 77	< 80	< 72	< 74	< 78	NA	< 78	NA	< 75
Phenanthrene	85-01-8	ug/kg	< 370	71	< 370	33	92	< 36	100	< 39	NA	< 39	NA	440
Phenol	108-95-2	ug/kg	< 370	< 40	< 370	< 38	< 40	< 36	< 37	< 39	NA	< 39	NA	< 37
Pyrene	129-00-0	ug/kg	< 370	160	< 370	130	340	< 36	560	< 39	NA	< 39	NA	890
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K10-2197-05	K10-2197A-01	K10-2197A-05	K10-2266-04	K10-2266-05	K10-5-02	K10-5-04	K10-6-02	K10-6-02	K10-6-04	K10-6-04	K11-1-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K10-2197-051.25N	K10-2197A-011N	K10-2197A-051.25N	K10-2266-041N	K10-2266-051.5N	K10-5-021.5N	K10-5-041N	K10-6-021.5N	K10-6-020.5N	K10-6-041N	K10-6-040.5N	K11-1-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Explosives & Energetics														
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	< 25	< 25	< 25	NA	NA	NA	NA	NA	NA	NA	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	< 25	< 25	< 25	NA	NA	NA	NA	NA	NA	NA	< 25
2,4,6-Trinitrotoluene	118-96-7	ug/kg	3700	300	1200	< 25	NA	NA	NA	NA	NA	NA	NA	190
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	< 25	< 25	< 25	NA	NA	NA	NA	NA	NA	NA	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 48	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 48	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	< 25	< 25	< 25	NA	NA	NA	NA	NA	NA	NA	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 48	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	< 50
Nitrobenzene	98-95-3	ug/kg	< 24	< 25	< 25	< 25	NA	NA	NA	NA	NA	NA	NA	< 25
Nitrocellulose	9004-70-0	ug/kg	11600000	1460000	1730000	340000	NA	NA	NA	NA	NA	NA	NA	380000
Nitroglycerin	55-63-0	ug/kg	260000	120000	250000	310000	NA	NA	NA	NA	NA	NA	NA	9500
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 48	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 48	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	< 50
Tetryl	479-45-8	ug/kg	< 48	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	< 50
Metals														
Antimony	7440-36-0	mg/kg	< 0.6	< 0.6	< 0.6	< 0.6	0.49	0.42	0.99	NA	NA	NA	NA	< 0.6
Arsenic	7440-38-2	mg/kg	35.2	5.8	4.9	24	81.9	36.5	92.4	NA	NA	NA	NA	9.5
Beryllium	7440-41-7	mg/kg	0.49	0.51	0.4	0.55	0.48	0.34	0.51	NA	NA	NA	NA	0.64
Cadmium	7440-43-9	mg/kg	0.37	0.22	0.17	0.33	0.38	< 0.2	< 0.3	NA	NA	NA	NA	0.55
Chromium	7440-47-3	mg/kg	30.8	18.7	27.6	19.3	41.3	11.8	16.6	NA	NA	NA	NA	17.8
Copper	7440-50-8	mg/kg	31.9	33.2	23.8	40.6	69.5	780	313	NA	NA	NA	NA	33.3
Lead	7439-92-1	mg/kg	267	88.6	144	55.7	83.5	18.9	233	NA	NA	NA	NA	412
Mercury	7439-97-6	mg/kg	0.13	0.18	0.07	0.39	0.24	0.02	0.05	NA	NA	NA	NA	0.15
Nickel	7440-02-0	mg/kg	11.7	9.1	16.7	12.8	18.6	8.9	11.3	NA	NA	NA	NA	13.8
Selenium	7782-49-2	mg/kg	0.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.4	< 0.5	NA	NA	NA	NA	0.83
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3	0.09	0.09	< 0.3	NA	NA	NA	NA	< 0.3
Thallium	7440-28-0	mg/kg	0.87	< 1	0.68	0.58	0.92	< 0.8	0.87	NA	NA	NA	NA	1.2
Zinc	7440-66-6	mg/kg	141	105	95.5	159	245	35.7	77.4	NA	NA	NA	NA	310

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K10-2197-05	K10-2197A-01	K10-2197A-05	K10-2266-04	K10-2266-05	K10-5-02	K10-5-04	K10-6-02	K10-6-02	K10-6-04	K10-6-04	K11-1-04
Depths			0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N
Sample Name			K10-2197-051.25N	K10-2197A-011N	K10-2197A-051.25N	K10-2266-041N	K10-2266-051.5N	K10-5-021.5N	K10-5-041N	K10-6-021.5N	K10-6-020.5N	K10-6-041N	K10-6-040.5N	K11-1-041N
Parent Sample														
CONSTITUENT	***CAS NO.***	***UNITS***												
Miscellaneous														
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	22100	32700	NA	31200	NA	17700	NA	12300	NA	NA	NA	90700
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size														
Clay	ARC-PCLAY	%	12.2	0.4	NA	17.2	NA	4.4	NA	0	NA	NA	NA	11.9
Gravel	ARC-PGRAVEL	%	26	23.6	NA	31.8	NA	70.9	NA	63.5	NA	NA	NA	30.6
Sand	ARC-PSAND	%	23.3	60.8	NA	36	NA	20.6	NA	19.3	NA	NA	NA	36.6
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	38.5	15.3	NA	15	NA	4.1	NA	17.2	NA	NA	NA	20.8

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-1-05	K11-1-05	K11-2225B-02	K11-2225B-04	K11-2264-03	K11-2264-03	K11-2264-04	K11-2300-01	K11-2300-05	K11-2302-03
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/12/2000	5/12/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	N
Sample Name			K11-1-051.25N	K11-1-051.25FD	K11-2225B-021.5N	K11-2225B-041N	K11-2264-031N	K11-2264-031FD	K11-2264-041.5N	K11-2300-011N	K11-2300-051.5N	K11-2302-031.5N
Parent Sample				K11-1-051.25N				K11-2264-031N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-1-05	K11-1-05	K11-2225B-02	K11-2225B-04	K11-2264-03	K11-2264-03	K11-2264-04	K11-2300-01	K11-2300-05	K11-2302-03
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/12/2000	5/12/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	N
Sample Name			K11-1-051.25N	K11-1-051.25FD	K11-2225B-021.5N	K11-2225B-041N	K11-2264-031N	K11-2264-031FD	K11-2264-041.5N	K11-2300-011N	K11-2300-051.5N	K11-2302-031.5N
Parent Sample				K11-1-051.25N				K11-2264-031N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
1,2-Dichlorobenzene	95-50-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	350	< 40
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
1,4-Dichlorobenzene	106-46-7	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2,4-Dichlorophenol	120-83-2	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2,4-Dimethylphenol	105-67-9	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2,4-Dinitrophenol	51-28-5	ug/kg	< 80	< 800	< 75	NA	< 755	< 783	< 76	< 81	< 79	< 79
2,4-Dinitrotoluene	121-14-2	ug/kg	< 400	< 400	< 370	NA	< 377	260	61	170	96	< 400
2,6-Dinitrotoluene	606-20-2	ug/kg	< 400	< 400	< 370	NA	< 377	< 391	< 380	< 410	< 400	< 400
2-Chloronaphthalene	91-58-7	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2-Chlorophenol	95-57-8	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2-Nitrophenol	88-75-5	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 80	< 800	< 75	NA	< 755	< 783	< 76	< 81	100	< 79
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 80	< 800	< 75	NA	< 755	< 783	< 76	< 81	< 79	< 79
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
4-Nitrophenol	100-02-7	ug/kg	< 80	< 800	< 75	NA	< 755	< 783	< 76	< 81	< 79	< 79
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 40	< 400	39	NA	< 377	< 391	< 38	21	< 40	< 40
Acenaphthylene	208-96-8	ug/kg	22	35	< 37	NA	< 377	< 391	< 38	86	< 40	< 40
Anthracene	120-12-7	ug/kg	< 40	25	160	NA	< 377	36	34	120	< 40	< 40
Benzidine	92-87-5	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Benzo[a]anthracene	56-55-3	ug/kg	130	160	810	NA	134	216	160	500	< 40	43
Benzo[a]pyrene	50-32-8	ug/kg	140	160	750	NA	145	218	150	540	< 40	42
Benzo[b]fluoranthene	205-99-2	ug/kg	200	220	1100	NA	198	336	240	920	< 40	71
Benzo[g,h,i]perylene	191-24-2	ug/kg	100	130	390	NA	< 377	< 391	92	460	< 40	< 40
Benzo[k]fluoranthene	207-08-9	ug/kg	< 40	< 400	290	NA	112	135	< 38	200	< 40	< 40
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-1-05	K11-1-05	K11-2225B-02	K11-2225B-04	K11-2264-03	K11-2264-03	K11-2264-04	K11-2300-01	K11-2300-05	K11-2302-03
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/12/2000	5/12/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	N
Sample Name			K11-1-051.25N	K11-1-051.25FD	K11-2225B-021.5N	K11-2225B-041N	K11-2264-031N	K11-2264-031FD	K11-2264-041.5N	K11-2300-011N	K11-2300-051.5N	K11-2302-031.5N
Parent Sample				K11-1-051.25N				K11-2264-031N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (Cont)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	27	27	210	NA	28.3	43.8	30	230	290	900
Butylbenzylphthalate	85-68-7	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	180
Chrysene	218-01-9	ug/kg	160	170	640	NA	160	248	190	760	< 40	56
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 40	< 400	100	NA	< 377	< 391	< 38	< 41	< 40	< 40
Diethylphthalate	84-66-2	ug/kg	36	< 400	< 37	NA	< 377	< 391	< 38	250	950	550
Dimethylphthalate	131-11-3	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Di-n-butylphthalate	84-74-2	ug/kg	1900	1900	240	NA	276	364	290	16000	16000	19000
Di-n-octylphthalate	117-84-0	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	220	< 40
Fluoranthene	206-44-0	ug/kg	280	360	1500	NA	321	572	400	1400	< 40	92
Fluorene	86-73-7	ug/kg	< 40	< 400	46	NA	< 377	< 391	< 38	< 41	< 40	< 40
Hexachlorobenzene	118-74-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Hexachlorobutadiene	87-68-3	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Hexachloroethane	67-72-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	92	120	400	NA	< 377	< 391	87	420	< 40	< 40
Isophorone	78-59-1	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Naphthalene	91-20-3	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Nitrobenzene	98-95-3	ug/kg	NA	NA	< 37	NA	< 377	< 391	< 38	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
N-Nitrosodiphenylamine	86-30-6	ug/kg	130	130	800	NA	< 377	< 391	< 38	6000	4700	19000
Pentachlorophenol	87-86-5	ug/kg	< 80	< 800	< 75	NA	< 755	< 783	< 76	< 81	< 79	< 79
Phenanthrene	85-01-8	ug/kg	140	180	520	NA	115	208	190	690	< 40	< 40
Phenol	108-95-2	ug/kg	< 40	< 400	< 37	NA	< 377	< 391	< 38	< 41	< 40	< 40
Pyrene	129-00-0	ug/kg	240	340	1000	NA	285	368	340	1300	< 40	< 40
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-1-05	K11-1-05	K11-2225B-02	K11-2225B-04	K11-2264-03	K11-2264-03	K11-2264-04	K11-2300-01	K11-2300-05	K11-2302-03
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/12/2000	5/12/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	N
Sample Name			K11-1-051.25N	K11-1-051.25FD	K11-2225B-021.5N	K11-2225B-041N	K11-2264-031N	K11-2264-031FD	K11-2264-041.5N	K11-2300-011N	K11-2300-051.5N	K11-2302-031.5N
Parent Sample				K11-1-051.25N				K11-2264-031N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives & Energetics												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 240	NA	< 14	NA	NA	NA	< 24	< 25	< 24
1,3-Dinitrobenzene	99-65-0	ug/kg	< 25	< 240	NA	< 14	NA	NA	NA	< 24	< 25	< 24
2,4,6-Trinitrotoluene	118-96-7	ug/kg	< 25	< 240	NA	1500	NA	NA	NA	1900	4100	3700
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	< 140	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 240	NA	< 14	NA	NA	NA	< 24	< 25	< 24
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 480	NA	< 29	NA	NA	NA	< 48	< 50	< 48
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 480	NA	< 29	NA	NA	NA	< 48	< 50	< 48
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 240	NA	< 14	NA	NA	NA	< 24	< 25	< 24
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 480	NA	< 29	NA	NA	NA	< 48	< 50	< 48
Nitrobenzene	98-95-3	ug/kg	< 25	< 240	NA	210	NA	NA	NA	< 24	< 25	< 24
Nitrocellulose	9004-70-0	ug/kg	< 42000	87400	NA	9310000	NA	NA	NA	8130000	13900000	6360000
Nitroglycerin	55-63-0	ug/kg	< 600	< 6000	NA	74000	NA	NA	NA	470000	630000	810000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 50	< 480	NA	< 29	NA	NA	NA	< 48	< 50	< 48
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 480	NA	< 29	NA	NA	NA	< 48	< 50	< 48
Tetryl	479-45-8	ug/kg	< 50	< 480	NA	< 29	NA	NA	NA	< 48	< 50	< 48
Metals												
Antimony	7440-36-0	mg/kg	< 0.6	< 0.69	< 0.4	NA	< 0.647	< 0.678	< 0.6	< 0.7	< 0.6	< 0.6
Arsenic	7440-38-2	mg/kg	6.8	8.8	3.2	NA	4.64	5.16	4.1	6.7	3.6	3.7
Beryllium	7440-41-7	mg/kg	0.63	0.7	0.58	NA	0.471	0.411	0.51	0.47	0.41	1.2
Cadmium	7440-43-9	mg/kg	0.28	0.2	0.27	NA	< 0.324	< 0.339	0.27	1.8	< 0.3	1
Chromium	7440-47-3	mg/kg	17.3	19.2	14.1	NA	16.9	13.6	13.6	24.7	14.8	16.4
Copper	7440-50-8	mg/kg	23.6	24.2	59.5	NA	162	150	21.7	81.7	106	65.4
Lead	7439-92-1	mg/kg	161	163	38.7	NA	59.9	73.5	38.1	154	125	40.2
Mercury	7439-97-6	mg/kg	0.14	0.12	0.04	NA	0.09	0.069	0.08	0.26	0.1	0.11
Nickel	7440-02-0	mg/kg	11.8	12.7	19.7	NA	8.71	8.22	7.8	8.7	8.9	15.5
Selenium	7782-49-2	mg/kg	0.48	< 0.57	< 0.4	NA	0.613	0.836	0.3	< 0.5	< 0.5	< 0.5
Silver	7440-22-4	mg/kg	< 0.3	0.08	< 0.2	NA	< 0.324	< 0.339	< 0.3	0.1	< 0.3	< 0.3
Thallium	7440-28-0	mg/kg	1.1	1.7	< 0.8	NA	1.41	1.25	0.7	< 1	< 1	< 1
Zinc	7440-66-6	mg/kg	319	317	183	NA	214	267	565	901	134	376

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-1-05	K11-1-05	K11-2225B-02	K11-2225B-04	K11-2264-03	K11-2264-03	K11-2264-04	K11-2300-01	K11-2300-05	K11-2302-03
Depths			0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/12/2000	5/12/2000	8/1/2000	8/1/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
Sample Type			N	FD	N	N	N	FD	N	N	N	N
Sample Name			K11-1-051.25N	K11-1-051.25FD	K11-2225B-021.5N	K11-2225B-041N	K11-2264-031N	K11-2264-031FD	K11-2264-041.5N	K11-2300-011N	K11-2300-051.5N	K11-2302-031.5N
Parent Sample				K11-1-051.25N				K11-2264-031N				
CONSTITUENT	***CAS NO.***	***UNITS***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	16400	NA	NA	NA	13800	35300	NA	24200
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
Clay	ARC-PCLAY	%	NA	NA	5.2	NA	NA	NA	7.7	10.5	NA	13.1
Gravel	ARC-PGRAVEL	%	NA	NA	34	NA	NA	NA	31.7	50.4	NA	38.1
Sand	ARC-PSAND	%	NA	NA	49.4	NA	NA	NA	45.6	25.2	NA	32.2
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	11.4	NA	NA	NA	15	13.9	NA	16.5

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-2302-05	K11-2302-05	K11-5-01	K11-598-02	K11-598-03	K11-601-01	K11-604-02	K11-604-03	K11-607-01	K11-607-02
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	7/25/2000	5/12/2000	5/12/2000	5/18/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			K11-2302-050.75N1150	K11-2302-050.75FD	K11-5-011.25N	K11-598-020.5N	K11-598-031N	K11-601-010.5N	K11-604-021.25N	K11-604-031N	K11-607-012N	K11-607-021.5N
Parent Sample				K11-2302-050.75N1150								
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-2302-05	K11-2302-05	K11-5-01	K11-598-02	K11-598-03	K11-601-01	K11-604-02	K11-604-03	K11-607-01	K11-607-02
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	7/25/2000	5/12/2000	5/12/2000	5/18/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			K11-2302-050.75N1150	K11-2302-050.75FD	K11-5-011.25N	K11-598-020.5N	K11-598-031N	K11-601-010.5N	K11-604-021.25N	K11-604-031N	K11-607-012N	K11-607-021.5N
Parent Sample				K11-2302-050.75N1150								
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
1,2-Dichlorobenzene	95-50-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
1,4-Dichlorobenzene	106-46-7	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2,4-Dichlorophenol	120-83-2	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2,4-Dimethylphenol	105-67-9	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2,4-Dinitrophenol	51-28-5	ug/kg	< 940	< 9000	NA	< 761	< 79	< 81	< 73	< 788	< 710	< 69
2,4-Dinitrotoluene	121-14-2	ug/kg	< 4700	< 4500	NA	< 381	< 400	39	< 370	88.7	< 355	< 350
2,6-Dinitrotoluene	606-20-2	ug/kg	< 4700	< 4500	NA	< 381	< 400	< 410	< 370	< 394	< 355	< 350
2-Chloronaphthalene	91-58-7	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2-Chlorophenol	95-57-8	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2-Nitrophenol	88-75-5	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 940	< 9000	NA	< 761	< 79	< 81	< 73	< 788	< 710	< 69
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 940	< 9000	NA	< 761	< 79	< 81	< 73	< 788	< 710	< 69
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
4-Nitrophenol	100-02-7	ug/kg	< 940	< 9000	NA	< 761	< 79	< 81	< 73	< 788	< 710	< 69
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 470	< 4500	NA	348	< 40	46	< 37	< 394	< 355	< 35
Acenaphthylene	208-96-8	ug/kg	< 470	< 4500	NA	< 381	< 40	37	55	142	< 355	< 35
Anthracene	120-12-7	ug/kg	< 470	< 4500	NA	1300	55	250	66	122	< 355	< 35
Benzidine	92-87-5	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Benzo[a]anthracene	56-55-3	ug/kg	440	400	NA	4090	270	1100	300	539	46.9	< 35
Benzo[a]pyrene	50-32-8	ug/kg	420	430	NA	3710	280	1200	320	929	40.1	< 35
Benzo[b]fluoranthene	205-99-2	ug/kg	< 470	< 4500	NA	5320	490	1700	490	2080	76.3	< 35
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 470	< 4500	NA	2260	190	760	280	913	< 355	< 35
Benzo[k]fluoranthene	207-08-9	ug/kg	< 470	< 4500	NA	1820	200	550	120	584	< 355	< 35
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-2302-05	K11-2302-05	K11-5-01	K11-598-02	K11-598-03	K11-601-01	K11-604-02	K11-604-03	K11-607-01	K11-607-02
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	7/25/2000	5/12/2000	5/12/2000	5/18/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			K11-2302-050.75N1150	K11-2302-050.75FD	K11-5-011.25N	K11-598-020.5N	K11-598-031N	K11-601-010.5N	K11-604-021.25N	K11-604-031N	K11-607-012N	K11-607-021.5N
Parent Sample				K11-2302-050.75N1150								
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (Cont)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	38000	29000	NA	31.2	35	70	31	57.1	24.1	18
Butylbenzylphthalate	85-68-7	ug/kg	1700	1500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Chrysene	218-01-9	ug/kg	500	500	NA	3730	390	990	350	837	50.1	< 35
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 470	< 4500	NA	< 381	< 40	220	< 37	271	< 355	< 35
Diethylphthalate	84-66-2	ug/kg	72000	71000	NA	< 381	< 40	< 41	< 37	< 394	70.6	< 35
Dimethylphthalate	131-11-3	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Di-n-butylphthalate	84-74-2	ug/kg	300000	280000	NA	1140	300	3100	1800	5500	76.3	57
Di-n-octylphthalate	117-84-0	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Fluoranthene	206-44-0	ug/kg	820	810	NA	5860	790	2400	730	1360	95.1	< 35
Fluorene	86-73-7	ug/kg	< 470	< 4500	NA	458	< 40	59	31	< 394	< 355	< 35
Hexachlorobenzene	118-74-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Hexachlorobutadiene	87-68-3	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Hexachloroethane	67-72-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 470	< 4500	NA	2190	190	720	250	945	< 355	< 35
Isophorone	78-59-1	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Naphthalene	91-20-3	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
N-Nitrosodiphenylamine	86-30-6	ug/kg	260000	300000	NA	339	280	320	520	609	18.5	< 35
Pentachlorophenol	87-86-5	ug/kg	< 940	< 9000	NA	< 761	< 79	< 81	< 73	< 788	< 710	< 69
Phenanthrene	85-01-8	ug/kg	< 470	< 4500	NA	3620	230	620	390	498	27.3	< 35
Phenol	108-95-2	ug/kg	< 470	< 4500	NA	< 381	< 40	< 41	< 37	< 394	< 355	< 35
Pyrene	129-00-0	ug/kg	890	870	NA	5980	530	1700	770	1590	< 355	< 35
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-2302-05	K11-2302-05	K11-5-01	K11-598-02	K11-598-03	K11-601-01	K11-604-02	K11-604-03	K11-607-01	K11-607-02
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	7/25/2000	5/12/2000	5/12/2000	5/18/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			K11-2302-050.75N1150	K11-2302-050.75FD	K11-5-011.25N	K11-598-020.5N	K11-598-031N	K11-601-010.5N	K11-604-021.25N	K11-604-031N	K11-607-012N	K11-607-021.5N
Parent Sample				K11-2302-050.75N1150								
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives & Energetics												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 24	< 250	NA	< 200	< 15	< 15	< 25	< 250	< 227	< 25
1,3-Dinitrobenzene	99-65-0	ug/kg	< 24	< 250	NA	< 200	< 15	< 15	< 25	< 250	< 227	< 25
2,4,6-Trinitrotoluene	118-96-7	ug/kg	110000	84000	NA	< 200	< 15	150	< 25	266	< 227	< 25
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 24	< 250	NA	< 200	< 15	< 15	< 25	< 250	< 227	< 25
2-Nitrotoluene	88-72-2	ug/kg	< 48	< 500	NA	< 400	< 29	< 30	< 50	< 500	< 455	< 50
3-Nitrotoluene	99-08-1	ug/kg	< 48	< 500	NA	< 400	< 29	< 30	< 50	< 500	< 455	< 50
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 24	< 250	NA	< 200	< 15	< 15	< 25	< 250	< 227	< 25
4-Nitrotoluene	99-99-0	ug/kg	< 48	< 500	NA	< 400	< 29	< 30	< 50	< 500	< 455	< 50
Nitrobenzene	98-95-3	ug/kg	< 24	< 250	NA	158	< 15	< 15	< 25	262	< 227	< 25
Nitrocellulose	9004-70-0	ug/kg	73900000	59700000	NA	281000	57400	75300	90100	486000	< 37.4	< 36000
Nitroglycerin	55-63-0	ug/kg	8600000	6100000	NA	8580	< 600	3300	11000	81000	< 5330	5000
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 48	< 500	NA	< 400	< 29	< 30	< 50	< 500	< 455	< 50
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 48	< 500	NA	< 400	< 29	< 30	< 50	< 500	< 455	< 50
Tetryl	479-45-8	ug/kg	270	< 500	NA	< 400	< 29	< 30	< 50	< 500	< 455	< 50
Metals												
Antimony	7440-36-0	mg/kg	1.1	< 0.78	NA	< 0.606	< 0.5	0.65	< 0.6	< 0.675	< 0.615	< 0.6
Arsenic	7440-38-2	mg/kg	25.2	20.1	NA	8.14	4.3	5.7	4.4	4.29	2.6	3
Beryllium	7440-41-7	mg/kg	0.32	0.26	NA	0.304	0.33	0.5	0.47	0.373	0.176	0.18
Cadmium	7440-43-9	mg/kg	0.52	0.48	NA	0.674	< 0.2	< 0.2	< 0.3	0.621	< 0.307	< 0.3
Chromium	7440-47-3	mg/kg	69.4	55.6	NA	10.6	14.5	16.3	14	15.2	8.01	7.1
Copper	7440-50-8	mg/kg	80.9	74.2	NA	14.8	15.1	38.9	17	26.9	4.95	3.2
Lead	7439-92-1	mg/kg	165	128	NA	26.9	34	66.7	69.6	85.1	4.06	2
Mercury	7439-97-6	mg/kg	0.37	0.41	NA	0.048	0.09	0.11	0.07	0.081	0.022	0.02
Nickel	7440-02-0	mg/kg	10.5	11.5	NA	5.41	8.8	15.4	9.3	11.5	1.43	1.7
Selenium	7782-49-2	mg/kg	< 0.6	< 0.65	NA	0.647	< 0.4	< 0.4	0.36	0.692	0.421	< 0.5
Silver	7440-22-4	mg/kg	0.11	0.17	NA	< 0.303	< 0.2	< 0.2	< 0.3	< 0.338	< 0.307	< 0.3
Thallium	7440-28-0	mg/kg	< 1	< 1.3	NA	< 1.01	< 0.9	< 0.9	< 1	1.01	< 1.02	< 1
Zinc	7440-66-6	mg/kg	466	422	NA	143	54.7	185	115	110	53.8	58.3

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-2302-05	K11-2302-05	K11-5-01	K11-598-02	K11-598-03	K11-601-01	K11-604-02	K11-604-03	K11-607-01	K11-607-02
Depths			0.0-0.8 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft
Collection Date			5/18/2000	5/18/2000	5/18/2000	7/25/2000	5/12/2000	5/12/2000	5/18/2000	8/1/2000	8/1/2000	5/18/2000
Sample Type			N	FD	N	N	N	N	N	N	N	N
Sample Name			K11-2302-050.75N1150	K11-2302-050.75FD	K11-5-011.25N	K11-598-020.5N	K11-598-031N	K11-601-010.5N	K11-604-021.25N	K11-604-031N	K11-607-012N	K11-607-021.5N
Parent Sample				K11-2302-050.75N1150								
CONSTITUENT	***CAS NO.***	***UNITS***										
Miscellaneous												
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	13800	NA	38700	40600	24300	NA	NA	3730
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
Clay	ARC-PCLAY	%	NA	NA	14.6	NA	10.3	3.8	13.6	NA	NA	3.4
Gravel	ARC-PGRAVEL	%	NA	NA	36.9	NA	26	35.6	28.9	NA	NA	52.2
Sand	ARC-PSAND	%	NA	NA	32.1	NA	31.7	39.2	40.4	NA	NA	41.5
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	NA	NA	16.4	NA	32	21.4	17.1	NA	NA	2.9

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-B2-01	K11-B2-03	K11-B3-01	K11-B3-02	SB-R-J11-02	SB-R-J11-03	SB-R-K11-01	SB-R-K11-03	SB-R-K11-04	SD-J10-2-01	SD-K11-1-01
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	7/25/2000	5/12/2000	3/22/2006	3/22/2006	3/22/2006	3/23/2006	3/23/2006	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			K11-B2-010.75N	K11-B2-031N	K11-B3-011N	K11-B3-021.25N	SB-R-J11-021.0N	SB-R-J11-031.0N	SB-R-K11-011.4N	SB-R-K11-031.0N	SB-R-K11-041.25N	SD-J10-2-011N	SD-K11-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,2,4-Trichlorobenzene	120-82-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
1,3-Dichlorobenzene	541-73-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 310	< 370
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3100	< 3700
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	< 2700	< 3000	< 2800	< 3000	< 3200	< 630	< 740
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	< 680	< 740	< 690	< 750	< 800	< 160	< 190
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 310	< 370
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	< 680	< 740	< 690	< 750	< 800	< 160	< 190
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 310	< 370
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 310	< 370
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
cis-1,2-Dichloropropene	6923-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Hexachlorobutadiene	87-68-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	< 680	< 740	< 690	< 750	< 800	< 310	< 370
Naphthalene	91-20-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	< 680	< 740	< 690	< 750	< 800	< 160	< 190
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 310	< 370
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 160	< 190

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-B2-01	K11-B2-03	K11-B3-01	K11-B3-02	SB-R-J11-02	SB-R-J11-03	SB-R-K11-01	SB-R-K11-03	SB-R-K11-04	SD-J10-2-01	SD-K11-1-01
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	7/25/2000	5/12/2000	3/22/2006	3/22/2006	3/22/2006	3/23/2006	3/23/2006	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			K11-B2-010.75N	K11-B2-031N	K11-B3-011N	K11-B3-021.25N	SB-R-J11-021.0N	SB-R-J11-031.0N	SB-R-K11-011.4N	SB-R-K11-031.0N	SB-R-K11-041.25N	SD-J10-2-011N	SD-K11-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 37	< 387	< 386	< 39	< 180	< 200	< 190	< 390	< 210	< 38	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 75	< 775	< 772	< 78	< 2200	< 2400	< 2300	< 4700	< 2600	< 780	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	< 370	< 387	< 386	< 390	< 180	120	100	< 390	< 210	< 78	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	< 370	< 387	< 386	< 390	< 180	80	< 190	< 390	< 210	< 38	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
2-Chlorophenol	95-57-8	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
2-Nitrophenol	88-75-5	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 75	< 775	< 772	< 78	NA	NA	NA	NA	NA	< 78	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 75	< 775	< 772	< 78	NA	NA	NA	NA	NA	< 200	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
4-Nitrophenol	100-02-7	ug/kg	< 75	< 775	< 772	< 78	NA	NA	NA	NA	NA	< 200	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83-32-9	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Acenaphthylene	208-96-8	ug/kg	26	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Anthracene	120-12-7	ug/kg	52	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Benzidine	92-87-5	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 780	NA
Benzo[a]anthracene	56-55-3	ug/kg	190	92.2	101	< 39	< 180	74	< 190	< 390	< 210	92	NA
Benzo[a]pyrene	50-32-8	ug/kg	250	97.6	131	< 39	< 180	93	< 190	140	< 210	110	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	450	198	259	< 39	< 180	130	130	420	110	150	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	260	< 387	119	< 39	NA	NA	NA	NA	NA	74	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	120	69.4	91.1	< 39	< 180	48	70	190	< 210	54	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-B2-01	K11-B2-03	K11-B3-01	K11-B3-02	SB-R-J11-02	SB-R-J11-03	SB-R-K11-01	SB-R-K11-03	SB-R-K11-04	SD-J10-2-01	SD-K11-1-01
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	7/25/2000	5/12/2000	3/22/2006	3/22/2006	3/22/2006	3/23/2006	3/23/2006	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			K11-B2-010.75N	K11-B2-031N	K11-B3-011N	K11-B3-021.25N	SB-R-J11-021.0N	SB-R-J11-031.0N	SB-R-K11-011.4N	SB-R-K11-031.0N	SB-R-K11-041.25N	SD-J10-2-011N	SD-K11-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Semivolatile Organic Compounds (Cont)													
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	24	368	49	19	< 360	< 410	85	190	< 430	< 78	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 37	< 387	< 386	< 39	< 180	< 200	< 190	< 390	< 210	< 78	NA
Chrysene	218-01-9	ug/kg	260	114	127	< 39	< 180	97	< 190	120	75	140	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	170	< 387	< 386	< 39	< 180	< 200	< 190	< 390	< 210	< 38	NA
Diethylphthalate	84-66-2	ug/kg	< 37	127	< 386	< 39	< 180	< 200	93	160	< 210	< 78	NA
Dimethylphthalate	131-11-3	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
Di-n-butylphthalate	84-74-2	ug/kg	520	1400	3360	1200	1200	< 200	2800	17000	120	180	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
Fluoranthene	206-44-0	ug/kg	230	176	236	< 39	NA	NA	NA	NA	NA	190	NA
Fluorene	86-73-7	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Hexachlorobenzene	118-74-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 200	NA
Hexachloroethane	67-72-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	200	77.9	98.8	< 39	< 180	61	50	210	< 210	73	NA
Isophorone	78-59-1	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Naphthalene	91-20-3	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 38	NA
Nitrobenzene	98-95-3	ug/kg	< 37	< 387	< 386	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 37	< 387	< 386	< 39	< 180	< 200	< 190	< 390	< 210	< 38	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	82	220	175	< 39	86	< 200	1100	3800	< 210	< 38	NA
Pentachlorophenol	87-86-5	ug/kg	< 75	< 775	< 772	< 78	NA	NA	NA	NA	NA	< 200	NA
Phenanthrene	85-01-8	ug/kg	79	57	83.8	< 39	NA	NA	NA	NA	NA	110	NA
Phenol	108-95-2	ug/kg	< 37	< 387	< 386	< 39	NA	NA	NA	NA	NA	< 78	NA
Pyrene	129-00-0	ug/kg	210	141	225	< 39	NA	NA	NA	NA	NA	260	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-B2-01	K11-B2-03	K11-B3-01	K11-B3-02	SB-R-J11-02	SB-R-J11-03	SB-R-K11-01	SB-R-K11-03	SB-R-K11-04	SD-J10-2-01	SD-K11-1-01
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	7/25/2000	5/12/2000	3/22/2006	3/22/2006	3/22/2006	3/23/2006	3/23/2006	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			K11-B2-010.75N	K11-B2-031N	K11-B3-011N	K11-B3-021.25N	SB-R-J11-021.0N	SB-R-J11-031.0N	SB-R-K11-011.4N	SB-R-K11-031.0N	SB-R-K11-041.25N	SD-J10-2-011N	SD-K11-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Explosives & Energetics													
1,3,5-Trinitrobenzene	99-35-4	ug/kg	NA	NA	NA	< 15	NA	NA	NA	NA	NA	< 120	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	NA	NA	NA	< 15	< 330	< 370	< 340	< 350	< 390	< 120	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	NA	NA	NA	< 15	< 330	< 370	< 340	< 350	< 390	< 120	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	NA	NA	NA	< 15	< 330	< 370	< 340	< 350	< 390	< 120	NA
2-Nitrotoluene	88-72-2	ug/kg	NA	NA	NA	< 29	NA	NA	NA	NA	NA	< 120	NA
3-Nitrotoluene	99-08-1	ug/kg	NA	NA	NA	< 29	NA	NA	NA	NA	NA	< 120	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	NA	NA	NA	< 15	< 330	< 370	< 340	< 350	< 390	< 120	NA
4-Nitrotoluene	99-99-0	ug/kg	NA	NA	NA	< 29	NA	NA	NA	NA	NA	< 120	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	< 15	NA	NA	NA	NA	NA	< 120	NA
Nitrocellulose	9004-70-0	ug/kg	NA	NA	NA	58600	110000	49000	220000	110000	< 150000	< 70000	NA
Nitroglycerin	55-63-0	ug/kg	NA	NA	NA	5300	< 6600	< 7300	23000	150000	< 7700	< 2300	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	NA	NA	NA	< 29	< 820	< 920	< 860	< 880	< 960	< 120	NA
Pentaerythritol Tetranitrate	78-11-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2300	NA
RDX (Cyclonite)	121-82-4	ug/kg	NA	NA	NA	< 29	< 330	< 370	< 340	< 350	< 390	< 120	NA
Tetryl	479-45-8	ug/kg	NA	NA	NA	< 29	NA	NA	NA	NA	NA	< 120	NA
Metals													
Antimony	7440-36-0	mg/kg	< 0.6	< 0.652	< 0.615	< 0.5	< 2.14	< 2.42	1.2	< 2.34	< 2.55	< 0.65	NA
Arsenic	7440-38-2	mg/kg	4.4	6.44	3.85	2.4	2.04	5.03	13.8	6.47	8.16	3.7	NA
Beryllium	7440-41-7	mg/kg	0.53	0.541	0.382	0.34	0.629	0.671	0.64	0.568	0.774	0.51	NA
Cadmium	7440-43-9	mg/kg	< 0.3	< 0.326	0.678	< 0.2	0.118	0.24	< 0.557	0.183	1.04	< 0.055	NA
Chromium	7440-47-3	mg/kg	22.9	18.3	12.8	10	NA	NA	NA	NA	NA	12.1	NA
Copper	7440-50-8	mg/kg	16.9	19.6	37.1	11.6	18.3	15.8	62	28.1	19	10.7	NA
Lead	7439-92-1	mg/kg	62.2	38.3	127	11.8	23.9	32	34.6	24.4	58.6	12.6	NA
Mercury	7439-97-6	mg/kg	0.08	0.057	0.232	0.07	0.0282	0.0585	0.0536	0.0321	0.0999	0.032	NA
Nickel	7440-02-0	mg/kg	12.5	10.3	16.7	7.1	6	10.6	27.5	12.5	11.6	9	NA
Selenium	7782-49-2	mg/kg	< 0.5	0.55	0.996	< 0.4	< 2.14	< 2.42	< 2.23	< 2.34	1.98	< 0.48	NA
Silver	7440-22-4	mg/kg	< 0.3	< 0.326	< 0.307	< 0.2	0.282	0.287	0.426	0.243	< 0.636	< 0.14	NA
Thallium	7440-28-0	mg/kg	0.91	1.25	< 1.03	< 0.9	< 2.14	< 2.42	< 2.23	< 2.34	< 2.55	< 0.85	NA
Zinc	7440-66-6	mg/kg	64.6	62.2	212	34.4	57.2	93.2	169	92.9	84.6	49.3	NA

Appendix B.7 - Areas of Presumed Remedial Action Dataset
Soil - B-Line Area - South
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			K11-B2-01	K11-B2-03	K11-B3-01	K11-B3-02	SB-R-J11-02	SB-R-J11-03	SB-R-K11-01	SB-R-K11-03	SB-R-K11-04	SD-J10-2-01	SD-K11-1-01
Depths			0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.9-1.4 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft
Collection Date			5/18/2000	8/1/2000	7/25/2000	5/12/2000	3/22/2006	3/22/2006	3/22/2006	3/23/2006	3/23/2006	4/20/2001	4/19/2001
Sample Type			N	N	N	N	N	N	N	N	N	N	N
Sample Name			K11-B2-010.75N	K11-B2-031N	K11-B3-011N	K11-B3-021.25N	SB-R-J11-021.0N	SB-R-J11-031.0N	SB-R-K11-011.4N	SB-R-K11-031.0N	SB-R-K11-041.25N	SD-J10-2-011N	SD-K11-1-011N
Parent Sample													
CONSTITUENT	***CAS NO.***	***UNITS***											
Miscellaneous													
Percent Moisture	ARC-MOIST	%dw	NA	NA	NA	NA	8.5	18.2	12.8	14.4	22.2	14	NA
Total Organic Carbon	ARC-TOC	mg/kg	12200	NA	NA	18200	NA	NA	NA	NA	NA	20500	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12000	< 14000
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12000	< 14000
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12000	< 14000
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12000	< 14000
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12000	< 14000
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12000	< 14000
Grain Size													
Clay	ARC-PCLAY	%	18.6	NA	NA	2.7	NA	NA	NA	NA	NA	NA	NA
Gravel	ARC-PGRAVEL	%	31.8	NA	NA	66.2	NA	NA	NA	NA	NA	NA	NA
Sand	ARC-PSAND	%	25.1	NA	NA	24.6	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	99.8	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
SIEVE 3 inch, % passing	ARC-SIEVE75KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
SIEVE NO. 16, % passing	ARC-SIEVE16	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	33.1	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3	NA
SIEVE NO. 30, % passing	ARC-SIEVE30	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.2	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.7	NA
SIEVE NO. 50, % passing	ARC-SIEVE50	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.1	NA
SIEVE, 6 PHI, % passing	ARC-SIEVE6PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.1	NA
SIEVE, 8 PHI, % passing	ARC-SIEVE8PHI	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	59.5	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	NA
Silt	ARC-PSILT	%	24.6	NA	NA	6.5	NA	NA	NA	NA	NA	NA	NA

Appendix B8. A-Line Area – Northwest Description (Tier III)
Kenvil Works Facility
Kenvil, New Jersey

Historical records indicate that two buildings in the northwestern corner of the A-Line Area were destroyed during a fire and explosion. The buildings were later rebuilt on the site of the incident. During the SI/RI investigation and decommissioning and demolition activities, evidence of explosions (e.g., physical debris and residual source material) were identified in the area surrounding the former building locations. A review of SI/RI sample results identified two areas where these historical influences were evident. As such, Hercules will address the removal and/or containment of these materials during the FS process.

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F8-2107-01	F8-2107-05	F8-2107-05	F8-2118-02	F8-2118-02	F8-2118-10	F8-2152-02	F8-5-01	F8-575-02	F8-A5-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	7/13/2000	12/17/1999	3/21/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			F8-2107-011N	F8-2107-050.5N	F8-2107-050.5FD	F8-2118-021N	F8-2118-021FD	F8-2118-101N	F8-2152-020.5N	F8-5-011N	F8-575-021N	F8-A5-030.5N
Parent Sample					F8-2107-050.5N		F8-2118-021N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F8-2107-01	F8-2107-05	F8-2107-05	F8-2118-02	F8-2118-02	F8-2118-10	F8-2152-02	F8-5-01	F8-575-02	F8-A5-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	7/13/2000	12/17/1999	3/21/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			F8-2107-011N	F8-2107-050.5N	F8-2107-050.5FD	F8-2118-021N	F8-2118-021FD	F8-2118-101N	F8-2152-020.5N	F8-5-011N	F8-575-021N	F8-A5-030.5N
Parent Sample					F8-2107-050.5N		F8-2118-021N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
1,2-Dichlorobenzene	95-50-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
1,3-Dichlorobenzene	541-73-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
1,4-Dichlorobenzene	106-46-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
2,4-Dichlorophenol	120-83-2	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
2,4-Dimethylphenol	105-67-9	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
2,4-Dinitrophenol	51-28-5	ug/kg	< 78	< 740	< 7600	< 72	< 720	< 72	< 72	NA	< 780	< 750
2,4-Dinitrotoluene	121-14-2	ug/kg	62000	50000	< 3800	410	690	110	83	NA	390	< 3700
2,6-Dinitrotoluene	606-20-2	ug/kg	2400	2300	< 3800	< 360	34	< 360	< 360	NA	< 390	< 3700
2-Chloronaphthalene	91-58-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
2-Chlorophenol	95-57-8	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
2-Nitrophenol	88-75-5	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 78	< 740	< 7600	< 72	< 720	< 72	< 72	NA	< 780	< 750
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 78	< 740	< 7600	< 72	< 720	< 72	< 72	NA	< 780	< 750
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
4-Nitrophenol	100-02-7	ug/kg	< 78	< 740	< 7600	< 72	< 720	< 72	< 72	NA	< 780	< 750
Acenaphthene	83-32-9	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Acenaphthylene	208-96-8	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Anthracene	120-12-7	ug/kg	42	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Benzidine	92-87-5	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	< 390	NA
Benzo[a]anthracene	56-55-3	ug/kg	200	< 370	< 3800	29	29	33	< 36	NA	< 390	< 370
Benzo[a]pyrene	50-32-8	ug/kg	200	< 370	< 3800	< 36	26	34	26	NA	< 390	< 370
Benzo[b]fluoranthene	205-99-2	ug/kg	340	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	NA	< 370
Benzo[k]fluoranthene	207-08-9	ug/kg	150	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F8-2107-01	F8-2107-05	F8-2107-05	F8-2118-02	F8-2118-02	F8-2118-10	F8-2152-02	F8-5-01	F8-575-02	F8-A5-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	7/13/2000	12/17/1999	3/21/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			F8-2107-011N	F8-2107-050.5N	F8-2107-050.5FD	F8-2118-021N	F8-2118-021FD	F8-2118-101N	F8-2152-020.5N	F8-5-011N	F8-575-021N	F8-A5-030.5N
Parent Sample					F8-2107-050.5N		F8-2118-021N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (Cont)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	160	< 370	< 3800	36	< 360	27	40	NA	< 390	< 370
Butylbenzylphthalate	85-68-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Chrysene	218-01-9	ug/kg	210	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Diethylphthalate	84-66-2	ug/kg	1200	2600	1900	2200	250	86	88	NA	420	1200
Dimethylphthalate	131-11-3	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Di-n-butylphthalate	84-74-2	ug/kg	240	450	440	570	560	79	160	NA	< 390	620
Di-n-octylphthalate	117-84-0	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Fluoranthene	206-44-0	ug/kg	350	< 370	< 3800	50	< 360	< 36	< 36	NA	< 390	< 370
Fluorene	86-73-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Hexachlorobenzene	118-74-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Hexachlorobutadiene	87-68-3	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Hexachloroethane	67-72-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Isophorone	78-59-1	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Naphthalene	91-20-3	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 36	NA	NA	< 370
N-Nitrosodimethylamine	62-75-9	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
N-Nitrosodiphenylamine	86-30-6	ug/kg	2300	5500	7800	1400	900	310	220	NA	930	2700
Pentachlorophenol	87-86-5	ug/kg	< 78	< 740	< 7600	< 72	< 720	< 72	< 72	NA	< 780	< 750
Phenanthrene	85-01-8	ug/kg	210	< 370	< 3800	25	23	< 36	26	NA	< 390	< 370
Phenol	108-95-2	ug/kg	< 39	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370
Pyrene	129-00-0	ug/kg	450	< 370	< 3800	< 36	< 360	< 36	< 36	NA	< 390	< 370

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F8-2107-01	F8-2107-05	F8-2107-05	F8-2118-02	F8-2118-02	F8-2118-10	F8-2152-02	F8-5-01	F8-575-02	F8-A5-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	7/13/2000	12/17/1999	3/21/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			F8-2107-011N	F8-2107-050.5N	F8-2107-050.5FD	F8-2118-021N	F8-2118-021FD	F8-2118-101N	F8-2152-020.5N	F8-5-011N	F8-575-021N	F8-A5-030.5N
Parent Sample					F8-2107-050.5N		F8-2118-021N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives & Energetics												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 23	< 25	< 240	< 24	< 230	< 22	NA	NA	< 250	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	< 23	< 25	< 240	< 24	< 230	< 22	NA	NA	< 250	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	420	4500	4700	280	460	< 22	NA	NA	< 250	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 23	< 25	< 240	< 24	< 230	< 22	NA	NA	< 250	NA
2-Nitrotoluene	88-72-2	ug/kg	< 45	< 50	< 480	< 48	< 450	< 43	NA	NA	< 500	NA
3-Nitrotoluene	99-08-1	ug/kg	< 45	< 50	< 480	< 48	< 450	< 43	NA	NA	< 500	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 23	< 25	< 240	< 24	< 230	< 22	NA	NA	< 250	NA
4-Nitrotoluene	99-99-0	ug/kg	< 45	< 50	< 480	< 48	< 450	< 43	NA	NA	< 500	NA
Nitrobenzene	98-95-3	ug/kg	< 23	< 25	< 240	< 24	< 230	< 22	NA	NA	< 250	NA
Nitrocellulose	9004-70-0	ug/kg	961000	11800000	9610000	585000	397000	57200	NA	NA	2660000	NA
Nitroglycerin	55-63-0	ug/kg	100000	600000	620000	33000	65000	11000	NA	NA	556200	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 45	< 50	< 480	< 48	< 450	< 43	NA	NA	< 500	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 45	< 50	< 480	< 48	< 450	< 43	NA	NA	< 500	NA
Tetryl	479-45-8	ug/kg	< 45	< 50	< 480	< 48	< 450	< 43	NA	NA	500	NA
Metals												
Antimony	7440-36-0	mg/kg	< 0.7	< 0.6	< 0.67	< 0.6	< 0.62	< 0.6	< 0.6	NA	< 1.2	< 1
Arsenic	7440-38-2	mg/kg	5.1	4.3	3.2	36.2	39.2	5.9	4	NA	9.6	6.6
Beryllium	7440-41-7	mg/kg	0.52	0.56	0.45	0.33	0.31	0.42	0.42	NA	0.66	0.4
Cadmium	7440-43-9	mg/kg	0.66	0.83	0.83	< 0.3	< 0.31	< 0.3	0.06	NA	< 0.69	0.31
Chromium	7440-47-3	mg/kg	17.6	16.9	15.2	55.2	44.9	14.3	8.7	NA	13.8	13.4
Copper	7440-50-8	mg/kg	156	44.1	37.7	18.5	13.8	19.5	18	NA	35.3	39
Lead	7439-92-1	mg/kg	133	65.1	53.2	16.8	11.6	33	23.1	NA	56.2	80.4
Mercury	7439-97-6	mg/kg	0.44	0.11	0.14	0.07	0.04	0.03	0.02	NA	0.06	0.08
Nickel	7440-02-0	mg/kg	8.6	11.2	8.9	5.9	4.6	7.8	6.2	NA	9.7	8.4
Selenium	7782-49-2	mg/kg	0.89	0.86	0.51	0.35	< 0.51	< 0.5	< 0.5	NA	1.7	< 1
Silver	7440-22-4	mg/kg	< 0.3	< 0.3	< 0.34	< 0.3	< 0.31	< 0.3	< 0.3	NA	< 0.69	< 0.6
Thallium	7440-28-0	mg/kg	< 1	< 1	< 1.1	0.76	0.78	0.74	< 1	NA	< 2.3	< 2
Zinc	7440-66-6	mg/kg	206	353	265	56.6	40.8	67.5	99	NA	137	135

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F8-2107-01	F8-2107-05	F8-2107-05	F8-2118-02	F8-2118-02	F8-2118-10	F8-2152-02	F8-5-01	F8-575-02	F8-A5-03
Depths			0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
Collection Date			3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	3/23/2000	3/23/2000	7/13/2000	12/17/1999	3/21/2000
Sample Type			N	N	FD	N	FD	N	N	N	N	N
Sample Name			F8-2107-011N	F8-2107-050.5N	F8-2107-050.5FD	F8-2118-021N	F8-2118-021FD	F8-2118-101N	F8-2152-020.5N	F8-5-011N	F8-575-021N	F8-A5-030.5N
Parent Sample					F8-2107-050.5N		F8-2118-021N					
CONSTITUENT	***CAS NO.***	***UNITS***										
Miscellaneous												
Total Organic Carbon	ARC-TOC	mg/kg	NA	NA	NA	10500	NA	NA	4390	32500	20200	48000
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grain Size												
Clay	ARC-PCLAY	%	NA	NA	NA	1	NA	NA	5.2	NA	12.5	10.5
Gravel	ARC-PGRAVEL	%	NA	NA	NA	19.2	NA	NA	28.1	NA	16.7	31.6
Sand	ARC-PSAND	%	NA	NA	NA	75	NA	NA	53.8	NA	45.8	42.4
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	NA	NA	NA	NA	NA	NA	80	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
SIEVE 1 inch, % passing	ARC-SIEVE25KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	NA	NA	NA	NA	NA	NA	65.3	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	NA	NA	NA	NA	NA	NA	26.1	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	NA	NA	NA	NA	NA	NA	72.6	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	NA	NA	NA	NA	NA	NA	42	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	NA	NA	NA	NA	NA	NA	30.2	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	NA	NA	NA	NA	NA	NA	52	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	NA	NA	NA	NA	NA	NA	35.1	NA	NA
Silt	ARC-PSILT	%	NA	NA	NA	4.8	NA	NA	12.9	NA	25	15.5

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F9-2106-04 0.0-1.0 ft 3/21/2000 N F9-2106-041N	F9-2109-01 0.0-1.0 ft 7/12/2000 N F9-2109-011N	F9-2109-08 0.0-1.0 ft 7/12/2000 N F9-2109-081N	F9-2109-08 0.0-1.0 ft 7/12/2000 FD F9-2109-081FD F9-2109-081N	F9-2109C-01 0.0-0.8 ft 3/21/2000 N F9-2109C-010.75N	F9-2109C-05 0.0-0.5 ft 3/21/2000 N F9-2109C-050.5N	F9-2109D-02 0.0-1.0 ft 12/21/1999 N F9-2109D-021N	F9-2109D-03 0.0-1.0 ft 12/21/1999 N F9-2109D-031N	F9-A10-03 0.0-0.5 ft 3/21/2000 N F9-A10-030.5N	SD-F8-1-01 0.5-1.0 ft 4/25/2001 N SD-F8-1-011N
CONSTITUENT	***CAS NO.***	***UNITS***										
Volatile Organic Compounds												
1,1,1-Trichloroethane	71-55-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
1,1,2-Trichloroethane	79-00-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
1,1-Dichloroethane	75-34-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
1,1-Dichloroethene	75-35-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
1,2-Dichloroethane	107-06-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
1,2-Dichloropropane	78-87-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
2-Chloroethylvinylether	110-75-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
Acrolein	107-02-8	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2500
Acrylonitrile	107-13-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500
Benzene	71-43-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Bromodichloromethane	75-27-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Bromoform	75-25-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
Bromomethane	74-83-9	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
Carbon Tetrachloride	56-23-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Chlorobenzene	108-90-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Chloroethane	75-00-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
Chloroform	67-66-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Chloromethane	74-87-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
cis-1,2-Dichloroethene	156-59-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Cis-1,3-Dichloropropene	10061-01-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Dibromochloromethane	124-48-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Ethylbenzene	100-41-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Methylene Chloride	75-09-2	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
Tetrachloroethene	127-18-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Toluene	108-88-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
trans-1,2-Dichloroethene	156-60-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Trans-1,3-Dichloropropene	10061-02-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Trichloroethene	79-01-6	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Trichlorofluoromethane	75-69-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 250
Vinyl Chloride	75-01-4	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130
Xylenes (total)	1330-20-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 130

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F9-2106-04 0.0-1.0 ft 3/21/2000 N F9-2106-041N	F9-2109-01 0.0-1.0 ft 7/12/2000 N F9-2109-011N	F9-2109-08 0.0-1.0 ft 7/12/2000 N F9-2109-081N	F9-2109-08 0.0-1.0 ft 7/12/2000 FD F9-2109-081FD F9-2109-081N	F9-2109C-01 0.0-0.8 ft 3/21/2000 N F9-2109C-010.75N	F9-2109C-05 0.0-0.5 ft 3/21/2000 N F9-2109C-050.5N	F9-2109D-02 0.0-1.0 ft 12/21/1999 N F9-2109D-021N	F9-2109D-03 0.0-1.0 ft 12/21/1999 N F9-2109D-031N	F9-A10-03 0.0-0.5 ft 3/21/2000 N F9-A10-030.5N	SD-F8-1-01 0.5-1.0 ft 4/25/2001 N SD-F8-1-011N
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	120-82-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
1,2-Dichlorobenzene	95-50-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
1,2-Diphenylhydrazine	122-66-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
1,3-Dichlorobenzene	541-73-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
1,4-Dichlorobenzene	106-46-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
2,4,6-Trichlorophenol	88-06-2	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
2,4-Dichlorophenol	120-83-2	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
2,4-Dimethylphenol	105-67-9	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
2,4-Dinitrophenol	51-28-5	ug/kg	< 780	< 7653.554	< 7206.058	< 7241	< 780	< 81	< 770	< 790	< 780	NA
2,4-Dinitrotoluene	121-14-2	ug/kg	110000	< 3827	699	50000	39000	< 410	< 380	61	< 3900	NA
2,6-Dinitrotoluene	606-20-2	ug/kg	5300	< 3827	< 3603	1970	1500	< 410	< 380	< 400	< 3900	NA
2-Chloronaphthalene	91-58-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
2-Chlorophenol	95-57-8	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
2-Nitrophenol	88-75-5	ug/kg	< 390	NA	NA	NA	< 390	< 41	< 380	< 400	< 390	NA
3,3-Dichlorobenzidine	91-94-1	ug/kg	< 780	< 7653.554	< 7206.058	< 7241	< 780	< 81	< 770	< 790	< 780	NA
4,6-Dinitro-2-methylphenol	534-52-1	ug/kg	< 780	< 7653.554	< 7206.058	< 7241	< 780	< 81	< 770	< 790	< 780	NA
4-Bromophenyl-phenylether	101-55-3	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
4-Chloro-3-methylphenol	59-50-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
4-Chlorophenyl-phenylether	7005-72-3	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
4-Nitrophenol	100-02-7	ug/kg	< 780	NA	NA	NA	< 780	< 81	< 770	< 790	< 780	NA
Acenaphthene	83-32-9	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Acenaphthylene	208-96-8	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Anthracene	120-12-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	35	< 380	< 400	< 390	NA
Benzidine	92-87-5	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Benzo(g,h,i)fluoranthene	203-12-3	ug/kg	NA	NA	NA	NA	NA	NA	< 380	< 400	NA	NA
Benzo[a]anthracene	56-55-3	ug/kg	1100	< 3826.777	< 3603.029	< 3620	< 390	130	< 380	43	320	NA
Benzo[a]pyrene	50-32-8	ug/kg	1000	< 3826.777	< 3603.029	< 3620	< 390	130	< 380	52	280	NA
Benzo[b]fluoranthene	205-99-2	ug/kg	1700	< 3826.777	< 3603.029	< 3620	< 390	160	< 380	110	< 390	NA
Benzo[g,h,i]perylene	191-24-2	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	NA	NA	< 390	NA
Benzo[k]fluoranthene	207-08-9	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Bis(2-Chloroethoxy)methane	111-91-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F9-2106-04	F9-2109-01	F9-2109-08	F9-2109-08	F9-2109C-01	F9-2109C-05	F9-2109D-02	F9-2109D-03	F9-A10-03	SD-F8-1-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft
Collection Date			3/21/2000	7/12/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	12/21/1999	12/21/1999	3/21/2000	4/25/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N
Sample Name			F9-2106-041N	F9-2109-011N	F9-2109-081N	F9-2109-081FD	F9-2109C-010.75N	F9-2109C-050.5N	F9-2109D-021N	F9-2109D-031N	F9-A10-030.5N	SD-F8-1-011N
Parent Sample						F9-2109-081N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Semivolatile Organic Compounds (Cont)												
Bis(2-Chloroethyl)ether	111-44-4	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Bis(2-Chloroisopropyl)ether	108-60-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Bis(2-Ethylhexyl)phthalate	117-81-7	ug/kg	1000	< 3826.777	< 3603.029	< 3620	< 390	23	26	52	< 390	NA
Butylbenzylphthalate	85-68-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Chrysene	218-01-9	ug/kg	1000	< 3826.777	< 3603.029	< 3620	< 390	120	< 380	57	< 390	NA
Dibenzo[a,h]anthracene	53-70-3	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Diethylphthalate	84-66-2	ug/kg	2000	5610	1500	887	590	< 41	< 380	< 400	< 390	NA
Dimethylphthalate	131-11-3	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Di-n-butylphthalate	84-74-2	ug/kg	1400	857	< 3603.029	724	< 390	36	< 380	< 400	< 390	NA
Di-n-octylphthalate	117-84-0	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Fluoranthene	206-44-0	ug/kg	1500	727	< 3603.029	< 3620	< 390	250	< 380	< 400	< 390	NA
Fluorene	86-73-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Hexachlorobenzene	118-74-1	ug/kg	< 390	NA	NA	NA	< 390	< 41	< 380	< 400	< 390	NA
Hexachlorobutadiene	87-68-3	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Hexachlorocyclopentadiene	77-47-4	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Hexachloroethane	67-72-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Indeno[1,2,3-cd]pyrene	193-39-5	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Isophorone	78-59-1	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Naphthalene	91-20-3	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Nitrobenzene	98-95-3	ug/kg	NA	NA	NA	NA	NA	NA	< 380	< 400	< 390	NA
N-Nitrosodimethylamine	62-75-9	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
N-Nitroso-Di-N-Propylamine	621-64-7	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
N-Nitrosodiphenylamine	86-30-6	ug/kg	8700	2440	2090	2540	2000	< 41	< 380	700	2100	NA
Pentachlorophenol	87-86-5	ug/kg	< 780	< 7653.554	< 7206.058	< 7241	< 780	< 81	< 770	< 790	< 780	NA
Phenanthrene	85-01-8	ug/kg	540	< 3826.777	< 3603.029	< 3620	< 390	140	< 380	32	350	NA
Phenol	108-95-2	ug/kg	< 390	< 3826.777	< 3603.029	< 3620	< 390	< 41	< 380	< 400	< 390	NA
Pyrene	129-00-0	ug/kg	1400	< 3826.777	< 3603.029	< 3620	< 390	240	< 380	< 400	< 390	NA

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID Depths Collection Date Sample Type Sample Name Parent Sample			F9-2106-04 0.0-1.0 ft 3/21/2000 N F9-2106-041N	F9-2109-01 0.0-1.0 ft 7/12/2000 N F9-2109-011N	F9-2109-08 0.0-1.0 ft 7/12/2000 N F9-2109-081N	F9-2109-08 0.0-1.0 ft 7/12/2000 FD F9-2109-081FD F9-2109-081N	F9-2109C-01 0.0-0.8 ft 3/21/2000 N F9-2109C-010.75N	F9-2109C-05 0.0-0.5 ft 3/21/2000 N F9-2109C-050.5N	F9-2109D-02 0.0-1.0 ft 12/21/1999 N F9-2109D-021N	F9-2109D-03 0.0-1.0 ft 12/21/1999 N F9-2109D-031N	F9-A10-03 0.0-0.5 ft 3/21/2000 N F9-A10-030.5N	SD-F8-1-01 0.5-1.0 ft 4/25/2001 N SD-F8-1-011N
CONSTITUENT	***CAS NO.***	***UNITS***										
Explosives & Energetics												
1,3,5-Trinitrobenzene	99-35-4	ug/kg	< 25	< 238.1	< 217.4	< 208	< 21	< 20	NA	NA	NA	NA
1,3-Dinitrobenzene	99-65-0	ug/kg	658	< 238.1	< 217.4	< 208	< 21	< 20	NA	NA	NA	NA
2,4,6-Trinitrotoluene	118-96-7	ug/kg	3628160	794	1170	1590	1676	< 20	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	35572-78-2	ug/kg	< 25	< 238.1	< 217.4	< 208	< 21	< 20	NA	NA	NA	NA
2-Nitrotoluene	88-72-2	ug/kg	< 50	< 476.2	< 434.8	< 417	< 43	< 41	NA	NA	NA	NA
3-Nitrotoluene	99-08-1	ug/kg	< 50	< 476.2	< 434.8	< 417	< 43	< 41	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	19406-51-0	ug/kg	< 25	< 238.1	< 217.4	< 208	< 21	< 20	NA	NA	NA	NA
4-Nitrotoluene	99-99-0	ug/kg	< 50	< 476.2	< 434.8	< 417	< 43	< 41	NA	NA	NA	NA
Nitrobenzene	98-95-3	ug/kg	< 25	< 238.1	194	< 208	< 21	< 20	NA	NA	NA	NA
Nitrocellulose	9004-70-0	ug/kg	558000	1510000	4440000	2250000	690000	390000	NA	NA	NA	NA
Nitroglycerin	55-63-0	ug/kg	480000	47600	149000	234000	48000	59000	NA	NA	NA	NA
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	ug/kg	< 50	2040	692	1590	< 43	< 41	NA	NA	NA	NA
RDX (Cyclonite)	121-82-4	ug/kg	< 50	< 476.2	< 434.8	< 417	< 43	< 41	NA	NA	NA	NA
Tetryl	479-45-8	ug/kg	< 50	< 476.2	< 434.8	< 417	< 43	< 41	NA	NA	NA	NA
Metals												
Antimony	7440-36-0	mg/kg	< 1	< 0.651067	< 0.624038	< 0.598	< 1	< 1	< 0.55	< 0.58	< 1	NA
Arsenic	7440-38-2	mg/kg	4.9	5.84	5.76	5.61	5.1	7.3	22.3	2	6.6	NA
Beryllium	7440-41-7	mg/kg	0.41	0.62	0.45	0.486	0.43	0.83	0.65	0.19	0.49	NA
Cadmium	7440-43-9	mg/kg	0.33	0.625	0.871	0.528	0.12	< 0.7	0.47	< 0.35	0.37	NA
Chromium	7440-47-3	mg/kg	14.5	18.5	16.3	17.2	15.6	19.7	16.4	7.6	14.4	NA
Copper	7440-50-8	mg/kg	95	46.5	106	102	26.8	289	114	68.5	121	NA
Lead	7439-92-1	mg/kg	71.4	137	133	82.5	43.1	68	42.7	13.1	46.4	NA
Mercury	7439-97-6	mg/kg	0.29	0.224	0.375	0.122	0.09	0.11	0.07	0.17	0.23	NA
Nickel	7440-02-0	mg/kg	7.2	9.96	12.2	11.6	9.5	12.3	8.4	3.7	9.4	NA
Selenium	7782-49-2	mg/kg	0.81	1.28	0.831	0.908	< 1	< 1	1.7	0.73	0.9	NA
Silver	7440-22-4	mg/kg	< 0.6	< 0.325534	< 0.312019	< 0.299	< 0.6	< 0.7	< 0.33	< 0.35	< 0.6	NA
Thallium	7440-28-0	mg/kg	< 2	< 1.085112	< 1.040063	< 0.997	< 2	< 2	1.1	< 1.2	< 2	NA
Zinc	7440-66-6	mg/kg	161	176	388	264	82.2	98.3	252	62.5	97.3	NA

Appendix B.8 - Areas of Presumed Remedial Action Dataset
Soil - A-Line Area - Northwest
Hercules Incorporated - Kenvil Works Facility
Kenvil, New Jersey

Location ID			F9-2106-04	F9-2109-01	F9-2109-08	F9-2109-08	F9-2109C-01	F9-2109C-05	F9-2109D-02	F9-2109D-03	F9-A10-03	SD-F8-1-01
Depths			0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.5-1.0 ft
Collection Date			3/21/2000	7/12/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	12/21/1999	12/21/1999	3/21/2000	4/25/2001
Sample Type			N	N	N	FD	N	N	N	N	N	N
Sample Name			F9-2106-041N	F9-2109-011N	F9-2109-081N	F9-2109-081FD	F9-2109C-010.75N	F9-2109C-050.5N	F9-2109D-021N	F9-2109D-031N	F9-A10-030.5N	SD-F8-1-011N
Parent Sample						F9-2109-081N						
CONSTITUENT	***CAS NO.***	***UNITS***										
Miscellaneous												
Total Organic Carbon	ARC-TOC	mg/kg	20000	52000	NA	NA	17600	NA	13300	NA	30000	NA
Amyl alcohol	71-41-0	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10000
Di-N-Propyl Ether	111-43-3	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10000
Ethanol	64-17-5	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10000
Ethyl ether	60-29-7	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10000
Methanol	67-56-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10000
N-butyl ether	142-96-1	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10000
Grain Size												
Clay	ARC-PCLAY	%	6.2	NA	NA	NA	7.1	NA	6	NA	11.8	NA
Gravel	ARC-PGRAVEL	%	33.5	NA	NA	NA	31.2	NA	40	NA	35.5	NA
Sand	ARC-PSAND	%	43.9	NA	NA	NA	46.8	NA	39	NA	36.1	NA
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	%	NA	70.2	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	%	NA	72.5	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1 inch, % passing	ARC-SIEVE25KU	%	NA	81	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	%	NA	100	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 10, % passing	ARC-SIEVE10	%	NA	60.3	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 200, % passing	ARC-SIEVE200	%	NA	21.6	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 4, % passing	ARC-SIEVE4	%	NA	65.3	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE NO. 40, % passing	ARC-SIEVE40	%	NA	39.8	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 100, % passing	ARC-SIEVE100	%	NA	26.1	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 20, % passing	ARC-SIEVE20	%	NA	51.3	NA	NA	NA	NA	NA	NA	NA	NA
SIEVE, NO. 60, % passing	ARC-SIEVE60	%	NA	31.7	NA	NA	NA	NA	NA	NA	NA	NA
Silt	ARC-PSILT	%	16.4	NA	NA	NA	14.9	NA	15	NA	16.5	NA

Appendix C
Evaluation of Potential Ecological Risks Beyond the Remedial Area

TABLE OF CONTENTS

1. Introduction **1**

2. Purpose and Objectives **1**

3. Data Evaluation & Risk Characterization **1**

3.1 Direct Contact Exposure 2

3.2 Food Web Transfer Exposure 2

3.3 Uncertainty 3

4. Conclusions **3**

5. References **4**

Tables

C-1 Summary Statistics and Hazard Quotients for Detected Constituents in Surface Soil Beyond the Remedial Area

C-2 Summary of COPECs with Hazard Quotients Exceeding 1 for Terrestrial Wildlife Beyond the Remedial Area

C-3 EPC Comparison Table

Figures

C-1 Site Operational Areas and Other Features

C-2 Soil Samples Beyond the Remedial Area

Exhibits

A Surface Soil Dataset – Beyond the Remedial Area

B Upper Trophic Level Receptor Dietary Dose Models – Back-Calculated HQ of 1

1. Introduction

Hercules Incorporated (Hercules) prepared this Evaluation of Potential Ecological Risks Beyond the Remedial Area as a technical appendix to the Ecological Risk Assessment (ERA) for the Kenvil Works Facility located on Hercules Road in Kenvil, Morris County, New Jersey (NJ) (the Facility). The ERA focuses the quantitative evaluation of potential risks on areas within the Remedial Area of the Facility. This appendix supplements the ERA, and discusses information regarding potential risk to receptors in the miscellaneous/offsite areas located beyond the Remedial Area boundary (Figure C-1).

2. Purpose and Objectives

As presented in the ERA, the site investigation (SI) evaluated the entire Facility, and generated data necessary to define the "Remedial Area" consisting of the former operational areas and those areas immediately adjacent to former operational areas influenced by Facility operations (Figure C-1). The SI concluded that no additional evaluation of miscellaneous/offsite areas beyond the Remedial Area was required. Building upon the SI findings, the remedial investigation (RI) focused on characterization of the Remedial Area.

To evaluate potential ecological risk, this ERA separates the Facility into three general categories:

- Undeveloped areas beyond the Remedial Area where ecological risk is assumed unlikely.

- Areas within the Remedial Area where constituent concentrations and/or physical characteristics merit remediation (e.g., ecological risk likely), regardless of the outcome of the ERA process (hereafter referred to as Areas of Presumed Remedial Action).

- Areas within the Remedial Area where ecological risk is uncertain.

The establishment of the Remedial Area during the SI relied upon the New Jersey Department of Environmental Protection's human health-based, non-residential soil remediation standards and did not consider ecological screening benchmarks (ESBs). This technical appendix evaluates the soil dataset for the miscellaneous/offsite areas beyond the Remedial Area in the context of potential ecological risk, Owing to the general absence of historical Facility operations in these areas, potential ecological risk is presumed to be unlikely.

Consistent with the RI (Hercules 2007), data from the areas of concern (AOCs) (i.e., O13-1 and O13-2) associated with the active pistol/trap range are not considered, as the range remains in use by the Hercules Sportsman's Club, Roxbury Township Police, and Mount Olive Police. These AOCs will be addressed separately in accordance with NJDEP's range closure and remediation regulations.

3. Data Evaluation & Risk Characterization

The dataset evaluated herein includes 159 surface soil (as defined in the ERA) samples analyzed for various constituents collected from areas beyond the Remedial Area (Figure C-2, Exhibit A). These data were evaluated using a streamlined approach consistent with the dataset screening process (i.e., frequency of detection, duplicate and redundant analyses) outlined in the ERA (ERA Section 3.3).

3.1 Direct Contact Exposure

The 95th percentile upper confidence limit of the mean (95UCL) was calculated for each constituent detected at least five times in the surface soil dataset, and the resulting values compared to conservative ESBs for soil invertebrates and terrestrial plants to evaluate potential direct contact exposure risks. Where soil invertebrate and terrestrial plant screening values were not available general soil ESBs were used. The table below identifies constituent hazard quotients (HQs) greater than 1, as presented in Table C-1.

Compound	Terrestrial Plant HQ	Soil Invertebrate HQ	Soil HQ[1]
Aluminum	385	NSV	--
Chromium*	9	0.5	--
Copper*	2	1	--
Manganese	2	12	--
Selenium*	3	0.4	--
Vanadium	18	2	--
Zinc*	11	15	--
Nitrocellulose	NSV	NSV	2

Notes:
* – bioaccumulative or site-related constituents carried through to upper trophic level receptor dietary dose modeling.
1 – HQs were only calculated using general soil ESBs when values for terrestrial plants and soil invertebrates were not available.
NSV – No screening value

3.2 Food Web Transfer Exposure

Upper trophic level receptor exposures via food web transfer exposure were also evaluated. Surface soil exposure point concentrations (EPC) that yield a lowest-observed adverse effects level hazard quotient [HQ] of 1 were back-calculated for bioaccumulative and site-related constituents summarized in the table above using the dietary dose models from the ERA (ERA Section 4.2). Table C-2 presents back-calculated EPCs for each constituent by receptor species. Exhibit B presents the dietary dose models for each receptor used to back-calculate the EPCs.

The 95UCL for each constituent was compared to the lowest species-specific, back-calculated EPC yielding an HQ of 1 for each constituent, a value protective of each upper trophic level receptor species modeled, to identify potential ecological risks to upper trophic level receptors. The table below summarizes the comparison.

COPEC	95UCL (mg/kg)	Back-Calculated EPC (HQ of 1)	HQ
Chromium	26	337	0.08
Copper	106	112	0.9
Selenium	1.5	4	0.4
Zinc	1,817	14,087	0.1

Notes:
mg/kg – milligrams per kilogram

In addition to the metals summarized in the table above, nitrocellulose also exceeded ESBs for direct contact exposure scenarios. Exposure parameters to support modeling of nitrocellulose are unavailable. Nitrocellulose is discussed further in Section 3.3.

As summarized in the table above, HQs are less than one, indicating that potential ecological risk to upper trophic level wildlife is unlikely.

3.3 Uncertainty

As noted in the main body of the ERA, uncertainty exists in every evaluation when comparing a statistical representation of a dataset to generic ESBs and other toxicological benchmarks. The ERA provides a discussion of common sources of uncertainty inherent to the risk assessment process. Specific elements that introduce uncertainty into this technical appendix are discussed below.

Triphenylene, an isomer of chrysene, was evaluated in certain surface soil samples (n=36) collected from outside the Remedial Area during SI activities. The structural and chemical similarities between triphenylene and chrysene often result in co-elution during laboratory analysis, making differentiation and quantification of each constituent difficult. The ecotoxicology of triphenylene is poorly studied, and ESBs and toxicity reference values are unavailable. Conversely, chrysene is one of the 17 priority pollutant polycyclic aromatic hydrocarbons (PAHs) and extensive ecotoxicological data and screening information exists, including values presented in the NJDEP Ecological Screening Criteria table. The Outside Remedial Area surface soil dataset includes 142 samples analyzed for chrysene, approximately 4 times the number of samples analyzed for triphenylene. NJDEP's Office of Quality Assurance responsible for identifying and certifying laboratory analytical parameters does not recognize triphenylene as an analyte (NJDEP 2014). Based on the similarities between the two constituents, a more robust chrysene dataset, and recognition of chrysene as a quantifiable constituent by NJDEP's laboratory program, the evaluation of chrysene serves as a surrogate for the evaluation of triphenylene in this technical appendix. This approach contributes a degree of uncertainty to the assessment. The direction of uncertainty is unknown, and the similarity of these constituents likely limits the magnitude of any uncertainty.

ESBs specific to plants and invertebrates were unavailable for nitrocellulose. Nitrocellulose exceeded the conservative soil ESB used as a surrogate and was carried through to the food web transfer modeling evaluation. However, no TRVs exist for birds or mammals. Ellis et al. (1980) found that dietary exposure to nitrocellulose at up 10 percent by weight (dry) in mice, rats, cats, and dogs yielded no chemical-driven toxicological effects and noted that nitrocellulose acted simply as inert dietary bulk. The nitrocellulose EPC calculated for this evaluation was 0.01 percent (111 mg/kg). While the inability to model nitrocellulose contributes uncertainty, toxicological information available in the scientific literature indicates that potential ecological risks related to nitrocellulose exposure is negligible.

4. Conclusions

The potential for ecological risk via exposure to surface soil in the area outside the Remedial Area boundary was evaluated via a comparison of 95UCLs to conservative ESBs to evaluate potential direct contact exposure and via dietary dose modeling to evaluate food web transfer. Seven metals and an energetic constituent exceeded ESBs for direct exposure scenarios. Four of the seven metals were bioaccumulative and thus were carried through food web modeling. Food web model HQs were less than one for each constituent. Based on these results, potential ecological risks beyond the Remedial Area are unlikely.

5. References

Ellis III, H.V., J.H. Hagensen, J.R. Hodgson, J.L. Minor, C.B. Hong, E.R. Ellis, J.D. Girvin, C.C. Lee. 1980. *Mammalian Toxicity of Munition Compounds. Phase III. Effectos of Life-time Exposure Part III. Nitrocellulose*. Prepare for U.S. Army Medical Research and Development Command under contract DAMD-17-74-C-4073. January 1980.

Hercules. 2007. *Remedial Investigation Report – Vol B – Soil*. Prepared for Hercules Incorporated. April 2007.

New Jersey Department of Environmental Protection. 2014. *NJDEP Office of Quality Assurance – Application for Certification of Environmental Measures – Part III: Analytical Testing Parameters*. Version dated July 23, 2014.

Tables

Table C-1. Summary Statistics and Hazard Quotients for Detected Constituents in Surface Soil Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Soil Screening Value (mg/kg)	Soil Screening Value - Plant (mg/kg)	Soil Screening Value - Invertebrates (mg/kg)	Units	Detection Frequency	Detection Frequency (%)	Range of Detects	95UCL	Hazard Quotient - Plant	Hazard Quotient - Invertebrate	Hazard Quotient - Soil	Future Evaluation Required? (Y/N)	Rationale
VOCs													
1,1,1-Trichloroethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,1,2,2-Tetrachloroethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
1,1,2-Trichloroethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,1-Dichloroethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,1-Dichloroethene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,2,4-Trichlorobenzene	--	--	--	mg/kg	0/62	0	-	NA	NA	NA	NA	N	ND
1,2-Dibromo-3-chloropropane	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
1,2-Dibromoethane	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
1,2-Dichlorobenzene	--	--	--	mg/kg	0/62	0	-	NA	NA	NA	NA	N	ND
1,2-Dichloroethane	--	--	--	mg/kg	0/63	0	-	NA	NA	NA	NA	N	ND
1,2-Dichloropropane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,3-Dichlorobenzene	--	--	--	mg/kg	0/62	0	-	NA	NA	NA	NA	N	ND
1,4-Dichlorobenzene	--	--	--	mg/kg	0/62	0	-	NA	NA	NA	NA	N	ND
2-Butanone	89.6	NSVA	NSVA	mg/kg	9/22	40.9	0.006 - 0.034	0.0128	NSVA	NSVA	0.0001	N	HQ<1
2-Chloroethyl vinyl ether	--	--	--	mg/kg	0/42	0	-	NA	NA	NA	NA	N	ND
4-Methyl-2-Pentanone	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Acetone	2.5	NSVA	NSVA	mg/kg	19/22	86.4	0.013 - 0.42	0.208	NSVA	NSVA	0.08	N	HQ<1
Acrolein	--	--	--	mg/kg	0/42	0	-	NA	NA	NA	NA	N	ND
Acrylonitrile	--	--	--	mg/kg	0/88	0	-	NA	NA	NA	NA	N	ND
Bromodichloromethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Bromomethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Carbon Disulfide	0.0941	--	--	mg/kg	1/22	4.55	0.007 - 0.007	NA	NA	NA	NA	N	Low FOD
Carbon Tetrachloride	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
CFC-11	--	--	--	mg/kg	0/24	0	-	NA	NA	NA	NA	N	ND
CFC-12	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Chlorobenzene	13.1	--	--	mg/kg	2/110	1.82	0.57 - 0.57	NA	NA	NA	NA	N	Low FOD
Chlorodibromomethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Chloroethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Chloroform	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Chloromethane	10.4	NSVA	NSVA	mg/kg	12/64	18.8	0.007 - 1.6	0.31	NSVA	NSVA	0.03	N	HQ<1
cis-1,2-Dichloroethene	--	--	--	mg/kg	0/24	0	-	NA	NA	NA	NA	N	ND
cis-1,3-Dichloropropene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Cyclohexane	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Dichloromethane	--	--	--	mg/kg	0/110	0	-	NA	NA	NA	NA	N	ND
Hexachloro-1,3-Butadiene	--	--	--	mg/kg	0/40	0	-	NA	NA	NA	NA	N	ND
Isopropylbenzene	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Methyl Acetate	--	--	--	mg/kg	2/22	9.09	0.009 - 0.009	NA	NA	NA	NA	N	Low FOD
Methyl N-Butyl Ketone	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Methylcyclohexane	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Naphthalene	0.0994	--	--	mg/kg	1/40	2.50	0.26 - 0.26	NA	NA	NA	NA	N	Low FOD
Styrene (Monomer)	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Tetrachloroethene	--	--	--	mg/kg	0/110	0	-	NA	NA	NA	NA	N	ND
trans-1,2-Dichloroethene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
trans-1,3-Dichloropropene	--	--	--	mg/kg	0/24	0	-	NA	NA	NA	NA	N	ND
Tribromomethane	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Trichloroethene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND

Table C-1. Summary Statistics and Hazard Quotients for Detected Constituents in Surface Soil Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Soil Screening Value (mg/kg)	Soil Screening Value - Plant (mg/kg)	Soil Screening Value - Invertebrates (mg/kg)	Units	Detection Frequency	Detection Frequency (%)	Range of Detects	95UCL	Hazard Quotient - Plant	Hazard Quotient - Invertebrate	Hazard Quotient - Soil	Future Evaluation Required? (Y/N)	Rationale
Vinyl Chloride	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Benzene	--	--	--	mg/kg	0/110	0	-	NA	NA	NA	NA	N	ND
Toluene	200	--	--	mg/kg	1/64	1.56	0.44 - 0.44	NA	NA	NA	NA	N	Low FOD
Ethylbenzene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Xylenes (total)	--	--	--	mg/kg	0/24	0	-	NA	NA	NA	NA	N	ND
Methyl-Tert-Butylether	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
SVOCs													
1,1-Biphenyl	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
1,2,4-Trichlorobenzene	--	--	--	mg/kg	0/71	0	-	NA	NA	NA	NA	N	ND
1,2-Dichlorobenzene	--	--	--	mg/kg	0/71	0	-	NA	NA	NA	NA	N	ND
1,2-Diphenylhydrazine	--	--	--	mg/kg	0/71	0	-	NA	NA	NA	NA	N	ND
1,3-Dichlorobenzene	--	--	--	mg/kg	0/71	0	-	NA	NA	NA	NA	N	ND
1,4-Dichlorobenzene	--	--	--	mg/kg	0/120	0	-	NA	NA	NA	NA	N	ND
2,2-Oxybis(1-Chloropropane)	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
2,4,5-Trichlorophenol	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
2,4,6-Trichlorophenol	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
2,4-Dichlorophenol	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
2,4-Dimethylphenol	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
2,4-Dinitrophenol	--	--	--	mg/kg	0/142	0	-	NA	NA	NA	NA	N	ND
2,4-Dinitrotoluene	1.28	--	--	mg/kg	2/142	1.41	0.13 - 0.84	NA	NA	NA	NA	N	Low FOD
2,6-Dinitrotoluene	0.0328	--	--	mg/kg	1/142	0.704	0.35 - 0.35	NA	NA	NA	NA	N	Low FOD
2-Chloronaphthalene	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
2-Chlorophenol	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
2-Methyl-4,6-dinitrophenol	0.144	--	--	mg/kg	1/93	1.08	0.5 - 0.5	NA	NA	NA	NA	N	Low FOD
2-Methylnaphthalene	3.24	--	--	mg/kg	1/22	4.55	0.037 - 0.037	NA	NA	NA	NA	N	Low FOD
2-Methylphenol	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
2-Nitroaniline	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
2-Nitrophenol	--	--	--	mg/kg	0/85	0	-	NA	NA	NA	NA	N	ND
2-Nitrotoluene	--	--	--	mg/kg	0/8	0	-	NA	NA	NA	NA	N	ND
3,3-Dichlorobenzidine	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
3,5,5-Trimethyl-2-Cyclohexene-1-One	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
3-Nitroaniline	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
4-Bromophenyl phenyl ether	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
4-Chloro-3-Methylphenol	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
4-Chlorophenyl phenyl ether	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
4-Methylphenol	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
4-Nitroaniline	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
4-Nitrophenol	--	--	--	mg/kg	0/85	0	-	NA	NA	NA	NA	N	ND
4-Nitrotoluene	--	--	--	mg/kg	0/8	0	-	NA	NA	NA	NA	N	ND
Acenaphthene	20	20	29	mg/kg	9/93	9.68	0.02 - 2.3	0.282	0.01	0.010	--	N	HQ<1
Acenaphthylene	682	NSVA	29	mg/kg	16/93	17.2	0.007 - 0.46	0.0746	NSVA	0.003	--	N	HQ<1
Acetophenone	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Anthracene	1480	NSVA	29	mg/kg	20/93	21.5	0.006 - 3.3	0.352	NSVA	0.01	--	N	HQ<1
Atrazine	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Benzaldehyde	470	--	--	mg/kg	1/22	4.55	0.41 - 0.41	NA	NA	NA	NA	N	Low FOD
Benzidine	--	--	--	mg/kg	0/71	0	-	NA	NA	NA	NA	N	ND
Benzo(a)Anthracene	5.21	10	18	mg/kg	54/142	38.0	0.005 - 8.5	1.105	0.1	0.06	--	N	HQ<1
Benzo(a)Pyrene	1.52	10	18	mg/kg	57/142	40.1	0.004 - 5.9	0.634	0.06	0.04	--	N	HQ<1

Table C-1. Summary Statistics and Hazard Quotients for Detected Constituents in Surface Soil Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Soil Screening Value (mg/kg)	Soil Screening Value - Plant (mg/kg)	Soil Screening Value - Invertebrates (mg/kg)	Units	Detection Frequency	Detection Frequency (%)	Range of Detects	95UCL	Hazard Quotient - Plant	Hazard Quotient - Invertebrate	Hazard Quotient - Soil	Future Evaluation Required? (Y/N)	Rationale
Benzo(b)fluoranthene	59.8	NSVA	18	mg/kg	55/142	38.7	0.004 - 8.8	1.419	NSVA	0.08	--	N	HQ<1
Benzo(g,h,i)fluoranthene	--	--	--	mg/kg	0/1	0	-	NA	NA	NA	NA	N	ND
Benzo(g,h,i)perylene	119	NSVA	18	mg/kg	23/92	25.0	0.006 - 3.9	0.497	NSVA	0.03	--	N	HQ<1
Benzo(k)Fluoranthene	148	NSVA	18	mg/kg	32/142	22.5	0.005 - 2.8	0.688	NSVA	0.04	--	N	HQ<1
Benzyl Butyl Phthalate	0.239	--	--	mg/kg	1/142	0.704	0.17 - 0.17	NA	NA	NA	NA	N	Low FOD
bis(2-Chloroethoxy)methane	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Bis(2-Chloroethyl)ether	--	--	--	mg/kg	1/93	1.08	0.016 - 0.016	NA	NA	NA	NA	N	Low FOD
Bis(2-Ethylhexyl)phthalate	0.925	200	200	mg/kg	36/142	25.4	0.018 - 1.2	0.123	0.0006	0.0006	--	N	HQ<1
Caprolactam	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Carbazole	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Chrysene	4.73	10	18	mg/kg	60/142	42.3	0.004 - 8.3	1.095	0.1	0.06	--	N	HQ<1
Dibenzo(a,h)Anthracene	18.4	NSVA	18	mg/kg	13/142	9.15	0.007 - 0.97	0.183	NSVA	0.01	--	N	HQ<1
Dibenzofuran	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Diethyl Phthalate	24.8	--	--	mg/kg	4/142	2.82	0.043 - 1.7	NA	NA	NA	NA	N	Low FOD
Dimethyl Phthalate	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Di-N-Butyl Phthalate	0.15	200	200	mg/kg	28/142	19.7	0.017 - 1.2	0.169	0.0008	0.0008	--	N	HQ<1
Di-n-Octyl Phthalate	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Fluoranthene	122	NSVA	18	mg/kg	50/93	53.8	0.004 - 15	1.857	NSVA	0.1	--	N	HQ<1
Fluorene	122	NSVA	30	mg/kg	11/93	11.8	0.028 - 3.3	0.395	NSVA	0.01	--	N	HQ<1
Hexachloro-1,3-Butadiene	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Hexachlorobenzene	--	--	--	mg/kg	0/85	0	-	NA	NA	NA	NA	N	ND
Hexachlorocyclopentadiene	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Hexachloroethane	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Indeno(1,2,3-cd)Pyrene	109	NSVA	18	mg/kg	32/142	22.5	0.011 - 3.3	0.501	NSVA	0.03	--	N	HQ<1
Naphthalene	0.0994	10	29	mg/kg	9/93	9.68	0.006 - 0.98	0.12	0.01	0.004	--	N	HQ<1
Nitrobenzene	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
N-Nitrosodimethylamine	--	--	--	mg/kg	0/71	0	-	NA	NA	NA	NA	N	ND
N-Nitrosodi-N-Propylamine	--	--	--	mg/kg	0/142	0	-	NA	NA	NA	NA	N	ND
N-nitrosodiphenylamine	0.545	NSVA	20	mg/kg	5/134	3.73	0.039 - 25	2.892	NSVA	0.1	--	N	HQ<1
p-Chloroaniline	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
Pentachlorophenol	--	--	--	mg/kg	0/93	0	-	NA	NA	NA	NA	N	ND
Phenanthrene	45.7	46	29	mg/kg	53/93	57.0	0.005 - 24	2.213	0.05	0.08	--	N	HQ<1
Phenol	30	--	--	mg/kg	1/93	1.08	0 - 0.039	NA	NA	NA	NA	N	Low FOD
Pyrene	78.5	NSVA	18	mg/kg	45/93	48.4	0.006 - 23	2.957	NSVA	0.2	--	N	HQ<1
TPH													
Amyl Alcohol	--	--	--	mg/kg	0/2	0	-	NA	NA	NA	NA	N	ND
Di-n-propyl ether	--	--	--	mg/kg	0/2	0	-	NA	NA	NA	NA	N	ND
Ethanol	--	--	--	mg/kg	0/2	0	-	NA	NA	NA	NA	N	ND
Ethyl ether	--	--	--	mg/kg	0/2	0	-	NA	NA	NA	NA	N	ND
Methanol	--	--	--	mg/kg	0/2	0	-	NA	NA	NA	NA	N	ND
n-Butyl ether	--	--	--	mg/kg	0/2	0	-	NA	NA	NA	NA	N	ND
Triphenylene	1.1	NSVA	18	mg/kg	32/36	88.9	47.9 - 322	208.9	NSVA	12	--	N	HQ>1
Metals													
Aluminum	50	50	NSVA	mg/kg	22/22	100	1270 - 46400	19249	385	NSVA	--	Y	HQ>1
Antimony	0.27	5	78	mg/kg	33/140	23.6	0.47 - 4.13	0.981	0.2	0.01	--	N	HQ<1
Arsenic	9.9	18	100	mg/kg	130/140	92.9	1.34 - 164	9.427	0.5	0.09	--	N	HQ<1
Barium	283	500	330	mg/kg	22/22	100	6.45 - 528	129.6	0.3	0.4	--	N	HQ<1
Beryllium	10	10	40	mg/kg	134/140	95.7	0.09 - 183	4.527	0.5	0.1	--	N	HQ<1

Table C-1. Summary Statistics and Hazard Quotients for Detected Constituents in Surface Soil Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Soil Screening Value (mg/kg)	Soil Screening Value - Plant (mg/kg)	Soil Screening Value - Invertebrates (mg/kg)	Units	Detection Frequency	Detection Frequency (%)	Range of Detects	95UCL	Hazard Quotient - Plant	Hazard Quotient - Invertebrate	Hazard Quotient - Soil	Future Evaluation Required? (Y/N)	Rationale
Cadmium	0.36	32	140	mg/kg	62/140	44.3	0.0929 - 19	0.78	0.02	0.006	--	N	HQ<1
Calcium	--	--	--	mg/kg	22/22	100	4.02 - 31300	4852	Nutrient	Nutrient	Nutrient	N	HQ<1
Chromium	0.4	3	57	mg/kg	91/91	100	2.58 - 125	26	9	0.5	--	Y	HQ>1
Cobalt	0.14	20	1000	mg/kg	22/22	100	0.151 - 40.4	10.32	0.5	0.01	--	N	HQ<1
Copper	5.4	70	80	mg/kg	127/140	90.7	1.25 - 3950	105.5	2	1	--	Y	HQ>1
Iron	--	--	--	mg/kg	22/22	100	812 - 42900	25891	Nutrient	Nutrient	Nutrient	N	HQ<1
Lead	11	120	1700	mg/kg	140/140	100	0.868 - 1340	127.4	1	0.07	--	N	HQ<1
Magnesium	--	--	--	mg/kg	22/22	100	23 - 10100	2888	Nutrient	Nutrient	Nutrient	N	HQ<1
Manganese	220	500	100	mg/kg	22/22	100	2.31 - 4560	1229	2	12	--	Y	HQ>1
Mercury	0.1	300	30	mg/kg	121/140	86.4	0.0129 - 11.4	0.683	0.002	0.02	--	N	HQ<1
Nickel	38	38	280	mg/kg	140/140	100	0.522 - 197	16.26	0.4	0.06	--	N	HQ<1
Potassium	--	--	--	mg/kg	22/22	100	218 - 1000	619	Nutrient	Nutrient	Nutrient	N	HQ<1
Selenium	0.52	0.52	4.1	mg/kg	64/140	45.7	0.55 - 8.19	1.462	3	0.4	--	Y	HQ>1
Silver	2	560	50	mg/kg	29/140	20.7	0.13 - 5.7	0.392	0.0007	0.008	--	N	HQ<1
Sodium	--	--	--	mg/kg	19/22	86.4	18.4 - 150	78.49	Nutrient	Nutrient	Nutrient	N	HQ<1
Thallium	1	1	NSVA	mg/kg	17/140	12.1	0.618 - 2.88	1.254	1	NSVA	--	N	HQ<1
Vanadium	2	2	20	mg/kg	22/22	100	1.81 - 58.3	35.19	18	2	--	Y	HQ>1
Zinc	8.5	160	120	mg/kg	134/140	95.7	1.24 - 45000	1817	11	15	--	Y	HQ>1
Explosives													
1,2-Dinitrobenzene	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
1,3,5-Trinitrobenzene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
1,3-Dinitrobenzene	--	--	--	mg/kg	0/112	0	-	NA	NA	NA	NA	N	ND
1,4-Dinitrobenzene	--	--	--	mg/kg	0/22	0	-	NA	NA	NA	NA	N	ND
1-Nitronaphthalene	NA	--	--	mg/kg	1/22	4.55	0 - 0.17	NA	NA	NA	NA	N	Low FOD
2,4,6-Trinitrotoluene	6	--	--	mg/kg	1/112	0.893	6.54 - 6.54	NA	NA	NA	NA	N	Low FOD
2,4-Dinitrotoluene	1.28	--	--	mg/kg	1/64	1.56	0.85 - 0.85	NA	NA	NA	NA	N	Low FOD
2,6-Dinitrotoluene	0.0328	--	--	mg/kg	1/64	1.56	4.74 - 4.74	NA	NA	NA	NA	N	Low FOD
2-Amino-4,6-dinitrotoluene	80	--	--	mg/kg	1/112	0.893	0.1771 - 0.1771	NA	NA	NA	NA	N	Low FOD
2-Nitrotoluene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
3-Nitrotoluene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
4-Amino-2,6-dinitrotoluene	80	--	--	mg/kg	2/112	1.79	0.2637 - 0.53	NA	NA	NA	NA	N	Low FOD
4-Nitrotoluene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
HMX	--	--	--	mg/kg	0/112	0	-	NA	NA	NA	NA	N	ND
Nitrobenzene	--	--	--	mg/kg	0/64	0	-	NA	NA	NA	NA	N	ND
Nitrocellulose	65	NSVA	NSVA	mg/kg	39/90	43.3	40.7 - 244	111.2	NSVA	NSVA	2	Y	HQ>1
Nitroglycerin	65	NSVA	NSVA	mg/kg	5/120	4.17	3.1 - 160	29.97	NSVA	NSVA	0.5	N	HQ<1
Pentaerythritol Tetranitrate	--	--	--	mg/kg	0/24	0	-	NA	NA	NA	NA	N	ND
RDX	--	--	--	mg/kg	0/112	0	-	NA	NA	NA	NA	N	ND
Tetryl	25	NSVA	NSVA	mg/kg	11/64	17.2	0.43 - 0.5	0.45	NSVA	NSVA	0.02	N	HQ<1
Triphenylene	1.1	--	--	mg/kg	1/1	100	53.6 - 53.6	NA			NA	(a)	(a)
OC Pest													
4,4-DDD	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
4,4-DDE	0.596	NSVA	NSVA	mg/kg	9/37	24.3	0.00082 - 0.0079	0.00363	NSVA	NSVA	0.006	N	HQ<1
4,4-DDT	0.0035	NSVA	NSVA	mg/kg	9/37	24.3	0.001 - 0.0069	0.00445	NSVA	NSVA	1	N	HQ<1
Aldrin	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Alpha-BHC	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Alpha-chlordane	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Beta-BHC	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND

Table C-1. Summary Statistics and Hazard Quotients for Detected Constituents in Surface Soil Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Soil Screening Value (mg/kg)	Soil Screening Value - Plant (mg/kg)	Soil Screening Value - Invertebrates (mg/kg)	Units	Detection Frequency	Detection Frequency (%)	Range of Detects	95UCL	Hazard Quotient - Plant	Hazard Quotient - Invertebrate	Hazard Quotient - Soil	Future Evaluation Required? (Y/N)	Rationale
Camphechlor	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Delta-BHC	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Dieldrin	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Endosulfan I	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Endosulfan II	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Endosulfan Sulfate	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Endrin	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Endrin aldehyde	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Endrin ketone	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Gamma-Bhc	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Gamma-chlordane	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Heptachlor	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Heptachlor Epoxide	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
Methoxychlor	--	--	--	mg/kg	0/37	0	-	NA	NA	NA	NA	N	ND
PCBs													
Aroclor 1016	--	--	--	mg/kg	0/89	0	-	NA	NA	NA	NA	N	ND
Aroclor 1221	--	--	--	mg/kg	0/89	0	-	NA	NA	NA	NA	N	ND
Aroclor 1232	--	--	--	mg/kg	0/89	0	-	NA	NA	NA	NA	N	ND
Aroclor 1242	--	--	--	mg/kg	0/89	0	-	NA	NA	NA	NA	N	ND
Aroclor 1248	--	--	--	mg/kg	0/89	0	-	NA	NA	NA	NA	N	ND
Aroclor 1254	0.371	--	--	mg/kg	2/89	2.25	0.0081 - 0.023	NA	NA	NA	NA	N	Low FOD
Aroclor 1260	0.371	40	NSVA	mg/kg	15/89	16.9	0.0056 - 0.13	0.0543	0.001	NSVA	--	N	HQ<1

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value
is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Table C-2. Summary of COPECs with Hazard Quotients Exceeding 1 for Terrestrial Wildlife Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

COPECs	Back Calculated Acceptable EPC Levels Considering LOAEL TRVs							Minimum
	American Robin	Red-Tailed Hawk	Northern Bobwhite	Short-Tailed Shrew	White-Tailed Deer	Red Fox	Minimum	Receptor
Metals								
Chromium	337	11003	17021	955	85171	14519	337	Robin
Copper	112	6240	10355	229	92227	8294	112	Robin
Selenium	4	232	57	4	58	87	4	Robin
Zinc	14087	363628	532188	183900	6700121	743763	14087	Robin
Explosives and Energetics								
Nitrocellulose	- -	- -	- -	- -	- -	- -	- -	- -

Notes:
COPEC = constituent of potential ecological concern
LOAEL = lowest observed adverse effects level
"- -" = not applicable
TRV = toxicity reference value

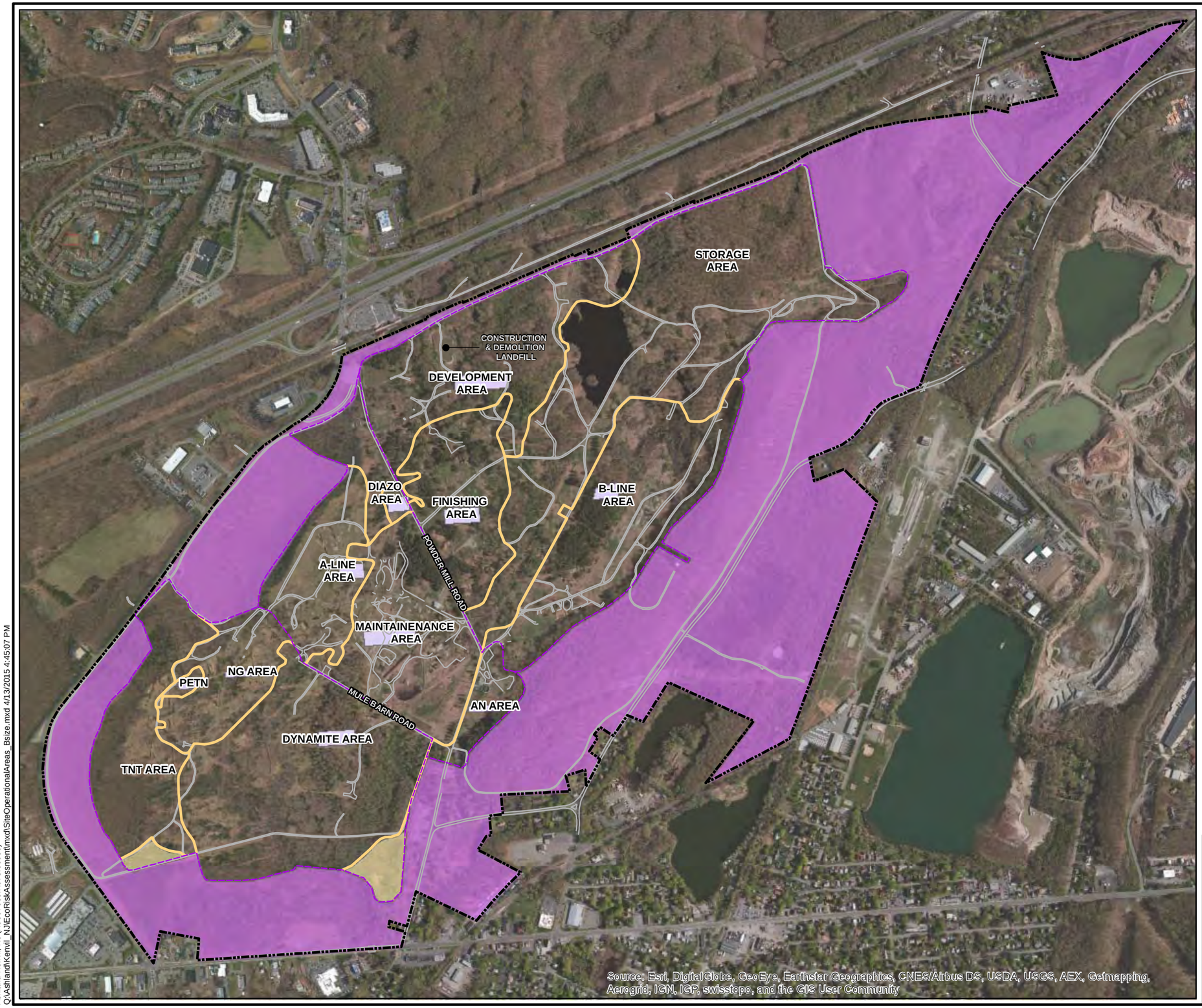
Table C-3. EPC Comparison Table
Kenvil Works Facility
Kenvil, New Jersey

COPEC	n	Detects	Range of Detects	FOD (%)	Distribution	Maximum Detect (mg/kg)	Exposure Point Concentration (95UCL) (mg/kg) Outside Remedial Area, Inside Site Boundary		Lowest Back Calculated Acceptable EPC Values Considering LOAEL TRV (mg/kg)	Receptor (robin, fox, etc)	Hazard Quotient
Metals											
Chromium	91	91	2.58 - 125	100	Nonparametric	125	26	UCL	337	Robin	0.08
Copper	140	127	1.25 - 3950	90.7	Nonparametric	3950	106	UCL	112	Robin	0.9
Selenium	140	64	0.55 - 8.19	45.7	Nonparametric	8.19	1.5	UCL	4	Robin	0.4
Zinc	140	134	1.24 - 45000	95.7	Nonparametric	45000	1817	UCL	14087	Robin	0.1
Explosives and Energetics											
Nitrocellulose	90	39	40.7 - 244	43.3	Nonparametric	244	111	UCL	- -	- -	- -

Notes:
95UCL = 95th percentile upper confidence limit of the mean
EPC = exposure point concentration
COPEC = constituent of potential ecological concern
FOD = frequency of detection
mg/kg = milligrams per kilogram
n = sample size
NOAEL = no observed adverse effects level
LOAEL = lowest observed adverse effects level
"- -" = not applicable

Figures

DRAFT



LEGEND:

- SITE BOUNDARY
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- ROAD
- MISCELLANEOUS/OFF-SITE AREA INSIDE REMEDIAL AREA
- MISCELLANEOUS/OFF-SITE AREA OUTSIDE REMEDIAL AREA

0 1,000 2,000 Feet

GRAPHIC SCALE

NOTES:

1. MARCH 2011 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. BASEMAP INFORMATION FROM ELECTRONIC FILE PROVIDED BY ASHLAND, INC. TITLED: "SITE PLAN.DWG"
3. OPERATIONAL AREAS DIGITIZED FROM MWH, REMEDIAL INVESTIGATION REPORT, HERCULES INCORPORATED KENVIL WORKS FACILITY, FIGURE TITLED: "SEDIMENT SAMPLE LOCATION MAP", FIGURE D-1.

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

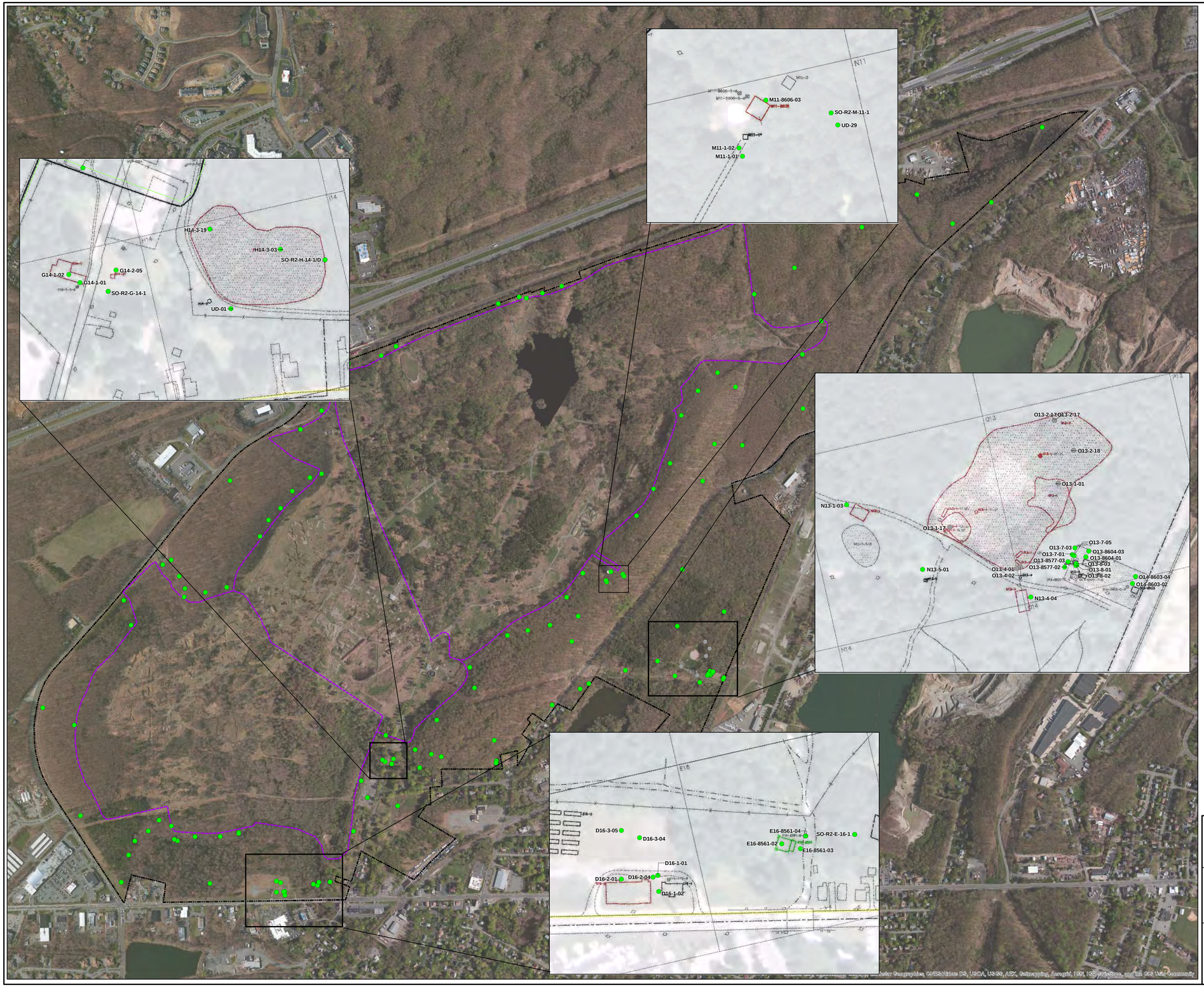
SITE OPERATIONAL AREAS AND OTHER FEATURES

ARCADIS

FIGURE
C-1

City: SYR Div/Group: SED Created By: J.RAPP Last Saved By: jrapp
Ashland-Kenvil, NJ (NJ007000.NJ73.00000)
Q:\Ashland\Kenvil_NJ\EcoRiskAssessment\mxd\SiteOperationalAreas_Bsize.mxd 4/13/2015 4:45:07 PM

DRAFT



LEGEND:

- SAMPLES INCLUDED IN EVALUATION OF AREA OUTSIDE REMEDIAL BOUNDARY
- SAMPLES EXCLUDED FROM EVALUATION OF AREA OUTSIDE REMEDIAL BOUNDARY
- REMEDIAL AREA
- SITE BOUNDARY

0 550 1,100 Feet
GRAPHIC SCALE

NOTES:

1. MARCH 2011 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. SEVEN SOIL SAMPLES FROM THE ACTIVE SHOOTING RANGE HAVE BEEN EXCLUDED FROM THE EVALUATION.

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

SOIL SAMPLES OUTSIDE REMEDIAL AREA BOUNDARY

ARCADIS

FIGURE
C-2

City: SYR Div/Group: SED Created By: J.RAPP Last Saved By: jrapp
Ashland-Kenvil_NJ (NJ007000.NJ73.00000)
Q:\Ashland\Kenvil_NJ\EcoRiskAssessment\mxd\SoilSampleLocationsOutsideRemedialAreaBoundary.mxd 4/13/2015 4:49:58 PM

Exhibits

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	D16-1-01	D16-1-01	D16-1-02	D16-2-01	D16-2-04	D16-3-04	D16-3-05	E16-8561-02
Sample Depth(ft):		0 - 0.5	0 - 0.8	0 - 0.8	0 - 0.8	0 - 1.5	0 - 2	0 - 2	0 - 0.5
Date Collected:		10/05/99	11/18/99	10/05/99	10/05/99	06/29/00	06/29/00	10/05/99	10/06/99
Sample Name:		D16-1-010.5N	D16-1-010.8N	D16-1-020.8N	D16-2-010.8N	D16-2-041.5N	D16-3-042N	D16-3-052N	E16-8561-020.5N
VOCs									
1,1,1-Trichloroethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,1,2,2-Tetrachloroethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,1-Dichloroethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,1-Dichloroethene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,2,4-Trichlorobenzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,2-Dichloroethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,3-Dichlorobenzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
1,4-Dichlorobenzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	2,100 U	NA	NA	NA	NA	NA	NA	1,100 U [1,100 U]
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	4,200 U	NA	NA	NA	NA	NA	NA	2,100 U [2,200 U]
Acrylonitrile	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Bromodichloromethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Bromomethane	mg/kg	2,100 U	NA	NA	NA	NA	NA	NA	1,100 U [1,100 U]
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Chlorodibromomethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Chloroethane	mg/kg	2,100 U	NA	NA	NA	NA	NA	NA	1,100 U [1,100 U]
Chloroform	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Chloromethane	mg/kg	0.39 J	NA	NA	NA	NA	NA	NA	0.43 J [0.41 J]
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 UJ [0.46 U]
Hexachloro-1,3-Butadiene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
trans-1,2-Dichloroethene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Trichloroethene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Vinyl Chloride	mg/kg	2,100 U	NA	NA	NA	NA	NA	NA	1,100 U [1,100 U]
Benzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Toluene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]
Ethylbenzene	mg/kg	1,000 U	NA	NA	NA	NA	NA	NA	530 U [540 U]

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	D16-1-01 0 - 0.5 10/05/99 D16-1-010.5N	D16-1-01 0 - 0.8 11/18/99 D16-1-010.8N	D16-1-02 0 - 0.8 10/05/99 D16-1-020.8N	D16-2-01 0 - 0.8 10/05/99 D16-2-010.8N	D16-2-04 0 - 1.5 06/29/00 D16-2-041.5N	D16-3-04 0 - 2 06/29/00 D16-3-042N	D16-3-05 0 - 2 10/05/99 D16-3-052N	E16-8561-02 0 - 0.5 10/06/99 E16-8561-020.5N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs									
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
1,2-Dichlorobenzene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
1,2-Diphenylhydrazine	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
1,3-Dichlorobenzene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
1,4-Dichlorobenzene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2,4-Dichlorophenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2,4-Dimethylphenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2,4-Dinitrophenol	mg/kg	NA	1,800 U	19,000 U	1,900 U [19,000 U]	750 U	720 U	1,900 U	NA
2,4-Dinitrotoluene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2,6-Dinitrotoluene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2-Chloronaphthalene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2-Chlorophenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	1,800 U	19,000 UJ	1,900 UJ [19,000 U]	750 U	720 U	1,900 U	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	NA	NA	380 U	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	380 U	360 U	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	710 U	7,600 U	760 U [7,600 U]	750 U	720 U	770 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
4-Chloro-3-Methylphenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	1,800 U	19,000 U	1,900 U [19,000 U]	NA	NA	1,900 U	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	750 U	720 U	NA	NA
Acenaphthene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Acenaphthylene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	0.11 J	360 U	380 U	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Benzo(a)Anthracene	mg/kg	NA	0.050 J	3,800 U	0.16 J [3,800 U]	0.61	0.045 J	0.050 J	NA
Benzo(a)Pyrene	mg/kg	NA	0.067 J	0.25 J	0.19 J [0.25 J]	0.67	0.033 J	0.036 J	NA
Benzo(b)fluoranthene	mg/kg	NA	0.078 J	3,800 U	0.28 J [3,800 U]	0.79	360 U	380 U	NA
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	350 U	3,800 U	0.11 J [3,800 U]	0.64	360 U	380 U	NA
Benzo(k)Fluoranthene	mg/kg	NA	350 U	3,800 U	0.091 J [3,800 U]	0.35 J	360 U	380 U	NA
Benzyl Butyl Phthalate	mg/kg	NA	0.17 J	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	NA	0.11 J	3,800 U	0.027 J [3,800 U]	0.058 J	0.032 J	380 U	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	D16-1-01	D16-1-01	D16-1-02	D16-2-01	D16-2-04	D16-3-04	D16-3-05	E16-8561-02
Sample Depth(ft):		0 - 0.5	0 - 0.8	0 - 0.8	0 - 0.8	0 - 1.5	0 - 2	0 - 2	0 - 0.5
Date Collected:		10/05/99	11/18/99	10/05/99	10/05/99	06/29/00	06/29/00	10/05/99	10/06/99
Sample Name:		D16-1-010.5N	D16-1-010.8N	D16-1-020.8N	D16-2-010.8N	D16-2-041.5N	D16-3-042N	D16-3-052N	E16-8561-020.5N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	0.052 J	3,800 U	0.18 J [3,800 U]	0.62	0.048 J	0.043 J	NA
Dibenzo(a,h)Anthracene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	0.15 J	360 U	380 U	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Dimethyl Phthalate	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Di-N-Butyl Phthalate	mg/kg	NA	0.17 J	3,800 U	380 U [3,800 U]	380 U	360 U	0.059 J	NA
Di-n-Octyl Phthalate	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Fluoranthene	mg/kg	NA	0.083 J	3,800 U	0.33 J [3,800 U]	1.1	0.10 J	380 U	NA
Fluorene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	0.097 J	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Hexachlorobenzene	mg/kg	NA	350 U	3,800 UJ	380 UJ [3,800 U]	NA	NA	380 UJ	NA
Hexachlorocyclopentadiene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Hexachloroethane	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	NA	350 U	3,800 UJ	0.094 J [3,800 U]	0.47	360 U	380 UJ	NA
Naphthalene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Nitrobenzene	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
N-Nitrosodimethylamine	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
N-Nitrosodi-N-Propylamine	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
N-nitrosodiphenylamine	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	NA	NA	380 U	NA
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	1,800 U	19,000 U	1,900 U [19,000 U]	750 U	720 U	1,900 U	NA
Phenanthrene	mg/kg	NA	0.043 J	3,800 U	0.15 J [3,800 U]	0.45	0.052 J	0.040 J	NA
Phenol	mg/kg	NA	350 U	3,800 U	380 U [3,800 U]	380 U	360 U	380 U	NA
Pyrene	mg/kg	NA	0.14 J	3,800 U	0.33 J [3,800 U]	1.5	0.094 J	380 U	NA
TPH									
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Metals									
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	0.380 UJ	1.00 UJ	1.00 UJ [1.00 UJ]	0.658 U	0.596 U	0.940 UJ	NA
Arsenic	mg/kg	NA	5.30	3.00	2.50 [2.60]	2.85	3.31	3.60	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	NA	0.520	0.500 B	0.710 [0.690]	0.450	0.440	0.620	NA
Cadmium	mg/kg	NA	0.540	0.230 B	0.600 U [0.0900 U]	0.640	0.622	0.560 U	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	12.0	15.0	10.3 [12.0]	15.8	16.5	12.0	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	NA	55.2	91.9	17.1 [17.7]	17.3	12.4	89.1	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	NA	334	395 J	159 J [160 J]	149	45.6	26.5 J	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	0.190 J	0.110	0.0600 [0.0500]	0.0560	0.0390	0.0400	NA
Nickel	mg/kg	NA	8.00	8.60 *	7.20 * [6.60 *]	7.95	7.21	6.90 *	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	D16-1-01 0 - 0.5 10/05/99 D16-1-010.5N	D16-1-01 0 - 0.8 11/18/99 D16-1-010.8N	D16-1-02 0 - 0.8 10/05/99 D16-1-020.8N	D16-2-01 0 - 0.8 10/05/99 D16-2-010.8N	D16-2-04 0 - 1.5 06/29/00 D16-2-041.5N	D16-3-04 0 - 2 06/29/00 D16-3-042N	D16-3-05 0 - 2 10/05/99 D16-3-052N	E16-8561-02 0 - 0.5 10/06/99 E16-8561-020.5N
Selenium	mg/kg	NA	0.380 UJ	1.00 U	1.00 U [0.980 B]	1.10	0.594	1.20	NA
Silver	mg/kg	NA	0.230 U	0.600 U	0.600 U [0.620 U]	0.329 U	0.298 U	0.560 U	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	0.760 U	2.00 U	2.00 U [2.10 U]	1.10 U	0.994 U	1.90 U	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	NA	137 *N	169	92.0 [93.1]	107	49.7	81.8	NA
Explosives									
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	NA	NA	NA	NA	376.314 U	360.663 U	NA	NA
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest									
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
PCBs									
Aroclor 1016	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	D16-1-01 0 - 0.5 10/05/99 D16-1-010.5N	D16-1-01 0 - 0.8 11/18/99 D16-1-010.8N	D16-1-02 0 - 0.8 10/05/99 D16-1-020.8N	D16-2-01 0 - 0.8 10/05/99 D16-2-010.8N	D16-2-04 0 - 1.5 06/29/00 D16-2-041.5N	D16-3-04 0 - 2 06/29/00 D16-3-042N	D16-3-05 0 - 2 10/05/99 D16-3-052N	E16-8561-02 0 - 0.5 10/06/99 E16-8561-020.5N
Aroclor 1221	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	E16-8561-03	E16-8561-04	E16-8561-04	G7-2-04	G14-1-01	G14-1-02	G14-2-05	H14-3-03	H14-3-19
Sample Depth(ft):		0 - 0.8	0 - 0.5	0 - 2	0 - 1	0 - 2	0 - 2	0 - 1	0 - 1	0 - 0.5
Date Collected:		10/06/99	11/22/99	11/22/99	12/16/99	11/18/99	10/06/99	10/06/99	10/06/99	11/18/99
Sample Name:		E16-8561-030.8N	E16-8561-040.5N	E16-8561-042N	G7-2-041N	G14-1-012N	G14-1-022N	G14-2-051N	H14-3-031N	H14-3-190.5N
VOCs										
1,1,1-Trichloroethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	1,000 U	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	2,000 UJ	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	1,000 UJ	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	1,000 U	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	1,000 U	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	500 UJ	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	1,000 UJ	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	500 U	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	E16-8561-03	E16-8561-04	E16-8561-04	G7-2-04	G14-1-01	G14-1-02	G14-2-05	H14-3-03	H14-3-19
Sample Depth(ft):		0 - 0.8	0 - 0.5	0 - 2	0 - 1	0 - 2	0 - 2	0 - 1	0 - 1	0 - 0.5
Date Collected:		10/06/99	11/22/99	11/22/99	12/16/99	11/18/99	10/06/99	10/06/99	10/06/99	11/18/99
Sample Name:		E16-8561-030.8N	E16-8561-040.5N	E16-8561-042N	G7-2-041N	G14-1-012N	G14-1-022N	G14-2-051N	H14-3-031N	H14-3-190.5N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
1,2-Dichlorobenzene	mg/kg	470 U [460 U]	NA	400 U	470 UJ	370 U	380 U	370 U	470 U	530 U [570 U]
1,2-Diphenylhydrazine	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
1,3-Dichlorobenzene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
1,4-Dichlorobenzene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2,2-Oxybis(1-Chloropropane)	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2,4-Dichlorophenol	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2,4-Dimethylphenol	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2,4-Dinitrophenol	mg/kg	2,300 U [2,300 U]	NA	2,000 UJ	940 U	1,900 U	1,900 UJ	1,900 UJ	2,300 UJ	2,600 U [2,900 U]
2,4-Dinitrotoluene	mg/kg	470 U [460 U]	NA	0.13 J	470 UJ	370 U	380 U	370 U	470 U	530 U [570 U]
2,6-Dinitrotoluene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2-Chloronaphthalene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2-Chlorophenol	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2-Methyl-4,6-dinitrophenol	mg/kg	2,300 U [2,300 U]	NA	2,000 UJ	940 UJ	1,900 U	1,900 U	1,900 U	2,300 U	2,600 U [2,900 U]
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	940 U [920 U]	NA	790 U	940 U	750 U	760 U	740 U	940 U	1,100 U [1,100 U]
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 UJ [570 UJ]
4-Chloro-3-Methylphenol	mg/kg	470 U [460 U]	NA	400 U	470 UJ	370 U	380 U	370 U	470 U	530 U [570 U]
4-Chlorophenyl phenyl ether	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	2,300 U [2,300 U]	NA	2,000 UJ	940 U	1,900 U	1,900 U	1,900 U	2,300 U	2,600 U [2,900 U]
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	470 U [460 U]	NA	400 U	470 UJ	0.083 J	380 U	370 U	470 U	530 U [570 U]
Acenaphthylene	mg/kg	470 U [460 U]	NA	400 U	470 U	0.25 J	380 U	0.052 J	470 U	0.032 J [0.030 J]
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	0.028 J [0.030 J]	NA	400 U	470 UJ	0.48	380 U	0.10 J	470 U	530 U [0.036 J]
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
Benzo(a)Anthracene	mg/kg	0.18 J [0.18 J]	NA	0.045 J	0.10 J	2.9	380 U	0.93	470 U	0.16 J [0.16 J]
Benzo(a)Pyrene	mg/kg	0.22 J [0.22 J]	NA	400 U	0.090 J	2.8	380 U	0.75	0.027 J	0.18 J [0.16 J]
Benzo(b)fluoranthene	mg/kg	0.33 J [0.34 J]	NA	400 U	0.18 J	3.9	380 U	1.0	470 U	0.21 J [0.20 J]
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	470 UJ	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.13 J [0.13 J]	NA	400 U	NA	2.0	380 U	0.30 J	470 U	0.16 J [570 UJ]
Benzo(k)Fluoranthene	mg/kg	0.12 J [0.13 J]	NA	400 U	470 UJ	1.1	380 U	0.43	470 U	530 U [570 U]
Benzyl Butyl Phthalate	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
bis(2-Chloroethoxy)methane	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
Bis(2-Chloroethyl)ether	mg/kg	470 U [460 U]	NA	400 U	470 U	0.016 J	380 U	370 U	470 U	530 U [570 U]
Bis(2-Ethylhexyl)phthalate	mg/kg	0.13 J [0.14 J]	NA	0.059 J	0.049 J	0.12 J	380 U	370 U	470 U	0.13 J [0.12 J]

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	E16-8561-03 0 - 0.8 10/06/99 E16-8561-030.8N	E16-8561-04 0 - 0.5 11/22/99 E16-8561-040.5N	E16-8561-04 0 - 2 11/22/99 E16-8561-042N	G7-2-04 0 - 1 12/16/99 G7-2-041N	G14-1-01 0 - 2 11/18/99 G14-1-012N	G14-1-02 0 - 2 10/06/99 G14-1-022N	G14-2-05 0 - 1 10/06/99 G14-2-051N	H14-3-03 0 - 1 10/06/99 H14-3-031N	H14-3-19 0 - 0.5 11/18/99 H14-3-190.5N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.25 J [0.27 J]	NA	0.046 J	0.13 J	2.6	380 U	0.74	470 U	0.19 J [0.15 J]
Dibenzo(a,h)Anthracene	mg/kg	470 U [460 U]	NA	400 U	470 UJ	0.58	380 U	370 U	470 U	530 UJ [570 UJ]
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	470 U [460 U]	NA	400 U	0.070 J	370 U	380 U	370 U	470 U	530 U [570 U]
Dimethyl Phthalate	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
Di-N-Butyl Phthalate	mg/kg	470 U [460 U]	NA	400 U	0.055 J	0.056 J	380 U	370 U	470 U	530 U [570 U]
Di-n-Octyl Phthalate	mg/kg	470 U [460 U]	NA	400 U	470 UJ	370 U	380 U	370 U	470 U	530 U [570 U]
Fluoranthene	mg/kg	0.39 J [0.42 J]	NA	0.089 J	0.22 J	5.4	380 U	1.1	470 U	0.32 J [0.29 J]
Fluorene	mg/kg	470 U [460 U]	NA	400 U	470 U	0.20 J	380 U	370 U	470 U	530 U [570 U]
Hexachloro-1,3-Butadiene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
Hexachlorobenzene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 UJ [570 UJ]
Hexachlorocyclopentadiene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 UJ [570 UJ]
Hexachloroethane	mg/kg	470 U [460 U]	NA	400 U	470 UJ	370 U	380 U	370 U	470 U	530 U [570 U]
Indeno(1,2,3-cd)Pyrene	mg/kg	0.11 J [0.12 J]	NA	400 U	470 UJ	1.8	380 U	0.28 J	470 U	0.13 J [0.13 J]
Naphthalene	mg/kg	470 U [460 U]	NA	400 UJ	470 UJ	0.040 J	380 U	370 U	470 U	530 U [570 U]
Nitrobenzene	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
N-Nitrosodimethylamine	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
N-Nitrosodi-N-Propylamine	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
N-nitrosodiphenylamine	mg/kg	470 U [460 U]	NA	0.079 J	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	2,300 U [2,300 U]	NA	2,000 U	940 U	1,900 U	1,900 U	1,900 U	2,300 U	2,600 U [2,900 U]
Phenanthrene	mg/kg	0.28 J [0.28 J]	NA	0.058 J	0.15 J	2.4	380 U	0.23 J	0.029 J	0.23 J [0.22 J]
Phenol	mg/kg	470 U [460 U]	NA	400 U	470 U	370 U	380 U	370 U	470 U	530 U [570 U]
Pyrene	mg/kg	0.77 [0.69 J]	NA	0.11 J	0.20 J	5.3 *D	380 U	1.6	470 U	0.53 J [0.49 J]
TPH										
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	1.10 J [0.550 J]	NA	NA	0.560 J	0.530 UJ	0.950 UJ	0.950 UJ	1.70 J	1.20 J [2.40 *]
Arsenic	mg/kg	12.1 [17.2]	NA	NA	9.70 J	9.20	3.40	16.2	10.4	10.3 [12.2]
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.240 B [0.240 B]	NA	NA	0.710 J	0.490	0.620	0.240 B	0.150 B	0.140 B [0.180 B]
Cadmium	mg/kg	1.00 [0.860]	NA	NA	0.410 U	0.990	0.570 U	0.320 B	0.830 B	0.400 B [0.440]
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	9.10 [9.80]	NA	NA	42.3	12.2	14.4	7.30	23.8	9.80 [11.8]
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	52.4 [52.5]	NA	NA	25.9	28.2	0.950 U	0.950 U	52.2	24.0 [25.7]
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	469 J [352 J]	NA	NA	273	141	13.1 J	63.7 J	1,340 J	575 [548]
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.660 [0.330]	NA	NA	0.830 J	0.470 J	0.130	0.230	1.40	0.360 J [0.390 *N]
Nickel	mg/kg	5.10 * [6.20 *]	NA	NA	11.3 J	8.40	8.50 *	7.80 *	5.20 *	8.30 [9.60]
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	E16-8561-03	E16-8561-04	E16-8561-04	G7-2-04	G14-1-01	G14-1-02	G14-2-05	H14-3-03	H14-3-19
Sample Depth(ft):		0 - 0.8	0 - 0.5	0 - 2	0 - 1	0 - 2	0 - 2	0 - 1	0 - 1	0 - 0.5
Date Collected:		10/06/99	11/22/99	11/22/99	12/16/99	11/18/99	10/06/99	10/06/99	10/06/99	11/18/99
Sample Name:		E16-8561-030.8N	E16-8561-040.5N	E16-8561-042N	G7-2-041N	G14-1-012N	G14-1-022N	G14-2-051N	H14-3-031N	H14-3-190.5N
Selenium	mg/kg	0.900 B [1.20 U]	NA	NA	2.00 J	0.530 UJ	1.10	0.950 U	1.80	2.60 J [3.20 *N]
Silver	mg/kg	0.200 B [0.740 U]	NA	NA	0.190 B	0.320 U	0.570 U	0.570 U	0.830 U	0.270 B [0.130 B]
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.40 U [2.50 U]	NA	NA	0.770 B	1.10 U	1.90 U	1.90 U	2.80 U	1.30 U [1.30 U]
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	699 J [625 J]	NA	NA	117 J	239 *N	64.1	59.2	821	44.4 *N [46.1 *N]
Explosives										
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA	NA
HMX	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	NA	NA	NA	88.3	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	NA	NA	NA	4,878 U	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA	NA
Tetryl	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest										
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs										
Aroclor 1016	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	E16-8561-03 0 - 0.8 10/06/99 E16-8561-030.8N	E16-8561-04 0 - 0.5 11/22/99 E16-8561-040.5N	E16-8561-04 0 - 2 11/22/99 E16-8561-042N	G7-2-04 0 - 1 12/16/99 G7-2-041N	G14-1-01 0 - 2 11/18/99 G14-1-012N	G14-1-02 0 - 2 10/06/99 G14-1-022N	G14-2-05 0 - 1 10/06/99 G14-2-051N	H14-3-03 0 - 1 10/06/99 H14-3-031N	H14-3-19 0 - 0.5 11/18/99 H14-3-190.5N
Aroclor 1221	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	H14-3-19	J14-2-02	J14-2-03	M11-1-01	M11-1-02	M11-8606-03	N13-1-03	N13-4-04	N13-5-01
Sample Depth(ft):		0 - 0.8	0 - 1	0 - 1.79	0 - 0.75	0 - 0.5	0 - 1	0 - 0.8	0 - 1	0 - 2
Date Collected:		10/06/99	06/29/00	10/06/99	06/29/00	10/06/99	10/06/99	10/04/99	10/04/99	10/04/99
Sample Name:		H14-3-190.8N	J14-2-021N	J14-2-031.8N	M11-1-010.75N	M11-1-020.5N	M11-8606-031N	N13-1-030.8N	N13-4-041N	N13-5-012N
VOCs										
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	H14-3-19 0 - 0.8 10/06/99 H14-3-190.8N	J14-2-02 0 - 1 06/29/00 J14-2-021N	J14-2-03 0 - 1.79 10/06/99 J14-2-031.8N	M11-1-01 0 - 0.75 06/29/00 M11-1-010.75N	M11-1-02 0 - 0.5 10/06/99 M11-1-020.5N	M11-8606-03 0 - 1 10/06/99 M11-8606-031N	N13-1-03 0 - 0.8 10/04/99 N13-1-030.8N	N13-4-04 0 - 1 10/04/99 N13-4-041N	N13-5-01 0 - 2 10/04/99 N13-5-012N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
1,2-Dichlorobenzene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
1,2-Diphenylhydrazine	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
1,3-Dichlorobenzene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
1,4-Dichlorobenzene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2,4-Dichlorophenol	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2,4-Dimethylphenol	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2,4-Dinitrophenol	mg/kg	2,200 UJ [2,800 UJ]	780 U	2,200 UJ	960 U	2,200 U	1,800 U	2,900 U	2,100 U	NA
2,4-Dinitrotoluene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2,6-Dinitrotoluene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2-Chloronaphthalene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2-Chlorophenol	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
2-Methyl-4,6-dinitrophenol	mg/kg	2,200 U [2,800 U]	780 U	2,200 U	960 U	2,200 U	1,800 U	2,900 U	2,100 U	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	440 U [560 U]	NA	440 U	NA	440 U	350 U	570 U	410 U	NA
2-Nitrotoluene	mg/kg	NA	390 U	NA	480 U	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	890 U [1,100 U]	780 U	880 U	960 U	880 U	710 U	1,100 U	820 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
4-Chloro-3-Methylphenol	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
4-Chlorophenyl phenyl ether	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	2,200 U [2,800 U]	NA	2,200 U	NA	2,200 U	1,800 U	2,900 U	2,100 U	NA
4-Nitrotoluene	mg/kg	NA	780 U	NA	960 U	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	0.12 J	570 U	410 U	NA
Acenaphthylene	mg/kg	440 U [560 U]	390 U	440 U	0.026 J	440 U	350 U	0.038 J	410 U	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	0.37	0.035 J	0.028 J	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Benzo(a)Anthracene	mg/kg	0.040 J [560 U]	390 U	440 U	0.084 J	0.059 J	2.9	0.31 J	0.13 J	NA
Benzo(a)Pyrene	mg/kg	0.032 J [560 U]	390 U	440 U	0.065 J	0.068 J	2.3 J	0.35 J	0.14 J	NA
Benzo(b)fluoranthene	mg/kg	440 U [560 U]	390 U	440 U	0.12 J	0.12 J	3.4 J	0.39 J	0.22 J	NA
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	0.91 J	0.18 J	410 U	NA
Benzo(k)Fluoranthene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	1.3 J	0.18 J	0.13 J	NA
Benzyl Butyl Phthalate	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
bis(2-Chloroethoxy)methane	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Bis(2-Chloroethyl)ether	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	440 U [560 U]	390 U	440 U	0.054 J	0.046 J	0.061 J	570 U	0.021 J	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	H14-3-19 0 - 0.8 10/06/99 H14-3-190.8N	J14-2-02 0 - 1 06/29/00 J14-2-021N	J14-2-03 0 - 1.79 10/06/99 J14-2-031.8N	M11-1-01 0 - 0.75 06/29/00 M11-1-010.75N	M11-1-02 0 - 0.5 10/06/99 M11-1-020.5N	M11-8606-03 0 - 1 10/06/99 M11-8606-031N	N13-1-03 0 - 0.8 10/04/99 N13-1-030.8N	N13-4-04 0 - 1 10/04/99 N13-4-041N	N13-5-01 0 - 2 10/04/99 N13-5-012N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	440 U [560 U]	390 U	440 U	0.10 J	0.079 J	2.4	0.33 J	0.21 J	NA
Dibenzo(a,h)Anthracene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	0.22 J	570 U	410 U	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	0.059 J	410 U	NA
Dimethyl Phthalate	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Di-N-Butyl Phthalate	mg/kg	440 U [560 U]	390 U	440 U	0.23 J	0.093 J	0.085 J	570 U	0.017 J	NA
Di-n-Octyl Phthalate	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Fluoranthene	mg/kg	440 U [560 U]	390 U	440 U	0.18 J	0.16 J	2.8	0.54 J	0.24 J	NA
Fluorene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	0.079 J	570 U	410 U	NA
Hexachloro-1,3-Butadiene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Hexachlorobenzene	mg/kg	440 U [560 U]	NA	440 U	NA	440 U	350 U	570 U	410 U	NA
Hexachlorocyclopentadiene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Hexachloroethane	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	440 U [560 U]	390 U	440 U	0.084 J	440 U	0.70 J	0.17 J	410 U	NA
Naphthalene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	0.053 J	NA
Nitrobenzene	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
N-Nitrosodimethylamine	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
N-Nitrosodi-N-Propylamine	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
N-nitrosodiphenylamine	mg/kg	440 U [560 U]	NA	440 U	NA	440 U	350 U	570 U	410 U	NA
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	2,200 U [2,800 U]	780 U	2,200 U	960 U	2,200 U	1,800 U	2,900 U	2,100 U	NA
Phenanthrene	mg/kg	0.048 J [560 U]	390 U	440 U	0.12 J	0.097 J	1.5	0.17 J	0.23 J	NA
Phenol	mg/kg	440 U [560 U]	390 U	440 U	480 U	440 U	350 U	570 U	410 U	NA
Pyrene	mg/kg	440 U [560 U]	390 U	440 U	0.21 J	0.18 J	6.4	0.56 J	0.21 J	NA
TPH										
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.880 J [0.670 J]	0.670 U	0.860 J	0.982	0.470 J	22.4 UJ	1.10 U	1.10 U	NA
Arsenic	mg/kg	10.0 [8.70]	4.83	3.40	7.63	6.20	22.4 U	14.7	21.2	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.140 B [0.130 B]	0.398	0.570 B	0.0960 J	0.0900 B	183	0.630 B	0.560 B	NA
Cadmium	mg/kg	0.720 U [0.590 U]	0.509	0.790 U	0.461	0.690 U	13.4 U	0.660 U	0.660 U	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	11.1 [9.60]	15.6	16.2	8.95	6.10	62.8	15.5	14.6	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	1.20 U [17.2 U]	14.6	1.30 U	10.4	9.80	3,950	29.8	65.4	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	541 J [524 J]	17.1	16.2 J	70.2	73.3 J	1,020 J	123 N	296 N	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.210 [0.240]	0.0780	0.160	0.0980	0.110	0.0200 B	0.520	11.4	NA
Nickel	mg/kg	6.60 * [5.80 *]	9.05	10.2 *	3.16	2.40 *	197 *	15.5	9.50	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	H14-3-19 0 - 0.8 10/06/99 H14-3-190.8N	J14-2-02 0 - 1 06/29/00 J14-2-021N	J14-2-03 0 - 1.79 10/06/99 J14-2-031.8N	M11-1-01 0 - 0.75 06/29/00 M11-1-010.75N	M11-1-02 0 - 0.5 10/06/99 M11-1-020.5N	M11-8606-03 0 - 1 10/06/99 M11-8606-031N	N13-1-03 0 - 0.8 10/04/99 N13-1-030.8N	N13-4-04 0 - 1 10/04/99 N13-4-041N	N13-5-01 0 - 2 10/04/99 N13-5-012N
Selenium	mg/kg	1.80 [1.30]	1.14	0.820 B	1.63	1.30	22.4 U	1.80 N	3.00 N	NA
Silver	mg/kg	0.720 U [0.590 U]	0.335 U	0.790 U	0.310 J	0.160 B	5.70 B	0.660 U	0.230 B	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.40 U [2.00 U]	1.12 U	2.60 U	1.44 U	2.30 U	44.7 U	2.10 B	2.10 B	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	30.2 [27.4]	39.3	56.4	23.5	27.5 J	45,000 J	107	265	NA
Explosives										
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	NA	390.341 U	NA	480.797 U	NA	NA	NA	NA	NA
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest										
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs										
Aroclor 1016	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	25 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	H14-3-19 0 - 0.8 10/06/99 H14-3-190.8N	J14-2-02 0 - 1 06/29/00 J14-2-021N	J14-2-03 0 - 1.79 10/06/99 J14-2-031.8N	M11-1-01 0 - 0.75 06/29/00 M11-1-010.75N	M11-1-02 0 - 0.5 10/06/99 M11-1-020.5N	M11-8606-03 0 - 1 10/06/99 M11-8606-031N	N13-1-03 0 - 0.8 10/04/99 N13-1-030.8N	N13-4-04 0 - 1 10/04/99 N13-4-041N	N13-5-01 0 - 2 10/04/99 N13-5-012N
Aroclor 1221	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	25 U
Aroclor 1232	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	25 U
Aroclor 1242	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	25 U
Aroclor 1248	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	25 U
Aroclor 1254	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	25 U
Aroclor 1260	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	50 U

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	O13-7-01	O13-7-03	O13-7-05	O13-8-01	O13-8-02	O13-8-03	O13-8577-02	O13-8577-03	O13-8604-01
Sample Depth(ft):		0 - 1	0 - 1	0 - 7.5	0 - 2	0 - 2	0 - 1	0 - 2	0 - 1.5	0 - 1.5
Date Collected:		06/29/00	10/04/99	08/10/00	10/04/99	10/04/99	10/04/99	10/04/99	06/29/00	10/04/99
Sample Name:		O13-7-011N	O13-7-031N	O13-7-057.5N	O13-8-012N	O13-8-022N	O13-8-031N	O13-8577-022N	O13-8577-031.5N	O13-8604-011.5N
VOCs										
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	O13-7-01	O13-7-03	O13-7-05	O13-8-01	O13-8-02	O13-8-03	O13-8577-02	O13-8577-03	O13-8604-01
Sample Depth(ft):		0 - 1	0 - 1	0 - 7.5	0 - 2	0 - 2	0 - 1	0 - 2	0 - 1.5	0 - 1.5
Date Collected:		06/29/00	10/04/99	08/10/00	10/04/99	10/04/99	10/04/99	10/04/99	06/29/00	10/04/99
Sample Name:		O13-7-011N	O13-7-031N	O13-7-057.5N	O13-8-012N	O13-8-022N	O13-8-031N	O13-8577-022N	O13-8577-031.5N	O13-8604-011.5N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs										
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
1,2-Dichlorobenzene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
1,2-Diphenylhydrazine	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
1,3-Dichlorobenzene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
1,4-Dichlorobenzene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2,2-Oxybis(1-Chloropropane)	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2,4-Dichlorophenol	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2,4-Dimethylphenol	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2,4-Dinitrophenol	mg/kg	790 U	2,000 U	800 U	NA	NA	NA	2,200 U	770 U	2,200 U
2,4-Dinitrotoluene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2,6-Dinitrotoluene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2-Chloronaphthalene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2-Chlorophenol	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
2-Methyl-4,6-dinitrophenol	mg/kg	790 U	2,000 U	800 U	NA	NA	NA	2,200 U	770 U	2,200 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	400 U	400 U	NA	NA	NA	430 U	NA	440 U
2-Nitrotoluene	mg/kg	400 U	NA	NA	NA	NA	NA	NA	390 U	NA
3,3-Dichlorobenzidine	mg/kg	790 U	790 U	800 U	NA	NA	NA	870 U	770 U	880 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
4-Chloro-3-Methylphenol	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
4-Chlorophenyl phenyl ether	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	2,000 U	800 U	NA	NA	NA	2,200 U	NA	2,200 U
4-Nitrotoluene	mg/kg	790 U	NA	NA	NA	NA	NA	NA	770 U	NA
Acenaphthene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Acenaphthylene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Benzo(a)Anthracene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.094 J	0.085 J
Benzo(a)Pyrene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.060 J	0.066 J
Benzo(b)fluoranthene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.081 J	0.20 J
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Benzo(k)Fluoranthene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	0.074 J
Benzyl Butyl Phthalate	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
bis(2-Chloroethoxy)methane	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Bis(2-Chloroethyl)ether	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Bis(2-Ethylhexyl)phthalate	mg/kg	400 U	400 U	0.021 J	NA	NA	NA	430 U	390 U	0.13 J

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	O13-7-01	O13-7-03	O13-7-05	O13-8-01	O13-8-02	O13-8-03	O13-8577-02	O13-8577-03	O13-8604-01
Sample Depth(ft):		0 - 1	0 - 1	0 - 7.5	0 - 2	0 - 2	0 - 1	0 - 2	0 - 1.5	0 - 1.5
Date Collected:		06/29/00	10/04/99	08/10/00	10/04/99	10/04/99	10/04/99	10/04/99	06/29/00	10/04/99
Sample Name:		O13-7-011N	O13-7-031N	O13-7-057.5N	O13-8-012N	O13-8-022N	O13-8-031N	O13-8577-022N	O13-8577-031.5N	O13-8604-011.5N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.094 J	0.13 J
Dibenzo(a,h)Anthracene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Dimethyl Phthalate	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Di-N-Butyl Phthalate	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.10 J	0.058 J
Di-n-Octyl Phthalate	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Fluoranthene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.17 J	0.21 J
Fluorene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Hexachloro-1,3-Butadiene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Hexachlorobenzene	mg/kg	NA	400 U	400 U	NA	NA	NA	430 U	NA	440 U
Hexachlorocyclopentadiene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Hexachloroethane	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Indeno(1,2,3-cd)Pyrene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Naphthalene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Nitrobenzene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
N-Nitrosodimethylamine	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
N-Nitrosodi-N-Propylamine	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
N-nitrosodiphenylamine	mg/kg	NA	400 U	400 U	NA	NA	NA	430 U	NA	440 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	790 U	2,000 U	800 U	NA	NA	NA	2,200 U	770 U	2,200 U
Phenanthrene	mg/kg	400 U	400 U	400 U	NA	NA	NA	0.034 J	0.13 J	0.061 J
Phenol	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	390 U	440 U
Pyrene	mg/kg	400 U	400 U	400 U	NA	NA	NA	430 U	0.18 J	0.16 J
TPH										
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.681 U	1.10 UN	NA	NA	NA	NA	1.10 U	0.656 U	1.10 U
Arsenic	mg/kg	3.53	5.00	NA	NA	NA	NA	4.30	3.75	3.90
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.491	0.440 B	NA	NA	NA	NA	0.280 B	0.400	0.420 B
Cadmium	mg/kg	0.677	0.650	NA	NA	NA	NA	0.650 U	0.754	0.640 U
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	13.6	13.3	NA	NA	NA	NA	13.2	11.6	10.9
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	12.6	60.0	NA	NA	NA	NA	10.6	13.0	18.1
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	20.4	49.2 N	NA	NA	NA	NA	11.8 N	117	12.0 N
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.335	0.510	NA	NA	NA	NA	0.0600	0.0760	0.0500
Nickel	mg/kg	6.84	7.80	NA	NA	NA	NA	5.60	6.86	7.30
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	O13-7-01 0 - 1 06/29/00 O13-7-011N	O13-7-03 0 - 1 10/04/99 O13-7-031N	O13-7-05 0 - 7.5 08/10/00 O13-7-057.5N	O13-8-01 0 - 2 10/04/99 O13-8-012N	O13-8-02 0 - 2 10/04/99 O13-8-022N	O13-8-03 0 - 1 10/04/99 O13-8-031N	O13-8577-02 0 - 2 10/04/99 O13-8577-022N	O13-8577-03 0 - 1.5 06/29/00 O13-8577-031.5N	O13-8604-01 0 - 1.5 10/04/99 O13-8604-011.5N
Selenium	mg/kg	0.567 U	0.650 BN	NA	NA	NA	NA	0.750 BN	0.627	1.10 UN
Silver	mg/kg	0.340 U	0.640 U	NA	NA	NA	NA	0.650 U	0.328 U	0.640 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	1.13 U	1.30 B	NA	NA	NA	NA	2.20 U	1.09 U	2.10 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	60.7	319	NA	NA	NA	NA	35.6	64.9	154
Explosives										
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	400 U	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	400 U	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	400 U	NA	NA	NA	NA	NA	NA
HMX	mg/kg	NA	NA	400 U	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	200 U	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	NA	NA	34 U	NA	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	395.426 U	NA	5,110 U	NA	NA	NA	NA	385.729 U	NA
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	NA	NA	400 U	NA	NA	NA	NA	NA	NA
Tetryl	mg/kg	NA	NA	400 U	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest										
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs										
Aroclor 1016	mg/kg	NA	NA	NA	21 U	21 U	21 U	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	O13-7-01 0 - 1 06/29/00 O13-7-011N	O13-7-03 0 - 1 10/04/99 O13-7-031N	O13-7-05 0 - 7.5 08/10/00 O13-7-057.5N	O13-8-01 0 - 2 10/04/99 O13-8-012N	O13-8-02 0 - 2 10/04/99 O13-8-022N	O13-8-03 0 - 1 10/04/99 O13-8-031N	O13-8577-02 0 - 2 10/04/99 O13-8577-022N	O13-8577-03 0 - 1.5 06/29/00 O13-8577-031.5N	O13-8604-01 0 - 1.5 10/04/99 O13-8604-011.5N
Aroclor 1221	mg/kg	NA	NA	NA	21 U	21 U	21 U	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA	21 U	21 U	21 U	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA	21 U	21 U	21 U	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA	21 U	21 U	21 U	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA	21 U	21 U	21 U	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA	40 U	41 U	41 U	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	O13-8604-03	O14-8603-02	O14-8603-04	S6-1-02	SB-R-B14-03	SB-R-B14-03	SB-R-B14-03	SB-R-B15-01
Sample Depth(ft):		0 - 1	0 - 2	0 - 2	0 - 1	0.5 - 1	2.17 - 2.67	6.17 - 6.67	0.5 - 1
Date Collected:		06/29/00	10/04/99	06/29/00	07/27/00	06/06/06	06/06/06	08/17/06	07/06/06
Sample Name:		O13-8604-031N	O14-8603-022N	O14-8603-042N	S6-1-021N	SB-R-B14-031.0N	SB-R-B14-032.67N	SB-R-B14-036.67N	SB-R-B15-011.0N
VOCs									
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	3,200 U	3,100 U	NA	18,000 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	NA	NA	NA	800 U	780 U	NA	4,600 U
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	NA	NA	NA	800 U	780 U	NA	4,600 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	NA	NA	NA	800 U	780 U	NA	4,600 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	NA	NA	NA	800 U	780 U	NA	4,600 U
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	O13-8604-03 0 - 1 06/29/00 O13-8604-031N	O14-8603-02 0 - 2 10/04/99 O14-8603-022N	O14-8603-04 0 - 2 06/29/00 O14-8603-042N	S6-1-02 0 - 1 07/27/00 S6-1-021N	SB-R-B14-03 0.5 - 1 06/06/06 SB-R-B14-031.0N	SB-R-B14-03 2.17 - 2.67 06/06/06 SB-R-B14-032.67N	SB-R-B14-03 6.17 - 6.67 08/17/06 SB-R-B14-036.67N	SB-R-B15-01 0.5 - 1 07/06/06 SB-R-B15-011.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs									
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	380 U	400 UJ	420 U [430 U]	420 U	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
2,2-Oxybis(1-Chloropropane)	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	760 U	2,000 U	830 U [850 U]	850 U	2,600 U	2,400 U	NA	14,000 U
2,4-Dinitrotoluene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
2,6-Dinitrotoluene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
2-Chloronaphthalene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
2-Chlorophenol	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	760 U	2,000 U	830 U [850 U]	850 U	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	400 U	NA	420 U	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	380 U	NA	420 U [430 U]	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	760 U	790 U	830 U [850 U]	850 U	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	2,000 U	NA	850 U	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	760 U	NA	830 U [850 U]	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Acenaphthylene	mg/kg	380 U	400 UJ	420 U [430 U]	420 U	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Benzo(a)Pyrene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Benzo(b)fluoranthene	mg/kg	0.12 J	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Benzyl Butyl Phthalate	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
bis(2-Chloroethoxy)methane	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	380 U	400 U	420 U [430 U]	0.023 J	430 U	400 U	NA	2,400 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	O13-8604-03 0 - 1 06/29/00 O13-8604-031N	O14-8603-02 0 - 2 10/04/99 O14-8603-022N	O14-8603-04 0 - 2 06/29/00 O14-8603-042N	S6-1-02 0 - 1 07/27/00 S6-1-021N	SB-R-B14-03 0.5 - 1 06/06/06 SB-R-B14-031.0N	SB-R-B14-03 2.17 - 2.67 06/06/06 SB-R-B14-032.67N	SB-R-B14-03 6.17 - 6.67 08/17/06 SB-R-B14-036.67N	SB-R-B15-01 0.5 - 1 07/06/06 SB-R-B15-011.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Dibenzo(a,h)Anthracene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Dimethyl Phthalate	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	0.15 J	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Di-n-Octyl Phthalate	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Fluoranthene	mg/kg	0.20 J	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Fluorene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	400 U	NA	420 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Hexachloroethane	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
Naphthalene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Nitrobenzene	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	380 U	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	380 U	400 U	420 U [430 U]	420 U	220 U	200 U	NA	1,200 U
N-nitrosodiphenylamine	mg/kg	NA	400 U	NA	420 U	220 U	200 U	NA	1,200 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	760 U	2,000 U	830 U [850 U]	850 U	NA	NA	NA	NA
Phenanthrene	mg/kg	0.094 J	400 U	420 U [430 U]	420 U	NA	NA	NA	NA
Phenol	mg/kg	380 U	400 U	420 U [0.039 J]	420 U	NA	NA	NA	NA
Pyrene	mg/kg	0.26 J	400 UJ	420 U [430 U]	420 U	NA	NA	NA	NA
TPH									
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Metals									
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.643 U	0.900 UJ	0.720 J [1.59]	0.629 UJ	2.59 U	2.35 U	1.02 J	14.4 U
Arsenic	mg/kg	3.81	4.70	7.51 [5.33]	6.56	2.27 J	1.83 J	1.41 J	14.4 U
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.440	0.430 B	0.451 [0.447]	0.563	0.704	0.741	0.566	0.950 J
Cadmium	mg/kg	19.0	0.540 U	0.766 [0.702]	0.315 UJ	3.24 U	2.94 U	2.76 U	0.633 J
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	15.9	14.6	107 [125]	13.9	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	28.7	8.20	158 [153]	12.5	8.53	10.7	12.7	11.8
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	84.2	11.0 J	62.9 [73.1]	56.8	7.89	4.97	1.46 J	16.7
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	6.29	0.0300 B	0.0650 [0.0400]	0.0730	0.0281 J	0.112 U	0.112 U	0.156 J
Nickel	mg/kg	10.4	6.90	6.85 [7.19]	8.76	7.13	8.29	5.48	6.48 J
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	O13-8604-03 0 - 1 06/29/00 O13-8604-031N	O14-8603-02 0 - 2 10/04/99 O14-8603-022N	O14-8603-04 0 - 2 06/29/00 O14-8603-042N	S6-1-02 0 - 1 07/27/00 S6-1-021N	SB-R-B14-03 0.5 - 1 06/06/06 SB-R-B14-031.0N	SB-R-B14-03 2.17 - 2.67 06/06/06 SB-R-B14-032.67N	SB-R-B14-03 6.17 - 6.67 08/17/06 SB-R-B14-036.67N	SB-R-B15-01 0.5 - 1 07/06/06 SB-R-B15-011.0N
Selenium	mg/kg	0.647	0.650 J	1.05 [1.26]	1.08	2.59 U	1.32 J	2.21 U	8.19 J
Silver	mg/kg	0.321 U	0.540 U	0.360 U [0.352 U]	0.315 U	0.296 J	0.234 J	0.551 U	3.60 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	1.07 U	1.60 B	1.20 U [1.17 U]	1.15	1.81 J	2.88	1.58 J	14.4 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	323	52.6	295 [286]	87.0	53.8	43.0	44.0	58.7
Explosives									
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	NA	NA	250 U	390 U	360 U	NA	2,200 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	NA	NA	NA	250 U	390 U	360 U	NA	2,200 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	NA	NA	NA	250 U	390 U	360 U	NA	2,200 U
2-Nitrotoluene	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	NA	NA	NA	250 U	390 U	360 U	NA	2,200 U
4-Nitrotoluene	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA
HMX	mg/kg	NA	NA	NA	500 U	970 U	900 U	NA	5,400 U
Nitrobenzene	mg/kg	NA	NA	NA	250 U	NA	NA	NA	NA
Nitrocellulose	mg/kg	NA	NA	NA	48.3	160,000 U	140,000 U	NA	870,000 U
Nitroglycerin	mg/kg	381.749 U	NA	415.367 U [425 U]	6,450 U	7,800 U	7,200 U	NA	43,000 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	NA	NA	NA	500 U	390 U	360 U	NA	2,200 U
Tetryl	mg/kg	NA	NA	NA	500 U	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest									
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
PCBs									
Aroclor 1016	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	O13-8604-03 0 - 1 06/29/00 O13-8604-031N	O14-8603-02 0 - 2 10/04/99 O14-8603-022N	O14-8603-04 0 - 2 06/29/00 O14-8603-042N	S6-1-02 0 - 1 07/27/00 S6-1-021N	SB-R-B14-03 0.5 - 1 06/06/06 SB-R-B14-031.0N	SB-R-B14-03 2.17 - 2.67 06/06/06 SB-R-B14-032.67N	SB-R-B14-03 6.17 - 6.67 08/17/06 SB-R-B14-036.67N	SB-R-B15-01 0.5 - 1 07/06/06 SB-R-B15-011.0N
Aroclor 1221	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U
Aroclor 1232	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U
Aroclor 1242	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U
Aroclor 1248	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U
Aroclor 1254	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U
Aroclor 1260	mg/kg	NA	NA	NA	NA	22 U	20 U	NA	120 U

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-C15-01	SB-R-C15-01	SB-R-C15-02	SB-R-C15-02	SB-R-D9-01	SB-R-D9-02	SB-R-D9-03
Sample Depth(ft):		0.5 - 1	1.5 - 2	0.75 - 1.25	2 - 2.5	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		06/23/06	06/23/06	06/23/06	06/23/06	06/29/06	06/29/06	07/05/06
Sample Name:		SB-R-C15-011.0N	SB-R-C15-012.0N	SB-R-C15-021.25N	SB-R-C15-022.5N	SB-R-D9-011.0N	SB-R-D9-021.0N	SB-R-D9-031.0N
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	3,400 U	2,900 U	3,100 U	3,000 U	2,900 U [2,800 U]	3,100 U	3,300 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	840 U	720 U	770 U	740 U	740 U [690 U]	790 U	830 U
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	840 U	720 U	770 U	740 U	740 U [690 U]	790 U	830 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	840 U	720 U	770 U	740 U	740 U [690 U]	790 U	830 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	840 U	720 U	770 U	740 U	740 U [690 U]	790 U	830 U
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-C15-01	SB-R-C15-01	SB-R-C15-02	SB-R-C15-02	SB-R-D9-01	SB-R-D9-02	SB-R-D9-03
Sample Depth(ft):		0.5 - 1	1.5 - 2	0.75 - 1.25	2 - 2.5	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		06/23/06	06/23/06	06/23/06	06/23/06	06/29/06	06/29/06	07/05/06
Sample Name:		SB-R-C15-011.0N	SB-R-C15-012.0N	SB-R-C15-021.25N	SB-R-C15-022.5N	SB-R-D9-011.0N	SB-R-D9-021.0N	SB-R-D9-031.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	2,700 U	2,300 U	2,400 U	2,300 U	2,400 U [2,300 U]	2,400 U	2,600 U
2,4-Dinitrotoluene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
2,6-Dinitrotoluene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Benzo(a)Pyrene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Benzo(b)fluoranthene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Benzyl Butyl Phthalate	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	450 U	380 U	400 U	380 U	400 U [380 U]	410 U	440 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-C15-01 0.5 - 1 06/23/06 SB-R-C15-011.0N	SB-R-C15-01 1.5 - 2 06/23/06 SB-R-C15-012.0N	SB-R-C15-02 0.75 - 1.25 06/23/06 SB-R-C15-021.25N	SB-R-C15-02 2 - 2.5 06/23/06 SB-R-C15-022.5N	SB-R-D9-01 0.5 - 1 06/29/06 SB-R-D9-011.0N	SB-R-D9-02 0.5 - 1 06/29/06 SB-R-D9-021.0N	SB-R-D9-03 0.5 - 1 07/05/06 SB-R-D9-031.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Dibenzo(a,h)Anthracene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Dimethyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
N-nitrosodiphenylamine	mg/kg	220 U	190 U	200 U	190 U	200 U [190 U]	200 U	220 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	2.69 U	2.28 U	2.31 U	2.26 U	2.31 U [2.21 U]	2.37 U	2.56 U
Arsenic	mg/kg	2.00 J	3.36	2.31 U	2.26 U	2.97 [3.35]	5.01	4.90
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.634 J	1.08	0.802	0.831	0.293 J [0.306 J]	0.260 J	0.147 J
Cadmium	mg/kg	3.36 U	5.71 U	0.577 U	2.82 U	0.273 J [0.313 J]	0.299 J	0.179 J
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	10.8	15.6	12.1	16.0	6.73 [6.80]	8.45	7.86
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	44.0	5.41	5.33	1.56 J	9.79 [11.5]	20.1	41.8
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.317	0.112 U	0.115 U	0.111 U	0.118 U [0.108 U]	0.0449 J	0.0600 J
Nickel	mg/kg	8.97	8.90	9.68	7.41	6.03 [6.06]	6.09	2.98
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-C15-01 0.5 - 1 06/23/06 SB-R-C15-011.0N	SB-R-C15-01 1.5 - 2 06/23/06 SB-R-C15-012.0N	SB-R-C15-02 0.75 - 1.25 06/23/06 SB-R-C15-021.25N	SB-R-C15-02 2 - 2.5 06/23/06 SB-R-C15-022.5N	SB-R-D9-01 0.5 - 1 06/29/06 SB-R-D9-011.0N	SB-R-D9-02 0.5 - 1 06/29/06 SB-R-D9-021.0N	SB-R-D9-03 0.5 - 1 07/05/06 SB-R-D9-031.0N
Selenium	mg/kg	2.69 U	1.42 J	2.31 U	2.26 U	2.31 U [2.21 U]	2.37 U	2.56 U
Silver	mg/kg	0.673 U	0.357 J	0.311 J	0.195 J	0.577 U [0.552 U]	0.593 U	0.641 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.69 U	2.28 U	2.31 U	2.26 U	2.31 U [2.21 U]	2.37 U	2.56 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	48.8	47.9	56.1	52.6	22.5 [24.2]	22.2	15.9
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	400 U	350 U	360 U	350 U	360 U [340 U]	370 U	390 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	400 U	350 U	360 U	350 U	360 U [340 U]	370 U	390 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	400 U	350 U	360 U	350 U	360 U [340 U]	370 U	390 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	400 U	350 U	360 U	350 U	360 U [340 U]	370 U	390 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	1,000 U	870 U	900 U	860 U	890 U [850 U]	920 U	980 U
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	160,000 U	140,000 U	150,000 U	140,000 U	140,000 U [140,000 U]	150,000 U	160,000 U
Nitroglycerin	mg/kg	8,100 U	6,900 U	7,200 U	6,900 U	7,100 U [6,800 U]	7,300 U	7,800 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	400 U	350 U	360 U	350 U	360 U [340 U]	370 U	390 U
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	21 U	22 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-C15-01 0.5 - 1 06/23/06 SB-R-C15-011.0N	SB-R-C15-01 1.5 - 2 06/23/06 SB-R-C15-012.0N	SB-R-C15-02 0.75 - 1.25 06/23/06 SB-R-C15-021.25N	SB-R-C15-02 2 - 2.5 06/23/06 SB-R-C15-022.5N	SB-R-D9-01 0.5 - 1 06/29/06 SB-R-D9-011.0N	SB-R-D9-02 0.5 - 1 06/29/06 SB-R-D9-021.0N	SB-R-D9-03 0.5 - 1 07/05/06 SB-R-D9-031.0N
Aroclor 1221	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	21 U	22 U
Aroclor 1232	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	21 U	22 U
Aroclor 1242	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	21 U	22 U
Aroclor 1248	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	21 U	22 U
Aroclor 1254	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	0.0081 J	22 U
Aroclor 1260	mg/kg	23 U	20 U	20 U	20 U	20 U [19 U]	0.0071 J	22 U

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-D15-01	SB-R-E9-03	SB-R-F8-02	SB-R-F8-03	SB-R-F15-02	SB-R-F15-02	SB-R-G6-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	2 - 2.5	0.5 - 1
Date Collected:		07/06/06	07/05/06	07/05/06	07/05/06	06/05/06	06/05/06	05/15/06
Sample Name:		SB-R-D15-011.0N	SB-R-E9-031.0N	SB-R-F8-021.0N	SB-R-F8-031.0N	SB-R-F15-021.0N	SB-R-F15-022.5N	SB-R-G6-011.0N
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	3,400 U	3,000 U	2,800 U	NA	2,800 U	2,700 U	3,000 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	860 U	750 U	700 U	NA	700 U	670 U	740 U
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	860 U	750 U	700 U	NA	700 U	670 U	740 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	860 U	750 U	700 U	NA	700 U	670 U	740 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	860 U	750 U	700 U	NA	700 U	670 U	740 U
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-D15-01	SB-R-E9-03	SB-R-F8-02	SB-R-F8-03	SB-R-F15-02	SB-R-F15-02	SB-R-G6-01
Sample Depth(ft):		0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	2 - 2.5	0.5 - 1
Date Collected:		07/06/06	07/05/06	07/05/06	07/05/06	06/05/06	06/05/06	05/15/06
Sample Name:		SB-R-D15-011.0N	SB-R-E9-031.0N	SB-R-F8-021.0N	SB-R-F8-031.0N	SB-R-F15-021.0N	SB-R-F15-022.5N	SB-R-G6-011.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	200 U
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	2,800 U	2,500 U	2,200 U	3,100 U	2,300 U	2,200 U	2,400 U
2,4-Dinitrotoluene	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	200 U
2,6-Dinitrotoluene	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	200 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	230 U	210 U	190 U	0.054 J	190 U	180 U	0.59
Benzo(a)Pyrene	mg/kg	230 U	210 U	190 U	0.058 J	190 U	180 U	0.69
Benzo(b)fluoranthene	mg/kg	230 U	210 U	190 U	0.12 J	190 U	180 U	1.0
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	0.37
Benzyl Butyl Phthalate	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	200 U
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	460 U	410 U	370 U	510 U	380 U	360 U	400 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-D15-01 0.5 - 1 07/06/06 SB-R-D15-011.0N	SB-R-E9-03 0.5 - 1 07/05/06 SB-R-E9-031.0N	SB-R-F8-02 0.5 - 1 07/05/06 SB-R-F8-021.0N	SB-R-F8-03 0.5 - 1 07/05/06 SB-R-F8-031.0N	SB-R-F15-02 0.5 - 1 06/05/06 SB-R-F15-021.0N	SB-R-F15-02 2 - 2.5 06/05/06 SB-R-F15-022.5N	SB-R-G6-01 0.5 - 1 05/15/06 SB-R-G6-011.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	230 U	210 U	190 U	0.090 J	190 U	180 U	0.74
Dibenzo(a,h)Anthracene	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	0.12 J
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	200 U
Dimethyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	230 U	210 U	0.11 J	0.14 J	190 U	180 U	200 U
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	230 U	210 U	190 U	0.052 J	190 U	180 U	0.43
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	230 U	210 U	190 U	260 U	190 U	180 U	200 U
N-nitrosodiphenylamine	mg/kg	230 U	210 U	0.043 J	260 U	190 U	180 U	200 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	2.77 U	2.42 U	1.14 J	3.00 U	2.28 U	2.08 U	2.35 U
Arsenic	mg/kg	8.67	6.10	5.30	6.27	2.87	1.34 J	5.38
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.743	0.671	0.471 J	0.521 J	0.644	0.415 J	0.527 J
Cadmium	mg/kg	0.566 J	0.276 J	0.425 J	0.706 J	2.85 U	2.60 U	0.118 J
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	12.5	12.5	15.4	29.3	8.45	18.7	15.6
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	23.7	19.0	8.61	134	7.87	2.25	22.9
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.0299 J	0.0529 J	0.0315 J	0.328	0.0245 J	0.105 U	0.124
Nickel	mg/kg	8.46	6.15	7.85	15.8	7.32	6.87	8.41
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-D15-01 0.5 - 1 07/06/06 SB-R-D15-011.0N	SB-R-E9-03 0.5 - 1 07/05/06 SB-R-E9-031.0N	SB-R-F8-02 0.5 - 1 07/05/06 SB-R-F8-021.0N	SB-R-F8-03 0.5 - 1 07/05/06 SB-R-F8-031.0N	SB-R-F15-02 0.5 - 1 06/05/06 SB-R-F15-021.0N	SB-R-F15-02 2 - 2.5 06/05/06 SB-R-F15-022.5N	SB-R-G6-01 0.5 - 1 05/15/06 SB-R-G6-011.0N
Selenium	mg/kg	2.77 U	2.42 U	2.20 U	3.00 U	2.28 U	2.08 U	2.35 U
Silver	mg/kg	0.693 U	0.605 U	0.549 U	0.749 U	0.570 U	0.519 U	0.588 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.77 U	2.42 U	2.20 U	2.24 J	2.28 U	2.08 U	2.35 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	56.2	38.8	33.6	78.4	48.7	32.5	39.5
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	420 U	370 U	340 U	460 U	340 U	320 U	360 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	420 U	370 U	340 U	460 U	340 U	320 U	360 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	420 U	370 U	340 U	460 U	340 U	320 U	360 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	420 U	740 U	340 U	460 U	340 U	320 U	360 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	1,000 U	930 U	840 U	1,200 U	860 U	810 U	900 U
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	170,000 U	150,000 U	140,000 U	180 J	140,000 U	130,000 U	140,000 U
Nitroglycerin	mg/kg	8,300 U	4 J	6,700 U	8.3 J	6,800 U	6,500 U	7,200 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	420 U	370 U	340 U	460 U	340 U	320 U	360 U
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	24 U	21 U	19 U	26 U	19 U	18 U	20 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-D15-01 0.5 - 1 07/06/06 SB-R-D15-011.0N	SB-R-E9-03 0.5 - 1 07/05/06 SB-R-E9-031.0N	SB-R-F8-02 0.5 - 1 07/05/06 SB-R-F8-021.0N	SB-R-F8-03 0.5 - 1 07/05/06 SB-R-F8-031.0N	SB-R-F15-02 0.5 - 1 06/05/06 SB-R-F15-021.0N	SB-R-F15-02 2 - 2.5 06/05/06 SB-R-F15-022.5N	SB-R-G6-01 0.5 - 1 05/15/06 SB-R-G6-011.0N
Aroclor 1221	mg/kg	24 U	21 U	19 U	26 U	19 U	18 U	20 U
Aroclor 1232	mg/kg	24 U	21 U	19 U	26 U	19 U	18 U	20 U
Aroclor 1242	mg/kg	24 U	21 U	19 U	26 U	19 U	18 U	20 U
Aroclor 1248	mg/kg	24 U	21 U	19 U	26 U	19 U	18 U	20 U
Aroclor 1254	mg/kg	24 U	0.023	19 U	26 U	19 U	18 U	20 U
Aroclor 1260	mg/kg	0.0098 J	0.013 J	19 U	0.039	19 U	18 U	20 U

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-G6-01	SB-R-G7-01	SB-R-G14-01	SB-R-G14-01	SB-R-G15-01	SB-R-G15-01	SB-R-H6-04
Sample Depth(ft):		4 - 4.5	0.5 - 1	0.5 - 1	2 - 2.5	0.5 - 1	2 - 2.5	0.5 - 1
Date Collected:		05/15/06	07/05/06	06/05/06	06/05/06	06/07/06	06/07/06	07/06/06
Sample Name:		SB-R-G6-014.5N	SB-R-G7-011.0N	SB-R-G14-011.0N	SB-R-G14-012.5N	SB-R-G15-011.0N	SB-R-G15-012.5N	SB-R-H6-041.0N
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	2,800 U	3,000 U	3,100 U	3,000 U	3,000 U	3,000 U	2,900 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	710 U	750 U	760 U	750 U	750 U	760 U	720 U
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	710 U	750 U	760 U	750 U	750 U	760 U	720 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	710 U	750 U	760 U	750 U	750 U	760 U	720 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	710 U	750 U	760 U	750 U	750 U	760 U	720 U
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-G6-01 4 - 4.5 05/15/06 SB-R-G6-014.5N	SB-R-G7-01 0.5 - 1 07/05/06 SB-R-G7-011.0N	SB-R-G14-01 0.5 - 1 06/05/06 SB-R-G14-011.0N	SB-R-G14-01 2 - 2.5 06/05/06 SB-R-G14-012.5N	SB-R-G15-01 0.5 - 1 06/07/06 SB-R-G15-011.0N	SB-R-G15-01 2 - 2.5 06/07/06 SB-R-G15-012.5N	SB-R-H6-04 0.5 - 1 07/06/06 SB-R-H6-041.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	2,300 U	2,300 U	2,300 U	2,300 U	2,400 U	2,500 U	2,300 U
2,4-Dinitrotoluene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
2,6-Dinitrotoluene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	4.5
Benzo(a)Pyrene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	4.9
Benzo(b)fluoranthene	mg/kg	190 U	190 U	0.043 J	190 U	200 U	210 U	6.9
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	2.8
Benzyl Butyl Phthalate	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	380 U	390 U	390 U	380 U	400 U	410 U	390 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-G6-01 4 - 4.5 05/15/06 SB-R-G6-014.5N	SB-R-G7-01 0.5 - 1 07/05/06 SB-R-G7-011.0N	SB-R-G14-01 0.5 - 1 06/05/06 SB-R-G14-011.0N	SB-R-G14-01 2 - 2.5 06/05/06 SB-R-G14-012.5N	SB-R-G15-01 0.5 - 1 06/07/06 SB-R-G15-011.0N	SB-R-G15-01 2 - 2.5 06/07/06 SB-R-G15-012.5N	SB-R-H6-04 0.5 - 1 07/06/06 SB-R-H6-041.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	5.2
Dibenzo(a,h)Anthracene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	0.73
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
Dimethyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	3.1
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
N-nitrosodiphenylamine	mg/kg	190 U	190 U	200 U	190 U	200 U	210 U	190 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	2.24 U	2.23 U	1.15 J	1.05 J	1.28 J	1.30 J	2.30 U
Arsenic	mg/kg	1.96 J	4.13	2.80	2.30	3.64	6.43	2.29 J
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.321 J	0.397 J	0.592	0.483 J	0.730	0.754	0.528 J
Cadmium	mg/kg	0.632	0.261 J	2.82 U	2.80 U	3.02 U	3.01 U	0.498 J
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	7.74	6.51	9.16	10.6	8.74	14.8	16.5
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3.99	11.1	12.1	3.74	8.23	6.50	42.5
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.0143 J	0.0305 J	0.0480 J	0.0129 J	0.0302 J	0.0466 J	0.110 U
Nickel	mg/kg	5.92	6.97	5.80	6.93	7.96	8.13	7.49
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-G6-01 4 - 4.5 05/15/06 SB-R-G6-014.5N	SB-R-G7-01 0.5 - 1 07/05/06 SB-R-G7-011.0N	SB-R-G14-01 0.5 - 1 06/05/06 SB-R-G14-011.0N	SB-R-G14-01 2 - 2.5 06/05/06 SB-R-G14-012.5N	SB-R-G15-01 0.5 - 1 06/07/06 SB-R-G15-011.0N	SB-R-G15-01 2 - 2.5 06/07/06 SB-R-G15-012.5N	SB-R-H6-04 0.5 - 1 07/06/06 SB-R-H6-041.0N
Selenium	mg/kg	2.24 U	2.23 U	2.26 U	2.24 U	2.42 U	2.41 U	2.30 U
Silver	mg/kg	0.560 U	0.558 U	0.564 U	0.559 U	0.605 U	0.602 U	0.574 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.24 U	2.23 U	2.26 U	2.24 U	2.42 U	2.41 U	2.30 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	22.7	25.8	46.8	35.0	56.8	59.5	46.1
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	350 U	350 U	350 U	340 U	360 U	370 U	350 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	350 U	350 U	350 U	340 U	360 U	370 U	350 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	350 U	350 U	350 U	340 U	360 U	370 U	350 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	350 U	350 U	350 U	340 U	360 U	370 U	350 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	870 U	870 U	880 U	850 U	910 U	930 U	870 U
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	140,000 U	140,000 U	140,000 U	140,000 U	150,000 U	150,000 U	140,000 U
Nitroglycerin	mg/kg	6,900 U	7,000 U	7,000 U	6,800 U	7,300 U	7,400 U	7,000 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	350 U	350 U	350 U	340 U	360 U	370 U	350 U
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	20 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-G6-01	SB-R-G7-01	SB-R-G14-01	SB-R-G14-01	SB-R-G15-01	SB-R-G15-01	SB-R-H6-04
Sample Depth(ft):		4 - 4.5	0.5 - 1	0.5 - 1	2 - 2.5	0.5 - 1	2 - 2.5	0.5 - 1
Date Collected:		05/15/06	07/05/06	06/05/06	06/05/06	06/07/06	06/07/06	07/06/06
Sample Name:		SB-R-G6-014.5N	SB-R-G7-011.0N	SB-R-G14-011.0N	SB-R-G14-012.5N	SB-R-G15-011.0N	SB-R-G15-012.5N	SB-R-H6-041.0N
Aroclor 1221	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	20 U
Aroclor 1232	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	20 U
Aroclor 1242	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	20 U
Aroclor 1248	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	20 U
Aroclor 1254	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	20 U
Aroclor 1260	mg/kg	20 U	20 U	20 U	19 U	21 U	21 U	0.016 J

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-H6-04	SB-R-I5-03	SB-R-I5-04	SB-R-I13-03	SB-R-J5-02	SB-R-J5-02	SB-R-J12-03
Sample Depth(ft):		3.5 - 4	0.5 - 1	0.5 - 1	0.5 - 1	1 - 1.5	4 - 4.5	0.5 - 1
Date Collected:		08/24/06	07/05/06	07/05/06	06/27/06	04/24/06	04/24/06	06/26/06
Sample Name:		SB-R-H6-044.0N	SB-R-I5-031.0N	SB-R-I5-041.0N	SB-R-I13-031.0N	SB-R-J5-021.5N	SB-R-J5-024.5N	SB-R-J12-031.0N
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	3,200 U	3,100 U	4,200 U	3,000 U	2,800 U	2,900 U [3,000 U]
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	800 U	780 U	1,100 U	740 U	700 U	730 U [740 U]
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	800 U	780 U	1,100 U	740 U	700 U	730 U [740 U]
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	800 U	780 U	1,100 U	740 U	700 U	730 U [740 U]
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	800 U	780 U	1,100 U	740 U	700 U	730 U [740 U]
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-H6-04 3.5 - 4 08/24/06 SB-R-H6-044.0N	SB-R-I5-03 0.5 - 1 07/05/06 SB-R-I5-031.0N	SB-R-I5-04 0.5 - 1 07/05/06 SB-R-I5-041.0N	SB-R-I13-03 0.5 - 1 06/27/06 SB-R-I13-031.0N	SB-R-J5-02 1 - 1.5 04/24/06 SB-R-J5-021.5N	SB-R-J5-02 4 - 4.5 04/24/06 SB-R-J5-024.5N	SB-R-J12-03 0.5 - 1 06/26/06 SB-R-J12-031.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	2,200 U	2,400 U	2,400 U	3,400 U	2,400 U	2,300 U	2,300 U [2,300 U]
2,4-Dinitrotoluene	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
2,6-Dinitrotoluene	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	190 U	200 U	0.17 J	0.096 J	200 U	190 U	190 U [190 U]
Benzo(a)Pyrene	mg/kg	190 U	200 U	0.23	0.11 J	200 U	190 U	190 U [190 U]
Benzo(b)fluoranthene	mg/kg	190 U	200 U	0.38	0.17 J	200 U	190 U	190 U [190 U]
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	190 U	200 U	0.16 J	0.068 J	200 U	190 U	190 U [190 U]
Benzyl Butyl Phthalate	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	370 U	410 U	400 U	570 U	410 U	380 U	380 U [380 U]

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-H6-04 3.5 - 4 08/24/06 SB-R-H6-044.0N	SB-R-I5-03 0.5 - 1 07/05/06 SB-R-I5-031.0N	SB-R-I5-04 0.5 - 1 07/05/06 SB-R-I5-041.0N	SB-R-I13-03 0.5 - 1 06/27/06 SB-R-I13-031.0N	SB-R-J5-02 1 - 1.5 04/24/06 SB-R-J5-021.5N	SB-R-J5-02 4 - 4.5 04/24/06 SB-R-J5-024.5N	SB-R-J12-03 0.5 - 1 06/26/06 SB-R-J12-031.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	190 U	200 U	0.28	0.16 J	200 U	190 U	190 U [190 U]
Dibenzo(a,h)Anthracene	mg/kg	190 U	200 U	0.047 J	290 U	200 U	190 U	190 U [190 U]
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
Dimethyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	190 U	200 U	0.18 J	0.073 J	200 U	190 U	190 U [190 U]
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
N-nitrosodiphenylamine	mg/kg	190 U	200 U	200 U	290 U	200 U	190 U	190 U [190 U]
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	NA	2.39 U	1.08 J	3.36 U	2.39 U	2.21 U	2.17 U [1.26 J]
Arsenic	mg/kg	NA	3.08	5.28	14.5	3.31	3.47	2.49 [2.15 J]
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	NA	0.834	1.01	0.129 J	0.401 J	0.540 J	0.139 J [0.134 J]
Cadmium	mg/kg	NA	0.520 J	1.25	0.163 J	0.597 U	0.553 U	0.543 U [0.566 U]
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	NA	10.9	40.1	15.4	9.20	14.7	3.93 [3.82]
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	NA	13.6	94.8	175	12.4	5.02	4.95 [5.63]
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	0.0203 J	0.0809 J	0.293	0.0234 J	0.106 U	0.107 U [0.113 U]
Nickel	mg/kg	NA	9.69	15.7	7.63	6.34	8.27	4.94 [4.91]
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-H6-04 3.5 - 4 08/24/06 SB-R-H6-044.0N	SB-R-I5-03 0.5 - 1 07/05/06 SB-R-I5-031.0N	SB-R-I5-04 0.5 - 1 07/05/06 SB-R-I5-041.0N	SB-R-I13-03 0.5 - 1 06/27/06 SB-R-I13-031.0N	SB-R-J5-02 1 - 1.5 04/24/06 SB-R-J5-021.5N	SB-R-J5-02 4 - 4.5 04/24/06 SB-R-J5-024.5N	SB-R-J12-03 0.5 - 1 06/26/06 SB-R-J12-031.0N
Selenium	mg/kg	NA	2.39 U	2.35 U	1.66 J	2.39 U	2.21 U	2.17 U [2.26 U]
Silver	mg/kg	NA	0.599 U	0.460 J	1.23	0.597 U	0.553 U	0.543 U [0.566 U]
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	NA	2.39 U	2.35 U	3.36 U	1.83 J	2.21 U	2.17 U [2.26 U]
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	NA	77.9	217	40.7	85.4	94.0	15.2 [14.2]
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	NA	370 U	360 U	510 U	370 U	340 U	340 U [350 U]
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	NA	370 U	360 U	510 U	370 U	340 U	340 U [350 U]
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	NA	370 U	360 U	510 U	370 U	340 U	340 U [350 U]
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	NA	370 U	360 U	510 U	370 U	340 U	340 U [350 U]
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	NA	920 U	900 U	1,300 U	910 U	850 U	860 U [870 U]
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	NA	150,000 U	140,000 U	210,000 U	140,000 U	130,000 U	140,000 U [140,000 U]
Nitroglycerin	mg/kg	NA	7,300 U	7,200 U	10,000 U	7,300 U	6,800 U	6,800 U [6,900 U]
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	NA	370 U	360 U	510 U	370 U	340 U	340 U [350 U]
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	NA	21 U	20 U	29 U	21 U	19 U	19 U [20 U]

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-H6-04 3.5 - 4 08/24/06 SB-R-H6-044.0N	SB-R-I5-03 0.5 - 1 07/05/06 SB-R-I5-031.0N	SB-R-I5-04 0.5 - 1 07/05/06 SB-R-I5-041.0N	SB-R-I13-03 0.5 - 1 06/27/06 SB-R-I13-031.0N	SB-R-J5-02 1 - 1.5 04/24/06 SB-R-J5-021.5N	SB-R-J5-02 4 - 4.5 04/24/06 SB-R-J5-024.5N	SB-R-J12-03 0.5 - 1 06/26/06 SB-R-J12-031.0N
Aroclor 1221	mg/kg	NA	21 U	20 U	29 U	21 U	19 U	19 U [20 U]
Aroclor 1232	mg/kg	NA	21 U	20 U	29 U	21 U	19 U	19 U [20 U]
Aroclor 1242	mg/kg	NA	21 U	20 U	29 U	21 U	19 U	19 U [20 U]
Aroclor 1248	mg/kg	NA	21 U	20 U	29 U	21 U	19 U	19 U [20 U]
Aroclor 1254	mg/kg	NA	21 U	20 U	29 U	21 U	19 U	19 U [20 U]
Aroclor 1260	mg/kg	NA	21 U	0.022	0.1	21 U	19 U	19 U [20 U]

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-J13-01	SB-R-K12-01	SB-R-K12-02	SB-R-L4-01	SB-R-L11-04	SB-R-L12-01	SB-R-M4-01
Sample Depth(ft):		0 - 0.25	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		06/26/06	06/27/06	06/27/06	06/29/06	06/27/06	06/27/06	06/28/06
Sample Name:		SB-R-J13-010.25N	SB-R-K12-011.0N	SB-R-K12-021.0N	SB-R-L4-011.0N	SB-R-L11-041.0N	SB-R-L12-011.0N	SB-R-M4-011.0N
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	3,000 U	5,000 U	2,800 U	2,900 U	3,100 U	2,900 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	750 U	1,300 U	690 U	730 U	770 U	730 U
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	750 U	1,300 U	690 U	730 U	770 U	730 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	750 U	1,300 U	690 U	730 U	770 U	730 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	NA	750 U	1,300 U	690 U	730 U	770 U	730 U
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-J13-01 0 - 0.25 06/26/06 SB-R-J13-010.25N	SB-R-K12-01 0.5 - 1 06/27/06 SB-R-K12-011.0N	SB-R-K12-02 0.5 - 1 06/27/06 SB-R-K12-021.0N	SB-R-L4-01 0.5 - 1 06/29/06 SB-R-L4-011.0N	SB-R-L11-04 0.5 - 1 06/27/06 SB-R-L11-041.0N	SB-R-L12-01 0.5 - 1 06/27/06 SB-R-L12-011.0N	SB-R-M4-01 0.5 - 1 06/28/06 SB-R-M4-011.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	4,400 U	2,400 U	4,100 U	2,200 U	2,300 U	2,400 U	2,200 U
2,4-Dinitrotoluene	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
2,6-Dinitrotoluene	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	0.13 J	200 U	0.17 J	180 U	190 U	200 U	0.045 J
Benzo(a)Pyrene	mg/kg	0.14 J	200 U	0.18 J	180 U	190 U	200 U	0.039 J
Benzo(b)fluoranthene	mg/kg	0.24 J	200 U	0.29 J	180 U	190 U	200 U	0.043 J
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	0.10 J	200 U	0.13 J	180 U	190 U	200 U	180 U
Benzyl Butyl Phthalate	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	740 U	410 U	680 U	370 U	380 U	400 U	360 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-J13-01	SB-R-K12-01	SB-R-K12-02	SB-R-L4-01	SB-R-L11-04	SB-R-L12-01	SB-R-M4-01
Sample Depth(ft):		0 - 0.25	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		06/26/06	06/27/06	06/27/06	06/29/06	06/27/06	06/27/06	06/28/06
Sample Name:		SB-R-J13-010.25N	SB-R-K12-011.0N	SB-R-K12-021.0N	SB-R-L4-011.0N	SB-R-L11-041.0N	SB-R-L12-011.0N	SB-R-M4-011.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.20 J	200 U	0.24 J	180 U	190 U	200 U	0.045 J
Dibenzo(a,h)Anthracene	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
Dimethyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	0.17 J	200 U	1.2	180 U	0.22	200 U	180 U
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	0.11 J	200 U	0.13 J	180 U	190 U	200 U	180 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
N-nitrosodiphenylamine	mg/kg	370 U	200 U	340 U	180 U	190 U	200 U	180 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	2.45 J	2.44 U	2.01 J	2.11 U	4.13	1.23 J	2.08 U
Arsenic	mg/kg	3.69 J	3.17	4.60	5.08	2.28 U	4.45	3.34
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1.09 U	0.274 J	0.985 U	0.261 J	0.569 U	0.291 J	0.247 J
Cadmium	mg/kg	0.263 J	0.611 U	0.252 J	0.623	0.569 U	0.0929 J	0.175 J
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	24.2	5.25	14.8	9.18	2.67	6.28	6.72
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	143	12.5	126	5.62	15.9	10.0	10.8
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.361	0.0378 J	0.425	0.104 U	0.0233 J	0.0329 J	0.0388 J
Nickel	mg/kg	9.65	8.91	16.2	3.89	1.32	10.3	2.17
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-J13-01 0 - 0.25 06/26/06 SB-R-J13-010.25N	SB-R-K12-01 0.5 - 1 06/27/06 SB-R-K12-011.0N	SB-R-K12-02 0.5 - 1 06/27/06 SB-R-K12-021.0N	SB-R-L4-01 0.5 - 1 06/29/06 SB-R-L4-011.0N	SB-R-L11-04 0.5 - 1 06/27/06 SB-R-L11-041.0N	SB-R-L12-01 0.5 - 1 06/27/06 SB-R-L12-011.0N	SB-R-M4-01 0.5 - 1 06/28/06 SB-R-M4-011.0N
Selenium	mg/kg	4.35 U	2.44 U	3.94 U	2.11 U	2.28 U	2.29 U	2.08 U
Silver	mg/kg	1.09 U	0.611 U	0.985 U	0.528 U	0.569 U	0.574 U	0.521 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	4.35 U	2.44 U	3.94 U	2.11 U	2.28 U	2.29 U	2.08 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	52.8	23.7	31.8	113	6.50	25.7	72.7
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	670 U	370 U	610 U	330 U	340 U	360 U	330 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	670 U	370 U	610 U	330 U	340 U	360 U	330 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	670 U	370 U	610 U	330 U	340 U	360 U	330 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	670 U	370 U	610 U	330 U	340 U	360 U	330 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	1,700 U	920 U	1,500 U	820 U	860 U	900 U	810 U
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	260,000 U	150,000 U	160 J	130,000 U	140,000 U	140,000 U	130,000 U
Nitroglycerin	mg/kg	13,000 U	7,300 U	12,000 U	6,600 U	6,900 U	7,200 U	6,500 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	670 U	370 U	610 U	330 U	340 U	360 U	330 U
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	38 U	21 U	34 U	19 U	20 U	20 U	18 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-J13-01 0 - 0.25 06/26/06 SB-R-J13-010.25N	SB-R-K12-01 0.5 - 1 06/27/06 SB-R-K12-011.0N	SB-R-K12-02 0.5 - 1 06/27/06 SB-R-K12-021.0N	SB-R-L4-01 0.5 - 1 06/29/06 SB-R-L4-011.0N	SB-R-L11-04 0.5 - 1 06/27/06 SB-R-L11-041.0N	SB-R-L12-01 0.5 - 1 06/27/06 SB-R-L12-011.0N	SB-R-M4-01 0.5 - 1 06/28/06 SB-R-M4-011.0N
Aroclor 1221	mg/kg	38 U	21 U	34 U	19 U	20 U	20 U	18 U
Aroclor 1232	mg/kg	38 U	21 U	34 U	19 U	20 U	20 U	18 U
Aroclor 1242	mg/kg	38 U	21 U	34 U	19 U	20 U	20 U	18 U
Aroclor 1248	mg/kg	38 U	21 U	34 U	19 U	20 U	20 U	18 U
Aroclor 1254	mg/kg	38 U	21 U	34 U	19 U	20 U	20 U	18 U
Aroclor 1260	mg/kg	0.13	21 U	0.11	0.0056 J	0.0058 J	20 U	18 U

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SB-R-M4-02	SB-R-M11-01	SB-R-N4-03	SB-R-N10-01	SB-R-O9-02	SB-R-O9-03	SB-R-P7-04
Sample Depth(ft):		0.5 - 1	1 - 1.5	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1	0.5 - 1
Date Collected:		06/29/06	06/27/06	06/28/06	06/27/06	06/27/06	06/27/06	06/28/06
Sample Name:		SB-R-M4-021.0N	SB-R-M11-011.5N	SB-R-N4-031.0N	SB-R-N10-011.0N	SB-R-O9-021.0N	SB-R-O9-031.0N	SB-R-P7-041.0N
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	2,900 U	3,100 U	2,900 U	3,800 U	3,200 U	4,000 U	3,100 U
Bromodichloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	720 U	760 U	720 U	950 U	800 U	990 U	770 U
Chlorodibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloroform	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chloromethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	720 U	760 U	720 U	950 U	800 U	990 U	770 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	720 U	760 U	720 U	950 U	800 U	990 U	770 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	720 U	760 U	720 U	950 U	800 U	990 U	770 U
Toluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-M4-02 0.5 - 1 06/29/06 SB-R-M4-021.0N	SB-R-M11-01 1 - 1.5 06/27/06 SB-R-M11-011.5N	SB-R-N4-03 0.5 - 1 06/28/06 SB-R-N4-031.0N	SB-R-N10-01 0.5 - 1 06/27/06 SB-R-N10-011.0N	SB-R-O9-02 0.5 - 1 06/27/06 SB-R-O9-021.0N	SB-R-O9-03 0.5 - 1 06/27/06 SB-R-O9-031.0N	SB-R-P7-04 0.5 - 1 06/28/06 SB-R-P7-041.0N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	2,300 U	2,400 U	2,300 U	3,000 U	2,600 U	3,000 U	2,400 U
2,4-Dinitrotoluene	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
2,6-Dinitrotoluene	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	200 U	200 U	190 U	0.057 J	220 U	0.099 J	200 U
Benzo(a)Pyrene	mg/kg	200 U	200 U	190 U	0.062 J	220 U	0.11 J	200 U
Benzo(b)fluoranthene	mg/kg	200 U	200 U	190 U	0.098 J	0.052 J	0.17 J	200 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	mg/kg	200 U	200 U	190 U	250 U	220 U	0.078 J	200 U
Benzyl Butyl Phthalate	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	390 U	410 U	380 U	510 U	440 U	510 U	410 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-M4-02 0.5 - 1 06/29/06 SB-R-M4-021.0N	SB-R-M11-01 1 - 1.5 06/27/06 SB-R-M11-011.5N	SB-R-N4-03 0.5 - 1 06/28/06 SB-R-N4-031.0N	SB-R-N10-01 0.5 - 1 06/27/06 SB-R-N10-011.0N	SB-R-O9-02 0.5 - 1 06/27/06 SB-R-O9-021.0N	SB-R-O9-03 0.5 - 1 06/27/06 SB-R-O9-031.0N	SB-R-P7-04 0.5 - 1 06/28/06 SB-R-P7-041.0N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	200 U	200 U	190 U	0.11 J	0.047 J	0.15 J	200 U
Dibenzo(a,h)Anthracene	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
Dimethyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	mg/kg	200 U	200 U	190 U	250 U	220 U	0.10 J	200 U
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	200 U	200 U	190 U	250 U	220 U	0.099 J	200 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
N-nitrosodiphenylamine	mg/kg	200 U	200 U	190 U	250 U	220 U	250 U	200 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA
TPH								
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	2.26 U	1.26 J	2.23 U	2.89 U	2.62 U	2.95 U	1.51 J
Arsenic	mg/kg	4.14	4.27	3.04	7.67	3.43	4.71	3.67
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.646	0.279 J	0.631	0.140 J	0.221 J	0.738 U	0.652
Cadmium	mg/kg	0.758	0.591 U	0.184 J	0.0996 J	0.654 U	0.103 J	0.118 J
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	11.5	6.25	11.1	7.11	4.65	8.30	9.85
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	9.70	13.4	8.10	79.4	20.6	83.8	7.06
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.0186 J	0.0308 J	0.0247 J	0.0924 J	0.0886 J	0.129 J	0.0336 J
Nickel	mg/kg	12.8	7.77	8.20	5.11	4.88	4.15	9.68
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-M4-02 0.5 - 1 06/29/06 SB-R-M4-021.0N	SB-R-M11-01 1 - 1.5 06/27/06 SB-R-M11-011.5N	SB-R-N4-03 0.5 - 1 06/28/06 SB-R-N4-031.0N	SB-R-N10-01 0.5 - 1 06/27/06 SB-R-N10-011.0N	SB-R-O9-02 0.5 - 1 06/27/06 SB-R-O9-021.0N	SB-R-O9-03 0.5 - 1 06/27/06 SB-R-O9-031.0N	SB-R-P7-04 0.5 - 1 06/28/06 SB-R-P7-041.0N
Selenium	mg/kg	2.26 U	2.36 U	2.23 U	2.89 U	2.62 U	2.95 U	2.44 U
Silver	mg/kg	0.564 U	0.591 U	0.557 U	0.722 U	0.654 U	0.738 U	0.611 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.26 U	2.36 U	1.58 J	2.89 U	2.62 U	2.95 U	2.44 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	91.7	22.0	82.3	24.5	21.3	35.7	66.7
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	mg/kg	350 U	360 U	340 U	450 U	400 U	460 U	370 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	350 U	360 U	340 U	450 U	400 U	460 U	370 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	mg/kg	350 U	360 U	340 U	450 U	400 U	460 U	370 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	mg/kg	350 U	360 U	340 U	450 U	400 U	460 U	370 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
HMX	mg/kg	880 U	910 U	860 U	1,100 U	990 U	1,100 U	920 U
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Nitrocellulose	mg/kg	140,000 U	150,000 U	140,000 U	180,000 U	160,000 U	180,000 U	150,000 U
Nitroglycerin	mg/kg	7,000 U	7,300 U	6,900 U	9,100 U	7,900 U	9,100 U	7,300 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	350 U	360 U	340 U	450 U	400 U	460 U	370 U
Tetryl	mg/kg	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	20 U	21 U	19 U	26 U	22 U	26 U	21 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-M4-02 0.5 - 1 06/29/06 SB-R-M4-021.0N	SB-R-M11-01 1 - 1.5 06/27/06 SB-R-M11-011.5N	SB-R-N4-03 0.5 - 1 06/28/06 SB-R-N4-031.0N	SB-R-N10-01 0.5 - 1 06/27/06 SB-R-N10-011.0N	SB-R-O9-02 0.5 - 1 06/27/06 SB-R-O9-021.0N	SB-R-O9-03 0.5 - 1 06/27/06 SB-R-O9-031.0N	SB-R-P7-04 0.5 - 1 06/28/06 SB-R-P7-041.0N
Aroclor 1221	mg/kg	20 U	21 U	19 U	26 U	22 U	26 U	21 U
Aroclor 1232	mg/kg	20 U	21 U	19 U	26 U	22 U	26 U	21 U
Aroclor 1242	mg/kg	20 U	21 U	19 U	26 U	22 U	26 U	21 U
Aroclor 1248	mg/kg	20 U	21 U	19 U	26 U	22 U	26 U	21 U
Aroclor 1254	mg/kg	20 U	21 U	19 U	26 U	22 U	26 U	21 U
Aroclor 1260	mg/kg	20 U	21 U	19 U	0.016 J	0.0061 J	0.044	21 U

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	SB-R-P8-01 0.5 - 1 06/28/06 SB-R-P8-011.0N	SB-R-Q7-03 0.5 - 1 06/28/06 SB-R-Q7-031.0N	SD-B14-1-01 0.5 - 1 04/12/01 SD-B14-1-011N	SD-B14-1-01 1.5 - 2 04/12/01 SD-B14-1-012N	SD-B14-3-01 0.5 - 1 04/12/01 SD-B14-3-011N	SD-B14-3-01 1.5 - 2 04/12/01 SD-B14-3-012N	SO-R2-A-11-1 0.2 - 0.68 11/14/13 SO-R2-A-11-1_20131114
VOCs								
1,1,1-Trichloroethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	0.012 U
1,1,2-Trichloroethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,1-Dichloroethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,1-Dichloroethene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
1,2-Dichloroethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,2-Dichloropropane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	0.012 U
2-Chloroethyl vinyl ether	mg/kg	NA	NA	290 U	NA	640 U	NA	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	0.012 U
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	0.035
Acrolein	mg/kg	NA	NA	2,900 U	NA	6,400 U	NA	NA
Acrylonitrile	mg/kg	2,900 U	3,200 U	580 U	NA	1,300 U	NA	NA
Bromodichloromethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Bromomethane	mg/kg	NA	NA	290 U	NA	640 U	NA	0.0060 U
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Carbon Tetrachloride	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
CFC-11	mg/kg	NA	NA	290 U	NA	640 U	NA	0.0060 U
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Chlorobenzene	mg/kg	730 U	800 U	140 U	NA	320 U	NA	0.0060 U
Chlorodibromomethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Chloroethane	mg/kg	NA	NA	290 U	NA	640 U	NA	0.0060 U
Chloroform	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Chloromethane	mg/kg	NA	NA	290 U	NA	640 U	NA	0.0060 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
cis-1,3-Dichloropropene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Dichloromethane	mg/kg	730 U	800 U	290 U	NA	640 U	NA	0.0060 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	0.012 U
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
Tetrachloroethene	mg/kg	730 U	800 U	140 U	NA	320 U	NA	0.0060 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
trans-1,3-Dichloropropene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Tribromomethane	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Trichloroethene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Vinyl Chloride	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Benzene	mg/kg	730 U	800 U	140 U	NA	320 U	NA	0.0060 U
Toluene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Ethylbenzene	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-P8-01 0.5 - 1 06/28/06 SB-R-P8-011.0N	SB-R-Q7-03 0.5 - 1 06/28/06 SB-R-Q7-031.0N	SD-B14-1-01 0.5 - 1 04/12/01 SD-B14-1-011N	SD-B14-1-01 1.5 - 2 04/12/01 SD-B14-1-012N	SD-B14-3-01 0.5 - 1 04/12/01 SD-B14-3-011N	SD-B14-3-01 1.5 - 2 04/12/01 SD-B14-3-012N	SO-R2-A-11-1 0.2 - 0.68 11/14/13 SO-R2-A-11-1_20131114
Xylenes (total)	mg/kg	NA	NA	140 U	NA	320 U	NA	0.0060 U
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	0.0060 U
SVOCs								
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	45 U	NA	86 U	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	45 U	NA	86 U	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	45 U	NA	86 U	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	45 U	NA	86 U	NA
1,4-Dichlorobenzene	mg/kg	200 U	210 U	NA	45 U	NA	86 U	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
2,4-Dichlorophenol	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
2,4-Dimethylphenol	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
2,4-Dinitrophenol	mg/kg	2,400 U	2,500 U	NA	910 U	NA	1,800 U	1.1 U
2,4-Dinitrotoluene	mg/kg	200 U	210 U	NA	0.84	NA	180 U	0.19 U
2,6-Dinitrotoluene	mg/kg	200 U	210 U	NA	0.35 J	NA	86 U	0.038 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
2-Chlorophenol	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	0.50 J	NA	450 U	0.57 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	0.019 U
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
2-Nitrophenol	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	91 U	NA	180 U	0.38 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	0.19 U
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	0.19 U
4-Nitrophenol	mg/kg	NA	NA	NA	230 U	NA	450 U	0.57 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Acenaphthylene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
Anthracene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	0.19 U
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	0.19 U
Benzidine	mg/kg	NA	NA	NA	910 U	NA	1,800 U	NA
Benzo(a)Anthracene	mg/kg	200 U	210 U	NA	45 U	NA	86 U	0.019 U
Benzo(a)Pyrene	mg/kg	200 U	210 U	NA	0.047 J	NA	86 U	0.019 U
Benzo(b)fluoranthene	mg/kg	200 U	210 U	NA	0.085 J	NA	86 U	0.019 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Benzo(k)Fluoranthene	mg/kg	200 U	210 U	NA	45 U	NA	86 U	0.019 U
Benzyl Butyl Phthalate	mg/kg	200 U	210 U	NA	91 U	NA	180 U	0.19 U
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
Bis(2-Ethylhexyl)phthalate	mg/kg	400 U	420 U	NA	91 U	NA	180 U	0.19 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-P8-01 0.5 - 1 06/28/06 SB-R-P8-011.0N	SB-R-Q7-03 0.5 - 1 06/28/06 SB-R-Q7-031.0N	SD-B14-1-01 0.5 - 1 04/12/01 SD-B14-1-011N	SD-B14-1-01 1.5 - 2 04/12/01 SD-B14-1-012N	SD-B14-3-01 0.5 - 1 04/12/01 SD-B14-3-011N	SD-B14-3-01 1.5 - 2 04/12/01 SD-B14-3-012N	SO-R2-A-11-1 0.2 - 0.68 11/14/13 SO-R2-A-11-1_20131114
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	0.19 U
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
Chrysene	mg/kg	200 U	210 U	NA	0.075 J	NA	86 U	0.019 U
Dibenzo(a,h)Anthracene	mg/kg	200 U	210 U	NA	45 U	NA	86 U	0.019 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
Diethyl Phthalate	mg/kg	200 U	210 U	NA	91 U	NA	180 U	0.19 U
Dimethyl Phthalate	mg/kg	NA	NA	NA	91 U	NA	180 U	0.19 U
Di-N-Butyl Phthalate	mg/kg	200 U	210 U	NA	91 U	NA	180 U	0.19 U
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	91 U	NA	180 U	0.19 U
Fluoranthene	mg/kg	NA	NA	NA	0.13 J	NA	86 U	0.019 U
Fluorene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
Hexachlorobenzene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	230 U	NA	450 U	0.57 U
Hexachloroethane	mg/kg	NA	NA	NA	45 U	NA	86 U	0.19 U
Indeno(1,2,3-cd)Pyrene	mg/kg	200 U	210 U	NA	45 U	NA	86 U	0.019 U
Naphthalene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.019 U
Nitrobenzene	mg/kg	NA	NA	NA	45 U	NA	86 U	0.038 U
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	91 U	NA	180 U	NA
N-Nitrosodi-N-Propylamine	mg/kg	200 U	210 U	NA	45 U	NA	86 U	0.038 U
N-nitrosodiphenylamine	mg/kg	200 U	210 U	NA	45 U	NA	86 U	0.038 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	0.038 U
Pentachlorophenol	mg/kg	NA	NA	NA	230 U	NA	450 U	0.19 U
Phenanthrene	mg/kg	NA	NA	NA	0.072 J	NA	86 U	0.019 U
Phenol	mg/kg	NA	NA	NA	91 U	NA	180 U	0.038 U
Pyrene	mg/kg	NA	NA	NA	0.10 J	NA	86 U	0.019 U
TPH								
Amyl Alcohol	mg/kg	NA	NA	13,000 U	NA	26,000 U	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	13,000 U	NA	26,000 U	NA	NA
Ethanol	mg/kg	NA	NA	13,000 U	NA	26,000 U	NA	NA
Ethyl ether	mg/kg	NA	NA	13,000 U	NA	26,000 U	NA	NA
Methanol	mg/kg	NA	NA	13,000 U	NA	26,000 U	NA	NA
n-Butyl ether	mg/kg	NA	NA	13,000 U	NA	26,000 U	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	46,400
Antimony	mg/kg	1.38 J	2.43 U	NA	0.840 U	NA	1.70 U	2.25 U
Arsenic	mg/kg	4.29	3.50	NA	6.80 *	NA	1.50 B*	5.98
Barium	mg/kg	NA	NA	NA	NA	NA	NA	105
Beryllium	mg/kg	0.703	0.130 J	NA	0.740	NA	0.870 B	1.85
Cadmium	mg/kg	0.164 J	0.607 U	NA	0.0710 U	NA	0.150 B	0.563 U
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	193
Chromium	mg/kg	NA	NA	NA	19.5	NA	24.7	32.0
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	17.9
Copper	mg/kg	14.2	4.37	NA	46.1	NA	10.2 B	45.0
Iron	mg/kg	NA	NA	NA	NA	NA	NA	42,900
Lead	mg/kg	5.87	21.9	NA	163	NA	24.4 B	5.48
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	4,050
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	541
Mercury	mg/kg	0.0405 J	0.0542 J	NA	0.100 BN*	NA	0.0920 BN*	0.0340 J
Nickel	mg/kg	12.0	2.63	NA	11.3	NA	7.40 B	19.0
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	839

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-P8-01 0.5 - 1 06/28/06 SB-R-P8-011.0N	SB-R-Q7-03 0.5 - 1 06/28/06 SB-R-Q7-031.0N	SD-B14-1-01 0.5 - 1 04/12/01 SD-B14-1-011N	SD-B14-1-01 1.5 - 2 04/12/01 SD-B14-1-012N	SD-B14-3-01 0.5 - 1 04/12/01 SD-B14-3-011N	SD-B14-3-01 1.5 - 2 04/12/01 SD-B14-3-012N	SO-R2-A-11-1 0.2 - 0.68 11/14/13 SO-R2-A-11-1_20131114
Selenium	mg/kg	2.39 U	2.43 U	NA	1.70	NA	1.30 U	1.14 J
Silver	mg/kg	0.597 U	0.607 U	NA	0.180 U	NA	0.370 U	0.563 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	38.6 J
Thallium	mg/kg	2.39 U	2.43 U	NA	1.50 B	NA	2.20 U	0.805 J
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	58.3
Zinc	mg/kg	68.3	15.8	NA	80.1	NA	54.1	49.5
Explosives								
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.34 U
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	140 U	NA	260 U	0.34 U
1,3-Dinitrobenzene	mg/kg	360 U	380 U	NA	140 U	NA	260 U	0.34 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	0.34 U
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	0.34 U
2,4,6-Trinitrotoluene	mg/kg	360 U	380 U	NA	6.54	NA	260 U	0.34 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	0.85	NA	260 U	0.34 U
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	4.74	NA	260 U	0.34 U
2-Amino-4,6-dinitrotoluene	mg/kg	360 U	380 U	NA	140 U	NA	260 U	0.34 U
2-Nitrotoluene	mg/kg	NA	NA	NA	140 U	NA	260 U	0.34 U
3-Nitrotoluene	mg/kg	NA	NA	NA	140 U	NA	260 U	0.34 U
4-Amino-2,6-dinitrotoluene	mg/kg	360 U	380 U	NA	0.53	NA	260 U	0.34 U
4-Nitrotoluene	mg/kg	NA	NA	NA	140 U	NA	260 U	0.34 U
HMX	mg/kg	900 U	960 U	NA	140 U	NA	260 U	0.86 U
Nitrobenzene	mg/kg	NA	NA	NA	140 U	NA	260 U	0.34 U
Nitrocellulose	mg/kg	140,000 U	150,000 U	NA	103 J	NA	160,000 U	NA
Nitroglycerin	mg/kg	7,200 U	7,600 U	NA	2,700 U	NA	5,200 U	6.9 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	2,700 U	NA	5,200 U	6.9 U
RDX	mg/kg	360 U	380 U	NA	140 U	NA	260 U	0.34 U
Tetryl	mg/kg	NA	NA	NA	140 U	NA	260 U	0.34 U
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
OC Pest								
4,4-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA	NA	NA
PCBs								
Aroclor 1016	mg/kg	21 U	22 U	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SB-R-P8-01 0.5 - 1 06/28/06 SB-R-P8-011.0N	SB-R-Q7-03 0.5 - 1 06/28/06 SB-R-Q7-031.0N	SD-B14-1-01 0.5 - 1 04/12/01 SD-B14-1-011N	SD-B14-1-01 1.5 - 2 04/12/01 SD-B14-1-012N	SD-B14-3-01 0.5 - 1 04/12/01 SD-B14-3-011N	SD-B14-3-01 1.5 - 2 04/12/01 SD-B14-3-012N	SO-R2-A-11-1 0.2 - 0.68 11/14/13 SO-R2-A-11-1_20131114
Aroclor 1221	mg/kg	21 U	22 U	NA	NA	NA	NA	NA
Aroclor 1232	mg/kg	21 U	22 U	NA	NA	NA	NA	NA
Aroclor 1242	mg/kg	21 U	22 U	NA	NA	NA	NA	NA
Aroclor 1248	mg/kg	21 U	22 U	NA	NA	NA	NA	NA
Aroclor 1254	mg/kg	21 U	22 U	NA	NA	NA	NA	NA
Aroclor 1260	mg/kg	21 U	22 U	NA	NA	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SO-R2-A-11-1D	SO-R2-A-14-1	SO-R2-A-14-1D	SO-R2-B-9-2	SO-R2-B-9-2D
Sample Depth(ft):		9.5 - 10	0.5 - 1	5.75 - 6.26	0.5 - 1	9.5 - 10
Date Collected:		11/14/13	11/15/13	11/15/13	11/14/13	11/14/13
Sample Name:		SO-R2-A-11-1D_20131114	SO-R2-A-14-1_20131115	SO-R2-A-14-1D_20131115	SO-R2-B-9-2_20131114	SO-R2-B-9-2D_20131114
VOCs						
1,1,1-Trichloroethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.011 U	0.015 U	0.0090 U	0.011 U	0.010 U
1,1,2-Trichloroethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,1-Dichloroethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,1-Dichloroethene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,2,4-Trichlorobenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dibromo-3-chloropropane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dibromoethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichlorobenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloroethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloropropane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,3-Dichlorobenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
1,4-Dichlorobenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
2-Butanone	mg/kg	0.011 U	0.010 J	0.0090 U	0.011 U	0.010 U
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	0.011 U	0.015 U	0.0090 U	0.011 U	0.010 U
Acetone	mg/kg	0.021 U	0.13	0.016 J	0.066	0.018 J
Acrolein	mg/kg	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Bromomethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Carbon Disulfide	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Carbon Tetrachloride	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
CFC-11	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
CFC-12	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Chlorobenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Chlorodibromomethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Chloroethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Chloroform	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Chloromethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
cis-1,2-Dichloroethene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
cis-1,3-Dichloropropene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Cyclohexane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Dichloromethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Methyl Acetate	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Methyl N-Butyl Ketone	mg/kg	0.011 U	0.015 U	0.0090 U	0.011 U	0.010 U
Methylcyclohexane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Tetrachloroethene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
trans-1,2-Dichloroethene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
trans-1,3-Dichloropropene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Tribromomethane	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Trichloroethene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Vinyl Chloride	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Benzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Toluene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Ethylbenzene	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-A-11-1D 9.5 - 10 11/14/13 SO-R2-A-11-1D_20131114	SO-R2-A-14-1 0.5 - 1 11/15/13 SO-R2-A-14-1_20131115	SO-R2-A-14-1D 5.75 - 6.26 11/15/13 SO-R2-A-14-1D_20131115	SO-R2-B-9-2 0.5 - 1 11/14/13 SO-R2-B-9-2_20131114	SO-R2-B-9-2D 9.5 - 10 11/14/13 SO-R2-B-9-2D_20131114
Xylenes (total)	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
Methyl-Tert-Butylether	mg/kg	0.0050 U	0.0080 U	0.0050 U	0.0050 U	0.0050 U
SVOCs						
1,1-Biphenyl	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2,4,5-Trichlorophenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2,4,6-Trichlorophenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2,4-Dichlorophenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2,4-Dimethylphenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2,4-Dinitrophenol	mg/kg	1.1 U	1.4 U	1.2 U	12 U	1.1 U
2,4-Dinitrotoluene	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
2,6-Dinitrotoluene	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2-Chloronaphthalene	mg/kg	0.035 U	0.045 U	0.038 U	0.40 U	0.038 U
2-Chlorophenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2-Methyl-4,6-dinitrophenol	mg/kg	0.53 U	0.69 U	0.58 U	6.1 U	0.57 U
2-Methylnaphthalene	mg/kg	0.018 U	0.023 U	0.020 U	0.21 U	0.020 U
2-Methylphenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2-Nitroaniline	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2-Nitrophenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	0.35 U	0.46 U	0.39 U	4.1 U	0.38 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
3-Nitroaniline	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
4-Bromophenyl phenyl ether	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
4-Chloro-3-Methylphenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
4-Chlorophenyl phenyl ether	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
4-Methylphenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
4-Nitroaniline	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
4-Nitrophenol	mg/kg	0.53 U	0.69 U	0.58 U	6.1 U	0.57 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.018 U	0.023 U	0.020 U	0.043 J	0.020 U
Acenaphthylene	mg/kg	0.018 U	0.023 U	0.020 U	0.11 J	0.020 U
Acetophenone	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Anthracene	mg/kg	0.018 U	0.023 U	0.020 U	0.11 J	0.020 U
Atrazine	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Benzaldehyde	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Benzidine	mg/kg	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	0.018 U	0.0080 J	0.020 U	0.31	0.020 U
Benzo(a)Pyrene	mg/kg	0.018 U	0.013 J	0.020 U	0.37	0.020 U
Benzo(b)fluoranthene	mg/kg	0.018 U	0.022 J	0.020 U	0.52	0.020 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.018 U	0.013 J	0.020 U	0.25	0.020 U
Benzo(k)Fluoranthene	mg/kg	0.018 U	0.0080 J	0.020 U	0.28	0.020 U
Benzyl Butyl Phthalate	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
bis(2-Chloroethoxy)methane	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Bis(2-Chloroethyl)ether	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Bis(2-Ethylhexyl)phthalate	mg/kg	0.18 U	0.23 U	0.28	2.1 U	0.20 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-A-11-1D 9.5 - 10 11/14/13 SO-R2-A-11-1D_20131114	SO-R2-A-14-1 0.5 - 1 11/15/13 SO-R2-A-14-1_20131115	SO-R2-A-14-1D 5.75 - 6.26 11/15/13 SO-R2-A-14-1D_20131115	SO-R2-B-9-2 0.5 - 1 11/14/13 SO-R2-B-9-2_20131114	SO-R2-B-9-2D 9.5 - 10 11/14/13 SO-R2-B-9-2D_20131114
Caprolactam	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Carbazole	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Chrysene	mg/kg	0.018 U	0.019 J	0.020 U	0.43	0.020 U
Dibenzo(a,h)Anthracene	mg/kg	0.018 U	0.0070 J	0.020 U	0.21 U	0.020 U
Dibenzofuran	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Diethyl Phthalate	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Dimethyl Phthalate	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Di-N-Butyl Phthalate	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Di-n-Octyl Phthalate	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Fluoranthene	mg/kg	0.018 U	0.021 J	0.020 U	0.85	0.020 U
Fluorene	mg/kg	0.018 U	0.023 U	0.020 U	0.050 J	0.020 U
Hexachloro-1,3-Butadiene	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Hexachlorobenzene	mg/kg	0.018 U	0.023 U	0.020 U	0.21 U	0.020 U
Hexachlorocyclopentadiene	mg/kg	0.53 U	0.69 U	0.58 U	6.1 U	0.57 U
Hexachloroethane	mg/kg	0.18 U	0.23 U	0.19 U	2.0 U	0.19 U
Indeno(1,2,3-cd)Pyrene	mg/kg	0.018 U	0.011 J	0.020 U	0.21 J	0.020 U
Naphthalene	mg/kg	0.018 U	0.023 U	0.020 U	0.044 J	0.020 U
Nitrobenzene	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
N-nitrosodiphenylamine	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
p-Chloroaniline	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Pentachlorophenol	mg/kg	0.18 U	0.23 U	0.20 U	2.1 U	0.20 U
Phenanthrene	mg/kg	0.018 U	0.015 J	0.020 U	0.56	0.020 U
Phenol	mg/kg	0.035 U	0.046 U	0.039 U	0.41 U	0.038 U
Pyrene	mg/kg	0.018 U	0.021 J	0.020 U	0.82	0.020 U
TPH						
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA
Metals						
Aluminum	mg/kg	2,530	23,200	9,890	17,600	33,600
Antimony	mg/kg	2.12 U	2.74 U	2.22 U	2.47 U	2.26 U
Arsenic	mg/kg	2.12 U	4.24	3.42	7.31	5.28
Barium	mg/kg	7.87	83.1	53.5	94.1	125
Beryllium	mg/kg	0.531 U	0.901	0.789	1.04	1.59
Cadmium	mg/kg	0.531 U	0.684 U	2.78 U	0.326 J	0.565 U
Calcium	mg/kg	38.0	616	1,690	3,320	730
Chromium	mg/kg	2.58	18.2	14.2	21.2	17.5
Cobalt	mg/kg	0.151 J	5.99	6.13	8.07	13.4
Copper	mg/kg	1.25	14.3	16.0	25.7	27.9
Iron	mg/kg	812	31,500	26,700	25,400	40,600
Lead	mg/kg	0.868 J	14.3	6.41	62.9	5.40
Magnesium	mg/kg	49.7	1,990	1,980	3,430	1,880
Manganese	mg/kg	2.31	498	166	633	705
Mercury	mg/kg	0.104 U	0.0559 J	0.109 U	0.0723 J	0.0204 J
Nickel	mg/kg	0.658 J	10.7	10.1	15.5	14.6
Potassium	mg/kg	218	380	750	557	772

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-A-11-1D 9.5 - 10 11/14/13 SO-R2-A-11-1D_20131114	SO-R2-A-14-1 0.5 - 1 11/15/13 SO-R2-A-14-1_20131115	SO-R2-A-14-1D 5.75 - 6.26 11/15/13 SO-R2-A-14-1D_20131115	SO-R2-B-9-2 0.5 - 1 11/14/13 SO-R2-B-9-2_20131114	SO-R2-B-9-2D 9.5 - 10 11/14/13 SO-R2-B-9-2D_20131114
Selenium	mg/kg	2.12 U	2.74 U	2.22 U	1.12 J	1.55 J
Silver	mg/kg	0.531 U	0.684 U	0.555 U	0.618 U	0.565 U
Sodium	mg/kg	106 U	54.3 J	82.9 J	133	150
Thallium	mg/kg	3.18 U	4.10 U	3.33 U	3.71 U	0.618 J
Vanadium	mg/kg	1.81	49.4	32.1	42.6	49.3
Zinc	mg/kg	1.24 J	61.2	50.6	137	50.6
Explosives						
1,2-Dinitrobenzene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
1,3,5-Trinitrobenzene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
1,3-Dinitrobenzene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
1,4-Dinitrobenzene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
1-Nitronaphthalene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
2,4,6-Trinitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
2,4-Dinitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
2,6-Dinitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
2-Amino-4,6-dinitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
2-Nitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
3-Nitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
4-Amino-2,6-dinitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
4-Nitrotoluene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
HMX	mg/kg	0.8 U	1 U	0.87 U	0.93 U	0.87 U
Nitrobenzene	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
Nitrocellulose	mg/kg	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	6.4 U	8.3 U	7 U	7.4 U	7 U
Pentaerythritol Tetranitrate	mg/kg	6.4 U	8.3 U	7 U	7.4 U	7 U
RDX	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
Tetryl	mg/kg	0.32 U	0.41 U	0.35 U	0.37 U	0.35 U
Triphenylene	mg/kg	NA	NA	NA	NA	NA
OC Pest						
4,4-DDD	mg/kg	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA
PCBs						
Aroclor 1016	mg/kg	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-A-11-1D 9.5 - 10 11/14/13 SO-R2-A-11-1D_20131114	SO-R2-A-14-1 0.5 - 1 11/15/13 SO-R2-A-14-1_20131115	SO-R2-A-14-1D 5.75 - 6.26 11/15/13 SO-R2-A-14-1D_20131115	SO-R2-B-9-2 0.5 - 1 11/14/13 SO-R2-B-9-2_20131114	SO-R2-B-9-2D 9.5 - 10 11/14/13 SO-R2-B-9-2D_20131114
Aroclor 1221	mg/kg	NA	NA	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SO-R2-B-9-3	SO-R2-B-9-3D	SO-R2-B-14-1	SO-R2-B-14-1D	SO-R2-C-8-1
Sample Depth(ft):		0.25 - 0.75	9.5 - 10	0.5 - 1	6.5 - 7	0.2 - 0.68
Date Collected:		11/11/13	11/11/13	11/15/13	11/15/13	11/14/13
Sample Name:		SO-R2-B-9-3_20131111	SO-R2-B-9-3D_20131111	SO-R2-B-14-1_20131115	SO-R2-B-14-1D_20131115	SO-R2-C-8-1_20131114
VOCs						
1,1,1-Trichloroethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.013 U	0.011 U	0.011 U	0.011 U	0.011 U
1,1,2-Trichloroethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,1-Dichloroethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,1-Dichloroethene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,2,4-Trichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,2-Dibromo-3-chloropropane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,2-Dibromoethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,2-Dichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,2-Dichloroethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,2-Dichloropropane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,3-Dichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
1,4-Dichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
2-Butanone	mg/kg	0.013 U	0.011 U	0.0070 J	0.011 U	0.011 U
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	0.013 U	0.011 U	0.011 U	0.011 U	0.011 U
Acetone	mg/kg	0.028	0.021 U	0.11	0.032	0.028
Acrolein	mg/kg	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Bromomethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Carbon Disulfide	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Carbon Tetrachloride	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
CFC-11	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
CFC-12	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Chlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Chlorodibromomethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Chloroethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Chloroform	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Chloromethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
cis-1,2-Dichloroethene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
cis-1,3-Dichloropropene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Cyclohexane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Dichloromethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Methyl Acetate	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Methyl N-Butyl Ketone	mg/kg	0.013 U	0.011 U	0.011 U	0.011 U	0.011 U
Methylcyclohexane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Tetrachloroethene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
trans-1,2-Dichloroethene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
trans-1,3-Dichloropropene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Tribromomethane	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Trichloroethene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Vinyl Chloride	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Benzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Toluene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Ethylbenzene	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-B-9-3 0.25 - 0.75 11/11/13 SO-R2-B-9-3_20131111	SO-R2-B-9-3D 9.5 - 10 11/11/13 SO-R2-B-9-3D_20131111	SO-R2-B-14-1 0.5 - 1 11/15/13 SO-R2-B-14-1_20131115	SO-R2-B-14-1D 6.5 - 7 11/15/13 SO-R2-B-14-1D_20131115	SO-R2-C-8-1 0.2 - 0.68 11/14/13 SO-R2-C-8-1_20131114
Xylenes (total)	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
Methyl-Tert-Butylether	mg/kg	0.0060 U	0.0050 U	0.0060 U	0.0050 U	0.0060 U
SVOCs						
1,1-Biphenyl	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2,4,5-Trichlorophenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2,4,6-Trichlorophenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2,4-Dichlorophenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2,4-Dimethylphenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2,4-Dinitrophenol	mg/kg	1.1 U	1.0 U	1.2 U	1.1 U	1.1 U
2,4-Dinitrotoluene	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
2,6-Dinitrotoluene	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2-Chloronaphthalene	mg/kg	0.037 U	0.034 U	0.040 U	0.037 U	0.036 U
2-Chlorophenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2-Methyl-4,6-dinitrophenol	mg/kg	0.56 U	0.51 U	0.60 U	0.56 U	0.55 U
2-Methylnaphthalene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
2-Methylphenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2-Nitroaniline	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2-Nitrophenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	0.38 U	0.34 U	0.40 U	0.37 U	0.36 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
3-Nitroaniline	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
4-Bromophenyl phenyl ether	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
4-Chloro-3-Methylphenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
4-Chlorophenyl phenyl ether	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
4-Methylphenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
4-Nitroaniline	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
4-Nitrophenol	mg/kg	0.56 U	0.51 U	0.60 U	0.56 U	0.55 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Acenaphthylene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Acetophenone	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Anthracene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Atrazine	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Benzaldehyde	mg/kg	0.41	0.17 U	0.20 U	0.19 U	0.18 U
Benzidine	mg/kg	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	0.0090 J	0.0050 J	0.020 U	0.019 U	0.019 U
Benzo(a)Pyrene	mg/kg	0.014 J	0.0040 J	0.0080 J	0.019 U	0.019 U
Benzo(b)fluoranthene	mg/kg	0.019 J	0.0050 J	0.010 J	0.019 U	0.0050 J
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.0090 J	0.017 U	0.0060 J	0.019 U	0.019 U
Benzo(k)Fluoranthene	mg/kg	0.0080 J	0.0050 J	0.020 U	0.019 U	0.019 U
Benzyl Butyl Phthalate	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
bis(2-Chloroethoxy)methane	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Bis(2-Chloroethyl)ether	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Bis(2-Ethylhexyl)phthalate	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.19 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-B-9-3 0.25 - 0.75 11/11/13 SO-R2-B-9-3_20131111	SO-R2-B-9-3D 9.5 - 10 11/11/13 SO-R2-B-9-3D_20131111	SO-R2-B-14-1 0.5 - 1 11/15/13 SO-R2-B-14-1_20131115	SO-R2-B-14-1D 6.5 - 7 11/15/13 SO-R2-B-14-1D_20131115	SO-R2-C-8-1 0.2 - 0.68 11/14/13 SO-R2-C-8-1_20131114
Caprolactam	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Carbazole	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Chrysene	mg/kg	0.015 J	0.0040 J	0.0070 J	0.019 U	0.0050 J
Dibenzo(a,h)Anthracene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Dibenzofuran	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Diethyl Phthalate	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Dimethyl Phthalate	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Di-N-Butyl Phthalate	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Di-n-Octyl Phthalate	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Fluoranthene	mg/kg	0.019	0.017 U	0.0080 J	0.019 U	0.0070 J
Fluorene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Hexachloro-1,3-Butadiene	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Hexachlorobenzene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Hexachlorocyclopentadiene	mg/kg	0.56 U	0.51 U	0.60 U	0.56 U	0.55 U
Hexachloroethane	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.18 U
Indeno(1,2,3-cd)Pyrene	mg/kg	0.011 J	0.017 U	0.020 U	0.019 U	0.019 U
Naphthalene	mg/kg	0.019 U	0.017 U	0.020 U	0.019 U	0.019 U
Nitrobenzene	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
N-nitrosodiphenylamine	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
p-Chloroaniline	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Pentachlorophenol	mg/kg	0.19 U	0.17 U	0.20 U	0.19 U	0.19 U
Phenanthrene	mg/kg	0.015 J	0.017 U	0.0060 J	0.019 U	0.0050 J
Phenol	mg/kg	0.038 U	0.034 U	0.040 U	0.037 U	0.036 U
Pyrene	mg/kg	0.020	0.017 U	0.010 J	0.019 U	0.0080 J
TPH						
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA
Metals						
Aluminum	mg/kg	21,500	1,920	16,700	9,250	12,400
Antimony	mg/kg	2.22 U	2.06 U	2.34 U	2.19 U	2.17 U
Arsenic	mg/kg	5.60	1.41 J	4.56	2.99	5.11
Barium	mg/kg	69.0	7.02	85.0	41.7	32.9
Beryllium	mg/kg	1.01	0.121 J	0.852	0.749	0.364 J
Cadmium	mg/kg	0.554 U	0.515 U	0.585 U	2.74 U	0.543 U
Calcium	mg/kg	411	28.2	703	1,450	177
Chromium	mg/kg	18.1	5.70	13.6	10.9	12.6
Cobalt	mg/kg	5.81	0.411 J	3.94	40.4	3.05
Copper	mg/kg	14.6	5.41	10.7	20.1	15.2
Iron	mg/kg	25,400	4,250	25,300	31,000	15,100
Lead	mg/kg	25.3	1.60	17.6	4.58	6.81
Magnesium	mg/kg	1,820	58.5	1,520	2,510	950
Manganese	mg/kg	366	7.51	448	1,590	84.7
Mercury	mg/kg	0.0227 J	0.0958 U	0.0820 J	0.107 U	0.0262 J
Nickel	mg/kg	10.3	0.796 J	7.68	11.5	7.25
Potassium	mg/kg	470	446	413	474	395

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-B-9-3 0.25 - 0.75 11/11/13 SO-R2-B-9-3_20131111	SO-R2-B-9-3D 9.5 - 10 11/11/13 SO-R2-B-9-3D_20131111	SO-R2-B-14-1 0.5 - 1 11/15/13 SO-R2-B-14-1_20131115	SO-R2-B-14-1D 6.5 - 7 11/15/13 SO-R2-B-14-1D_20131115	SO-R2-C-8-1 0.2 - 0.68 11/14/13 SO-R2-C-8-1_20131114
Selenium	mg/kg	2.22 U	2.06 U	2.34 U	2.19 U	0.901 J
Silver	mg/kg	0.455 J	0.515 U	0.585 U	0.548 U	0.543 U
Sodium	mg/kg	40.1 J	103 U	55.8 J	109 J	19.6 J
Thallium	mg/kg	3.32 U	3.09 U	3.51 U	3.29 U	3.26 U
Vanadium	mg/kg	36.6	7.02	34.9	29.5	24.4
Zinc	mg/kg	46.5	2.45	57.8	40.0	25.4
Explosives						
1,2-Dinitrobenzene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
1,3,5-Trinitrobenzene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
1,3-Dinitrobenzene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
1,4-Dinitrobenzene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
1-Nitronaphthalene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
2,4,6-Trinitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
2,4-Dinitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
2,6-Dinitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
2-Amino-4,6-dinitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
2-Nitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
3-Nitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
4-Amino-2,6-dinitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
4-Nitrotoluene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
HMX	mg/kg	0.85 U	0.77 U	0.9 U	0.84 U	0.82 U
Nitrobenzene	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
Nitrocellulose	mg/kg	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	6.8 U	6.2 U	7.2 U	6.7 U	6.6 U
Pentaerythritol Tetranitrate	mg/kg	6.8 U	6.2 U	7.2 U	6.7 U	6.6 U
RDX	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
Tetryl	mg/kg	0.34 U	0.31 U	0.36 U	0.34 U	0.33 U
Triphenylene	mg/kg	NA	NA	NA	NA	NA
OC Pest						
4,4-DDD	mg/kg	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA
PCBs						
Aroclor 1016	mg/kg	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-B-9-3 0.25 - 0.75 11/11/13 SO-R2-B-9-3_20131111	SO-R2-B-9-3D 9.5 - 10 11/11/13 SO-R2-B-9-3D_20131111	SO-R2-B-14-1 0.5 - 1 11/15/13 SO-R2-B-14-1_20131115	SO-R2-B-14-1D 6.5 - 7 11/15/13 SO-R2-B-14-1D_20131115	SO-R2-C-8-1 0.2 - 0.68 11/14/13 SO-R2-C-8-1_20131114
Aroclor 1221	mg/kg	NA	NA	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SO-R2-C-8-1D	SO-R2-E-16-1	SO-R2-E-16-1D
Sample Depth(ft):		9.5 - 10	0.4 - 0.88	7.5 - 8
Date Collected:		11/14/13	11/13/13	11/13/13
Sample Name:		SO-R2-C-8-1D_20131114	SO-R2-E-16-1_20131113	SO-R2-E-16-1D_20131113
VOCs				
1,1,1-Trichloroethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.011 U	0.012 U	0.011 U
1,1,2-Trichloroethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,1-Dichloroethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,1-Dichloroethene	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,2,4-Trichlorobenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,2-Dibromo-3-chloropropane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,2-Dibromoethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,2-Dichlorobenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,2-Dichloroethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,2-Dichloropropane	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,3-Dichlorobenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
1,4-Dichlorobenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
2-Butanone	mg/kg	0.011 U	0.012 U	0.011 J
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	0.011 U	0.012 U	0.011 U
Acetone	mg/kg	0.022 U	0.075	0.19
Acrolein	mg/kg	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA
Bromodichloromethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Bromomethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Carbon Disulfide	mg/kg	0.0060 U	0.0060 U	0.0060 U
Carbon Tetrachloride	mg/kg	0.0060 U	0.0060 U	0.0060 U
CFC-11	mg/kg	0.0060 U	0.0060 U	0.0060 U
CFC-12	mg/kg	0.0060 U	0.0060 U	0.0060 U
Chlorobenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Chlorodibromomethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Chloroethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Chloroform	mg/kg	0.0060 U	0.0060 U	0.0060 U
Chloromethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
cis-1,2-Dichloroethene	mg/kg	0.0060 U	0.0060 U	0.0060 U
cis-1,3-Dichloropropene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Cyclohexane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Dichloromethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA
Isopropylbenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Methyl Acetate	mg/kg	0.0060 U	0.0060 U	0.0060 U
Methyl N-Butyl Ketone	mg/kg	0.011 U	0.012 U	0.011 U
Methylcyclohexane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Naphthalene	mg/kg	NA	NA	NA
Styrene (Monomer)	mg/kg	0.0060 U	0.0060 U	0.0060 U
Tetrachloroethene	mg/kg	0.0060 U	0.0060 U	0.0060 U
trans-1,2-Dichloroethene	mg/kg	0.0060 U	0.0060 U	0.0060 U
trans-1,3-Dichloropropene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Tribromomethane	mg/kg	0.0060 U	0.0060 U	0.0060 U
Trichloroethene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Vinyl Chloride	mg/kg	0.0060 U	0.0060 U	0.0060 U
Benzene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Toluene	mg/kg	0.0060 U	0.0060 U	0.0060 U
Ethylbenzene	mg/kg	0.0060 U	0.0060 U	0.0060 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-C-8-1D 9.5 - 10 11/14/13 SO-R2-C-8-1D_20131114	SO-R2-E-16-1 0.4 - 0.88 11/13/13 SO-R2-E-16-1_20131113	SO-R2-E-16-1D 7.5 - 8 11/13/13 SO-R2-E-16-1D_20131113
Xylenes (total)	mg/kg	0.0060 U	0.0060 U	0.0060 U
Methyl-Tert-Butylether	mg/kg	0.0060 U	0.0060 U	0.0060 U
SVOCs				
1,1-Biphenyl	mg/kg	0.034 U	0.037 U	0.035 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	0.034 U	0.037 U	0.035 U
2,4,5-Trichlorophenol	mg/kg	0.034 U	0.037 U	0.035 U
2,4,6-Trichlorophenol	mg/kg	0.034 U	0.037 U	0.035 U
2,4-Dichlorophenol	mg/kg	0.034 U	0.037 U	0.035 U
2,4-Dimethylphenol	mg/kg	0.034 U	0.037 U	0.035 U
2,4-Dinitrophenol	mg/kg	1.0 U	1.1 U	1.0 U
2,4-Dinitrotoluene	mg/kg	0.17 U	0.18 U	0.17 U
2,6-Dinitrotoluene	mg/kg	0.034 U	0.037 U	0.035 U
2-Chloronaphthalene	mg/kg	0.034 U	0.036 U	0.035 U
2-Chlorophenol	mg/kg	0.034 U	0.037 U	0.035 U
2-Methyl-4,6-dinitrophenol	mg/kg	0.51 U	0.55 U	0.52 U
2-Methylnaphthalene	mg/kg	0.017 U	0.019 U	0.018 U
2-Methylphenol	mg/kg	0.034 U	0.037 U	0.035 U
2-Nitroaniline	mg/kg	0.034 U	0.037 U	0.035 U
2-Nitrophenol	mg/kg	0.034 U	0.037 U	0.035 U
2-Nitrotoluene	mg/kg	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	0.34 U	0.37 U	0.35 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	0.034 U	0.037 U	0.035 U
3-Nitroaniline	mg/kg	0.17 U	0.18 U	0.17 U
4-Bromophenyl phenyl ether	mg/kg	0.034 U	0.037 U	0.035 U
4-Chloro-3-Methylphenol	mg/kg	0.034 U	0.037 U	0.035 U
4-Chlorophenyl phenyl ether	mg/kg	0.034 U	0.037 U	0.035 U
4-Methylphenol	mg/kg	0.034 U	0.037 U	0.035 U
4-Nitroaniline	mg/kg	0.17 U	0.18 U	0.17 U
4-Nitrophenol	mg/kg	0.51 U	0.55 U	0.52 U
4-Nitrotoluene	mg/kg	NA	NA	NA
Acenaphthene	mg/kg	0.017 U	0.019 U	0.018 U
Acenaphthylene	mg/kg	0.017 U	0.018 J	0.018 U
Acetophenone	mg/kg	0.034 U	0.037 U	0.035 U
Anthracene	mg/kg	0.017 U	0.014 J	0.018 U
Atrazine	mg/kg	0.17 U	0.18 U	0.17 U
Benzaldehyde	mg/kg	0.17 U	0.18 U	0.17 U
Benzidine	mg/kg	NA	NA	NA
Benzo(a)Anthracene	mg/kg	0.017 U	0.040	0.018 U
Benzo(a)Pyrene	mg/kg	0.017 U	0.058	0.018 U
Benzo(b)fluoranthene	mg/kg	0.017 U	0.082	0.0040 J
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.017 U	0.046	0.018 U
Benzo(k)Fluoranthene	mg/kg	0.017 U	0.038	0.018 U
Benzyl Butyl Phthalate	mg/kg	0.17 U	0.18 U	0.17 U
bis(2-Chloroethoxy)methane	mg/kg	0.034 U	0.037 U	0.035 U
Bis(2-Chloroethyl)ether	mg/kg	0.034 U	0.037 U	0.035 U
Bis(2-Ethylhexyl)phthalate	mg/kg	0.17 U	0.19 U	0.18 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-C-8-1D 9.5 - 10 11/14/13 SO-R2-C-8-1D_20131114	SO-R2-E-16-1 0.4 - 0.88 11/13/13 SO-R2-E-16-1_20131113	SO-R2-E-16-1D 7.5 - 8 11/13/13 SO-R2-E-16-1D_20131113
Caprolactam	mg/kg	0.17 U	0.18 U	0.17 U
Carbazole	mg/kg	0.034 U	0.037 U	0.035 U
Chrysene	mg/kg	0.017 U	0.065	0.018 U
Dibenzo(a,h)Anthracene	mg/kg	0.017 U	0.010 J	0.018 U
Dibenzofuran	mg/kg	0.034 U	0.037 U	0.035 U
Diethyl Phthalate	mg/kg	0.17 U	0.18 U	0.17 U
Dimethyl Phthalate	mg/kg	0.17 U	0.18 U	0.17 U
Di-N-Butyl Phthalate	mg/kg	0.17 U	0.18 U	0.17 U
Di-n-Octyl Phthalate	mg/kg	0.17 U	0.18 U	0.17 U
Fluoranthene	mg/kg	0.017 U	0.079	0.0040 J
Fluorene	mg/kg	0.017 U	0.019 U	0.018 U
Hexachloro-1,3-Butadiene	mg/kg	0.034 U	0.037 U	0.035 U
Hexachlorobenzene	mg/kg	0.017 U	0.019 U	0.018 U
Hexachlorocyclopentadiene	mg/kg	0.51 U	0.55 U	0.52 U
Hexachloroethane	mg/kg	0.17 U	0.18 U	0.17 U
Indeno(1,2,3-cd)Pyrene	mg/kg	0.017 U	0.037	0.018 U
Naphthalene	mg/kg	0.017 U	0.0070 J	0.018 U
Nitrobenzene	mg/kg	0.034 U	0.037 U	0.035 U
N-Nitrosodimethylamine	mg/kg	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	0.034 U	0.037 U	0.035 U
N-nitrosodiphenylamine	mg/kg	0.034 U	0.037 U	0.035 U
p-Chloroaniline	mg/kg	0.034 U	0.037 U	0.035 U
Pentachlorophenol	mg/kg	0.17 U	0.19 U	0.18 U
Phenanthrene	mg/kg	0.017 U	0.035	0.018 U
Phenol	mg/kg	0.034 U	0.037 U	0.035 U
Pyrene	mg/kg	0.017 U	0.094	0.0060 J
TPH				
Amyl Alcohol	mg/kg	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA
Methanol	mg/kg	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA
Metals				
Aluminum	mg/kg	1,270	15,900	6,910
Antimony	mg/kg	2.01 U	2.15 U	2.09 U
Arsenic	mg/kg	2.35	4.90	2.09 U
Barium	mg/kg	6.45	67.9	34.1
Beryllium	mg/kg	0.118 J	0.434 J	0.419 J
Cadmium	mg/kg	0.503 U	0.539 U	0.250 J
Calcium	mg/kg	4.02 J	2,360	1,340
Chromium	mg/kg	5.51	13.4	8.06
Cobalt	mg/kg	0.182 J	3.27	3.94
Copper	mg/kg	16.6	13.6	9.96
Iron	mg/kg	4,840	24,000	22,100
Lead	mg/kg	1.44 J	41.0	4.65
Magnesium	mg/kg	23.0	1,570	1,740
Manganese	mg/kg	3.02	161	147
Mercury	mg/kg	0.0993 U	0.0777 J	0.101 U
Nickel	mg/kg	0.522 J	7.42	3.77
Potassium	mg/kg	486	472	631

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-C-8-1D 9.5 - 10 11/14/13 SO-R2-C-8-1D_20131114	SO-R2-E-16-1 0.4 - 0.88 11/13/13 SO-R2-E-16-1_20131113	SO-R2-E-16-1D 7.5 - 8 11/13/13 SO-R2-E-16-1D_20131113
Selenium	mg/kg	2.01 U	2.15 U	2.09 U
Silver	mg/kg	0.503 U	0.539 U	0.523 U
Sodium	mg/kg	101 U	75.0 J	96.7 J
Thallium	mg/kg	3.02 U	3.23 U	3.14 U
Vanadium	mg/kg	9.05	33.0	17.7
Zinc	mg/kg	1.55 J	86.2	34.3
Explosives				
1,2-Dinitrobenzene	mg/kg	0.31 U	0.33 U	0.31 U
1,3,5-Trinitrobenzene	mg/kg	0.31 U	0.33 U	0.31 U
1,3-Dinitrobenzene	mg/kg	0.31 U	0.33 U	0.31 U
1,4-Dinitrobenzene	mg/kg	0.31 U	0.33 U	0.31 U
1-Nitronaphthalene	mg/kg	0.31 U	0.33 U	0.31 U
2,4,6-Trinitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
2,4-Dinitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
2,6-Dinitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
2-Amino-4,6-dinitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
2-Nitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
3-Nitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
4-Amino-2,6-dinitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
4-Nitrotoluene	mg/kg	0.31 U	0.33 U	0.31 U
HMX	mg/kg	0.77 U	0.82 U	0.78 U
Nitrobenzene	mg/kg	0.31 U	0.33 U	0.31 U
Nitrocellulose	mg/kg	NA	NA	NA
Nitroglycerin	mg/kg	6.2 U	6.6 U	6.3 U
Pentaerythritol Tetranitrate	mg/kg	6.2 U	6.6 U	6.3 U
RDX	mg/kg	0.31 U	0.33 U	0.31 U
Tetryl	mg/kg	0.31 U	0.33 U	0.31 U
Triphenylene	mg/kg	NA	NA	NA
OC Pest				
4,4-DDD	mg/kg	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA
Endrin	mg/kg	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA
PCBs				
Aroclor 1016	mg/kg	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-C-8-1D 9.5 - 10 11/14/13 SO-R2-C-8-1D_20131114	SO-R2-E-16-1 0.4 - 0.88 11/13/13 SO-R2-E-16-1_20131113	SO-R2-E-16-1D 7.5 - 8 11/13/13 SO-R2-E-16-1D_20131113
Aroclor 1221	mg/kg	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-F-7-1 0 - 0.5 11/15/13 SO-R2-F-7-1_20131115	SO-R2-F-8-1 0 - 0.5 11/15/13 SO-R2-F-8-1_20131115	SO-R2-G-14-1 0.3 - 0.8 11/13/13 SO-R2-G-14-1_20131113
VOCs				
1,1,1-Trichloroethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.016 U [0.017 U]	0.018 U	0.012 U
1,1,2-Trichloroethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,1-Dichloroethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,1-Dichloroethene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,2,4-Trichlorobenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,2-Dibromo-3-chloropropane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,2-Dibromoethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,2-Dichlorobenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,2-Dichloroethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,2-Dichloropropane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,3-Dichlorobenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
1,4-Dichlorobenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
2-Butanone	mg/kg	0.012 J [0.034]	0.024	0.0080 J
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	0.016 U [0.017 U]	0.018 U	0.012 U
Acetone	mg/kg	0.25 [0.42]	0.31	0.076
Acrolein	mg/kg	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA
Bromodichloromethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Bromomethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Carbon Disulfide	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Carbon Tetrachloride	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
CFC-11	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
CFC-12	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Chlorobenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Chlorodibromomethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Chloroethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Chloroform	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Chloromethane	mg/kg	0.0080 U [0.0090 U]	0.0070 J	0.0060 U
cis-1,2-Dichloroethene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
cis-1,3-Dichloropropene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Cyclohexane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Dichloromethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA
Isopropylbenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Methyl Acetate	mg/kg	0.0080 U [0.0050 J]	0.0090 J	0.0060 U
Methyl N-Butyl Ketone	mg/kg	0.016 U [0.017 U]	0.018 U	0.012 U
Methylcyclohexane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Naphthalene	mg/kg	NA	NA	NA
Styrene (Monomer)	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Tetrachloroethene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
trans-1,2-Dichloroethene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
trans-1,3-Dichloropropene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Tribromomethane	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Trichloroethene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Vinyl Chloride	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Benzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Toluene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Ethylbenzene	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-F-7-1 0 - 0.5 11/15/13 SO-R2-F-7-1_20131115	SO-R2-F-8-1 0 - 0.5 11/15/13 SO-R2-F-8-1_20131115	SO-R2-G-14-1 0.3 - 0.8 11/13/13 SO-R2-G-14-1_20131113
Xylenes (total)	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
Methyl-Tert-Butylether	mg/kg	0.0080 U [0.0090 U]	0.0090 U	0.0060 U
SVOCs				
1,1-Biphenyl	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2,4,5-Trichlorophenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2,4,6-Trichlorophenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2,4-Dichlorophenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2,4-Dimethylphenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2,4-Dinitrophenol	mg/kg	5.6 U [11 U]	15 U	12 U
2,4-Dinitrotoluene	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
2,6-Dinitrotoluene	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2-Chloronaphthalene	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2-Chlorophenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2-Methyl-4,6-dinitrophenol	mg/kg	2.8 U [5.6 U]	7.7 U	5.9 U
2-Methylnaphthalene	mg/kg	0.095 U [0.19 U]	0.26 U	0.20 U
2-Methylphenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2-Nitroaniline	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2-Nitrophenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
2-Nitrotoluene	mg/kg	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	1.9 U [3.7 U]	5.1 U	3.9 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
3-Nitroaniline	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
4-Bromophenyl phenyl ether	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
4-Chloro-3-Methylphenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
4-Chlorophenyl phenyl ether	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
4-Methylphenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
4-Nitroaniline	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
4-Nitrophenol	mg/kg	2.8 U [5.6 U]	7.7 U	5.9 U
4-Nitrotoluene	mg/kg	NA	NA	NA
Acenaphthene	mg/kg	0.095 U [0.19 U]	0.26 U	0.20 U
Acenaphthylene	mg/kg	0.095 U [0.19 U]	0.26 U	0.10 J
Acetophenone	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Anthracene	mg/kg	0.095 U [0.19 U]	0.26 U	0.064 J
Atrazine	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Benzaldehyde	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Benzidine	mg/kg	NA	NA	NA
Benzo(a)Anthracene	mg/kg	0.027 J [0.19 U]	0.095 J	0.30
Benzo(a)Pyrene	mg/kg	0.039 J [0.19 U]	0.098 J	0.34
Benzo(b)fluoranthene	mg/kg	0.068 J [0.069 J]	0.17 J	0.53
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.025 J [0.19 U]	0.068 J	0.23
Benzo(k)Fluoranthene	mg/kg	0.028 J [0.19 U]	0.082 J	0.22
Benzyl Butyl Phthalate	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
bis(2-Chloroethoxy)methane	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Bis(2-Chloroethyl)ether	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Bis(2-Ethylhexyl)phthalate	mg/kg	0.95 U [1.9 U]	2.6 U	2.0 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-F-7-1 0 - 0.5 11/15/13 SO-R2-F-7-1_20131115	SO-R2-F-8-1 0 - 0.5 11/15/13 SO-R2-F-8-1_20131115	SO-R2-G-14-1 0.3 - 0.8 11/13/13 SO-R2-G-14-1_20131113
Caprolactam	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Carbazole	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Chrysene	mg/kg	0.058 J [0.19 U]	0.12 J	0.35
Dibenzo(a,h)Anthracene	mg/kg	0.019 J [0.19 U]	0.26 U	0.046 J
Dibenzofuran	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Diethyl Phthalate	mg/kg	0.94 U [1.7 J]	2.6 U	2.0 U
Dimethyl Phthalate	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Di-N-Butyl Phthalate	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Di-n-Octyl Phthalate	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Fluoranthene	mg/kg	0.084 J [0.099 J]	0.19 J	0.59
Fluorene	mg/kg	0.095 U [0.19 U]	0.26 U	0.20 U
Hexachloro-1,3-Butadiene	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Hexachlorobenzene	mg/kg	0.095 U [0.19 U]	0.26 U	0.20 U
Hexachlorocyclopentadiene	mg/kg	2.8 U [5.6 U]	7.7 U	5.9 U
Hexachloroethane	mg/kg	0.94 U [1.9 U]	2.6 U	2.0 U
Indeno(1,2,3-cd)Pyrene	mg/kg	0.019 J [0.19 U]	0.078 J	0.20 J
Naphthalene	mg/kg	0.095 U [0.19 U]	0.26 U	0.20 U
Nitrobenzene	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
N-Nitrosodimethylamine	mg/kg	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
N-nitrosodiphenylamine	mg/kg	0.19 U [1.1]	25	0.39 U
p-Chloroaniline	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Pentachlorophenol	mg/kg	0.95 U [1.9 U]	2.6 U	2.0 U
Phenanthrene	mg/kg	0.064 J [0.050 J]	0.13 J	0.14 J
Phenol	mg/kg	0.19 U [0.37 U]	0.51 U	0.39 U
Pyrene	mg/kg	0.079 J [0.076 J]	0.18 J	0.58
TPH				
Amyl Alcohol	mg/kg	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA
Methanol	mg/kg	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA
Metals				
Aluminum	mg/kg	9,700 [11,300]	16,200	13,600
Antimony	mg/kg	2.24 U [2.17 U]	3.08 U	11.6 U
Arsenic	mg/kg	7.30 [7.03]	11.0	10.4
Barium	mg/kg	59.5 [141]	528	77.8
Beryllium	mg/kg	0.325 J [0.880]	1.07	1.02
Cadmium	mg/kg	0.561 U [0.542 U]	0.732 J	0.718
Calcium	mg/kg	209 [291]	4,280	31,300
Chromium	mg/kg	15.1 [10.8]	15.3	13.4
Cobalt	mg/kg	1.73 [4.47]	8.18	3.93
Copper	mg/kg	10.4 [24.9]	204	20.8
Iron	mg/kg	10,900 [12,400]	16,400	29,400
Lead	mg/kg	61.2 [69.1]	207	52.2
Magnesium	mg/kg	549 [753]	1,540	10,100
Manganese	mg/kg	172 [3,040]	4,560	415
Mercury	mg/kg	0.165 [0.257]	0.245	0.342
Nickel	mg/kg	7.82 [8.61]	16.1	7.08
Potassium	mg/kg	441 [328]	1,000	547

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-F-7-1 0 - 0.5 11/15/13 SO-R2-F-7-1_20131115	SO-R2-F-8-1 0 - 0.5 11/15/13 SO-R2-F-8-1_20131115	SO-R2-G-14-1 0.3 - 0.8 11/13/13 SO-R2-G-14-1_20131113
Selenium	mg/kg	2.24 U [1.13 J]	3.08 U	2.33 U
Silver	mg/kg	0.561 U [0.542 U]	0.664 J	0.582 U
Sodium	mg/kg	112 U [18.4 J]	39.6 J	66.5 J
Thallium	mg/kg	3.37 U [0.711 J]	1.35 J	3.49 U
Vanadium	mg/kg	21.2 [19.3]	24.8	34.1
Zinc	mg/kg	40.7 [57.1]	920	117
Explosives				
1,2-Dinitrobenzene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
1,3,5-Trinitrobenzene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
1,3-Dinitrobenzene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
1,4-Dinitrobenzene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
1-Nitronaphthalene	mg/kg	0.34 U [0.17 J]	0.46 U	0.35 U
2,4,6-Trinitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
2,4-Dinitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
2,6-Dinitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
2-Amino-4,6-dinitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
2-Nitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
3-Nitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
4-Amino-2,6-dinitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
4-Nitrotoluene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
HMX	mg/kg	0.84 U [0.84 U]	1.2 U	0.88 U
Nitrobenzene	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
Nitrocellulose	mg/kg	NA	NA	NA
Nitroglycerin	mg/kg	3.1 J [130]	160	7.1 U
Pentaerythritol Tetranitrate	mg/kg	6.7 U [6.7 U]	9.2 U	7.1 U
RDX	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
Tetryl	mg/kg	0.34 U [0.34 U]	0.46 U	0.35 U
Triphenylene	mg/kg	NA	NA	NA
OC Pest				
4,4-DDD	mg/kg	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA
Endrin	mg/kg	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA
PCBs				
Aroclor 1016	mg/kg	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-F-7-1 0 - 0.5 11/15/13 SO-R2-F-7-1_20131115	SO-R2-F-8-1 0 - 0.5 11/15/13 SO-R2-F-8-1_20131115	SO-R2-G-14-1 0.3 - 0.8 11/13/13 SO-R2-G-14-1_20131113
Aroclor 1221	mg/kg	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	SO-R2-G-14-1D	SO-R2-H-14-1	SO-R2-H-14-1D	SO-R2-M-11-1	SO-R2-Q-5-2
Sample Depth(ft):		8 - 8.5	0.1 - 0.6	4 - 4.5	0 - 0.5	0 - 0.5
Date Collected:		11/13/13	11/13/13	11/13/13	11/15/13	11/15/13
Sample Name:		SO-R2-G-14-1D_20131113	SO-R2-H-14-1_20131113	SO-R2-H-14-1D_20131113	SO-R2-M-11-1_20131115	SO-R2-Q-5-2_20131115
VOCs						
1,1,1-Trichloroethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	0.011 U	0.011 U	0.011 U	0.015 U	0.013 U
1,1,2-Trichloroethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,1-Dichloroethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,1-Dichloroethene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,2,4-Trichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,2-Dibromo-3-chloropropane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,2-Dibromoethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,2-Dichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,2-Dichloroethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,2-Dichloropropane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,3-Dichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
1,4-Dichlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
2-Butanone	mg/kg	0.011 U	0.0060 J	0.011 U	0.010 J	0.014
2-Chloroethyl vinyl ether	mg/kg	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	0.011 U	0.011 U	0.011 U	0.015 U	0.013 U
Acetone	mg/kg	0.013 J	0.13	0.019 J	0.26	0.24
Acrolein	mg/kg	NA	NA	NA	NA	NA
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Bromomethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Carbon Disulfide	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0070 J	0.0060 U
Carbon Tetrachloride	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
CFC-11	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
CFC-12	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Chlorobenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Chlorodibromomethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Chloroethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Chloroform	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Chloromethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
cis-1,2-Dichloroethene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
cis-1,3-Dichloropropene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Cyclohexane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Dichloromethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	NA	NA
Isopropylbenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Methyl Acetate	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Methyl N-Butyl Ketone	mg/kg	0.011 U	0.011 U	0.011 U	0.015 U	0.013 U
Methylcyclohexane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Tetrachloroethene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
trans-1,2-Dichloroethene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
trans-1,3-Dichloropropene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Tribromomethane	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Trichloroethene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Vinyl Chloride	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Benzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Toluene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Ethylbenzene	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-G-14-1D 8 - 8.5 11/13/13 SO-R2-G-14-1D_20131113	SO-R2-H-14-1 0.1 - 0.6 11/13/13 SO-R2-H-14-1_20131113	SO-R2-H-14-1D 4 - 4.5 11/13/13 SO-R2-H-14-1D_20131113	SO-R2-M-11-1 0 - 0.5 11/15/13 SO-R2-M-11-1_20131115	SO-R2-Q-5-2 0 - 0.5 11/15/13 SO-R2-Q-5-2_20131115
Xylenes (total)	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
Methyl-Tert-Butylether	mg/kg	0.0060 U	0.0050 U	0.0050 U	0.0080 U	0.0060 U
SVOCs						
1,1-Biphenyl	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2,4,5-Trichlorophenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2,4,6-Trichlorophenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2,4-Dichlorophenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2,4-Dimethylphenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2,4-Dinitrophenol	mg/kg	1.1 U	1.1 U	1.0 U	5.9 U	6.4 U
2,4-Dinitrotoluene	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
2,6-Dinitrotoluene	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2-Chloronaphthalene	mg/kg	0.036 U	0.035 U	0.034 U	0.20 U	0.21 U
2-Chlorophenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2-Methyl-4,6-dinitrophenol	mg/kg	0.54 U	0.54 U	0.52 U	3.0 U	3.2 U
2-Methylnaphthalene	mg/kg	0.018 U	0.018 U	0.018 U	0.037 J	0.11 U
2-Methylphenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2-Nitroaniline	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2-Nitrophenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	0.36 U	0.36 U	0.35 U	2.0 U	2.1 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
3-Nitroaniline	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
4-Bromophenyl phenyl ether	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
4-Chloro-3-Methylphenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
4-Chlorophenyl phenyl ether	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
4-Methylphenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
4-Nitroaniline	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
4-Nitrophenol	mg/kg	0.54 U	0.54 U	0.52 U	3.0 U	3.2 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	0.018 U	0.018 U	0.018 U	0.10 U	0.11 U
Acenaphthylene	mg/kg	0.018 U	0.0070 J	0.018 U	0.047 J	0.11 U
Acetophenone	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Anthracene	mg/kg	0.018 U	0.0060 J	0.018 U	0.041 J	0.11 U
Atrazine	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Benzaldehyde	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Benzidine	mg/kg	NA	NA	NA	NA	NA
Benzo(a)Anthracene	mg/kg	0.018 U	0.013 J	0.018 U	0.099 J	0.11 U
Benzo(a)Pyrene	mg/kg	0.018 U	0.017 J	0.018 U	0.11	0.11 U
Benzo(b)fluoranthene	mg/kg	0.018 U	0.031	0.018 U	0.10 U	0.030 J
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	0.018 U	0.014 J	0.018 U	0.10 U	0.11 U
Benzo(k)Fluoranthene	mg/kg	0.018 U	0.014 J	0.018 U	0.10 U	0.11 U
Benzyl Butyl Phthalate	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
bis(2-Chloroethoxy)methane	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Bis(2-Chloroethyl)ether	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Bis(2-Ethylhexyl)phthalate	mg/kg	0.18 U	0.18 U	0.18 U	1.0 U	1.1 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-G-14-1D 8 - 8.5 11/13/13 SO-R2-G-14-1D_20131113	SO-R2-H-14-1 0.1 - 0.6 11/13/13 SO-R2-H-14-1_20131113	SO-R2-H-14-1D 4 - 4.5 11/13/13 SO-R2-H-14-1D_20131113	SO-R2-M-11-1 0 - 0.5 11/15/13 SO-R2-M-11-1_20131115	SO-R2-Q-5-2 0 - 0.5 11/15/13 SO-R2-Q-5-2_20131115
Caprolactam	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Carbazole	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Chrysene	mg/kg	0.018 U	0.025	0.018 U	0.13	0.024 J
Dibenzo(a,h)Anthracene	mg/kg	0.018 U	0.0080 J	0.018 U	0.10 U	0.11 U
Dibenzofuran	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Diethyl Phthalate	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Dimethyl Phthalate	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Di-N-Butyl Phthalate	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Di-n-Octyl Phthalate	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Fluoranthene	mg/kg	0.018 U	0.043	0.018 U	0.24	0.033 J
Fluorene	mg/kg	0.018 U	0.018 U	0.018 U	0.10 U	0.11 U
Hexachloro-1,3-Butadiene	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Hexachlorobenzene	mg/kg	0.018 U	0.018 U	0.018 U	0.10 U	0.11 U
Hexachlorocyclopentadiene	mg/kg	0.54 U	0.54 U	0.52 U	3.0 U	3.2 U
Hexachloroethane	mg/kg	0.18 U	0.18 U	0.17 U	0.99 U	1.1 U
Indeno(1,2,3-cd)Pyrene	mg/kg	0.018 U	0.013 J	0.018 U	0.11	0.11 U
Naphthalene	mg/kg	0.018 U	0.0060 J	0.018 U	0.036 J	0.11 U
Nitrobenzene	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
N-nitrosodiphenylamine	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
p-Chloroaniline	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Pentachlorophenol	mg/kg	0.18 U	0.18 U	0.18 U	1.0 U	1.1 U
Phenanthrene	mg/kg	0.018 U	0.028	0.018 U	0.17	0.11 U
Phenol	mg/kg	0.036 U	0.036 U	0.035 U	0.20 U	0.21 U
Pyrene	mg/kg	0.018 U	0.040	0.018 U	0.24	0.027 J
TPH						
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA
Metals						
Aluminum	mg/kg	4,800	6,710	9,010	14,200	18,500
Antimony	mg/kg	2.17 U	2.15 U	2.07 U	1.13 J	2.55 U
Arsenic	mg/kg	2.17 U	2.48	2.07 U	9.46	7.38
Barium	mg/kg	26.6	110	159	51.8	52.6
Beryllium	mg/kg	0.377 J	0.234 J	0.271 J	0.350 J	1.09
Cadmium	mg/kg	0.300 J	0.377 J	0.243 J	0.577 U	0.636 U
Calcium	mg/kg	1,690	348	202	218	973
Chromium	mg/kg	6.22	11.5	12.8	30.4	40.4
Cobalt	mg/kg	4.79	2.33	2.08	2.64	6.48
Copper	mg/kg	10.5	16.1	6.29	12.8	23.0
Iron	mg/kg	14,300	16,600	18,500	24,700	29,900
Lead	mg/kg	2.27	40.8	5.52	86.5	109
Magnesium	mg/kg	1,370	669	723	879	1,830
Manganese	mg/kg	268	214	104	151	1,080
Mercury	mg/kg	0.104 U	0.214	0.0234 J	0.125	0.0778 J
Nickel	mg/kg	4.29	5.11	5.18	14.0	18.4
Potassium	mg/kg	512	603	842	304	531

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-G-14-1D 8 - 8.5 11/13/13 SO-R2-G-14-1D_20131113	SO-R2-H-14-1 0.1 - 0.6 11/13/13 SO-R2-H-14-1_20131113	SO-R2-H-14-1D 4 - 4.5 11/13/13 SO-R2-H-14-1D_20131113	SO-R2-M-11-1 0 - 0.5 11/15/13 SO-R2-M-11-1_20131115	SO-R2-Q-5-2 0 - 0.5 11/15/13 SO-R2-Q-5-2_20131115
Selenium	mg/kg	2.17 U	2.15 U	2.07 U	2.31 U	2.55 U
Silver	mg/kg	0.543 U	0.536 U	0.517 U	0.577 U	0.690
Sodium	mg/kg	104 J	36.6 J	27.0 J	19.7 J	85.7 J
Thallium	mg/kg	3.26 U	3.22 U	3.10 U	3.46 U	3.82 U
Vanadium	mg/kg	15.5	21.6	23.5	53.6	32.9
Zinc	mg/kg	32.7	36.4	26.9	53.9	117
Explosives						
1,2-Dinitrobenzene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
1,3,5-Trinitrobenzene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
1,3-Dinitrobenzene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
1,4-Dinitrobenzene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
1-Nitronaphthalene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
2,4,6-Trinitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
2,4-Dinitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
2,6-Dinitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
2-Amino-4,6-dinitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
2-Nitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
3-Nitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
4-Amino-2,6-dinitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
4-Nitrotoluene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
HMX	mg/kg	0.82 U	0.8 U	0.78 U	0.9 U	0.96 U
Nitrobenzene	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
Nitrocellulose	mg/kg	NA	NA	NA	NA	NA
Nitroglycerin	mg/kg	6.5 U	6.4 U	6.3 U	7.2 U	7.7 U
Pentaerythritol Tetranitrate	mg/kg	6.5 U	6.4 U	6.3 U	7.2 U	7.7 U
RDX	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
Tetryl	mg/kg	0.33 U	0.32 U	0.31 U	0.36 U	0.39 U
Triphenylene	mg/kg	NA	NA	NA	NA	NA
OC Pest						
4,4-DDD	mg/kg	NA	NA	NA	NA	NA
4,4-DDE	mg/kg	NA	NA	NA	NA	NA
4,4-DDT	mg/kg	NA	NA	NA	NA	NA
Aldrin	mg/kg	NA	NA	NA	NA	NA
Alpha-BHC	mg/kg	NA	NA	NA	NA	NA
Alpha-chlordane	mg/kg	NA	NA	NA	NA	NA
Beta-BHC	mg/kg	NA	NA	NA	NA	NA
Camphechlor	mg/kg	NA	NA	NA	NA	NA
Delta-BHC	mg/kg	NA	NA	NA	NA	NA
Dieldrin	mg/kg	NA	NA	NA	NA	NA
Endosulfan I	mg/kg	NA	NA	NA	NA	NA
Endosulfan II	mg/kg	NA	NA	NA	NA	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	NA	NA
Endrin	mg/kg	NA	NA	NA	NA	NA
Endrin aldehyde	mg/kg	NA	NA	NA	NA	NA
Endrin ketone	mg/kg	NA	NA	NA	NA	NA
Gamma-Bhc	mg/kg	NA	NA	NA	NA	NA
Gamma-chlordane	mg/kg	NA	NA	NA	NA	NA
Heptachlor	mg/kg	NA	NA	NA	NA	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	NA	NA
Methoxychlor	mg/kg	NA	NA	NA	NA	NA
PCBs						
Aroclor 1016	mg/kg	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	SO-R2-G-14-1D 8 - 8.5 11/13/13 SO-R2-G-14-1D_20131113	SO-R2-H-14-1 0.1 - 0.6 11/13/13 SO-R2-H-14-1_20131113	SO-R2-H-14-1D 4 - 4.5 11/13/13 SO-R2-H-14-1D_20131113	SO-R2-M-11-1 0 - 0.5 11/15/13 SO-R2-M-11-1_20131115	SO-R2-Q-5-2 0 - 0.5 11/15/13 SO-R2-Q-5-2_20131115
Aroclor 1221	mg/kg	NA	NA	NA	NA	NA
Aroclor 1232	mg/kg	NA	NA	NA	NA	NA
Aroclor 1242	mg/kg	NA	NA	NA	NA	NA
Aroclor 1248	mg/kg	NA	NA	NA	NA	NA
Aroclor 1254	mg/kg	NA	NA	NA	NA	NA
Aroclor 1260	mg/kg	NA	NA	NA	NA	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	TP-R-M5-3-5	TP-R-M5-3-5	UD-01	UD-01	UD-02	UD-02	UD-03	UD-04	UD-04	UD-05
Sample Depth(ft):		0.5 - 1	9.5 - 10	0 - 0.67	0 - 1	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 1.5	0 - 0.5
Date Collected:		07/21/06	07/21/06	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99
Sample Name:		TP-R-M5-3-51.0N	TP-R-M5-3-510.0N	UD-010.67N	UD-011N	UD-020.67N	UD-021N	UD-030.67N	UD-040.67N	UD-041.5N	UD-050.5N
VOCs											
1,1,1-Trichloroethane	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,1,2,2-Tetrachloroethane	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,1-Dichloroethane	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,1-Dichloroethene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,2,4-Trichlorobenzene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,2-Dichloroethane	mg/kg	NA	NA	630 UJ	NA	570 UJ	NA	690 UJ	520 UJ	NA	630 UJ
1,2-Dichloropropane	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,3-Dichlorobenzene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
1,4-Dichlorobenzene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	NA	1,300 U	NA	1,100 U	NA	1,400 U	1,000 U	NA	1,300 U
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	NA	2,500 U	NA	2,300 U	NA	2,800 U	2,100 U	NA	2,500 U
Acrylonitrile	mg/kg	2,800 U	2,800 U	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Bromodichloromethane	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Bromomethane	mg/kg	NA	NA	1,300 U	NA	1,100 U	NA	1,400 U	1,000 U	NA	1,300 U
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	690 U	700 U	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Chlorodibromomethane	mg/kg	NA	NA	630 UJ	NA	570 UJ	NA	690 UJ	520 UJ	NA	630 UJ
Chloroethane	mg/kg	NA	NA	1,300 U	NA	1,100 U	NA	1,400 U	1,000 U	NA	1,300 U
Chloroform	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Chloromethane	mg/kg	NA	NA	1,300 U	NA	1,100 U	NA	1,400 U	1,000 U	NA	1,300 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	690 U	700 U	670 U	NA	600 U	NA	740 U	0.43 U	NA	0.47 U
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	690 U	700 U	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
trans-1,2-Dichloroethene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	NA	630 UJ	NA	570 UJ	NA	690 UJ	520 UJ	NA	630 UJ
Trichloroethene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Vinyl Chloride	mg/kg	NA	NA	1,300 U	NA	1,100 U	NA	1,400 U	1,000 U	NA	1,300 U
Benzene	mg/kg	690 U	700 U	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Toluene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U
Ethylbenzene	mg/kg	NA	NA	630 U	NA	570 U	NA	690 U	520 U	NA	630 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	TP-R-M5-3-5 0.5 - 1 07/21/06 TP-R-M5-3-51.0N	TP-R-M5-3-5 9.5 - 10 07/21/06 TP-R-M5-3-510.0N	UD-01 0 - 0.67 09/15/99 UD-010.67N	UD-01 0 - 1 09/15/99 UD-011N	UD-02 0 - 0.67 09/15/99 UD-020.67N	UD-02 0 - 1 09/15/99 UD-021N	UD-03 0 - 0.67 09/15/99 UD-030.67N	UD-04 0 - 0.67 09/15/99 UD-040.67N	UD-04 0 - 1.5 09/15/99 UD-041.5N	UD-05 0 - 0.5 09/15/99 UD-050.5N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs											
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
1,2-Diphenylhydrazine	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
1,4-Dichlorobenzene	mg/kg	190 U	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2,4-Dinitrophenol	mg/kg	2,300 U	2,200 U	NA	2,100 U	NA	3,500 U	2,000 U	NA	1,900 U	NA
2,4-Dinitrotoluene	mg/kg	190 U	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2,6-Dinitrotoluene	mg/kg	190 U	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2-Chlorophenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	2,100 U	NA	3,500 U	2,000 U	NA	1,900 U	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	840 U	NA	1,400 U	800 U	NA	770 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	2,100 U	NA	3,500 U	2,000 U	NA	1,900 U	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	420 U	NA	0.035 J	0.020 J	NA	380 U	NA
Acenaphthylene	mg/kg	NA	NA	NA	420 U	NA	0.061 J	0.024 J	NA	380 U	NA
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	420 U	NA	0.074 J	0.033 J	NA	380 U	NA
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Benzo(a)Anthracene	mg/kg	190 U	180 U	NA	420 U	NA	0.62 J	0.21 J	NA	380 U	NA
Benzo(a)Pyrene	mg/kg	190 U	180 U	NA	0.032 J	NA	0.67 J	0.23 J	NA	380 U	NA
Benzo(b)fluoranthene	mg/kg	0.040 J	180 U	NA	420 U	NA	0.78	0.36 J	NA	380 U	NA
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	420 U	NA	0.47 J	0.15 J	NA	380 U	NA
Benzo(k)Fluoranthene	mg/kg	190 U	180 U	NA	420 U	NA	0.40 J	0.13 J	NA	380 U	NA
Benzyl Butyl Phthalate	mg/kg	190 U	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Bis(2-Ethylhexyl)phthalate	mg/kg	380 U	360 U	NA	420 U	NA	0.055 J	0.038 J	NA	380 U	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	TP-R-M5-3-5	TP-R-M5-3-5	UD-01	UD-01	UD-02	UD-02	UD-03	UD-04	UD-04	UD-05
Sample Depth(ft):		0.5 - 1	9.5 - 10	0 - 0.67	0 - 1	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 1.5	0 - 0.5
Date Collected:		07/21/06	07/21/06	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99
Sample Name:		TP-R-M5-3-51.0N	TP-R-M5-3-510.0N	UD-010.67N	UD-011N	UD-020.67N	UD-021N	UD-030.67N	UD-040.67N	UD-041.5N	UD-050.5N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.046 J	180 U	NA	0.044 J	NA	0.80	0.29 J	NA	380 U	NA
Dibenzo(a,h)Anthracene	mg/kg	190 U	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	190 U	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Dimethyl Phthalate	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Di-N-Butyl Phthalate	mg/kg	190 U	180 U	NA	0.050 J	NA	0.14 J	0.037 J	NA	0.055 J	NA
Di-n-Octyl Phthalate	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Fluoranthene	mg/kg	NA	NA	NA	420 U	NA	1.4	0.48	NA	380 U	NA
Fluorene	mg/kg	NA	NA	NA	420 U	NA	0.072 J	0.032 J	NA	380 U	NA
Hexachloro-1,3-Butadiene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Hexachloroethane	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Indeno(1,2,3-cd)Pyrene	mg/kg	190 U	180 U	NA	420 U	NA	0.38 J	0.13 J	NA	380 U	NA
Naphthalene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Nitrobenzene	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
N-Nitrosodi-N-Propylamine	mg/kg	190 U	180 U	NA	420 UJ	NA	710 UJ	400 UJ	NA	380 UJ	NA
N-nitrosodiphenylamine	mg/kg	0.039 J	180 U	NA	420 U	NA	710 U	400 U	NA	380 U	NA
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	2,100 U	NA	3,500 U	2,000 U	NA	1,900 U	NA
Phenanthrene	mg/kg	NA	NA	NA	0.048 J	NA	1.1	0.41	NA	380 U	NA
Phenol	mg/kg	NA	NA	NA	420 U	NA	710 U	400 U	NA	380 U	NA
Pyrene	mg/kg	NA	NA	NA	420 U	NA	1.7	0.77	NA	380 U	NA
TPH											
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	NA	NA	NA	101 J	NA	50.9 UJ	283 J	NA	47.9 J	NA
Metals											
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	2.18 U	20.7 U	NA	1.10 UJ	NA	1.90 UJ	1.20 UN	NA	1.10 UJ	NA
Arsenic	mg/kg	10.9	20.7 U	NA	8.70	NA	21.1	6.80	NA	5.90	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.433 J	5.16 U	NA	0.630 B	NA	1.20	0.770	NA	0.730	NA
Cadmium	mg/kg	0.546 U	5.16 U	NA	0.160 U	NA	3.40	0.180 B	NA	0.200 B	NA
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	14.1	NA	28.0	17.1	NA	16.6	NA
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	15.3	25.2	NA	24.6	NA	57.7	12.7	NA	12.6	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	29.3	9.13 J	NA	740	NA	938	51.1	NA	49.0	NA
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.0414 J	0.107 U	NA	2.80 *J	NA	0.290 *J	0.110 *J	NA	0.0400 *J	NA
Nickel	mg/kg	9.17	10.1 J	NA	6.50	NA	20.2	9.20	NA	9.20	NA
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	TP-R-M5-3-5	TP-R-M5-3-5	UD-01	UD-01	UD-02	UD-02	UD-03	UD-04	UD-04	UD-05
Sample Depth(ft):		0.5 - 1	9.5 - 10	0 - 0.67	0 - 1	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 1.5	0 - 0.5
Date Collected:		07/21/06	07/21/06	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99	09/15/99
Sample Name:		TP-R-M5-3-51.0N	TP-R-M5-3-510.0N	UD-010.67N	UD-011N	UD-020.67N	UD-021N	UD-030.67N	UD-040.67N	UD-041.5N	UD-050.5N
Selenium	mg/kg	2.18 U	20.7 U	NA	1.80 UJ	NA	6.80 UJ	1.60 UJ	NA	1.80 UJ	NA
Silver	mg/kg	0.189 J	5.16 U	NA	0.240 B	NA	0.780 B	0.690 U	NA	0.660 U	NA
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.18 U	20.7 U	NA	2.30 U	NA	3.70 U	2.30 U	NA	2.20 U	NA
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	46.9	74.2	NA	84.6	NA	787	52.5	NA	54.7	NA
Explosives											
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	NA	NA	NA	230 U	NA	250 U	230 U	NA	210 U	NA
1,3-Dinitrobenzene	mg/kg	340 U	330 U	NA	230 U	NA	250 U	230 U	NA	210 U	NA
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	340 U	330 U	NA	230 U	NA	250 U	230 U	NA	210 U	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	230 U	NA	250 U	230 U	NA	210 U	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	230 U	NA	250 U	230 U	NA	210 U	NA
2-Amino-4,6-dinitrotoluene	mg/kg	340 U	330 U	NA	230 U	NA	250 U	230 U	NA	210 U	NA
2-Nitrotoluene	mg/kg	NA	NA	NA	450 U	NA	500 U	450 U	NA	420 U	NA
3-Nitrotoluene	mg/kg	NA	NA	NA	450 U	NA	500 U	450 U	NA	420 U	NA
4-Amino-2,6-dinitrotoluene	mg/kg	680 U	650 U	NA	230 U	NA	250 U	230 U	NA	210 U	NA
4-Nitrotoluene	mg/kg	NA	NA	NA	450 U	NA	500 U	450 U	NA	420 U	NA
HMX	mg/kg	850 U	810 U	NA	450 U	NA	500 U	450 U	NA	420 U	NA
Nitrobenzene	mg/kg	NA	NA	NA	230 U	NA	250 U	230 U	NA	210 U	NA
Nitrocellulose	mg/kg	140,000 U	130,000 U	NA	35,400 UJ	NA	156 J	79.3 J	NA	67.6 J	NA
Nitroglycerin	mg/kg	6,800 U	6,500 U	NA	5,000 U	NA	5,000 U	4,762 U	NA	4,545 U	NA
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	340 U	330 U	NA	450 U	NA	500 U	450 U	NA	420 U	NA
Tetryl	mg/kg	NA	NA	NA	450 U	NA	500 U	450 U	NA	420 U	NA
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest											
4,4-DDD	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
4,4-DDE	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
4,4-DDT	mg/kg	NA	NA	NA	4.1 U	NA	7 U	0.0048	NA	3.8 U	NA
Aldrin	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Alpha-BHC	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Alpha-chlordane	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Beta-BHC	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Camphechlor	mg/kg	NA	NA	NA	210 U	NA	350 U	200 U	NA	190 U	NA
Delta-BHC	mg/kg	NA	NA	NA	2.1 UJ	NA	3.5 UJ	2 UJ	NA	1.9 UJ	NA
Dieldrin	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
Endosulfan I	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Endosulfan II	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
Endosulfan Sulfate	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
Endrin	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
Endrin aldehyde	mg/kg	NA	NA	NA	4.1 UJ	NA	7 UJ	3.9 UJ	NA	3.8 UJ	NA
Endrin ketone	mg/kg	NA	NA	NA	4.1 U	NA	7 U	3.9 U	NA	3.8 U	NA
Gamma-Bhc	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Gamma-chlordane	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Heptachlor	mg/kg	NA	NA	NA	2.1 UJ	NA	3.5 UJ	2 UJ	NA	1.9 UJ	NA
Heptachlor Epoxide	mg/kg	NA	NA	NA	2.1 U	NA	3.5 U	2 U	NA	1.9 U	NA
Methoxychlor	mg/kg	NA	NA	NA	21 U	NA	35 U	20 U	NA	19 U	NA
PCBs											
Aroclor 1016	mg/kg	19 U	18 U	NA	22 U	NA	36 U	21 U	NA	20 U	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	TP-R-M5-3-5 0.5 - 1 07/21/06 TP-R-M5-3-51.0N	TP-R-M5-3-5 9.5 - 10 07/21/06 TP-R-M5-3-510.0N	UD-01 0 - 0.67 09/15/99 UD-010.67N	UD-01 0 - 1 09/15/99 UD-011N	UD-02 0 - 0.67 09/15/99 UD-020.67N	UD-02 0 - 1 09/15/99 UD-021N	UD-03 0 - 0.67 09/15/99 UD-030.67N	UD-04 0 - 0.67 09/15/99 UD-040.67N	UD-04 0 - 1.5 09/15/99 UD-041.5N	UD-05 0 - 0.5 09/15/99 UD-050.5N
Aroclor 1221	mg/kg	19 U	18 U	NA	22 U	NA	36 U	21 U	NA	20 U	NA
Aroclor 1232	mg/kg	19 U	18 U	NA	22 U	NA	36 U	21 U	NA	20 U	NA
Aroclor 1242	mg/kg	19 U	18 U	NA	22 U	NA	36 U	21 U	NA	20 U	NA
Aroclor 1248	mg/kg	19 U	18 U	NA	22 U	NA	36 U	21 U	NA	20 U	NA
Aroclor 1254	mg/kg	19 U	18 U	NA	22 U	NA	36 U	21 U	NA	20 U	NA
Aroclor 1260	mg/kg	0.02	18 U	NA	42 UJ	NA	72 UJ	40 UJ	NA	39 UJ	NA

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-05	UD-07	UD-09	UD-10	UD-12	UD-13	UD-14	UD-15	UD-16	UD-17	UD-18
Sample Depth(ft):		0 - 1	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 1	0 - 1.5	0 - 0.82	0 - 0.82	0 - 1	0 - 2
Date Collected:		09/15/99	09/20/99	09/20/99	09/20/99	09/20/99	09/21/99	09/21/99	09/21/99	09/21/99	09/21/99	09/21/99
Sample Name:		UD-051N	UD-070.67N	UD-091N	UD-100.67N	UD-120.67N	UD-131N	UD-141.5N	UD-150.83N	UD-160.83N	UD-171N	UD-182N
VOCs												
1,1,1-Trichloroethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,1,2,2-Tetrachloroethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,1-Dichloroethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,1-Dichloroethene	mg/kg	NA	820 UJ	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 UJ	930 UJ
1,2,4-Trichlorobenzene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,2-Dichloroethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,2-Dichloropropane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,3-Dichlorobenzene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
1,4-Dichlorobenzene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	NA	1,600 U	1,300 UJ	1,500 UJ	1,400 U	1,400 U	1,900 U	1,800 U	1,700 UJ	1,500 U	1,900 U
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	NA	3,300 U	2,600 UJ	3,000 UJ	2,900 U	2,900 U	3,900 U	3,500 U	3,400 UJ	3,100 U	3,700 U
Acrylonitrile	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Bromodichloromethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Bromomethane	mg/kg	NA	1,600 U	1,300 UJ	1,500 UJ	1,400 U	1,400 U	1,900 U	1,800 U	1,700 UJ	1,500 U	1,900 U
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Chlorodibromomethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Chloroethane	mg/kg	NA	1,600 U	1,300 UJ	1,500 UJ	1,400 U	1,400 U	1,900 U	1,800 U	1,700 UJ	1,500 U	1,900 U
Chloroform	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Chloromethane	mg/kg	NA	1.6 J	1,300 UJ	1,500 UJ	0.31 J	1,400 U	1,900 U	1,800 U	1,700 UJ	1,500 U	0.53 J
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	NA	0.69 U	750 U	2,700 U	0.68 U	810 U	0.94 U	1,200 U	1,300 UJ	1,600 U	1,500 U
Hexachloro-1,3-Butadiene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	820 U	650 UJ	750 UJ	0.25 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
trans-1,2-Dichloroethene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U
Trichloroethene	mg/kg	NA	820 UJ	650 UJ	750 UJ	720 UJ	720 U	960 U	880 U	840 UJ	760 UJ	930 UJ
Vinyl Chloride	mg/kg	NA	1,600 UJ	1,300 UJ	1,500 UJ	1,400 UJ	1,400 UJ	1,900 UJ	1,800 UJ	1,700 UJ	1,500 UJ	1,900 UJ
Benzene	mg/kg	NA	820 UJ	650 UJ	750 UJ	720 UJ	720 U	960 U	880 U	840 UJ	760 UJ	930 UJ
Toluene	mg/kg	NA	820 U	650 UJ	750 UJ	0.44 J	720 U	960 U	880 U	840 UJ	760 U	930 U
Ethylbenzene	mg/kg	NA	820 U	650 UJ	750 UJ	720 U	720 U	960 U	880 U	840 UJ	760 U	930 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	UD-05 0 - 1 09/15/99 UD-051N	UD-07 0 - 0.67 09/20/99 UD-070.67N	UD-09 0 - 1 09/20/99 UD-091N	UD-10 0 - 0.67 09/20/99 UD-100.67N	UD-12 0 - 0.67 09/20/99 UD-120.67N	UD-13 0 - 1 09/21/99 UD-131N	UD-14 0 - 1.5 09/21/99 UD-141.5N	UD-15 0 - 0.82 09/21/99 UD-150.83N	UD-16 0 - 0.82 09/21/99 UD-160.83N	UD-17 0 - 1 09/21/99 UD-171N	UD-18 0 - 2 09/21/99 UD-182N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs												
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
1,2-Dichlorobenzene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
1,2-Diphenylhydrazine	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
1,3-Dichlorobenzene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
1,4-Dichlorobenzene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2,2-Oxybis(1-Chloropropane)	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2,4-Dichlorophenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2,4-Dimethylphenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2,4-Dinitrophenol	mg/kg	2,000 U	2,200 U	2,100 U	2,200 U	1,900 U	2,100 U	2,100 U	2,100 U	2,300 U	1,800 U	2,200 U
2,4-Dinitrotoluene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2,6-Dinitrotoluene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2-Chloronaphthalene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2-Chlorophenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2-Methyl-4,6-dinitrophenol	mg/kg	2,000 U	2,200 U	2,100 U	2,200 U	1,900 U	2,100 U	2,100 U	2,100 U	2,300 U	1,800 U	2,200 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	800 U	880 U	840 U	880 U	770 U	840 U	820 U	840 U	900 U	730 U	890 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
4-Chloro-3-Methylphenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
4-Chlorophenyl phenyl ether	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	2,000 U	2,200 U	2,100 U	2,200 U	1,900 U	2,100 U	2,100 U	2,100 U	2,300 U	1,800 U	2,200 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	400 U	440 U	420 U	440 U	0.12 J	420 U	410 U	2.3	0.032 J	370 U	450 U
Acenaphthylene	mg/kg	400 U	440 U	420 U	440 U	0.13 J	420 U	410 U	0.46	450 U	370 U	450 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	400 U	440 U	0.027 J	440 U	0.73	420 U	410 U	3.3	0.081 J	370 U	450 U
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Benzo(a)Anthracene	mg/kg	0.032 J	0.14 J	0.12 J	440 U	1.6	420 U	410 U	8.5 D+	0.22 J	370 U	0.039 J
Benzo(a)Pyrene	mg/kg	0.033 J	0.14 J	0.087 J	440 U	1.0 J	420 U	410 U	5.9	0.21 J	370 U	450 U
Benzo(b)fluoranthene	mg/kg	0.062 J	0.26 J	0.25 J	440 U	3.2 J	420 U	410 U	8.8 D+	0.25 J	370 U	450 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	400 U	440 U	420 U	440 U	0.64	420 U	410 U	3.9	450 U	370 U	450 U
Benzo(k)Fluoranthene	mg/kg	400 U	440 UJ	420 U	440 U	0.80 J	420 U	410 U	2.8	0.14 J	370 U	450 U
Benzyl Butyl Phthalate	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
bis(2-Chloroethoxy)methane	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Bis(2-Chloroethyl)ether	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Bis(2-Ethylhexyl)phthalate	mg/kg	0.027 J	0.081 J	0.039 J	0.024 J	0.066 J	0.021 J	410 U	420 U	0.046 J	0.018 J	0.036 J

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	UD-05 0 - 1 09/15/99 UD-051N	UD-07 0 - 0.67 09/20/99 UD-070.67N	UD-09 0 - 1 09/20/99 UD-091N	UD-10 0 - 0.67 09/20/99 UD-100.67N	UD-12 0 - 0.67 09/20/99 UD-120.67N	UD-13 0 - 1 09/21/99 UD-131N	UD-14 0 - 1.5 09/21/99 UD-141.5N	UD-15 0 - 0.82 09/21/99 UD-150.83N	UD-16 0 - 0.82 09/21/99 UD-160.83N	UD-17 0 - 1 09/21/99 UD-171N	UD-18 0 - 2 09/21/99 UD-182N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.043 J	0.23 J	0.19 J	440 U	2.4	420 U	410 U	8.3 D+	0.20 J	370 U	0.057 J
Dibenzo(a,h)Anthracene	mg/kg	400 U	440 UJ	420 U	440 U	0.22 J	420 U	410 U	0.97	450 U	370 U	450 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	0.043 J	450 U
Dimethyl Phthalate	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Di-N-Butyl Phthalate	mg/kg	0.070 J	0.24 J	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Di-n-Octyl Phthalate	mg/kg	400 U	440 UJ	420 U	440 U	380 UJ	420 U	410 U	420 U	450 U	370 U	450 U
Fluoranthene	mg/kg	0.079 J	0.21 J	0.24 J	440 U	3.1	420 U	410 U	15 D+	0.36 J	370 U	0.085 J
Fluorene	mg/kg	400 U	440 U	420 U	440 U	0.16 J	420 U	410 U	3.3	0.036 J	370 U	450 U
Hexachloro-1,3-Butadiene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Hexachlorobenzene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Hexachlorocyclopentadiene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Hexachloroethane	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Indeno(1,2,3-cd)Pyrene	mg/kg	400 U	440 UJ	420 U	440 U	0.69 J	420 U	410 U	3.3	450 U	370 U	450 U
Naphthalene	mg/kg	400 U	440 U	420 U	440 U	0.13 J	420 U	410 U	0.98	0.040 J	370 U	450 U
Nitrobenzene	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
N-Nitrosodimethylamine	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
N-Nitrosodi-N-Propylamine	mg/kg	400 UJ	440 UJ	420 UJ	440 UJ	380 UJ	420 U	410 U	420 U	450 U	370 U	450 U
N-nitrosodiphenylamine	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	2,000 U	2,200 U	2,100 U	2,200 U	1,900 U	2,100 U	2,100 U	2,100 U	2,300 U	1,800 U	2,200 U
Phenanthrene	mg/kg	0.052 J	0.097 J	0.11 J	0.040 J	1.1	420 U	410 U	24 D+	0.31 J	370 U	0.072 J
Phenol	mg/kg	400 U	440 U	420 U	440 U	380 U	420 U	410 U	420 U	450 U	370 U	450 U
Pyrene	mg/kg	400 U	0.27 J	0.22 J	440 U	4.2	420 U	410 U	23 D+	0.39 J	370 U	0.12 J
TPH												
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	93 J	31.4 UJ	31.3 UJ	32.1 UJ	NA	150	156	203	251	163	179
Metals												
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	1.10 UJ	1.20 UJ	1.20 UJ	1.20 UJ	3.20 NJ	1.10 UJ	0.730 UJ	0.770 UJ	1.20 UJ	0.930 UJ	1.00 UJ
Arsenic	mg/kg	6.30	6.00 N*J	7.10 N*J	7.30 N*J	164 N*J	6.00	5.70	5.30	8.10	3.40	6.70
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.210 B	0.150 BN	0.880 N	0.400 BN	0.990 N	0.820	0.680	0.390 B	0.500 B	0.660	0.890
Cadmium	mg/kg	0.140 U	0.750 UN	0.740 UN	0.730 UN	0.640 UN	0.680 U	0.480	0.460 U	3.50	0.560 U	0.600 U
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	10.7	30.1 N	19.5 N	16.8 N	13.4 N	21.7	19.2	12.0	25.4	12.6	15.1
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	9.30	12.8 N	11.0 N	11.8 N	113 N	12.5	20.9	29.8	51.7	13.5	12.2
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	37.9	60.8	28.9	47.9	343	22.2	40.8	149	214	8.70	45.6
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.100 *J	0.100	0.0900	0.120	0.100	0.0500	0.170	0.0800	0.160	0.0200 B	0.0900
Nickel	mg/kg	4.30	13.2 N	11.4 N	8.80 N	14.8 N	13.6	11.2	8.40	20.1	9.20	8.60
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-05	UD-07	UD-09	UD-10	UD-12	UD-13	UD-14	UD-15	UD-16	UD-17	UD-18
Sample Depth(ft):		0 - 1	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 1	0 - 1.5	0 - 0.82	0 - 0.82	0 - 1	0 - 2
Date Collected:		09/15/99	09/20/99	09/20/99	09/20/99	09/20/99	09/21/99	09/21/99	09/21/99	09/21/99	09/21/99	09/21/99
Sample Name:		UD-051N	UD-070.67N	UD-091N	UD-100.67N	UD-120.67N	UD-131N	UD-141.5N	UD-150.83N	UD-160.83N	UD-171N	UD-182N
Selenium	mg/kg	1.30 UJ	1.10 J	0.820 BN	2.00 N	1.30 N	1.70	1.20	1.10	2.00	0.550 B	1.40
Silver	mg/kg	0.660 U	0.750 UN	0.740 UN	0.180 BN	0.640 UN	0.680 U	0.210 B	0.460 U	0.730 U	0.560 U	0.600 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.20 U	2.50 UN	2.50 UN	2.40 UN	2.10 UN	2.30 U	1.50 U	1.50 U	2.40 U	1.90 U	2.00 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	29.3	25.6 *J	60.6 *J	54.0 *J	113 *J	78.6	309	80.4	824	60.7	67.1
Explosives												
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
1,3-Dinitrobenzene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
2,4-Dinitrotoluene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
2,6-Dinitrotoluene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
2-Amino-4,6-dinitrotoluene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
2-Nitrotoluene	mg/kg	450 U	480 U	420 U	480 U	500 U	500 U	420 U	480 U	400 U	500 U	430 U
3-Nitrotoluene	mg/kg	450 U	480 U	420 U	480 U	500 U	500 U	420 U	480 U	400 U	500 U	430 U
4-Amino-2,6-dinitrotoluene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
4-Nitrotoluene	mg/kg	450 U	480 U	420 U	480 U	500 U	500 U	420 U	480 U	400 U	500 U	430 U
HMX	mg/kg	450 U	480 U	420 U	480 U	500 U	500 U	420 U	480 U	400 U	500 U	430 U
Nitrobenzene	mg/kg	230 U	240 U	210 U	240 U	250 U	250 U	210 U	240 U	200 U	250 U	220 U
Nitrocellulose	mg/kg	70.1 J	94.6 J	75.5 J	98.8 J	106 J	81.6 J	70.4 J	89.7 J	115 J	40.7 J	95.9 J
Nitroglycerin	mg/kg	5,000 U	11.302	4,348 U	5,000 U	5,000 U	5,000 U	5,000 U	4,546 U	4,878 U	5,000 U	4,762 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	450 U	480 U	420 U	480 U	500 U	500 U	420 U	480 U	400 U	500 U	430 U
Tetryl	mg/kg	450 U	480 U	420 U	480 U	500 U	500 U	420 U	480 U	400 U	500 U	430 U
Triphenylene	mg/kg	NA	NA	NA	NA	53.6 J	NA	NA	NA	NA	NA	NA
OC Pest												
4,4-DDD	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
4,4-DDE	mg/kg	3.9 U	4.4 U	0.0015 J	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
4,4-DDT	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	0.0069 P	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
Aldrin	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Alpha-BHC	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Alpha-chlordane	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Beta-BHC	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Camphechlor	mg/kg	200 U	220 U	210 U	220 U	190 U	210 U	210 U	210 U	220 U	180 U	220 U
Delta-BHC	mg/kg	2 UJ	2.2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.2 UJ	1.8 UJ	2.2 UJ
Dieldrin	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
Endosulfan I	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Endosulfan II	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
Endosulfan Sulfate	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
Endrin	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
Endrin aldehyde	mg/kg	3.9 UJ	4.4 UJ	4.2 UJ	4.4 UJ	3.8 UJ	4.2 UJ	4.1 UJ	4.2 UJ	4.5 UJ	3.7 UJ	4.4 UJ
Endrin ketone	mg/kg	3.9 U	4.4 U	4.2 U	4.4 U	3.8 U	4.2 U	4.1 U	4.2 U	4.5 U	3.7 U	4.4 U
Gamma-Bhc	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Gamma-chlordane	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 UJ	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Heptachlor	mg/kg	2 UJ	2.2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2.1 U	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Heptachlor Epoxide	mg/kg	2 U	2.2 U	2.1 U	2.2 U	1.9 U	2.1 UJ	2.1 U	2.1 U	2.2 U	1.8 U	2.2 U
Methoxychlor	mg/kg	20 U	22 U	21 U	22 U	19 U	21 UJ	21 UJ	21 UJ	22 UJ	18 UJ	22 UJ
PCBs												
Aroclor 1016	mg/kg	20 U	23 U	22 U	23 U	20 U	22 U	21 UJ	22 U	23 U	19 U	23 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	UD-05 0 - 1 09/15/99 UD-051N	UD-07 0 - 0.67 09/20/99 UD-070.67N	UD-09 0 - 1 09/20/99 UD-091N	UD-10 0 - 0.67 09/20/99 UD-100.67N	UD-12 0 - 0.67 09/20/99 UD-120.67N	UD-13 0 - 1 09/21/99 UD-131N	UD-14 0 - 1.5 09/21/99 UD-141.5N	UD-15 0 - 0.82 09/21/99 UD-150.83N	UD-16 0 - 0.82 09/21/99 UD-160.83N	UD-17 0 - 1 09/21/99 UD-171N	UD-18 0 - 2 09/21/99 UD-182N
Aroclor 1221	mg/kg	20 U	23 U	22 U	23 U	20 U	22 U	21 U	22 U	23 U	19 U	23 U
Aroclor 1232	mg/kg	20 U	23 U	22 U	23 U	20 U	22 U	21 U	22 U	23 U	19 U	23 U
Aroclor 1242	mg/kg	20 U	23 U	22 U	23 U	20 U	22 U	21 U	22 U	23 U	19 U	23 U
Aroclor 1248	mg/kg	20 U	23 U	22 U	23 U	20 U	22 U	21 U	22 U	23 U	19 U	23 U
Aroclor 1254	mg/kg	20 U	23 U	22 U	23 U	20 U	22 U	21 U	22 U	23 U	19 U	23 U
Aroclor 1260	mg/kg	40 UJ	44 UJ	43 UJ	45 UJ	39 UJ	43 UJ	42 UJ	43 UJ	46 UJ	37 UJ	45 UJ

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-19	UD-20	UD-21	UD-22	UD-23	UD-24	UD-25	UD-26	UD-27	UD-28	UD-29
Sample Depth(ft):		0 - 1.5	0 - 1	0 - 1	0 - 1	0 - 0.82	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 0.67	0 - 2
Date Collected:		09/21/99	09/21/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99
Sample Name:		UD-191.5N	UD-201N	UD-211N	UD-221N	UD-230.83N	UD-240.67N	UD-251N	UD-260.67N	UD-270.67N	UD-280.67N	UD-292N
VOCs												
1,1,1-Trichloroethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
1,1,2,2-Tetrachloroethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
1,1-Dichloroethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
1,1-Dichloroethene	mg/kg	1,100 UJ	780 UJ	770 UJ	700 UJ	830 UJ	2,000 UJ	820 UJ	980 UJ	760 UJ	860 UJ	1,000 UJ
1,2,4-Trichlorobenzene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
1,2-Dichloroethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
1,2-Dichloropropane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
1,3-Dichlorobenzene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
1,4-Dichlorobenzene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	2,200 U	1,600 U	1,500 U	1,400 U	1,700 UJ	4,100 U	1,600 U	2,000 U	1,500 U	1,700 UJ	2,000 U
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	4,500 U	3,100 U	3,100 U	2,800 U	3,300 UJ	8,200 U	3,300 U	3,900 U	3,000 U	3,400 U	4,100 U
Acrylonitrile	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
Bromodichloromethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
Bromomethane	mg/kg	2,200 U	1,600 U	1,500 U	1,400 U	1,700 UJ	4,100 U	1,600 U	2,000 U	1,500 U	1,700 U	2,000 U
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
Chlorodibromomethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
Chloroethane	mg/kg	2,200 U	1,600 U	1,500 U	1,400 U	1,700 UJ	4,100 U	1,600 U	2,000 U	1,500 U	1,700 U	2,000 U
Chloroform	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
Chloromethane	mg/kg	2,200 U	1.2 J	1,500 UJ	1,400 UJ	1,700 UJ	0.49 J	0.21 J	0.59 J	1,500 U	1,700 UJ	2,000 U
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	0.86 UJ	0.58 UJ	0.71 U	700 U	0.82 UJ	2,900 U	830 U	0.90 U	0.73 U	0.84 U	0.96 U
Hexachloro-1,3-Butadiene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	1,100 U	780 U	770 UJ	700 UJ	830 UJ	2,000 UJ	820 UJ	980 UJ	760 UJ	860 UJ	1,000 UJ
trans-1,2-Dichloroethene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 UJ	1,000 U
Trichloroethene	mg/kg	1,100 UJ	780 UJ	770 UJ	700 UJ	830 UJ	2,000 UJ	820 UJ	980 UJ	760 UJ	860 UJ	1,000 UJ
Vinyl Chloride	mg/kg	2,200 UJ	1,600 UJ	1,500 UJ	1,400 UJ	1,700 UJ	4,100 UJ	1,600 UJ	2,000 UJ	1,500 UJ	1,700 UJ	2,000 UJ
Benzene	mg/kg	1,100 UJ	780 UJ	770 UJ	700 UJ	830 UJ	2,000 UJ	820 UJ	980 UJ	760 UJ	860 UJ	1,000 UJ
Toluene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U
Ethylbenzene	mg/kg	1,100 U	780 U	770 U	700 U	830 UJ	2,000 U	820 U	980 U	760 U	860 U	1,000 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	UD-19 0 - 1.5 09/21/99 UD-191.5N	UD-20 0 - 1 09/21/99 UD-201N	UD-21 0 - 1 09/23/99 UD-211N	UD-22 0 - 1 09/23/99 UD-221N	UD-23 0 - 0.82 09/23/99 UD-230.83N	UD-24 0 - 0.67 09/23/99 UD-240.67N	UD-25 0 - 1 09/23/99 UD-251N	UD-26 0 - 0.67 09/23/99 UD-260.67N	UD-27 0 - 0.67 09/23/99 UD-270.67N	UD-28 0 - 0.67 09/23/99 UD-280.67N	UD-29 0 - 2 09/23/99 UD-292N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs												
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
1,2-Dichlorobenzene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
1,2-Diphenylhydrazine	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
1,3-Dichlorobenzene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
1,4-Dichlorobenzene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2,2-Oxybis(1-Chloropropane)	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2,4-Dichlorophenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2,4-Dimethylphenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2,4-Dinitrophenol	mg/kg	2,400 U	2,300 U	2,300 U	2,100 U	2,000 U	4,900 U	2,400 U	2,600 U	2,200 U	2,500 U	2,200 U
2,4-Dinitrotoluene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2,6-Dinitrotoluene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2-Chloronaphthalene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2-Chlorophenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2-Methyl-4,6-dinitrophenol	mg/kg	2,400 U	2,300 U	2,300 U	2,100 U	2,000 U	4,900 U	2,400 U	2,600 U	2,200 U	2,500 U	2,200 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	960 U	920 U	900 U	820 U	800 U	2,000 U	960 U	1,000 U	880 U	1,000 U	860 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
4-Chloro-3-Methylphenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
4-Chlorophenyl phenyl ether	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	2,400 U	2,300 U	2,300 U	2,100 U	2,000 U	4,900 U	2,400 U	2,600 U	2,200 U	2,500 U	2,200 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	480 U	460 U	450 U	410 U	0.027 J	980 U	480 U	520 U	440 U	510 U	430 U
Acenaphthylene	mg/kg	480 U	460 U	450 U	410 U	0.019 J	980 U	480 U	520 U	440 U	0.022 J	430 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	480 U	460 U	450 U	410 U	0.053 J	980 U	480 U	520 U	440 U	510 U	430 U
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Benzo(a)Anthracene	mg/kg	0.055 J	460 U	450 U	410 U	0.28 J	0.25 J	480 U	0.12 J	440 U	0.22 J	430 U
Benzo(a)Pyrene	mg/kg	480 U	460 U	450 U	410 U	0.30 J	0.27 J	480 U	0.15 J	440 U	0.26 J	430 U
Benzo(b)fluoranthene	mg/kg	480 U	460 U	450 U	410 U	0.36 J	0.28 J	480 U	0.21 J	440 U	0.33 J	430 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	480 U	460 U	450 U	410 U	0.12 J	980 U	480 U	520 U	440 U	0.12 J	430 U
Benzo(k)Fluoranthene	mg/kg	480 U	460 U	450 U	410 U	0.23 J	980 U	480 U	520 U	440 U	0.18 J	430 U
Benzyl Butyl Phthalate	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
bis(2-Chloroethoxy)methane	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Bis(2-Chloroethyl)ether	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Bis(2-Ethylhexyl)phthalate	mg/kg	480 U	460 U	450 U	410 U	0.052 J	0.062 J	480 U	0.048 J	440 U	0.063 J	430 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-19	UD-20	UD-21	UD-22	UD-23	UD-24	UD-25	UD-26	UD-27	UD-28	UD-29
Sample Depth(ft):		0 - 1.5	0 - 1	0 - 1	0 - 1	0 - 0.82	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 0.67	0 - 2
Date Collected:		09/21/99	09/21/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99
Sample Name:		UD-191.5N	UD-201N	UD-211N	UD-221N	UD-230.83N	UD-240.67N	UD-251N	UD-260.67N	UD-270.67N	UD-280.67N	UD-292N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	0.053 J	460 U	450 U	410 U	0.30 J	0.29 J	480 U	0.16 J	440 U	0.29 J	430 U
Dibenzo(a,h)Anthracene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Dimethyl Phthalate	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Di-N-Butyl Phthalate	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	0.085 J	430 U
Di-n-Octyl Phthalate	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 UJ	430 U
Fluoranthene	mg/kg	0.12 J	460 U	450 U	410 U	0.56	0.57 J	0.081 J	0.33 J	440 U	0.62	0.043 J
Fluorene	mg/kg	480 U	460 U	450 U	410 U	0.033 J	980 U	480 U	520 U	440 U	0.028 J	430 U
Hexachloro-1,3-Butadiene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Hexachlorobenzene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Hexachlorocyclopentadiene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Hexachloroethane	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Indeno(1,2,3-cd)Pyrene	mg/kg	480 U	460 U	450 U	410 U	0.12 J	980 U	480 U	520 U	440 U	0.098 J	430 U
Naphthalene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Nitrobenzene	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
N-Nitrosodimethylamine	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
N-Nitrosodi-N-Propylamine	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
N-nitrosodiphenylamine	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	2,400 U	2,300 U	2,300 U	2,100 U	2,000 U	4,900 U	2,400 U	2,600 U	2,200 U	2,500 U	2,200 U
Phenanthrene	mg/kg	0.084 J	460 U	450 U	410 U	0.36 J	0.35 J	480 U	0.21 J	440 U	0.40 J	430 U
Phenol	mg/kg	480 U	460 U	450 U	410 U	400 U	980 U	480 U	520 U	440 U	510 U	430 U
Pyrene	mg/kg	0.15 J	460 U	450 U	410 U	0.67	0.55 J	480 U	0.35 J	440 U	0.64	430 U
TPH												
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	232	142	228 J	186 J	154 J	322 J	229 J	223 J	188 J	261 J	136 J
Metals												
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.520 BJ	1.20 UJ	1.20 UJ	1.00 UJ	1.00 UJ	1.60 JN	1.30 UJ	1.20 JN	1.20 UJ	0.740 JN	1.00 UJ
Arsenic	mg/kg	5.50	4.20	4.80	5.40	4.80	18.6	4.70	15.8	6.10	9.70	5.20
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.540 B	0.230 B	0.560 B	0.580 B	0.640	0.660 B	0.750 B	0.470 B	0.240 B	2.10	0.620 B
Cadmium	mg/kg	0.750 U	0.740 U	0.700 U	0.610 U	0.620 U	0.930 B	0.780 U	0.880 U	0.710 U	0.110 B	0.630 U
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	14.1	17.2	11.9	19.5	15.9	20.0	13.5	102	20.1	16.0	19.5
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	10.2	6.80	8.10 U	16.1 U	10.6 U	42.0	11.8 U	21.6 U	8.60 U	20.9 U	9.60 U
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	34.2	20.7	26.0	18.5	54.3	272	37.3	134	37.7	77.8	20.1
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.0900	0.0400 B	0.0500	0.0600	0.0800	0.490	0.0800	0.370	0.0700	0.220	0.0700
Nickel	mg/kg	7.70	6.70	6.40	10.2	9.70	9.70	7.10	49.2	8.70	12.3	11.1
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-19	UD-20	UD-21	UD-22	UD-23	UD-24	UD-25	UD-26	UD-27	UD-28	UD-29
Sample Depth(ft):		0 - 1.5	0 - 1	0 - 1	0 - 1	0 - 0.82	0 - 0.67	0 - 1	0 - 0.67	0 - 0.67	0 - 0.67	0 - 2
Date Collected:		09/21/99	09/21/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99	09/23/99
Sample Name:		UD-191.5N	UD-201N	UD-211N	UD-221N	UD-230.83N	UD-240.67N	UD-251N	UD-260.67N	UD-270.67N	UD-280.67N	UD-292N
Selenium	mg/kg	0.810 B	1.30	0.980 B	1.20	0.880 B	6.20	0.870 B	2.60	1.20	2.60	0.900 B
Silver	mg/kg	0.750 U	0.740 U	0.700 U	0.610 U	0.620 U	0.510 B	0.780 U	0.220 B	0.710 U	0.560 B	0.630 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.50 U	2.50 U	2.30 U	2.00 U	2.10 U	5.80 U	2.60 U	2.90 U	2.40 U	2.90 U	2.10 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	41.4	49.2	39.8 U	51.0 U	70.4	96.4	62.5 U	61.4 U	35.9 U	199	57.0 U
Explosives												
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
1,3-Dinitrobenzene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
2,4-Dinitrotoluene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
2,6-Dinitrotoluene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
2-Amino-4,6-dinitrotoluene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
2-Nitrotoluene	mg/kg	420 U	500 U	450 U	500 U	430 U	480 U	430 U	500 U	450 U	500 U	500 U
3-Nitrotoluene	mg/kg	420 U	500 U	450 U	500 U	430 U	480 U	430 U	500 U	450 U	500 U	500 U
4-Amino-2,6-dinitrotoluene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
4-Nitrotoluene	mg/kg	420 U	500 U	450 U	500 U	430 U	480 U	430 U	500 U	450 U	500 U	500 U
HMX	mg/kg	420 U	500 U	450 U	500 U	430 U	480 U	430 U	500 U	450 U	500 U	500 U
Nitrobenzene	mg/kg	210 U	250 U	230 U	250 U	220 U	240 U	220 U	250 U	230 U	250 U	250 U
Nitrocellulose	mg/kg	82.9 J	66.9 J	67.1 J	88 J	96.1 J	230 J	97.5 J	126 J	244 J	99.1 J	59 J
Nitroglycerin	mg/kg	4,546 U	5,000 U	5,000 U	5,000 U	4,651 U	4,878 U	4,651 U	5,000 U	4,546 U	4,878 U	5,000 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	420 U	500 U	450 U	500 U	430 U	480 U	430 U	500 U	450 U	500 U	500 U
Tetryl	mg/kg	420 U	500 U	0.45	0.5	0.43	0.48	0.43	0.5	0.45	0.5	0.5
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest												
4,4-DDD	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
4,4-DDE	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	0.0079	4.4 U	0.0036 J	0.0012 J
4,4-DDT	mg/kg	4.7 U	4.6 U	4.5 UJ	4.1 UJ	0.0031 J	0.0021 J	4.8 UJ	0.0052 J	4.4 UJ	0.0034 J	4.3 UJ
Aldrin	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Alpha-BHC	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Alpha-chlordane	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Beta-BHC	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Camphechlor	mg/kg	240 U	230 U	230 U	210 U	200 U	490 U	240 UJ	260 U	220 U	250 U	210 U
Delta-BHC	mg/kg	2.4 UJ	2.3 UJ	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Dieldrin	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
Endosulfan I	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Endosulfan II	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
Endosulfan Sulfate	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
Endrin	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
Endrin aldehyde	mg/kg	4.7 UJ	4.6 UJ	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
Endrin ketone	mg/kg	4.7 U	4.6 U	4.5 U	4.1 U	4 U	9.8 U	4.8 UJ	5.2 U	4.4 U	5 U	4.3 U
Gamma-Bhc	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Gamma-chlordane	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Heptachlor	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Heptachlor Epoxide	mg/kg	2.4 U	2.3 U	2.3 U	2.1 U	2 U	4.9 U	2.4 UJ	2.6 U	2.2 U	2.5 U	2.1 U
Methoxychlor	mg/kg	24 UJ	23 UJ	23 UJ	21 UJ	20 UJ	49 UJ	24 UJ	26 UJ	22 UJ	25 UJ	21 UJ
PCBs												
Aroclor 1016	mg/kg	25 U	24 U	24 U	21 U	21 U	51 UJ	25 UJ	27 U	23 U	26 U	22 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	UD-19 0 - 1.5 09/21/99 UD-191.5N	UD-20 0 - 1 09/21/99 UD-201N	UD-21 0 - 1 09/23/99 UD-211N	UD-22 0 - 1 09/23/99 UD-221N	UD-23 0 - 0.82 09/23/99 UD-230.83N	UD-24 0 - 0.67 09/23/99 UD-240.67N	UD-25 0 - 1 09/23/99 UD-251N	UD-26 0 - 0.67 09/23/99 UD-260.67N	UD-27 0 - 0.67 09/23/99 UD-270.67N	UD-28 0 - 0.67 09/23/99 UD-280.67N	UD-29 0 - 2 09/23/99 UD-292N
Aroclor 1221	mg/kg	25 U	24 U	24 U	21 U	21 U	51 UJ	25 UJ	27 U	23 U	26 U	22 U
Aroclor 1232	mg/kg	25 U	24 U	24 U	21 U	21 U	51 UJ	25 UJ	27 U	23 U	26 U	22 U
Aroclor 1242	mg/kg	25 U	24 U	24 U	21 U	21 U	51 UJ	25 UJ	27 U	23 U	26 U	22 U
Aroclor 1248	mg/kg	25 U	24 U	24 U	21 U	21 U	51 UJ	25 UJ	27 U	23 U	26 U	22 U
Aroclor 1254	mg/kg	25 U	24 U	24 U	21 U	21 U	51 UJ	25 UJ	27 U	23 U	26 U	22 U
Aroclor 1260	mg/kg	48 UJ	47 UJ	46 UJ	42 UJ	40 UJ	100 UJ	49 UJ	53 UJ	45 UJ	51 UJ	44 UJ

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-30	UD-31	UD-32	UD-32	UD-33	UD-33	UD-34	UD-34
Sample Depth(ft):		0 - 0.82	0 - 0.67	0 - 0.5	0 - 2	0 - 1	0 - 2	0 - 0.8	0 - 1.5
Date Collected:		09/23/99	09/23/99	10/01/99	10/01/99	10/01/99	10/01/99	09/29/99	09/29/99
Sample Name:		UD-300.83N	UD-310.67N	UD-320.5N	UD-322N	UD-331N	UD-332N	UD-340.8N	UD-341.5N
VOCs									
1,1,1-Trichloroethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,1,2,2-Tetrachloroethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,1-Dichloroethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,1-Dichloroethene	mg/kg	890 UJ	1,200 UJ	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,2,4-Trichlorobenzene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,2-Dichloroethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,2-Dichloropropane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,3-Dichlorobenzene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
1,4-Dichlorobenzene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	1,800 U	2,400 U	2,800 U	NA	2,900 U [2,900 U]	NA	1,400 UJ [1,100 UJ]	NA
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	3,600 U	4,800 U	5,700 U	NA	5,800 U [5,800 U]	NA	2,800 UJ [2,300 UJ]	NA
Acrylonitrile	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Bromodichloromethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Bromomethane	mg/kg	1,800 U	2,400 U	2,800 U	NA	2,900 U [2,900 U]	NA	1,400 UJ [1,100 UJ]	NA
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Chlorodibromomethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Chloroethane	mg/kg	1,800 U	2,400 U	2,800 U	NA	2,900 U [2,900 U]	NA	1,400 UJ [1,100 UJ]	NA
Chloroform	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Chloromethane	mg/kg	1,800 U	2,400 U	2,800 UJ	NA	2,900 UJ [0.47 J]	NA	1,400 UJ [1,100 UJ]	NA
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	950 U	1.1 U	0.93 U	NA	1.1 U [0.95 U]	NA	0.46 U [0.21 U]	NA
Hexachloro-1,3-Butadiene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	890 UJ	1,200 UJ	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
trans-1,2-Dichloroethene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Trichloroethene	mg/kg	890 UJ	1,200 UJ	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Vinyl Chloride	mg/kg	1,800 UJ	2,400 UJ	2,800 UJ	NA	2,900 UJ [2,900 UJ]	NA	1,400 UJ [1,100 UJ]	NA
Benzene	mg/kg	890 UJ	1,200 UJ	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Toluene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA
Ethylbenzene	mg/kg	890 U	1,200 U	1,400 U	NA	1,500 U [1,500 U]	NA	690 UJ [570 UJ]	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	UD-30 0 - 0.82 09/23/99 UD-300.83N	UD-31 0 - 0.67 09/23/99 UD-310.67N	UD-32 0 - 0.5 10/01/99 UD-320.5N	UD-32 0 - 2 10/01/99 UD-322N	UD-33 0 - 1 10/01/99 UD-331N	UD-33 0 - 2 10/01/99 UD-332N	UD-34 0 - 0.8 09/29/99 UD-340.8N	UD-34 0 - 1.5 09/29/99 UD-341.5N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs									
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
1,2-Dichlorobenzene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
1,2-Diphenylhydrazine	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
1,3-Dichlorobenzene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
1,4-Dichlorobenzene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2,2-Oxybis(1-Chloropropane)	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2,4-Dichlorophenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2,4-Dimethylphenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2,4-Dinitrophenol	mg/kg	2,400 U	2,600 U	NA	2,000 U	NA	2,700 U [2,600 U]	NA	2,100 U [2,200 U]
2,4-Dinitrotoluene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2,6-Dinitrotoluene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2-Chloronaphthalene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2-Chlorophenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2-Methyl-4,6-dinitrophenol	mg/kg	2,400 U	2,600 U	NA	2,000 U	NA	2,700 U [2,600 U]	NA	2,100 U [2,200 U]
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	960 U	1,000 U	NA	810 U	NA	1,100 U [1,100 U]	NA	820 U [880 U]
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
4-Chloro-3-Methylphenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
4-Chlorophenyl phenyl ether	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	2,400 U	2,600 U	NA	2,000 U	NA	2,700 U [2,600 U]	NA	2,100 U [2,200 U]
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Acenaphthylene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Benzo(a)Anthracene	mg/kg	480 U	0.045 J	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Benzo(a)Pyrene	mg/kg	480 U	0.054 J	NA	0.028 J	NA	540 U [530 U]	NA	410 U [440 U]
Benzo(b)fluoranthene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Benzo(k)Fluoranthene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Benzyl Butyl Phthalate	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
bis(2-Chloroethoxy)methane	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Bis(2-Chloroethyl)ether	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Bis(2-Ethylhexyl)phthalate	mg/kg	480 U	0.031 J	NA	410 U	NA	540 U [1.2]	NA	0.023 J [0.025 J]

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	UD-30 0 - 0.82 09/23/99 UD-300.83N	UD-31 0 - 0.67 09/23/99 UD-310.67N	UD-32 0 - 0.5 10/01/99 UD-320.5N	UD-32 0 - 2 10/01/99 UD-322N	UD-33 0 - 1 10/01/99 UD-331N	UD-33 0 - 2 10/01/99 UD-332N	UD-34 0 - 0.8 09/29/99 UD-340.8N	UD-34 0 - 1.5 09/29/99 UD-341.5N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	480 U	0.059 J	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Dibenzo(a,h)Anthracene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Dimethyl Phthalate	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Di-N-Butyl Phthalate	mg/kg	480 U	0.047 J	NA	0.17 J	NA	540 U [0.19 J]	NA	410 U [0.12 J]
Di-n-Octyl Phthalate	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Fluoranthene	mg/kg	0.055 J	0.12 J	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Fluorene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Hexachloro-1,3-Butadiene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Hexachlorobenzene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Hexachlorocyclopentadiene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Hexachloroethane	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Indeno(1,2,3-cd)Pyrene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Naphthalene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Nitrobenzene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
N-Nitrosodimethylamine	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
N-Nitrosodi-N-Propylamine	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 UJ [440 UJ]
N-nitrosodiphenylamine	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	2,400 U	2,600 U	NA	2,000 U	NA	2,700 U [2,600 U]	NA	2,100 U [2,200 U]
Phenanthrene	mg/kg	480 U	0.078 J	NA	0.039 J	NA	540 U [530 U]	NA	0.028 J [440 U]
Phenol	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
Pyrene	mg/kg	480 U	510 U	NA	410 U	NA	540 U [530 U]	NA	410 U [440 U]
TPH									
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	191 J	271 J	NA	212 J	NA	99.3 J [199 J]	NA	256 J [199 J]
Metals									
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	0.960 JN	0.930 JN	NA	0.680 J	NA	1.20 UJ [1.40 UJ]	NA	0.960 UJ [0.950 UJ]
Arsenic	mg/kg	8.50	13.2	NA	4.20	NA	1.90 [1.60]	NA	4.50 [3.50]
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.770	2.80	NA	0.390 B	NA	0.190 B [0.160 B]	NA	0.540 B [0.500 B]
Cadmium	mg/kg	0.750 U	0.360 B	NA	0.650 U	NA	0.870 U [0.870 U]	NA	0.570 U [0.570 U]
Calcium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	16.5	12.4	NA	12.8	NA	16.6 [15.8]	NA	15.4 [14.0]
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	15.5 U	18.1	NA	8.00	NA	13.0 [12.9]	NA	7.00 [5.90]
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	63.6	61.1	NA	27.0	NA	22.7 [30.1]	NA	20.9 [14.3]
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.110	0.180	NA	0.0800	NA	0.100 [0.0900]	NA	0.0400 [0.0300]
Nickel	mg/kg	9.20	10.9	NA	6.00	NA	7.00 [6.70]	NA	6.90 [6.20]
Potassium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-30	UD-31	UD-32	UD-32	UD-33	UD-33	UD-34	UD-34
Sample Depth(ft):		0 - 0.82	0 - 0.67	0 - 0.5	0 - 2	0 - 1	0 - 2	0 - 0.8	0 - 1.5
Date Collected:		09/23/99	09/23/99	10/01/99	10/01/99	10/01/99	10/01/99	09/29/99	09/29/99
Sample Name:		UD-300.83N	UD-310.67N	UD-320.5N	UD-322N	UD-331N	UD-332N	UD-340.8N	UD-341.5N
Selenium	mg/kg	1.60	2.50	NA	1.10 U	NA	1.50 U [1.40 B]	NA	0.900 B [1.20]
Silver	mg/kg	0.450 B	0.210 B	NA	0.650 U	NA	0.870 U [0.870 U]	NA	0.570 U [0.570 U]
Sodium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.50 U	2.70 U	NA	2.20 U	NA	2.90 U [2.90 U]	NA	1.90 U [1.90 U]
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	83.4	135	NA	50.6	NA	53.4 [48.7]	NA	46.5 [39.8]
Explosives									
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
1,3-Dinitrobenzene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
2,4-Dinitrotoluene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
2,6-Dinitrotoluene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
2-Amino-4,6-dinitrotoluene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
2-Nitrotoluene	mg/kg	480 U	430 U	NA	500 U	NA	435 U [417 U]	NA	435 U [400 U]
3-Nitrotoluene	mg/kg	480 U	430 U	NA	500 U	NA	435 U [417 U]	NA	435 U [400 U]
4-Amino-2,6-dinitrotoluene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
4-Nitrotoluene	mg/kg	480 U	430 U	NA	500 U	NA	435 U [417 U]	NA	435 U [400 U]
HMX	mg/kg	480 U	430 U	NA	500 U	NA	435 U [417 U]	NA	435 U [400 U]
Nitrobenzene	mg/kg	240 U	220 U	NA	250 U	NA	217 U [208 U]	NA	217 U [200 U]
Nitrocellulose	mg/kg	119 J	115 J	NA	49.9 J	NA	88 J [53,700 UJ]	NA	44,900 UJ [44,200 UJ]
Nitroglycerin	mg/kg	4,651 U	5,000 U	NA	5,842.8 U	NA	8,130.1 U [7,898.9 U]	NA	4,761.9 U [5,000 U]
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
RDX	mg/kg	480 U	430 U	NA	500 U	NA	435 U [417 U]	NA	435 U [400 U]
Tetryl	mg/kg	0.48	0.43	NA	500 U	NA	435 U [417 U]	NA	435 U [400 U]
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
OC Pest									
4,4-DDD	mg/kg	4.8 U	5.1 U	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
4,4-DDE	mg/kg	0.001 J	0.0025 J	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
4,4-DDT	mg/kg	4.8 UJ	0.001 J	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
Aldrin	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Alpha-BHC	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Alpha-chlordane	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Beta-BHC	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Camphechlor	mg/kg	240 U	250 U	NA	200 U	NA	270 U [260 U]	NA	210 UJ [220 UJ]
Delta-BHC	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Dieldrin	mg/kg	4.8 U	5.1 U	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
Endosulfan I	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Endosulfan II	mg/kg	4.8 U	5.1 U	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
Endosulfan Sulfate	mg/kg	4.8 U	5.1 U	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
Endrin	mg/kg	4.8 U	5.1 U	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
Endrin aldehyde	mg/kg	4.8 U	5.1 U	NA	4.1 UJ	NA	5.4 UJ [5.3 UJ]	NA	4.1 UJ [4.4 UJ]
Endrin ketone	mg/kg	4.8 U	5.1 U	NA	4.1 U	NA	5.4 U [5.3 U]	NA	4.1 UJ [4.4 UJ]
Gamma-Bhc	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Gamma-chlordane	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Heptachlor	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Heptachlor Epoxide	mg/kg	2.4 U	2.5 U	NA	2 U	NA	2.7 U [2.6 U]	NA	2.1 UJ [2.2 UJ]
Methoxychlor	mg/kg	24 UJ	25 UJ	NA	20 UJ	NA	27 UJ [26 UJ]	NA	21 UJ [22 UJ]
PCBs									
Aroclor 1016	mg/kg	25 U	26 U	NA	21 U	NA	28 U [27 U]	NA	21 U [23 U]

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	UD-30 0 - 0.82 09/23/99 UD-300.83N	UD-31 0 - 0.67 09/23/99 UD-310.67N	UD-32 0 - 0.5 10/01/99 UD-320.5N	UD-32 0 - 2 10/01/99 UD-322N	UD-33 0 - 1 10/01/99 UD-331N	UD-33 0 - 2 10/01/99 UD-332N	UD-34 0 - 0.8 09/29/99 UD-340.8N	UD-34 0 - 1.5 09/29/99 UD-341.5N
Aroclor 1221	mg/kg	25 U	26 U	NA	21 U	NA	28 U [27 U]	NA	21 U [23 U]
Aroclor 1232	mg/kg	25 U	26 U	NA	21 U	NA	28 U [27 U]	NA	21 U [23 U]
Aroclor 1242	mg/kg	25 U	26 U	NA	21 U	NA	28 U [27 U]	NA	21 U [23 U]
Aroclor 1248	mg/kg	25 U	26 U	NA	21 U	NA	28 U [27 U]	NA	21 U [23 U]
Aroclor 1254	mg/kg	25 U	26 U	NA	21 U	NA	28 U [27 U]	NA	21 U [23 U]
Aroclor 1260	mg/kg	49 UJ	52 UJ	NA	42 U	NA	55 U [54 U]	NA	42 U [45 U]

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID:	Units	UD-35	UD-36	UD-37	UD-38	UD-39	UD-40
Sample Depth(ft):		0 - 1	0 - 1	0 - 1	0 - 2	0 - 1.5	0 - 1
Date Collected:		09/28/99	09/28/99	09/28/99	09/28/99	09/28/99	09/28/99
Sample Name:		UD-351N	UD-361N	UD-371N	UD-382N	UD-391.5N	UD-401N
VOCs							
1,1,1-Trichloroethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,1,2,2-Tetrachloroethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,1-Dichloroethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,1-Dichloroethene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,2,4-Trichlorobenzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,2-Dibromo-3-chloropropane	mg/kg	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	mg/kg	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,2-Dichloroethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,2-Dichloropropane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,3-Dichlorobenzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
1,4-Dichlorobenzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
2-Butanone	mg/kg	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	mg/kg	2,000 UJ	1,600 UJ [1,700 UJ]	1,500 UJ [1,400 UJ]	1,900 UJ	1,500 UJ	1,500 UJ
4-Methyl-2-Pentanone	mg/kg	NA	NA	NA	NA	NA	NA
Acetone	mg/kg	NA	NA	NA	NA	NA	NA
Acrolein	mg/kg	3,900 UJ	3,200 UJ [3,500 UJ]	2,900 UJ [2,700 UJ]	3,700 UJ	3,000 UJ	3,000 UJ
Acrylonitrile	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Bromodichloromethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Bromomethane	mg/kg	2,000 UJ	1,600 UJ [1,700 UJ]	1,500 UJ [1,400 UJ]	1,900 UJ	1,500 UJ	1,500 UJ
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
CFC-11	mg/kg	NA	NA	NA	NA	NA	NA
CFC-12	mg/kg	NA	NA	NA	NA	NA	NA
Chlorobenzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [0.18 J]	930 UJ	740 UJ	0.57 J
Chlorodibromomethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Chloroethane	mg/kg	2,000 UJ	1,600 UJ [1,700 UJ]	1,500 UJ [1,400 UJ]	1,900 UJ	1,500 UJ	1,500 UJ
Chloroform	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Chloromethane	mg/kg	2,000 UJ	1,600 UJ [1,700 UJ]	0.23 J [1,400 UJ]	1,900 UJ	1,500 UJ	1,500 UJ
cis-1,2-Dichloroethene	mg/kg	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	0.87 U	0.67 U [890 U]	0.62 U [0.58 U]	0.74 U	0.60 U	0.42 U
Hexachloro-1,3-Butadiene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Isopropylbenzene	mg/kg	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA
Methyl N-Butyl Ketone	mg/kg	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	0.26 J	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Styrene (Monomer)	mg/kg	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
trans-1,2-Dichloroethene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
trans-1,3-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA
Tribromomethane	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Trichloroethene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Vinyl Chloride	mg/kg	2,000 UJ	1,600 UJ [1,700 UJ]	1,500 UJ [1,400 UJ]	1,900 UJ	1,500 UJ	1,500 UJ
Benzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Toluene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ
Ethylbenzene	mg/kg	980 UJ	810 UJ [860 UJ]	730 UJ [680 UJ]	930 UJ	740 UJ	740 UJ

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	UD-35 0 - 1 09/28/99 UD-351N	UD-36 0 - 1 09/28/99 UD-361N	UD-37 0 - 1 09/28/99 UD-371N	UD-38 0 - 2 09/28/99 UD-382N	UD-39 0 - 1.5 09/28/99 UD-391.5N	UD-40 0 - 1 09/28/99 UD-401N
Xylenes (total)	mg/kg	NA	NA	NA	NA	NA	NA
Methyl-Tert-Butylether	mg/kg	NA	NA	NA	NA	NA	NA
SVOCs							
1,1-Biphenyl	mg/kg	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
1,2-Dichlorobenzene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
1,2-Diphenylhydrazine	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
1,3-Dichlorobenzene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
1,4-Dichlorobenzene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2,2-Oxybis(1-Chloropropane)	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2,4-Dichlorophenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2,4-Dimethylphenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2,4-Dinitrophenol	mg/kg	29,000 U	25,000 U [25,000 U]	21,000 U [22,000 U]	27,000 U	2,100 U	24,000 U
2,4-Dinitrotoluene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2,6-Dinitrotoluene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2-Chloronaphthalene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2-Chlorophenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2-Methyl-4,6-dinitrophenol	mg/kg	29,000 U	25,000 U [25,000 U]	21,000 U [22,000 U]	27,000 U	2,100 U	24,000 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
2-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	11,000 U	9,800 U [10,000 U]	8,600 U [8,800 U]	11,000 U	860 U	9,600 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
4-Chloro-3-Methylphenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
4-Chlorophenyl phenyl ether	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	29,000 UJ	25,000 U [25,000 U]	21,000 U [22,000 U]	27,000 U	2,100 U	24,000 U
4-Nitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Acenaphthylene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Acetophenone	mg/kg	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Atrazine	mg/kg	NA	NA	NA	NA	NA	NA
Benzaldehyde	mg/kg	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Benzo(a)Anthracene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Benzo(a)Pyrene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Benzo(b)fluoranthene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Benzo(g,h,i)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 UJ [4,400 UJ]	5,500 UJ	430 U	4,800 UJ
Benzo(k)Fluoranthene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Benzyl Butyl Phthalate	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
bis(2-Chloroethoxy)methane	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Bis(2-Chloroethyl)ether	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Bis(2-Ethylhexyl)phthalate	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	0.085 J	4,800 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	UD-35 0 - 1 09/28/99 UD-351N	UD-36 0 - 1 09/28/99 UD-361N	UD-37 0 - 1 09/28/99 UD-371N	UD-38 0 - 2 09/28/99 UD-382N	UD-39 0 - 1.5 09/28/99 UD-391.5N	UD-40 0 - 1 09/28/99 UD-401N
Caprolactam	mg/kg	NA	NA	NA	NA	NA	NA
Carbazole	mg/kg	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Dibenzo(a,h)Anthracene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 UJ [4,400 UJ]	5,500 UJ	430 U	4,800 UJ
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Dimethyl Phthalate	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Di-N-Butyl Phthalate	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Di-n-Octyl Phthalate	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Fluoranthene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Fluorene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Hexachloro-1,3-Butadiene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Hexachlorobenzene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Hexachlorocyclopentadiene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 UJ [4,400 UJ]	5,500 UJ	430 U	4,800 UJ
Hexachloroethane	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Indeno(1,2,3-cd)Pyrene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 UJ [4,400 UJ]	5,500 UJ	430 U	4,800 UJ
Naphthalene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Nitrobenzene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
N-Nitrosodimethylamine	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
N-Nitrosodi-N-Propylamine	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
N-nitrosodiphenylamine	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
p-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	29,000 U	25,000 U [25,000 U]	21,000 U [22,000 U]	27,000 U	2,100 U	24,000 U
Phenanthrene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Phenol	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
Pyrene	mg/kg	5,700 U	4,900 U [5,000 U]	4,300 U [4,400 U]	5,500 U	430 U	4,800 U
TPH							
Amyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA
Di-n-propyl ether	mg/kg	NA	NA	NA	NA	NA	NA
Ethanol	mg/kg	NA	NA	NA	NA	NA	NA
Ethyl ether	mg/kg	NA	NA	NA	NA	NA	NA
Methanol	mg/kg	NA	NA	NA	NA	NA	NA
n-Butyl ether	mg/kg	NA	NA	NA	NA	NA	NA
Triphenylene	mg/kg	221 J	120 J [180 J]	248 J [260 J]	290 J	300 J	307 J
Metals							
Aluminum	mg/kg	NA	NA	NA	NA	NA	NA
Antimony	mg/kg	1.00 UJ	1.00 UN [0.960 UN]	1.20 UN [1.30 UN]	1.50 UN	1.10 UJ	0.900 UN
Arsenic	mg/kg	7.20	6.90 [8.80]	6.80 [9.60]	1.90	4.30	5.30
Barium	mg/kg	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	0.540 B	1.10 [1.10]	0.930 [0.980]	0.400 B	0.880	0.790
Cadmium	mg/kg	0.200 B	0.180 B [0.200 B]	0.710 U [0.340 B]	0.120 U	0.250 B	0.540 U
Calcium	mg/kg	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	14.1	12.8 [20.0]	18.8 [16.3]	10.1	11.8	15.9
Cobalt	mg/kg	NA	NA	NA	NA	NA	NA
Copper	mg/kg	15.3 E	16.6 E [17.8 E]	18.6 E [31.1 E]	9.20 E	8.90 E	12.9 E
Iron	mg/kg	NA	NA	NA	NA	NA	NA
Lead	mg/kg	51.5	45.2 [58.1]	28.3 [58.0]	59.6	36.5	24.8
Magnesium	mg/kg	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.140	0.150 [0.130]	0.0400 [0.0600]	0.140	0.0400	0.0700
Nickel	mg/kg	6.90	8.20 [11.5]	9.70 [9.60]	4.30	7.20	8.70
Potassium	mg/kg	NA	NA	NA	NA	NA	NA

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: / Sample Depth(ft): / Date Collected: / Sample Name:	Units	UD-35 0 - 1 09/28/99 UD-351N	UD-36 0 - 1 09/28/99 UD-361N	UD-37 0 - 1 09/28/99 UD-371N	UD-38 0 - 2 09/28/99 UD-382N	UD-39 0 - 1.5 09/28/99 UD-391.5N	UD-40 0 - 1 09/28/99 UD-401N
Selenium	mg/kg	1.70	1.70 [1.80]	2.00 [2.60]	1.20 B	1.30	1.20
Silver	mg/kg	0.160 B	0.280 B [0.300 B]	0.710 U [0.760 U]	0.900 U	0.670 U	0.540 U
Sodium	mg/kg	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	2.10 U	2.00 U [1.90 U]	2.40 U [2.50 U]	3.00 U	2.20 U	1.80 U
Vanadium	mg/kg	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	78.1 *	131 * [116 *]	94.3 * [106 *]	18.3 *	95.4 *	69.7 *
Explosives							
1,2-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	mg/kg	227.3 U	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
1,3-Dinitrobenzene	mg/kg	227.3 U	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
1,4-Dinitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA
1-Nitronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	mg/kg	227.3 U	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
2,4-Dinitrotoluene	mg/kg	227.3 U	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
2,6-Dinitrotoluene	mg/kg	227.3 U	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
2-Amino-4,6-dinitrotoluene	mg/kg	0.1771 J	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
2-Nitrotoluene	mg/kg	454.5 U	416.7 U [500 U]	416.7 U [500 U]	434.8 U	476.2 U	416.7 U
3-Nitrotoluene	mg/kg	454.5 U	416.7 U [500 U]	416.7 U [500 U]	434.8 U	476.2 U	416.7 U
4-Amino-2,6-dinitrotoluene	mg/kg	0.2637	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
4-Nitrotoluene	mg/kg	454.5 U	416.7 U [500 U]	416.7 U [500 U]	434.8 U	476.2 U	416.7 U
HMX	mg/kg	454.5 U	416.7 U [500 U]	416.7 U [500 U]	434.8 U	476.2 U	416.7 U
Nitrobenzene	mg/kg	227.3 U	208.3 U [250 U]	208.3 U [250 U]	217.4 U	238.1 U	208.3 U
Nitrocellulose	mg/kg	136 J	82.1 J [90.7 J]	94.5 J [112 J]	84.7 J	69 J	43,400 UJ
Nitroglycerin	mg/kg	5,000 U	4,761.9 U [4,651.2 U]	4,761.9 U [4,545.5 U]	5,000 U	5,000 U	4,444.4 U
Pentaerythritol Tetranitrate	mg/kg	NA	NA	NA	NA	NA	NA
RDX	mg/kg	454.5 U	416.7 U [500 U]	416.7 U [500 U]	434.8 U	476.2 U	416.7 U
Tetryl	mg/kg	454.5 U	416.7 U [500 U]	416.7 U [500 U]	434.8 U	476.2 U	416.7 U
Triphenylene	mg/kg	NA	NA	NA	NA	NA	NA
OC Pest							
4,4-DDD	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
4,4-DDE	mg/kg	0.0016 J	0.00091 J [0.00082 J]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	0.0011 J
4,4-DDT	mg/kg	5.7 U	0.0015 J [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	0.0023 J
Aldrin	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Alpha-BHC	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Alpha-chlordane	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Beta-BHC	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Camphechlor	mg/kg	290 U	250 U [250 U]	210 UJ [220 UJ]	270 U	210 UJ	240 U
Delta-BHC	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Dieldrin	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
Endosulfan I	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Endosulfan II	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
Endosulfan Sulfate	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
Endrin	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
Endrin aldehyde	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
Endrin ketone	mg/kg	5.7 U	4.9 U [5 U]	4.3 UJ [4.5 UJ]	5.4 U	4.3 UJ	4.9 U
Gamma-Bhc	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Gamma-chlordane	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Heptachlor	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Heptachlor Epoxide	mg/kg	2.9 U	2.5 U [2.5 U]	2.1 UJ [2.2 UJ]	2.7 U	2.1 UJ	2.4 U
Methoxychlor	mg/kg	29 U	25 U [25 U]	21 UJ [22 UJ]	27 U	21 UJ	24 U
PCBs							
Aroclor 1016	mg/kg	30 U	26 U [26 U]	22 UJ [23 UJ]	28 U	22 U	25 U

Exhibit A. Surface Soil Dataset - Beyond the Remedial Area
Kenvil Works Facility
Kenvil, New Jersey

Location ID: Sample Depth(ft): Date Collected: Sample Name:	Units	UD-35 0 - 1 09/28/99 UD-351N	UD-36 0 - 1 09/28/99 UD-361N	UD-37 0 - 1 09/28/99 UD-371N	UD-38 0 - 2 09/28/99 UD-382N	UD-39 0 - 1.5 09/28/99 UD-391.5N	UD-40 0 - 1 09/28/99 UD-401N
Aroclor 1221	mg/kg	30 U	26 U [26 U]	22 UJ [23 UJ]	28 U	22 U	25 U
Aroclor 1232	mg/kg	30 U	26 U [26 U]	22 UJ [23 UJ]	28 U	22 U	25 U
Aroclor 1242	mg/kg	30 U	26 U [26 U]	22 UJ [23 UJ]	28 U	22 U	25 U
Aroclor 1248	mg/kg	30 U	26 U [26 U]	22 UJ [23 UJ]	28 U	22 U	25 U
Aroclor 1254	mg/kg	30 U	26 U [26 U]	22 UJ [23 UJ]	28 U	22 U	25 U
Aroclor 1260	mg/kg	58 UJ	50 UJ [51 UJ]	44 UJ [46 UJ]	55 UJ	44 UJ	50 UJ

Notes:
COPEC = constituent of potential ecological concern
mg/kg = milligrams per kilogram
NA = not available
N = no
ND = constituent not detected
NSVA = no screening value available
U = Compound not detected. Associated value is compound quantitation limit
J = Estimated concentration
Y = yes
"--" = not applicable
(a) = Due to uncertainties in the triphenylene data set, ecological risk assessed using the structurally similar compound chrysene.

Exhibit B-1. Hazard Quotients for American Robin
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Inverts	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d) LOAEL	HQ LOAEL
Metals									
Chromium	337	0.081	1	103	0.016	0.002	27	26.6	1
Copper	112	0.081	1	57	0.016	0.002	13	12.1	1
Selenium	4.0	0.081	1	2.6	0.016	0.002	0.6	0.579	1
Zinc	14087	0.081	1	1963	0.016	0.002	661	661	1
Explosives and Energetics									
Nitrocellulose	- -	0.081	1	- -	0.016	0.002	- -	NA	- -

Notes:

COPEC = constituent of potential ecological concern
EPC = exposure point concentration
C = concentration
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level
HQ = hazard quotient
NA = not available
"--" = not applicable
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day

Exhibit B-2. Hazard Quotients for Northern Bobwhite
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Plants	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d) LOAEL	HQ LOAEL
Metals									
Chromium	17021	0.17	1	698	0.002	0.0002	27	26.6	1
Copper	10355	0.17	1	74	0.002	0.0002	12	12.1	1
Selenium	57	0.17	1	44	0.002	0.0002	0.6	0.579	1
Zinc	532188	0.17	1	7182	0.002	0.0002	661	661	1
Explosives and Energetics									
Nitrocellulose	- -	0.17	1	- -	0.002	0.0002	- -	NA	- -

Notes:

COPEC = constituent of potential ecological concern
EPC = exposure point concentration
C = concentration
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level
HQ = hazard quotient

NA = not available
"--" = not applicable
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day

Exhibit B-3. Hazard Quotients for Red-Tailed Hawk
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Mammals	C_{mammal} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d) LOAEL	HQ LOAEL
Metals									
Chromium	11003	1.13	1	215	0.036	0.002	27	26.6	1
Copper	6240	1.13	1	27	0.036	0.002	12	12.1	1
Selenium	232	1.13	1	5.1	0.036	0.002	0.6	0.579	1
Zinc	363628	1.13	1	194	0.036	0.002	661	661	1
Explosives and Energetics									
Nitrocellulose	- -	1.13	1	0	0.036	0.002	- -	NA	- -

Notes:
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
C = concentration
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level
HQ = hazard quotient

NA = not available
"--" = not applicable
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day

Exhibit B-4. Hazard Quotients for Short-Tailed Shrew
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)	HQ
			Inverts					LOAEL	LOAEL
Metals									
Chromium	955	0.017	1	292	0.001	0.00004	24	24	1
Copper	229	0.017	1	118	0.001	0.00004	9.3	9.34	1
Selenium	4.4	0.017	1	2.7	0.001	0.00004	0.2	0.215	1
Zinc	183900	0.017	1	4560	0.001	0.00004	754	754	1
Explosives and Energetics									
Nitrocellulose	--	0.017	1	--	0.001	0.00004	--	NA	--

Notes:

COPEC = constituent of potential ecological concern
EPC = exposure point concentration
C = concentration
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level
HQ = hazard quotient

NA = not available
"--" = not applicable
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day

Exhibit B-5. Hazard Quotients for White-Tailed Deer
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)	HQ
			Plants					LOAEL	LOAEL
Metals									
Chromium	85171	56.5	1	3492	0.261	0.0052	24	24	1
Copper	92227	56.5	1	176	0.261	0.0052	9.3	9.34	1
Selenium	58	56.5	1	45	0.261	0.0052	0.2	0.215	1
Zinc	6700121	56.5	1	29219	0.261	0.0052	754	754	1
Explosives and Energetics									
Nitrocellulose	- -	56.5	1	- -	0.261	0.0052	- -	NA	- -

Notes:
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
C = concentration
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level
HQ = hazard quotient

NA = not available
"--" = not applicable
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day

Exhibit B-6. Hazard Quotients for Red Fox
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{mammal} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)	HQ
			Mammals					LOAEL	LOAEL
Metals									
Chromium	14519	4.54	1	263	0.163	0.005	24	24	1
Copper	8294	4.54	1	28	0.163	0.005	9.3	9.34	1
Selenium	87	4.54	1	3.6	0.163	0.005	0.2	0.215	1
Zinc	743763	4.54	1	204	0.163	0.005	754	754	1
Explosives and Energetics									
Nitrocellulose	- -	4.54	1	0	0.163	0.005	- -	NA	- -

Notes:
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
C = concentration
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level
HQ = hazard quotient

NA = not available
"--" = not applicable
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day

Appendix D

Ecological Risk Assessment of Polychlorinated dibenzo-*p*-dioxins and Polychlorinated dibenzo-*p*-furans in Former Burning Areas

TABLE OF CONTENTS

1. Introduction 1
2. Problem Formulation 1
   2.1 Exposure Pathways 1
   2.2 Assessment and Measurement Endpoints 2
   2.3 Data Summary 2
3. Exposure Assessment 3
4. Effects Assessment 3
   4.1 Toxicological Properties of PCDD/F 3
   4.2 Toxicity Reference Values 4
5. Risk Characterization 4
6. Results and Conclusions 5
7. References 7

Tables

D-1 PCDD/F Exposure Point Concentrations
D-2 Wildlife Exposure Parameters
D-3 Wildlife Toxicity Reference Values
D-4 Northern Bobwhite PCDD/F Hazard Quotients
D-5 White-tailed Deer PCDD/F Hazard Quotients
D-6 American Robin PCDD/F Hazard Quotients
D-7 Short-tailed Shrew PCDD/F Hazard Quotients
D-8 Red-tailed Hawk PCDD/F Hazard Quotients
D-9 Red Fox PCDD/F Hazard Quotients
D-10 Terrestrial Wildlife LOAEL-Based Hazard Quotient Summary

Figures

D-1 Site Location Map

D-2 PCDD/F Sample Location Map

Attachments

D-1 PCDD/F Soil Dataset

1. Introduction

Hercules Incorporated (Hercules) prepared this *Ecological Risk Assessment of Polychlorinated dibenzo-p-dioxins and Polychlorinated dibenzo-p-furans (PCDD/F) in Former Burning Areas* as a technical appendix to the Ecological Risk Assessment (ERA) for the Kenvil Works Facility located on Hercules Road in Kenvil, Morris County, New Jersey (NJ) (the Facility) (Figure D-1). This evaluation was prepared consistent with New Jersey Department of Environmental Protection (NJDEP) *Ecological Evaluation Technical Guidance* (2015) and United States Environmental Protection Agency (USEPA) *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (1997).

As a component of completing the remedial investigation at the Facility, potential former burning grounds onsite were sampled for PCDD/F in November 2013. The ERA evaluated terrestrial exposures using a single, Facility-wide exposure area and a robust surface soil sample dataset. The PCDD/F surface soil dataset characterizes discrete areas within the Facility-wide exposure area. Given the spatial disparity of the two datasets, this technical appendix supplements the Facility-wide evaluation of terrestrial exposures presented in the ERA with specific information regarding potential exposure risks for terrestrial receptors to PCDD/F mixtures in soils in former burning grounds onsite.

2. Problem Formulation

Historically, burning served as a means of disposing of off-specification explosive and energetic (E&E) materials and decontaminating and demolishing structures that supported E&E manufacturing. These industry standard practices were used through the late 1800s and up until the 1970s at the Facility, and generally occurred in specific areas (i.e., burning grounds) onsite. Residual materials and combustion by-products likely comingled with surface soil in these areas and may pose potential ecological risks to receptors using former burning grounds at the Facility.

2.1 Exposure Pathways

Potential ecological receptors may be directly or indirectly exposed to PCDD/F in soil if a complete exposure pathway exists. A potential soil exposure pathway is considered complete if it contains the following elements:

- A constituent source
- Receptor contact at the exposure point
- An exposure route

Based on the criteria listed above, potentially complete exposure pathways linking PCDD/F in Facility soil and ecological receptors exist.

2.2 Assessment and Measurement Endpoints

The following assessment (AE) and measurement endpoints (ME) were identified based on potentially complete direct and indirect exposure pathways. PCDD/F can bioaccumulate in upper trophic level organisms, with exposures generally occurring via ingestion of food items with a PCDD/F body burden. PCDD/F toxicity does not occur in plants or terrestrial invertebrates (USEPA 2008; Hahn 2002). The AEs and MEs presented below consider PCDD/F exposure routes and toxicity mechanisms.

AE 1. Could food-chain transfer of PCDD/F in former burning area soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

> ME 1. Compare modeled dietary PCDD/F exposure to TRVs (calculate hazard quotients [HQs]) for herbivorous mammals and birds (represented by white-tailed deer and northern bobwhite).

AE 2. Could food-chain transfer of PCDD/F in former burning area soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

> ME 2. Compare modeled dietary PCDD/F exposure to TRVs (calculate HQs) for insectivorous mammals and birds (represented by short-tailed shrew and American robin).

AE 3. Could food-chain transfer of PCDD/F in former burning area soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

> ME 3. Compare modeled dietary PCDD/F exposure to TRVs (calculate HQs) for carnivorous mammals and birds (represented by red fox and red-tailed hawk).

2.3 Data Summary

Twenty surface soil samples were collected from five discrete areas either known to or suspected to have supported historical thermal destruction activities at the Facility and analyzed for PCDD/F congeners. Figure D-2 illustrates PCDD/F sample locations. Five of the twenty samples were collected from the former burning ground northwest of Duck Pond. This area (Development Area – Old Burning Ground and adjacent areas of concern to the southwest [M5-3, L5-2313, L5-10, L5-2275, L5-539]) was identified as an Area of Presumed Remedial Action in the ERA. As such, the five samples from this area were excluded from this evaluation. One additional sample falls within the footprint of a World War I era burning grounds (Ammonium Nitrate Area – Former Burning Ground and intervening areas of concern [H12-237, H13-1, H13-7]) which was also designated as an Area of Presumed Remedial Action in the ERA. However, the boundaries of this area are being refined as part of a pre-design investigation. As such, this sample was conservatively included in the PCDD/F evaluation dataset.

Table D-1 presents summary statistics for the 15-sample dataset. Exhibit A presents the PCDD/F dataset.

Congener toxicity varies based on the number and position of chlorine atoms in the molecule. Toxic equivalency factors (TEFs) normalize the toxicity of each individual congener to the toxicity of the most toxic congener (2,3,7,8-tetrachlorodibenzodioxin [TCDD]). This procedure assigns individual TEFs to each congener (Van den Berg et al. 1998, 2005). TEFs specific to avian or mammalian tissue are used based on the associated endpoint. The concentration of each congener is multiplied by its respective TEF. The results are summed to obtain a toxicity equivalency quotient (TEQ) (Table D-1). This process yields TEQ-based PCDD/F soil concentrations for use as exposure point concentrations (EPC) and to support estimation of dietary item tissue concentrations.

3. Exposure Assessment

PCDD/F exposure was evaluated using dietary dose modeling consistent with that presented in the ERA. Receptor-specific exposure parameters remain unchanged. PCDD/F-specific values for soil are described below.

EPC representing the PCDD/F mixture in soil across the assessed area were calculated to support upper trophic level dietary dose modeling. For each congener, a 95th upper confidence limit of the mean of the data (95UCL), calculated using ProUCL Version 4.1.00, was multiplied by its TEF and the result summed to derive a TEQ-based EPC. Table D-1 summarizes TEQ-based EPCs for mammals and birds used in upper trophic level dietary dose models.

Upper trophic level dietary dose modeling also requires plant, terrestrial invertebrate, and mammalian prey item tissue concentrations. The receptor-specific soil EPCs and congener-specific bioaccumulation factors (BAFs) from USEPA (1999) are used to estimate PCDD/F concentrations in dietary items. Table D-2 summarizes these values.

4. Effects Assessment

The ecological effects assessment describes the potential effects associated with the exposure of ecological receptors to PCDD/F, and reflects the type of assessment endpoints selected.

4.1 Toxicological Properties of PCDD/F

Toxicity of individual PCDD/F congeners is related to the toxicity of 2,3,7,8-TCDD which is known to be the most toxic of the congeners (Van den Berg et al. 1998). Toxic effects can include dermal toxicity, immunotoxicity, carcinogenicity, and adverse effects on reproduction, development, and endocrine functions (Van den Berg et al. 1998). To assess the toxicity of a specific PCDD/F mixture, TEFs are calculated by relating their toxicity to the toxicity of 2,3,7,8-TCDD as previously discussed.

The aryl hydrocarbon receptor (AhR), responsible for the mechanism of PCDD/F toxicity in vertebrate species, fails to bind PCDD/F in non-vertebrate organisms (Hahn 2002). As such, PCDD/F does not exhibit toxicity in plants or soil invertebrates (USEPA 2008, Hahn 2002). For mammals, TEF toxicity is based on semi-chronic studies with mink. For birds, a number of study types (egg injection studies, studies with cultured avian hepatocytes, and studies with cultured thymus cells) and organisms (chicken, duck, goose, turkey, pheasant, gull, tern, cormorant, and kestrel) were considered together to assess the toxicity of individual congeners via TEFs (Van den Berg et al. 1998).

4.2 Toxicity Reference Values

The TRV for mammalian receptors is based on a laboratory study of potential effects on reproduction in rats exposed to 2,3,7,8-TCDD via the diet for three consecutive generations, as presented in Sample et al. 1996. Effects noted include reduced fertility and neonatal survival at the two highest dose levels included in the study. For birds, the selected TRV is based on a laboratory study of reproductive effects (i.e., egg production and hatchability) in ring-necked pheasants receiving weekly intraperitoneal injections of 2,3,7,8-TCDD over a 10-week period inclusive of the reproductive period. The study identified reduced egg production and hatchability at the highest dose level (Sample et al. 1996). Table D-3 summarizes TRVs for avian and mammalian receptors.

5. Risk Characterization

Dietary dose models evaluated potential exposures to insectivores (American robin and short-tailed shrew), carnivores (red-tailed hawk and red fox), and herbivores (bobwhite quail and white-tailed deer). Dietary dose model results were compared to TRVs to derive hazard quotients (HQs). A bounded range of HQs estimate potential risks based on no observed adverse effects level (NOAEL) and lowest observed adverse effects level (LOAEL) TRVs. Tables D-4 through D-9 present upper trophic level dietary dose models. Table D-10 summarizes LOAEL-based HQs (HQ_{LOAEL}) and NOAEL-based HQs (HQ_{NOAEL}).

When characterizing risk to a receptor species population, there are several possible interpretations for an HQ value. HQ_{NOAEL} greater than one indicate that potential adverse effects are possible, and HQ_{LOAEL} greater than one suggest that adverse effects are likely. Similarly, HQ_{NOAEL} less than one indicate that potential adverse effects are negligible, and HQ_{LOAEL} less than one suggest that adverse effects are unlikely. HQ_{LOAEL} and HQ_{NOAEL} provide a bounded range of risk estimates for consideration. Acknowledging the conservative assumptions on which this ERA is based, consideration of the HQ_{LOAEL} is appropriate.

HQ_{LOAEL} for each receptor are presented in Table D-10 and summarized in the table below.

Receptor	HQ_{LOAEL}
Northern Bobwhite	≤1
White-tailed Deer	≤1
American Robin	≤1
Short-tailed Shrew	≤1
Red-tailed Hawk	≤1
Red Fox	≤1

As summarized in the table above, HQ_{LOAEL} are less than one for each receptor.

6. Results and Conclusions

This technical appendix presents an assessment to PCDD/F in former burning areas at the Facility. Estimated PCDD/F exposure (i.e., dose) for upper trophic level wildlife was compared to literature-based TRVs to calculate HQs. An interpretation of HQ values relative to each assessment and measurement endpoint follows.

AE 1. Could food-web transfer of PCDD/F in former burning area soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

Results of the exposure assessment, effects characterization, and risk characterization indicate that adverse effects to herbivorous avian and mammal populations by exposure to PCDD/F are unlikely.

This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

This conclusion is supported by the following measurement endpoints:

- HQ_{LOAEL} for northern bobwhite, an herbivorous bird, are less than 1.
- HQ_{LOAEL} for white-tailed deer, an herbivorous mammal, are less than 1.

AE 2. Could food-web transfer of PCDD/F in former burning area soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

Results of the exposure assessment, effects characterization, and risk characterization indicate that adverse effects to insectivorous avian and mammal populations by exposure to PCDD/F are unlikely.

This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

This conclusion is supported by the following measurement endpoints:

- HQ_{LOAEL} for American robin, an insectivorous bird, are less than 1.
- HQ_{LOAEL} for short-tailed shrew, an insectivorous mammal, are less than 1.

AE 3. Could food-web transfer of PCDD/F in former burning area soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

Results of the exposure assessment, effects characterization, and risk characterization indicate that adverse effects to carnivorous avian and mammal populations by exposure to PCDD/F are unlikely.

This is a reasonable finding based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential risk.

This conclusion is supported by the following measurement endpoints:

- HQ_{LOAEL} for red-tailed hawk, a carnivorous bird, are less 1.
- HQ_{LOAEL} for red fox, a carnivorous mammal, are less than 1.

In summary, potential ecological risks associated with exposure to PCD/F in soils are unlikely. Based on these findings, no further evaluation of potential ecological risks associated with PCDD/F are recommended.

7. References

Hahn, M.E. 2002. Aryl hydrocarbon receptors: diversity and evolution. *Chemico-Biological Interactions* 141: 131-160.

New Jersey Department of Environmental Protection. 2015. Ecological Evaluation Technical Guidance. Version 1.3, February 2015.

Sample, B.E., D.M. Opresko, and G.W. Suter II. 1996. Toxicological Benchmarks for Wildlife: 1996 Revision. Prepared by the Risk Assessment Program Health Sciences Research Division. Prepared for the U.S. Department of Energy by Lockheed Martin Energy Systems, Inc. Oak Ridge National Laboratory. ES/ER/TM-86/R3.

United States Environmental Protection Agency (USEPA). 1992. *Framework for Ecological Risk Assessment*. Risk Assessment Forum, Washington, DC.EPA/630/R-92/001. February 1992.

USEPA. 1997. *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments*. EPA 540-R-97-006. Office of Solid Waste and Emergency Response. June 1997.

USEPA. 1998. *Guidelines for Ecological Risk Assessment*. Risk Assessment Forum. EPA/630/R-95/002F. April 1998.

USEPA. 1999. *Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities*. Appendices C through E.

USEPA. 2008. Framework for Application of the Toxicity Equivalence Methodology for Polychlorinated Dioxins, Furans, and Biphenyls in Ecological Risk Assessment. Office of the Science Advisor. Risk Assessment Forum. Washington, D.C. EPA/100/R-08/004. June.

USEPA. 2010. ProUCL Version 4.1.00. Technical Guide (Draft) May. EPA/600/R-07/041.

Van den Berg, M., et al. 1998. Toxicity Equivalency Factors (TEFs) for PCBs, PCDs, PCDFs for Humans and Wildlife. *Environmental Health Perspectives*. Vol 106, No 12: 775-791.

Van den Berg, M., et al. The 2005 World Health Organization reevaluation of human and mammalian toxic equivalency factors for dioxins and dioxin-like compounds. *Toxicological Sciences* 93.2 (2006): 223-241.

Tables

Table D-1. PCDD/F Exposure Point Concentrations
Kenvil Works Facility
Kenvil, New Jersey

Analyte	n	Detects	Range of Detects (ng/kg)	Distribution[1]	95UCL[2] (ng/kg)	Basis	TEFs - Mammal (unitless)	TEFs - Avian (unitless)
PCDD/F Congeners								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	15	15	0.113-197	Gamma	54	95% Adjusted Gamma UCL	0.01	0.01
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	15	15	0.306-76	Normal	32	95% Student's-t UCL	0.01	0.001
1,2,3,4,7,8,9-Heptachlorodibenzofuran	15	15	0.0449-15	Gamma	3.9	95% Adjusted Gamma UCL	0.01	0.01
1,2,3,4,7,8-Hexachlorodibenzofuran	15	15	0.0791-57.2	Nonparametric	21	95% Chebyshev (Mean, Sd) UCL	0.1	0.1
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	15	14	0.128-7.62	Nonparametric	3.0	95% KM (Chebyshev) UCL	0.1	0.05
1,2,3,6,7,8-Hexachlorodibenzofuran	15	15	0.0508-58.9	Nonparametric	22	95% Chebyshev (Mean, Sd) UCL	0.1	0.1
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	15	15	0.076-13.2	Nonparametric	5.5	95% Chebyshev (Mean, Sd) UCL	0.1	0.01
1,2,3,7,8,9-Hexachlorodibenzofuran	15	15	0.052-15.2	Nonparametric	5.7	95% Chebyshev (Mean, Sd) UCL	0.1	0.1
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	15	15	0.0606-10.8	Nonparametric	4.5	95% Chebyshev (Mean, Sd) UCL	0.1	0.1
1,2,3,7,8-Pentachlorodibenzofuran	15	15	0.0727-42.4	Nonparametric	16	95% Chebyshev (Mean, Sd) UCL	0.03	0.1
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	15	14	0.0642-10.4	Nonparametric	4.0	95% KM (Chebyshev) UCL	1	1
2,3,4,6,7,8-Hexachlorodibenzofuran	15	15	0.0281-75.8	Nonparametric	28	95% Chebyshev (Mean, Sd) UCL	0.1	0.1
2,3,4,7,8-Pentachlorodibenzofuran	15	15	0.0482-78.1	Nonparametric	29	95% Chebyshev (Mean, Sd) UCL	0.3	1
2,3,7,8-Tetrachlorodibenzofuran	15	13	0.0333-49.7	Nonparametric	19	95% KM (Chebyshev) UCL	0.1	1
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	15	12	0.0388-3.33	Nonparametric	1.3	95% KM (Chebyshev) UCL	1	1
Octachlorodibenzofuran	15	15	0.212-63.5	Gamma	24	95% Approximate Gamma UCL	0.0003	0.0001
Octachlorodibenzo-p-Dioxin	15	15	5.39-7200	Gamma	3655	95% Approximate Gamma UCL	0.0003	0.0001
PCDD/F TEQ (ng/kg)							27	64

Abbreviations:
n = sample size
ng/kg = nanogram per kilogram
TEF = toxic equivalency factor
TEQ = toxic equivalency quotient
95UCL = 95% upper confidence limit of the mean

Notes:
1. Distribution assessed by goodness-of-fit tests based on detected values only conducted using ProUCL 4.1.00 at a 95% confidence level (α = 0.05).
   Distributions:
   Gamma: data set follows a gamma distribution, according to the Kolmogorov-Smirnov test.
   Nonparametric: data set does not follow a normal distribution.
2. The average of the detected constituents or the minimum detection limit was selected for duplicate samples.

References:
USEPA. 2010. ProUCL Version 4.1.00 Technical Guide (Draft). Office of Research and Development. EPA/600/R-07/041. May.

Table D-2. Wildlife Exposure Parameters
Kenvil Works Facility
Kenvil, New Jersey

Common Name	Scientific Name	Feeding Guild	Body Weight (kg)	Note	Dietary Composition (%)			Daily Ingestion Rate (kg/day ww)	Note	Daily Ingestion Rate (kg/day dw)	Note	Soil/ Sediment Ingestion (%)	Note	Soil/ Sediment Ingestion Rate (kg/day dw)	Note
					Plants	Invertebrates	Tissue								
Terrestrial Species															
Northern bobwhite	*Colinus virginianus*	Herbivorous	0.174	b	100			0.013529	b	0.002029	c	9.3	d	0.000189	h
White-tailed deer	*Odocoileus virginianus*	Herbivorous	56.5	b	100			1.74	b	0.261	e	2.0	d	0.00522	h
American robin	*Turdus migratorius*	Insectivorous	0.081	b		100		0.097605	b	0.015617	c	10.4	d	0.001624	h
Short-tailed shrew	*Blarina brevicauda*	Insectivorous	0.017	b		100		0.007950	b	0.001272	c	3.0	e	0.000038	h
Red-tailed hawk	*Buteo jamaicensis*	Carnivorous	1.13	b			100	0.111531	b	0.035690	c	5.7	e	0.002034	h
Red fox	*Vulpes vulpes*	Carnivorous	4.535	b			100	0.507920	b	0.162534	c	2.8	d	0.004551	h

Abbreviations:
kg = kilogram
kg/day dw = kilogram per day dry weight
kg/day ww = kilogram per day wet weight

Notes:
b. USEPA 1993
c. Daily ingestion rates converted to dry weight assuming a moisture content of the following (USEPA 2007):
Inverts: 84%
Tissue: 68%
Plants: 85%
d. Beyer et al. 1994 (muskrat based on values for woodchuck; robin based on values for woodcock; bobwhite based on values for wild turkey)
e. USEPA 2007
h. Calculated by multiplying the soil ingestion rate times the dry weight daily ingestion rate

Table D-3. Wildlife Toxicity Reference Values
Kenvil Works Facility
Kenvil, New Jersey

	Toxicity Reference Values (mg/kg/day)			
	Mammals		Avians	
	NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F TEQ	0.000001 a	0.00001 a	0.000014 a	0.00014 a

Abbreviations:
-- = not applicable
LOAEL = lowest observed adverse effects level
mg/kg/day = miligram per kilogram per day
NOAEL = no observed adverse effects level
TEQ = toxic equivalency quotient

Notes:
a. Sample et al. 1996

Table D-4. American Robin PCDD/F Hazard Quotients
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil EPC (mg/kg)	Body Weight (kg)	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
							NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F	0.000064	0.081	0.00011	0.016	0.0016	0.000023	0.000014	0.00014	2	0.2

Abbreviations:
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table D-5. Red-tailed Hawk PCDD/F Hazard Quotients
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil EPC (mg/kg)	Body Weight (kg)	C_{mammal} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
							NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F	0.000064	1.13	0.000049	0.036	0.0020	0.0000017	0.000014	0.00014	0.1	0.01

Abbreviations:
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table D-6. Northern Bobwhite PCDD/F Hazard Quotients
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil EPC (mg/kg)	Body Weight (kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
							NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F	0.000064	0.17	0.00000039	0.0020	0.00019	0.000000074	0.000014	0.00014	0.005	0.0005

Abbreviations:
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day
NOAEL = no observed adverse effects level
TEQ = toxic equivalency factor
TRV = toxicity reference value

Table D-7. Short-tailed Shrew PCDD/F Hazard Quotients
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil EPC (mg/kg)	Body Weight (kg)	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
							NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F	0.000027	0.017	0.000037	0.0013	0.000038	0.0000029	0.000001	0.00001	3	0.3

Abbreviations:
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table D-8. Red Fox PCDD/F Hazard Quotients
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil EPC (mg/kg)	Body Weight (kg)	C_{mammal} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
							NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F	0.000027	4.54	0.000021	0.16	0.0046	0.00000078	0.000001	0.00001	0.8	0.08

Abbreviations:
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table D-9. White-tailed Deer PCDD/F Hazard Quotients
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Soil EPC (mg/kg)	Body Weight (kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
							NOAEL	LOAEL	NOAEL	LOAEL
PCDD/F	0.000027	56.50	0.00000013	0.26	0.0052	0.0000000031	0.000001	0.00001	0.003	0.0003

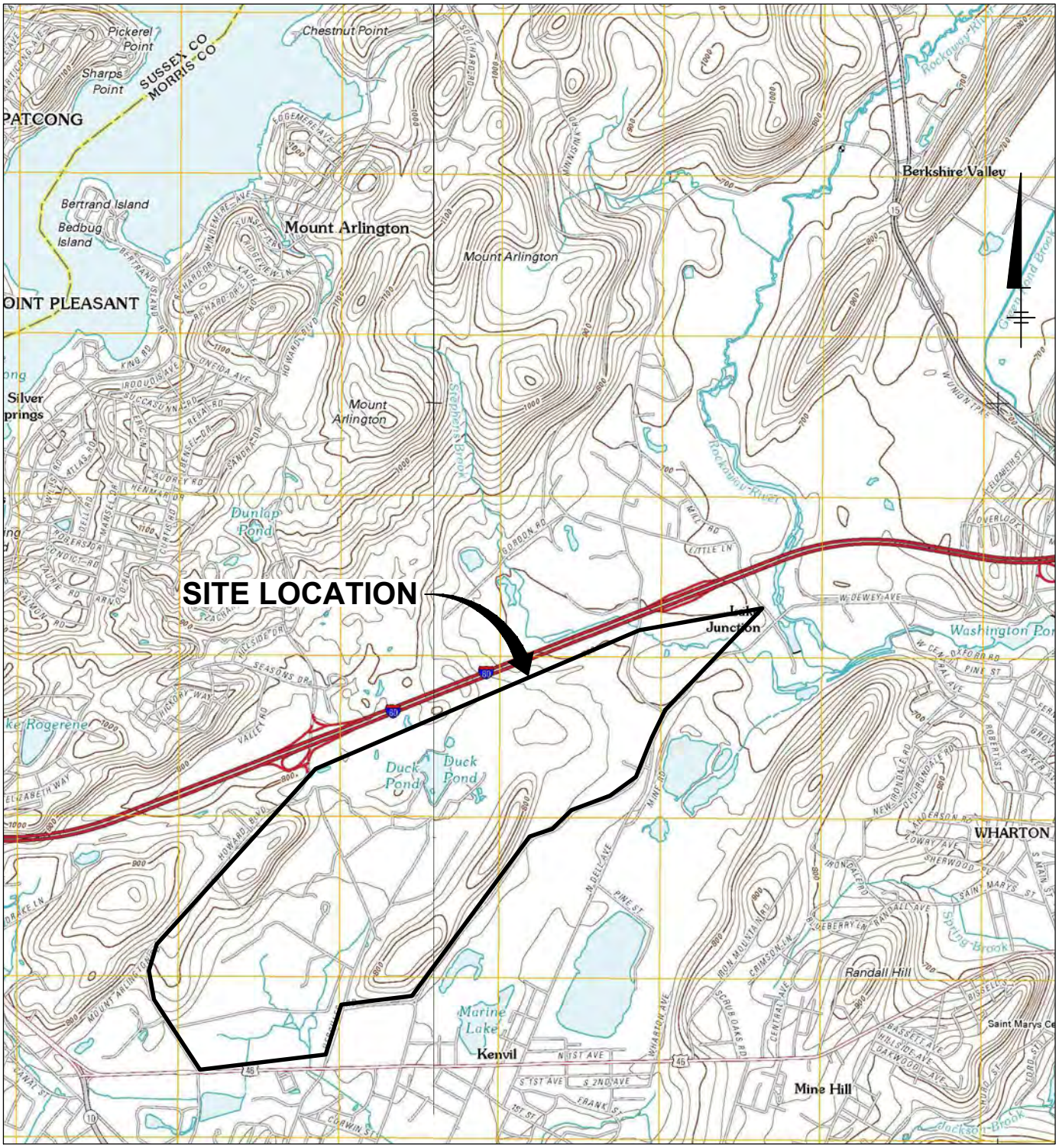
Abbreviations:
C = concentration
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
mg/kg-d = milligram per kilogram day
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table D-10. Terrestrial Wildlife LOAEL-Based Hazard Quotient Summary
Kenvil Works Facility
Kenvil, New Jersey

Receptor	HQ - LOAEL
Northern Bobwhite	0.0005
White-tailed Deer	0.0003
American Robin	0.2
Short-tailed Shrew	0.3
Red-tailed Hawk	0.01
Red Fox	0.08

Abbreviations:
HQ = hazard quotient
kg = kilogram
LOAEL = lowest observed adverse effects level

Figures



SOURCES:

USGS QUADRANGLE MAPS
DOVER, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

STANHOPE, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

0 3000' 6000'

GRAPHIC SCALE

NEW JERSEY

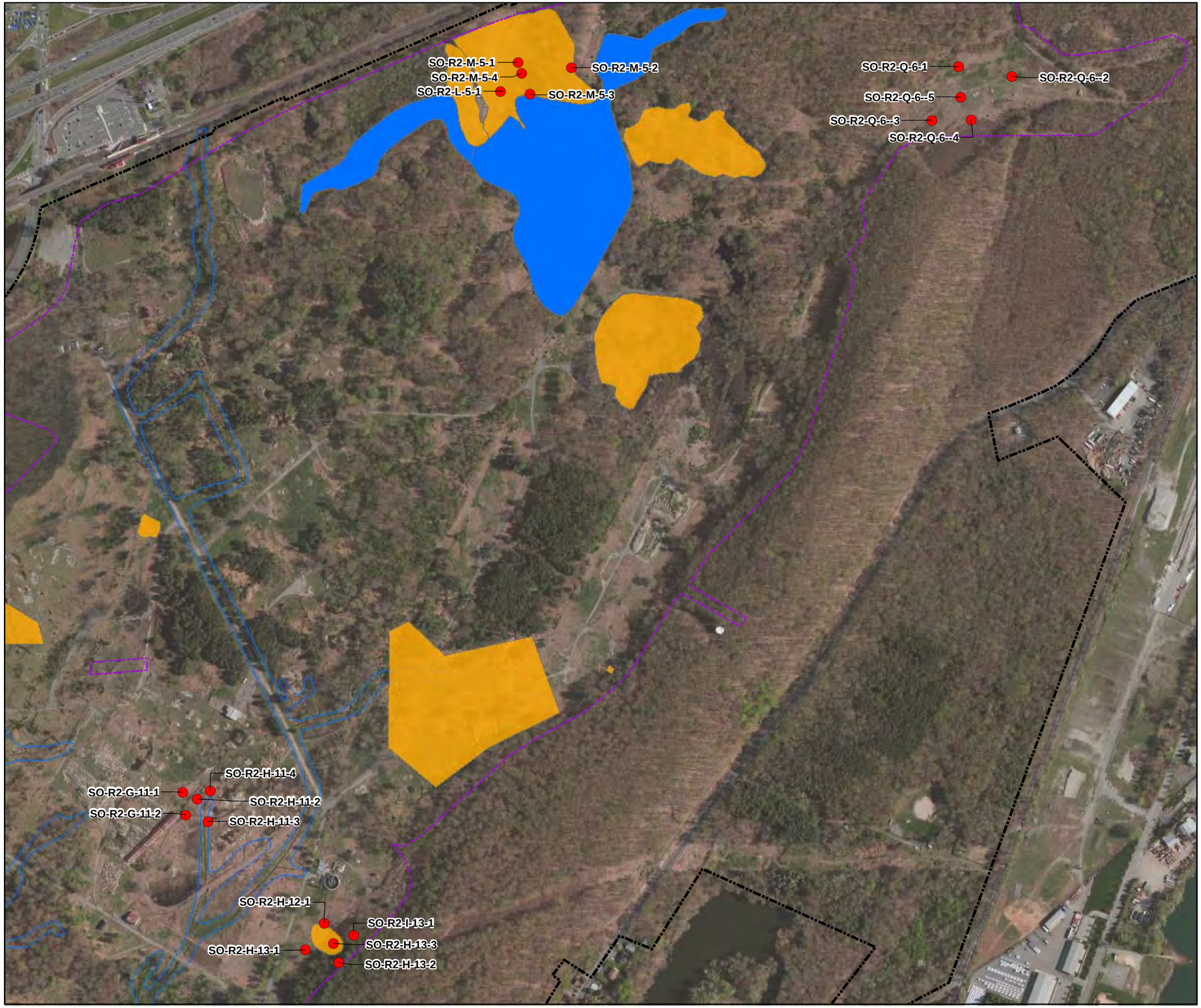
HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
ECOLOGICAL RISK ASSESSMENT

SITE LOCATION

ARCADIS

FIGURE
D-1

CITY: CRANBURY-NJ DIV/GROUP: ENVCAD DB: T.FATTO/JMEYER/TFATTO LD: TFATTO PIC: PM: B.PIERCE TM: S.LAREW LYR: ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY\ACT\NJ003000\NJ 2\00009\ERA\NJ003000N01.dwg LAYOUT: 1-1 SAVED: 10/19/2011 9:29 AM ACADVER: 1..1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 3/30/2015 1:22 PM BY: MEYER, JULIE
XREFS: IMAGES: PROJECTNAME: ----
NJ003000X01.jpg
NJ003000X02.jpg



LEGEND:

- DIOXIN FURAN DATA LOCATION
- SITE BOUNDARY
- STREAM/WATER FEATURE
- REMEDIAL AREA
- AREA OF PRESUMED ECOLOGICAL RISK
- WATER

0 500 1,000 Feet

GRAPHIC SCALE

NOTES:

1. 2011 NAIP IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. BASEMAP INFORMATION FROM ELECTRONIC FILE PROVIDED BY ASHLAND, INC. TITLED: "SITE PLAN.DWG"
3. OPERATIONAL AREAS DIGITIZED FROM MWH, REMEDIAL INVESTIGATION REPORT, HERCULES INCORPORATED KENVIL WORKS FACILITY, FIGURE TITLED: "SEDIMENT SAMPLE LOCATION MAP", FIGURE D-1.

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT

DIOXIN /FURAN SAMPLE LOCATIONS

ARCADIS

FIGURE
D-2

City: SYR Div/Group: SWG Created By: J.Rapp Last Saved By: jrapp
Ashland Kenvil (NJ004000.NJ63.00002)
Q:\Ashland\Kenvil_NJ\EcoRiskAssessement_Comments\mxd\DioxinFuranLocations.mxd 2/21/2014 4:33:54 PM

Attachments

Attachment D-1. PCDD/F Soil Dataset
Kenvil Works Facility
Kenvil, New Jersey

Sample ID: / Sample Depth (feet): / Sample Date: / Dioxins/Furans Units:	TEF-Mammal (unitless)	TEF-Avian (unitless)	SO-R2-G-11-1 0-0.6 11/11/13 (ng/kg)	SO-R2-G-11-2 0-0.7 11/11/13 (ng/kg)	SO-R2-H-11-2 0.25 - 0.75 11/11/13 (ng/kg)	SO-R2-H-11-3 0 - 0.5 11/11/13 (ng/kg)	SO-R2-H-11-4 1-1.6 11/12/13 (ng/kg)	SO-R2-H-12-1 0.5 - 1 11/11/13 (ng/kg)	SO-R2-H-13-1 0.25 - 0.75 11/11/13 (ng/kg)	SO-R2-H-13-2 0 - 0.5 11/11/13 (ng/kg)	SO-R2-I-13-1 0.5 - 1 11/11/13 (ng/kg)	SO-R2-M-5-2 0.2-0.7 11/11/13 (ng/kg)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	0.01	18.1	19.3	0.693	3.09 [3.56]	0.113	197	20.8	5.71	5.57	9.44 [3.57]
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	0.001	48.8	28	0.995	2.51 [2.79]	0.306	76	30.6	23.6	23.8	45.6 [36.1]
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	0.01	1.7	2.07	0.112	0.515 [0.486]	0.0449	15	1.95	0.773	0.548	0.699 [0.587]
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	0.1	1.93	4.55	0.212	0.998 [0.994]	0.0791	57.2	4.19	1.48	1.23	1.49 [1.12]
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	0.05	1.11	0.811	0.129	0.156 [0.184]	5.39 U	7.62	0.943	0.425	0.437	0.456 [0.292]
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	0.1	2.82	4.32	0.187	0.775 [0.955]	0.0508	58.9	9.28	1.41	1.35	1.36 [0.734]
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	0.01	2.43	3.88	0.13	0.262 [0.309]	0.076	13.2	2.14	0.725	0.704	0.664 [0.38]
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	0.1	0.73	1.22	0.114	0.376 [0.369]	0.0703	15.2	1.09	0.48	0.96	0.432 [5.43 U]
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	0.1	1.84	2.09	0.15	0.277 [0.33]	0.0606	10.8	2.57	0.568	0.607	0.569 [0.3]
1,2,3,7,8-Pentachlorodibenzofuran	0.03	0.1	1.4	3.51	0.35	0.928 [1.12]	0.0727	42.4	7.79	1.44	2.25	1.33 [0.732]
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	1	0.843	0.779	0.235	0.146 [0.189]	0.0787	10.4	0.807	0.346	0.301	5.58 U [0.186]
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	0.1	2.53	4.73	0.31	0.615 [0.673]	0.0281	75.8	5.18	1.69	1.32	2.5 [1.05]
2,3,4,7,8-Pentachlorodibenzofuran	0.3	1	1.66	4.76	0.226	0.903 [0.981]	0.0482	78.1	5.36	1.82	1.5	1.07 [0.95]
2,3,7,8-Tetrachlorodibenzofuran	0.1	1	1.09 U	6.88	0.235	2.13 [2.25]	1.08 U	49.7	5.01	1.33	1.24	0.549 [0.472]
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	1	0.543	0.35	0.124	1.27 U [1.25 U]	0.0439	3.33	0.408	0.137	0.082	0.109 [0.0585]
Octachlorodibenzofuran	0.0003	0.0001	29.2	21.2	0.778	7.73 [7.97]	0.212	63.5	22.1	7.37	8.77	8.61 [5.16]
Octachlorodibenzo-p-Dioxin	0.0003	0.0001	1,120	237	12.4	27.5 [28.3]	5.39	256	260	2,370	2,420	7200 [7120]
TEQ-Mammal, ND=0	--	--	4.3	5.6	0.61	1.1	0.18	70	6.7	2.9	2.7	3.9
TEQ-Avian, ND=0	--	--	4.6	14.7	0.97	3.8	0.21	170	14.9	4.7	4.3	3.2

Notes:
ng/kg = nanogram per kilogram
-- = not applicable
TEF = toxic equivalency factor
TEQ = toxic equivalency quotient
0.903 [0.981] = duplicate results presented in brackets

Attachment D-1. PCDD/F Soil Dataset
Kenvil Works Facility
Kenvil, New Jersey

Sample ID: / Sample Depth (feet): / Sample Date: / Dioxins/Furans Units:	TEF-Mammal (unitless)	TEF-Avian (unitless)	SO-R2-Q-6-1 0 - 0.5 11/12/13 (ng/kg)	SO-R2-Q-6--2 0.5 - 1 11/12/13 (ng/kg)	SO-R2-Q-6--3 0.2-0.7 11/12/13 (ng/kg)	SO-R2-Q-6--4 0.2-0.7 11/12/13 (ng/kg)	SO-R2-Q-6--5 0.6-1.1 11/12/13 (ng/kg)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	0.01	0.354	0.991	1.11	2.45	0.237
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	0.001	13.9	15.3	24.8	7.33	5.19
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	0.01	0.0662	0.148	0.19	0.267	0.148
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	0.1	0.0977	0.294	0.36	0.772	0.238
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	0.05	0.128	0.146	0.245	0.244	0.162
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	0.1	0.0831	0.252	0.279	0.528	0.119
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	0.01	0.101	0.226	0.271	0.383	0.217
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	0.1	0.052	0.117	0.131	0.203	0.11
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	0.1	0.151	0.254	0.351	0.351	0.358
1,2,3,7,8-Pentachlorodibenzofuran	0.03	0.1	0.0991	0.396	0.451	1.31	0.352
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	1	0.0642	0.159	0.154	5.61 U	0.287
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	0.1	0.0774	0.262	0.317	0.612	0.0879
2,3,4,7,8-Pentachlorodibenzofuran	0.3	1	0.123	0.301	0.419	0.841	0.103
2,3,7,8-Tetrachlorodibenzofuran	0.1	1	0.0762	0.219	0.374	0.803	0.0333
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	1	0.0388	1.09 U	0.0565	0.0526	1.18 U
Octachlorodibenzofuran	0.0003	0.0001	0.611	1.52	1.75	3.53	0.485
Octachlorodibenzo-p-Dioxin	0.0003	0.0001	2,450	2,950	4,720	567	803
TEQ-Mammal, ND=0	--	--	1.1	1.5	2.3	1.0	0.76
TEQ-Avian, ND=0	--	--	0.63	1.2	1.7	2.2	0.65

Notes:
ng/kg = nanogram per kilogram
-- = not applicable
TEF = toxic equivalency factor
TEQ = toxic equivalency quotient
0.903 [0.981] = duplicate results presented in brackets

Appendix E

ProUCL Output Files

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	3/24/2016 3:26:51 PM
From File	Ashland Surface Soil for ProUCL_4chems_20130324_a.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Aroclor-1260

General Statistics

Total Number of Observations	477	Number of Distinct Observations	107
		Number of Missing Observations	247
Number of Detects	108	Number of Non-Detects	369
Number of Distinct Detects	82	Number of Distinct Non-Detects	45
Minimum Detect	4.3	Minimum Non-Detect	3
Maximum Detect	7600	Maximum Non-Detect	40000
Variance Detects	1455156	Percent Non-Detects	77.36%
Mean Detects	410.8	SD Detects	1206
Median Detects	36	CV Detects	2.936
Skewness Detects	4.361	Kurtosis Detects	20.14
Mean of Logged Detects	3.992	SD of Logged Detects	1.824

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.383	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.374	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0853	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	97.92	Standard Error of Mean	27.47
SD	596.6	95% KM (BCA) UCL	157.3
95% KM (t) UCL	143.2	95% KM (Percentile Bootstrap) UCL	145.6
95% KM (z) UCL	143.1	95% KM Bootstrap t UCL	167.8
90% KM Chebyshev UCL	180.3	95% KM Chebyshev UCL	217.7
97.5% KM Chebyshev UCL	269.5	99% KM Chebyshev UCL	371.3

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	10.4	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.859	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.24	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0944	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.334	k star (bias corrected MLE)	0.331
Theta hat (MLE)	1229	Theta star (bias corrected MLE)	1240
nu hat (MLE)	72.22	nu star (bias corrected)	71.55
MLE Mean (bias corrected)	410.8	MLE Sd (bias corrected)	713.8

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0269	nu hat (KM)	25.7

Approximate Chi Square Value (25.70, α)	15.15	Adjusted Chi Square Value (25.70, β)	15.13
5% Gamma Approximate KM-UCL (use when n>=50)	166.1	95% Gamma Adjusted KM-UCL (use when n<50)	166.4

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	93.03
Maximum	7600	Median	0.01
SD	597.3	CV	6.42
k hat (MLE)	0.111	k star (bias corrected MLE)	0.112
Theta hat (MLE)	835.3	Theta star (bias corrected MLE)	830.1
nu hat (MLE)	106.3	nu star (bias corrected)	106.9
MLE Mean (bias corrected)	93.03	MLE Sd (bias corrected)	277.9
		Adjusted Level of Significance (β)	0.0495
Approximate Chi Square Value (106.92, α)	84.05	Adjusted Chi Square Value (106.92, β)	83.99
95% Gamma Approximate UCL (use when n>=50)	118.3	95% Gamma Adjusted UCL (use when n<50)	118.4

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.138	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0853	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	95.88	Mean in Log Scale	0.888
SD in Original Scale	596.8	SD in Log Scale	2.527
95% t UCL (assumes normality of ROS data)	140.9	95% Percentile Bootstrap UCL	142.5
95% BCA Bootstrap UCL	156	95% Bootstrap t UCL	166.3
95% H-UCL (Log ROS)	91.8		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	145.7	Mean in Log Scale	2.649
SD in Original Scale	1089	SD in Log Scale	1.378
95% t UCL (Assumes normality)	227.9	95% H-Stat UCL	42.6

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	217.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician

Aroclor-1254

General Statistics

Total Number of Observations	480	Number of Distinct Observations	88

		Number of Missing Observations	244
Number of Detects	94	Number of Non-Detects	386
Number of Distinct Detects	74	Number of Distinct Non-Detects	28
Minimum Detect	4.2	Minimum Non-Detect	1
Maximum Detect	150000	Maximum Non-Detect	2000
Variance Detects	2.416E+8	Percent Non-Detects	80.42%
Mean Detects	2220	SD Detects	15544
Median Detects	89.8	CV Detects	7.003
Skewness Detects	9.448	Kurtosis Detects	90.62
Mean of Logged Detects	4.666	SD of Logged Detects	1.896

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.147	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.455	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0914	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	437.7	Standard Error of Mean	316.5
SD	6898	95% KM (BCA) UCL	1100
95% KM (t) UCL	959.3	95% KM (Percentile Bootstrap) UCL	1044
95% KM (z) UCL	958.3	95% KM Bootstrap t UCL	5094
90% KM Chebyshev UCL	1387	95% KM Chebyshev UCL	1817
97.5% KM Chebyshev UCL	2414	99% KM Chebyshev UCL	3587

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	13.96	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.899	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.31	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.102	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.236	k star (bias corrected MLE)	0.235
Theta hat (MLE)	9410	Theta star (bias corrected MLE)	9427
nu hat (MLE)	44.35	nu star (bias corrected)	44.26
MLE Mean (bias corrected)	2220	MLE Sd (bias corrected)	4574

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00403	nu hat (KM)	3.864
Approximate Chi Square Value (3.86, α)	0.669	Adjusted Chi Square Value (3.86, β)	0.665
5% Gamma Approximate KM-UCL (use when n>=50)	2529	95% Gamma Adjusted KM-UCL (use when n<50)	2543

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	434.7
Maximum	150000	Median	0.01
SD	6905	CV	15.89
k hat (MLE)	0.0925	k star (bias corrected MLE)	0.0933

Theta hat (MLE)	4699	Theta star (bias corrected MLE)	4658
nu hat (MLE)	88.81	nu star (bias corrected)	89.58
MLE Mean (bias corrected)	434.7	MLE Sd (bias corrected)	1423
		Adjusted Level of Significance (β)	0.0495
Approximate Chi Square Value (89.58, α)	68.76	Adjusted Chi Square Value (89.58, β)	68.71
95% Gamma Approximate UCL (use when n>=50)	566.3	95% Gamma Adjusted UCL (use when n<50)	566.8

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0884	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0914	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	436.4	Mean in Log Scale	-0.116
SD in Original Scale	6905	SD in Log Scale	3.397
95% t UCL (assumes normality of ROS data)	955.9	95% Percentile Bootstrap UCL	1066
95% BCA Bootstrap UCL	1448	95% Bootstrap t UCL	4260
95% H-UCL (Log ROS)	590.3		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	1.358	95% H-UCL (KM -Log)	42.98
KM SD (logged)	2.054	95% Critical H Value (KM-Log)	3.132
KM Standard Error of Mean (logged)	0.141		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	445.8	Mean in Log Scale	2.622
SD in Original Scale	6905	SD in Log Scale	1.534
95% t UCL (Assumes normality)	965.2	95% H-Stat UCL	53.54

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	1817

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Polychlorinated biphenyls

General Statistics

Total Number of Observations	480	Number of Distinct Observations	136
		Number of Missing Observations	244
Number of Detects	149	Number of Non-Detects	331
Number of Distinct Detects	118	Number of Distinct Non-Detects	33
Minimum Detect	0.4	Minimum Non-Detect	18
Maximum Detect	150000	Maximum Non-Detect	430
Variance Detects	1.554E+8	Percent Non-Detects	68.96%
Mean Detects	1705	SD Detects	12464
Median Detects	80	CV Detects	7.311

Skewness Detects	11.57	Kurtosis Detects	138
Mean of Logged Detects	4.567	SD of Logged Detects	2.017

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.14	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.446	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0726	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	536.9	Standard Error of Mean	319
SD	6965	95% KM (BCA) UCL	1209
95% KM (t) UCL	1063	95% KM (Percentile Bootstrap) UCL	1146
95% KM (z) UCL	1062	95% KM Bootstrap t UCL	3722
90% KM Chebyshev UCL	1494	95% KM Chebyshev UCL	1927
97.5% KM Chebyshev UCL	2529	99% KM Chebyshev UCL	3711

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	17.26	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.895	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.26	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.0844	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.248	k star (bias corrected MLE)	0.247
Theta hat (MLE)	6887	Theta star (bias corrected MLE)	6901
nu hat (MLE)	73.76	nu star (bias corrected)	73.61
MLE Mean (bias corrected)	1705	MLE Sd (bias corrected)	3430

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00594	nu hat (KM)	5.704
Approximate Chi Square Value (5.70, α)	1.491	Adjusted Chi Square Value (5.70, β)	1.484
5% Gamma Approximate KM-UCL (use when n>=50)	2055	95% Gamma Adjusted KM-UCL (use when n<50)	2063

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	529.2
Maximum	150000	Median	0.01
SD	6973	CV	13.18
k hat (MLE)	0.101	k star (bias corrected MLE)	0.102
Theta hat (MLE)	5239	Theta star (bias corrected MLE)	5200
nu hat (MLE)	96.97	nu star (bias corrected)	97.7
MLE Mean (bias corrected)	529.2	MLE Sd (bias corrected)	1659
		Adjusted Level of Significance (β)	0.0495
Approximate Chi Square Value (97.70, α)	75.9	Adjusted Chi Square Value (97.70, β)	75.84
95% Gamma Approximate UCL (use when n>=50)	681.2	95% Gamma Adjusted UCL (use when n<50)	681.7

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0606	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0726	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	538.9	Mean in Log Scale	2.775
SD in Original Scale	6972	SD in Log Scale	1.988
95% t UCL (assumes normality of ROS data)	1063	95% Percentile Bootstrap UCL	1158
95% BCA Bootstrap UCL	1563	95% Bootstrap t UCL	3607
95% H-UCL (Log ROS)	152.6		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	2.97	95% H-UCL (KM -Log)	93.81
KM SD (logged)	1.654	95% Critical H Value (KM-Log)	2.706
KM Standard Error of Mean (logged)	0.111		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	538.7	Mean in Log Scale	3.137
SD in Original Scale	6972	SD in Log Scale	1.514
95% t UCL (Assumes normality)	1063	95% H-Stat UCL	86.63

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL 2529

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Benzene

General Statistics

Total Number of Observations	604	Number of Distinct Observations	158
		Number of Missing Observations	120
Number of Detects	16	Number of Non-Detects	588
Number of Distinct Detects	15	Number of Distinct Non-Detects	148
Minimum Detect	1	Minimum Non-Detect	5
Maximum Detect	8000	Maximum Non-Detect	4800
Variance Detects	4165645	Percent Non-Detects	97.35%
Mean Detects	1011	SD Detects	2041
Median Detects	250	CV Detects	2.018
Skewness Detects	3.094	Kurtosis Detects	10.14
Mean of Logged Detects	5.603	SD of Logged Detects	1.931

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.51	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.887	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.385	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.222	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	51.4	Standard Error of Mean	17.18
SD	366.6	95% KM (BCA) UCL	88.33
95% KM (t) UCL	79.7	95% KM (Percentile Bootstrap) UCL	81.74
95% KM (z) UCL	79.66	95% KM Bootstrap t UCL	99.09
90% KM Chebyshev UCL	102.9	95% KM Chebyshev UCL	126.3
97.5% KM Chebyshev UCL	158.7	99% KM Chebyshev UCL	222.3

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.402	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.799	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.305	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.228	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.485	k star (bias corrected MLE)	0.436
Theta hat (MLE)	2086	Theta star (bias corrected MLE)	2321
nu hat (MLE)	15.52	nu star (bias corrected)	13.94
MLE Mean (bias corrected)	1011	MLE Sd (bias corrected)	1532

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0197	nu hat (KM)	23.75
Approximate Chi Square Value (23.75, α)	13.66	Adjusted Chi Square Value (23.75, β)	13.64
5% Gamma Approximate KM-UCL (use when n>=50)	89.38	95% Gamma Adjusted KM-UCL (use when n<50)	89.5

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	35.55
Maximum	8000	Median	0.01
SD	365.7	CV	10.29
k hat (MLE)	0.105	k star (bias corrected MLE)	0.106
Theta hat (MLE)	337.8	Theta star (bias corrected MLE)	335.9
nu hat (MLE)	127.2	nu star (bias corrected)	127.9
MLE Mean (bias corrected)	35.55	MLE Sd (bias corrected)	109.3
		Adjusted Level of Significance (β)	0.0496
Approximate Chi Square Value (127.85, α)	102.7	Adjusted Chi Square Value (127.85, β)	102.7
95% Gamma Approximate UCL (use when n>=50)	44.25	95% Gamma Adjusted UCL (use when n<50)	44.27

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.828	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.241	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	41.56	Mean in Log Scale	1.528

SD in Original Scale	361.1	SD in Log Scale	1.794
95% t UCL (assumes normality of ROS data)	65.76	95% Percentile Bootstrap UCL	68.97
95% BCA Bootstrap UCL	88.23	95% Bootstrap t UCL	123.5
95% H-UCL (Log ROS)	28.29		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	345.2	Mean in Log Scale	5.476
SD in Original Scale	388.1	SD in Log Scale	1.168
95% t UCL (Assumes normality)	371.2	95% H-Stat UCL	525.5

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	126.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

UCL Statistics for Data Sets with Non-Detects_Sediment North

User Selected Options	
Date/Time of Computation	3/24/2016 11:03:04 AM
From File	Ashland SedNorth and South for ProUCL_20130323.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Pyrene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	46
		Number of Missing Observations	73
Number of Detects	29	Number of Non-Detects	25
Number of Distinct Detects	24	Number of Distinct Non-Detects	23
Minimum Detect	53	Minimum Non-Detect	50
Maximum Detect	4000	Maximum Non-Detect	20000
Variance Detects	734207	Percent Non-Detects	46.3%
Mean Detects	586	SD Detects	856.9
Median Detects	200	CV Detects	1.462
Skewness Detects	2.724	Kurtosis Detects	8.604
Mean of Logged Detects	5.654	SD of Logged Detects	1.158

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.64	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.926	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.281	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.165	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	405.6	Standard Error of Mean	104.9
SD	703.4	95% KM (BCA) UCL	609.7
95% KM (t) UCL	581.1	95% KM (Percentile Bootstrap) UCL	578.6
95% KM (z) UCL	578.1	95% KM Bootstrap t UCL	697.3
90% KM Chebyshev UCL	720.2	95% KM Chebyshev UCL	862.7
97.5% KM Chebyshev UCL	1061	99% KM Chebyshev UCL	1449

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.575	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.781	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.209	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.169	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.823	k star (bias corrected MLE)	0.76
Theta hat (MLE)	712.4	Theta star (bias corrected MLE)	770.6
nu hat (MLE)	47.71	nu star (bias corrected)	44.11
MLE Mean (bias corrected)	586	MLE Sd (bias corrected)	672

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.332	nu hat (KM)	35.9

Approximate Chi Square Value (35.90, α)	23.19	Adjusted Chi Square Value (35.90, β)	22.91
5% Gamma Approximate KM-UCL (use when n>=50)	627.9	95% Gamma Adjusted KM-UCL (use when n<50)	635.6

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	330.7
Maximum	4000	Median	88
SD	683.9	CV	2.068
k hat (MLE)	0.212	k star (bias corrected MLE)	0.212
Theta hat (MLE)	1562	Theta star (bias corrected MLE)	1558
nu hat (MLE)	22.87	nu star (bias corrected)	22.93
MLE Mean (bias corrected)	330.7	MLE Sd (bias corrected)	717.8
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (22.93, α)	13.04	Adjusted Chi Square Value (22.93, β)	12.83
95% Gamma Approximate UCL (use when n>=50)	581.7	95% Gamma Adjusted UCL (use when n<50)	591

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.926	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.174	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.165	Detected Data Not Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	362.6	Mean in Log Scale	5.086
SD in Original Scale	669.7	SD in Log Scale	1.155
95% t UCL (assumes normality of ROS data)	515.2	95% Percentile Bootstrap UCL	515.8
95% BCA Bootstrap UCL	583	95% Bootstrap t UCL	618.2
95% H-UCL (Log ROS)	470.7		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	5.193	95% H-UCL (KM -Log)	513.5
KM SD (logged)	1.144	95% Critical H Value (KM-Log)	2.509
KM Standard Error of Mean (logged)	0.179		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	900.4	Mean in Log Scale	5.685
SD in Original Scale	1627	SD in Log Scale	1.509
95% t UCL (Assumes normality)	1271	95% H-Stat UCL	1710

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 862.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Benzo[g,h,i]perylene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	50
		Number of Missing Observations	73
Number of Detects	17	Number of Non-Detects	37
Number of Distinct Detects	17	Number of Distinct Non-Detects	35
Minimum Detect	57	Minimum Non-Detect	33
Maximum Detect	1300	Maximum Non-Detect	20000
Variance Detects	123754	Percent Non-Detects	68.52%
Mean Detects	335.2	SD Detects	351.8
Median Detects	160	CV Detects	1.05
Skewness Detects	1.666	Kurtosis Detects	2.355
Mean of Logged Detects	5.356	SD of Logged Detects	0.975

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.776	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.892	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.257	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.215	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	178.9	Standard Error of Mean	40.7
SD	253	95% KM (BCA) UCL	254.3
95% KM (t) UCL	247	95% KM (Percentile Bootstrap) UCL	251.6
95% KM (z) UCL	245.8	95% KM Bootstrap t UCL	278
90% KM Chebyshev UCL	301	95% KM Chebyshev UCL	356.3
97.5% KM Chebyshev UCL	433.1	99% KM Chebyshev UCL	583.8

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.614	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.761	etected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.189	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.214	etected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.229	k star (bias corrected MLE)	1.051
Theta hat (MLE)	272.7	Theta star (bias corrected MLE)	318.8
nu hat (MLE)	41.79	nu star (bias corrected)	35.75
MLE Mean (bias corrected)	335.2	MLE Sd (bias corrected)	326.9

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.5	nu hat (KM)	54.01
Approximate Chi Square Value (54.01, α)	38.13	Adjusted Chi Square Value (54.01, β)	37.76
5% Gamma Approximate KM-UCL (use when n>=50)	253.4	95% Gamma Adjusted KM-UCL (use when n<50)	255.9

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	115.1
Maximum	1300	Median	28.65
SD	246.2	CV	2.139
k hat (MLE)	0.191	k star (bias corrected MLE)	0.193
Theta hat (MLE)	602.9	Theta star (bias corrected MLE)	597.5
nu hat (MLE)	20.62	nu star (bias corrected)	20.8
MLE Mean (bias corrected)	115.1	MLE Sd (bias corrected)	262.2
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (20.80, α)	11.45	Adjusted Chi Square Value (20.80, β)	11.26
95% Gamma Approximate UCL (use when n>=50)	209.2	95% Gamma Adjusted UCL (use when n<50)	212.8

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.946	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.892	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.143	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.215	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	150	Mean in Log Scale	4.484
SD in Original Scale	232	SD in Log Scale	0.887
95% t UCL (assumes normality of ROS data)	202.9	95% Percentile Bootstrap UCL	205.7
95% BCA Bootstrap UCL	223.2	95% Bootstrap t UCL	239.8
95% H-UCL (Log ROS)	171.8		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.594	95% H-UCL (KM -Log)	223.5
KM SD (logged)	0.997	95% Critical H Value (KM-Log)	2.319
KM Standard Error of Mean (logged)	0.187		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	773.9	Mean in Log Scale	5.486
SD in Original Scale	1579	SD in Log Scale	1.475
95% t UCL (Assumes normality)	1134	95% H-Stat UCL	1303

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	247	95% GROS Approximate Gamma UCL	209.2
95% Approximate Gamma KM-UCL	253.4		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Fluoranthene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	45

		Number of Missing Observations	73
Number of Detects	30	Number of Non-Detects	24
Number of Distinct Detects	25	Number of Distinct Non-Detects	22
Minimum Detect	56	Minimum Non-Detect	50
Maximum Detect	2200	Maximum Non-Detect	20000
Variance Detects	389204	Percent Non-Detects	44.44%
Mean Detects	503.9	SD Detects	623.9
Median Detects	165	CV Detects	1.238
Skewness Detects	1.738	Kurtosis Detects	2.062
Mean of Logged Detects	5.582	SD of Logged Detects	1.121

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.708	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.927	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.261	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.162	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	364.5	Standard Error of Mean	81.5
SD	537.7	95% KM (BCA) UCL	505
95% KM (t) UCL	501	95% KM (Percentile Bootstrap) UCL	513.2
95% KM (z) UCL	498.6	95% KM Bootstrap t UCL	542.4
90% KM Chebyshev UCL	609	95% KM Chebyshev UCL	719.8
97.5% KM Chebyshev UCL	873.5	99% KM Chebyshev UCL	1175

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.611	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.78	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.222	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.165	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.912	k star (bias corrected MLE)	0.843
Theta hat (MLE)	552.7	Theta star (bias corrected MLE)	597.9
nu hat (MLE)	54.7	nu star (bias corrected)	50.57
MLE Mean (bias corrected)	503.9	MLE Sd (bias corrected)	548.9

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.459	nu hat (KM)	49.63
Approximate Chi Square Value (49.63, α)	34.45	Adjusted Chi Square Value (49.63, β)	34.1
5% Gamma Approximate KM-UCL (use when n>=50)	525.1	95% Gamma Adjusted KM-UCL (use when n<50)	530.4

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	308.9
Maximum	2200	Median	130
SD	514.8	CV	1.667
k hat (MLE)	0.279	k star (bias corrected MLE)	0.276
Theta hat (MLE)	1108	Theta star (bias corrected MLE)	1120

nu hat (MLE)	30.11	nu star (bias corrected)	29.77
MLE Mean (bias corrected)	308.9	MLE Sd (bias corrected)	588.3
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (29.77, α)	18.32	Adjusted Chi Square Value (29.77, β)	18.07
95% Gamma Approximate UCL (use when n>=50)	502.1	95% Gamma Adjusted UCL (use when n<50)	509

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.909	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.927	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.195	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.162	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	324.9	Mean in Log Scale	5.054
SD in Original Scale	505.3	SD in Log Scale	1.133
95% t UCL (assumes normality of ROS data)	440	95% Percentile Bootstrap UCL	445.6
95% BCA Bootstrap UCL	475.6	95% Bootstrap t UCL	494.4
95% H-UCL (Log ROS)	439.2		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	859.5	Mean in Log Scale	5.642
SD in Original Scale	1581	SD in Log Scale	1.503
95% t UCL (Assumes normality)	1220	95% H-Stat UCL	1618

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	719.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Benzo[k]fluoranthene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	49
		Number of Missing Observations	73
Number of Detects	19	Number of Non-Detects	35
Number of Distinct Detects	19	Number of Distinct Non-Detects	33
Minimum Detect	57	Minimum Non-Detect	33
Maximum Detect	1700	Maximum Non-Detect	20000
Variance Detects	264000	Percent Non-Detects	64.81%
Mean Detects	413.2	SD Detects	513.8
Median Detects	140	CV Detects	1.244
Skewness Detects	1.675	Kurtosis Detects	1.972
Mean of Logged Detects	5.351	SD of Logged Detects	1.168

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.717	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.901	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.314	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.203	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	217.5	Standard Error of Mean	57.37
SD	369.7	95% KM (BCA) UCL	324.4
95% KM (t) UCL	313.6	95% KM (Percentile Bootstrap) UCL	313
95% KM (z) UCL	311.9	95% KM Bootstrap t UCL	375.4
90% KM Chebyshev UCL	389.6	95% KM Chebyshev UCL	467.6
97.5% KM Chebyshev UCL	575.8	99% KM Chebyshev UCL	788.4

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.279	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.774	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.266	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.205	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.872	k star (bias corrected MLE)	0.769
Theta hat (MLE)	473.9	Theta star (bias corrected MLE)	537
nu hat (MLE)	33.13	nu star (bias corrected)	29.23
MLE Mean (bias corrected)	413.2	MLE Sd (bias corrected)	471

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.346	nu hat (KM)	37.4
Approximate Chi Square Value (37.40, α)	24.4	Adjusted Chi Square Value (37.40, β)	24.11
5% Gamma Approximate KM-UCL (use when n>=50)	333.5	95% Gamma Adjusted KM-UCL (use when n<50)	337.5

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	150.8
Maximum	1700	Median	6.803
SD	358.3	CV	2.376
k hat (MLE)	0.155	k star (bias corrected MLE)	0.159
Theta hat (MLE)	972.1	Theta star (bias corrected MLE)	949.3
nu hat (MLE)	16.76	nu star (bias corrected)	17.16
MLE Mean (bias corrected)	150.8	MLE Sd (bias corrected)	378.4
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (17.16, α)	8.785	Adjusted Chi Square Value (17.16, β)	8.62
95% Gamma Approximate UCL (use when n>=50)	294.6	95% Gamma Adjusted UCL (use when n<50)	300.2

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.875	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.901	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.205	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.203	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	183.7	Mean in Log Scale	4.44
SD in Original Scale	345.3	SD in Log Scale	1.066
95% t UCL (assumes normality of ROS data)	262.4	95% Percentile Bootstrap UCL	269.3
95% BCA Bootstrap UCL	287.8	95% Bootstrap t UCL	318.8
95% H-UCL (Log ROS)	212.8		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	779.4	Mean in Log Scale	5.466
SD in Original Scale	1578	SD in Log Scale	1.507
95% t UCL (Assumes normality)	1139	95% H-Stat UCL	1369

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	324.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Chrysene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	45
		Number of Missing Observations	73
Number of Detects	24	Number of Non-Detects	30
Number of Distinct Detects	22	Number of Distinct Non-Detects	28
Minimum Detect	41	Minimum Non-Detect	50
Maximum Detect	2900	Maximum Non-Detect	20000
Variance Detects	553223	Percent Non-Detects	55.56%
Mean Detects	535.8	SD Detects	743.8
Median Detects	205	CV Detects	1.388
Skewness Detects	2.057	Kurtosis Detects	3.805
Mean of Logged Detects	5.537	SD of Logged Detects	1.207

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.68	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.916	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.291	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.181	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	331.1	Standard Error of Mean	88.73
SD	578.7	95% KM (BCA) UCL	483.5
95% KM (t) UCL	479.6	95% KM (Percentile Bootstrap) UCL	487.6
95% KM (z) UCL	477	95% KM Bootstrap t UCL	559.9
90% KM Chebyshev UCL	597.3	95% KM Chebyshev UCL	717.8

97.5% KM Chebyshev UCL	885.2	99% KM Chebyshev UCL	1214

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.264	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.781	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.197	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.185	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.795	k star (bias corrected MLE)	0.724
Theta hat (MLE)	673.6	Theta star (bias corrected MLE)	740.3
nu hat (MLE)	38.18	nu star (bias corrected)	34.74
MLE Mean (bias corrected)	535.8	MLE Sd (bias corrected)	629.8

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.327	nu hat (KM)	35.34
Approximate Chi Square Value (35.34, α)	22.74	Adjusted Chi Square Value (35.34, β)	22.46
5% Gamma Approximate KM-UCL (use when n>=50)	514.5	95% Gamma Adjusted KM-UCL (use when n<50)	520.9

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	250.2
Maximum	2900	Median	44.63
SD	555.2	CV	2.219
k hat (MLE)	0.184	k star (bias corrected MLE)	0.186
Theta hat (MLE)	1361	Theta star (bias corrected MLE)	1345
nu hat (MLE)	19.86	nu star (bias corrected)	20.09
MLE Mean (bias corrected)	250.2	MLE Sd (bias corrected)	580.1
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (20.09, α)	10.92	Adjusted Chi Square Value (20.09, β)	10.73
95% Gamma Approximate UCL (use when n>=50)	460.4	95% Gamma Adjusted UCL (use when n<50)	468.4

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.936	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.916	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.131	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.181	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	286.8	Mean in Log Scale	4.862
SD in Original Scale	540.1	SD in Log Scale	1.099
95% t UCL (assumes normality of ROS data)	409.8	95% Percentile Bootstrap UCL	413.7
95% BCA Bootstrap UCL	455.1	95% Bootstrap t UCL	497.3
95% H-UCL (Log ROS)	342.1		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.953	95% H-UCL (KM -Log)	417
KM SD (logged)	1.162	95% Critical H Value (KM-Log)	2.536
KM Standard Error of Mean (logged)	0.192		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	890.5	Mean in Log Scale	5.663
SD in Original Scale	1610	SD in Log Scale	1.518
95% t UCL (Assumes normality)	1257	95% H-Stat UCL	1705

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	483.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Benzo[a]pyrene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	49
		Number of Missing Observations	73
Number of Detects	19	Number of Non-Detects	35
Number of Distinct Detects	17	Number of Distinct Non-Detects	33
Minimum Detect	67	Minimum Non-Detect	33
Maximum Detect	1500	Maximum Non-Detect	20000
Variance Detects	236636	Percent Non-Detects	64.81%
Mean Detects	458.7	SD Detects	486.5
Median Detects	180	CV Detects	1.061
Skewness Detects	1.231	Kurtosis Detects	0.26
Mean of Logged Detects	5.582	SD of Logged Detects	1.08

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.776	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.901	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.274	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.203	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	240.1	Standard Error of Mean	56.61
SD	364.2	95% KM (BCA) UCL	345.1
95% KM (t) UCL	334.9	95% KM (Percentile Bootstrap) UCL	341.1
95% KM (z) UCL	333.2	95% KM Bootstrap t UCL	368.8
90% KM Chebyshev UCL	409.9	95% KM Chebyshev UCL	486.9
97.5% KM Chebyshev UCL	593.6	99% KM Chebyshev UCL	803.4

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.97	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.768	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.221	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.204	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.05	k star (bias corrected MLE)	0.919
Theta hat (MLE)	436.8	Theta star (bias corrected MLE)	498.9
nu hat (MLE)	39.91	nu star (bias corrected)	34.94
MLE Mean (bias corrected)	458.7	MLE Sd (bias corrected)	478.4

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.435	nu hat (KM)	46.95
Approximate Chi Square Value (46.95, α)	32.23	Adjusted Chi Square Value (46.95, β)	31.89
5% Gamma Approximate KM-UCL (use when n>=50)	349.8	95% Gamma Adjusted KM-UCL (use when n<50)	353.5

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	171.9
Maximum	1500	Median	38.02
SD	356.3	CV	2.073
k hat (MLE)	0.16	k star (bias corrected MLE)	0.164
Theta hat (MLE)	1072	Theta star (bias corrected MLE)	1050
nu hat (MLE)	17.31	nu star (bias corrected)	17.68
MLE Mean (bias corrected)	171.9	MLE Sd (bias corrected)	424.8
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (17.68, α)	9.163	Adjusted Chi Square Value (17.68, β)	8.994
95% Gamma Approximate UCL (use when n>=50)	331.7	95% Gamma Adjusted UCL (use when n<50)	338

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.9	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.901	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.167	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.203	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	206.7	Mean in Log Scale	4.635
SD in Original Scale	340.8	SD in Log Scale	1.042
95% t UCL (assumes normality of ROS data)	284.3	95% Percentile Bootstrap UCL	288.5
95% BCA Bootstrap UCL	295.9	95% Bootstrap t UCL	321.1
95% H-UCL (Log ROS)	248.9		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.728	95% H-UCL (KM -Log)	318.1
KM SD (logged)	1.135	95% Critical H Value (KM-Log)	2.497
KM Standard Error of Mean (logged)	0.2		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	788.7	Mean in Log Scale	5.523
SD in Original Scale	1574	SD in Log Scale	1.482
95% t UCL (Assumes normality)	1147	95% H-Stat UCL	1373

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	345.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Dibenzo[a,h]anthracene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	47
		Number of Missing Observations	73
Number of Detects	4	Number of Non-Detects	50
Number of Distinct Detects	3	Number of Distinct Non-Detects	45
Minimum Detect	95	Minimum Non-Detect	33
Maximum Detect	240	Maximum Non-Detect	20000
Variance Detects	3556	Percent Non-Detects	92.59%
Mean Detects	173.8	SD Detects	59.63
Median Detects	180	CV Detects	0.343
Skewness Detects	-0.62	Kurtosis Detects	1.715
Mean of Logged Detects	5.105	SD of Logged Detects	0.392

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.292	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.443	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	71.28	Standard Error of Mean	19.84
SD	65.27	95% KM (BCA) UCL	N/A
95% KM (t) UCL	104.5	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	103.9	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	130.8	95% KM Chebyshev UCL	157.8
97.5% KM Chebyshev UCL	195.2	99% KM Chebyshev UCL	268.7

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.41	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.657	letected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.336	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.395	letected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	9.686	k star (bias corrected MLE)	2.588
Theta hat (MLE)	17.94	Theta star (bias corrected MLE)	67.13
nu hat (MLE)	77.49	nu star (bias corrected)	20.7
MLE Mean (bias corrected)	173.8	MLE Sd (bias corrected)	108

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	1.192	nu hat (KM)	128.8
Approximate Chi Square Value (128.79, α)	103.6	Adjusted Chi Square Value (128.79, β)	103
5% Gamma Approximate KM-UCL (use when n>=50)	88.63	95% Gamma Adjusted KM-UCL (use when n<50)	89.16

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	15.18	Mean	68.11
Maximum	240	Median	64.94
SD	37.17	CV	0.546
k hat (MLE)	4.838	k star (bias corrected MLE)	4.581
Theta hat (MLE)	14.08	Theta star (bias corrected MLE)	14.87
nu hat (MLE)	522.5	nu star (bias corrected)	494.8
MLE Mean (bias corrected)	68.11	MLE Sd (bias corrected)	31.82
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (494.79, α)	444.2	Adjusted Chi Square Value (494.79, β)	442.9
95% Gamma Approximate UCL (use when n>=50)	75.86	95% Gamma Adjusted UCL (use when n<50)	N/A

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.881	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.339	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.443	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	80.76	Mean in Log Scale	4.346
SD in Original Scale	31.74	SD in Log Scale	0.274
95% t UCL (assumes normality of ROS data)	87.99	95% Percentile Bootstrap UCL	88.6
95% BCA Bootstrap UCL	90.93	95% Bootstrap t UCL	93.23
95% H-UCL (Log ROS)	85.43		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	3.95	95% H-UCL (KM -Log)	83.14
KM SD (logged)	0.728	95% Critical H Value (KM-Log)	2.055
KM Standard Error of Mean (logged)	0.228		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	791.3	Mean in Log Scale	5.465
SD in Original Scale	1603	SD in Log Scale	1.506
95% t UCL (Assumes normality)	1157	95% H-Stat UCL	1363

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	104.5	95% KM (Percentile Bootstrap) UCL	N/A

Warning: One or more Recommended UCL(s) not available!

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Nitroglycerin

General Statistics

Total Number of Observations	127	Number of Distinct Observations	64
Number of Detects	16	Number of Non-Detects	111
Number of Distinct Detects	16	Number of Distinct Non-Detects	56
Minimum Detect	3100	Minimum Non-Detect	2000
Maximum Detect	2700000	Maximum Non-Detect	73000
Variance Detects	4.493E+1	Percent Non-Detects	87.4%
Mean Detects	192700	SD Detects	670290
Median Detects	12500	CV Detects	3.478
Skewness Detects	3.967	Kurtosis Detects	15.81
Mean of Logged Detects	9.758	SD of Logged Detects	1.701

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.309	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.471	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	27744	Standard Error of Mean	21886
SD	238746	95% KM (BCA) UCL	70209
95% KM (t) UCL	64010	95% KM (Percentile Bootstrap) UCL	69048
95% KM (z) UCL	63743	95% KM Bootstrap t UCL	812617
90% KM Chebyshev UCL	93402	95% KM Chebyshev UCL	123142
97.5% KM Chebyshev UCL	164421	99% KM Chebyshev UCL	245505

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.095	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.843	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.425	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.234	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.288	k star (bias corrected MLE)	0.276
Theta hat (MLE)	669271	Theta star (bias corrected MLE)	699187
nu hat (MLE)	9.214	nu star (bias corrected)	8.819
MLE Mean (bias corrected)	192700	MLE Sd (bias corrected)	367060

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0135	nu hat (KM)	3.43
Approximate Chi Square Value (3.43, α)	0.51	Adjusted Chi Square Value (3.43, β)	0.499
5% Gamma Approximate KM-UCL (use when n>=50)	186426	95% Gamma Adjusted KM-UCL (use when n<50)	190753

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	24277
Maximum	2700000	Median	0.01
SD	240017	CV	9.887
k hat (MLE)	0.0661	k star (bias corrected MLE)	0.0698
Theta hat (MLE)	367473	Theta star (bias corrected MLE)	348040
nu hat (MLE)	16.78	nu star (bias corrected)	17.72
MLE Mean (bias corrected)	24277	MLE Sd (bias corrected)	91921
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (17.72, α)	9.187	Adjusted Chi Square Value (17.72, β)	9.116
95% Gamma Approximate UCL (use when n>=50)	46819	95% Gamma Adjusted UCL (use when n<50)	47182

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.801	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.248	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	25711	Mean in Log Scale	7.31
SD in Original Scale	239876	SD in Log Scale	1.422
95% t UCL (assumes normality of ROS data)	60982	95% Percentile Bootstrap UCL	68007
95% BCA Bootstrap UCL	109346	95% Bootstrap t UCL	1239662
95% H-UCL (Log ROS)	5720		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	33792	Mean in Log Scale	9.139
SD in Original Scale	239174	SD in Log Scale	0.943
95% t UCL (Assumes normality)	68960	95% H-Stat UCL	17375

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 123142

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Benzo[a]anthracene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	47
		Number of Missing Observations	73
Number of Detects	20	Number of Non-Detects	34

Number of Distinct Detects	20	Number of Distinct Non-Detects	32
Minimum Detect	48	Minimum Non-Detect	50
Maximum Detect	2100	Maximum Non-Detect	20000
Variance Detects	366942	Percent Non-Detects	62.96%
Mean Detects	451.2	SD Detects	605.8
Median Detects	150	CV Detects	1.343
Skewness Detects	1.795	Kurtosis Detects	2.456
Mean of Logged Detects	5.343	SD of Logged Detects	1.242

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.701	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.905	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.292	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.198	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	249.5	Standard Error of Mean	68.08
SD	438.8	95% KM (BCA) UCL	376.9
95% KM (t) UCL	363.5	95% KM (Percentile Bootstrap) UCL	371.3
95% KM (z) UCL	361.5	95% KM Bootstrap t UCL	438.4
90% KM Chebyshev UCL	453.7	95% KM Chebyshev UCL	546.3
97.5% KM Chebyshev UCL	674.7	99% KM Chebyshev UCL	926.9

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.22	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.778	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.232	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.201	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.776	k star (bias corrected MLE)	0.693
Theta hat (MLE)	581.7	Theta star (bias corrected MLE)	651.4
nu hat (MLE)	31.02	nu star (bias corrected)	27.7
MLE Mean (bias corrected)	451.2	MLE Sd (bias corrected)	542.1

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.323	nu hat (KM)	34.92
Approximate Chi Square Value (34.92, α)	22.4	Adjusted Chi Square Value (34.92, β)	22.13
5% Gamma Approximate KM-UCL (use when n>=50)	388.9	95% Gamma Adjusted KM-UCL (use when n<50)	393.8

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	177.3
Maximum	2100	Median	31.65
SD	421.4	CV	2.376
k hat (MLE)	0.166	k star (bias corrected MLE)	0.169
Theta hat (MLE)	1068	Theta star (bias corrected MLE)	1048
nu hat (MLE)	17.94	nu star (bias corrected)	18.27
MLE Mean (bias corrected)	177.3	MLE Sd (bias corrected)	431.1

		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (18.27, α)	9.589	Adjusted Chi Square Value (18.27, β)	9.416
95% Gamma Approximate UCL (use when n>=50)	337.9	95% Gamma Adjusted UCL (use when n<50)	344.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.9	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.905	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.166	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.198	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	215.9	Mean in Log Scale	4.661
SD in Original Scale	406.6	SD in Log Scale	0.983
95% t UCL (assumes normality of ROS data)	308.5	95% Percentile Bootstrap UCL	315.6
95% BCA Bootstrap UCL	346.7	95% Bootstrap t UCL	358.8
95% H-UCL (Log ROS)	234.2		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.753	95% H-UCL (KM -Log)	280.8
KM SD (logged)	1.043	95% Critical H Value (KM-Log)	2.375
KM Standard Error of Mean (logged)	0.176		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	830.9	Mean in Log Scale	5.551
SD in Original Scale	1592	SD in Log Scale	1.511
95% t UCL (Assumes normality)	1194	95% H-Stat UCL	1503

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	376.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Lead

General Statistics

Total Number of Observations	127	Number of Distinct Observations	122
		Number of Missing Observations	0
Minimum	4.51	Mean	162.9
Maximum	2990	Median	71.9
SD	363.5	Std. Error of Mean	32.26
Coefficient of Variation	2.231	Skewness	5.909

Normal GOF Test

Shapiro Wilk Test Statistic	0.392	**Shapiro Wilk GOF Test**	

5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.331	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0786	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	216.4	95% Adjusted-CLT UCL (Chen-1995)	234.1
		95% Modified-t UCL (Johnson-1978)	219.2

Gamma GOF Test

A-D Test Statistic	4.98	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.795	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.131	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.0857	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.749	k star (bias corrected MLE)	0.736
Theta hat (MLE)	217.7	Theta star (bias corrected MLE)	221.3
nu hat (MLE)	190.1	nu star (bias corrected)	187
MLE Mean (bias corrected)	162.9	MLE Sd (bias corrected)	189.9
		Approximate Chi Square Value (0.05)	156.3
Adjusted Level of Significance	0.0481	Adjusted Chi Square Value	156

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	194.9	95% Adjusted Gamma UCL (use when n<50)	195.3

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.98	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0.456	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0489	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0786	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.506	Mean of logged Data	4.293
Maximum of Logged Data	8.003	SD of logged Data	1.156

Assuming Lognormal Distribution

95% H-UCL	181.5	90% Chebyshev (MVUE) UCL	196.5
95% Chebyshev (MVUE) UCL	221.4	97.5% Chebyshev (MVUE) UCL	256
99% Chebyshev (MVUE) UCL	323.8		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	216	95% Jackknife UCL	216.4
95% Standard Bootstrap UCL	213.7	95% Bootstrap-t UCL	271.6
95% Hall's Bootstrap UCL	441.7	95% Percentile Bootstrap UCL	221.1
95% BCA Bootstrap UCL	245.4		
90% Chebyshev(Mean, Sd) UCL	259.7	95% Chebyshev(Mean, Sd) UCL	303.6
97.5% Chebyshev(Mean, Sd) UCL	364.4	99% Chebyshev(Mean, Sd) UCL	483.9

Suggested UCL to Use

95% H-UCL 181.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
se of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distributio

Mercury

General Statistics

Total Number of Observations	127	Number of Distinct Observations	118
Number of Detects	124	Number of Non-Detects	3
Number of Distinct Detects	116	Number of Distinct Non-Detects	3
Minimum Detect	0.0043	Minimum Non-Detect	0.126
Maximum Detect	11.4	Maximum Non-Detect	1.01
Variance Detects	1.225	Percent Non-Detects	2.362%
Mean Detects	0.445	SD Detects	1.107
Median Detects	0.178	CV Detects	2.487
Skewness Detects	8.24	Kurtosis Detects	79.37
Mean of Logged Detects	-1.659	SD of Logged Detects	1.255

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.348	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.345	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0796	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.438	Standard Error of Mean	0.0972
SD	1.09	95% KM (BCA) UCL	0.616
95% KM (t) UCL	0.599	95% KM (Percentile Bootstrap) UCL	0.61
95% KM (z) UCL	0.598	95% KM Bootstrap t UCL	0.829
90% KM Chebyshev UCL	0.73	95% KM Chebyshev UCL	0.862
97.5% KM Chebyshev UCL	1.045	99% KM Chebyshev UCL	1.405

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.848	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.799	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.142	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0868	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.71	k star (bias corrected MLE)	0.698
Theta hat (MLE)	0.627	Theta star (bias corrected MLE)	0.637
nu hat (MLE)	176.1	nu star (bias corrected)	173.2

MLE Mean (bias corrected)	0.445	MLE Sd (bias corrected)	0.533

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.162	nu hat (KM)	41.08
Approximate Chi Square Value (41.08, α)	27.39	Adjusted Chi Square Value (41.08, β)	27.26
5% Gamma Approximate KM-UCL (use when n>=50)	0.658	95% Gamma Adjusted KM-UCL (use when n<50)	0.661

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0043	Mean	0.436
Maximum	11.4	Median	0.177
SD	1.095	CV	2.514
k hat (MLE)	0.696	k star (bias corrected MLE)	0.684
Theta hat (MLE)	0.626	Theta star (bias corrected MLE)	0.636
nu hat (MLE)	176.7	nu star (bias corrected)	173.8
MLE Mean (bias corrected)	0.436	MLE Sd (bias corrected)	0.527
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (173.85, α)	144.4	Adjusted Chi Square Value (173.85, β)	144
95% Gamma Approximate UCL (use when n>=50)	0.525	95% Gamma Adjusted UCL (use when n<50)	0.526

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0562	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0796	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.437	Mean in Log Scale	-1.672
SD in Original Scale	1.095	SD in Log Scale	1.245
95% t UCL (assumes normality of ROS data)	0.598	95% Percentile Bootstrap UCL	0.619
95% BCA Bootstrap UCL	0.694	95% Bootstrap t UCL	0.797
95% H-UCL (Log ROS)	0.534		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-1.674	95% H-UCL (KM -Log)	0.537
KM SD (logged)	1.25	95% Critical H Value (KM-Log)	2.426
KM Standard Error of Mean (logged)	0.112		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.441	Mean in Log Scale	-1.658
SD in Original Scale	1.094	SD in Log Scale	1.248
95% t UCL (Assumes normality)	0.602	95% H-Stat UCL	0.543

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	0.862

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Nickel

General Statistics

Total Number of Observations	127	Number of Distinct Observations	108
		Number of Missing Observations	0
Minimum	1.7	Mean	12.01
Maximum	151	Median	10
SD	13.45	Std. Error of Mean	1.194
Coefficient of Variation	1.12	Skewness	8.937

Normal GOF Test

Shapiro Wilk Test Statistic	0.381	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.264	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0786	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	13.99	95% Adjusted-CLT UCL (Chen-1995)	14.98
		95% Modified-t UCL (Johnson-1978)	14.14

Gamma GOF Test

A-D Test Statistic	3.92	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.76	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.13	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.0831	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.82	k star (bias corrected MLE)	2.759
Theta hat (MLE)	4.258	Theta star (bias corrected MLE)	4.353
nu hat (MLE)	716.3	nu star (bias corrected)	700.7
MLE Mean (bias corrected)	12.01	MLE Sd (bias corrected)	7.23
		Approximate Chi Square Value (0.05)	640.3
Adjusted Level of Significance	0.0481	Adjusted Chi Square Value	639.6

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	13.14	95% Adjusted Gamma UCL (use when n<50)	13.16

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.937	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	6.1683E-6	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.106	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0786	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.531	Mean of logged Data	2.298

Maximum of Logged Data	5.017	SD of logged Data	0.558

Assuming Lognormal Distribution

95% H-UCL	12.76	90% Chebyshev (MVUE) UCL	13.46
95% Chebyshev (MVUE) UCL	14.3	97.5% Chebyshev (MVUE) UCL	15.46
99% Chebyshev (MVUE) UCL	17.74		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	13.97	95% Jackknife UCL	13.99
95% Standard Bootstrap UCL	13.93	95% Bootstrap-t UCL	16.59
95% Hall's Bootstrap UCL	22.01	95% Percentile Bootstrap UCL	14.38
95% BCA Bootstrap UCL	15.28		
90% Chebyshev(Mean, Sd) UCL	15.59	95% Chebyshev(Mean, Sd) UCL	17.21
97.5% Chebyshev(Mean, Sd) UCL	19.46	99% Chebyshev(Mean, Sd) UCL	23.89

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	17.21

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Silver

General Statistics

Total Number of Observations	127	Number of Distinct Observations	112
Number of Detects	13	Number of Non-Detects	114
Number of Distinct Detects	13	Number of Distinct Non-Detects	102
Minimum Detect	0.25	Minimum Non-Detect	0.14
Maximum Detect	5.06	Maximum Non-Detect	49.5
Variance Detects	1.818	Percent Non-Detects	89.76%
Mean Detects	1.324	SD Detects	1.348
Median Detects	1	CV Detects	1.018
Skewness Detects	2.154	Kurtosis Detects	4.807
Mean of Logged Detects	-0.0985	SD of Logged Detects	0.898

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.727	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.306	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.392	Standard Error of Mean	0.0703
SD	0.592	95% KM (BCA) UCL	0.515
95% KM (t) UCL	0.508	95% KM (Percentile Bootstrap) UCL	0.51
95% KM (z) UCL	0.507	95% KM Bootstrap t UCL	0.534
90% KM Chebyshev UCL	0.602	95% KM Chebyshev UCL	0.698
97.5% KM Chebyshev UCL	0.831	99% KM Chebyshev UCL	1.091

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.521	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.751	Detected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.192	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.241	Detected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.462	k star (bias corrected MLE)	1.176
Theta hat (MLE)	0.905	Theta star (bias corrected MLE)	1.126
nu hat (MLE)	38.02	nu star (bias corrected)	30.58
MLE Mean (bias corrected)	1.324	MLE Sd (bias corrected)	1.221

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.438	nu hat (KM)	111.3
Approximate Chi Square Value (111.26, α)	87.91	Adjusted Chi Square Value (111.26, β)	87.67
95% Gamma Approximate KM-UCL (use when n>=50)	0.495	95% Gamma Adjusted KM-UCL (use when n<50)	0.497

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.146
Maximum	5.06	Median	0.01
SD	0.577	CV	3.96
k hat (MLE)	0.312	k star (bias corrected MLE)	0.31
Theta hat (MLE)	0.467	Theta star (bias corrected MLE)	0.47
nu hat (MLE)	79.25	nu star (bias corrected)	78.71
MLE Mean (bias corrected)	0.146	MLE Sd (bias corrected)	0.262
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (78.71, α)	59.27	Adjusted Chi Square Value (78.71, β)	59.08
95% Gamma Approximate UCL (use when n>=50)	0.194	95% Gamma Adjusted UCL (use when n<50)	0.194

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.939	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.145	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.28	Mean in Log Scale	-1.684
SD in Original Scale	0.548	SD in Log Scale	0.665
95% t UCL (assumes normality of ROS data)	0.361	95% Percentile Bootstrap UCL	0.368
95% BCA Bootstrap UCL	0.397	95% Bootstrap t UCL	0.459
95% H-UCL (Log ROS)	0.26		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-1.379	95% H-UCL (KM -Log)	0.398
KM SD (logged)	0.793	95% Critical H Value (KM-Log)	2.018
KM Standard Error of Mean (logged)	0.147		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.101	Mean in Log Scale	-0.347
SD in Original Scale	2.24	SD in Log Scale	0.853
95% t UCL (Assumes normality)	1.431	95% H-Stat UCL	1.189

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.508	95% GROS Approximate Gamma UCL	0.194
95% Approximate Gamma KM-UCL	0.495		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Arsenic

General Statistics

Total Number of Observations	127	Number of Distinct Observations	121
Number of Detects	104	Number of Non-Detects	23
Number of Distinct Detects	100	Number of Distinct Non-Detects	23
Minimum Detect	0.64	Minimum Non-Detect	2.82
Maximum Detect	111	Maximum Non-Detect	198
Variance Detects	157.5	Percent Non-Detects	18.11%
Mean Detects	8.308	SD Detects	12.55
Median Detects	5.415	CV Detects	1.511
Skewness Detects	5.89	Kurtosis Detects	44.33
Mean of Logged Detects	1.652	SD of Logged Detects	0.903

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.499	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.271	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0869	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	7.59	Standard Error of Mean	1.041
SD	11.55	95% KM (BCA) UCL	9.422
95% KM (t) UCL	9.315	95% KM (Percentile Bootstrap) UCL	9.508
95% KM (z) UCL	9.302	95% KM Bootstrap t UCL	10.52
90% KM Chebyshev UCL	10.71	95% KM Chebyshev UCL	12.13
97.5% KM Chebyshev UCL	14.09	99% KM Chebyshev UCL	17.95

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.361	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.777	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.113	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.0906	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.214	k star (bias corrected MLE)	1.185
Theta hat (MLE)	6.846	Theta star (bias corrected MLE)	7.011
nu hat (MLE)	252.4	nu star (bias corrected)	246.5
MLE Mean (bias corrected)	8.308	MLE Sd (bias corrected)	7.632

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.432	nu hat (KM)	109.7
Approximate Chi Square Value (109.70, α)	86.52	Adjusted Chi Square Value (109.70, β)	86.29
5% Gamma Approximate KM-UCL (use when n>=50)	9.622	95% Gamma Adjusted KM-UCL (use when n<50)	9.649

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	7.241
Maximum	111	Median	4.19
SD	11.6	CV	1.602
k hat (MLE)	0.865	k star (bias corrected MLE)	0.849
Theta hat (MLE)	8.376	Theta star (bias corrected MLE)	8.525
nu hat (MLE)	219.6	nu star (bias corrected)	215.8
MLE Mean (bias corrected)	7.241	MLE Sd (bias corrected)	7.857
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (215.75, α)	182.8	Adjusted Chi Square Value (215.75, β)	182.4
95% Gamma Approximate UCL (use when n>=50)	8.549	95% Gamma Adjusted UCL (use when n<50)	8.565

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.051	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0869	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	7.464	Mean in Log Scale	1.579
SD in Original Scale	11.5	SD in Log Scale	0.842
95% t UCL (assumes normality of ROS data)	9.155	95% Percentile Bootstrap UCL	9.331
95% BCA Bootstrap UCL	9.83	95% Bootstrap t UCL	10.34
95% H-UCL (Log ROS)	8.064		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	1.568	95% H-UCL (KM -Log)	8.396
KM SD (logged)	0.888	95% Critical H Value (KM-Log)	2.093
KM Standard Error of Mean (logged)	0.0836		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	8.826	Mean in Log Scale	1.674
SD in Original Scale	14.15	SD in Log Scale	0.923
95% t UCL (Assumes normality)	10.91	95% H-Stat UCL	9.728

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	9.422

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Cadmium

General Statistics

Total Number of Observations	127	Number of Distinct Observations	114
Number of Detects	100	Number of Non-Detects	27
Number of Distinct Detects	90	Number of Distinct Non-Detects	27
Minimum Detect	0.096	Minimum Non-Detect	0.079
Maximum Detect	7.19	Maximum Non-Detect	49.5
Variance Detects	0.879	Percent Non-Detects	21.26%
Mean Detects	0.944	SD Detects	0.937
Median Detects	0.685	CV Detects	0.993
Skewness Detects	3.821	Kurtosis Detects	20.92
Mean of Logged Detects	-0.363	SD of Logged Detects	0.768

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.678	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.191	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0886	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.857	Standard Error of Mean	0.0802
SD	0.875	95% KM (BCA) UCL	1.007
95% KM (t) UCL	0.99	95% KM (Percentile Bootstrap) UCL	1.002
95% KM (z) UCL	0.989	95% KM Bootstrap t UCL	1.032
90% KM Chebyshev UCL	1.097	95% KM Chebyshev UCL	1.207
97.5% KM Chebyshev UCL	1.358	99% KM Chebyshev UCL	1.655

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.185	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.767	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.11	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0908	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.784	k star (bias corrected MLE)	1.737
Theta hat (MLE)	0.529	Theta star (bias corrected MLE)	0.544
nu hat (MLE)	356.8	nu star (bias corrected)	347.4
MLE Mean (bias corrected)	0.944	MLE Sd (bias corrected)	0.716

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.96	nu hat (KM)	243.8
Approximate Chi Square Value (243.82, α)	208.7	Adjusted Chi Square Value (243.82, β)	208.3

5% Gamma Approximate KM-UCL (use when n>=50)	1.001	95% Gamma Adjusted KM-UCL (use when n<50)	1.003

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.829
Maximum	7.19	Median	0.607
SD	0.865	CV	1.043
k hat (MLE)	1.494	k star (bias corrected MLE)	1.464
Theta hat (MLE)	0.555	Theta star (bias corrected MLE)	0.566
nu hat (MLE)	379.5	nu star (bias corrected)	371.9
MLE Mean (bias corrected)	0.829	MLE Sd (bias corrected)	0.685
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (371.89, α)	328.2	Adjusted Chi Square Value (371.89, β)	327.7
95% Gamma Approximate UCL (use when n>=50)	0.94	95% Gamma Adjusted UCL (use when n<50)	0.941

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0545	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0886	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.84	Mean in Log Scale	-0.474
SD in Original Scale	0.858	SD in Log Scale	0.752
95% t UCL (assumes normality of ROS data)	0.966	95% Percentile Bootstrap UCL	0.971
95% BCA Bootstrap UCL	0.996	95% Bootstrap t UCL	1.025
95% H-UCL (Log ROS)	0.943		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-0.493	95% H-UCL (KM -Log)	1.001
KM SD (logged)	0.828	95% Critical H Value (KM-Log)	2.045
KM Standard Error of Mean (logged)	0.0795		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.168	Mean in Log Scale	-0.382
SD in Original Scale	2.37	SD in Log Scale	0.95
95% t UCL (Assumes normality)	1.517	95% H-Stat UCL	1.286

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	1.007

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician

Chromium

General Statistics

Total Number of Observations	127	Number of Distinct Observations	105
		Number of Missing Observations	0
Minimum	2	Mean	16.16
Maximum	106	Median	13.9
SD	11.32	Std. Error of Mean	1.005
Coefficient of Variation	0.701	Skewness	4.632

Normal GOF Test

Shapiro Wilk Test Statistic	0.664	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.186	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0786	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	17.83	95% Adjusted-CLT UCL (Chen-1995)	18.26
		95% Modified-t UCL (Johnson-1978)	17.9

Gamma GOF Test

A-D Test Statistic	1.984	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.758	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.105	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.0829	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.477	k star (bias corrected MLE)	3.4
Theta hat (MLE)	4.648	Theta star (bias corrected MLE)	4.753
nu hat (MLE)	883.2	nu star (bias corrected)	863.7
MLE Mean (bias corrected)	16.16	MLE Sd (bias corrected)	8.765
		Approximate Chi Square Value (0.05)	796.5
Adjusted Level of Significance	0.0481	Adjusted Chi Square Value	795.8

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	17.53	95% Adjusted Gamma UCL (use when n<50)	17.54

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0.0336	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0938	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0786	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.693	Mean of logged Data	2.632
Maximum of Logged Data	4.663	SD of logged Data	0.542

Assuming Lognormal Distribution

95% H-UCL	17.6	90% Chebyshev (MVUE) UCL	18.55
95% Chebyshev (MVUE) UCL	19.67	97.5% Chebyshev (MVUE) UCL	21.23

99% Chebyshev (MVUE) UCL	24.28

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	17.82	95% Jackknife UCL	17.83
95% Standard Bootstrap UCL	17.78	95% Bootstrap-t UCL	18.66
95% Hall's Bootstrap UCL	19.97	95% Percentile Bootstrap UCL	17.89
95% BCA Bootstrap UCL	18.3		
90% Chebyshev(Mean, Sd) UCL	19.18	95% Chebyshev(Mean, Sd) UCL	20.54
97.5% Chebyshev(Mean, Sd) UCL	22.44	99% Chebyshev(Mean, Sd) UCL	26.16

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	20.54

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Copper

General Statistics

Total Number of Observations	127	Number of Distinct Observations	115
Number of Detects	126	Number of Non-Detects	1
Number of Distinct Detects	114	Number of Distinct Non-Detects	1
Minimum Detect	3.6	Minimum Non-Detect	0.22
Maximum Detect	584	Maximum Non-Detect	0.22
Variance Detects	6307	Percent Non-Detects	0.787%
Mean Detects	50.88	SD Detects	79.42
Median Detects	30	CV Detects	1.561
Skewness Detects	5.08	Kurtosis Detects	29.73
Mean of Logged Detects	3.439	SD of Logged Detects	0.919

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.478	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.276	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0789	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	50.48	Standard Error of Mean	7.031
SD	78.92	95% KM (BCA) UCL	64.66
95% KM (t) UCL	62.13	95% KM (Percentile Bootstrap) UCL	63.21
95% KM (z) UCL	62.04	95% KM Bootstrap t UCL	69.44
90% KM Chebyshev UCL	71.57	95% KM Chebyshev UCL	81.12
97.5% KM Chebyshev UCL	94.38	99% KM Chebyshev UCL	120.4

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.817	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.779	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.145	**Kolmogrov-Smirnoff GOF**

5% K-S Critical Value	0.0849	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.158	k star (bias corrected MLE)	1.135
Theta hat (MLE)	43.94	Theta star (bias corrected MLE)	44.81
nu hat (MLE)	291.8	nu star (bias corrected)	286.1
MLE Mean (bias corrected)	50.88	MLE Sd (bias corrected)	47.75

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.409	nu hat (KM)	103.9
Approximate Chi Square Value (103.92, α)	81.4	Adjusted Chi Square Value (103.92, β)	81.17
5% Gamma Approximate KM-UCL (use when n>=50)	64.45	95% Gamma Adjusted KM-UCL (use when n<50)	64.63

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	50.48
Maximum	584	Median	29.4
SD	79.23	CV	1.57
k hat (MLE)	1.051	k star (bias corrected MLE)	1.032
Theta hat (MLE)	48.01	Theta star (bias corrected MLE)	48.92
nu hat (MLE)	267	nu star (bias corrected)	262.1
MLE Mean (bias corrected)	50.48	MLE Sd (bias corrected)	49.69
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (262.06, α)	225.6	Adjusted Chi Square Value (262.06, β)	225.2
95% Gamma Approximate UCL (use when n>=50)	58.64	95% Gamma Adjusted UCL (use when n<50)	58.74

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0705	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0789	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	50.5	Mean in Log Scale	3.419
SD in Original Scale	79.22	SD in Log Scale	0.943
95% t UCL (assumes normality of ROS data)	62.14	95% Percentile Bootstrap UCL	63.08
95% BCA Bootstrap UCL	67.59	95% Bootstrap t UCL	70.25
95% H-UCL (Log ROS)	57.03		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	3.4	95% H-UCL (KM -Log)	60.95
KM SD (logged)	1.012	95% Critical H Value (KM-Log)	2.2
KM Standard Error of Mean (logged)	0.0901		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	50.48	Mean in Log Scale	3.395
SD in Original Scale	79.23	SD in Log Scale	1.044
95% t UCL (Assumes normality)	62.13	95% H-Stat UCL	63.21

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	64.66

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Zinc

General Statistics

Total Number of Observations	127	Number of Distinct Observations	122
		Number of Missing Observations	0
Minimum	10.6	Mean	268.6
Maximum	4500	Median	166
SD	438.8	Std. Error of Mean	38.94
Coefficient of Variation	1.634	Skewness	7.438

Normal GOF Test

Shapiro Wilk Test Statistic	0.451	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.278	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0786	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	333.1	95% Adjusted-CLT UCL (Chen-1995)	360.1
		95% Modified-t UCL (Johnson-1978)	337.4

Gamma GOF Test

A-D Test Statistic	2.091	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.779	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.104	**Kolmogrov-Smirnoff Gamma GOF Test**	
5% K-S Critical Value	0.0847	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.144	k star (bias corrected MLE)	1.122
Theta hat (MLE)	234.7	Theta star (bias corrected MLE)	239.3
nu hat (MLE)	290.6	nu star (bias corrected)	285.1
MLE Mean (bias corrected)	268.6	MLE Sd (bias corrected)	253.5
		Approximate Chi Square Value (0.05)	247
Adjusted Level of Significance	0.0481	Adjusted Chi Square Value	246.6

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	310	95% Adjusted Gamma UCL (use when n<50)	310.5

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.988	**Shapiro Wilk Lognormal GOF Test**	

5% Shapiro Wilk P Value	0.892	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.046	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0786	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	2.361	Mean of logged Data	5.096
Maximum of Logged Data	8.412	SD of logged Data	0.972

Assuming Lognormal Distribution

95% H-UCL	316.2	90% Chebyshev (MVUE) UCL	341.3
95% Chebyshev (MVUE) UCL	377.8	97.5% Chebyshev (MVUE) UCL	428.5
99% Chebyshev (MVUE) UCL	528		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	332.6	95% Jackknife UCL	333.1
95% Standard Bootstrap UCL	333	95% Bootstrap-t UCL	385.8
95% Hall's Bootstrap UCL	607.3	95% Percentile Bootstrap UCL	335.2
95% BCA Bootstrap UCL	378.8		
90% Chebyshev(Mean, Sd) UCL	385.4	95% Chebyshev(Mean, Sd) UCL	438.3
97.5% Chebyshev(Mean, Sd) UCL	511.8	99% Chebyshev(Mean, Sd) UCL	656

Suggested UCL to Use

95% H-UCL	316.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
se of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distributio

Phenanthrene

General Statistics

Total Number of Observations	54	Number of Distinct Observations	46
		Number of Missing Observations	73
Number of Detects	14	Number of Non-Detects	40
Number of Distinct Detects	13	Number of Distinct Non-Detects	37
Minimum Detect	49	Minimum Non-Detect	33
Maximum Detect	1100	Maximum Non-Detect	20000
Variance Detects	91741	Percent Non-Detects	74.07%
Mean Detects	270.1	SD Detects	302.9
Median Detects	165	CV Detects	1.121
Skewness Detects	2.111	Kurtosis Detects	4.086
Mean of Logged Detects	5.171	SD of Logged Detects	0.911

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.704	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.286	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	143.5	Standard Error of Mean	32.81
SD	195.5	95% KM (BCA) UCL	206.9
95% KM (t) UCL	198.5	95% KM (Percentile Bootstrap) UCL	197.9
95% KM (z) UCL	197.5	95% KM Bootstrap t UCL	234.3
90% KM Chebyshev UCL	242	95% KM Chebyshev UCL	286.6
97.5% KM Chebyshev UCL	348.5	99% KM Chebyshev UCL	470

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.632	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.754	letected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.17	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.234	letected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.31	k star (bias corrected MLE)	1.077
Theta hat (MLE)	206.2	Theta star (bias corrected MLE)	250.8
nu hat (MLE)	36.69	nu star (bias corrected)	30.16
MLE Mean (bias corrected)	270.1	MLE Sd (bias corrected)	260.3

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.539	nu hat (KM)	58.25
Approximate Chi Square Value (58.25, α)	41.7	Adjusted Chi Square Value (58.25, β)	41.32
5% Gamma Approximate KM-UCL (use when n>=50)	200.5	95% Gamma Adjusted KM-UCL (use when n<50)	202.4

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	81.05
Maximum	1100	Median	14.25
SD	188.9	CV	2.331
k hat (MLE)	0.25	k star (bias corrected MLE)	0.248
Theta hat (MLE)	324.3	Theta star (bias corrected MLE)	326.3
nu hat (MLE)	26.99	nu star (bias corrected)	26.82
MLE Mean (bias corrected)	81.05	MLE Sd (bias corrected)	162.6
		Adjusted Level of Significance (β)	0.0456
Approximate Chi Square Value (26.82, α)	16.01	Adjusted Chi Square Value (26.82, β)	15.78
95% Gamma Approximate UCL (use when n>=50)	135.7	95% Gamma Adjusted UCL (use when n<50)	137.7

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.954	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.126	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	117.6	Mean in Log Scale	4.375
SD in Original Scale	176.4	SD in Log Scale	0.739
95% t UCL (assumes normality of ROS data)	157.8	95% Percentile Bootstrap UCL	160
95% BCA Bootstrap UCL	175.5	95% Bootstrap t UCL	215.3
95% H-UCL (Log ROS)	128.6		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.498	95% H-UCL (KM -Log)	170.3
KM SD (logged)	0.87	95% Critical H Value (KM-Log)	2.185
KM Standard Error of Mean (logged)	0.183		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	757.2	Mean in Log Scale	5.455
SD in Original Scale	1583	SD in Log Scale	1.457
95% t UCL (Assumes normality)	1118	95% H-Stat UCL	1216

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	198.5	95% GROS Approximate Gamma UCL	135.7
95% Approximate Gamma KM-UCL	200.5		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Nitrocellulose

General Statistics

Total Number of Observations	122	Number of Distinct Observations	65
		Number of Missing Observations	5
Number of Detects	12	Number of Non-Detects	110
Number of Distinct Detects	11	Number of Distinct Non-Detects	60
Minimum Detect	95000	Minimum Non-Detect	60000
Maximum Detect	6000000	Maximum Non-Detect	1500000
Variance Detects	3.085E+12	Percent Non-Detects	90.16%
Mean Detects	1023750	SD Detects	1756421
Median Detects	330000	CV Detects	1.716
Skewness Detects	2.552	Kurtosis Detects	6.428
Mean of Logged Detects	12.97	SD of Logged Detects	1.235

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.571	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.395	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.256	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	183270	Standard Error of Mean	57724
SD	599128	95% KM (BCA) UCL	305165
95% KM (t) UCL	278950	95% KM (Percentile Bootstrap) UCL	281817
95% KM (z) UCL	278218	95% KM Bootstrap t UCL	490033
90% KM Chebyshev UCL	356443	95% KM Chebyshev UCL	434884
97.5% KM Chebyshev UCL	543758	99% KM Chebyshev UCL	757619

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.202	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.77	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.304	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.256	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.694	k star (bias corrected MLE)	0.576
Theta hat (MLE)	1474101	Theta star (bias corrected MLE)	1776037
nu hat (MLE)	16.67	nu star (bias corrected)	13.83
MLE Mean (bias corrected)	1023750	MLE Sd (bias corrected)	1348413

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0936	nu hat (KM)	22.83
Approximate Chi Square Value (22.83, α)	12.96	Adjusted Chi Square Value (22.83, β)	12.87
5% Gamma Approximate KM-UCL (use when n>=50)	322776	95% Gamma Adjusted KM-UCL (use when n<50)	325007

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	100697
Maximum	6000000	Median	0.01
SD	611696	CV	6.075
k hat (MLE)	0.0598	k star (bias corrected MLE)	0.0638
Theta hat (MLE)	1684740	Theta star (bias corrected MLE)	1579194
nu hat (MLE)	14.58	nu star (bias corrected)	15.56
MLE Mean (bias corrected)	100697	MLE Sd (bias corrected)	398773
		Adjusted Level of Significance (β)	0.048
Approximate Chi Square Value (15.56, α)	7.652	Adjusted Chi Square Value (15.56, β)	7.585
95% Gamma Approximate UCL (use when n>=50)	204752	95% Gamma Adjusted UCL (use when n<50)	206544

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.892	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.241	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.256	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	125871	Mean in Log Scale	10.23
SD in Original Scale	607959	SD in Log Scale	1.25
95% t UCL (assumes normality of ROS data)	217106	95% Percentile Bootstrap UCL	228476

95% BCA Bootstrap UCL	298063	95% Bootstrap t UCL	625836
95% H-UCL (Log ROS)	79524		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	11.46	95% H-UCL (KM -Log)	144171
KM SD (logged)	0.751	95% Critical H Value (KM-Log)	1.984
KM Standard Error of Mean (logged)	0.13		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	290574	Mean in Log Scale	12.12
SD in Original Scale	599411	SD in Log Scale	0.8
95% t UCL (Assumes normality)	380526	95% H-Stat UCL	293678

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	305165

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

UCL Statistics for Data Sets with Non-Detects_Sed South

User Selected Options	
Date/Time of Computation	3/24/2016 10:57:27 AM
From File	Ashland SedNorth and South for ProUCL_20130323_a.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Bis(2-Ethylhexyl)phthalate

General Statistics

Total Number of Observations	32	Number of Distinct Observations	20
		Number of Missing Observations	9
Number of Detects	6	Number of Non-Detects	26
Number of Distinct Detects	5	Number of Distinct Non-Detects	15
Minimum Detect	97	Minimum Non-Detect	85
Maximum Detect	1400	Maximum Non-Detect	7000
Variance Detects	247914	Percent Non-Detects	81.25%
Mean Detects	459.5	SD Detects	497.9
Median Detects	295	CV Detects	1.084
Skewness Detects	1.733	Kurtosis Detects	3.127
Mean of Logged Detects	5.663	SD of Logged Detects	1.055

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.778	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.788	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.269	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.362	Detected Data appear Normal at 5% Significance Level

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	158.9	Standard Error of Mean	49.17
SD	249.1	95% KM (BCA) UCL	246.6
95% KM (t) UCL	242.3	95% KM (Percentile Bootstrap) UCL	243
95% KM (z) UCL	239.8	95% KM Bootstrap t UCL	341.9
90% KM Chebyshev UCL	306.4	95% KM Chebyshev UCL	373.3
97.5% KM Chebyshev UCL	466	99% KM Chebyshev UCL	648.1

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.463	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.712	etected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.294	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.339	etected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.209	k star (bias corrected MLE)	0.716
Theta hat (MLE)	380	Theta star (bias corrected MLE)	642
nu hat (MLE)	14.51	nu star (bias corrected)	8.589
MLE Mean (bias corrected)	459.5	MLE Sd (bias corrected)	543.1

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.407	nu hat (KM)	26.05

Approximate Chi Square Value (26.05, α)	15.42	Adjusted Chi Square Value (26.05, β)	14.98
5% Gamma Approximate KM-UCL (use when n>=50)	268.5	95% Gamma Adjusted KM-UCL (use when n<50)	276.4

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	86.16
Maximum	1400	Median	0.01
SD	270.5	CV	3.14
k hat (MLE)	0.112	k star (bias corrected MLE)	0.122
Theta hat (MLE)	768.4	Theta star (bias corrected MLE)	703.6
nu hat (MLE)	7.177	nu star (bias corrected)	7.837
MLE Mean (bias corrected)	86.16	MLE Sd (bias corrected)	246.2
		Adjusted Level of Significance (β)	0.0416
Approximate Chi Square Value (7.84, α)	2.641	Adjusted Chi Square Value (7.84, β)	2.482
95% Gamma Approximate UCL (use when n>=50)	255.7	95% Gamma Adjusted UCL (use when n<50)	272.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.891	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.275	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.362	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	94.59	Mean in Log Scale	2.723
SD in Original Scale	267.9	SD in Log Scale	1.669
95% t UCL (assumes normality of ROS data)	174.9	95% Percentile Bootstrap UCL	179
95% BCA Bootstrap UCL	230.7	95% Bootstrap t UCL	328.9
95% H-UCL (Log ROS)	166.5		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.688	95% H-UCL (KM -Log)	169.7
KM SD (logged)	0.645	95% Critical H Value (KM-Log)	2.055
KM Standard Error of Mean (logged)	0.128		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	247.6	Mean in Log Scale	4.443
SD in Original Scale	649.2	SD in Log Scale	1.111
95% t UCL (Assumes normality)	442.2	95% H-Stat UCL	262.9

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	242.3	95% KM (Percentile Bootstrap) UCL	243

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

2,4,6-Trinitrotoluene

General Statistics

Total Number of Observations	264	Number of Distinct Observations	82
Number of Detects	7	Number of Non-Detects	257
Number of Distinct Detects	7	Number of Distinct Non-Detects	77
Minimum Detect	200	Minimum Non-Detect	98
Maximum Detect	19000	Maximum Non-Detect	4500
Variance Detects	47127429	Percent Non-Detects	97.35%
Mean Detects	3454	SD Detects	6865
Median Detects	940	CV Detects	1.987
Skewness Detects	2.63	Kurtosis Detects	6.936
Mean of Logged Detects	7.075	SD of Logged Detects	1.375

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.506	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.475	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.335	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	193.6	Standard Error of Mean	77.83
SD	1168	95% KM (BCA) UCL	405.9
95% KM (t) UCL	322.1	95% KM (Percentile Bootstrap) UCL	339.8
95% KM (z) UCL	321.6	95% KM Bootstrap t UCL	787.6
90% KM Chebyshev UCL	427.1	95% KM Chebyshev UCL	532.8
97.5% KM Chebyshev UCL	679.6	99% KM Chebyshev UCL	968

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.139	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.747	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.411	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.326	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.579	k star (bias corrected MLE)	0.426
Theta hat (MLE)	5962	Theta star (bias corrected MLE)	8102
nu hat (MLE)	8.112	nu star (bias corrected)	5.969
MLE Mean (bias corrected)	3454	MLE Sd (bias corrected)	5290

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0275	nu hat (KM)	14.51
Approximate Chi Square Value (14.51, α)	6.92	Adjusted Chi Square Value (14.51, β)	6.891
5% Gamma Approximate KM-UCL (use when n>=50)	405.9	95% Gamma Adjusted KM-UCL (use when n<50)	407.6

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	91.6
Maximum	19000	Median	0.01
SD	1177	CV	12.84
k hat (MLE)	0.093	k star (bias corrected MLE)	0.0945
Theta hat (MLE)	985.1	Theta star (bias corrected MLE)	969.8
nu hat (MLE)	49.1	nu star (bias corrected)	49.87
MLE Mean (bias corrected)	91.6	MLE Sd (bias corrected)	298
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (49.87, α)	34.66	Adjusted Chi Square Value (49.87, β)	34.59
95% Gamma Approximate UCL (use when n>=50)	131.8	95% Gamma Adjusted UCL (use when n<50)	132.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.839	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.308	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.335	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	94.95	Mean in Log Scale	-0.351
SD in Original Scale	1176	SD in Log Scale	2.418
95% t UCL (assumes normality of ROS data)	214.5	95% Percentile Bootstrap UCL	237.8
95% BCA Bootstrap UCL	367.4	95% Bootstrap t UCL	1044
95% H-UCL (Log ROS)	22.4		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.682	95% H-UCL (KM -Log)	128.1
KM SD (logged)	0.484	95% Critical H Value (KM-Log)	1.788
KM Standard Error of Mean (logged)	0.0415		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	447.5	Mean in Log Scale	5.637
SD in Original Scale	1199	SD in Log Scale	0.798
95% t UCL (Assumes normality)	569.3	95% H-Stat UCL	425.5

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	405.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Anthracene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	66
		Number of Missing Observations	124

Number of Detects	45	Number of Non-Detects	82
Number of Distinct Detects	34	Number of Distinct Non-Detects	44
Minimum Detect	37	Minimum Non-Detect	42
Maximum Detect	1100000	Maximum Non-Detect	4000
Variance Detects	2.687E+1(	Percent Non-Detects	64.57%
Mean Detects	24747	SD Detects	163933
Median Detects	180	CV Detects	6.624
Skewness Detects	6.708	Kurtosis Detects	45
Mean of Logged Detects	5.496	SD of Logged Detects	1.55

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.153	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.945	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.533	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.132	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	8828	Standard Error of Mean	8723
SD	97210	95% KM (BCA) UCL	26162
95% KM (t) UCL	23283	95% KM (Percentile Bootstrap) UCL	26142
95% KM (z) UCL	23177	95% KM Bootstrap t UCL	4355721
90% KM Chebyshev UCL	34998	95% KM Chebyshev UCL	46852
97.5% KM Chebyshev UCL	63306	99% KM Chebyshev UCL	95625

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	14.08	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.945	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.486	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.148	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.164	k star (bias corrected MLE)	0.168
Theta hat (MLE)	150753	Theta star (bias corrected MLE)	147280
nu hat (MLE)	14.77	nu star (bias corrected)	15.12
MLE Mean (bias corrected)	24747	MLE Sd (bias corrected)	60371

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00825	nu hat (KM)	2.095
Approximate Chi Square Value (2.09, α)	0.164	Adjusted Chi Square Value (2.09, β)	0.161
5% Gamma Approximate KM-UCL (use when n>=50)	112683	95% Gamma Adjusted KM-UCL (use when n<50)	115108

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	8768
Maximum	1100000	Median	0.01
SD	97600	CV	11.13
k hat (MLE)	0.0823	k star (bias corrected MLE)	0.0856
Theta hat (MLE)	106564	Theta star (bias corrected MLE)	102448

nu hat (MLE)	20.9	nu star (bias corrected)	21.74
MLE Mean (bias corrected)	8768	MLE Sd (bias corrected)	29972
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (21.74, α)	12.14	Adjusted Chi Square Value (21.74, β)	12.06
95% Gamma Approximate UCL (use when n>=50)	15698	95% Gamma Adjusted UCL (use when n<50)	15805

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.68	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.945	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.132	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	8806	Mean in Log Scale	4.371
SD in Original Scale	97597	SD in Log Scale	1.41
95% t UCL (assumes normality of ROS data)	23157	95% Percentile Bootstrap UCL	26130
95% BCA Bootstrap UCL	34810	95% Bootstrap t UCL	4788306
95% H-UCL (Log ROS)	295.9		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	8918	Mean in Log Scale	5.061
SD in Original Scale	97587	SD in Log Scale	1.307
95% t UCL (Assumes normality)	23267	95% H-Stat UCL	495.2

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	46852

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

2,4-Dinitrotoluene

General Statistics

Total Number of Observations	112	Number of Distinct Observations	49
		Number of Missing Observations	139
Number of Detects	6	Number of Non-Detects	106
Number of Distinct Detects	6	Number of Distinct Non-Detects	46
Minimum Detect	120	Minimum Non-Detect	67
Maximum Detect	560	Maximum Non-Detect	30000
Variance Detects	27470	Percent Non-Detects	94.64%
Mean Detects	295	SD Detects	165.7
Median Detects	265	CV Detects	0.562
Skewness Detects	0.766	Kurtosis Detects	-0.229
Mean of Logged Detects	5.55	SD of Logged Detects	0.584

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.936	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.362	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	85.37	Standard Error of Mean	8.371
SD	68.9	95% KM (BCA) UCL	113.2
95% KM (t) UCL	99.25	95% KM (Percentile Bootstrap) UCL	108.4
95% KM (z) UCL	99.14	95% KM Bootstrap t UCL	93.93
90% KM Chebyshev UCL	110.5	95% KM Chebyshev UCL	121.9
97.5% KM Chebyshev UCL	137.6	99% KM Chebyshev UCL	168.7

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.211	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.7	Detected data appear Gamma Distributed at 5% Significance Lev	
K-S Test Statistic	0.176	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.334	Detected data appear Gamma Distributed at 5% Significance Lev	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.802	k star (bias corrected MLE)	2.012
Theta hat (MLE)	77.59	Theta star (bias corrected MLE)	146.6
nu hat (MLE)	45.63	nu star (bias corrected)	24.15
MLE Mean (bias corrected)	295	MLE Sd (bias corrected)	208

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	1.535	nu hat (KM)	343.9
Approximate Chi Square Value (343.86, α)	301.9	Adjusted Chi Square Value (343.86, β)	301.4
5% Gamma Approximate KM-UCL (use when n>=50)	97.23	95% Gamma Adjusted KM-UCL (use when n<50)	97.4

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	16.22
Maximum	560	Median	0.01
SD	75.41	CV	4.648
k hat (MLE)	0.118	k star (bias corrected MLE)	0.121
Theta hat (MLE)	137	Theta star (bias corrected MLE)	133.9
nu hat (MLE)	26.52	nu star (bias corrected)	27.14
MLE Mean (bias corrected)	16.22	MLE Sd (bias corrected)	46.6
		Adjusted Level of Significance (β)	0.0479
Approximate Chi Square Value (27.14, α)	16.26	Adjusted Chi Square Value (27.14, β)	16.15
95% Gamma Approximate UCL (use when n>=50)	27.08	95% Gamma Adjusted UCL (use when n<50)	27.26

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.156	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.362	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	41.46	Mean in Log Scale	3.223
SD in Original Scale	72.28	SD in Log Scale	0.859
95% t UCL (assumes normality of ROS data)	52.79	95% Percentile Bootstrap UCL	52.18
95% BCA Bootstrap UCL	56.84	95% Bootstrap t UCL	60.36
95% H-UCL (Log ROS)	43.03		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.327	95% H-UCL (KM -Log)	87.04
KM SD (logged)	0.385	95% Critical H Value (KM-Log)	1.774
KM Standard Error of Mean (logged)	0.0529		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	323.4	Mean in Log Scale	4.877
SD in Original Scale	1441	SD in Log Scale	0.894
95% t UCL (Assumes normality)	549.2	95% H-Stat UCL	234.4

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	99.25	95% KM (Percentile Bootstrap) UCL	108.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Pyrene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	86
		Number of Missing Observations	124
Number of Detects	103	Number of Non-Detects	24
Number of Distinct Detects	77	Number of Distinct Non-Detects	17
Minimum Detect	47	Minimum Non-Detect	42
Maximum Detect	2600000	Maximum Non-Detect	4000
Variance Detects	6.558E+1(	Percent Non-Detects	18.9%
Mean Detects	26310	SD Detects	256088
Median Detects	460	CV Detects	9.733
Skewness Detects	10.15	Kurtosis Detects	103
Mean of Logged Detects	6.226	SD of Logged Detects	1.505

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.102	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.506	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0873	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	21365	Standard Error of Mean	20485
SD	229731	95% KM (BCA) UCL	62445
95% KM (t) UCL	55309	95% KM (Percentile Bootstrap) UCL	62282
95% KM (z) UCL	55060	95% KM Bootstrap t UCL	3430918
90% KM Chebyshev UCL	82820	95% KM Chebyshev UCL	110657
97.5% KM Chebyshev UCL	149294	99% KM Chebyshev UCL	225188

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	26.2	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.929	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.407	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0989	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.188	k star (bias corrected MLE)	0.189
Theta hat (MLE)	139924	Theta star (bias corrected MLE)	139187
nu hat (MLE)	38.73	nu star (bias corrected)	38.94
MLE Mean (bias corrected)	26310	MLE Sd (bias corrected)	60515

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00865	nu hat (KM)	2.197
Approximate Chi Square Value (2.20, α)	0.181	Adjusted Chi Square Value (2.20, β)	0.177
5% Gamma Approximate KM-UCL (use when n>=50)	259867	95% Gamma Adjusted KM-UCL (use when n<50)	265848

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	21338
Maximum	2600000	Median	350
SD	230644	CV	10.81
k hat (MLE)	0.135	k star (bias corrected MLE)	0.137
Theta hat (MLE)	158282	Theta star (bias corrected MLE)	155894
nu hat (MLE)	34.24	nu star (bias corrected)	34.77
MLE Mean (bias corrected)	21338	MLE Sd (bias corrected)	57676
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (34.77, α)	22.28	Adjusted Chi Square Value (34.77, β)	22.16
95% Gamma Approximate UCL (use when n>=50)	33300	95% Gamma Adjusted UCL (use when n<50)	33472

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0843	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0873	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	21356	Mean in Log Scale	5.83
SD in Original Scale	230642	SD in Log Scale	1.64
95% t UCL (assumes normality of ROS data)	55270	95% Percentile Bootstrap UCL	62272
95% BCA Bootstrap UCL	83488	95% Bootstrap t UCL	3597215
95% H-UCL (Log ROS)	1980		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	5.891	95% H-UCL (KM -Log)	1793
KM SD (logged)	1.56	95% Critical H Value (KM-Log)	2.753
KM Standard Error of Mean (logged)	0.142		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	21383	Mean in Log Scale	5.924
SD in Original Scale	230640	SD in Log Scale	1.583
95% t UCL (Assumes normality)	55295	95% H-Stat UCL	1936

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL 149294

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Benzo[g,h,i]perylene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	68
		Number of Missing Observations	124
Number of Detects	73	Number of Non-Detects	54
Number of Distinct Detects	47	Number of Distinct Non-Detects	33
Minimum Detect	47	Minimum Non-Detect	42
Maximum Detect	470000	Maximum Non-Detect	4000
Variance Detects	3.021E+9	Percent Non-Detects	42.52%
Mean Detects	6833	SD Detects	54964
Median Detects	240	CV Detects	8.044
Skewness Detects	8.543	Kurtosis Detects	72.99
Mean of Logged Detects	5.67	SD of Logged Detects	1.26

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.122	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.516	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.104	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	3983	Standard Error of Mean	3710
SD	41518	95% KM (BCA) UCL	11404
95% KM (t) UCL	10130	95% KM (Percentile Bootstrap) UCL	11377
95% KM (z) UCL	10085	95% KM Bootstrap t UCL	534570
90% KM Chebyshev UCL	15112	95% KM Chebyshev UCL	20153
97.5% KM Chebyshev UCL	27149	99% KM Chebyshev UCL	40893

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	19.54	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.901	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.432	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.115	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.228	k star (bias corrected MLE)	0.228
Theta hat (MLE)	29947	Theta star (bias corrected MLE)	29979
nu hat (MLE)	33.31	nu star (bias corrected)	33.28
MLE Mean (bias corrected)	6833	MLE Sd (bias corrected)	14312

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0092	nu hat (KM)	2.337
Approximate Chi Square Value (2.34, α)	0.207	Adjusted Chi Square Value (2.34, β)	0.202
5% Gamma Approximate KM-UCL (use when n>=50)	45049	95% Gamma Adjusted KM-UCL (use when n<50)	46146

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	3928
Maximum	470000	Median	95
SD	41687	CV	10.61
k hat (MLE)	0.114	k star (bias corrected MLE)	0.117
Theta hat (MLE)	34323	Theta star (bias corrected MLE)	33576
nu hat (MLE)	29.06	nu star (bias corrected)	29.71
MLE Mean (bias corrected)	3928	MLE Sd (bias corrected)	11483
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (29.71, α)	18.27	Adjusted Chi Square Value (29.71, β)	18.16
95% Gamma Approximate UCL (use when n>=50)	6388	95% Gamma Adjusted UCL (use when n<50)	6425

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.123	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.104	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	3967	Mean in Log Scale	5.076
SD in Original Scale	41683	SD in Log Scale	1.282
95% t UCL (assumes normality of ROS data)	10096	95% Percentile Bootstrap UCL	11365
95% BCA Bootstrap UCL	18725	95% Bootstrap t UCL	564690
95% H-UCL (Log ROS)	482.4		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	4046	Mean in Log Scale	5.351
SD in Original Scale	41677	SD in Log Scale	1.277
95% t UCL (Assumes normality)	10174	95% H-Stat UCL	629.6

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 20153

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Indeno[1,2,3-cd]pyrene

General Statistics

Total Number of Observations	48	Number of Distinct Observations	41
Number of Detects	32	Number of Non-Detects	16
Number of Distinct Detects	27	Number of Distinct Non-Detects	15
Minimum Detect	57	Minimum Non-Detect	42
Maximum Detect	2200	Maximum Non-Detect	4000
Variance Detects	184220	Percent Non-Detects	33.33%
Mean Detects	354.3	SD Detects	429.2
Median Detects	185	CV Detects	1.211
Skewness Detects	2.911	Kurtosis Detects	10.57
Mean of Logged Detects	5.401	SD of Logged Detects	0.934

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.666	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.93	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.244	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.157	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	272.6	Standard Error of Mean	58.32
SD	382.4	95% KM (BCA) UCL	375.2
95% KM (t) UCL	370.5	95% KM (Percentile Bootstrap) UCL	375
95% KM (z) UCL	368.5	95% KM Bootstrap t UCL	429.7
90% KM Chebyshev UCL	447.6	95% KM Chebyshev UCL	526.8
97.5% KM Chebyshev UCL	636.8	99% KM Chebyshev UCL	852.9

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.106	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.771	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.163	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.159	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.205	k star (bias corrected MLE)	1.113
Theta hat (MLE)	294	Theta star (bias corrected MLE)	318.3
nu hat (MLE)	77.12	nu star (bias corrected)	71.22
MLE Mean (bias corrected)	354.3	MLE Sd (bias corrected)	335.8

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.508	nu hat (KM)	48.78

Approximate Chi Square Value (48.78, α)	33.75	Adjusted Chi Square Value (48.78, β)	33.36
5% Gamma Approximate KM-UCL (use when n>=50)	394	95% Gamma Adjusted KM-UCL (use when n<50)	398.6

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	246.5
Maximum	2200	Median	108.3
SD	382	CV	1.55
k hat (MLE)	0.297	k star (bias corrected MLE)	0.292
Theta hat (MLE)	830.5	Theta star (bias corrected MLE)	843.8
nu hat (MLE)	28.49	nu star (bias corrected)	28.05
MLE Mean (bias corrected)	246.5	MLE Sd (bias corrected)	456.1
		Adjusted Level of Significance (β)	0.045
Approximate Chi Square Value (28.05, α)	16.96	Adjusted Chi Square Value (28.05, β)	16.7
95% Gamma Approximate UCL (use when n>=50)	407.5	95% Gamma Adjusted UCL (use when n<50)	414.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.951	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.93	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.106	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.157	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	257.3	Mean in Log Scale	4.901
SD in Original Scale	376	SD in Log Scale	1.118
95% t UCL (assumes normality of ROS data)	348.4	95% Percentile Bootstrap UCL	355.4
95% BCA Bootstrap UCL	375.1	95% Bootstrap t UCL	413
95% H-UCL (Log ROS)	375		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.988	95% H-UCL (KM -Log)	372
KM SD (logged)	1.059	95% Critical H Value (KM-Log)	2.399
KM Standard Error of Mean (logged)	0.164		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	374.3	Mean in Log Scale	5.095
SD in Original Scale	524.6	SD in Log Scale	1.351
95% t UCL (Assumes normality)	501.3	95% H-Stat UCL	696.5

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	375.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Fluoranthene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	71
		Number of Missing Observations	124
Number of Detects	99	Number of Non-Detects	28
Number of Distinct Detects	69	Number of Distinct Non-Detects	18
Minimum Detect	46	Minimum Non-Detect	42
Maximum Detect	3500000	Maximum Non-Detect	4000
Variance Detects	1.237E+1	Percent Non-Detects	22.05%
Mean Detects	36284	SD Detects	351672
Median Detects	450	CV Detects	9.692
Skewness Detects	9.95	Kurtosis Detects	99
Mean of Logged Detects	6.223	SD of Logged Detects	1.477

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.103	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.519	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.089	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	28316	Standard Error of Mean	27584
SD	309285	95% KM (BCA) UCL	83533
95% KM (t) UCL	74024	95% KM (Percentile Bootstrap) UCL	83425
95% KM (z) UCL	73688	95% KM Bootstrap t UCL	9147086
90% KM Chebyshev UCL	111069	95% KM Chebyshev UCL	148553
97.5% KM Chebyshev UCL	200580	99% KM Chebyshev UCL	302776

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	27.18	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.941	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.431	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.101	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.176	k star (bias corrected MLE)	0.177
Theta hat (MLE)	206645	Theta star (bias corrected MLE)	204995
nu hat (MLE)	34.77	nu star (bias corrected)	35.05
MLE Mean (bias corrected)	36284	MLE Sd (bias corrected)	86244

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00838	nu hat (KM)	2.129
Approximate Chi Square Value (2.13, α)	0.169	Adjusted Chi Square Value (2.13, β)	0.166
5% Gamma Approximate KM-UCL (use when n>=50)	355845	95% Gamma Adjusted KM-UCL (use when n<50)	363701

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	28285
Maximum	3500000	Median	300
SD	310513	CV	10.98
k hat (MLE)	0.123	k star (bias corrected MLE)	0.126
Theta hat (MLE)	229593	Theta star (bias corrected MLE)	225315
nu hat (MLE)	31.29	nu star (bias corrected)	31.89
MLE Mean (bias corrected)	28285	MLE Sd (bias corrected)	79831
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (31.89, α)	19.98	Adjusted Chi Square Value (31.89, β)	19.87
95% Gamma Approximate UCL (use when n>=50)	45136	95% Gamma Adjusted UCL (use when n<50)	45381

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0932	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.089	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	28307	Mean in Log Scale	5.797
SD in Original Scale	310511	SD in Log Scale	1.584
95% t UCL (assumes normality of ROS data)	73964	95% Percentile Bootstrap UCL	83381
95% BCA Bootstrap UCL	111110	95% Bootstrap t UCL	8803199
95% H-UCL (Log ROS)	1710		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	28335	Mean in Log Scale	5.906
SD in Original Scale	310509	SD in Log Scale	1.514
95% t UCL (Assumes normality)	73991	95% H-Stat UCL	1663

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	148553

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Benzo[k]fluoranthene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	73
		Number of Missing Observations	124
Number of Detects	72	Number of Non-Detects	55
Number of Distinct Detects	51	Number of Distinct Non-Detects	33
Minimum Detect	41	Minimum Non-Detect	42
Maximum Detect	580000	Maximum Non-Detect	4000
Variance Detects	4.667E+9	Percent Non-Detects	43.31%
Mean Detects	8397	SD Detects	68314

Median Detects	200	CV Detects	8.135
Skewness Detects	8.485	Kurtosis Detects	71.99
Mean of Logged Detects	5.485	SD of Logged Detects	1.302

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.122	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.52	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.104	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	4813	Standard Error of Mean	4579
SD	51243	95% KM (BCA) UCL	13952
95% KM (t) UCL	12401	95% KM (Percentile Bootstrap) UCL	13932
95% KM (z) UCL	12345	95% KM Bootstrap t UCL	863647
90% KM Chebyshev UCL	18550	95% KM Chebyshev UCL	24773
97.5% KM Chebyshev UCL	33409	99% KM Chebyshev UCL	50374

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	20.41	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.912	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.432	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.116	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.206	k star (bias corrected MLE)	0.207
Theta hat (MLE)	40710	Theta star (bias corrected MLE)	40580
nu hat (MLE)	29.7	nu star (bias corrected)	29.8
MLE Mean (bias corrected)	8397	MLE Sd (bias corrected)	18460

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00882	nu hat (KM)	2.241
Approximate Chi Square Value (2.24, α)	0.188	Adjusted Chi Square Value (2.24, β)	0.184
5% Gamma Approximate KM-UCL (use when n>=50)	57255	95% Gamma Adjusted KM-UCL (use when n<50)	58602

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	4761
Maximum	580000	Median	78
SD	51451	CV	10.81
k hat (MLE)	0.109	k star (bias corrected MLE)	0.112
Theta hat (MLE)	43593	Theta star (bias corrected MLE)	42553
nu hat (MLE)	27.74	nu star (bias corrected)	28.42
MLE Mean (bias corrected)	4761	MLE Sd (bias corrected)	14233
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (28.42, α)	17.25	Adjusted Chi Square Value (28.42, β)	17.15
95% Gamma Approximate UCL (use when n>=50)	7841	95% Gamma Adjusted UCL (use when n<50)	7887

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.142	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.104	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	4801	Mean in Log Scale	4.961
SD in Original Scale	51447	SD in Log Scale	1.254
95% t UCL (assumes normality of ROS data)	12366	95% Percentile Bootstrap UCL	13923
95% BCA Bootstrap UCL	18526	95% Bootstrap t UCL	918149
95% H-UCL (Log ROS)	411.4		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	4881	Mean in Log Scale	5.247
SD in Original Scale	51440	SD in Log Scale	1.268
95% t UCL (Assumes normality)	12445	95% H-Stat UCL	559.3

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	24773

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Acenaphthylene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	69
		Number of Missing Observations	124
Number of Detects	38	Number of Non-Detects	89
Number of Distinct Detects	33	Number of Distinct Non-Detects	46
Minimum Detect	35	Minimum Non-Detect	33
Maximum Detect	900000	Maximum Non-Detect	4000
Variance Detects	2.130E+1(	Percent Non-Detects	70.08%
Mean Detects	23922	SD Detects	145960
Median Detects	155	CV Detects	6.101
Skewness Detects	6.164	Kurtosis Detects	38
Mean of Logged Detects	5.193	SD of Logged Detects	1.694

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.167	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.938	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.532	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.144	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	7209	Standard Error of Mean	7152

SD	79536	95% KM (BCA) UCL	21384
95% KM (t) UCL	19061	95% KM (Percentile Bootstrap) UCL	21374
95% KM (z) UCL	18974	95% KM Bootstrap t UCL	4220204
90% KM Chebyshev UCL	28667	95% KM Chebyshev UCL	38386
97.5% KM Chebyshev UCL	51876	99% KM Chebyshev UCL	78375

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	11.72	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.95	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.489	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.161	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.156	k star (bias corrected MLE)	0.161
Theta hat (MLE)	153104	Theta star (bias corrected MLE)	148165
nu hat (MLE)	11.87	nu star (bias corrected)	12.27
MLE Mean (bias corrected)	23922	MLE Sd (bias corrected)	59535

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00822	nu hat (KM)	2.087
Approximate Chi Square Value (2.09, α)	0.163	Adjusted Chi Square Value (2.09, β)	0.16
5% Gamma Approximate KM-UCL (use when n>=50)	92344	95% Gamma Adjusted KM-UCL (use when n<50)	94319

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	7158
Maximum	900000	Median	0.01
SD	79856	CV	11.16
k hat (MLE)	0.0792	k star (bias corrected MLE)	0.0825
Theta hat (MLE)	90415	Theta star (bias corrected MLE)	86714
nu hat (MLE)	20.11	nu star (bias corrected)	20.97
MLE Mean (bias corrected)	7158	MLE Sd (bias corrected)	24913
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (20.97, α)	11.57	Adjusted Chi Square Value (20.97, β)	11.49
95% Gamma Approximate UCL (use when n>=50)	12975	95% Gamma Adjusted UCL (use when n<50)	13065

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.664	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.938	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.195	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.144	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	7187	Mean in Log Scale	3.891
SD in Original Scale	79853	SD in Log Scale	1.478
95% t UCL (assumes normality of ROS data)	18929	95% Percentile Bootstrap UCL	21352
95% BCA Bootstrap UCL	35521	95% Bootstrap t UCL	5396051
95% H-UCL (Log ROS)	207.3		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	7313	Mean in Log Scale	4.902
SD in Original Scale	79843	SD in Log Scale	1.309
95% t UCL (Assumes normality)	19053	95% H-Stat UCL	423.7

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	38386

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Chrysene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	69
		Number of Missing Observations	124
Number of Detects	88	Number of Non-Detects	39
Number of Distinct Detects	57	Number of Distinct Non-Detects	25
Minimum Detect	43	Minimum Non-Detect	42
Maximum Detect	1100000	Maximum Non-Detect	4000
Variance Detects	1.373E+1(	Percent Non-Detects	30.71%
Mean Detects	13138	SD Detects	117196
Median Detects	350	CV Detects	8.921
Skewness Detects	9.38	Kurtosis Detects	87.99
Mean of Logged Detects	5.946	SD of Logged Detects	1.358

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.111	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.511	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0944	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	9148	Standard Error of Mean	8673
SD	97185	95% KM (BCA) UCL	26475
95% KM (t) UCL	23520	95% KM (Percentile Bootstrap) UCL	26450
95% KM (z) UCL	23415	95% KM Bootstrap t UCL	1479246
90% KM Chebyshev UCL	35168	95% KM Chebyshev UCL	46954
97.5% KM Chebyshev UCL	63312	99% KM Chebyshev UCL	95445

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	23.16	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.912	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.418	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.105	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.207	k star (bias corrected MLE)	0.207
Theta hat (MLE)	63479	Theta star (bias corrected MLE)	63320
nu hat (MLE)	36.43	nu star (bias corrected)	36.52
MLE Mean (bias corrected)	13138	MLE Sd (bias corrected)	28842

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00886	nu hat (KM)	2.251
Approximate Chi Square Value (2.25, α)	0.19	Adjusted Chi Square Value (2.25, β)	0.186
5% Gamma Approximate KM-UCL (use when n>=50)	108279	95% Gamma Adjusted KM-UCL (use when n<50)	110836

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	9103
Maximum	1100000	Median	190
SD	97574	CV	10.72
k hat (MLE)	0.123	k star (bias corrected MLE)	0.126
Theta hat (MLE)	73853	Theta star (bias corrected MLE)	72479
nu hat (MLE)	31.31	nu star (bias corrected)	31.9
MLE Mean (bias corrected)	9103	MLE Sd (bias corrected)	25686
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (31.90, α)	19.99	Adjusted Chi Square Value (31.90, β)	19.89
95% Gamma Approximate UCL (use when n>=50)	14525	95% Gamma Adjusted UCL (use when n<50)	14604

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.103	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0944	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	9136	Mean in Log Scale	5.463
SD in Original Scale	97571	SD in Log Scale	1.421
95% t UCL (assumes normality of ROS data)	23483	95% Percentile Bootstrap UCL	26452
95% BCA Bootstrap UCL	35183	95% Bootstrap t UCL	1305629
95% H-UCL (Log ROS)	900		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	9193	Mean in Log Scale	5.639
SD in Original Scale	97566	SD in Log Scale	1.381
95% t UCL (Assumes normality)	23539	95% H-Stat UCL	999.5

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 46954

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Benzo[a]pyrene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	76
		Number of Missing Observations	124
Number of Detects	79	Number of Non-Detects	48
Number of Distinct Detects	60	Number of Distinct Non-Detects	29
Minimum Detect	53	Minimum Non-Detect	42
Maximum Detect	900000	Maximum Non-Detect	4000
Variance Detects	1.024E+1(	Percent Non-Detects	37.8%
Mean Detects	11925	SD Detects	101199
Median Detects	290	CV Detects	8.487
Skewness Detects	8.888	Kurtosis Detects	78.99
Mean of Logged Detects	5.865	SD of Logged Detects	1.343

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.117	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.518	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0997	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	7471	Standard Error of Mean	7101
SD	79515	95% KM (BCA) UCL	21645
95% KM (t) UCL	19238	95% KM (Percentile Bootstrap) UCL	21634
95% KM (z) UCL	19151	95% KM Bootstrap t UCL	1302762
90% KM Chebyshev UCL	28774	95% KM Chebyshev UCL	38423
97.5% KM Chebyshev UCL	51816	99% KM Chebyshev UCL	78124

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	21.11	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.911	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.421	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.112	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.208	k star (bias corrected MLE)	0.208
Theta hat (MLE)	57394	Theta star (bias corrected MLE)	57243
nu hat (MLE)	32.83	nu star (bias corrected)	32.91
MLE Mean (bias corrected)	11925	MLE Sd (bias corrected)	26127

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00883	nu hat (KM)	2.242
Approximate Chi Square Value (2.24, α)	0.189	Adjusted Chi Square Value (2.24, β)	0.184
5% Gamma Approximate KM-UCL (use when n>=50)	88805	95% Gamma Adjusted KM-UCL (use when n<50)	90895

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	7418
Maximum	900000	Median	110
SD	79835	CV	10.76
k hat (MLE)	0.114	k star (bias corrected MLE)	0.117
Theta hat (MLE)	65062	Theta star (bias corrected MLE)	63635
nu hat (MLE)	28.96	nu star (bias corrected)	29.61
MLE Mean (bias corrected)	7418	MLE Sd (bias corrected)	21726
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (29.61, α)	18.18	Adjusted Chi Square Value (29.61, β)	18.08
95% Gamma Approximate UCL (use when n>=50)	12077	95% Gamma Adjusted UCL (use when n<50)	12146

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0893	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0997	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	7456	Mean in Log Scale	5.279
SD in Original Scale	79831	SD in Log Scale	1.396
95% t UCL (assumes normality of ROS data)	19194	95% Percentile Bootstrap UCL	21611
95% BCA Bootstrap UCL	28771	95% Bootstrap t UCL	1352837
95% H-UCL (Log ROS)	716		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	5.372	95% H-UCL (KM -Log)	693.7
KM SD (logged)	1.323	95% Critical H Value (KM-Log)	2.5
KM Standard Error of Mean (logged)	0.126		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	7531	Mean in Log Scale	5.531
SD in Original Scale	79825	SD in Log Scale	1.355
95% t UCL (Assumes normality)	19268	95% H-Stat UCL	858.8

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 38423

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Dibenzo[a,h]anthracene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	67
		Number of Missing Observations	124
Number of Detects	41	Number of Non-Detects	86
Number of Distinct Detects	33	Number of Distinct Non-Detects	45
Minimum Detect	50	Minimum Non-Detect	42
Maximum Detect	180000	Maximum Non-Detect	4000
Variance Detects	7.887E+8	Percent Non-Detects	67.72%
Mean Detects	4561	SD Detects	28084
Median Detects	130	CV Detects	6.158
Skewness Detects	6.403	Kurtosis Detects	41
Mean of Logged Detects	5.114	SD of Logged Detects	1.298

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.162	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.941	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.532	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.138	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	1527	Standard Error of Mean	1428
SD	15900	95% KM (BCA) UCL	4365
95% KM (t) UCL	3894	95% KM (Percentile Bootstrap) UCL	4361
95% KM (z) UCL	3876	95% KM Bootstrap t UCL	224955
90% KM Chebyshev UCL	5812	95% KM Chebyshev UCL	7753
97.5% KM Chebyshev UCL	10447	99% KM Chebyshev UCL	15740

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	12.51	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.9	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.482	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.152	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.219	k star (bias corrected MLE)	0.219
Theta hat (MLE)	20817	Theta star (bias corrected MLE)	20796
nu hat (MLE)	17.97	nu star (bias corrected)	17.98
MLE Mean (bias corrected)	4561	MLE Sd (bias corrected)	9739

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00922	nu hat (KM)	2.342
Approximate Chi Square Value (2.34, α)	0.208	Adjusted Chi Square Value (2.34, β)	0.203
5% Gamma Approximate KM-UCL (use when n>=50)	17225	95% Gamma Adjusted KM-UCL (use when n<50)	17645

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1472
Maximum	180000	Median	0.01

SD	15968	CV	10.84
k hat (MLE)	0.0935	k star (bias corrected MLE)	0.0965
Theta hat (MLE)	15754	Theta star (bias corrected MLE)	15257
nu hat (MLE)	23.74	nu star (bias corrected)	24.51
MLE Mean (bias corrected)	1472	MLE Sd (bias corrected)	4740
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (24.51, α)	14.24	Adjusted Chi Square Value (24.51, β)	14.15
95% Gamma Approximate UCL (use when n>=50)	2535	95% Gamma Adjusted UCL (use when n<50)	2551

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.634	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.941	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.138	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1507	Mean in Log Scale	4.13
SD in Original Scale	15965	SD in Log Scale	1.18
95% t UCL (assumes normality of ROS data)	3854	95% Percentile Bootstrap UCL	4343
95% BCA Bootstrap UCL	5772	95% Bootstrap t UCL	282908
95% H-UCL (Log ROS)	159.7		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1624	Mean in Log Scale	4.889
SD in Original Scale	15957	SD in Log Scale	1.168
95% t UCL (Assumes normality)	3970	95% H-Stat UCL	335.4

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	4365

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Benzo[a]anthracene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	74
		Number of Missing Observations	124
Number of Detects	82	Number of Non-Detects	45
Number of Distinct Detects	61	Number of Distinct Non-Detects	28
Minimum Detect	49	Minimum Non-Detect	42
Maximum Detect	1500000	Maximum Non-Detect	4000
Variance Detects	2.742E+1(	Percent Non-Detects	35.43%
Mean Detects	18850	SD Detects	165587
Median Detects	280	CV Detects	8.785
Skewness Detects	9.055	Kurtosis Detects	82

Mean of Logged Detects	5.814	SD of Logged Detects	1.406

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.114	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.518	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0978	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	12219	Standard Error of Mean	11834
SD	132544	95% KM (BCA) UCL	35835
95% KM (t) UCL	31828	95% KM (Percentile Bootstrap) UCL	35850
95% KM (z) UCL	31683	95% KM Bootstrap t UCL	3171211
90% KM Chebyshev UCL	47720	95% KM Chebyshev UCL	63801
97.5% KM Chebyshev UCL	86121	99% KM Chebyshev UCL	129963

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	23.03	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.93	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.444	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.11	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.185	k star (bias corrected MLE)	0.186
Theta hat (MLE)	101970	Theta star (bias corrected MLE)	101221
nu hat (MLE)	30.32	nu star (bias corrected)	30.54
MLE Mean (bias corrected)	18850	MLE Sd (bias corrected)	43680

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0085	nu hat (KM)	2.159
Approximate Chi Square Value (2.16, α)	0.174	Adjusted Chi Square Value (2.16, β)	0.17
5% Gamma Approximate KM-UCL (use when n>=50)	151423	95% Gamma Adjusted KM-UCL (use when n<50)	154832

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	12171
Maximum	1500000	Median	130
SD	133073	CV	10.93
k hat (MLE)	0.11	k star (bias corrected MLE)	0.113
Theta hat (MLE)	110524	Theta star (bias corrected MLE)	107928
nu hat (MLE)	27.97	nu star (bias corrected)	28.64
MLE Mean (bias corrected)	12171	MLE Sd (bias corrected)	36243
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (28.64, α)	17.43	Adjusted Chi Square Value (28.64, β)	17.33
95% Gamma Approximate UCL (use when n>=50)	20001	95% Gamma Adjusted UCL (use when n<50)	20117

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.102	**Lilliefors GOF Test**	

5% Lilliefors Critical Value	0.0978	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	12205	Mean in Log Scale	5.262
SD in Original Scale	133070	SD in Log Scale	1.448
95% t UCL (assumes normality of ROS data)	31771	95% Percentile Bootstrap UCL	35808
95% BCA Bootstrap UCL	47714	95% Bootstrap t UCL	3263171
95% H-UCL (Log ROS)	773.4		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	12274	Mean in Log Scale	5.5
SD in Original Scale	133064	SD in Log Scale	1.4
95% t UCL (Assumes normality)	31840	95% H-Stat UCL	899.8

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	63801

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Lead

General Statistics

Total Number of Observations	254	Number of Distinct Observations	233
		Number of Missing Observations	10
Number of Detects	253	Number of Non-Detects	1
Number of Distinct Detects	232	Number of Distinct Non-Detects	1
Minimum Detect	2.9	Minimum Non-Detect	16.4
Maximum Detect	148000	Maximum Non-Detect	16.4
Variance Detects	87050588	Percent Non-Detects	0.394%
Mean Detects	890.7	SD Detects	9330
Median Detects	63	CV Detects	10.48
Skewness Detects	15.69	Kurtosis Detects	248.1
Mean of Logged Detects	4.369	SD of Logged Detects	1.667

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.0888	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.462	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0557	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	887.2	Standard Error of Mean	584.3
SD	9293	95% KM (BCA) UCL	2085
95% KM (t) UCL	1852	95% KM (Percentile Bootstrap) UCL	2051

95% KM (z) UCL	1848	95% KM Bootstrap t UCL	13466
90% KM Chebyshev UCL	2640	95% KM Chebyshev UCL	3434
97.5% KM Chebyshev UCL	4536	99% KM Chebyshev UCL	6701

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.953E+28	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.877	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.237	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0627	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.287	k star (bias corrected MLE)	0.286
Theta hat (MLE)	3107	Theta star (bias corrected MLE)	3115
nu hat (MLE)	145.1	nu star (bias corrected)	144.7
MLE Mean (bias corrected)	890.7	MLE Sd (bias corrected)	1666

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00911	nu hat (KM)	4.63
Approximate Chi Square Value (4.63, α)	0.985	Adjusted Chi Square Value (4.63, β)	0.976
5% Gamma Approximate KM-UCL (use when n>=50)	4170	95% Gamma Adjusted KM-UCL (use when n<50)	4209

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	887.2
Maximum	148000	Median	62.95
SD	9312	CV	10.5
k hat (MLE)	0.284	k star (bias corrected MLE)	0.283
Theta hat (MLE)	3129	Theta star (bias corrected MLE)	3137
nu hat (MLE)	144	nu star (bias corrected)	143.7
MLE Mean (bias corrected)	887.2	MLE Sd (bias corrected)	1668
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (143.66, α)	117	Adjusted Chi Square Value (143.66, β)	116.8
95% Gamma Approximate UCL (use when n>=50)	1090	95% Gamma Adjusted UCL (use when n<50)	1091

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0782	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0557	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	887.2	Mean in Log Scale	4.359
SD in Original Scale	9312	SD in Log Scale	1.67
95% t UCL (assumes normality of ROS data)	1852	95% Percentile Bootstrap UCL	2047
95% BCA Bootstrap UCL	3185	95% Bootstrap t UCL	13481
95% H-UCL (Log ROS)	421.7		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	887.2	Mean in Log Scale	4.36

SD in Original Scale	9312	SD in Log Scale	1.67
95% t UCL (Assumes normality)	1852	95% H-Stat UCL	421.4

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	4536

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Mercury

General Statistics

Total Number of Observations	254	Number of Distinct Observations	227
		Number of Missing Observations	10
Number of Detects	239	Number of Non-Detects	15
Number of Distinct Detects	216	Number of Distinct Non-Detects	15
Minimum Detect	0.0043	Minimum Non-Detect	0.0035
Maximum Detect	27	Maximum Non-Detect	0.809
Variance Detects	5.541	Percent Non-Detects	5.906%
Mean Detects	0.821	SD Detects	2.354
Median Detects	0.222	CV Detects	2.867
Skewness Detects	7.432	Kurtosis Detects	70.57
Mean of Logged Detects	-1.53	SD of Logged Detects	1.577

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.357	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.364	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0573	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.777	Standard Error of Mean	0.144
SD	2.285	95% KM (BCA) UCL	1.032
95% KM (t) UCL	1.015	95% KM (Percentile Bootstrap) UCL	1.046
95% KM (z) UCL	1.014	95% KM Bootstrap t UCL	1.172
90% KM Chebyshev UCL	1.209	95% KM Chebyshev UCL	1.404
97.5% KM Chebyshev UCL	1.675	99% KM Chebyshev UCL	2.207

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	10.54	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.826	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.166	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0627	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.48	k star (bias corrected MLE)	0.476

Theta hat (MLE)	1.712	Theta star (bias corrected MLE)	1.723
nu hat (MLE)	229.3	nu star (bias corrected)	227.7
MLE Mean (bias corrected)	0.821	MLE Sd (bias corrected)	1.189

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.116	nu hat (KM)	58.79
Approximate Chi Square Value (58.79, α)	42.16	Adjusted Chi Square Value (58.79, β)	42.08
5% Gamma Approximate KM-UCL (use when n>=50)	1.084	95% Gamma Adjusted KM-UCL (use when n<50)	1.086

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0043	Mean	0.773
Maximum	27	Median	0.201
SD	2.291	CV	2.963
k hat (MLE)	0.445	k star (bias corrected MLE)	0.442
Theta hat (MLE)	1.738	Theta star (bias corrected MLE)	1.748
nu hat (MLE)	226	nu star (bias corrected)	224.6
MLE Mean (bias corrected)	0.773	MLE Sd (bias corrected)	1.163
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (224.63, α)	190.9	Adjusted Chi Square Value (224.63, β)	190.8
95% Gamma Approximate UCL (use when n>=50)	0.91	95% Gamma Adjusted UCL (use when n<50)	0.91

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0467	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0573	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.776	Mean in Log Scale	-1.616
SD in Original Scale	2.29	SD in Log Scale	1.585
95% t UCL (assumes normality of ROS data)	1.014	95% Percentile Bootstrap UCL	1.03
95% BCA Bootstrap UCL	1.113	95% Bootstrap t UCL	1.164
95% H-UCL (Log ROS)	0.911		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-1.624	95% H-UCL (KM -Log)	0.926
KM SD (logged)	1.598	95% Critical H Value (KM-Log)	2.684
KM Standard Error of Mean (logged)	0.101		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.78	Mean in Log Scale	-1.595
SD in Original Scale	2.289	SD in Log Scale	1.579
95% t UCL (Assumes normality)	1.017	95% H-Stat UCL	0.92

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	1.675

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Nickel

General Statistics

Total Number of Observations	254	Number of Distinct Observations	204
		Number of Missing Observations	10
Number of Detects	250	Number of Non-Detects	4
Number of Distinct Detects	200	Number of Distinct Non-Detects	4
Minimum Detect	1.35	Minimum Non-Detect	7.02
Maximum Detect	81.9	Maximum Non-Detect	148
Variance Detects	53.21	Percent Non-Detects	1.575%
Mean Detects	9.433	SD Detects	7.294
Median Detects	7.805	CV Detects	0.773
Skewness Detects	4.643	Kurtosis Detects	39.08
Mean of Logged Detects	2.052	SD of Logged Detects	0.609

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.715	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.162	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.056	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	9.383	Standard Error of Mean	0.457
SD	7.253	95% KM (BCA) UCL	10.17
95% KM (t) UCL	10.14	95% KM (Percentile Bootstrap) UCL	10.16
95% KM (z) UCL	10.13	95% KM Bootstrap t UCL	10.26
90% KM Chebyshev UCL	10.75	95% KM Chebyshev UCL	11.37
97.5% KM Chebyshev UCL	12.24	99% KM Chebyshev UCL	13.93

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.034	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.761	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0747	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.0583	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.752	k star (bias corrected MLE)	2.721
Theta hat (MLE)	3.428	Theta star (bias corrected MLE)	3.466
nu hat (MLE)	1376	nu star (bias corrected)	1361
MLE Mean (bias corrected)	9.433	MLE Sd (bias corrected)	5.718

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	1.673	nu hat (KM)	850
Approximate Chi Square Value (850.01, α)	783.3	Adjusted Chi Square Value (850.01, β)	783
5% Gamma Approximate KM-UCL (use when n>=50)	10.18	95% Gamma Adjusted KM-UCL (use when n<50)	10.19

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	1.35	Mean	9.37
Maximum	81.9	Median	7.795
SD	7.257	CV	0.774
k hat (MLE)	2.758	k star (bias corrected MLE)	2.728
Theta hat (MLE)	3.398	Theta star (bias corrected MLE)	3.435
nu hat (MLE)	1401	nu star (bias corrected)	1386
MLE Mean (bias corrected)	9.37	MLE Sd (bias corrected)	5.673
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (N/A, α)	1300	Adjusted Chi Square Value (N/A, β)	1300
95% Gamma Approximate UCL (use when n>=50)	9.986	95% Gamma Adjusted UCL (use when n<50)	9.989

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0367	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.056	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	9.376	Mean in Log Scale	2.047
SD in Original Scale	7.252	SD in Log Scale	0.606
95% t UCL (assumes normality of ROS data)	10.13	95% Percentile Bootstrap UCL	10.19
95% BCA Bootstrap UCL	10.32	95% Bootstrap t UCL	10.28
95% H-UCL (Log ROS)	9.981		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	2.046	95% H-UCL (KM -Log)	9.988
KM SD (logged)	0.608	95% Critical H Value (KM-Log)	1.854
KM Standard Error of Mean (logged)	0.0384		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	9.622	Mean in Log Scale	2.052
SD in Original Scale	8.317	SD in Log Scale	0.625
95% t UCL (Assumes normality)	10.48	95% H-Stat UCL	10.18

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	10.17

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Silver

General Statistics

Total Number of Observations	254	Number of Distinct Observations	205
		Number of Missing Observations	10
Number of Detects	51	Number of Non-Detects	203
Number of Distinct Detects	50	Number of Distinct Non-Detects	159
Minimum Detect	0.223	Minimum Non-Detect	0.17
Maximum Detect	13.4	Maximum Non-Detect	73.9
Variance Detects	6.931	Percent Non-Detects	79.92%
Mean Detects	1.386	SD Detects	2.633
Median Detects	0.43	CV Detects	1.9
Skewness Detects	3.462	Kurtosis Detects	12.16
Mean of Logged Detects	-0.463	SD of Logged Detects	1.064

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.481	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.329	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.124	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.498	Standard Error of Mean	0.082
SD	1.267	95% KM (BCA) UCL	0.642
95% KM (t) UCL	0.634	95% KM (Percentile Bootstrap) UCL	0.64
95% KM (z) UCL	0.633	95% KM Bootstrap t UCL	0.699
90% KM Chebyshev UCL	0.745	95% KM Chebyshev UCL	0.856
97.5% KM Chebyshev UCL	1.011	99% KM Chebyshev UCL	1.315

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	5.376	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.793	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.247	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.129	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.757	k star (bias corrected MLE)	0.726
Theta hat (MLE)	1.829	Theta star (bias corrected MLE)	1.909
nu hat (MLE)	77.26	nu star (bias corrected)	74.05
MLE Mean (bias corrected)	1.386	MLE Sd (bias corrected)	1.626

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.155	nu hat (KM)	78.63
Approximate Chi Square Value (78.63, α)	59.2	Adjusted Chi Square Value (78.63, β)	59.1
5% Gamma Approximate KM-UCL (use when n>=50)	0.662	95% Gamma Adjusted KM-UCL (use when n<50)	0.663

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.288
Maximum	13.4	Median	0.01
SD	1.294	CV	4.491
k hat (MLE)	0.279	k star (bias corrected MLE)	0.278

Theta hat (MLE)	1.034	Theta star (bias corrected MLE)	1.037
nu hat (MLE)	141.5	nu star (bias corrected)	141.2
MLE Mean (bias corrected)	0.288	MLE Sd (bias corrected)	0.547
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (141.15, α)	114.7	Adjusted Chi Square Value (141.15, β)	114.6
95% Gamma Approximate UCL (use when n>=50)	0.355	95% Gamma Adjusted UCL (use when n<50)	0.355

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.176	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.124	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.407	Mean in Log Scale	-1.625
SD in Original Scale	1.271	SD in Log Scale	0.859
95% t UCL (assumes normality of ROS data)	0.539	95% Percentile Bootstrap UCL	0.539
95% BCA Bootstrap UCL	0.599	95% Bootstrap t UCL	0.627
95% H-UCL (Log ROS)	0.318		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.95	Mean in Log Scale	-0.721
SD in Original Scale	2.642	SD in Log Scale	0.957
95% t UCL (Assumes normality)	1.223	95% H-Stat UCL	0.872

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	0.642

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Thallium

General Statistics

Total Number of Observations	48	Number of Distinct Observations	36
Number of Detects	13	Number of Non-Detects	35
Number of Distinct Detects	12	Number of Distinct Non-Detects	24
Minimum Detect	1.6	Minimum Non-Detect	1
Maximum Detect	11.1	Maximum Non-Detect	443
Variance Detects	6.471	Percent Non-Detects	72.92%
Mean Detects	4.508	SD Detects	2.544
Median Detects	3.3	CV Detects	0.564
Skewness Detects	1.658	Kurtosis Detects	2.988
Mean of Logged Detects	1.383	SD of Logged Detects	0.504

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.84	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data Not Normal at 5% Significance Level

Lilliefors Test Statistic	0.221	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.246	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	2.372	Standard Error of Mean	0.393
SD	2.222	95% KM (BCA) UCL	3.078
95% KM (t) UCL	3.031	95% KM (Percentile Bootstrap) UCL	3.092
95% KM (z) UCL	3.018	95% KM Bootstrap t UCL	3.215
90% KM Chebyshev UCL	3.55	95% KM Chebyshev UCL	4.084
97.5% KM Chebyshev UCL	4.824	99% KM Chebyshev UCL	6.279

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.435	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.737	etected data appear Gamma Distributed at 5% Significance Lev	
K-S Test Statistic	0.209	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.238	etected data appear Gamma Distributed at 5% Significance Lev	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	4.221	k star (bias corrected MLE)	3.298
Theta hat (MLE)	1.068	Theta star (bias corrected MLE)	1.367
nu hat (MLE)	109.7	nu star (bias corrected)	85.75
MLE Mean (bias corrected)	4.508	MLE Sd (bias corrected)	2.482

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	1.139	nu hat (KM)	109.4
Approximate Chi Square Value (109.38, α)	86.24	Adjusted Chi Square Value (109.38, β)	85.61
5% Gamma Approximate KM-UCL (use when n>=50)	3.009	95% Gamma Adjusted KM-UCL (use when n<50)	3.031

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.521
Maximum	11.1	Median	0.758
SD	2.267	CV	1.49
k hat (MLE)	0.42	k star (bias corrected MLE)	0.407
Theta hat (MLE)	3.625	Theta star (bias corrected MLE)	3.735
nu hat (MLE)	40.29	nu star (bias corrected)	39.11
MLE Mean (bias corrected)	1.521	MLE Sd (bias corrected)	2.384
		Adjusted Level of Significance (β)	0.045
Approximate Chi Square Value (39.11, α)	25.78	Adjusted Chi Square Value (39.11, β)	25.45
95% Gamma Approximate UCL (use when n>=50)	2.307	95% Gamma Adjusted UCL (use when n<50)	2.338

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.185	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.246	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.223	Mean in Log Scale	0.572
SD in Original Scale	1.933	SD in Log Scale	0.628
95% t UCL (assumes normality of ROS data)	2.691	95% Percentile Bootstrap UCL	2.705
95% BCA Bootstrap UCL	2.822	95% Bootstrap t UCL	2.943
95% H-UCL (Log ROS)	2.587		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	0.554	95% H-UCL (KM -Log)	2.83
KM SD (logged)	0.73	95% Critical H Value (KM-Log)	2.062
KM Standard Error of Mean (logged)	0.133		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	13.91	Mean in Log Scale	1.097
SD in Original Scale	37.32	SD in Log Scale	1.564
95% t UCL (Assumes normality)	22.95	95% H-Stat UCL	20.2

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	3.031	95% KM (Percentile Bootstrap) UCL	3.092

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Antimony

General Statistics

Total Number of Observations	48	Number of Distinct Observations	36
Number of Detects	8	Number of Non-Detects	40
Number of Distinct Detects	5	Number of Distinct Non-Detects	34
Minimum Detect	0.91	Minimum Non-Detect	0.78
Maximum Detect	5.67	Maximum Non-Detect	296
Variance Detects	2.57	Percent Non-Detects	83.33%
Mean Detects	1.775	SD Detects	1.603
Median Detects	1.2	CV Detects	0.903
Skewness Detects	2.638	Kurtosis Detects	7.129
Mean of Logged Detects	0.366	SD of Logged Detects	0.598

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.566	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.39	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.313	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	1.021	Standard Error of Mean	0.147
SD	0.819	95% KM (BCA) UCL	1.388
95% KM (t) UCL	1.268	95% KM (Percentile Bootstrap) UCL	1.282

95% KM (z) UCL	1.263	95% KM Bootstrap t UCL	1.799
90% KM Chebyshev UCL	1.462	95% KM Chebyshev UCL	1.662
97.5% KM Chebyshev UCL	1.939	99% KM Chebyshev UCL	2.483

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.32	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.723	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.395	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.297	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.561	k star (bias corrected MLE)	1.684
Theta hat (MLE)	0.693	Theta star (bias corrected MLE)	1.054
nu hat (MLE)	40.98	nu star (bias corrected)	26.95
MLE Mean (bias corrected)	1.775	MLE Sd (bias corrected)	1.368

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	1.556	nu hat (KM)	149.3
Approximate Chi Square Value (149.35, α)	122.1	Adjusted Chi Square Value (149.35, β)	121.3
5% Gamma Approximate KM-UCL (use when n>=50)	1.249	95% Gamma Adjusted KM-UCL (use when n<50)	1.257

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.304
Maximum	5.67	Median	0.01
SD	0.908	CV	2.985
k hat (MLE)	0.271	k star (bias corrected MLE)	0.268
Theta hat (MLE)	1.122	Theta star (bias corrected MLE)	1.135
nu hat (MLE)	26.02	nu star (bias corrected)	25.73
MLE Mean (bias corrected)	0.304	MLE Sd (bias corrected)	0.588
		Adjusted Level of Significance (β)	0.045
Approximate Chi Square Value (25.73, α)	15.17	Adjusted Chi Square Value (25.73, β)	14.92
95% Gamma Approximate UCL (use when n>=50)	0.516	95% Gamma Adjusted UCL (use when n<50)	0.525

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.715	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.371	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.313	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.562	Mean in Log Scale	-0.918
SD in Original Scale	0.83	SD in Log Scale	0.674
95% t UCL (assumes normality of ROS data)	0.763	95% Percentile Bootstrap UCL	0.766
95% BCA Bootstrap UCL	0.91	95% Bootstrap t UCL	1.088
95% H-UCL (Log ROS)	0.611		

DL/2 Statistics

DL/2 Normal **DL/2 Log-Transformed**

Mean in Original Scale	9.003	Mean in Log Scale	0.441
SD in Original Scale	25.05	SD in Log Scale	1.61
95% t UCL (Assumes normality)	15.07	95% H-Stat UCL	11.69

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.268	95% KM (% Bootstrap) UCL	1.282

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Arsenic

General Statistics

Total Number of Observations	254	Number of Distinct Observations	222
		Number of Missing Observations	10
Number of Detects	219	Number of Non-Detects	35
Number of Distinct Detects	192	Number of Distinct Non-Detects	35
Minimum Detect	0.69	Minimum Non-Detect	0.63
Maximum Detect	192	Maximum Non-Detect	296
Variance Detects	393.7	Percent Non-Detects	13.78%
Mean Detects	11.59	SD Detects	19.84
Median Detects	5.54	CV Detects	1.712
Skewness Detects	5.038	Kurtosis Detects	34.84
Mean of Logged Detects	1.821	SD of Logged Detects	1.023

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.509	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.291	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0599	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	10.58	Standard Error of Mean	1.185
SD	18.71	95% KM (BCA) UCL	12.52
95% KM (t) UCL	12.54	95% KM (Percentile Bootstrap) UCL	12.62
95% KM (z) UCL	12.53	95% KM Bootstrap t UCL	13.16
90% KM Chebyshev UCL	14.14	95% KM Chebyshev UCL	15.75
97.5% KM Chebyshev UCL	17.98	99% KM Chebyshev UCL	22.37

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	9.178	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.788	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.158	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.0634	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.926	k star (bias corrected MLE)	0.917
Theta hat (MLE)	12.51	Theta star (bias corrected MLE)	12.65
nu hat (MLE)	405.7	nu star (bias corrected)	401.5
MLE Mean (bias corrected)	11.59	MLE Sd (bias corrected)	12.11

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.32	nu hat (KM)	162.6
Approximate Chi Square Value (162.57, α)	134.1	Adjusted Chi Square Value (162.57, β)	133.9
5% Gamma Approximate KM-UCL (use when n>=50)	12.83	95% Gamma Adjusted KM-UCL (use when n<50)	12.85

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	10.21
Maximum	192	Median	4.662
SD	18.75	CV	1.836
k hat (MLE)	0.632	k star (bias corrected MLE)	0.628
Theta hat (MLE)	16.15	Theta star (bias corrected MLE)	16.27
nu hat (MLE)	321.3	nu star (bias corrected)	318.8
MLE Mean (bias corrected)	10.21	MLE Sd (bias corrected)	12.89
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (318.83, α)	278.5	Adjusted Chi Square Value (318.83, β)	278.2
95% Gamma Approximate UCL (use when n>=50)	11.69	95% Gamma Adjusted UCL (use when n<50)	11.7

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0639	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0599	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	10.46	Mean in Log Scale	1.713
SD in Original Scale	18.65	SD in Log Scale	1.02
95% t UCL (assumes normality of ROS data)	12.39	95% Percentile Bootstrap UCL	12.52
95% BCA Bootstrap UCL	12.89	95% Bootstrap t UCL	12.94
95% H-UCL (Log ROS)	10.71		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	11.88	Mean in Log Scale	1.78
SD in Original Scale	21.15	SD in Log Scale	1.088
95% t UCL (Assumes normality)	14.07	95% H-Stat UCL	12.46

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	15.75

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Beryllium

General Statistics

Total Number of Observations	48	Number of Distinct Observations	43
Number of Detects	37	Number of Non-Detects	11
Number of Distinct Detects	32	Number of Distinct Non-Detects	11
Minimum Detect	0.19	Minimum Non-Detect	0.026
Maximum Detect	1.41	Maximum Non-Detect	73.9
Variance Detects	0.0659	Percent Non-Detects	22.92%
Mean Detects	0.58	SD Detects	0.257
Median Detects	0.5	CV Detects	0.442
Skewness Detects	1.091	Kurtosis Detects	1.586
Mean of Logged Detects	-0.635	SD of Logged Detects	0.434

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.929	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.936	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.136	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.146	Detected Data appear Normal at 5% Significance Level

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.539	Standard Error of Mean	0.0455
SD	0.284	95% KM (BCA) UCL	0.617
95% KM (t) UCL	0.615	95% KM (Percentile Bootstrap) UCL	0.613
95% KM (z) UCL	0.614	95% KM Bootstrap t UCL	0.615
90% KM Chebyshev UCL	0.675	95% KM Chebyshev UCL	0.737
97.5% KM Chebyshev UCL	0.823	99% KM Chebyshev UCL	0.992

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.252	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.75	etected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.0943	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.145	etected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	5.667	k star (bias corrected MLE)	5.226
Theta hat (MLE)	0.102	Theta star (bias corrected MLE)	0.111
nu hat (MLE)	419.4	nu star (bias corrected)	386.7
MLE Mean (bias corrected)	0.58	MLE Sd (bias corrected)	0.254

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	3.599	nu hat (KM)	345.5
Approximate Chi Square Value (345.46, α)	303.4	Adjusted Chi Square Value (345.46, β)	302.2
5% Gamma Approximate KM-UCL (use when n>=50)	0.613	95% Gamma Adjusted KM-UCL (use when n<50)	0.616

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.128	Mean	0.541
Maximum	1.41	Median	0.512
SD	0.251	CV	0.463
k hat (MLE)	4.52	k star (bias corrected MLE)	4.251
Theta hat (MLE)	0.12	Theta star (bias corrected MLE)	0.127
nu hat (MLE)	433.9	nu star (bias corrected)	408.1
MLE Mean (bias corrected)	0.541	MLE Sd (bias corrected)	0.262
		Adjusted Level of Significance (β)	0.045
Approximate Chi Square Value (408.14, α)	362.3	Adjusted Chi Square Value (408.14, β)	361
95% Gamma Approximate UCL (use when n>=50)	0.609	95% Gamma Adjusted UCL (use when n<50)	0.611

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.989	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.936	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0841	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.146	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.542	Mean in Log Scale	-0.71
SD in Original Scale	0.245	SD in Log Scale	0.451
95% t UCL (assumes normality of ROS data)	0.601	95% Percentile Bootstrap UCL	0.599
95% BCA Bootstrap UCL	0.61	95% Bootstrap t UCL	0.607
95% H-UCL (Log ROS)	0.615		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-0.861	95% H-UCL (KM -Log)	0.843
KM SD (logged)	0.895	95% Critical H Value (KM-Log)	2.226
KM Standard Error of Mean (logged)	0.143		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.368	Mean in Log Scale	-0.435
SD in Original Scale	6.197	SD in Log Scale	1.494
95% t UCL (Assumes normality)	3.869	95% H-Stat UCL	3.733

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.615	95% KM (Percentile Bootstrap) UCL	0.613

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Cadmium

General Statistics

Total Number of Observations	254	Number of Distinct Observations	220
		Number of Missing Observations	10
Number of Detects	133	Number of Non-Detects	121

Number of Distinct Detects	123	Number of Distinct Non-Detects	105
Minimum Detect	0.11	Minimum Non-Detect	0.066
Maximum Detect	3.8	Maximum Non-Detect	73.9
Variance Detects	0.426	Percent Non-Detects	47.64%
Mean Detects	0.787	SD Detects	0.652
Median Detects	0.623	CV Detects	0.829
Skewness Detects	2.207	Kurtosis Detects	6.007
Mean of Logged Detects	-0.516	SD of Logged Detects	0.751

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.785	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.158	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0768	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	0.581	Standard Error of Mean	0.0404
SD	0.582	95% KM (BCA) UCL	0.652
95% KM (t) UCL	0.648	95% KM (Percentile Bootstrap) UCL	0.647
95% KM (z) UCL	0.648	95% KM Bootstrap t UCL	0.655
90% KM Chebyshev UCL	0.702	95% KM Chebyshev UCL	0.757
97.5% KM Chebyshev UCL	0.833	99% KM Chebyshev UCL	0.983

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.879	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.766	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0613	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.082	Detected data appear Gamma Distributed at 5% Significance Lev

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.961	k star (bias corrected MLE)	1.922
Theta hat (MLE)	0.401	Theta star (bias corrected MLE)	0.409
nu hat (MLE)	521.7	nu star (bias corrected)	511.3
MLE Mean (bias corrected)	0.787	MLE Sd (bias corrected)	0.567

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.999	nu hat (KM)	507.3
Approximate Chi Square Value (507.26, α)	456	Adjusted Chi Square Value (507.26, β)	455.8
5% Gamma Approximate KM-UCL (use when n>=50)	0.646	95% Gamma Adjusted KM-UCL (use when n<50)	0.647

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.528
Maximum	3.8	Median	0.389
SD	0.554	CV	1.05
k hat (MLE)	1.032	k star (bias corrected MLE)	1.023
Theta hat (MLE)	0.511	Theta star (bias corrected MLE)	0.516
nu hat (MLE)	524.4	nu star (bias corrected)	519.5
MLE Mean (bias corrected)	0.528	MLE Sd (bias corrected)	0.522

		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (519.51, α)	467.7	Adjusted Chi Square Value (519.51, β)	467.4
95% Gamma Approximate UCL (use when n>=50)	0.586	95% Gamma Adjusted UCL (use when n<50)	0.587

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0356	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0768	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.553	Mean in Log Scale	-0.895
SD in Original Scale	0.537	SD in Log Scale	0.746
95% t UCL (assumes normality of ROS data)	0.608	95% Percentile Bootstrap UCL	0.611
95% BCA Bootstrap UCL	0.615	95% Bootstrap t UCL	0.618
95% H-UCL (Log ROS)	0.591		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-0.999	95% H-UCL (KM -Log)	0.713
KM SD (logged)	1.023	95% Critical H Value (KM-Log)	2.147
KM Standard Error of Mean (logged)	0.0792		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.106	Mean in Log Scale	-0.652
SD in Original Scale	2.829	SD in Log Scale	1.185
95% t UCL (Assumes normality)	1.399	95% H-Stat UCL	1.246

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.648	95% GROS Approximate Gamma UCL	0.586
95% Approximate Gamma KM-UCL	0.646		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Chromium

General Statistics

Total Number of Observations	254	Number of Distinct Observations	194
		Number of Missing Observations	10
Number of Detects	253	Number of Non-Detects	1
Number of Distinct Detects	193	Number of Distinct Non-Detects	1
Minimum Detect	4.04	Minimum Non-Detect	222
Maximum Detect	246	Maximum Non-Detect	222
Variance Detects	662.6	Percent Non-Detects	0.394%
Mean Detects	22.64	SD Detects	25.74
Median Detects	15.3	CV Detects	1.137
Skewness Detects	4.952	Kurtosis Detects	32.84
Mean of Logged Detects	2.836	SD of Logged Detects	0.669

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.547	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.254	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0557	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	22.63	Standard Error of Mean	1.616
SD	25.68	95% KM (BCA) UCL	25.83
95% KM (t) UCL	25.3	95% KM (Percentile Bootstrap) UCL	25.48
95% KM (z) UCL	25.29	95% KM Bootstrap t UCL	26.14
90% KM Chebyshev UCL	27.48	95% KM Chebyshev UCL	29.68
97.5% KM Chebyshev UCL	32.73	99% KM Chebyshev UCL	38.72

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	11.09	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.767	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.167	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0583	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.915	k star (bias corrected MLE)	1.895
Theta hat (MLE)	11.82	Theta star (bias corrected MLE)	11.95
nu hat (MLE)	969	nu star (bias corrected)	958.8
MLE Mean (bias corrected)	22.64	MLE Sd (bias corrected)	16.44

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.777	nu hat (KM)	394.7
Approximate Chi Square Value (394.70, α)	349.7	Adjusted Chi Square Value (394.70, β)	349.4
5% Gamma Approximate KM-UCL (use when n>=50)	25.55	95% Gamma Adjusted KM-UCL (use when n<50)	25.57

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	4.04	Mean	22.62
Maximum	246	Median	15.35
SD	25.69	CV	1.136
k hat (MLE)	1.921	k star (bias corrected MLE)	1.901
Theta hat (MLE)	11.77	Theta star (bias corrected MLE)	11.9
nu hat (MLE)	976	nu star (bias corrected)	965.8
MLE Mean (bias corrected)	22.62	MLE Sd (bias corrected)	16.4
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (965.82, α)	894.7	Adjusted Chi Square Value (965.82, β)	894.3
95% Gamma Approximate UCL (use when n>=50)	24.41	95% Gamma Adjusted UCL (use when n<50)	24.42

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.101	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0557	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	22.61	Mean in Log Scale	2.836
SD in Original Scale	25.69	SD in Log Scale	0.668
95% t UCL (assumes normality of ROS data)	25.27	95% Percentile Bootstrap UCL	25.39
95% BCA Bootstrap UCL	25.82	95% Bootstrap t UCL	26.26
95% H-UCL (Log ROS)	23.07		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	22.98	Mean in Log Scale	2.844
SD in Original Scale	26.28	SD in Log Scale	0.678
95% t UCL (Assumes normality)	25.71	95% H-Stat UCL	23.44

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	25.83

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Copper

General Statistics

Total Number of Observations	254	Number of Distinct Observations	215
		Number of Missing Observations	10
Number of Detects	253	Number of Non-Detects	1
Number of Distinct Detects	214	Number of Distinct Non-Detects	1
Minimum Detect	2.13	Minimum Non-Detect	148
Maximum Detect	979	Maximum Non-Detect	148
Variance Detects	4703	Percent Non-Detects	0.394%
Mean Detects	31.79	SD Detects	68.58
Median Detects	18.1	CV Detects	2.157
Skewness Detects	11.01	Kurtosis Detects	146.4
Mean of Logged Detects	2.953	SD of Logged Detects	0.891

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.325	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.333	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0557	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	31.76	Standard Error of Mean	4.296
SD	68.32	95% KM (BCA) UCL	39.96
95% KM (t) UCL	38.86	95% KM (Percentile Bootstrap) UCL	39.5
95% KM (z) UCL	38.83	95% KM Bootstrap t UCL	47.14
90% KM Chebyshev UCL	44.65	95% KM Chebyshev UCL	50.49

97.5% KM Chebyshev UCL	58.59	99% KM Chebyshev UCL	74.51

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	7.657	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.781	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.129	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0591	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.125	k star (bias corrected MLE)	1.114
Theta hat (MLE)	28.26	Theta star (bias corrected MLE)	28.53
nu hat (MLE)	569.3	nu star (bias corrected)	563.9
MLE Mean (bias corrected)	31.79	MLE Sd (bias corrected)	30.12

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.216	nu hat (KM)	109.8
Approximate Chi Square Value (109.80, α)	86.61	Adjusted Chi Square Value (109.80, β)	86.49
5% Gamma Approximate KM-UCL (use when n>=50)	40.27	95% Gamma Adjusted KM-UCL (use when n<50)	40.32

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	2.13	Mean	31.73
Maximum	979	Median	18.1
SD	68.45	CV	2.157
k hat (MLE)	1.128	k star (bias corrected MLE)	1.117
Theta hat (MLE)	28.14	Theta star (bias corrected MLE)	28.41
nu hat (MLE)	572.9	nu star (bias corrected)	567.5
MLE Mean (bias corrected)	31.73	MLE Sd (bias corrected)	30.02
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (567.51, α)	513.3	Adjusted Chi Square Value (567.51, β)	513
95% Gamma Approximate UCL (use when n>=50)	35.09	95% Gamma Adjusted UCL (use when n<50)	35.11

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0411	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0557	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	31.74	Mean in Log Scale	2.953
SD in Original Scale	68.45	SD in Log Scale	0.889
95% t UCL (assumes normality of ROS data)	38.83	95% Percentile Bootstrap UCL	39.88
95% BCA Bootstrap UCL	44.39	95% Bootstrap t UCL	46.23
95% H-UCL (Log ROS)	31.9		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	2.953	95% H-UCL (KM -Log)	31.89
KM SD (logged)	0.889	95% Critical H Value (KM-Log)	2.041
KM Standard Error of Mean (logged)	0.056		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	31.96	Mean in Log Scale	2.958
SD in Original Scale	68.5	SD in Log Scale	0.893
95% t UCL (Assumes normality)	39.05	95% H-Stat UCL	32.21

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	39.96

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Zinc

General Statistics

Total Number of Observations	254	Number of Distinct Observations	218
		Number of Missing Observations	10
Minimum	13.6	Mean	125.8
Maximum	1550	Median	84
SD	146.3	Std. Error of Mean	9.179
Coefficient of Variation	1.163	Skewness	5.371

Normal GOF Test

Shapiro Wilk Test Statistic	0.594	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.227	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0556	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	140.9	95% Adjusted-CLT UCL (Chen-1995)	144.2
		95% Modified-t UCL (Johnson-1978)	141.5

Gamma GOF Test

A-D Test Statistic	4.283	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.771	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0991	**Kolmogrov-Smirnoff Gamma GOF Test**	
5% K-S Critical Value	0.0584	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.601	k star (bias corrected MLE)	1.585
Theta hat (MLE)	78.56	Theta star (bias corrected MLE)	79.37
nu hat (MLE)	813.4	nu star (bias corrected)	805.1
MLE Mean (bias corrected)	125.8	MLE Sd (bias corrected)	99.92
		Approximate Chi Square Value (0.05)	740.3
Adjusted Level of Significance	0.0491	Adjusted Chi Square Value	739.9

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	136.8	95% Adjusted Gamma UCL (use when n<50)	136.9

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.98	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0.264	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0397	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0556	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	2.61	Mean of logged Data	4.491
Maximum of Logged Data	7.346	SD of logged Data	0.786

Assuming Lognormal Distribution

95% H-UCL	133.9	90% Chebyshev (MVUE) UCL	141.7
95% Chebyshev (MVUE) UCL	150.9	97.5% Chebyshev (MVUE) UCL	163.8
99% Chebyshev (MVUE) UCL	189		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	140.9	95% Jackknife UCL	140.9
95% Standard Bootstrap UCL	141	95% Bootstrap-t UCL	146.6
95% Hall's Bootstrap UCL	149.8	95% Percentile Bootstrap UCL	141.4
95% BCA Bootstrap UCL	143.1		
90% Chebyshev(Mean, Sd) UCL	153.3	95% Chebyshev(Mean, Sd) UCL	165.8
97.5% Chebyshev(Mean, Sd) UCL	183.1	99% Chebyshev(Mean, Sd) UCL	217.1

Suggested UCL to Use

95% H-UCL	133.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
se of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distributio

Selenium

General Statistics

Total Number of Observations	48	Number of Distinct Observations	40
Number of Detects	11	Number of Non-Detects	37
Number of Distinct Detects	8	Number of Distinct Non-Detects	32
Minimum Detect	0.98	Minimum Non-Detect	0.57
Maximum Detect	5.58	Maximum Non-Detect	296
Variance Detects	2.981	Percent Non-Detects	77.08%
Mean Detects	2.201	SD Detects	1.727

Median Detects	1.2	CV Detects	0.785
Skewness Detects	1.253	Kurtosis Detects	-0.154
Mean of Logged Detects	0.556	SD of Logged Detects	0.675

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.719	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.85	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.319	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.267	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	1.084	Standard Error of Mean	0.207
SD	1.178	95% KM (BCA) UCL	1.492
95% KM (t) UCL	1.431	95% KM (Percentile Bootstrap) UCL	1.452
95% KM (z) UCL	1.424	95% KM Bootstrap t UCL	1.605
90% KM Chebyshev UCL	1.704	95% KM Chebyshev UCL	1.985
97.5% KM Chebyshev UCL	2.375	99% KM Chebyshev UCL	3.14

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.29	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.737	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.273	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.258	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.3	k star (bias corrected MLE)	1.733
Theta hat (MLE)	0.957	Theta star (bias corrected MLE)	1.27
nu hat (MLE)	50.6	nu star (bias corrected)	38.13
MLE Mean (bias corrected)	2.201	MLE Sd (bias corrected)	1.672

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.846	nu hat (KM)	81.24
Approximate Chi Square Value (81.24, α)	61.47	Adjusted Chi Square Value (81.24, β)	60.94
5% Gamma Approximate KM-UCL (use when n>=50)	1.432	95% Gamma Adjusted KM-UCL (use when n<50)	1.445

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.512
Maximum	5.58	Median	0.01
SD	1.225	CV	2.392
k hat (MLE)	0.257	k star (bias corrected MLE)	0.255
Theta hat (MLE)	1.994	Theta star (bias corrected MLE)	2.011
nu hat (MLE)	24.66	nu star (bias corrected)	24.45
MLE Mean (bias corrected)	0.512	MLE Sd (bias corrected)	1.015
		Adjusted Level of Significance (β)	0.045
Approximate Chi Square Value (24.45, α)	14.19	Adjusted Chi Square Value (24.45, β)	13.95
95% Gamma Approximate UCL (use when n>=50)	0.882	95% Gamma Adjusted UCL (use when n<50)	0.898

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.781	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.85	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.255	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.267	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.741	Mean in Log Scale	-0.827
SD in Original Scale	1.135	SD in Log Scale	0.878
95% t UCL (assumes normality of ROS data)	1.015	95% Percentile Bootstrap UCL	1.037
95% BCA Bootstrap UCL	1.092	95% Bootstrap t UCL	1.21
95% H-UCL (Log ROS)	0.854		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-0.203	95% H-UCL (KM -Log)	1.192
KM SD (logged)	0.627	95% Critical H Value (KM-Log)	1.981
KM Standard Error of Mean (logged)	0.111		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	9.326	Mean in Log Scale	0.381
SD in Original Scale	25.17	SD in Log Scale	1.737
95% t UCL (Assumes normality)	15.42	95% H-Stat UCL	15.02

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.431	95% KM (% Bootstrap) UCL	1.452

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Acenaphthene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	61
		Number of Missing Observations	124
Number of Detects	15	Number of Non-Detects	112
Number of Distinct Detects	14	Number of Distinct Non-Detects	53
Minimum Detect	51	Minimum Non-Detect	33
Maximum Detect	140000	Maximum Non-Detect	4000
Variance Detects	1.304E+9	Percent Non-Detects	88.19%
Mean Detects	9473	SD Detects	36110
Median Detects	92	CV Detects	3.812
Skewness Detects	3.873	Kurtosis Detects	15
Mean of Logged Detects	5.206	SD of Logged Detects	1.965

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.287	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data Not Normal at 5% Significance Level	

Lilliefors Test Statistic	0.532	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.229	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	1160	Standard Error of Mean	1136
SD	12369	95% KM (BCA) UCL	4460
95% KM (t) UCL	3042	95% KM (Percentile Bootstrap) UCL	3364
95% KM (z) UCL	3028	95% KM Bootstrap t UCL	235375
90% KM Chebyshev UCL	4568	95% KM Chebyshev UCL	6112
97.5% KM Chebyshev UCL	8255	99% KM Chebyshev UCL	12464

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.284	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.894	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.482	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.246	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.188	k star (bias corrected MLE)	0.195
Theta hat (MLE)	50363	Theta star (bias corrected MLE)	48599
nu hat (MLE)	5.643	nu star (bias corrected)	5.847
MLE Mean (bias corrected)	9473	MLE Sd (bias corrected)	21456

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00879	nu hat (KM)	2.233
Approximate Chi Square Value (2.23, α)	0.187	Adjusted Chi Square Value (2.23, β)	0.183
5% Gamma Approximate KM-UCL (use when n>=50)	13854	95% Gamma Adjusted KM-UCL (use when n<50)	14178

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1119
Maximum	140000	Median	0.01
SD	12422	CV	11.1
k hat (MLE)	0.0797	k star (bias corrected MLE)	0.0831
Theta hat (MLE)	14033	Theta star (bias corrected MLE)	13464
nu hat (MLE)	20.25	nu star (bias corrected)	21.11
MLE Mean (bias corrected)	1119	MLE Sd (bias corrected)	3881
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (21.11, α)	11.67	Adjusted Chi Square Value (21.11, β)	11.59
95% Gamma Approximate UCL (use when n>=50)	2023	95% Gamma Adjusted UCL (use when n<50)	2037

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.59	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.289	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.229	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1128	Mean in Log Scale	1.973
SD in Original Scale	12421	SD in Log Scale	1.809
95% t UCL (assumes normality of ROS data)	2954	95% Percentile Bootstrap UCL	3331
95% BCA Bootstrap UCL	5543	95% Bootstrap t UCL	311097
95% H-UCL (Log ROS)	60.24		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1296	Mean in Log Scale	4.779
SD in Original Scale	12409	SD in Log Scale	1.201
95% t UCL (Assumes normality)	3121	95% H-Stat UCL	315.8

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	6112

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Phenanthrene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	75
		Number of Missing Observations	124
Number of Detects	83	Number of Non-Detects	44
Number of Distinct Detects	59	Number of Distinct Non-Detects	26
Minimum Detect	44	Minimum Non-Detect	42
Maximum Detect	5300000	Maximum Non-Detect	4000
Variance Detects	3.384E+1	Percent Non-Detects	34.65%
Mean Detects	64476	SD Detects	581683
Median Detects	290	CV Detects	9.022
Skewness Detects	9.11	Kurtosis Detects	83
Mean of Logged Detects	5.902	SD of Logged Detects	1.5

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.112	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.525	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0973	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	42185	Standard Error of Mean	41817
SD	468404	95% KM (BCA) UCL	125757
95% KM (t) UCL	111477	95% KM (Percentile Bootstrap) UCL	125620
95% KM (z) UCL	110967	95% KM Bootstrap t UCL	39948511
90% KM Chebyshev UCL	167635	95% KM Chebyshev UCL	224460
97.5% KM Chebyshev UCL	303331	99% KM Chebyshev UCL	458257

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	25.76	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.966	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.473	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.111	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.149	k star (bias corrected MLE)	0.151
Theta hat (MLE)	433389	Theta star (bias corrected MLE)	425791
nu hat (MLE)	24.7	nu star (bias corrected)	25.14
MLE Mean (bias corrected)	64476	MLE Sd (bias corrected)	165691

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00811	nu hat (KM)	2.06
Approximate Chi Square Value (2.06, α)	0.159	Adjusted Chi Square Value (2.06, β)	0.156
5% Gamma Approximate KM-UCL (use when n>=50)	546574	95% Gamma Adjusted KM-UCL (use when n<50)	557991

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	42138
Maximum	5300000	Median	150
SD	470264	CV	11.16
k hat (MLE)	0.0972	k star (bias corrected MLE)	0.1
Theta hat (MLE)	433624	Theta star (bias corrected MLE)	420832
nu hat (MLE)	24.68	nu star (bias corrected)	25.43
MLE Mean (bias corrected)	42138	MLE Sd (bias corrected)	133165
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (25.43, α)	14.94	Adjusted Chi Square Value (25.43, β)	14.85
95% Gamma Approximate UCL (use when n>=50)	71717	95% Gamma Adjusted UCL (use when n<50)	72162

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.109	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0973	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	42172	Mean in Log Scale	5.335
SD in Original Scale	470261	SD in Log Scale	1.53
95% t UCL (assumes normality of ROS data)	111318	95% Percentile Bootstrap UCL	125630
95% BCA Bootstrap UCL	167538	95% Bootstrap t UCL	40204789
95% H-UCL (Log ROS)	969		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	42228	Mean in Log Scale	5.54
SD in Original Scale	470256	SD in Log Scale	1.461
95% t UCL (Assumes normality)	111373	95% H-Stat UCL	1045

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL 303331

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

N-Nitrosodiphenylamine

General Statistics

Total Number of Observations	32	Number of Distinct Observations	27
		Number of Missing Observations	9
Number of Detects	13	Number of Non-Detects	19
Number of Distinct Detects	13	Number of Distinct Non-Detects	14
Minimum Detect	56	Minimum Non-Detect	33
Maximum Detect	14000	Maximum Non-Detect	1400
Variance Detects	14221025	Percent Non-Detects	59.38%
Mean Detects	1532	SD Detects	3771
Median Detects	330	CV Detects	2.462
Skewness Detects	3.524	Kurtosis Detects	12.57
Mean of Logged Detects	6.041	SD of Logged Detects	1.465

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.407	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.448	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	647.8	Standard Error of Mean	446
SD	2423	95% KM (BCA) UCL	1554
95% KM (t) UCL	1404	95% KM (Percentile Bootstrap) UCL	1482
95% KM (z) UCL	1381	95% KM Bootstrap t UCL	5410
90% KM Chebyshev UCL	1986	95% KM Chebyshev UCL	2592
97.5% KM Chebyshev UCL	3433	99% KM Chebyshev UCL	5086

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.309	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.791	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.278	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.25	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.493	k star (bias corrected MLE)	0.43
Theta hat (MLE)	3110	Theta star (bias corrected MLE)	3561
nu hat (MLE)	12.81	nu star (bias corrected)	11.18
MLE Mean (bias corrected)	1532	MLE Sd (bias corrected)	2335

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.0715	nu hat (KM)	4.573
Approximate Chi Square Value (4.57, α)	0.96	Adjusted Chi Square Value (4.57, β)	0.877
5% Gamma Approximate KM-UCL (use when n>=50)	3085	95% Gamma Adjusted KM-UCL (use when n<50)	3377

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	622.2
Maximum	14000	Median	0.01
SD	2468	CV	3.966
k hat (MLE)	0.118	k star (bias corrected MLE)	0.128
Theta hat (MLE)	5258	Theta star (bias corrected MLE)	4858
nu hat (MLE)	7.574	nu star (bias corrected)	8.198
MLE Mean (bias corrected)	622.2	MLE Sd (bias corrected)	1739
		Adjusted Level of Significance (β)	0.0416
Approximate Chi Square Value (8.20, α)	2.85	Adjusted Chi Square Value (8.20, β)	2.683
95% Gamma Approximate UCL (use when n>=50)	1790	95% Gamma Adjusted UCL (use when n<50)	1901

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.926	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.246	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	628.6	Mean in Log Scale	3.737
SD in Original Scale	2466	SD in Log Scale	2.203
95% t UCL (assumes normality of ROS data)	1368	95% Percentile Bootstrap UCL	1482
95% BCA Bootstrap UCL	1981	95% Bootstrap t UCL	5469
95% H-UCL (Log ROS)	2448		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.563	95% H-UCL (KM -Log)	752.6
KM SD (logged)	1.542	95% Critical H Value (KM-Log)	3.15
KM Standard Error of Mean (logged)	0.287		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	657.8	Mean in Log Scale	4.446
SD in Original Scale	2461	SD in Log Scale	1.73
95% t UCL (Assumes normality)	1395	95% H-Stat UCL	1102

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL 1554

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Fluorene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	63
		Number of Missing Observations	124
Number of Detects	26	Number of Non-Detects	101
Number of Distinct Detects	24	Number of Distinct Non-Detects	49
Minimum Detect	45	Minimum Non-Detect	33
Maximum Detect	1200000	Maximum Non-Detect	4000
Variance Detects	5.537E+1(	Percent Non-Detects	79.53%
Mean Detects	46348	SD Detects	235300
Median Detects	115	CV Detects	5.077
Skewness Detects	5.099	Kurtosis Detects	26
Mean of Logged Detects	5.251	SD of Logged Detects	1.951

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.203	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.92	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.537	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.174	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	9537	Standard Error of Mean	9597
SD	106055	95% KM (BCA) UCL	28441
95% KM (t) UCL	25440	95% KM (Percentile Bootstrap) UCL	28431
95% KM (z) UCL	25323	95% KM Bootstrap t UCL	11128057
90% KM Chebyshev UCL	38329	95% KM Chebyshev UCL	51371
97.5% KM Chebyshev UCL	69472	99% KM Chebyshev UCL	105029

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	8.387	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.956	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.518	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.194	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.141	k star (bias corrected MLE)	0.151
Theta hat (MLE)	328343	Theta star (bias corrected MLE)	307938
nu hat (MLE)	7.34	nu star (bias corrected)	7.827
MLE Mean (bias corrected)	46348	MLE Sd (bias corrected)	119467

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00809	nu hat (KM)	2.054
Approximate Chi Square Value (2.05, α)	0.158	Adjusted Chi Square Value (2.05, β)	0.155
5% Gamma Approximate KM-UCL (use when n>=50)	123885	95% Gamma Adjusted KM-UCL (use when n<50)	126459

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	9489
Maximum	1200000	Median	0.01
SD	106479	CV	11.22
k hat (MLE)	0.0719	k star (bias corrected MLE)	0.0754
Theta hat (MLE)	132017	Theta star (bias corrected MLE)	125801
nu hat (MLE)	18.26	nu star (bias corrected)	19.16
MLE Mean (bias corrected)	9489	MLE Sd (bias corrected)	34550
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (19.16, α)	10.23	Adjusted Chi Square Value (19.16, β)	10.16
95% Gamma Approximate UCL (use when n>=50)	17765	95% Gamma Adjusted UCL (use when n<50)	17896

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.559	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.92	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.307	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.174	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	9509	Mean in Log Scale	3.198
SD in Original Scale	106477	SD in Log Scale	1.675
95% t UCL (assumes normality of ROS data)	25165	95% Percentile Bootstrap UCL	28406
95% BCA Bootstrap UCL	37911	95% Bootstrap t UCL	15537066
95% H-UCL (Log ROS)	152.9		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9656	Mean in Log Scale	4.862
SD in Original Scale	106465	SD in Log Scale	1.298
95% t UCL (Assumes normality)	25310	95% H-Stat UCL	400

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 51371

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Nitrocellulose

General Statistics

Total Number of Observations	247	Number of Distinct Observations	81
		Number of Missing Observations	17

Number of Detects	42	Number of Non-Detects	205
Number of Distinct Detects	32	Number of Distinct Non-Detects	66
Minimum Detect	58000	Minimum Non-Detect	60000
Maximum Detect	2200000	Maximum Non-Detect	1200000
Variance Detects	1.574E+11	Percent Non-Detects	83%
Mean Detects	333071	SD Detects	396712
Median Detects	220000	CV Detects	1.191
Skewness Detects	3.432	Kurtosis Detects	13.18
Mean of Logged Detects	12.35	SD of Logged Detects	0.79

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.573	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.942	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.27	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.137	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	125215	Standard Error of Mean	13058
SD	191472	95% KM (BCA) UCL	151986
95% KM (t) UCL	146775	95% KM (Percentile Bootstrap) UCL	147297
95% KM (z) UCL	146694	95% KM Bootstrap t UCL	155425
90% KM Chebyshev UCL	164390	95% KM Chebyshev UCL	182135
97.5% KM Chebyshev UCL	206764	99% KM Chebyshev UCL	255143

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.549	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.766	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.143	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.139	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.517	k star (bias corrected MLE)	1.424
Theta hat (MLE)	219609	Theta star (bias corrected MLE)	233866
nu hat (MLE)	127.4	nu star (bias corrected)	119.6
MLE Mean (bias corrected)	333071	MLE Sd (bias corrected)	279095

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.428	nu hat (KM)	211.3
Approximate Chi Square Value (211.27, α)	178.6	Adjusted Chi Square Value (211.27, β)	178.5
5% Gamma Approximate KM-UCL (use when n>=50)	148092	95% Gamma Adjusted KM-UCL (use when n<50)	148237

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	63176
Maximum	2200000	Median	0.01
SD	204495	CV	3.237
k hat (MLE)	0.0742	k star (bias corrected MLE)	0.076
Theta hat (MLE)	851298	Theta star (bias corrected MLE)	831163
nu hat (MLE)	36.66	nu star (bias corrected)	37.55

MLE Mean (bias corrected)	63176	MLE Sd (bias corrected)	229149
		Adjusted Level of Significance (β)	0.049
Approximate Chi Square Value (37.55, α)	24.52	Adjusted Chi Square Value (37.55, β)	24.46
95% Gamma Approximate UCL (use when n>=50)	96750	95% Gamma Adjusted UCL (use when n<50)	96994

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.913	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.942	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0931	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.137	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	106103	Mean in Log Scale	11.07
SD in Original Scale	194645	SD in Log Scale	0.876
95% t UCL (assumes normality of ROS data)	126551	95% Percentile Bootstrap UCL	128758
95% BCA Bootstrap UCL	135325	95% Bootstrap t UCL	140065
95% H-UCL (Log ROS)	106186		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	11.43	95% H-UCL (KM -Log)	120038
KM SD (logged)	0.618	95% Critical H Value (KM-Log)	1.875
KM Standard Error of Mean (logged)	0.0624		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	174251	Mean in Log Scale	11.72
SD in Original Scale	212570	SD in Log Scale	0.75
95% t UCL (Assumes normality)	196583	95% H-Stat UCL	178920

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	146775	95% KM (% Bootstrap) UCL	147297

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Naphthalene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	58
		Number of Missing Observations	124
Number of Detects	11	Number of Non-Detects	116
Number of Distinct Detects	11	Number of Distinct Non-Detects	50
Minimum Detect	57	Minimum Non-Detect	33
Maximum Detect	240000	Maximum Non-Detect	4000
Variance Detects	5.228E+9	Percent Non-Detects	91.34%
Mean Detects	21991	SD Detects	72306
Median Detects	150	CV Detects	3.288

Skewness Detects	3.317	Kurtosis Detects	11
Mean of Logged Detects	5.633	SD of Logged Detects	2.338

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.347	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.85	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.525	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.267	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	1950	Standard Error of Mean	1974
SD	21207	95% KM (BCA) UCL	5747
95% KM (t) UCL	5221	95% KM (Percentile Bootstrap) UCL	5728
95% KM (z) UCL	5196	95% KM Bootstrap t UCL	550453
90% KM Chebyshev UCL	7871	95% KM Chebyshev UCL	10553
97.5% KM Chebyshev UCL	14276	99% KM Chebyshev UCL	21588

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.06	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.886	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.467	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.284	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.172	k star (bias corrected MLE)	0.186
Theta hat (MLE)	127514	Theta star (bias corrected MLE)	118212
nu hat (MLE)	3.794	nu star (bias corrected)	4.093
MLE Mean (bias corrected)	21991	MLE Sd (bias corrected)	50987

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.00845	nu hat (KM)	2.148
Approximate Chi Square Value (2.15, α)	0.172	Adjusted Chi Square Value (2.15, β)	0.169
5% Gamma Approximate KM-UCL (use when n>=50)	24293	95% Gamma Adjusted KM-UCL (use when n<50)	24836

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1905
Maximum	240000	Median	0.01
SD	21295	CV	11.18
k hat (MLE)	0.0746	k star (bias corrected MLE)	0.0781
Theta hat (MLE)	25534	Theta star (bias corrected MLE)	24394
nu hat (MLE)	18.95	nu star (bias corrected)	19.83
MLE Mean (bias corrected)	1905	MLE Sd (bias corrected)	6816
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (19.83, α)	10.73	Adjusted Chi Square Value (19.83, β)	10.65
95% Gamma Approximate UCL (use when n>=50)	3521	95% Gamma Adjusted UCL (use when n<50)	3547

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.589	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.85	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.384	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.267	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1913	Mean in Log Scale	1.242
SD in Original Scale	21295	SD in Log Scale	2.225
95% t UCL (assumes normality of ROS data)	5045	95% Percentile Bootstrap UCL	5693
95% BCA Bootstrap UCL	7600	95% Bootstrap t UCL	1118510
95% H-UCL (Log ROS)	82.76		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2081	Mean in Log Scale	4.758
SD in Original Scale	21281	SD in Log Scale	1.232
95% t UCL (Assumes normality)	5210	95% H-Stat UCL	324.2

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	14276

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia

Nitrobenzene

General Statistics

Total Number of Observations	263	Number of Distinct Observations	81
		Number of Missing Observations	1
Number of Detects	7	Number of Non-Detects	256
Number of Distinct Detects	7	Number of Distinct Non-Detects	79
Minimum Detect	250	Minimum Non-Detect	98
Maximum Detect	1800	Maximum Non-Detect	54000
Variance Detects	384595	Percent Non-Detects	97.34%
Mean Detects	765.7	SD Detects	620.2
Median Detects	460	CV Detects	0.81
Skewness Detects	1.181	Kurtosis Detects	-0.46
Mean of Logged Detects	6.385	SD of Logged Detects	0.749

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.786	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.313	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.335	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	131.5	Standard Error of Mean	14.27
SD	159.9	95% KM (BCA) UCL	181.7
95% KM (t) UCL	155.1	95% KM (Percentile Bootstrap) UCL	171.7
95% KM (z) UCL	155	95% KM Bootstrap t UCL	151
90% KM Chebyshev UCL	174.3	95% KM Chebyshev UCL	193.7
97.5% KM Chebyshev UCL	220.6	99% KM Chebyshev UCL	273.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.56	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.715	Detected data appear Gamma Distributed at 5% Significance Lev
K-S Test Statistic	0.247	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.315	Detected data appear Gamma Distributed at 5% Significance Lev

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.106	k star (bias corrected MLE)	1.299
Theta hat (MLE)	363.5	Theta star (bias corrected MLE)	589.5
nu hat (MLE)	29.49	nu star (bias corrected)	18.18
MLE Mean (bias corrected)	765.7	MLE Sd (bias corrected)	671.9

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.676	nu hat (KM)	355.8
Approximate Chi Square Value (355.79, α)	313.1	Adjusted Chi Square Value (355.79, β)	312.9
5% Gamma Approximate KM-UCL (use when n>=50)	149.5	95% Gamma Adjusted KM-UCL (use when n<50)	149.6

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	20.39
Maximum	1800	Median	0.01
SD	155.1	CV	7.607
k hat (MLE)	0.11	k star (bias corrected MLE)	0.111
Theta hat (MLE)	186.1	Theta star (bias corrected MLE)	184
nu hat (MLE)	57.62	nu star (bias corrected)	58.29
MLE Mean (bias corrected)	20.39	MLE Sd (bias corrected)	61.25
		Adjusted Level of Significance (β)	0.0491
Approximate Chi Square Value (58.29, α)	41.74	Adjusted Chi Square Value (58.29, β)	41.66
95% Gamma Approximate UCL (use when n>=50)	28.48	95% Gamma Adjusted UCL (use when n<50)	28.53

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.898	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.204	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.335	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	55.97	Mean in Log Scale	3.283
SD in Original Scale	154.3	SD in Log Scale	1.053
95% t UCL (assumes normality of ROS data)	71.67	95% Percentile Bootstrap UCL	72.53
95% BCA Bootstrap UCL	78.67	95% Bootstrap t UCL	90.55
95% H-UCL (Log ROS)	53.43		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	4.709	95% H-UCL (KM -Log)	127.2
KM SD (logged)	0.425	95% Critical H Value (KM-Log)	1.76
KM Standard Error of Mean (logged)	0.0549		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	496	Mean in Log Scale	5.634
SD in Original Scale	1714	SD in Log Scale	0.833
95% t UCL (Assumes normality)	670.5	95% H-Stat UCL	438.8

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	155.1	95% KM (Percentile Bootstrap) UCL	171.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

lowever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticiar

Appendix F

Ecological Risk Assessment

Work Plan

Ecological Risk Assessment Work Plan

Hercules Incorporated
Kenvil Works Facility
Kenvil, Morris County, New Jersey

April 2016

Table of Contents

List of Tables ..... *ii*

List of Figures ..... *ii*

Section 1: Introduction 1

1.1 Purpose and Objectives 1
1.2 Organization 2

Section 2: Background 3

2.1 EE/ERA Summary 3
2.2 EE/ERA Scope 3
2.3 EE/ERA Results and Recommendations 4
2.3.1 Risk Characterization Results 4
2.3.2 EE/ERA Recommendations 6

Section 3: Desktop Refinement 7

3.1 EE/ERA Results 7
3.2 Site-Specific Exposure Parameters 8
3.2.1 Site Use Factors 8
3.2.2 Dietary Composition 9
3.2.3 Bioaccumulation Factors 9
3.3 Lead 10
3.3.1 Bioaccessibility 10
3.3.2 Toxicity Reference Values 10
3.4 Exposure Areas 10
3.4.1 Terrestrial Area 11
3.4.2 Aquatic Areas 11
3.4.2.1 Northern Drainage Area 12
3.4.2.2 Southern Drainage Area 12
3.5 Risk Characterization 12
3.5.1 Terrestrial Area 13
3.5.2 Conceptual Redevelopment Footprint 13
3.5.3 Aquatic Areas 14
3.5.3.1 Northern Aquatic Sub Areas 14
3.5.3.2 Southern Aquatic Sub Areas 15
3.5.4 Summary and Recommendations 15

Section 4: Ecological Investigation – Field Sampling Plan 18

4.1 Scope Overview 18
4.2 Terrestrial Exposure Area 18
4.3 Aquatic Exposure Areas 18
4.3.1 Rational and Data Use Objectives 18

4.3.1.1 Northern Drainage Area Sampling Locations..... 19
4.3.1.2 Southern Drainage Area Sampling Locations..... 20
4.4 Sampling Methods 22
4.4.1 Surface Water Sampling 22
4.4.2 Sediment Sampling 22
4.4.3 Ultraviolet Light Traps 23
4.5 Schedule and Reporting..... 23

Section 5: References.....25

List of Tables

1 Northern Aquatic Drainage Area - Summary Statistics and Benthic Invertebrate Screen
2 Southern Aquatic Drainage Area – Summary Statistics and Benthic Invertebrate Screen
3 Revised Exposure Model for Short-Tailed Shrew – Terrestrial Area
4 Revised Exposure Model for American Robin – Terrestrial Area
5 Revised Exposure Model for Tree Swallow – Northern Aquatic Drainage Area
6 Revised Exposure Model for Little Brown Bat – Northern Aquatic Drainage Area
7 Revised Exposure Model for Tree Swallow – Southern Aquatic Drainage Area
8 Revised Exposure Model for Great Blue Heron – Southern Aquatic Drainage Area
9 Revised Exposure Model for Mallard Duck – Southern Aquatic Drainage Area
10 Revised Exposure Model for Little Brown Bat – Southern Aquatic Drainage Area
11 Revised Exposure Model for Mink – Southern Aquatic Drainage Area
12 Revised Exposure Model for Tree Swallow – Northern Aquatic Drainage Sub Areas
13 Revised Exposure Model for Tree Swallow – Southern Aquatic Drainage Sub Areas
14 Revised Exposure Model for Great Blue Heron – Southern Aquatic Drainage Sub Areas
15 Revised Exposure Model for Little Brown Bat – Southern Aquatic Drainage Sub Areas
16 Revised Exposure Model for Muskrat – Southern Aquatic Drainage Sub Areas

List of Figures

1 Facility Location
2 Facility Area
3 Northern Aquatic Drainage Area
4 Northern Aquatic Sub Area – Duck Pond
5 Northern Aquatic Sub Area – Western Tributary
6 Northern Aquatic Sub Area – Eastern Tributary

7 Northern Aquatic Sub Area – Unnamed Ponds
8 Northern Aquatic Sub Area – Northeast Ponds
9 Southern Aquatic Drainage Area
10 Southern Aquatic Sub Area – Central Drainage Basin
11 Southern Aquatic Sub Area – Maintenance-Dynamite Area - West
12 Southern Aquatic Sub Area – Maintenance-Dynamite Area - East
13 Southern Aquatic Sub Area – Miscellaneous Offsite Streams – Upper
14 Southern Aquatic Sub Area – Development Area Stream
15 Southern Aquatic Sub Area – Maintenance-NG Area
16 Southern Aquatic Sub Area – Miscellaneous Offsite Streams – Lower
17 Southern Aquatic Sub Area – TNT-PETN-NG Ditches
18 Southern Aquatic Sub Area – Miscellaneous TNT Ponds
19 Terrestrial Exposure Area – Lead In Soil
20 Northern Aquatic Exposure Area – Copper in Sediment
21 Northern Aquatic Exposure Area – Lead in Sediment
22 Southern Aquatic Exposure Area – Fluoranthene in Sediment
23 Southern Aquatic Exposure Area – Copper in Sediment
24 Southern Aquatic Exposure Area – Lead in Sediment
25 Southern Aquatic Exposure Area – Mercury in Sediment
26 Southern Aquatic Exposure Area – Pyrene in Sediment
27 Lead in Soil and Sediment
28 Terrestrial Exposure Area Excluding Redevelopment Areas

Section 1: Introduction

On behalf of Hercules Incorporated (Hercules), Kennedy/Jenks Consultants (K/J) prepared this Ecological Risk Assessment Work Plan (ERAWP) for the Hercules Kenvil Works Facility, located on Hercules Road in Kenvil, Morris County, New Jersey (the Facility). Figure 1 presents the location of the Facility; Figure 2 presents the overall layout of the Facility. This ERAWP was prepared in accordance with New Jersey Department of Environmental Protection's (NJDEP's) Technical Requirements for Site Remediation (TRSR), New Jersey Administrative Code (N.J.A.C.) 7:26E, NJDEP's Ecological Evaluation Technical Guidance (NJDEP 2015), and NJDEP's Field Sampling Procedures Manual (NJDEP 2005). Consistent with NJDEP (2015), ecological investigation and assessment activities are consistent with United States Environmental Protection Agency (USEPA) and other federal guidance, including Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (USEPA 1997).

1.1 Purpose and Objectives

The *Ecological Evaluation/Ecological Risk Assessment* report (EE/ERA) (Hercules 2016) relied on information presented in the media-specific remedial investigation reports (RIRs) for the Facility (i.e., soil, groundwater, surface water, and sediment) prepared between 2006 and 2009 (Hercules 2006; 2007a, 2007b, 2007c, 2007d; 2009) and additional data collected during the Phase II RI investigation (OBG 2013) to evaluate potential ecological risk at the Facility. The EE/ERA approach and findings effectively focused the assessment by excluding areas of presumed remedial action, where Hercules committed to conducting remedial activities (e.g., source areas) and presenting acceptable risk estimates in undeveloped areas of the Facility. Assessment of the remaining areas of the Facility identified potential risk drivers using conservative exposure assumptions across large exposure areas.

This ERAWP builds upon the findings of the EE/ERA (Hercules 2016) and outlines data collection activities to refine EE/ERA conclusions. The objectives of this ERAWP are as follows:

- Refine exposure parameters and toxicity reference values (TRVs) based on site-specific conditions and the scientific literature
- Identify locations within the EE/ERA exposure areas driving potential ecological risk
- Focus additional data collection on those constituents of potential ecological concern (COPECs) and locations in the EE/ERA exposure areas driving potential ecological risk
- Support refined risk characterization and scientifically-based risk management decision-making

Ultimately, the information herein will be coupled with the data and field information generated by the proposed sampling activities to inform a refined risk characterization presented in an ERA addendum.

1.2 Organization

The remainder of this ERAWP is organized as follows:

- Section 2, Background, summarizes the strategy, approach, findings, and recommendations of the EE/ERA.

- Section 3, Desktop Evaluation, presents revised exposure parameters, TRVs, and other information used to refine initial, conservative risk estimates; evaluates the spatial distribution of COPECs within exposures areas; and presents an updated risk characterization to inform additional data collection.

- Section 4, Ecological Investigation – Field Sampling Plan, presents rationale and data use objectives as well as the field sampling methods and locations for data collection activities proposed in response to the refined risk characterization.

- Section 5, References, provides citations for information used during the preparation of this work plan.

Tables, figures, appendices, and attachments support the text and are referenced accordingly.

Section 2: Background

2.1 EE/ERA Summary

The EE/ERA (Hercules 2016) submitted to the Licensed Site Remediation Professional (LSRP) for the Facility in April 2016 represents the initial step in evaluating potential ecological risk at the Facility. Consistent with NJDEP (2015), ecological investigation and assessment activities were conducted in accordance with USEPA and other federal guidance, including Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (USEPA 1997). As specified in NJDEP and USEPA guidance, the EE/ERA used conservative assumptions related to potential exposures and receptors, and leveraged Facility knowledge and associated remedial decision making processes to build upon the results of site investigation (SI)/remedial investigation (RI) activities.

The EE/ERA (Hercules 2016a) relied on information presented in media-specific RIRs for the Facility (i.e., soil, groundwater, surface water, and sediment) prepared between 2006 and 2009 (Hercules 2007, 2009) and additional data collected during the Phase II RI investigation (Hercules 2016b) to evaluate potential ecological risk at the Facility. The EE/ERA approach and findings focused the assessment by excluding areas of presumed remedial action where Hercules committed to conducting remedial activities (e.g., source areas), and presented acceptable risk estimates in undeveloped areas of the Facility.

Assessment of the remaining areas of the Facility identified potential risk using conservative exposure assumptions across exposure areas. The risk characterization and conclusions identified lead, other metals, and polycyclic aromatic hydrocarbons (PAHs) as the COPECs that pose the greatest potential to cause adverse effects to ecological receptors exposed to environmental media at the Facility. The EE/ERA also recommended additional focused evaluation to refine exposure estimates and identify areas of the Facility with the greatest potential for ecological risk.

2.2 EE/ERA Scope

Data generated during the SI supported the establishment of the Remedial Area to focus RI activities within and immediately adjacent to the former manufacturing areas, and concluded that additional investigation of the outlying undeveloped portions of the Facility (those areas beyond the former manufacturing areas [beyond the Remedial Area] was unwarranted. The EE/ERA built upon the information collected during characterization in the SI/RI phases and evaluated potential ecological risk within the Remedial Area. A review of SI/RI data and findings identified areas where historical operations (e.g., emplacement of historic fill, point source releases, process upsets, etc.) influenced environmental media within the Remedial Area. In these ways, the SI/RI informed and focused the EE/ERA. The EE/ERA separated the Facility into three general categories:

- Areas where potential ecological risk is negligible.

- Areas where potential ecological risk is uncertain and assessment is needed.

- Areas where constituent concentrations and/or physical characteristics merit remediation (e.g., ecological risk is likely), regardless of the outcome of the EE/ERA (Areas of Presumed Remedial Action).

This approach focused the EE/ERA on areas where risks may be present and does not confound the process by evaluating areas where risks are unlikely (undeveloped areas beyond the Remedial Area) or very likely (certain Areas of Presumed Remedial Action), or where proposed remedial actions will address potential exposure risks (certain Areas of Presumed Remedial Action). Using this approach, the EE/ERA identified areas of the Facility that may present unacceptable ecological risk and provided a foundation on which to base additional focused data collection and ecological evaluation.

2.3 EE/ERA Results and Recommendations

2.3.1 Risk Characterization Results

The EE/ERA (Hercules 2016a) evaluated potential ecological exposures using a series of assessment endpoints (AEs) and measurement endpoints (MEs). MEs included direct comparison of constituent concentrations in environmental media to ecological screening benchmarks (ESBs) protective of lower-trophic-level receptors (e.g., invertebrates and plants), as well as food web dose modeling of constituents into upper-trophic-level receptors. The use of generic screening benchmarks and conservative assumptions regarding the bioavailability of constituents added uncertainty to the assessment. These evaluations generated hazard quotients (HQs), ratios comparing exposure concentrations to TRVs from the scientific literature. Lowest observed adverse effects level- (LOAEL-) and no observed adverse effects level- (NOAEL-) based HQs provided a bounded range of potential risk estimates. Acknowledging the conservative assumptions on which the EE/ERA is based, consideration of the LOAEL-based HQ (HQ_{LOAEL}) is appropriate.

A summary of potential ecological risks relative to each AE and ME, as noted in the EE/ERA, is provided below:

- *AE 1*. Could direct contact with constituents of potential ecological concern (COPECs) in Facility soil affect the structure, function, and/or survival of the terrestrial plant community?
    - A comparison of soil COPEC concentrations to ESBs protective of terrestrial plants indicated that adverse effects to terrestrial plant communities are possible.
- *AE 2*. Could direct contact with COPECs in Facility soil affect the structure, function, and/or survival of the terrestrial invertebrate community?
    - A comparison of soil COPEC concentrations to ESBs protective of terrestrial invertebrates indicated that adverse effects to terrestrial invertebrate communities at the Facility are unlikely.
- *AE 3*. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of herbivorous avian and mammal populations?

- HQ_{LOAELs} for northern bobwhite (*Colinus virginianus*) and white tailed deer (*Odocoileus virginianus*) indicated that adverse effects to herbivorous avian and mammal populations are unlikely.

- *AE 4*. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of insectivorous avian and mammal populations?

  - HQ_{LOAELs} for American robin (*Turdus migratorius*) and short-tailed shrew (*Blarina brevicauda*) indicated that adverse effects to insectivorous avian populations are possible, but adverse effects to insectivorous mammal populations are unlikely.

- *AE 5*. Could food-web transfer of COPECs in Facility soil adversely affect reproductive success or survival of carnivorous avian and mammal populations?

  - HQ_{LOAELs} for red-tailed hawk (*Buteo jamaicensis*) and red fox (*Vulpes vulpes*) indicated that adverse effects to carnivorous avian and mammal populations are unlikely.

- *AE 6*. Could direct contact with COPECs in sediment in each exposure area affect the structure, function, and/or survival of the benthic invertebrate community?

  - Comparisons of sediment COPEC concentrations in the Northern and Southern Drainage Areas to ESBs protective of benthic invertebrates indicated that adverse effects to benthic invertebrate communities in these areas are possible.

- *AE 7*. Could direct contact with COPECs in sediment in each exposure area affect the survival and function of aquatic plant populations?

  - Comparisons of sediment COPEC concentrations in the Northern and Southern Drainage Areas to ESBs protective of terrestrial plants indicated that adverse effects to aquatic plants in these areas are possible but unlikely.

- *AE 8*. Could direct contact with COPECs in surface water in each area affect the survival and reproduction of fish and aquatic invertebrate populations?

  - Comparisons of surface water COPEC concentrations in the Northern and Southern Drainage Areas to ESBs protective of aquatic life indicated that adverse effects to fish populations in these areas are unlikely.

- *AE 9*. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of herbivorous avian and mammal populations?

  - Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis indicated that adverse effects to herbivorous avian and mammal populations by exposure to COPECs in the Northern Drainage Area and Southern Drainage Area are unlikely.

- *AE 10*. Could food-web transfer of COPECs in sediment in each area adversely affect reproductive success or survival of insectivorous avian and mammal populations?

- HQ_{LOAELs} for tree swallow (*Tachycineta bicolor*) and little brown bat (*Myotis lucifugus*) in the Northern and Southern Drainage Areas indicated that adverse effects to insectivorous avian and mammal populations in the Northern and Southern Drainage Areas are possible.

- *AE 11*. Could food-chain transfer of COPECs in sediment in each area adversely affect reproductive success or survival of piscivorous avian and mammal populations?

  - HQ_{LOAELs} for great blue heron (*Ardea herodias*) and mink (*Neovison vison*) in the Northern and Southern Drainage Areas indicated adverse effects to piscivorous avian and mammal populations in the Northern Drainage Area are unlikely; adverse effects to piscivorous avian populations in the Southern Drainage Area are possible; and adverse effects to piscivorous mammal populations in the Southern Drainage Area are unlikely.

These are reasonable findings based on the uncertainty inherent to the exposure and effects assessment process and the use of conservative (i.e., protective) assumptions that generally bias exposure and effects assessments toward overestimation of potential ecological risk.

2.3.2 EE/ERA Recommendations

Overall, estimated potential ecological risks in the EE/ERA are low. The greatest potential for ecological risk is from lead, other metals, and PAHs. Food web modeling of upper-trophic-level receptors in terrestrial (e.g., American robin) and aquatic (e.g., tree swallow, great blue heron, and little brown bat) exposure areas yielded lead HQs greater than 1. Food web modeling on which these results are based did not incorporate measures of lead bioavailability. Soil and sediment characteristics at the Facility pointed to high levels of organic carbon and likely anoxic conditions, which lend themselves to sequestration and binding of metals, potentially reducing the fraction of lead available for uptake by receptors and associated adverse effects.

Based on the EE/ERA results and the uncertainty regarding bioavailability, additional ecological investigation and risk assessment activities are recommended. Such activities include a desktop evaluation that refines the conservative assumptions upon which modeled results are based, and by spatial analysis to identify locations within the exposure areas that are driving potential risk. Focused field data collection is also recommended, the scope of which follows the results of the desktop evaluation activities.

The following sections present the results of ecological risk assessment refinement (Section 3) and outline a field data collection program (Section 4).

Section 3: Desktop Refinement

The following section provides results of the EE/ERA for each upper-trophic species modeled, presents refined exposure parameters, and the process and results of the models using refined exposure parameters and exposure areas. The steps of the EE/ERA refinement process are depicted in the following diagram:

Desktop refinements conducted in this ERAWP include both the first and second refinement steps. First, exposure parameters are revisited and revised to be more realistic and site-specific, as necessary, to further limit the list of COPECs. Secondly, aquatic exposure areas are further sub-divided to focus areas driving potential ecological risk and direct field data collection.

3.1 EE/ERA Results

Upper-trophic level food web modeling in the EE/ERA used default exposure parameters for birds and mammals, per USEPA (1997) and NJDEP (2015) guidance. In the terrestrial area of the Facility, HQ_{LOAELs} for white-tailed deer, red fox, northern bobwhite, and red-tailed hawk were below 1, indicating lack of potential risk to these species from COPECs in soil. American robin and short-tailed shrew had HQs greater than 1 for three COPECs. The table below summarizes the HQ_{LOAELs} for the terrestrial area.

	American Robin	**Northern Bobwhite**	**Red-Tailed Hawk**	**Short-Tailed Shrew**	**White-Tailed Deer**	**Red Fox**
Total PCBs	**3**	≤1	≤1	≤1	≤1	≤1
Copper	**3**	≤1	≤1	≤1	≤1	≤1
Lead	**25**	≤1	≤1	**3**	≤1	≤1

HQ_{LOAELs} in the aquatic areas, separated into Northern and Southern Drainage Areas, were greater than 1 for the following receptors and COPECs:

	Little Brown Bat	Mink	Muskrat	Tree Swallow	Great Blue Heron	Mallard Duck
Northern Drainage Area						
Copper	**3**	≤1	≤1	**7**	≤1	≤1
Lead	≤1	≤1	≤1	**10**	≤1	≤1
Southern Drainage Area						
Copper	**2**	≤1	≤1	**4**	≤1	≤1
Fluoranthene	**6**	≤1	≤1	**3**	≤1	≤1
Lead	**26**	**8**	≤1	**224**	**24**	**2**
Pyrene	**3**	≤1	2	≤1	≤1	≤1
Selenium	**2**	≤1	≤1	**2**	≤1	≤1

To focus additional data collection, refinements were made to the food web modeling via a desktop evaluation. During this refinement step, exposure parameters were modified (if available) to be site- and species-specific, as described in the following section.

3.2 Site-Specific Exposure Parameters

3.2.1 Site Use Factors

In the EE/ERA, each wildlife species was assumed to forage only in the exposure area, by incorporating a site use factor (SUF) of 1 (i.e., 100 percent of the time). In reality, however, mammals and birds may forage beyond the boundaries of the exposure areas or the Facility itself. For instance, tree swallows and robins migrate from New Jersey in the autumn and return in the spring (USEPA 1993), reducing the amount of time that could be spent at the Facility. In addition, birds and mammals have a species-specific foraging or home range, which is the distance from their nest or den they will travel to forage for food. Frequently, this area is larger than the exposure area or Facility, which would reduce potential risks to birds and mammals foraging at the Facility.

Modifications made to the food web models incorporate a reduced SUF, where appropriate. For tree swallow and American robin, a SUF of 0.67 is used; assuming birds could forage in the area for 8 months of the year (8/12), but migrate out of the area for the remainder of the year (USEPA 1993). Little brown bat hibernate for approximately 6 months of the year (Davis and Hitchcock 1965); therefore the SUF for the bat was reduced to 0.5.

A mink's home range covers approximately 770 hectares (1,900 acres) (USEPA 1993), which is larger than either aquatic exposure area (Northern Drainage Area ~150 acres; Southern Drainage Area ~250 acres). As such, mink were re-evaluated with an SUF of 0.13 (250/1,900) in the Southern Drainage Area. Likewise, the home range for mallard duck spans approximately 435 hectares (1,075 acres) (USEPA 1993), yielding a SUF of 0.23 (250/1075). Neither mink nor mallard were re-evaluated in the Northern Drainage Area because HQ_{LOAELs} from the EE/ERA (based on conservative assumptions) were less than 1.

The remaining wildlife species modeled have small foraging or home ranges and maintain a SUF of 1.

3.2.2 Dietary Composition

In the EE/ERA, a robin's diet was assumed to consist solely of earthworms. USEPA (1993) and Martin et al. (1951) indicate that the diet of robin consists of both plants and invertebrates. As such, robin was re-evaluated using a modified diet of plants, comprising 62.5% of its diet, and invertebrates, comprising 37.5% of its diet.

In addition, recent data indicate the percentage of soil in robin's diet is higher than that assumed in the EE/ERA (10%), which was based on soil ingestion for a different species, the woodcock. Hansen et al. (2011) concludes that robins consume approximately 20% of soil in their diets, so a soil ingestion rate of 20% was incorporated into the model for robin.

Tree swallows also have a varied diet of aerial insects, seeds and plants. Tree swallows are the only member of the swallow family that also feed on berries when insects are limited. This trait enables tree swallows to overwinter in harsher climates and make early spring returns to their breeding habitat. Beal (1918) found the following results by analyzing stomach contents of adults collected during different seasons at various locations: 80% of diet was animal, 20% vegetable. As such, their dietary composition has been modified to reflect 80% invertebrates and 20% plants (Beal 1918, Robertson et al. 1992).

The remainder of the species maintained the assumed conservative diets, as presented in the EE/ERA.

3.2.3 Bioaccumulation Factors

According to NJDEP Guidance (NJDEP 2015), during the first steps of an EE/ERA, it is assumed that a COPEC is 100% bioavailable to the receptors being evaluated. While this is generally considered to be an overestimation of exposure, it provides a level of certainty if, in turn, the risk characterization identifies no potential ecological risks. However, during later stages of the assessment, bioaccumulation should be considered when calculating levels of exposure, especially in calculations of impacts to upper-trophic level receptors through food web transfer (NJDEP 2015).

To estimate COPEC concentrations in each organism's prey tissue items in the EE/ERA, literature-based uptake factors were incorporated into the food web models. For the terrestrial food web models, bioaccumulation factors (BAFs) were used, in conjunction with soil COPEC concentrations, to estimate tissue COPEC concentrations in plants and earthworms. For the aquatic food web models, biota-sediment accumulation factors (BSAFs) were used, in conjunction with sediment COPEC concentrations, to estimate tissue COPEC concentrations in fish and benthic invertebrates.

3.3 Lead

The EE/ERA identified lead as one of the primary potential risk drivers at the Facility. As a result, the toxicological properties and biouptake of lead were further evaluated to refine the food web models.

3.3.1 Bioaccessibility

The EE/ERA conservatively assumed that COPECs are completely absorbed into an organism's gastrointestinal tract and enter the bloodstream where they can cause adverse effects. Kaufman et al. (2007) provide gastric models for both birds and mammals to evaluate the proportion of lead that mobilizes into the digestive juices (bioaccessible fraction) from soil, earthworms, and vegetation collected at a rifle and pistol range. Results for the avian gastric model suggest that the bioaccessible fraction of lead in soil was 53% and in earthworm tissue was 73% (Kaufman et al. 2007). For the mammalian model, the bioaccessible fraction of lead in soils was 66%, in earthworm tissue was 77%, and in unwashed vegetation was 50% (Kaufman et al. 2007). These bioaccessibility ratios were incorporated into the revised food web models for terrestrial birds and mammals foraging at the Facility.

3.3.2 Toxicity Reference Values

TRVs used in the EE/ERA were obtained from the EcoSSL documents (USEPA 2005) which were conservatively developed. For instance, the form of metal used to dose animals in a laboratory study is frequently the most toxic and most bioavailable form to ensure uptake by the animal. While the form of lead in Facility soils is likely metallic lead, many of the toxicity studies are based upon toxic lead forms such as lead acetate or lead nitrate (USEPA 2005). This adds additional conservatism into the evaluation.

Furthermore, avian toxicity data used in the development of the TRVs include reproduction data for chickens, a domestic bird species with higher rates of reproduction than wild birds. In fact, TRVs recommended by USEPA (2005) for lead are based exclusively on reproduction in chickens. Using revised TRVs based on wild bird data, NOAEL-based TRVs for reproduction range from 0.194 to 125 mg/kg bw/day; LOAEL-based TRVs for reproduction range from 0.11 to 377 mg/kg bw/day, with a geometric mean of 11.4 mg/kg bw/day. Sample et al. (1996) reports a similar LOAEL (11.3 mg/kg bw/day) based on a study of Japanese quail (from Edens et al. 1976). This LOAEL was also used by Kaufman et al. (2007) to evaluate the bioaccessibilty of lead to birds and mammals. Edens et al. (1976) reports a NOAEL of 1.13 mg/kg bw/day for lead. As such, 1.13 and 11.3 mg/kg bw/day will serve as the revised avian TRVs for lead.

For mammals, conservative TRVs used in the EE/ERA are modified from 4.7 to 8 mg/kg bw/day for the NOAEL and from 8.9 to 80 mg/kg bw/day for the LOAEL. These TRVs are reported in Sample et al. (1996) and are based on a study by Azar et al. (1973) using laboratory rats.

3.4 Exposure Areas

Similar to the exposure area evaluation conducted for the EE/ERA, the Facility was separated into one terrestrial and two overall aquatic exposure areas. In this re-evaluation, the two

aquatic exposure areas were subdivided further to identify potential risk drivers and specific aquatic features where observed conditions contribute to potential risk. The evaluation for the terrestrial area remains consistent with the spatial analysis conducted for the EE/ERA; however, species- and site-specific exposure parameters are incorporated into the food web models.

3.4.1 Terrestrial Area

Based on a review of the CSM, historical Facility information, and SI/RI data, several process/disposal areas within the Remedial Area were identified as areas where remedial action is warranted, irrespective of the outcome of the EE/ERA. The locations, composition, and/or constituents present in these areas align with historical Facility practices and records from the Facility (e.g., disposal areas, explosions).

To guide the FS process, these Areas of Presumed Remedial Action were prioritized using a tiered system. Tier ranking prioritizes remediation in areas of the Facility based (in part) on elements such as complexity of the remedy, severity of the effects, duration of remedy implementation, and/or alignment with Facility redevelopment planning. The tiered organization includes the following areas:

- Tier I:
    - TNT Area (conglomerate of adjacent areas of concern)
- Tier II:
    - Ammonium Nitrate Area – Former Burning Ground and intervening areas of concern (H12-237, H13-1, H13-7)
    - B-Line Area – Disposal Area (M8-1)
    - Diazo Area – Diazo Ponds (H8-1)
    - B-Line Area - Dinitrotoluene (DNT) Heater House (L11-2091)
    - Development Area – Old Burning Ground and adjacent areas of concern to the southwest (M5-3, L5-2313, L5-10, L5-2275, L5-539)
- Tier III:
    - Storage Area – Disposal Area (N6-1)
    - B-Line Area – South (conglomerate of adjacent areas of concern)
    - A-Line Area – Northwest (conglomerate of adjacent areas of concern)

Recognizing the pending remedial actions in the Tier I, II, and III areas, data from these areas were not included in the EE/ERA and are excluded from any further evaluation (Figure 2).

3.4.2 Aquatic Areas

The two aquatic exposure areas were re-evaluated using modified exposure parameters described above. For remaining potential risk (i.e., HQ_{LOAELs} greater than 1), discrete subareas of the Northern and Southern Drainage Areas were identified based on geography, drainage

pathways, and hydrological flow characteristics. These subareas were then evaluated individually to identify potential risk drivers by specific area. This evaluation provides information on the areas potentially driving potential risk to focus future sampling efforts.

3.4.2.1 Northern Drainage Area

The Northern Drainage Area was re-evaluated with revised exposure models, based on site- and receptor-specific parameters. Next, the area was divided into five smaller exposure areas (based on drainage characteristics and relationships) to identify contributors to potential risk that may require additional sampling.

Historical sediment data for COPECs identified in the Northern Drainage Area were separated into five smaller exposure areas: Duck Pond, Western Tributary, Eastern Tributary (including Shooting Pond), several Unnamed Ponds, and Northeast Ponds. Exposure point concentrations (EPCs) were calculated based on 95UCLs for each area with sufficient data were available. If an area had less than five detections or if 95UCLs were larger than maximum detected concentrations, average concentrations were used as EPCs. Food web models were re-run with revised exposure parameters and new site-specific EPCs for each area. Data summary statistics for each area and a screen against sediment ESBs is presented in Table 1. Northern Drainage Area and the five exposure areas are presented in Figures 3 through 8. Constituent concentrations in Northern Drainage Area sediment are presented on Figures 19 and 20.

3.4.2.2 Southern Drainage Area

The Southern Drainage Area was re-evaluated with revised exposure models, based on site- and receptor-specific parameters. Next, the area was divided into nine smaller exposure sub areas (based on drainage characteristics and relationships) to identify contributors to potential risk that may require additional sampling: Central Drainage Basin, Development Area, Maintenance Dynamite Area – East, Maintenance Dynamite Area – West, Maintenance – NG Area, Miscellaneous TNT Ponds, Offsite Stream – Lower, Offsite Stream – Upper, and TNT-PETN-NG Ditches.

Historical sediment data for COPECs identified in the Southern Drainage Area were separated by exposure area. EPCs were calculated based on 95UCLs for each area if sufficient data were available. If an area had less than five detections or if 95UCLs were estimated to be larger than maximum detected concentrations, average concentrations were used as EPCs. Food web models were re-run with revised exposure parameters and new site-specific EPCs for each area. Data and summary statistics for each area and a screen against sediment ESBs is presented in Table 2. Southern Drainage Area exposure areas are presented in Figures 9 through 18. Constituent concentrations in Southern Area Drainage sediment are presented on Figures 22 through 26.

3.5 Risk Characterization

The following section describes the results of the revised ecological risk assessment using site- and species-specific exposure parameters.

3.5.1 Terrestrial Area

Using alternative TRVs for mammals provided in the preceding section, lead HQ_{LOAEL} for shrew decrease below the threshold value of 1. HQ_{LOAEL} for total PCBs remains the same.

Using revised site- and species-specific exposure parameters for robin, HQ_{LOAEL} for copper and total PCBs decreases to less than 1. The HQ_{LOAEL} for lead decreases to 3. Lead continues to present potential risks to robin and additional evaluation for robin is likely necessary.

HQ_{LOAELs} from the revised food web models for shrew and robin are summarized below; full models are presented in Tables 3 and 4. Figures 19 and 27 present lead data in the terrestrial area.

	Shrew	**Robin**
Copper	-	≤1
Lead	≤1	**3**
Total PCBs	**2**	≤1

3.5.2 Conceptual Redevelopment Footprint

Certain areas of the Facility are targeted for redevelopment. It is assumed that in the developable areas, some type of soil cap, vegetative cover (e.g., ornamental landscape), or paved/impervious surfaces will exist in the future. Other portions of the Facility, notably the areas abutting on-site wetlands and drainage areas in the Northern and Southern Aquatic Drainage Areas are non-developable. Figure 28 presents a conceptual redevelopment footprint and lead concentrations in non-developable areas.

Soil data in the non-developable areas were used to re-evaluate potential remaining risks from lead to robin. Assuming lead concentrations in the non-developable portions of the Facility remain in surface soil, the terrestrial EPC for lead was recalculated and incorporated into the food web model for robin. Because some terrestrial areas of the Facility remain with elevated lead in soil, the HQ increased slightly (from 3 to 4). Additional remedial actions in the non-developable areas are likely to be necessary to remediate elevated lead concentrations (Figure 27).

3.5.3 Aquatic Areas

HQ_{LOAELs} for the revised evaluation in the Northern and Southern Drainage Areas are summarized below. No changes were made to the food web model for the muskrat; therefore the results provided below are from the EE/ERA. Revised food web models are presented in Tables 5 through 11.

	Tree Swallow	Great Blue Heron	Mallard	Little Brown Bat	Mink	Muskrat
Northern Drainage Area						
Copper	**4**	-	-	≤1	-	-
Lead	**2**	-	-	-	-	-
Southern Drainage Area						
Fluoranthene	≤1	-	-	**3**	-	-
Pyrene	-	-	-	≤1	-	**2**
Copper	**2**	-	-	≤1	-	-
Lead	**41**	**7**	≤1	≤1	≤1	-
Selenium	≤1	-	-	≤1	-	-

In the Northern Aquatic Drainage Area potential risks to tree swallow are limited to copper and lead. Potential risks for little brown bat are unlikely because HQ_{LOAELs} are below 1.

In the Southern Aquatic Drainage Area, after species-specific SUFs for mallard and mink are incorporated into the food web models, HQ_{LOAELs} are less than 1. Selenium HQ_{LOAELs} are below 1, thus no further evaluation related to selenium is required. Fluoranthene, pyrene, copper, and lead yield unacceptable estimates of potential ecological risk for various receptors.

Based on these findings, the following constituents will be evaluated further in aquatic exposure areas:

- Northern Aquatic Exposure Areas: copper, lead
- Southern Aquatic Exposure Areas: fluoranthene, pyrene, copper, lead

3.5.3.1 Northern Aquatic Sub Areas

Tree swallow and muskrat were re-evaluated in the northern aquatic exposure areas for two COPECs. HQ_{LOAELs} that are greater than 1 from revised exposure models for the northern aquatic exposure areas are summarized below and presented in Table 12.

	Tree Swallow
Copper	Duck Pond, Western Tributary, Unnamed Ponds, Northeast Ponds
Lead	Duck Pond, Western Tributary, Unnamed Ponds

3.5.3.2 Southern Aquatic Sub Areas

Great blue heron, tree swallow, and little brown bat were re-evaluated in the southern aquatic exposure areas for three COPECs. HQ_{LOAELs} that are greater than 1 from revised exposure models are summarized below and presented in Tables 13 through 15.

	Great Blue Heron	Tree Swallow	Little Brown Bat	Muskrat
Fluoranthene	-	-	Central Drainage Basin	
Pyrene	-	-	-	Central Drainage Basin
Copper	-	Maintenance-NG Area, Maintenance-Dynamite Area – East, Maintenance-Dynamite Area – West, TNT-PETN-NG Ditches, Central Drainage Basin	-	
Lead	Maintenance-NG Area, TNT-PETN-NG Ditches, Central Drainage Basin, Miscellaneous TNT Ponds	Maintenance-NG Area, Maintenance-Dynamite Area -East, Maintenance-Dynamite Area – West, TNT-PETN-NG Ditches, Miscellaneous Offsite Streams - Upper Central Drainage Basin, Miscellaneous TNT Ponds	-	

The Development Area Stream in the northwestern portion of the Southern Aquatic Area and the Miscellaneous Offsite Streams (lower) that are located south of the loop road can be excluded from further evaluation because COPECs and receptors have HQ_{LOAELs} below 1. Also, samples collected from areas of presumed remedial action are excluded from further evaluation. In addition, six sediment samples in the extreme western portion of the Facility which are included as part of the TNT-PETN-NG Ditches have low detections of COPECs, eliminating the need for additional evaluation in this area (Figure 17).

3.5.4 Summary and Recommendations

Overall, the refined desktop evaluation indicates that potential ecological risks to terrestrial and aquatic wildlife are low. In the terrestrial area, potential risks are driven primarily by lead in soil. In the aquatic areas, potential risks are also driven primarily by metals and are highest in the two drainage basins—the ponds in the Northern Aquatic Area and the Central Drainage Basin in the Southern Aquatic Area. A summary table of the Northern Aquatic Sub Areas and COPECs driving potential risks is provided below. Future sampling events in the Northern Aquatic Drainage Area should focus primarily around Duck Pond, the Unnamed Ponds, and the Western Tributary of Duck Pond.

Summary of Areas for Further Evaluation - Northern Aquatic Sub Areas

COPEC	Duck Pond	Western Tributary	Unnamed Ponds	Northeast Ponds	Eastern Tributary
Copper	X	X	X	X	
Lead	X	X	X		

A summary table of the Southern Aquatic Sub Areas and COPECs driving potential risks is provided below. Future sampling events in the Southern Aquatic Drainage Area should focus around the Central Drainage Basin and several of the ditches/tributaries leading into it.

Summary of Areas for Further Evaluation - Southern Aquatic Sub Areas

	Maint-Dynamite Area West	Maint-NG Area	Maint Dynamite Area East	TNT-PETN-NG	Central Drainage Basin	Misc Offsite Streams Upper	Misc Offsite Streams Lower	Development Area	Misc TNT Ponds
Fluoranthene					X				
Pyrene					X				
Copper	X	X	X	X	X				
Lead	X	X	X	X	X	X			X

Little brown bat and tree swallow have the highest HQs in the aquatic exposure areas. Because both species are aerial insectivores, potential risks are being driven by conservative BSAFs for metals, particularly copper and lead. BSAFs used to estimate tissue concentrations are based on infaunal invertebrates (e.g., worms, bivalve clams) that spend their entire lives buried in the sediment. Aerial insects, on the other hand, spend a small portion of their life-cycle embedded in the sediment as larvae. Recent research shows that metals and PAHs are lost during metamorphosis (Kraus et al. 2014). Therefore, to validate the results of the food web models for little brown bat and tree swallow, adult aerial insects that serve as prey should be collected around both aquatic drainage areas. The insects would be analyzed for PAHs (where necessary) and metals. Analytical results would be used as inputs to the food web models. This reduces the uncertainty in estimating tissue concentrations of prey items and would present more accurate risk estimates.

Furthermore, recent sediment chemistry data for metals and PAHs is warranted in both the Northern and Southern Aquatic Drainage Areas. Much of the PAH and metals data dates back over 10 years and therefore may no longer represent the biologically active zone (i.e., the portion of sediment organisms are actually exposed to). Sediment accumulates over time and what was once considered the surface or top few inches of sediment may now be buried at depth.

Elevated detections of some metals exist in surface water in both Northern and Southern Drainage Areas. The surface water dataset contains both total and dissolved metals from different areas of different waterbodies. In order to have a more consistent dataset, both total and dissolved metals should be collected as needed. This would fill data gaps observed in the surface water dataset. More recent chemistry data may also reveal lower constituent concentrations in surface water.

No additional sampling is proposed for soil in the terrestrial area. Elevated concentrations of lead that remain in surface soil will need to meet human health lead criterion of 600 mg/kg for non-residential use or 400 mg/kg for residential use (NJDEP 2008). Therefore, concentrations of lead that exceed these values will likely be remediated. As such, removal of soils with lead concentrations exceeding human health criteria will also eliminate any potential terrestrial ecological risk.

Section 4: Ecological Investigation – Field Sampling Plan

4.1 Scope Overview

Study objectives include endpoints in both terrestrial and aquatic habitats at the Facility. Field sampling activities outlined below include surface water, sediment and aerial insect sampling to address aquatic endpoints. Terrestrial endpoints will be evaluated following refinement of redevelopment areas at the Facility as outlined below.

4.2 Terrestrial Exposure Area

Several process/disposal areas within the Remedial Area were identified as areas where remedial action is warranted, irrespective of the outcome of the EE/ERA, and certain areas of the Facility are targeted for redevelopment as residential, retail, and/or industrial facilities. Additional remedial actions in the non-developable areas may occur to remediate elevated lead concentrations. Additional ecological sampling activities in the terrestrial exposure area will be proposed following the refinement of redevelopment areas and areas where remedial action is warranted. Additional ecological sampling will help to develop the final remedy for the terrestrial exposure area, which will be protective of human health as well as ecological receptors and be least disruptive to existing ecological function.

4.3 Aquatic Exposure Areas

The two aquatic exposure areas were re-evaluated using updated exposure parameters. For remaining potential risk (i.e., HQs greater than 1), exposure areas of the Northern and Southern Aquatic Drainage Areas were identified based on geography, drainage pathways, and hydrological flow characteristics. Next, each exposure area was evaluated individually to identify potential risk drivers. This evaluation provided information on the areas potentially driving risk to focus sampling efforts.

4.3.1 Rational and Data Use Objectives

Results of the revised risk evaluation using more site- and species-specific exposure parameters identified COPECs with HQs greater than 1. These COPECs are targeted for additional sampling to understand potential risk estimates. Specifically, additional chemistry data will be collected on surficial sediment samples and in aerial insect tissues to provide current and site-specific inputs for the food web models. Acid volatile sulfide and simultaneously extracted metals (AVS/SEM) will also be conducted on surficial sediment samples to evaluate the potential bioavailability of the metals. Surface water will be collected for COPECs with historically elevated concentrations or in areas where minimal or incomplete data were collected. The following sections outline sample location selection and type per sub area.

4.3.1.1 Northern Drainage Area Sampling Locations

4.3.1.1.1 Duck Pond

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead were greater than 1 for the tree swallow in Duck Pond. Aerial insect tissue data will be collected for copper and lead to evaluate potential risk to the tree swallow. Two light trap sample locations proposed for Duck Pond are shown on Figure 4.

4.3.1.1.2 Western Tributary

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead are greater than 1 for the tree swallow in the Western Tributary. Aerial insect tissue data will be collected for copper and lead to evaluate potential risk to the tree swallow. Four light trap sample locations proposed for the Western Tributary are shown on Figure 5.

The surface water dataset for the Western Tributary contained areas that were sampled for total metals and dissolved metals separately. Additional surface water data will be collected to analyze for both total and dissolved metals along with general chemistry parameters (pH, hardness and total suspended solids). Ten surface water sample locations proposed for the Western Tributary are shown on Figure 5.

4.3.1.1.3 Unnamed Ponds

Hazard quotients based on benthic severe effects levels (HQ_{SELs}) are greater than 1 for arsenic, mercury, lead and zinc. Additional sediment chemistry data will be collected for metals with HQ_{SELs} above 1 as well as AVS/SEM to evaluate current concentrations and bioavailability. Additionally, methylmercury (MeHg) will be analyzed in sediment samples collected for mercury. Five sediment sample locations proposed for the Unnamed Ponds are shown on Figure 7.

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead were greater than 1 for the tree swallow in the Unnamed Ponds. Aerial insect tissue data will be collected for copper and lead to evaluate potential risk to the tree swallow. Two light trap sample locations proposed for the Unnamed Ponds are shown on Figure 7.

The surface water dataset for the Unnamed Ponds does not contain any dissolved metals data. Additional surface water data will be collected to analyze for both total and dissolved metals along with general chemistry parameters (pH, hardness and total suspended solids). Additionally, MeHg will be analyzed in surface water samples collected for mercury. Five surface water sample locations proposed for the unnamed ponds are shown on Figure 7.

4.3.1.1.4 Northeast Ponds

The upper trophic level hazard quotient based on lowest observed effects levels (HQ_{LOAEL}) for copper is greater than 1 for the tree swallow in the Northeast Ponds. Aerial insect tissue data will be collected for copper to evaluate potential risk to the tree swallow. One light trap sample location proposed for the Northeast Ponds is shown on Figure 8.

4.3.1.2 Southern Drainage Area Sampling Locations

4.3.1.2.1 Central Drainage Basin

Hazard quotients based on benthic severe effects levels (HQ_{SELs}) are greater than 1 for several PAHs (acenaphthene, acenaphthylene, fluorene, naphthalene, and phenanthrene), lead, and mercury. Sediment chemistry data will be collected for PAHs and metals with HQ_{SELs} above 1, along with AVS/SEM to evaluate current concentrations and bioavailability. Additionally, MeHg will be analyzed in sediment samples collected for mercury. Ten sediment sample locations proposed for the central drainage basin are shown on Figure 10.

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead are greater than 1 for the tree swallow and for fluoranthene in little brown bat in the Central Drainage Basin. Aerial insect tissue data will be collected for fluoranthene, copper, and lead to evaluate potential risk to the tree swallow and little brown bat. Two light trap sample locations proposed for the central drainage basin are shown on Figure 10.

4.3.1.2.2 Maintenance-Dynamite Area – West

The hazard quotient based on benthic severe effects level (HQ_{SEL}) is greater than 1 for mercury in the Maintenance-Dynamite Area-West. Additional sediment chemistry data will be collected for mercury along with MeHg and AVS/SEM to evaluate current concentrations and bioavailability. Five sediment sample locations proposed for the Maintenance-Dynamite Area-West are shown on Figure 11.

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for lead and copper are greater than 1 for the tree swallow in the Maintenance-Dynamite Area-West. Aerial insect tissue data will be collected for lead and copper to evaluate potential risk to the tree swallow. Two light trap sample locations proposed for the Maintenance-Dynamite Area-West are shown on Figure 11.

The surface water dataset for the Maintenance-Dynamite Area-West contained concentrations of total lead, copper and mercury. Additional surface water data will be collected to analyze for both total and dissolved lead, copper and mercury along with general chemistry parameters (pH, hardness and total suspended solids). Additionally, MeHg will be analyzed in surface water samples collected for mercury. Five surface water sample locations proposed for the Maintenance-Dynamite Area-West are shown on Figure 11.

4.3.1.2.3 Maintenance-Dynamite Area – East

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead are greater than 1 for the tree swallow in the Maintenance-Dynamite Area-East. Aerial insect tissue data will be collected for copper and lead to evaluate potential risk to the tree swallow. Three light trap sample locations proposed for the Maintenance-Dynamite Area-East are shown on Figure 12.

The surface water dataset for the Maintenance-Dynamite Area-East contains concentrations of total lead and copper. Additional surface water data will be collected to analyze for both total and dissolved lead and copper along with general chemistry parameters (pH, hardness and total suspended solids). Five surface water sample locations proposed for the Maintenance-Dynamite Area-East are shown on Figure 12.

4.3.1.2.4 Miscellaneous Offsite Streams – Upper

The hazard quotient based on benthic severe effects level (HQ_{SEL}) is greater than 1 for lead in the Miscellaneous Offsite Streams - Upper. Additional sediment chemistry data will be collected for lead along with AVS/SEM to evaluate current lead concentrations and bioavailability. Five sediment sample locations proposed for the Miscellaneous Offsite Streams-Upper are shown on Figure 13.

The upper trophic level hazard quotient based on lowest observed effects levels (HQ_{LOAEL}) for lead is greater than 1 for the tree swallow in the Miscellaneous Offsite Streams - Upper sub area. Aerial insect tissue data will be collected for lead to evaluate potential risk to the tree swallow. One light trap sample location proposed for the Miscellaneous Offsite Streams - Upper is shown on Figure 13.

4.3.1.2.5 Maintenance-NG Area

Hazard quotients based on benthic severe effects level (HQ_{SEL}) are greater than 1 for mercury, copper and lead in the Maintenance-NG Area. Sediment chemistry data will be collected for metals with HQ_{SELs} above 1 along with AVS/SEM to evaluate current concentrations and bioavailability. Additionally, MeHg will be analyzed in sediment samples collected for mercury. Five sediment sample locations proposed for the Maintenance-NG Area are shown on Figure 15.

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead are greater than 1 for the tree swallow in the Maintenance-NG Area. Aerial insect tissue data will be collected for copper and lead to evaluate potential risk to the tree swallow. One light trap sample location proposed for the Maintenance-NG Area is shown on Figure 15.

4.3.1.2.6 TNT-PETN-NG Ditches

Hazard quotient based on benthic severe effects level (HQ_{SEL}) are greater than 1 for mercury, arsenic and lead in the TNT-PETN-NG Ditches. Additional sediment chemistry data will be collected for metals with HQ_{SELs} above 1, along with AVS/SEM to evaluate current concentrations and bioavailability. Additionally, MeHg will be analyzed in sediment samples collected for mercury. Five sediment sample locations proposed for the TNT-PETN-NG Ditches are shown on Figure 17.

Upper trophic level hazard quotients based on lowest observed effects levels (HQ_{LOAEL}) for copper and lead are greater than 1 for the tree swallow in the TNT-PETN-NG area ditches sub area. Aerial insect tissue data will be collected for copper and lead to evaluate potential risk to the tree swallow. One light trap sample location proposed for the TNT-PETN-NG area ditches is shown on Figure 17.

4.3.1.2.7 Miscellaneous TNT Ponds

The hazard quotient based on benthic severe effects level (HQ_{SEL}) is greater than 1 for lead in the Miscellaneous TNT Ponds. Additional sediment chemistry data will be collected for metals with HQ_{SELs} above 1, along with AVS/SEM to evaluate current concentrations and bioavailability. Three sediment sample locations proposed for the Miscellaneous TNT Ponds are shown on Figure 18.

4.4 Sampling Methods

4.4.1 Surface Water Sampling

Surface water sampling will be conducted in accordance with NJDEP Field Sampling Procedures Manual (FSPM) (NJDEP 2005) and will include surface water sample collection via bottle transfer or bacon bomb sampler. Locations will be sampled at six inches above the sediment surface. If insufficient water (less than 3 inches) or habitat for aquatic life is present, a surface water sample will not be collected.

Surface water sampling locations will be accessed by land working from the most downstream location to upstream. A handheld GPS unit will be used to record each sampling location. Horizontal coordinates will be referenced in feet to the North American Datum of 1983 New Jersey State Plane Coordinate System. Prior to sample collection, *in-situ* water quality parameters will be recorded from six inches above the sediment surface at each sample location if standing water is present. *In-situ* parameters include temperature, pH, dissolved oxygen, oxidation-reduction potential, turbidity, conductivity, and salinity. A combination water quality meter will be lowered to the appropriate depth and allowed to equilibrate prior to recording the readings in the field notebook.

Water depth will be measured and recorded at each surface water sampling location. Surface water samples will be collected and submitted to Eurofins Lancaster Laboratories Environmental (Eurofins) in Lancaster, PA, a New Jersey Environmental Laboratory Accreditation Program (NJELAP)-accredited laboratory. Surface water samples will be analyzed for metals, pH, hardness and total suspended solids using USEPA Methods 6020A, 5310C, 9040C, 130.2 and 160.2, respectively.The laboratory will prepare “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

Quality Assurance/Quality Control (QA/QC) samples will include the collection of one field blank taken at the conclusion of each sampling day, one blind duplicate sample per twenty samples, and one matrix spike/matrix spike duplicate (MS/MSD) sample per twenty samples.

4.4.2 Sediment Sampling

Sediment sampling will be conducted in accordance with the current NJDEP FSPM (NJDEP 2005). Sediment samples will be collected from 0-0.5 feet (ft) below ground surface. Locations will be sampled for chemical and physical parameters at the 0-0.5 ft depth, to characterize chemical concentrations and bioavailability in sediment.

Sediment sampling locations will be accessed by land working from the most downstream location to upstream. A handheld GPS unit will be used to record each sampling location. Horizontal coordinates will be referenced in feet to the North American Datum of 1983 New Jersey State Plane Coordinate System. Prior to sample collection, *in-situ* water quality parameters will be recorded from six inches above the sediment surface at each sample location if standing water is present. *In-situ* parameters include temperature, pH, dissolved oxygen, oxidation-reduction potential, turbidity, conductivity, and salinity. A combination water quality meter will be lowered to the appropriate depth and allowed to equilibrate prior to recording the readings in the field notebook.

Sediment samples will be collected by driving polycarbonate tubing to desired collection depth using manual techniques (i.e., hand-held slide hammer). If the polycarbonate tubes do not appear to be collecting adequate sample volume, then other sampling methods may be used (i.e., hand auger, piston core sampler or sample tubes with a check valve attachment). At each sediment sampling location, water depth and sediment core recovery will be measured and recorded. Following sediment core collection, the cores will processed at a staging area set up on or adjacent to the Facility. A new polycarbonate tube will be used at each sample location.

Excess material from the sediment core samples and other investigative-derived waste (IDW) will be containerized and sampled for subsequent characterization and disposal.

Sediment samples will be submitted to Eurofins in Lancaster, PA, a NJELAP-accredited laboratory. Sediment samples will be analyzed for metals, PAHs, pH, TOC, AVS/SEM and grain size using USEPA Methods 6020A, 8272, 9040C, 5310C, and 6020A, and ASTM International Method D422, respectively. The laboratory will prepare “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

QA/QC samples will include the collection of one field blank taken at the conclusion of each sampling day, one blind duplicate sample per twenty samples, and one MS/MSD sample per twenty samples.

4.4.3 Ultraviolet Light Traps

Ultraviolet (UV) light traps are a standard technique for the collection of aerial adult insects. The traps are commercially available and the method is widely used as a means of collecting adult and emergent stream insects (HRNRT 2009). The light trap is a fluorescent light fixture combined with a funnel which collects and traps the insects. Deployed at night, the ultraviolet light attracts night-flying insects, and they fall into the funnel.

Aerial insects will be collected from the targeted water bodies at the Facility using UV light traps beginning at dusk over the course of one evening at each location. If poor weather (i.e., storms, high wind) affects the collection effort, a second night during more favorable weather may be scheduled. One light trap will be set up at each sample location and will be allowed to run continuously from dusk to dawn. At the end of the night, the traps will be emptied and the collected insects will be preserved on ice for tissue analysis.

Tissue samples will be submitted to Eurofins in Lancaster, PA, a NJELAP-accredited laboratory. Tissue samples will be analyzed for metals and PAHs using USEPA Methods 6020A and 8272, respectively. The laboratory will prepare “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

QA/QC samples will include the collection of one field blank taken at the conclusion of each sampling day and one MS/MSD sample per twenty samples.

4.5 Schedule and Reporting

Field sampling activities will occur in June 2016. Following receipt of results from Eurofins, K/J will prepare an ERA Addendum to be submitted to the LSRP by December 2016. The ERA

addendum will summarize the results of the field sampling efforts, refine risk models and provide additional recommendations for sampling or remedy as needed.

Section 5: References

Azar, A., H.J. Trochimowicz, and M.E. Maxwell. 1973. Review of lead studies in animals carried out at Haskell Laboratory: two-year feeding study and response to hemorrhage study. In: Environmental Health Aspects of Lead: Proceedings, International Symposium, D. Barth et al., eds. Commission of European Communities. Pp. 199-210.

Beal, F. E. L. 1918. Food habits of the swallows, a family of valuable native birds. U.S. Dept. Agric. Bull. 619.

Beyer, W.N. 2013. Toxic exposure of songbirds to Lead in the Southeast Missouri Lead Mining District. *Arch Environ Contam Toxicol* (DOI 10.1007/s00244-013-9923-2).

CH2MHill. 2005. Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates. Technical Memorandum. Prepared by Mark S. Johnson, USACHPPM. Prepared for Allen Tsao and Brad Sample (CH2M HILL). June 27.

Davis, W.H., and H.B. Hitchcock. 1965 Biology and migration of the bat, *Myotis lucifigus*, in New England. *Journal of Mammalogy*. 46:296-313.

Edens, F., W.E. Benton, S.J. Bursian, and G.W. Morgan. 1976. Effect of dietary lead on reproductive performance in Japanese quail. *Appl Pharmacol* 38: 307-314.

Hansen, J.A., D. Audet, B.L. Spears, K.A. Healy, R.E. Brazzle, D.J. Hoffman, A. Dailey, and W.N. Beyer. 2011. Lead exposure and poisoning of songbirds using the Coeur d'Alene River Basin, Idaho. *Integr Environ Assess Manag* 7(4):587-595.

Hercules, Inc. 2007. Remedial Investigation Report – Volumes A through E. Prepared for Hercules Incorporated. December 2006 through May 2007.

Hercules, Inc. 2009. Additional Groundwater Remedial Investigation Sampling Report. Prepared for Hercules Inc., June 2009.

Hercules, Inc. 2016a. Ecological Evaluation/Ecological Risk Assessment (EE/ERA). Hercules Incorporated. Kenvil Works Facility, Kenvil, Morris County, New Jersey. June.

Hercules, Inc. 2016b. Phase II Remedial Investigation Report – Volumes A through E. Prepared for Hercules, Inc. May 2016.

Hudson River Natural Resource Trustees (HRNRT). 2009. Data Report – Organochlorine and Metal Contaminant Levels in Hudson River Aquatic Insect. Prepared by New York State, United States Department of Commerce and United States Department of the Interior. September.

Kaufman, C.A., J.R. Bennett, I. Koch, and K.J. Reimer. 2007. Lead bioaccessibility in food web intermediates and the influence on ecological risk characterization. *Environ. Sci. Technol.* 41: 5902-5907.

Kraus, J.M., D.M. Walters, J.S. Wesner, C.A. Stricker, T.S. Schmidt, and R.E. Zuellig. 2014. Metamorphosis alters contaminants and chemical tracers in insects: implications for food webs. *Environmental Science and Technology* 48: 10957-10965.

Martin, A.C., H.S. Zim, and A.L. Nelson. 1951. *American Wildlife and Plants*. New York, NY: McGraw-Hill Book Company, Inc.

NJDEP. 2005. Field Sampling Procedures Manual.

NJDEP. 2008. Site Remediation Program. Soil Cleanup Criteria (mg/kg). Available: http://www.nj.gov/dep/srp/guidance/scc/

NJDEP. 2015. Ecological Evaluation Technical Guidance. New Jersey Department of Environmental Protection Site Remediation Program. Version 1.3. February.

Robertson, R. J., B. J. Stutchbury and R. R. Cohen. 1992. Tree Swallow. In The Birds of North America, No. 11 (A. Poole, P. Stettenheim, and F. Gill, Eds.) Philadelphia: The Academy of Natural Sciences; Washington, DC; The American Ornithologists' Union.

Sample, B.E., D.M. Opresko, and G.W. Suter II. 1996. Toxicological Benchmarks for Wildlife: 1996 Revision. Oak Ridge National Laboratory. ES/ER/TM-86/R3.

Texas Tech University (Texas Tech). 2002. Wildlife Monitoring at the Anaconda Smelter Site, Deer Lodge County, Montana. Final Report. Presented to: Dr. Bill Olsen, USFWS and Dr. Dale Hoff, USEPQ Region 8. August 16.

USEPA. 1993. Wildlife Exposure Factors Handbook. EPA/600/R-93/187a. Office of Research and Development, Washington, DC. http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=2799

USEPA. 1997. Interim Final, Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments. Office of Solid Waste and Emergency Response. EPA 540/R-97/006. Office of Solid Waste and Emergency Response, Washington DC. http://www.epa.gov/oswer/riskassessment/ecorisk/ecorisk.htm

USEPA. 1999. Screening-Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Appendices C through E.

USEPA. 2005. Ecological Soil Screening Levels for Lead. Guidance for Developing Ecological Soil Screening Levels (Eco-SSL). OSWER Directive 9285.7-55. Including Attachments 4-2 through 4-5. November 2003. Revised February 2005. http://www.epa.gov/ecotox/ecossl.htm

Tables

Table 1. Northern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Sediment Screening Values		Duck Pond								Eastern Tributary							
	LEL (mg/kg)	SEL (mg/kg)	Detection Frequency	Minimum Detect	Maximum Detect	Average Detect	95UCL	EPC	HQ_{LEL}	HQ_{SEL}	Detection Frequency	Minimum Detect	Maximum Detect	Average Detect	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
SVOCs																		
Pyrene	0.49	850	13/26	0.085	4	0.632	NA	0.632	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA
Metals																		
Arsenic	6	33	34/44	1.27	41.1	8.53	9.913	9.913	**2**	<1	6/6	1.17	11.7	3.88	NA	3.88	<1	<1
Cadmium	0.6	10	41/44	0.191	4.5	0.923	1.439	1.439	**2**	<1	0/6	NA	NA	NA	NA	NA	NA	NA
Copper	16	110	44/44	7.67	556	51.7	107.1	107.1	**7**	<1	6/6	10.4	189	45.1	NA	45.1	**3**	<1
Lead	31	250	44/44	4.51	851	150	231	231	**7**	<1	6/6	7.63	235	50.7	NA	50.7	**2**	<1
Mercury	0.2	2	43/44	0.0043	0.69	0.232	0.516	0.516	**3**	<1	5/6	0.0148	0.0987	0.0495	NA	0.0495	<1	<1
Zinc	120	820	44/44	32	1110	332	402.3	402.3	**3**	<1	6/6	52.2	294	141	NA	141	<1	<1

Notes:

a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.

95 UCL = 95% upper confidence limit of the mean

COPEC = constituent of potential ecological concern

EPC = exposure point concentration

HQ = hazard quotient

LEL = lowest effect level

mg/kg = milligram(s) per kilogram

NA = not available

SEL = severe effect level

SVOCs = semivolatile organic compounds

Table 1. Northern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Sediment Screening Values		Western Tributary								Unnamed Ponds							
	LEL (mg/kg)	SEL (mg/kg)	Detection Frequency	Minimum Detect	Maximum Detect	Average Detect	95UCL	EPC	HQ_{LEL}	HQ_{SEL}	Detection Frequency	Minimum Detect	Maximum Detect	Average Detect	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
SVOCs																		
Pyrene	0.49	850	2/3	0.27	0.4	0.335	NA	0.335	<1	<1	8/12	0.091	2.2	0.763	1.248	1.248	**3**	<1
Metals																		
Arsenic	6	33	29/34	1.84	16.2	8	8.506	8.506	<1	<1	15/17	1.86	111	16	55.83	55.83	**9**	**2**
Cadmium	0.6	10	33/34	0.317	2.85	1.11	1.274	1.274	**2**	<1	14/17	0.255	7.19	1.08	2.763	2.763	**5**	<1
Copper	16	110	34/34	6.85	584	65.3	85.94	85.94	**5**	<1	17/17	3.77	357	47.8	134.7	134.7	**8**	<1
Lead	31	250	34/34	18.8	2990	228	292	292	**9**	<1	17/17	15.9	2370	214	804.2	804.2	**26**	**3**
Mercury	0.2	2	34/34	0.0444	2.79	0.701	0.946	0.946	**5**	<1	17/17	0.0079	11.4	0.877	3.75	3.75	**19**	**2**
Zinc	120	820	34/34	71.2	1000	251	310.3	310.3	**3**	<1	17/17	35.8	4500	393	1523	1523	**13**	**2**

Notes:

a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.

95 UCL = 95% upper confidence limit of the mean

COPEC = constituent of potential ecological concern

EPC = exposure point concentration

HQ = hazard quotient

LEL = lowest effect level

mg/kg = milligram(s) per kilogram

NA = not available

SEL = severe effect level

SVOCs = semivolatile organic compounds

Table 1. Northern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Sediment Screening Values		Northeast Ponds							
	LEL (mg/kg)	SEL (mg/kg)	Detection Frequency	Minimum Detect	Maximum Detect	Average Detect	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
SVOCs										
Pyrene	0.49	850	3/6	0.057	1.1	0.439	NA	0.439	<1	<1
Metals										
Arsenic	6	33	12/16	0.64	9.7	3.92	5.17	5.168	<1	<1
Cadmium	0.6	10	5/16	0.096	0.392	0.252	0.74	0.252	<1	<1
Copper	16	110	16/16	3.6	98.7	32.9	43.55	43.55	**3**	<1
Lead	31	250	16/16	9.7	214	41.8	93.49	93.49	**3**	<1
Mercury	0.2	2	15/16	0.034	0.495	0.139	0.19	0.193	<1	<1
Zinc	120	820	16/16	10.6	929	136	249.90	249.9	**2**	<1

Notes:

a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.

95 UCL = 95% upper confidence limit of the mean

COPEC = constituent of potential ecological concern

EPC = exposure point concentration

HQ = hazard quotient

LEL = lowest effect level

mg/kg = milligram(s) per kilogram

NA = not available

SEL = severe effect level

SVOCs = semivolatile organic compounds

Table 2. Southern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

COPEC	Sediment Screening Values		Central Drainage Basin								Development Area							
	LEL	SEL	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
Metals (mg/kg)																		
Arsenic	6	33	13/15	2.64	97.3	29.2	47.4	47	**8**	<1	14/14	1.91	31.6	6.50	13.73	14	**2**	<1
Copper	16	110	14/15	6.88	217	53.3	83.5	83	**5**	<1	14/14	6.55	59.4	17.2	22.6	23	<1	<1
Lead	31	250	14/15	9.43	3400	822	1194	1194	**39**	**5**	14/14	7.75	77.6	35.9	44.8	45	<1	<1
Manganese	630	1100	2/2	697	2400	1550	NA	1550	**2**	<1	0/0	NA	NA	NA	NA	NA	NA	NA
Mercury	0.2	2	15/15	0.0205	6.55	1.81	4.27	4	**21**	**2**	10/14	0.011	0.704	0.168	0.249	0	<1	<1
Selenium	NA	NA	0/2	NA	NA	NA	NA	NA	NA	NA	1/2	4.7	4.7	4.70	NA	5	NA	NA
SVOCs (ug/kg)																		
2,4-Dinitrotoluene	14.4	NA	0/5	NA	NA	NA	NA	NA	NA	NA	0/2	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	16	500	2/7	250	140000	70100	NA	70100	**4381**	**140**	0/2	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	44	640	2/7	340	900000	450000	NA	450000	**10227**	**703**	0/2	NA	NA	NA	NA	NA	NA	NA
Anthracene	220	370000	2/7	200	1100000	550000	NA	550000	**2500**	<1	0/2	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	320	1480000	4/7	72	1500000	375000	NA	375000	**1172**	<1	1/2	120	140	140	NA	140	<1	<1
Benzo[a]pyrene	370	1440000	4/7	70	900000	225000	NA	225000	**608**	<1	1/2	93	110	110	NA	110	<1	<1
Benzo[k]fluoranthene	240	1340000	4/7	41	580000	145000	NA	145000	**604**	<1	1/2	50	72	72.0	NA	72	<1	<1
Chrysene	340	460000	4/7	70	1100000	275000	NA	275000	**809**	<1	1/2	130	140	140	NA	140	<1	<1
Dibenzo[a,h]anthracene	60	130000	2/7	120	180000	90100	NA	90100	**1502**	<1	0/2	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	750	1020000	6/7	110	3500000	584000	NA	584000	**779**	<1	1/2	250	310	310	NA	310	<1	<1
Fluorene	190	160000	2/7	98	1200000	600000	NA	600000	**3158**	**4**	0/2	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	200	320000	1/2	160	160	160	NA	160	<1	<1	1/2	75	75	75.0	NA	75	<1	<1
Naphthalene	160	2100	2/7	150	240000	120000	NA	120000	**750**	**57**	0/2	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	560	950000	3/7	240	5300000	1770000	NA	1770000	**3161**	**2**	1/2	57	200	200	NA	200	<1	<1
Pyrene	490	850000	6/7	100	2600000	434000	NA	434000	**886**	<1	1/2	200	240	240	NA	240	<1	<1
VOCs (ug/kg)																		
Tetrachloroethene	450	990	0/4	NA	NA	NA	NA	NA	NA	NA	0/4	NA	NA	NA	NA	NA	NA	NA

Notes:
a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.
95 UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LEL = lowest effect level
mg/kg = milligram(s) per kilogram
NA = not available
SEL = severe effect level
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

Table 2. Southern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Sediment Screening Values		Maintenance Dynamite Area - East								Maintenance Dynamite Area - West							
	LEL	SEL	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
Metals (mg/kg)																		
Arsenic	6	33	40/43	1.1	28.9	7.57	8.90	9	<1	<1	34/37	1.12	72.4	12.8	16.0	16	**3**	<1
Copper	16	110	43/43	3.73	92.5	26.4	32.6	33	**2**	<1	37/37	3.3	195	25.6	31.8	32	**2**	<1
Lead	31	250	43/43	5.25	1990	184	312	312	**10**	<1	37/37	6.42	1060	173	303	303	**10**	<1
Manganese	630	1100	6/6	66.7	7280	1400	NA	1400	**2**	<1	0/0	NA	NA	NA	NA	NA	NA	NA
Mercury	0.2	2	43/43	0.0169	11	1.04	2.13	2	**11**	<1	36/37	0.0052	14.7	1.11	3.57	4	**18**	**2**
Selenium	NA	NA	3/13	1.1	4.17	1.25	NA	1	NA	NA	0/0	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)																		
2,4-Dinitrotoluene	14.4	NA	0/24	NA	NA	NA	NA	NA	NA	NA	0/20	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	16	500	4/30	79	480	149	NA	149	**9**	<1	2/20	79	320	133	NA	133	**8**	<1
Acenaphthylene	44	640	11/30	35	2400	395	414	414	**9**	<1	6/20	53	660	251	265	265	**6**	<1
Anthracene	220	370000	11/30	60	2100	428	395	395	**2**	<1	4/20	160	1600	530	NA	530	**2**	<1
Benzo[a]anthracene	320	1480000	20/30	49	4300	641	882	882	**3**	<1	13/20	79	6100	866	2401	2401	**8**	<1
Benzo[a]pyrene	370	1440000	20/30	60	4200	674	922	922	**2**	<1	11/20	78	2500	643	896	896	**2**	<1
Benzo[k]fluoranthene	240	1340000	17/30	70	2100	429	453	453	**2**	<1	10/20	60	2600	576	716	716	**3**	<1
Chrysene	340	460000	20/30	70	6600	900	1326	1326	**4**	<1	13/20	93	6100	960	2479	2479	**7**	<1
Dibenzo[a,h]anthracene	60	130000	10/30	50	560	206	164	164	**3**	<1	6/20	62	540	210	224	224	**4**	<1
Fluoranthene	750	1020000	24/30	47	11000	1360	2180	2180	**3**	<1	14/20	110	7800	1090	3060	3060	**4**	<1
Fluorene	190	160000	7/30	59	1500	379	279	279	<1	<1	3/20	66	300	172	NA	172	<1	<1
Indeno[1,2,3-cd]pyrene	200	320000	12/13	78	2200	576	799	799	**4**	<1	0/0	NA	NA	NA	NA	NA	NA	NA
Naphthalene	160	2100	4/30	82	770	242	NA	242	2	<1	1/20	130	130	140	NA	140	<1	<1
Phenanthrene	560	950000	19/30	76	9700	1180	1778	1778	**3**	<1	13/20	60	1700	399	875	875	**2**	<1
Pyrene	490	850000	25/30	47	13000	1380	3748	3748	**8**	<1	17/20	54	16000	1680	6164	6164	**13**	<1
VOCs (ug/kg)																		
Tetrachloroethene	450	990	0/13	NA	NA	NA	NA	NA	NA	NA	0/16	NA	NA	NA	NA	NA	NA	NA

Notes:
a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.
95 UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LEL = lowest effect level
mg/kg = milligram(s) per kilogram
NA = not available
SEL = severe effect level
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

Table 2. Southern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Sediment Screening Values		Maintenance - NG Area								Miscellaneous TNT Ponds							
	LEL	SEL	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
Metals (mg/kg)																		
Arsenic	6	33	21/22	2.05	61.3	14.5	28.7	29	**5**	<1	6/6	8.03	88.1	27.6	NA	28	**5**	<1
Copper	16	110	22/22	13.7	979	110	281	281	**18**	**3**	6/6	3.27	65.8	24.1	NA	24	2	<1
Lead	31	250	22/22	27.9	12500	869	3075	3075	**99**	**12**	6/6	959	148000	25900	NA	25900	**835**	**104**
Manganese	630	1100	2/2	309	1360	835	NA	835	<1	<1	1/1	40.3	40.3	40.3	NA	40	<1	<1
Mercury	0.2	2	22/22	0.0692	27	1.84	6.57	7	**33**	**3**	6/6	0.024	0.74	0.313	NA	0	**2**	<1
Selenium	NA	NA	0/3	NA	NA	NA	NA	NA	NA	NA	0/1	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)																		
2,4-Dinitrotoluene	14.4	NA	1/5	120	560	560	NA	560	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	16	500	1/7	98	98	98	NA	98	**6**	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	44	640	1/7	180	180	139	NA	139	**3**	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Anthracene	220	370000	3/7	150	520	280	NA	280	<1	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	320	1480000	5/7	100	2800	758	NA	758	**2**	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	370	1440000	5/7	81	2400	682	NA	682	**2**	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	240	1340000	6/7	99	1500	395	NA	395	**2**	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Chrysene	340	460000	5/7	120	2600	814	NA	814	**2**	<1	1/1	190	190	190	NA	190	<1	<1
Dibenzo[a,h]anthracene	60	130000	2/7	110	470	290	NA	290	**5**	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	750	1020000	5/7	180	4600	1300	NA	1300	**2**	<1	1/1	260	260	260	NA	260	<1	<1
Fluorene	190	160000	1/7	120	120	120	NA	120	<1	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	200	320000	3/3	170	260	207	NA	207	<1	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Naphthalene	160	2100	1/7	160	160	140	NA	140	<1	<1	0/1	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	560	950000	5/7	80	1700	564	NA	564	<1	<1	1/1	150	150	150	NA	150	<1	<1
Pyrene	490	850000	6/7	61	4900	1130	NA	1130	**2**	<1	1/1	180	180	180	NA	180	<1	<1
VOCs (ug/kg)																		
Tetrachloroethene	450	990	0/6	NA	NA	NA	NA	NA	NA	NA	0/2	NA	NA	NA	NA	NA	NA	NA

Notes:
a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.
95 UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LEL = lowest effect level
mg/kg = milligram(s) per kilogram
NA = not available
SEL = severe effect level
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

Table 2. Southern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Sediment Screening Values		Miscellaneous Offsite Streams - Lower								Miscellaneous Offsite Streams - Upper							
	LEL	SEL	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
Metals (mg/kg)																		
Arsenic	6	33	21/36	0.71	12.1	4.75	4.98	5	<1	<1	22/25	1	31.8	5.21	6.91	7	<1	<1
Copper	16	110	36/36	2.13	60.7	17.8	21.2	21	<1	<1	25/25	3.13	47.4	19.8	26.5	26	**2**	<1
Lead	31	250	36/36	4.43	206	58.3	69.6	70	**2**	<1	25/25	4.7	588	144	417	417	**13**	**2**
Manganese	630	1100	4/4	109	394	305	NA	305	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.2	2	31/36	0.0133	0.37	0.107	0.124	0	<1	<1	24/25	0.0229	4.14	0.607	1.015	1	**5**	<1
Selenium	NA	NA	1/5	5.58	5.58	5.58	NA	6	NA	NA	0/2	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)																		
2,4-Dinitrotoluene	14.4	NA	0/17	NA	NA	NA	NA	NA	NA	NA	0/4	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	16	500	2/20	51	99	85.0	NA	85	**5**	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	44	640	8/20	39	210	94.9	132.5	133	**3**	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Anthracene	220	370000	11/20	37	440	184	226	226	<1	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	320	1480000	13/20	70	1500	505	611	611	**2**	<1	2/4	50	78	64.0	NA	64	<1	<1
Benzo[a]pyrene	370	1440000	13/20	90	1500	523	633	633	**2**	<1	2/4	53	91	72.0	NA	72	<1	<1
Benzo[k]fluoranthene	240	1340000	13/20	46	710	257	325	325	<1	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Chrysene	340	460000	15/20	81	1600	551	671	671	**2**	<1	3/4	43	130	93	NA	93	<1	<1
Dibenzo[a,h]anthracene	60	130000	8/20	51	260	115	146	146	**2**	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	750	1020000	15/20	130	2600	929	1101	1101	<1	<1	3/4	57	160	122	NA	122	<1	<1
Fluorene	190	160000	6/20	46	130	83.0	101.4	101	<1	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene	200	320000	3/5	59	310	173	NA	173	<1	<1	1/2	57	57	57.0	NA	57	<1	<1
Naphthalene	160	2100	1/20	57	57	93.5	NA	94	<1	<1	0/4	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	560	950000	14/20	72	1500	567	657	657	<1	<1	1/4	90	90	83.5	NA	84	<1	<1
Pyrene	490	850000	15/20	150	3300	1010	1245	1245	**3**	<1	3/4	57	170	137	NA	137	<1	<1
VOCs (ug/kg)																		
Tetrachloroethene	450	990	5/21	1300	6700	3220	1610	1610	**4**	**2**	0/14	NA	NA	NA	NA	NA	NA	NA

Notes:
a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.
95 UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LEL = lowest effect level
mg/kg = milligram(s) per kilogram
NA = not available
SEL = severe effect level
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

Table 2. Southern Aquatic Drainage Area
Summary Statistics and Benthic Invertebrate Screen
Kenvil Works Facility
Kenvil, New Jersey

Analyte	Sediment Screening Values		TNT - PETN - NG Ditches							
	LEL	SEL	Detection Frequency	Min Detect	Max Detect	Average	95UCL	EPC	HQ_{LEL}	HQ_{SEL}
Metals (mg/kg)										
Arsenic	6	33	20/22	1.67	192	24.5	80.32	80	**13**	**2**
Copper	16	110	22/22	8.37	57.2	23.0	28.81	29	**2**	<1
Lead	31	250	22/22	7.28	2690	653	902.8	903	**29**	**4**
Manganese	630	1100	1/1	90.9	90.9	90.9	NA	91	<1	<1
Mercury	0.2	2	19/22	0.014	7.51	0.761	4.038	4	**20**	**2**
Selenium	NA	NA	0/2	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)										
2,4-Dinitrotoluene	14.4	NA	2/9	280	410	230	NA	230	**16**	NA
Acenaphthene	16	500	1/10	55	55	27.9	NA	28	**2**	<1
Acenaphthylene	44	640	1/10	53	53	26.9	NA	27	<1	<1
Anthracene	220	370000	5/10	57	180	92.0	151.9	152	<1	<1
Benzo[a]anthracene	320	1480000	8/10	120	710	355	434.5	435	<1	<1
Benzo[a]pyrene	370	1440000	8/10	130	840	350	465.4	465	<1	<1
Benzo[k]fluoranthene	240	1340000	8/10	84	250	188	218.9	219	<1	<1
Chrysene	340	460000	8/10	200	650	391	466.7	467	<1	<1
Dibenzo[a,h]anthracene	60	130000	5/10	63	290	174	168.6	169	**3**	<1
Fluoranthene	750	1020000	9/10	230	980	522	624.7	625	<1	<1
Fluorene	190	160000	1/10	70	70	420	NA	420	**2**	<1
Indeno[1,2,3-cd]pyrene	200	320000	2/2	93	330	212	NA	212	<1	<1
Naphthalene	160	2100	0/10	NA	NA	770	NA	NA	NA	NA
Phenanthrene	560	950000	9/10	140	880	337	440.6	441	<1	<1
Pyrene	490	850000	10/10	64	1300	638	814.5	815	**2**	<1
VOCs (ug/kg)										
Tetrachloroethene	450	990	0/6	NA	NA	NA	NA	NA	NA	NA

Notes:
a. 95 UCLs calculated on datasets with sample size greater than or equal to 8 and detects greater than or equal to 5.
95 UCL = 95% upper confidence limit of the mean
COPEC = constituent of potential ecological concern
HQ = hazard quotient
LEL = lowest effect level
mg/kg = milligram(s) per kilogram
NA = not available
SEL = severe effect level
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

Table 3
Revised Exposure Model for Short-tailed Shrew - Terrestrial Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition: Invertebrates	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d): NOAEL	TRV (mg/kg/d): LOAEL	HQ: NOAEL	HQ: LOAEL
Total PCBs	2.5	0.017	1	26	0.001	0.00004	1.9	0.36	1.28	**5**	**2**
Lead	1435	0.017	1	304	0.001	0.00004	26	8	80	**3**	0.3

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
mg/kg = milligram per kilogram
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
TRV = toxicity reference value
LOAEL = lowest observed adverse effects level

Table 4
Revised Exposure Model for American Robin - Terrestrial Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	Soil Bioaccessible Fraction	Worm Bioccessible Fraction	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg-d)		HQ	
			Inverts	Plants									NOAEL	LOAEL	NOAEL	LOAEL
Total PCBs	2.5	0.081	37.5%	62.5%	19	0.0113	0.016	0.003			0.67	1.0	0.09	1.27	**11**	1
Copper	262	0.081	37.5%	62.5%	135	17.4952	0.016	0.003			0.67	14.5	4.05	12.1	**4**	1
Lead	1435	0.081	37.5%	62.5%	284	15.6405	0.016	0.003	0.53	0.73	0.67	30.2	1.13	11.3	**27**	**3**

Notes:

Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/day = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
PCB = polychlorinated biphenyl
TRV = toxicity reference value

Table 5
Revised Exposure Model for Tree Swallow - Northern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants							NOAEL	LOAEL	NOAEL	LOAEL
Copper	65	0.0202	0.8	0.2	138	10	0.0116	0	0.67	43	4.05	12.1	**11**	**4**
Lead	182	0.0202	0.8	0.2	60	4.9	0.0116	0	0.67	18	1.13	11.3	**16**	**2**

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value
SUF = site use factor

Table 6
Revised Exposure Model for Little Brown Bat - Northern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition Invertebrates	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d) NOAEL	TRV (mg/kg/d) LOAEL	HQ NOAEL	HQ LOAEL
Copper	65	0.009	1	138	0.0016	0	0.5	12	5.6	9.34	**2**	1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Table 7
Revised Exposure Model for Tree Swallow - Southern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants							NOAEL	LOAEL	NOAEL	LOAEL
Fluoranthene	149	0.0202	0.8	0.2	97	74	0.0116	0	0.67	30	2	20	**15**	1
Copper	40	0.0202	0.8	0.2	86	8.3	0.0116	0	0.67	26	4.05	12.1	**7**	**2**
Lead	4536	0.0202	0.8	0.2	1501	30	0.0116	0	0.67	462	1.13	11.3	**409**	**41**
Selenium	1.4	0.0202	0.8	0.2	1.4	0.7	0.0116	0	0.67	0.4	0.29	0.579	1	0.7

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Table 8
Revised Exposure Model for Great Blue Heron - Southern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish					NOAEL	LOAEL	NOAEL	LOAEL
Lead	4536	2.34	1	1288	0.1348	0.0027	79	1.13	11.3	**70**	**7**

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table 9
Revised Exposure Model for Mallard Duck - Southern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants						NOAEL	LOAEL	NOAEL	LOAEL
Lead	4536	1.16	1	27	0.0603	0.0012	0.23	1.4	1.13	11.3	1	0.1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Table 10
Revised Exposure Model for Little Brown Bat - Southern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates						NOAEL	LOAEL	NOAEL	LOAEL
SVOCs												
Fluoranthene	149	0.009	1	96	0.0016	0	0.5	8.6	0.615	3.07	**14**	**3**
Pyrene	149	0.009	1	44	0.0016	0	0.5	3.9	0.615	3.07	**6**	1
Metals												
Copper	40	0.009	1	91	0.0016	0	0.5	8.1	5.6	9.34	1	0.9
Lead	4536	0.009	1	1288	0.0016	0	0.5	114	8	80	**14**	1
Selenium	1.4	0.009	1	2.2	0.0016	0	0.5	0.2	0.143	0.215	1	0.9

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
SVOC = semivolatile organic compound
TRV = toxicity reference value

Table 11
Revised Exposure Model for Mink - Southern Aquatic Drainage Area
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish						NOAEL	LOAEL	NOAEL	LOAEL
Lead	4536	0.90	1	1288	0.0452	0.0009	0.13	9.0	4.7	8.9	**2**	1

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Table 12
Revised Exposure Model for Tree Swallow - Northern Aquatic Drainage Sub Areas
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants							NOAEL	LOAEL	NOAEL	LOAEL
Duck Pond														
Copper	107	0.0202	0.8	0.2	229	12	0.0116	0	0.67	71	4.05	12.1	**18**	**6**
Lead	231	0.0202	0.8	0.2	76	5.6	0.0116	0	0.67	24	1.13	11.3	**21**	**2**
Western Tributary														
Copper	86	0.0202	0.8	0.2	184	11	0.0116	0	0.67	58	4.05	12.1	**14**	**5**
Lead	292	0.0202	0.8	0.2	97	6.4	0.0116	0	0.67	30	1.13	11.3	**27**	**3**
Unnamed Ponds														
Copper	135	0.0202	0.8	0.2	289	13	0.0116	0	0.67	90	4.05	12.1	**22**	**7**
Lead	804	0.0202	0.8	0.2	266	11	0.0116	0	0.67	83	1.13	11.3	**73**	**7**
Northeast Ponds														
Copper	44	0.0202	0.8	0.2	94	8.7	0.0116	0	0.67	30	4.05	12.1	**7**	**2**
Lead	93	0.0202	0.8	0.2	31	3.4	0.0116	0	0.67	9.7	1.13	11.3	**9**	0.9
Eastern Tributary														
Copper	14	0.0202	0.8	0.2	29	5.5	0.0116	0	0.67	9.5	4.05	12.1	**2**	0.8
Lead	20	0.0202	0.8	0.2	6.7	1.4	0.0116	0	0.67	2.2	1.13	11.3	**2**	0.2

Notes:

Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NOAEL = no observed adverse effects level
NA = not available
TRV = toxicity reference value
SUF = site use factor

Table 13
Revised Exposure Model for Tree Swallow - Southern Aquatic Drainage Sub Areas
Kenvil Works Facility
Kenvil, New Jersey

COPEC	EPC (mg/kg)	Body Weight (kg)	Dietary Composition		C_{invert} (mg/kg)	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates	Plants							NOAEL	LOAEL	NOAEL	LOAEL
Maintenance-Dynamite Area - West														
Copper	32	0.0202	0.8	0.2	68	8	0.0116	0	0.67	22	4.05	12.1	**5**	**2**
Lead	303	0.0202	0.8	0.2	100	7	0.0116	0	0.67	31	1.13	11.3	**28**	**3**
Maintenance-NG Area														
Copper	281	0.0202	0.8	0.2	601	18	0.0116	0	0.67	186	4.05	12.1	**46**	**15**
Lead	3075	0.0202	0.8	0.2	1018	24	0.0116	0	0.67	315	1.13	11.3	**279**	**28**
Maintenance-Dynamite Area - East														
Copper	33	0.0202	0.8	0.2	70	8	0.0116	0	0.67	22	4.05	12.1	**5**	**2**
Lead	312	0.0202	0.8	0.2	103	7	0.0116	0	0.67	32	1.13	11.3	**29**	**3**
TNT-PETN-NG Ditches														
Copper	29	0.0202	0.8	0.2	62	7	0.0116	0	0.67	20	4.05	12.1	**5**	**2**
Lead	903	0.0202	0.8	0.2	299	12	0.0116	0	0.67	93	1.13	11.3	**82**	**8**
Central Drainage Basin														
Copper	83	0.0202	0.8	0.2	179	11	0.0116	0	0.67	56	4.05	12.1	**14**	**5**
Lead	1194	0.0202	0.8	0.2	395	14	0.0116	0	0.67	123	1.13	11.3	**109**	**11**
Miscellaneous Offsite Streams – Upper														
Copper	26	0.0202	0.8	0.2	57	7	0.0116	0	0.67	18	4.05	12.1	**4**	1
Lead	417	0.0202	0.8	0.2	138	8	0.0116	0	0.67	43	1.13	11.3	**38**	**4**
Miscellaneous Offsite Streams – Lower														
Copper	21	0.0202	0.8	0.2	45	6	0.0116	0	0.67	14	4.05	12.1	**4**	1
Lead	70	0.0202	0.8	0.2	23	3	0.0116	0	0.67	7.4	1.13	11.3	**7**	0.7
Development Area														
Copper	23	0.0202	0.8	0.2	49	7	0.0116	0	0.67	16	4.05	12.1	**4**	1
Lead	45	0.0202	0.8	0.2	15	2	0.0116	0	0.67	4.8	1.13	11.3	**4**	0.4
Miscellaneous TNT Ponds														
Copper	24	0.0202	0.8	0.2	52	7	0.0116	0	0.67	16	4.05	12.1	**4**	1
Lead	25900	0.0202	0.8	0.2	8573	79	0.0116	0	0.67	2645	1.13	11.3	**2341**	**234**

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Table 14
Revised Exposure Model for Great Blue Heron - Southern Aquatic Drainage Sub Areas
Kenvil Works Facility
Kenvil, New Jersey

Area of Concern	Lead EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{fish} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Fish					NOAEL	LOAEL	NOAEL	LOAEL
Maintenance-Dynamite Area - West	303	2.34	1	100	0.1348	0.0027	6.1	1.13	11.3	**5**	0.5
Maintenance-NG Area	3075	2.34	1	1018	0.1348	0.0027	62	1.13	11.3	**55**	**6**
Maintenance-Dynamite Area - East	312	2.34	1	103	0.1348	0.0027	6.3	1.13	11.3	**6**	0.6
TNT-PETN-NG Ditches	903	2.34	1	299	0.1348	0.0027	18	1.13	11.3	**16**	**2**
Central Drainage Basin	1194	2.34	1	395	0.1348	0.0027	24	1.13	11.3	**21**	**2**
Miscellaneous Offsite Streams – Upper	417	2.34	1	138	0.1348	0.0027	8.4	1.13	11.3	**7**	0.7
Miscellaneous Offsite Streams – Lower	70	2.34	1	23	0.1348	0.0027	1.4	1.13	11.3	1	0.1
Development Area	45	2.34	1	15	0.1348	0.0027	0.9	1.13	11.3	0.8	0.08
Miscellaneous TNT Ponds	25900	2.34	1	8573	0.1348	0.0027	524	1.13	11.3	**463**	**46**

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value

Table 15
Revised Exposure Model for Little Brown Bat - Southern Aquatic Drainage Sub Areas
Kenvil Works Facility
Kenvil, New Jersey

Area of Concern	Fluoranthene EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{invert} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Invertebrates						NOAEL	LOAEL	NOAEL	LOAEL
Maintenance-Dynamite Area - West	3.06	0.009	1	2.0	0.0016	0	0.5	0.2	0.615	3.07	0.3	0.06
Maintenance-NG Area	1.3	0.009	1	0.8	0.0016	0	0.5	0.08	0.615	3.07	0.1	0.02
Maintenance-Dynamite Area - East	2.2	0.009	1	1.4	0.0016	0	0.5	0.1	0.615	3.07	0.2	0.04
TNT-PETN-NG Ditches	0.6	0.009	1	0.4	0.0016	0	0.5	0.04	0.615	3.07	0.06	0.01
Central Drainage Basin	584	0.009	1	381	0.0016	0	0.5	34	0.615	3.07	**55**	**11**
Miscellaneous Offsite Streams – Upper	0.1	0.009	1	0.08	0.0016	0	0.5	0.007	0.615	3.07	0.01	0.002
Miscellaneous Offsite Streams – Lower	1.1	0.009	1	0.7	0.0016	0	0.5	0.06	0.615	3.07	0.1	0.02
Development Area	0.3	0.009	1	0.2	0.0016	0	0.5	0.02	0.615	3.07	0.03	0.006
Miscellaneous TNT Ponds	0.26	0.009	1	0.2	0.0016	0	0.5	0.02	0.615	3.07	0.02	0.005

Notes:
Bolded values indicate a hazard quotient that is greater than 1.
C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Table 16
Revised Exposure Model for Muskrat - Southern Aquatic Drainage Sub Areas
Kenvil Works Facility
Kenvil, New Jersey

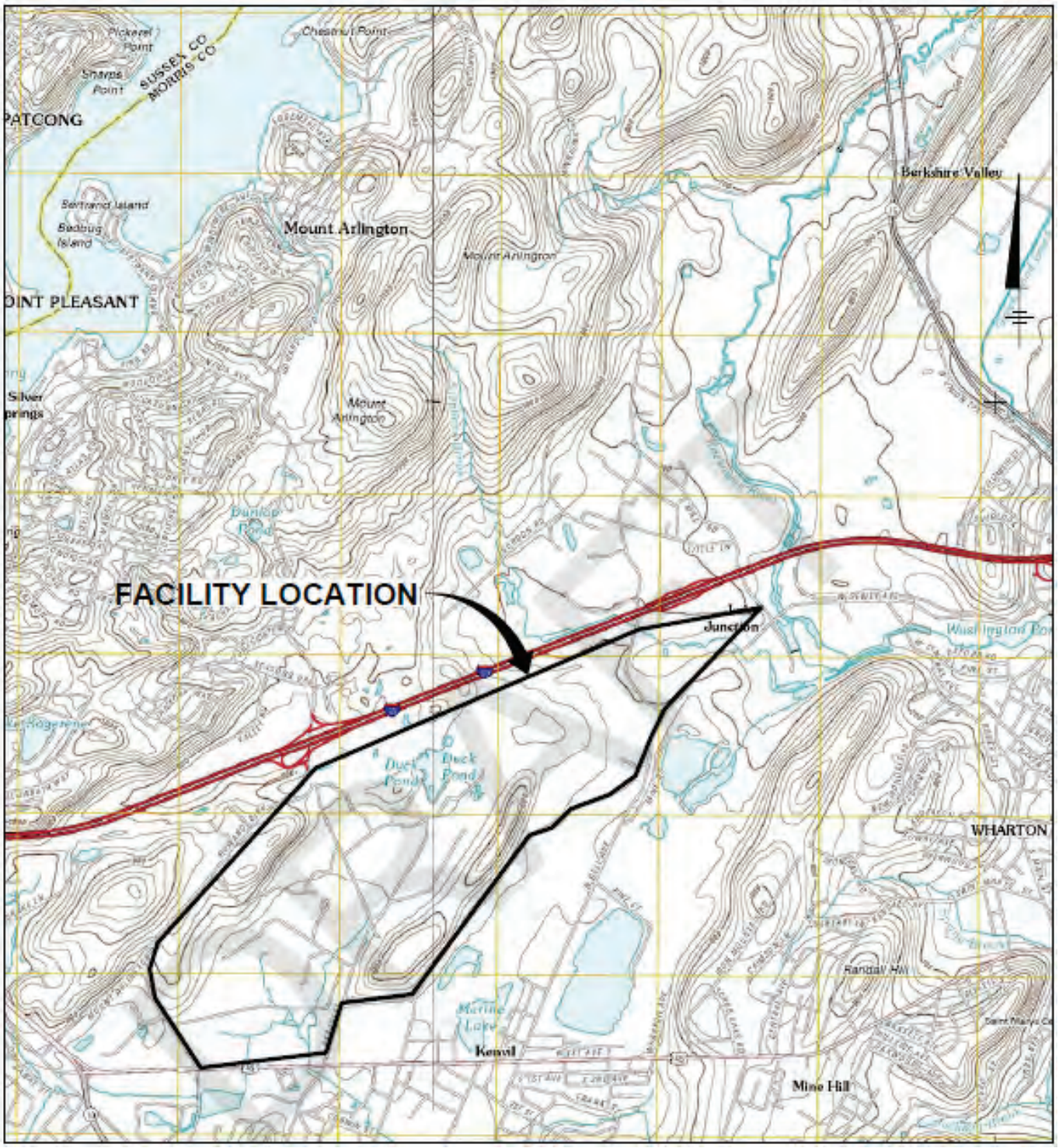
COPEC	Pyrene EPC (mg/kg)	Body Weight (kg)	Dietary Composition	C_{plant} (mg/kg)	Daily Ingestion Rate (kg/day)	Sediment Ingestion Rate (kg/day)	Daily Dietary Dose (mg/kg/d)	TRV (mg/kg/d)		HQ	
			Plants					NOAEL	LOAEL	NOAEL	LOAEL
Maintenance-Dynamite Area - West	6.2	1.17	1	4.4	0.0528	0.0011	0.2	0.615	3.07	0.3	0.07
Maintenance-NG Area	1.1	1.17	1	0.8	0.0528	0.0011	0.04	0.615	3.07	0.06	0.01
Maintenance-Dynamite Area - East	3.7	1.17	1	2.7	0.0528	0.0011	0.1	0.615	3.07	0.2	0.04
TNT-PETN-NG Ditches	0.8	1.17	1	0.6	0.0528	0.0011	0.03	0.615	3.07	0.04	0.009
Central Drainage Basin	434	1.17	1	312	0.0528	0.0011	15	0.615	3.07	**24**	**5**
Miscellaneous Offsite Streams – Upper	0.137	1.17	1	0.10	0.0528	0.0011	0.005	0.615	3.07	0.007	0.001
Miscellaneous Offsite Streams – Lower	1.245	1.17	1	0.9	0.0528	0.0011	0.04	0.615	3.07	0.07	0.01
Development Area	0.24	1.17	1	0.2	0.0528	0.0011	0.008	0.615	3.07	0.01	0.003
Miscellaneous TNT Ponds	0.18	1.17	1	0.1	0.0528	0.0011	0.006	0.615	3.07	0.010	0.002

Notes:

Bolded values indicate a hazard quotient that is greater than 1.

C = concentration
COPEC = constituent of potential ecological concern
EPC = exposure point concentration
HQ = hazard quotient
kg = kilogram
kg/day = kilogram per day
LOAEL = lowest observed adverse effects level
mg/kg = milligram per kilogram
mg/kg/d = milligram per kilogram per day
NA = not available
NOAEL = no observed adverse effects level
TRV = toxicity reference value
SUF = site use factor

Figures



SOURCES:

USGS QUADRANGLE MAPS
DOVER, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

STANHOPE, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

NEW JERSEY

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

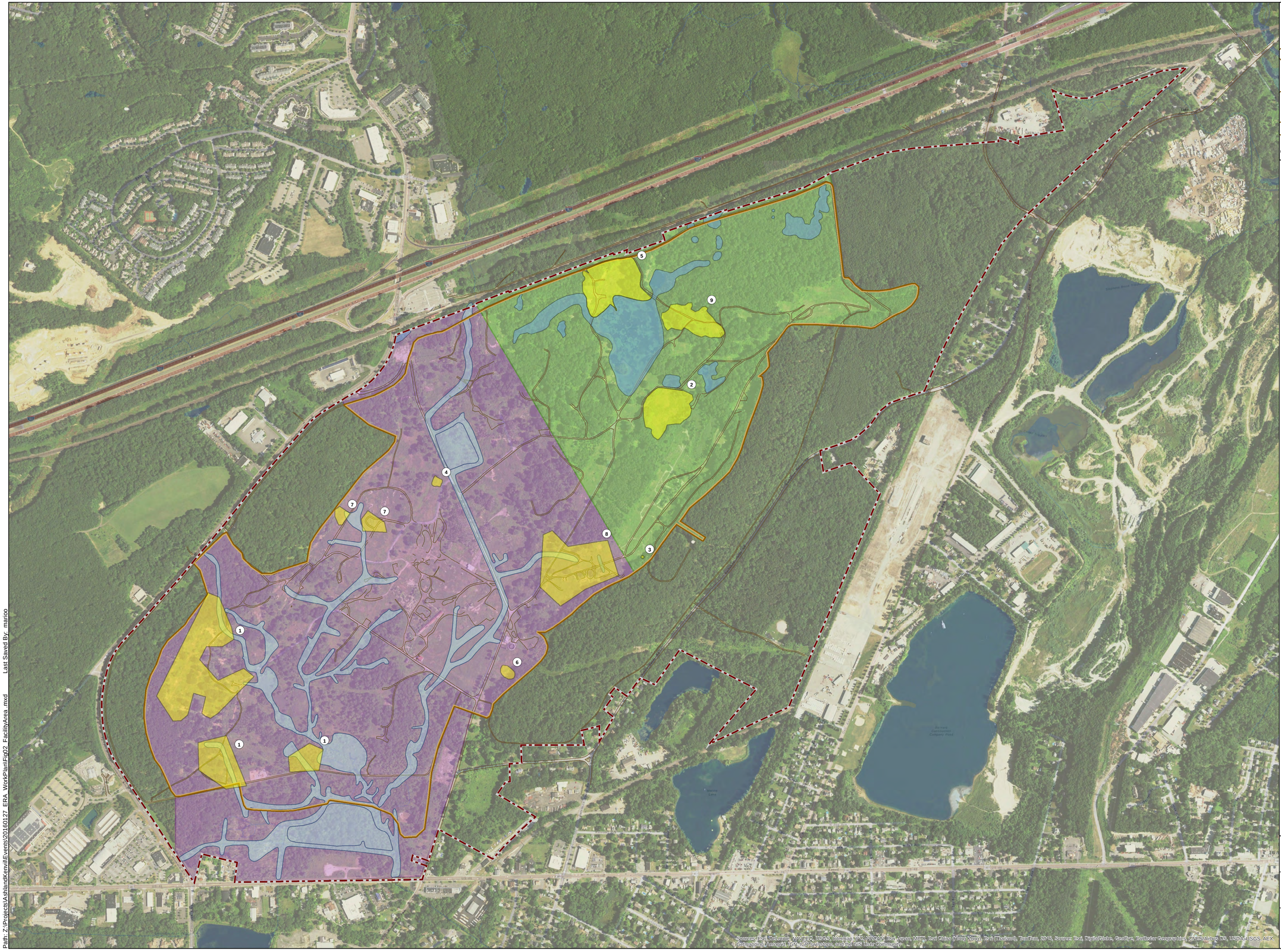
ECOLOGICAL RISK ASSESSMENT WORK PLAN

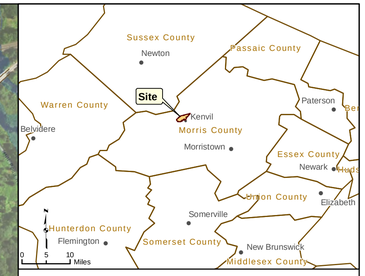
FACILITY LOCATION

HERCULES

FIGURE
1

\\sfoisgdata\Z_drive\Projects\AshlandKenvil\Events\20160127_ERA_WorkPlan





Index Map

Legend

- Site Boundary
- Remedial Area
- Area of Presumed Remedial Action

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Ponds
- Roads

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. TNT = 2,4,6-trinitrotoluene
2. DNT = dinitrotoluene
3. DIAZO = diazodinitrophenol

0 250 500 1,000
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

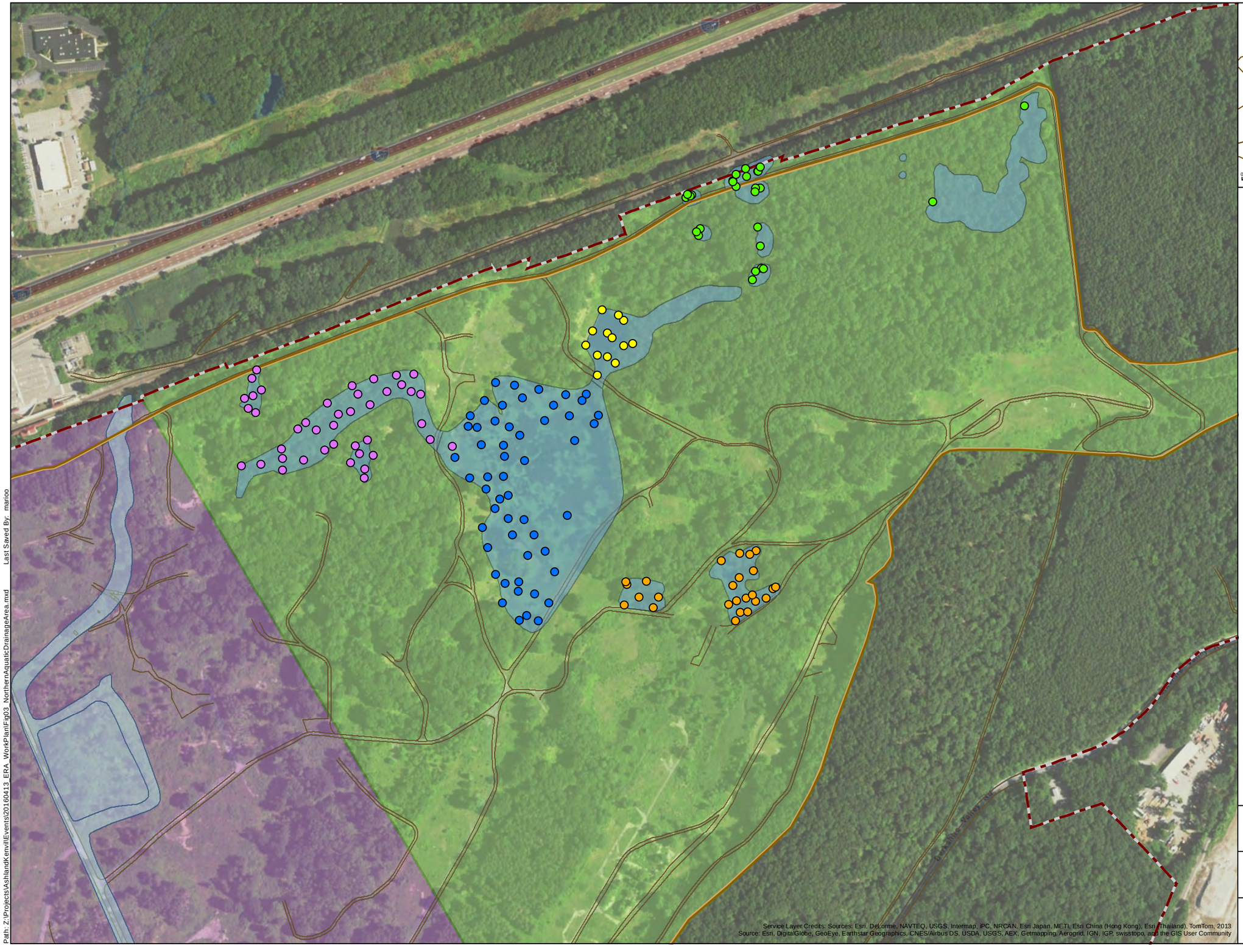
ECOLOGICAL RISK ASSESSMENT WORK PLAN

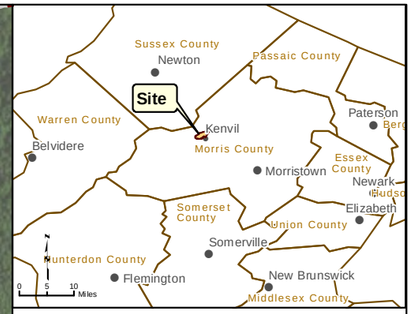
FACILITY AREA

HERCULES

FIGURE
2

Path: Z:\Projects\Ashland\Kenvil\Events\20160127_ERA_WorkPlan\Fig02_FacilityArea.mxd Last Saved By: marioo





Index Map

Legend

- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

Historical Sediment Locations Exposure Area

- Duck Pond
- Eastern Tributary
- Northeast Ponds
- Unnamed Ponds
- Western Tributary

N

0 100 200 400
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT WORK PLAN

NORTHERN AQUATIC DRAINAGE AREA

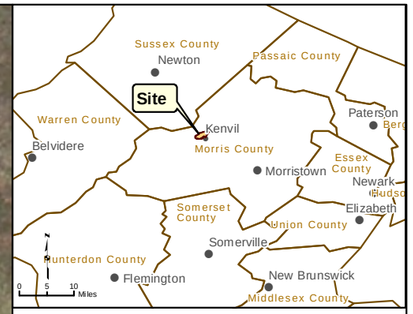
HERCULES

FIGURE
3

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig03_NorthernAquaticDrainageArea.mxd Last Saved By: marioo

SD-R-M5-16
SD-M5-2-01
SD-R-M5-03
SD-R-M5-04
SD-M5-3-01
SD-R-M5-14
SD-R-L5-02
SD-R-M5-15
SD-R-M5-07
SD-R-M5-06
SD-R-L5-01
SD-R-M5-12
SD-R-M5-05
SD-R-M5-01
SD-R-M5-11
SD-R-M5-13
SD-L5-3-01
SD-R-M5-09
SD-R-L5-13
SD-R-M5-10
SD-M6-2-01
SD-R-L5-12
SD-R-M5-08
SD-L5-2-01
SD-R-M6-02
SD-M6-1-01
SD-R-L6-04
SD-R-L6-11
SD-R-L6-05
SD-R-L6-03
SD-R-L6-10
SD-R-L6-06
SD-R-L6-02
SD-M6-3-01
SD-L6-1-01
SD-R-M6-03
SD-R-L6-07
SD-R-L6-09
SD-R-M6-01
SD-R-L6-01
SD-R-M6-04
SD-R-L6-08
SD-R-M7-06
SD-R-L7-03
SD-R-L7-04
SD-R-L7-05
SD-R-L7-07
SD-M7-1-01
SD-R-L7-02
SD-R-M7-01
SD-R-L7-08
SD-R-L7-01
SD-R-L7-06

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road

Historical Sediment Locations

- Duck Pond

N

0 30 60 120
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

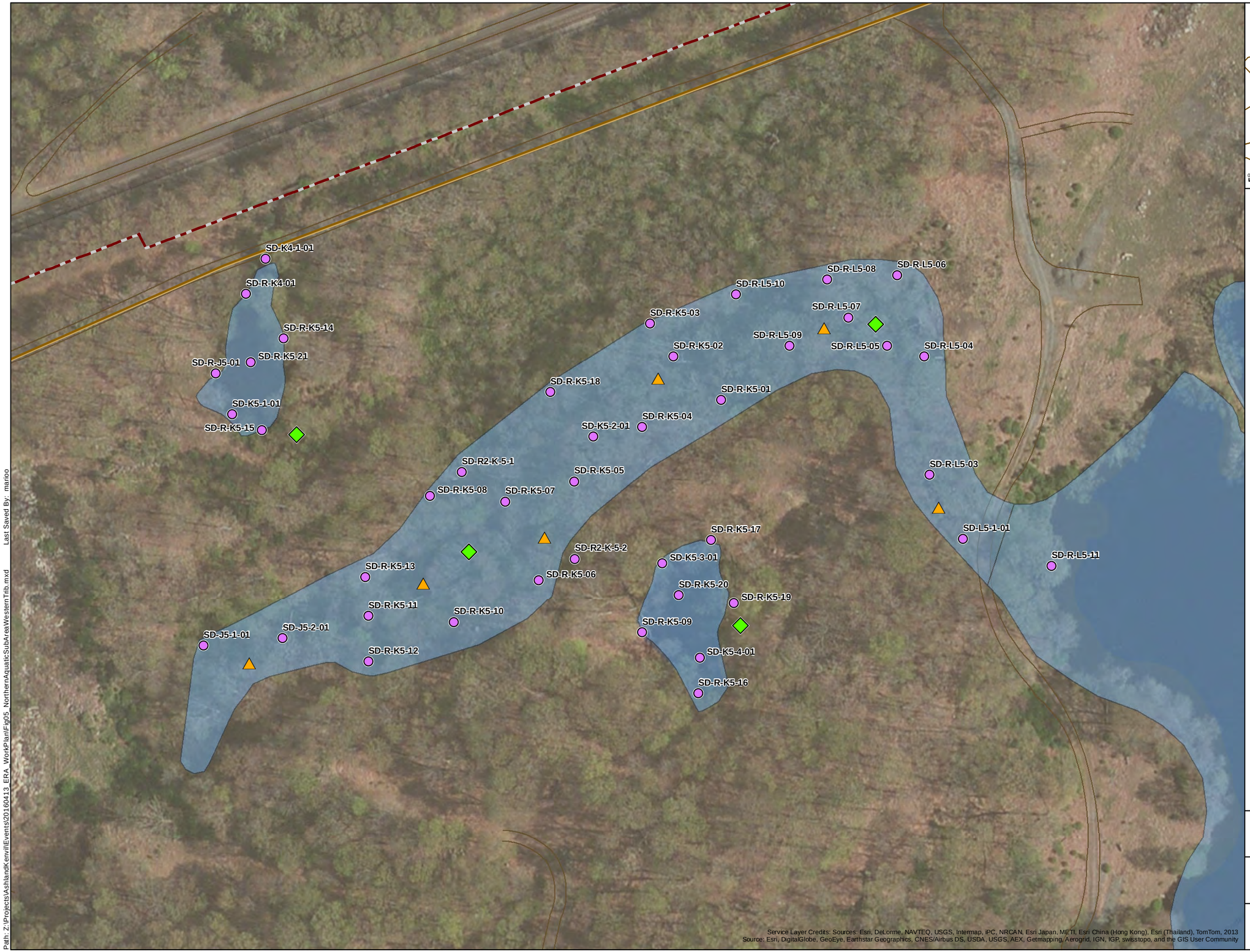
ECOLOGICAL RISK ASSESSMENT WORK PLAN

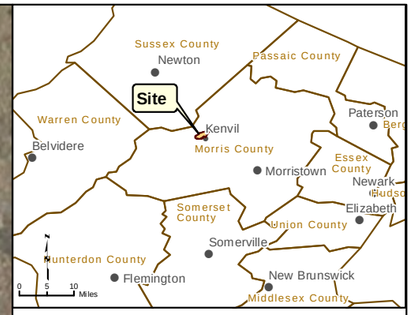
NORTHERN AQUATIC SUB AREA DUCK POND

HERCULES

FIGURE
4

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlanFig\04_NorthernAquaticSubAreaDuckPond.mxd Last Saved By: marioo





Index Map

Legend

- Site Boundary
- Remedial Area
- Pond
- Road
- Proposed Surface Water Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Western Tributary

N

0 25 50 100
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

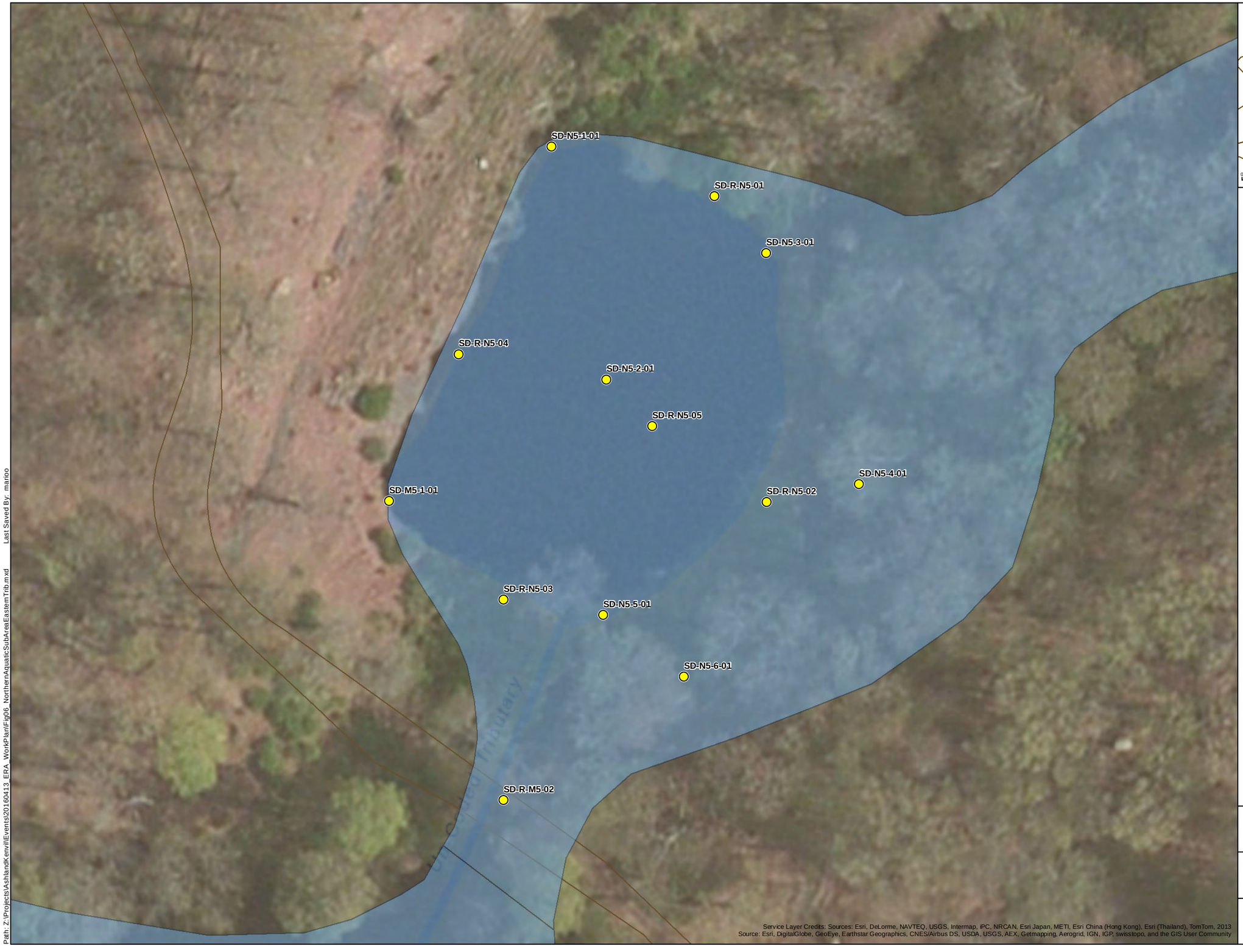
ECOLOGICAL RISK ASSESSMENT WORK PLAN

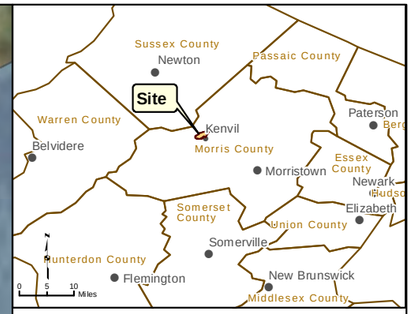
NORTHERN AQUATIC SUB AREA WESTERN TRIBUTARY

HERCULES

FIGURE
5

Path: Z:\Projects\AshlandKenvilEvents\20160413_ERA_WorkPlan\Fig05_NorthernAquaticSubAreaWesternTrib.mxd Last Saved By: marioo





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road

Historical Sediment Locations

- Eastern Tributary

N

0 10 20 40
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

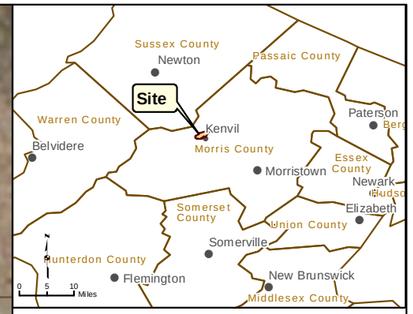
ECOLOGICAL RISK ASSESSMENT WORK PLAN

NORTHERN AQUATIC SUB AREA EASTERN TRIBUTARY

HERCULES

FIGURE
6

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig06_NorthernAquaticSubAreaEasternTrib.mxd Last Saved By: marioo



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Proposed Surface Water/ Sediment Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Unnamed Ponds

N

0 10 20 40
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

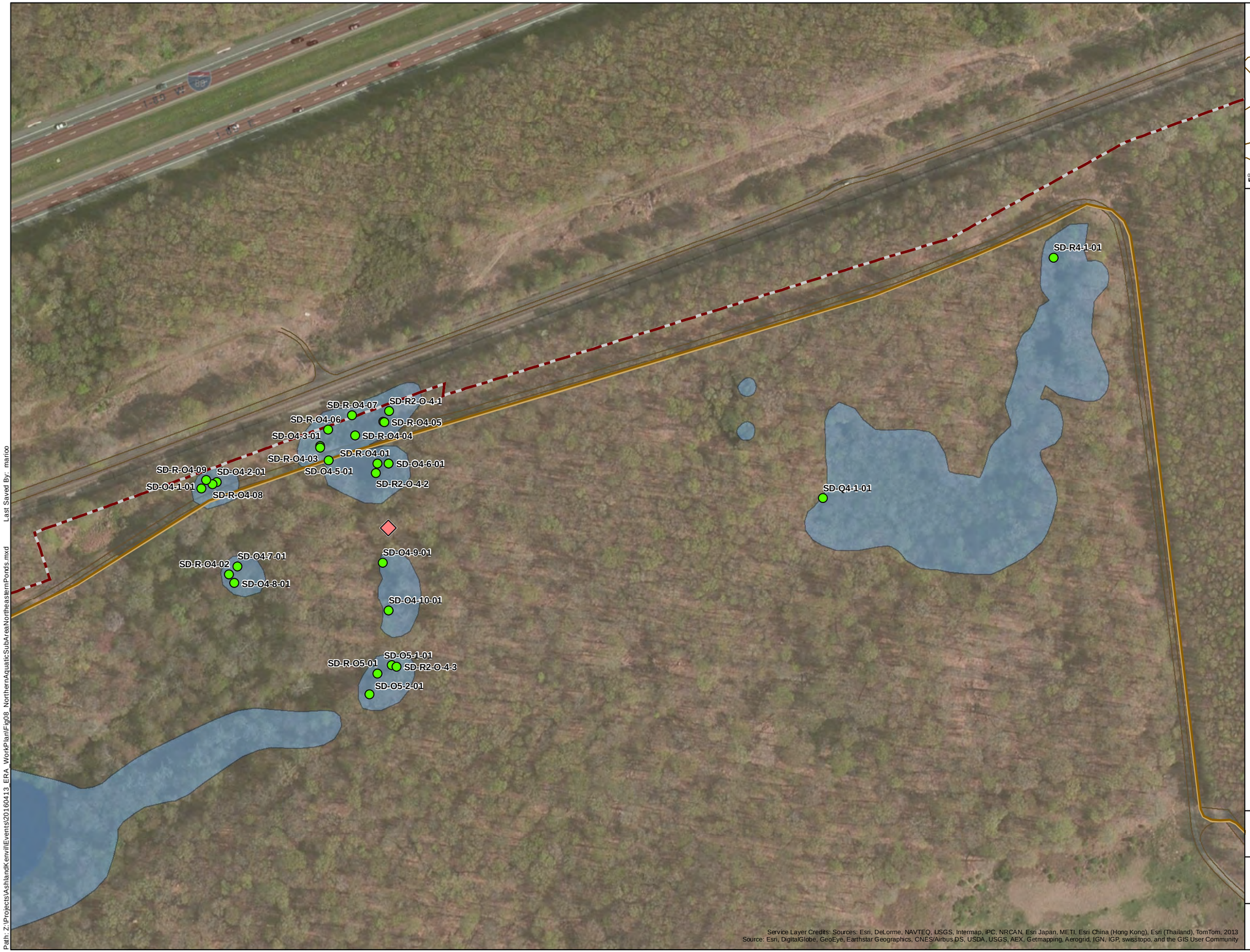
ECOLOGICAL RISK ASSESSMENT WORK PLAN

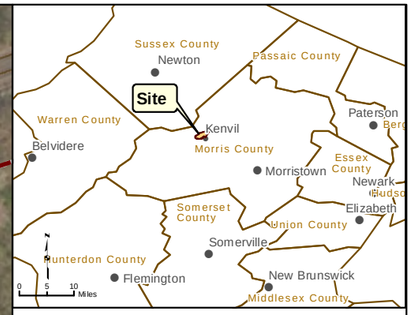
NORTHERN AQUATIC SUB AREA UNNAMED PONDS

HERCULES

FIGURE
7

Path: Z:\Projects\AshlandKenvilEvents\20160413_ERA_WorkPlan\Fig07_NorthernAquaticSubAreaUnnamedPonds.mxd Last Saved By: manoo





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Proposed Light Trap Locations

Historical Sediment Locations

- Northeast Ponds

0 40 80 160
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

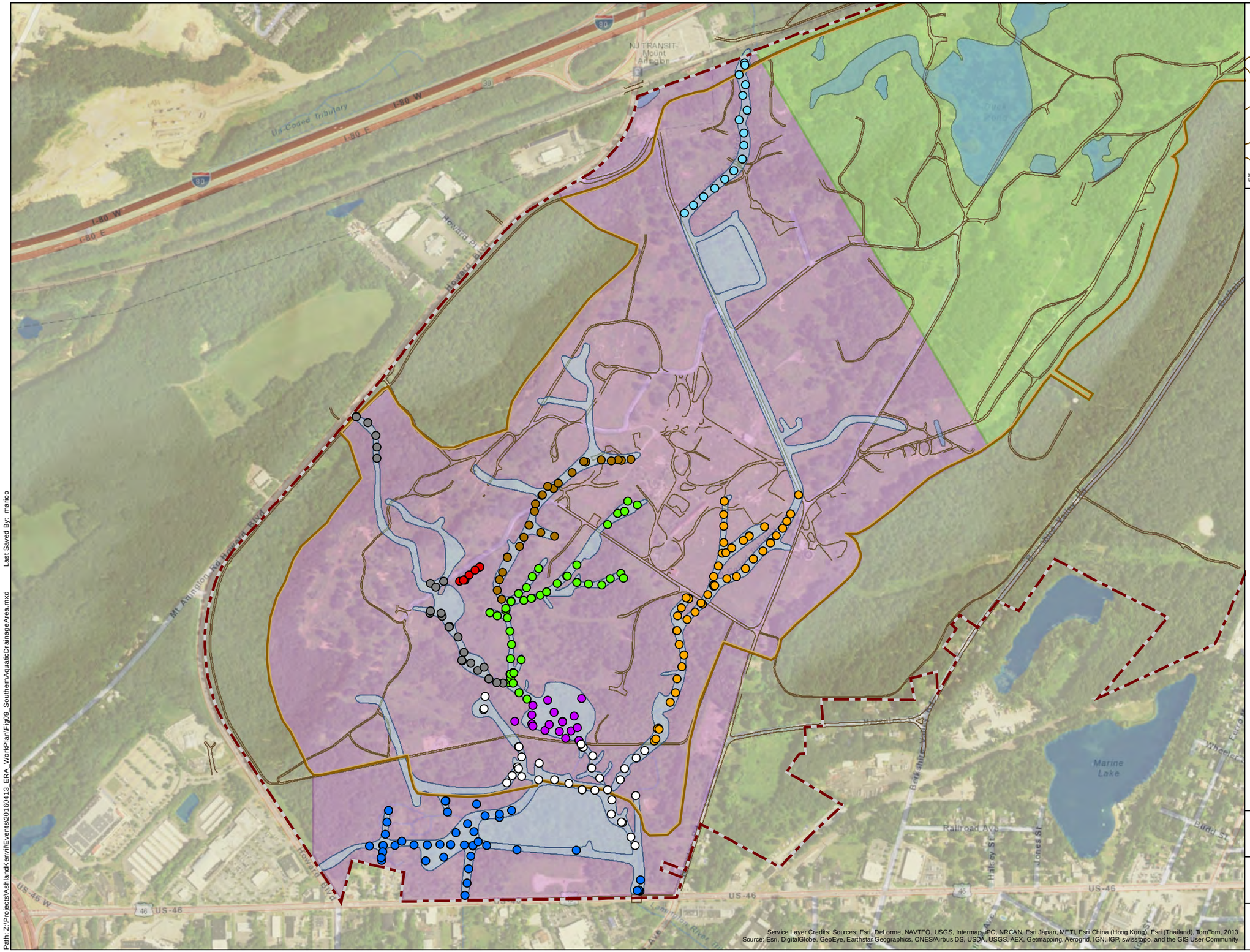
ECOLOGICAL RISK ASSESSMENT WORK PLAN

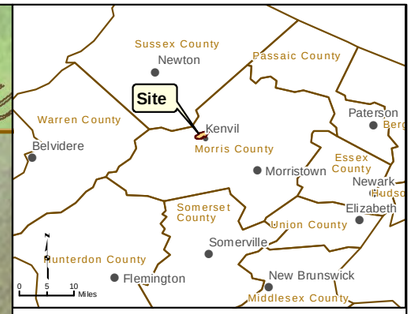
NORTHERN AQUATIC SUB AREA NORTHEAST PONDS

HERCULES

FIGURE
8

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig08_NorthernAquaticSubAreaNortheasternPonds.mxd Last Saved By: marioo





Index Map

Legend

- Site Boundary
- Remedial Area

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

Historical Sediment Locations
Exposure Area

- Central Drainage Basin
- Development Area Stream
- Maintenance Dynamite Area - East
- Maintenance Dynamite Area - West
- Maintenance NG Area
- Miscellaneous TNT Ponds
- Miscellaneous Offsite Streams - Lower
- Miscellaneous Offsite Streams - Upper
- TNT-PETN-NG Ditches

N

0 175 350 700
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

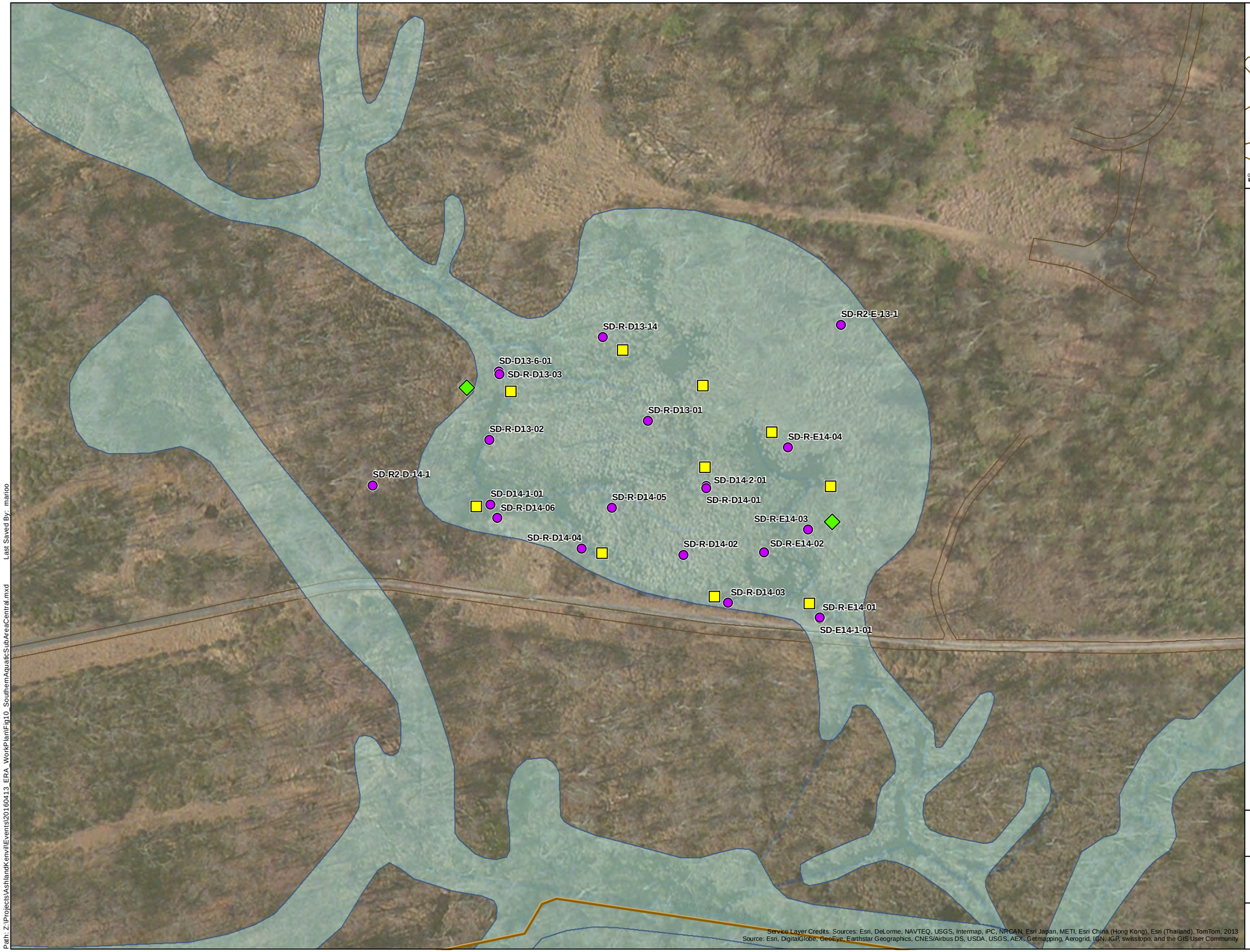
ECOLOGICAL RISK ASSESSMENT WORK PLAN

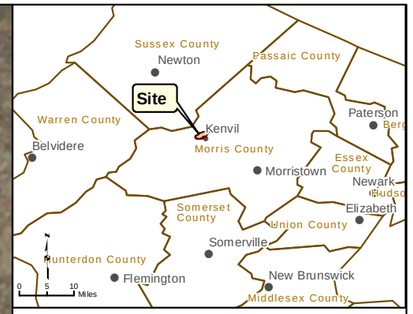
SOUTHERN AQUATIC DRAINAGE AREA

HERCULES

FIGURE
9

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig09_SouthernAquaticDrainageArea.mxd Last Saved By: marioo





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Proposed Sediment Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Central Drainage Basin

N

0 25 50 100
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

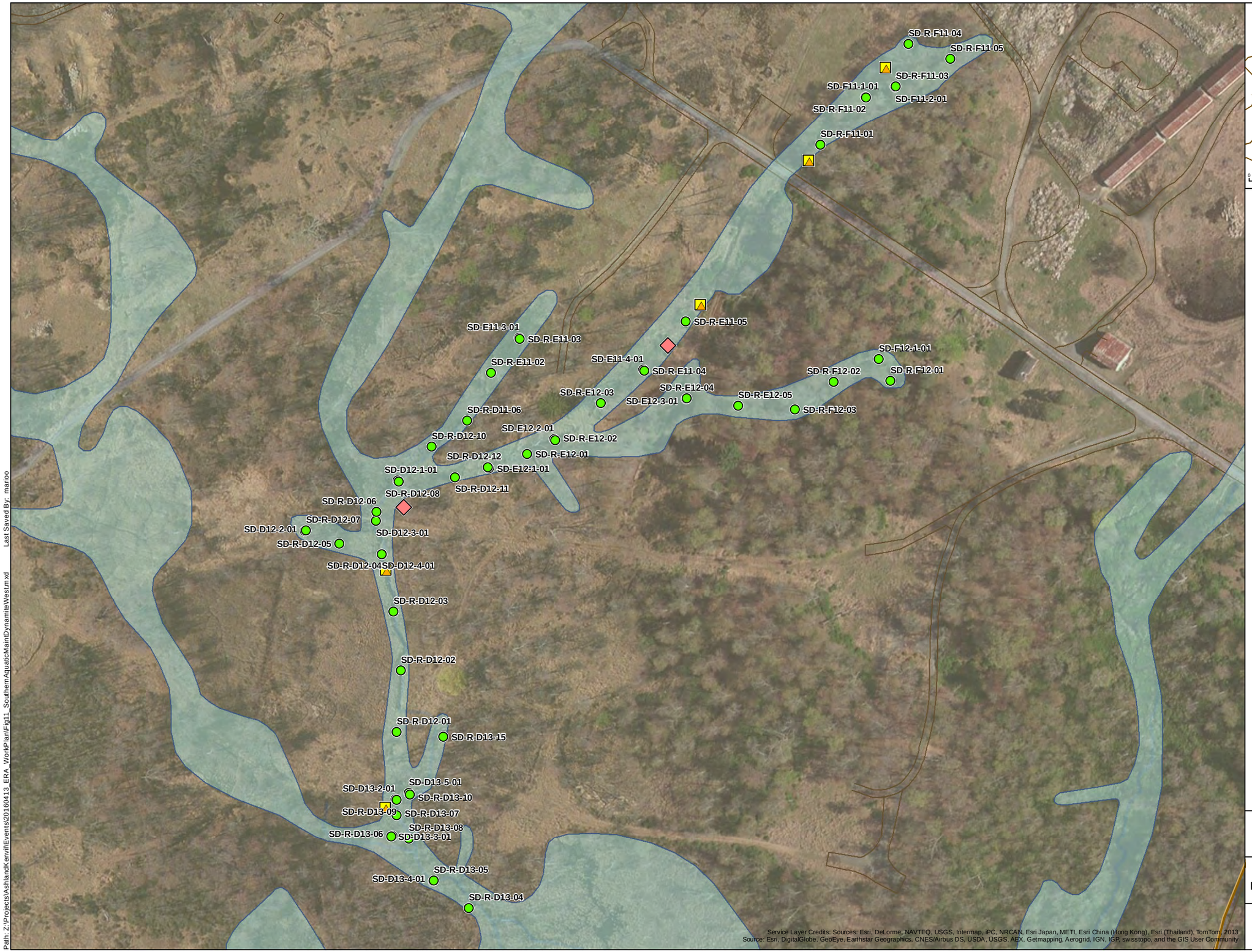
ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC SUBAREA CENTRAL DRAINAGE BASIN

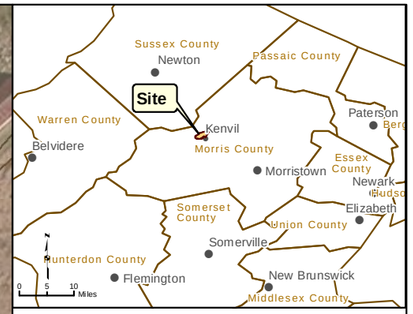
HERCULES

FIGURE **10**

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig10_SouthernAquaticSubAreaCentral.mxd Last Saved By: marioo



Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlanFig11_SouthernAquaticMainDynamiteWest.mxd Last Saved By: marioo



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Proposed Surface Water/ Sediment Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Maintanance Dynamite Area - West

N

0 40 80 160
Feet

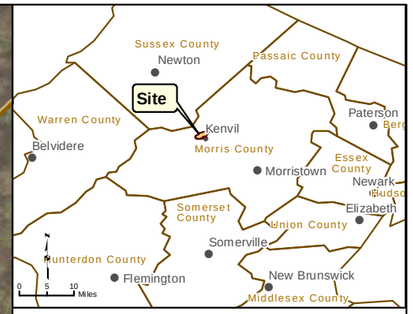
HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC SUB AREA MAINTENANCE-DYNAMITE AREA - WEST

HERCULES

FIGURE
11



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Proposed Surface Water Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Maint-Dyn East

N

0 50 100 200
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT WORK PLAN

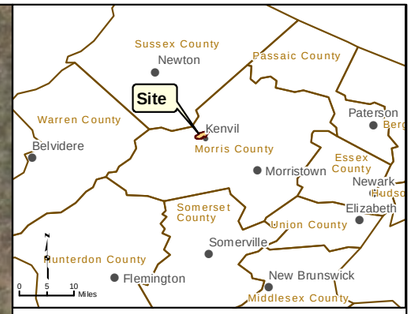
SOUTHERN AQUATIC SUB AREA MAINTENANCE-DYNAMITE AREA - EAST

HERCULES

FIGURE
12

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig12_SouthernAquaticMainDynamiteEast.mxd Last Saved By: marioo

SD-R-C13-02
SD-R-C13-01
SD-C13-1-01
SD-D14-3-01
SD-R-D14-10
SD-R-D14-09
SD-D14-4-01
SD-R-D14-08
SD-D14-5-01
SD-R-D14-07
SD-D14-6-01
SD-C14-2-01
SD-D14-7-01
SD-D14-8-01
SD-R-D15-02
SD-E14-3-01
SD-R-E14-08
SD-E14-2-01
SD-R-E14-07
SD-R-E14-10
SD-R-E14-09
SD-R-E15-08
SD-R-E15-07
SD-R-E15-06
SD-R-E15-05
SD-E15-1-01
SD-R-E15-04
SD-R-E15-03
SD-R-E15-02
SD-E15-3-01
SD-R-F14-01
SD-R-E14-06
SD-R-E14-05
SD-R-E15-01
SD-E15-2-01
SD-R-E16-03
SD-E16-2-01



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Proposed Sediment Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Miscellaneous Offsite Streams - Upper

N

0 35 70 140
Feet

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

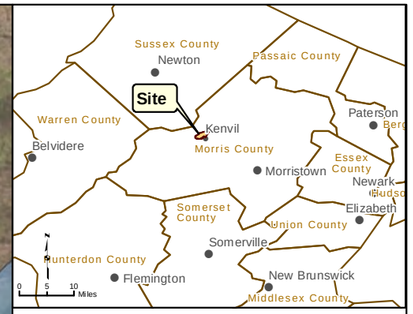
ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC SUB AREA MISCELLANEOUS OFFSITE STREAMS-UPPER

HERCULES

FIGURE
13

Path: Z:\Projects\Ashland\Kenvill\Events\20160413_ERA_WorkPlan\Fig13_SouthernAquaticOffsiteStreamUpper.mxd Last Saved By: marioo



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Pond
- Road

Historical Sediment Locations

- Development Area Stream

N

0 35 70 140
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

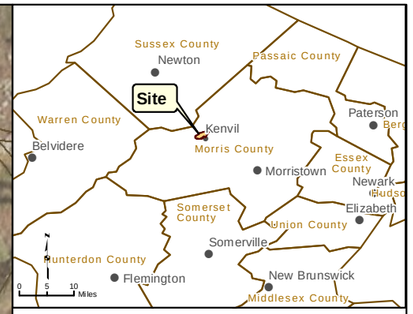
ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC SUB AREA DEVELOPMENT AREA STREAM

HERCULES

FIGURE
14

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig14_SouthernAquaticSubAreaDevAreaStream.mxd Last Saved By: marioo



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Proposed Sediment Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- Maintenance NG Area

N

0 35 70 140
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

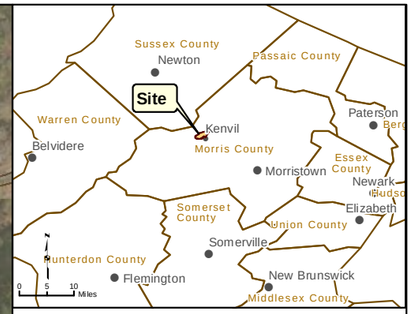
ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC SUB AREA MAINTENANCE-NG AREA

HERCULES

FIGURE
15

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig15_SouthernAquaticSubAreaDevAreaMisc.mxd Last Saved By: marioo



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road

Historical Sediment Locations

- Miscellaneous Offsite Streams - Lower

N

0 50 100 200
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT WORK PLAN

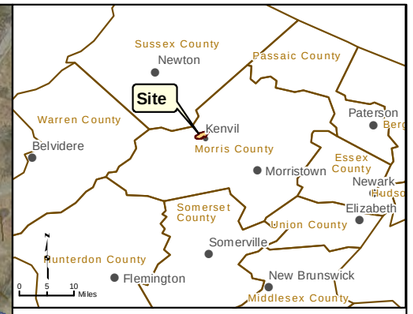
SOUTHERN AQUATIC SUB AREA MISCELLANEOUS OFFSITE STREAMS - LOWER

HERCULES

FIGURE
16

Last Saved By: mariao

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlanFig16_SouthernAquaticSubAreaOfsiteStreamLower.mxd



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Proposed Surface Water/ Sediment Locations
- Proposed Light Trap Locations

Historical Sediment Locations

- TNT-PETN-NG Ditches

N

0 60 120 240
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

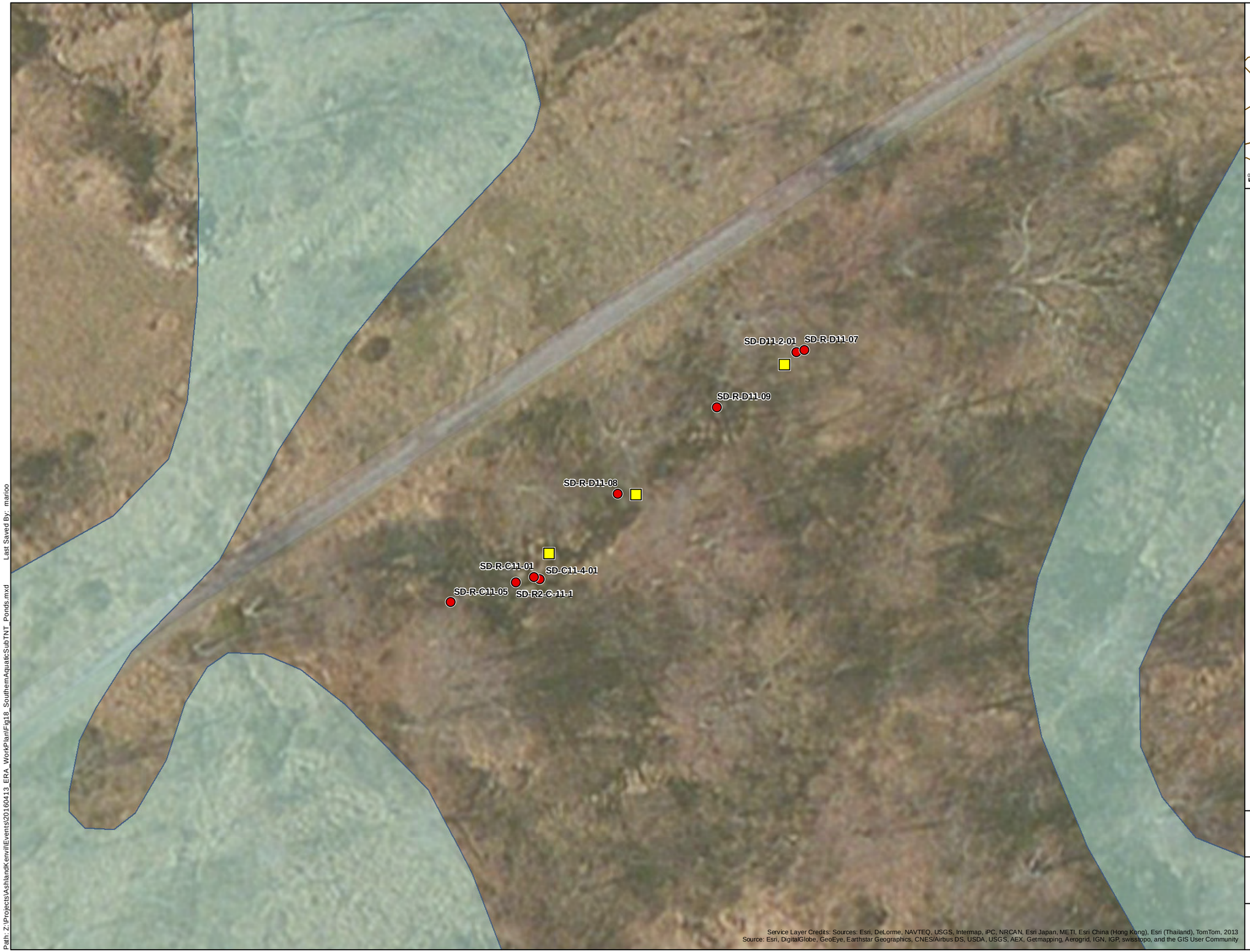
ECOLOGICAL RISK ASSESSMENT WORK PLAN

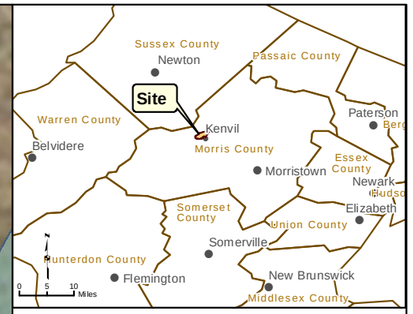
SOUTHERN AQUATIC SUB AREA TNT-PETN-NG DITCHES

HERCULES

FIGURE
17

Path: Z:\Projects\Ashland\Kenvill\Events\20160413_ERA_WorkPlan\Fig17_SouthernAquaticSubTNT.mxd Last Saved By: maricio





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Proposed Sediment Locations

Historical Sediment Locations

- Miscellaneous TNT Ponds

N

0 10 20 40
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

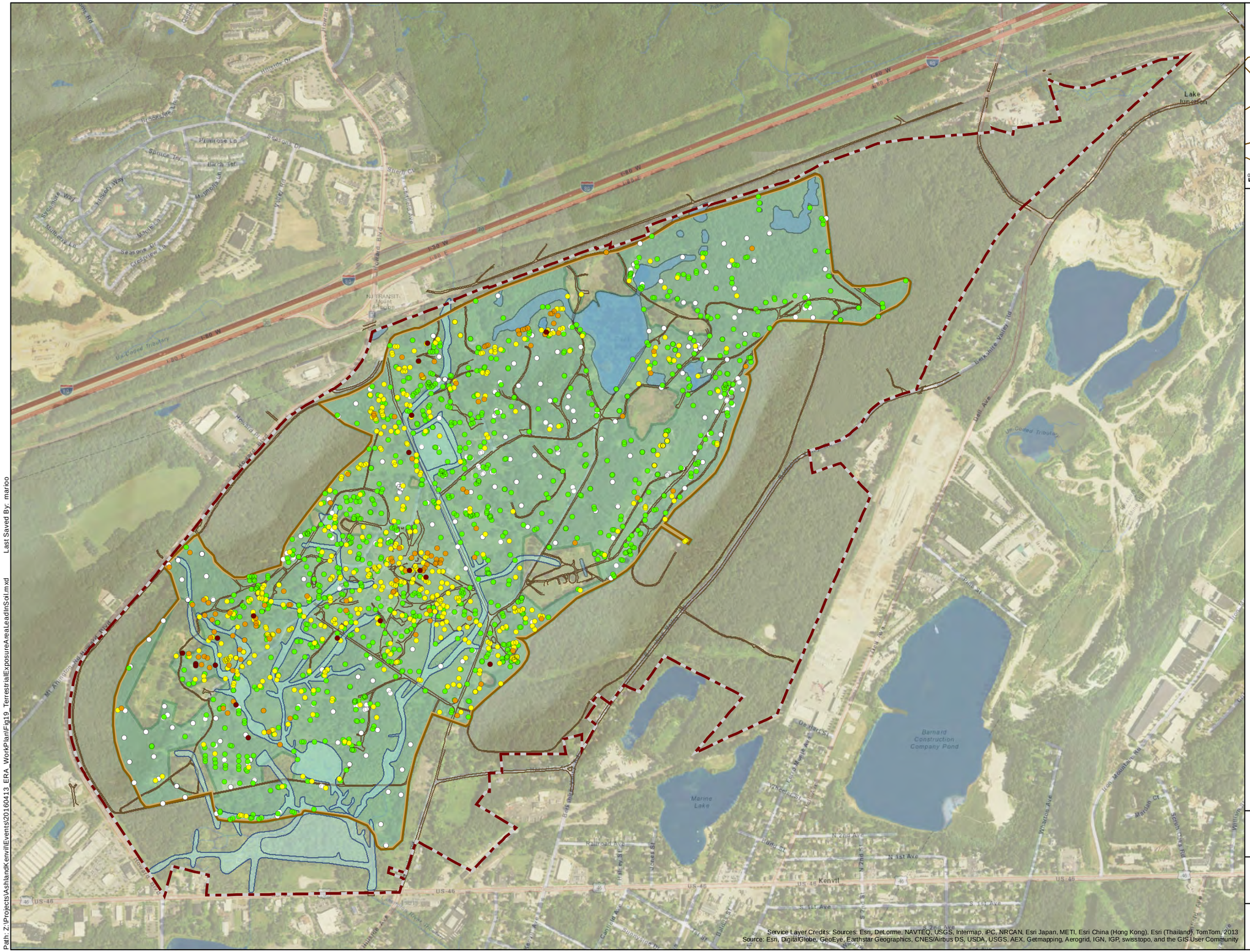
ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC SUB AREA
MISCELLANEOUS TNT PONDS

HERCULES

FIGURE
18

Path: Z:\Projects\Ashland\Kenvill\Events\20160413_ERA_WorkPlan\Fig18_SouthernAquaticSubTNT_Ponds.mxd Last Saved By: marioo


Site
Lake Lubrecon
Marine Lake
Barnard Construction Company Pond
Kenvil
US-46
NJ TRANSIT-Mount Arlington
Howard Blvd
Howard Pl
Hillside Dr
Primrose Ln
Spruce Ter
Birch Ter
Magnolia Ln
Seasons Dr
Sherwood Ln
Hillside Way
Mohr Ln
Seasons Dr
Greenview Ln
Sycamore Way
Hemlock Ln
Valley Rd
Silver Ct
Sherwood Ln
Un-Coded Tributary
Berkshire Valley Rd
Bell Ave
Mt Arlington-Kenvil Rd
Railroad Ave
Hall Pl
Jones St
Ballard St
Wheeler Ave
Saint Marys Ave
Dewitt Ave
Cemetery Rd
Summit Ave
Hillside Ave
Grand Ave
Cedar Ln
Cedar Ct
Dogwood Ln
Dogwood Ct
Dogwood Dr
Dogwood Pl
Dogwood Rd
Dogwood Ter
Dogwood Way
Dogwood Cir

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig20_NorthernAquaticExposureCopperinSE.mxd Last Saved By: marioo

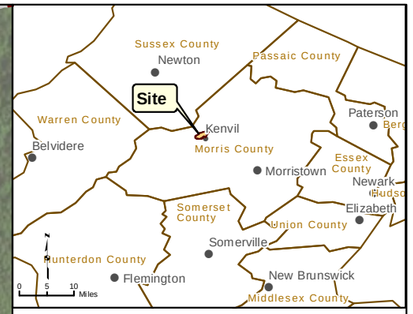
HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT WORK PLAN

NORTHERN AQUATIC DRAINAGE AREA COPPER IN SEDIMENT

HERCULES

FIGURE
20



Index Map

Legend

Northern Aquatic Exposure Area Lead in Sediment

- Non-detect
- <31 mg/kg (<LEL)
- >31 to <250 mg/kg (>LEL to <SEL)
- >250 - <2,500 mg/kg (>SEL to <10xSEL)
- >2,500 mg/kg (>10xSEL)
- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 100 200 400
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

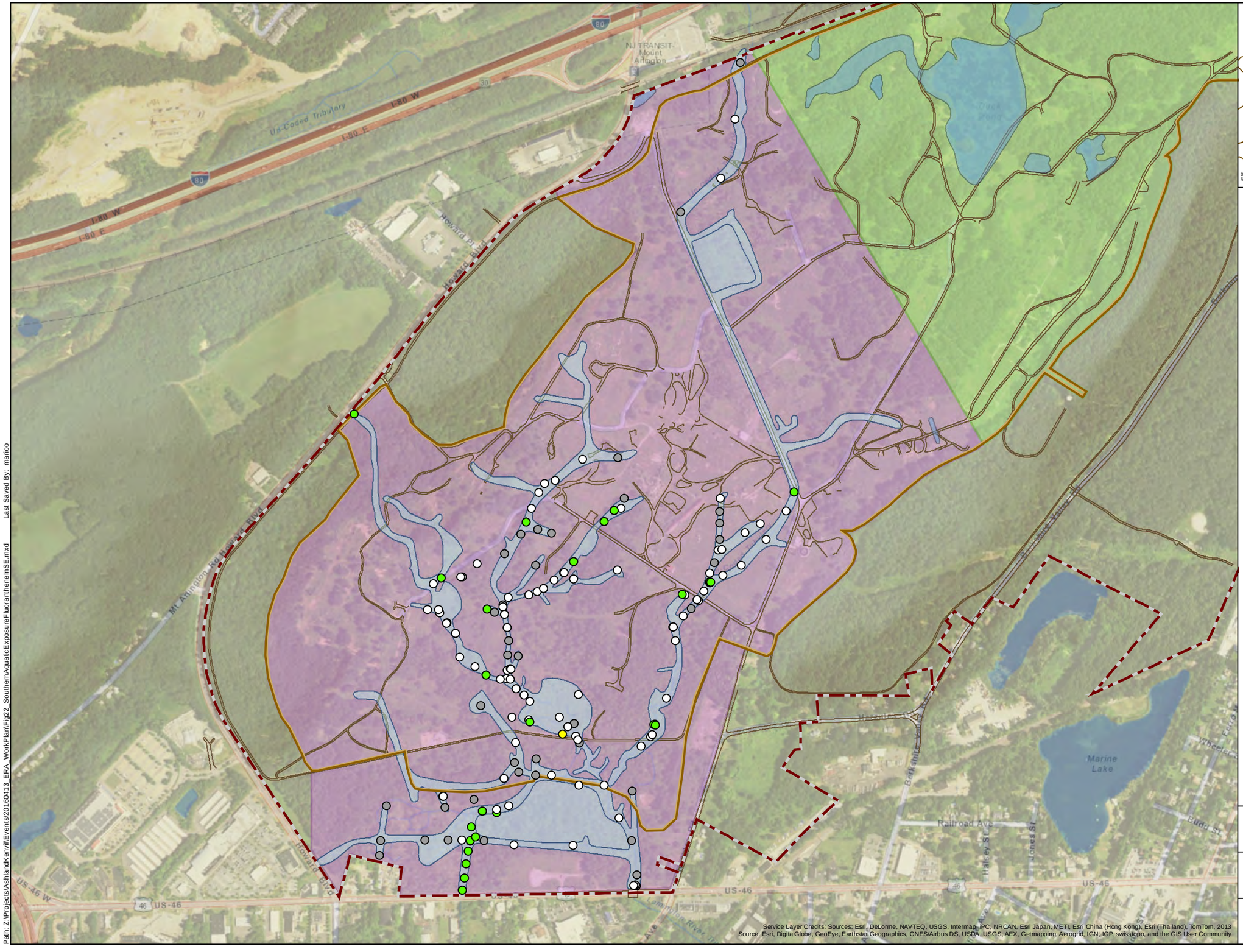
ECOLOGICAL RISK ASSESSMENT WORK PLAN

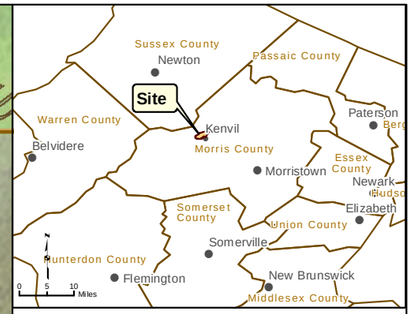
NORTHERN AQUATIC DRAINAGE AREA LEAD IN SEDIMENT

HERCULES

FIGURE
21

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig21_NorthernAquaticExposureLeadInSoil.mxd Last Saved By: marioo





Index Map

Legend

Southern Aquatic Exposure Area Fluoranthene in Sediment

- Non-detect
- <0.75 mg/kg (<LEL)
- >0.75 (>LEL) to <1,020 mg/kg (<SEL)
- >2,550 mg/kg
- Site Boundary
- Remedial Area

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 175 350 700
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

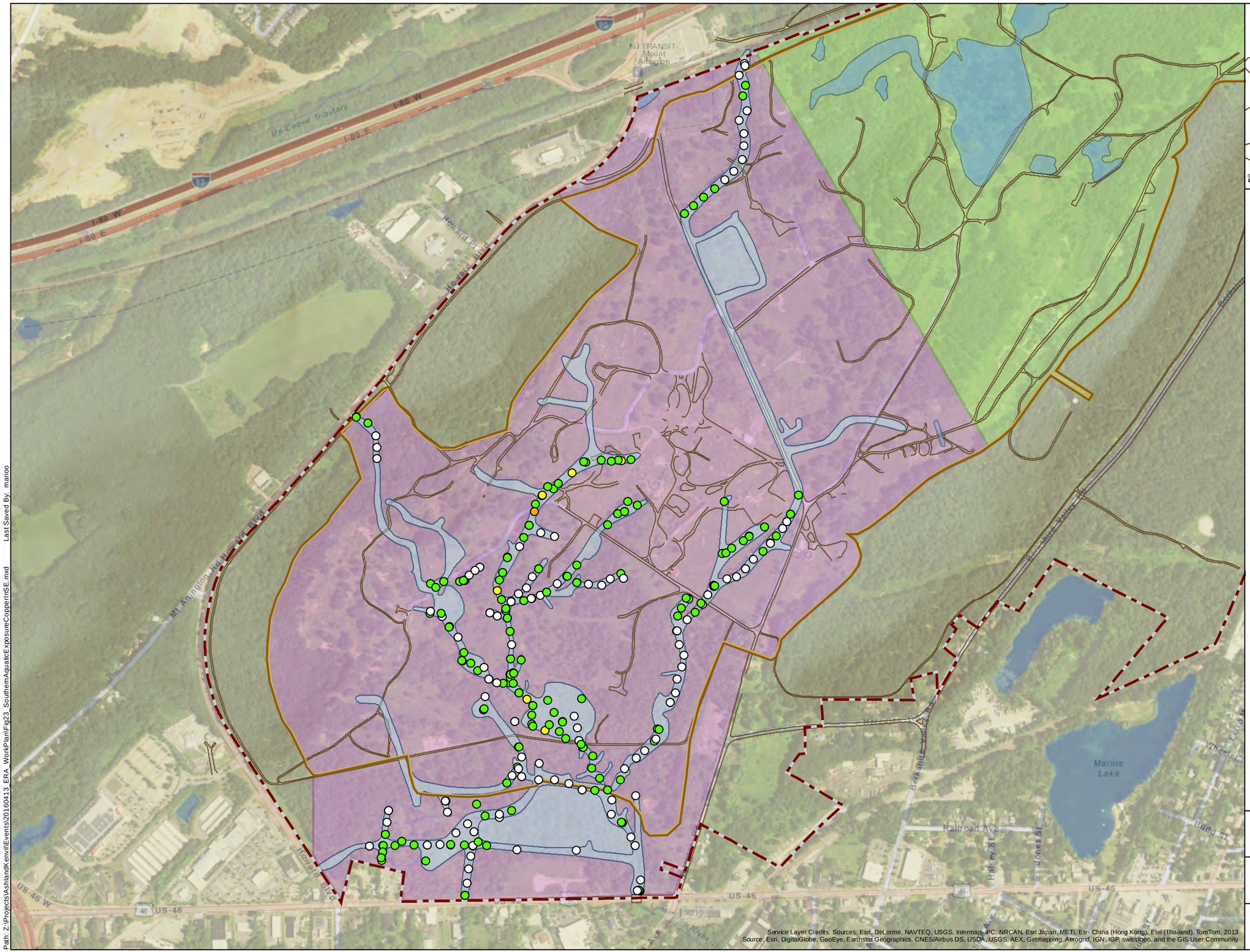
ECOLOGICAL RISK ASSESSMENT WORK PLAN

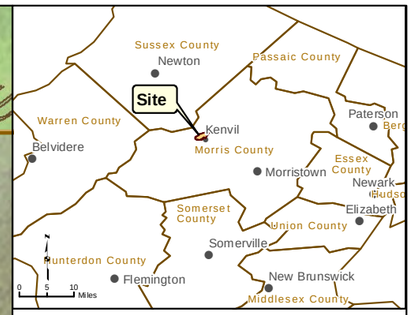
SOUTHERN AQUATIC EXPOSURE AREA FLUORANTHENE IN SEDIMENT

HERCULES

FIGURE
22

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig22_SouthernAquaticExposureFluoranthene\nSE.mxd Last Saved By: marioo





Index Map

Legend

Southern Aquatic Exposure Area Copper in Sediment

- Non-detect
- <16 mg/kg (<LEL)
- >16 to <110 mg/kg (>LEL to <SEL)
- >110 - <550 mg/kg (>SEL to <5xSEL)
- >550 - <1,100 mg/kg (>5xSEL to<10xSEL)
- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 175 350 700
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

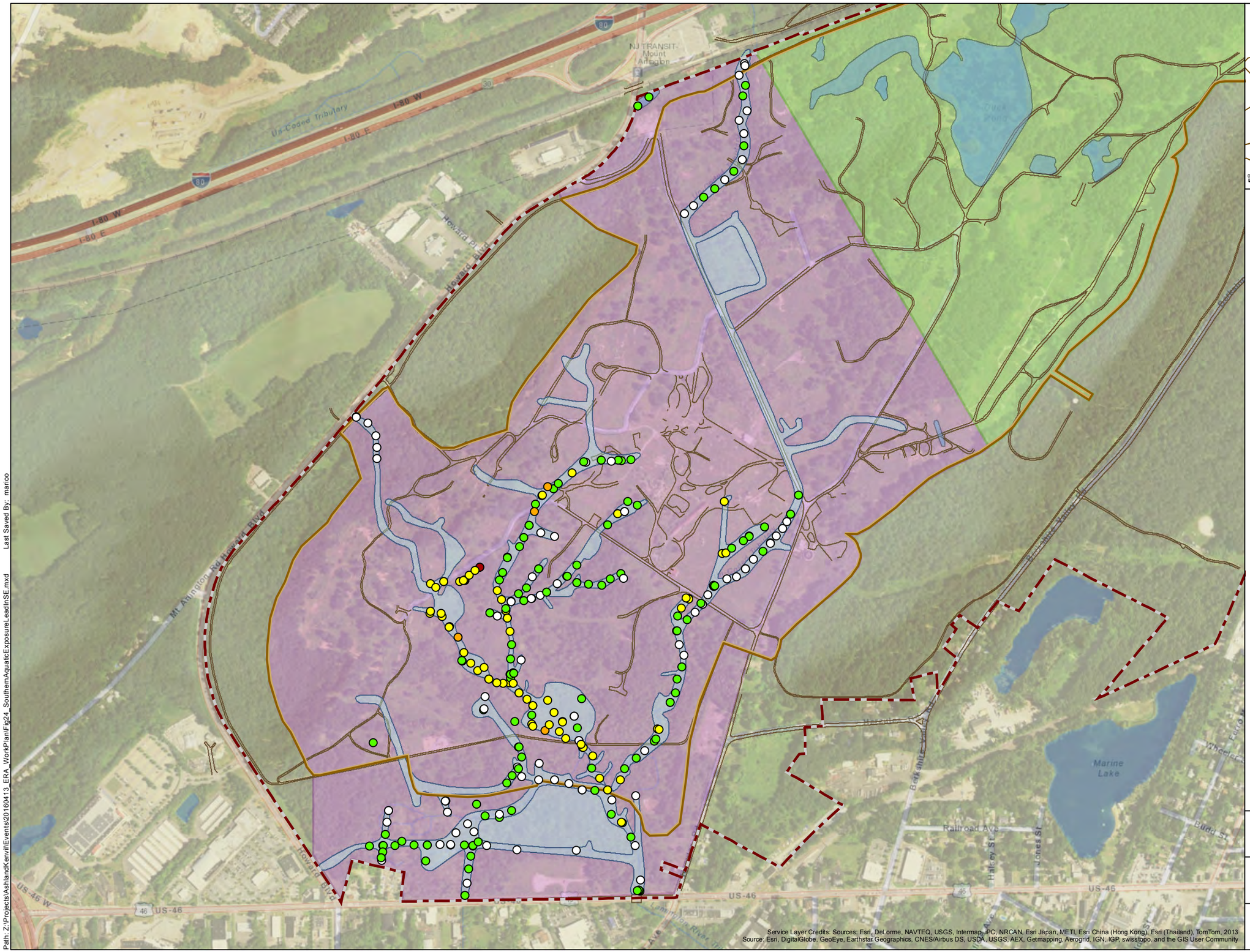
ECOLOGICAL RISK ASSESSMENT WORK PLAN

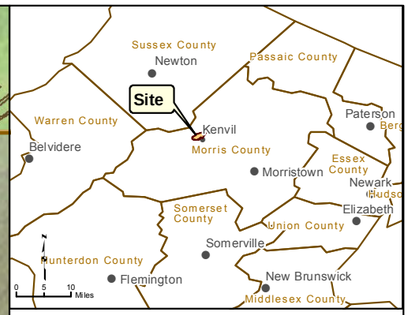
SOUTHERN AQUATIC EXPOSURE AREA COPPER IN SEDIMENT

HERCULES

FIGURE
23

Path: Z:\Projects\Ashland\Kenvil\Events\20160413_ERA_WorkPlan\Fig23_SouthernAquaticExposureCopperInSE.mxd Last Saved By: marioo





Index Map

Legend

Southern Aquatic Exposure Area Lead in Sediment

- Non-detect
- <31 mg/kg (<LEL)
- >31 to <250 mg/kg (>LEL to <SEL)
- >250 - <2,500 mg/kg (>SEL to <10xSEL)
- >2,500 – <25,000 mg/kg (>10xSEL to <100xSEL)
- >25,000 mg/kg (>100xSEL
- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 175 350 700
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

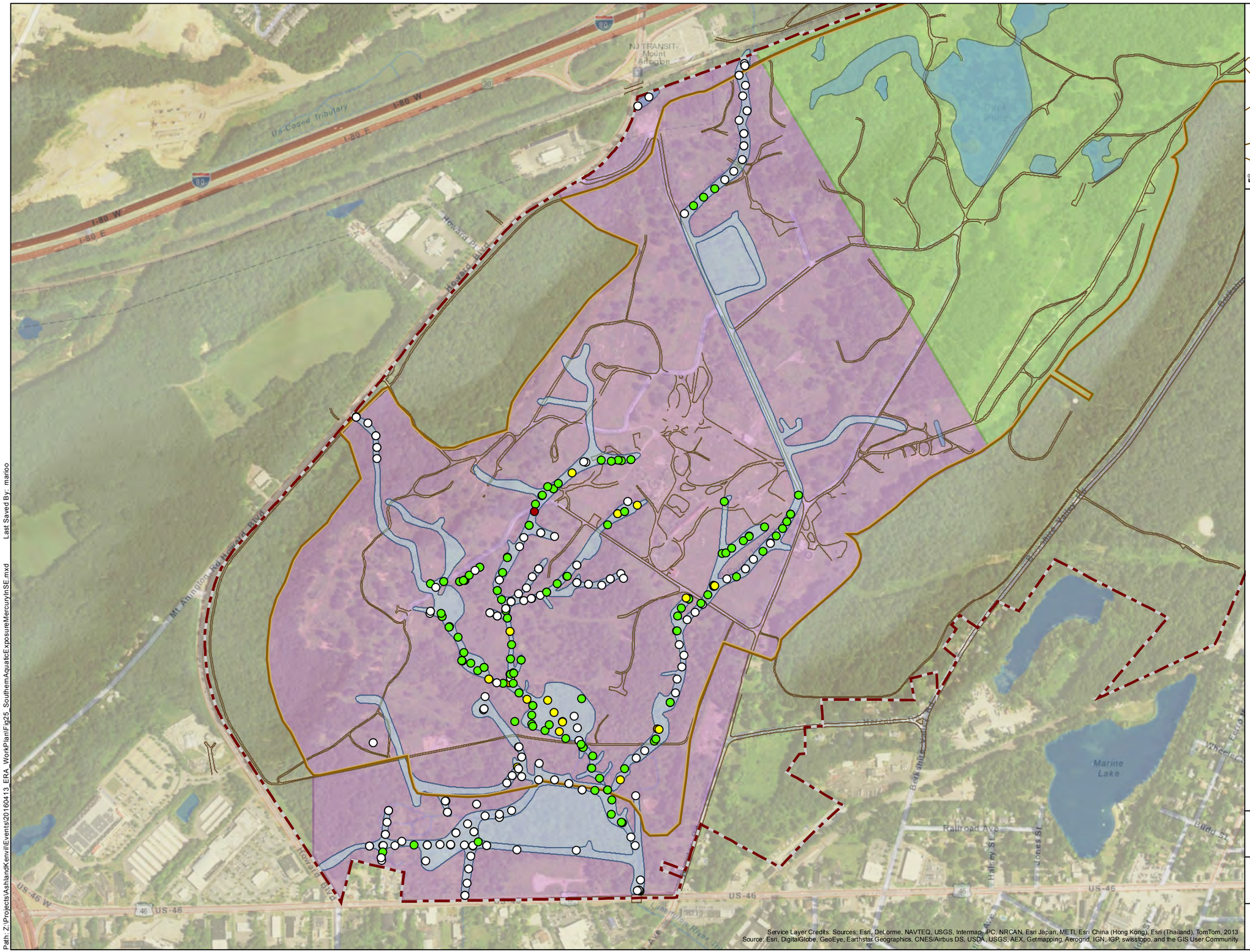
ECOLOGICAL RISK ASSESSMENT WORK PLAN

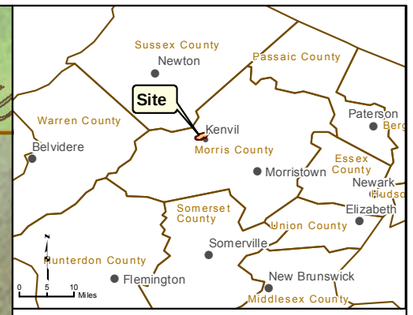
SOUTHERN AQUATIC EXPOSURE AREA LEAD IN SEDIMENT

HERCULES

FIGURE
24

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlanFig24_SouthernAquaticExposureLeadInSE.mxd Last Saved By: marioo





Index Map

Legend

Southern Aquatic Exposure Area Mercury in Sediment

- Non-detect
- <0.2 mg/kg (<LEL)
- >0.2 to <2 mg/kg (>LEL to <SEL)
- >2 - <10 mg/kg (>SEL to <5xSEL)
- >10 – <20 mg/kg (>5xSEL to <10xSEL)
- >20 mg/kg (>10xSEL)
- Site Boundary
- Remedial Area

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 175 350 700
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

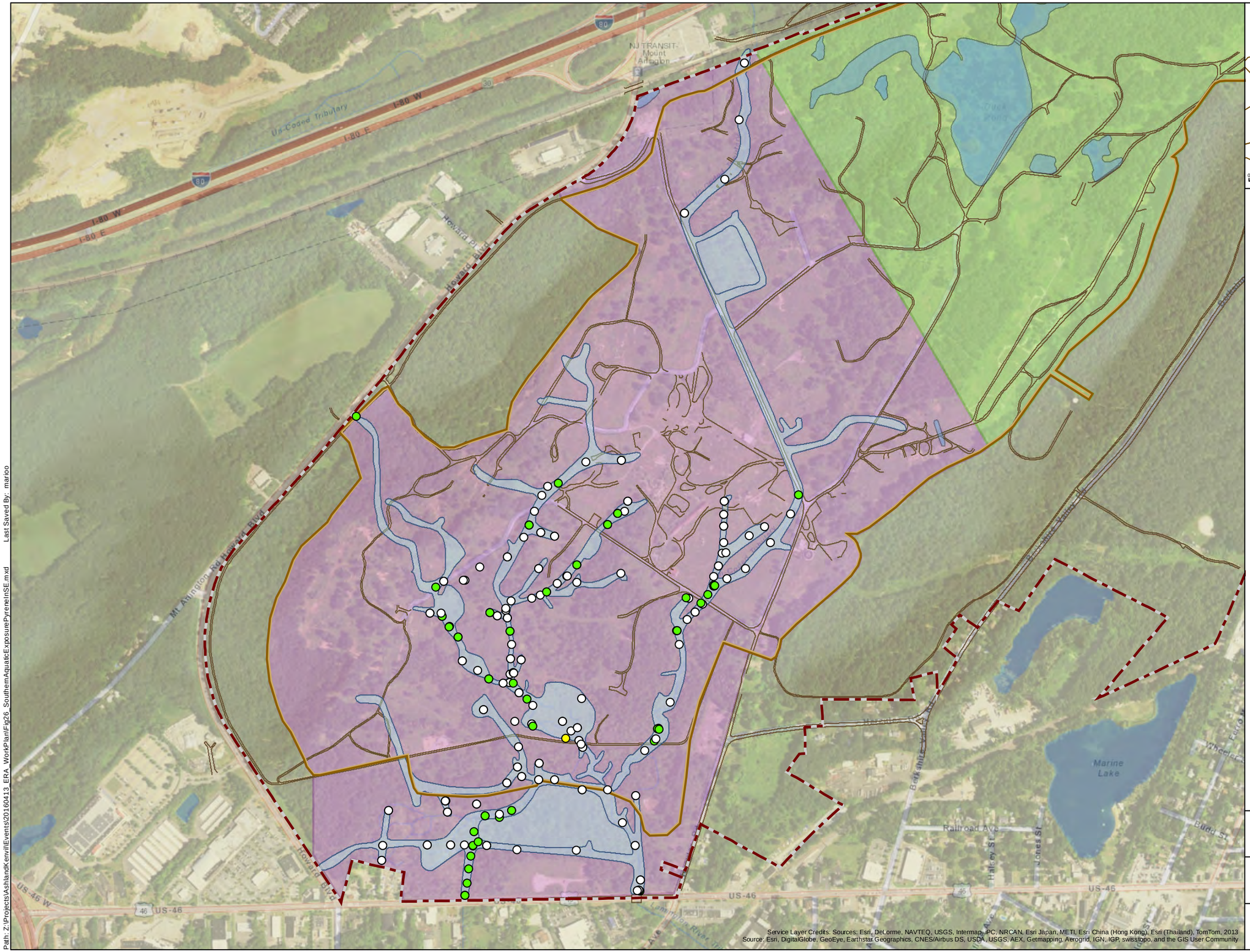
ECOLOGICAL RISK ASSESSMENT WORK PLAN

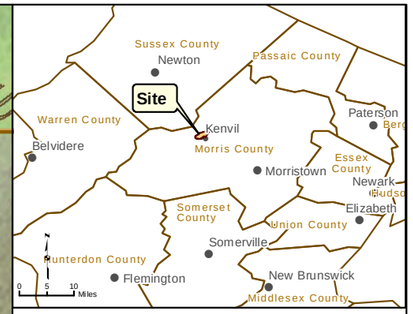
SOUTHERN AQUATIC EXPOSURE AREA MERCURY IN SEDIMENT

HERCULES

FIGURE
25

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlanFig25_SouthernAquaticExposureMercuryInSE.mxd Last Saved By: marioo





Index Map

Legend

Southern Aquatic Exposure Area Pyrene in Sediment

- Non-detect
- <0.490 mg/kg (LEL)
- >0.490 (LEL) to <850 mg/kg (SEL)
- >850 mg/kg (SEL)
- Site Boundary
- Remedial Area Boundary

Aquatic Exposure Area

- Northern Drainage
- Southern Drainage
- Stream/Water Feature
- Pond
- Road

N

0 175 350 700
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

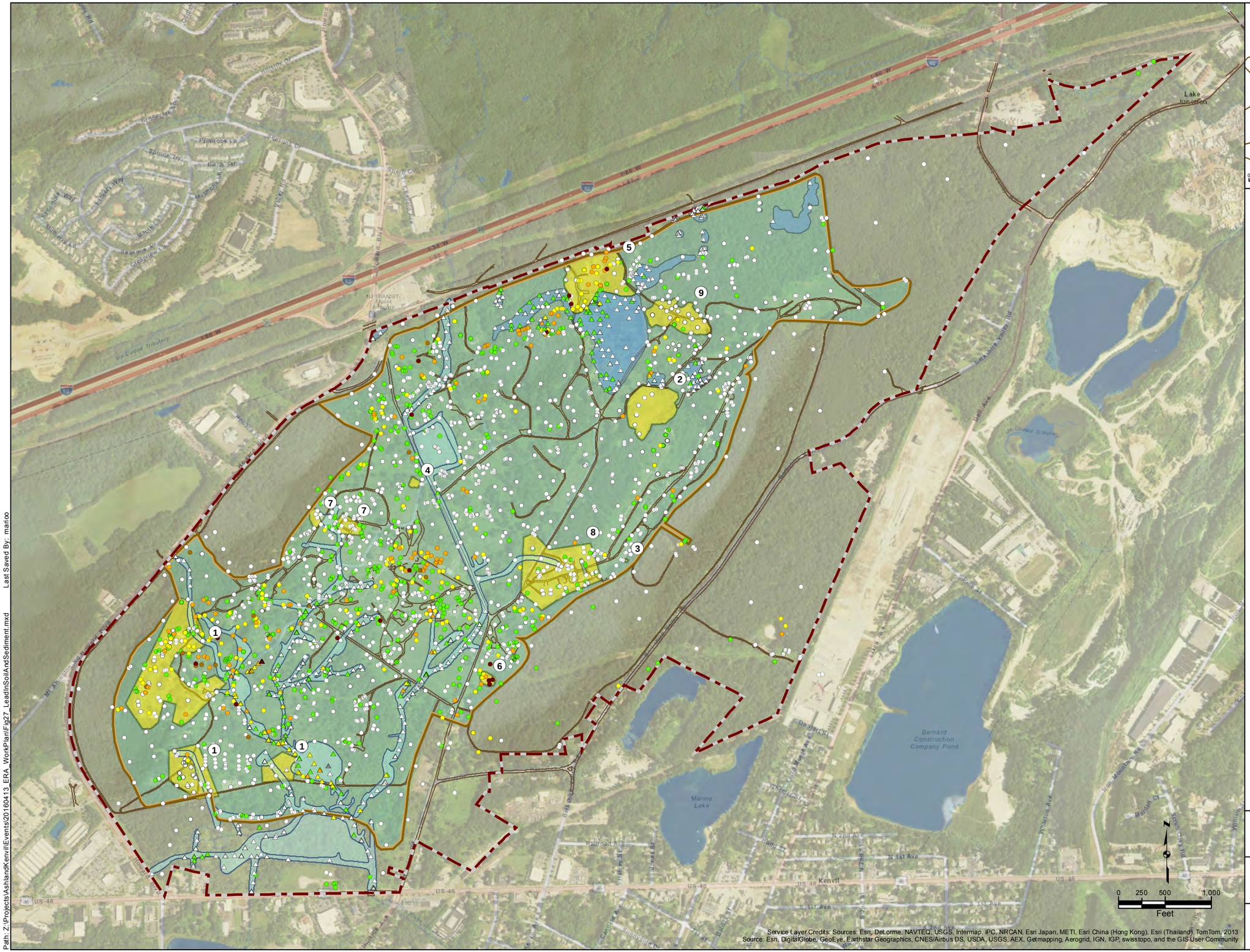
ECOLOGICAL RISK ASSESSMENT WORK PLAN

SOUTHERN AQUATIC EXPOSURE AREA PYRENE IN SEDIMENT

HERCULES

FIGURE
26

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig26_SouthernAquaticExposurePyreneInSE.mxd Last Saved By: marioo



Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Index Map

Legend

Lead in Soil

- Non-detect
- <100 mg/kg
- >100 to <500 mg/kg
- >500 - <1,500 mg/kg
- >1,500 – <10,000 mg/kg
- >10,000 – <25,000 mg/kg
- >25,000 mg/kg

Lead in Sediment

- Non-detect
- <100 mg/kg
- >100 to <500 mg/kg
- >500 - <1,500 mg/kg
- >1,500 – <10,000 mg/kg
- >10,000 – <25,000 mg/kg
- >25,000 mg/kg

- Site Boundary
- Remedial Area
- Area of Presumed Remedial
- Terrestrial Exposure
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. TNT = 2,4,6-trinitrotoluene
2. DNT = dinitrotoluene
3. DIAZO = diazodinitrophenol

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

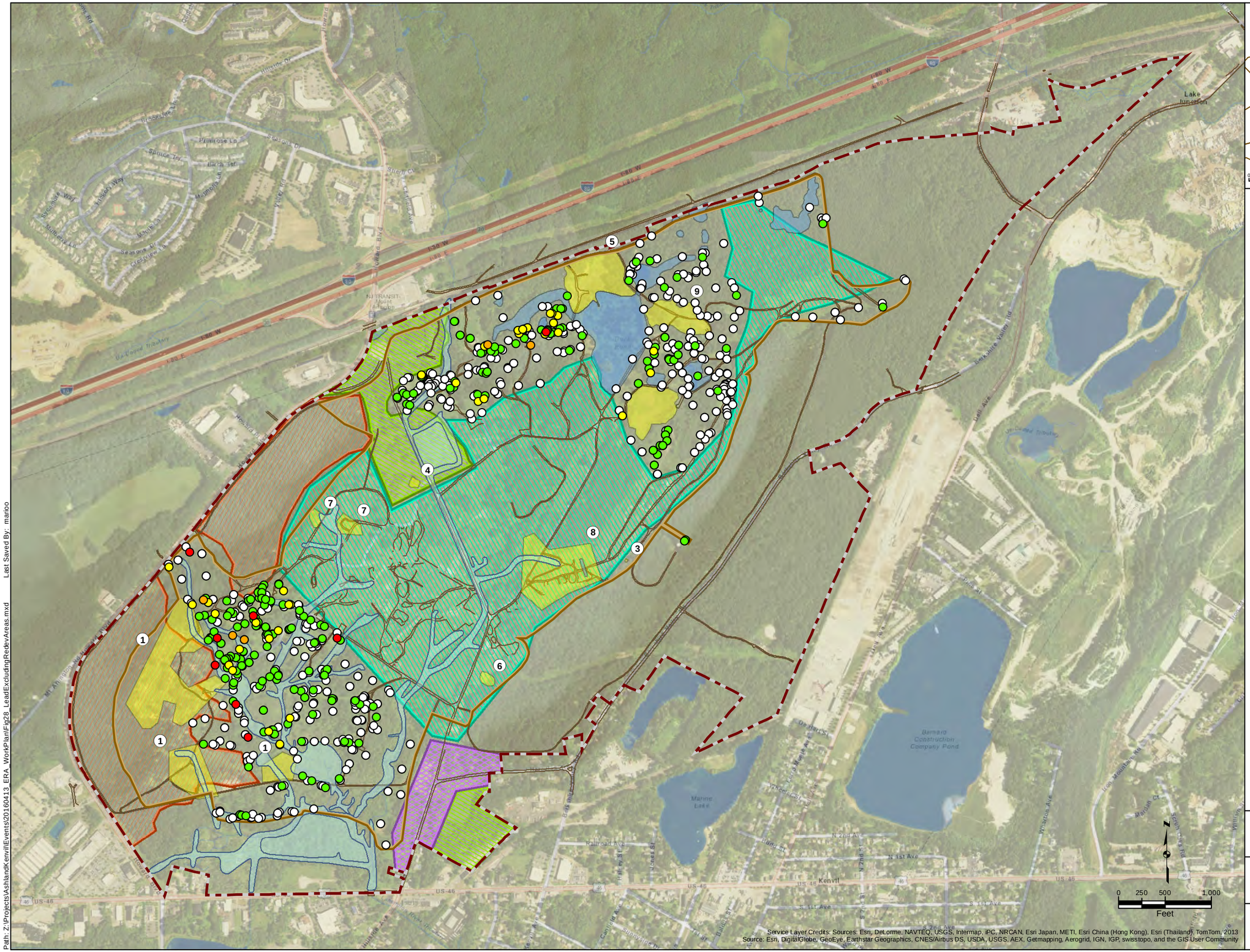
ECOLOGICAL RISK ASSESSMENT WORK PLAN

TERRESTRIAL EXPOSURE AREA LEAD IN SOIL AND SEDIMENT

HERCULES

FIGURE 27

Path: Z:\Projects\Ashland\KenvilEvents\20160413_ERA_WorkPlan\Fig27_LeadInSoilAndSediment.mxd Last Saved By: marcoo



Path: Z:\Projects\AshlandKenvilEvents\20160413_ERA_WorkPlanFig28_LeadExcludingRedevAreas.mxd Last Saved By: marioo

Index Map

Legend

Lead in Soil

- <100 mg/kg
- 100 - 1,500 mg/kg
- 1,500 - 5,000 mg/kg
- 5,000 - 10,000 mg/kg
- >10,000 kmg/kg

Redevelopment Areas

- Development Area
- Industrial Area
- Office Proffesional Research Area
- Residential Area
- Site Boundary
- Remedial Area Boundary
- Area of Presumed Remedial Action
- Terrestrial Exposure Area
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
1. TNT = 2,4,6-trinitrotoluene
2. DNT = dinitrotoluene
3. DIAZO = diazodinitrophenol

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ECOLOGICAL RISK ASSESSMENT WORK PLAN

TERRESTRIAL EXPOSURE AREA LEAD CONCENTRATIONS EXCLUDING REDEVELOPMENT AREAS

HERCULES

FIGURE 28

ATTACHMENTS

Attachment 1

NJ Natural Heritage Program

Database Search Results

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
State Forestry Services
Mail Code 501-04
ONLM -Natural Heritage Program
P.O. Box 420
Trenton, NJ 08625-0420
Tel. #609-984-1339
Fax. #609-984-1427

BOB MARTIN
Commissioner

February 11, 2014

Sara Salisbury
ARCADIS
8 South River Road
Cranbury, NJ 08512

Re: Former Kenvil Works Facility

Dear Ms. Salisbury:

Thank you for your data request regarding rare species information for the above referenced project site in Roxbury Township, Morris County.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.1) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1 and 2 (attached) to determine if any priority sites are located on or in the vicinity of the site.

A list of rare plant species and ecological communities that have been documented from Morris County can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf.

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive NJ-GeoWeb website at the following URL, http://www.state.nj.us/dep/gis/geowebsplash.htm or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Robert J. Cartica
Administrator

c: NHP File No. 14-4007485-4819

Table 1: On Site Data Request Search Results (7 Possible Reports)

Rare Plants/Ecological Communities Possibly On Site:	No
Rare Plants/Ecological Communities On Site/Immediate Vicinity:	No
Natural Heritage Priority Sites On Site:	No
Landscape 3.1 Species Based Patches On Site:	Yes
Landscape 3.1 Vernal Pool Habitat On Site:	Yes
Landscape 3.1 Stream/Mussel Habitat On Site:	No
Other Animals Tracked by ENSP On Site:	Yes

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.1 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
Aves								
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G5	S3B
Insecta								
	Arogos Skipper	Atrytone arogos arogos	Breeding/Courtship	4	NA	State Endangered	G3T1T2	S1
	Arogos Skipper	Atrytone arogos arogos	Casual Flyby	4	NA	State Endangered	G3T1T2	S1
	Arogos Skipper	Atrytone arogos arogos	Nectaring	4	NA	State Endangered	G3T1T2	S1
Mammalia								
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S1
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S1

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S1

Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.1

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	2516
Potential vernal habitat area	2503

Total number of records: 2

Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Polites mystic	Long Dash			G5	S3?

Total number of records: 1

Table 2: Vicinity Data Request Search Results (6 possible reports)

Rare Plants/Ecological Communities within the Vicinity:	Yes
Natural Heritage Priority Sites within the Vicinity:	No
Landscape 3.1 Species Based Patches within the Vicinity:	Yes
Landscape 3.1 Vernal Pool Habitat within the Vicinity:	Yes
Landscape 3.1 Stream/Mussel Habitat within the Vicnity:	No
Other Animals Tracked by ENSP within the Vicnity:	Yes

Immediate Vicinity of the Project Site
Based on Search of Natural Heritage Database
Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database

Scientific Name	Common Name	Federal Protection	State Protection	Regional Status	Grank	Srank	Identified	Last Observed	Location
Vascular Plants									
Phlox pilosa var. pilosa	Downy Phlox		E	LP, HL	G5T5	SH	Y - Yes	1937-06-15	ON WEST SIDE OF RR, NORTH OF SUCCASUNNA.

Total number of records: 1

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.1 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
Aves								
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B
	Wood Thrush	Hylocichla	Breeding Sighting	2	NA	Special Concern	G5	S3B
Insecta								
	Arogos Skipper	Atrytone arogos arogos	Breeding/Courtship	4	NA	State Endangered	G3T1T2	S1
	Arogos Skipper	Atrytone arogos arogos	Casual Flyby	4	NA	State Endangered	G3T1T2	S1
	Arogos Skipper	Atrytone arogos arogos	Nectaring	4	NA	State Endangered	G3T1T2	S1
Mammalia								
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S1
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S1

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S1
	Indiana Bat	Myotis sodalis	Hibernaculum	5	Federally Listed Endangered	State Endangered	G2	S1
	Indiana Bat	Myotis sodalis	Non-breeding Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
Reptilia								
	Bog Turtle	Glyptemys muhlenbergii	Occupied Habitat	5	Federally Listed Threatened	State Endangered	G3	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G4	S2

Vernal Pool Habitat
In the Immediate Vicinity of Project Site
Based on Search of
Landscape Project 3.1

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	2465
Vernal habitat area	2516
Vernal habitat area	2525
Potential vernal habitat area	2503

Total number of records: 4

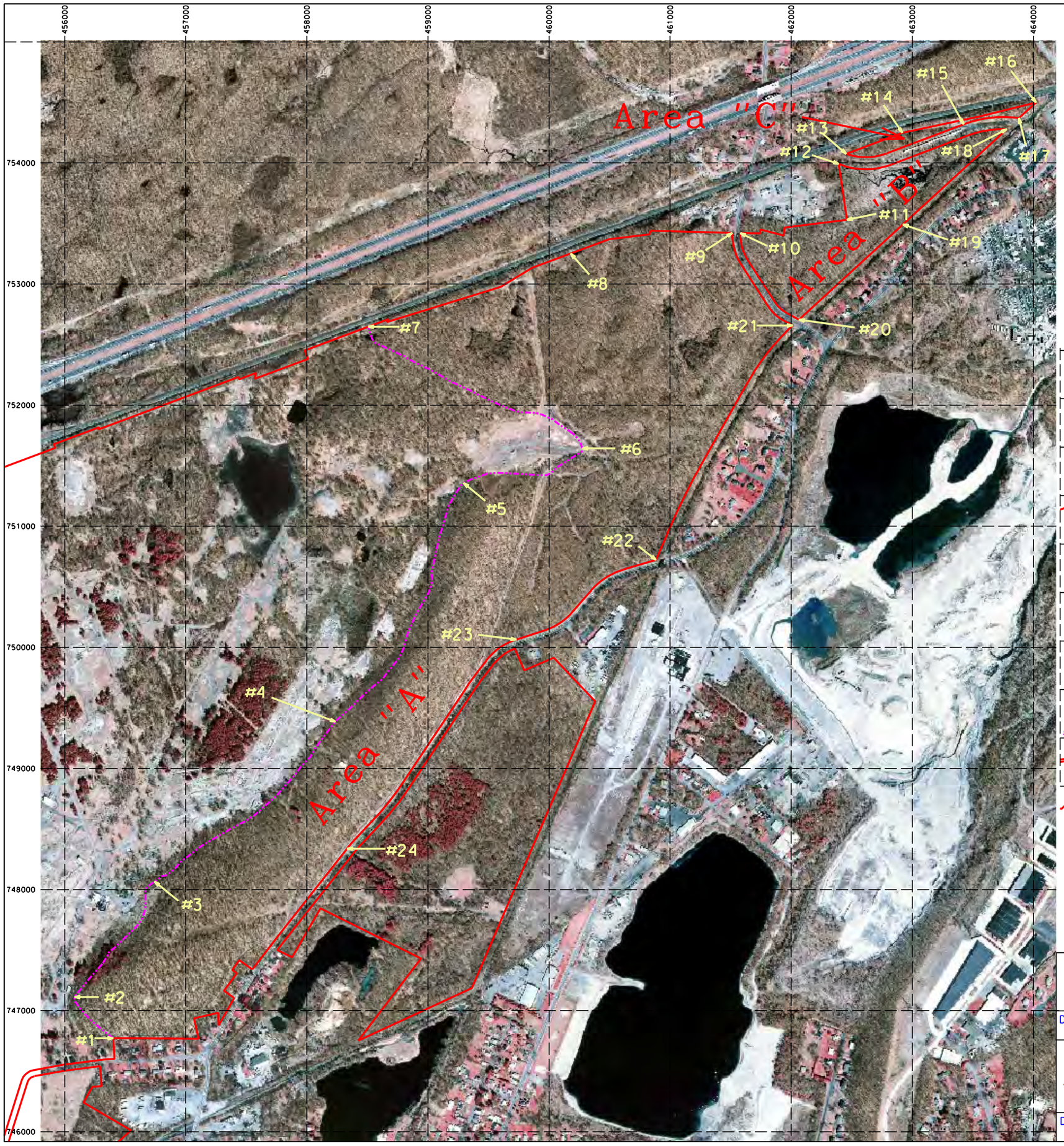
Other Animal Species
In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Polites mystic	Long Dash			G5	S3?

Total number of records: 1

Attachment 2

Conservation Easement



Legend

- New Jersey State Plane Grid
- Hercules Perimeter Boundary
- Hercules Tax Lot Boundary
- Easement Boundary

Area Summary

"A"	=	224.9 ac.
"B"	=	24.4 ac.
"C"	=	2.5 ac.
Total	=	251.8 ac.

N

Notes

1) The image hereon was extracted from digital orthoimagery that was downloaded from http://seamless/usgs.gov. The source photography was taken sometime during February-April 2002.

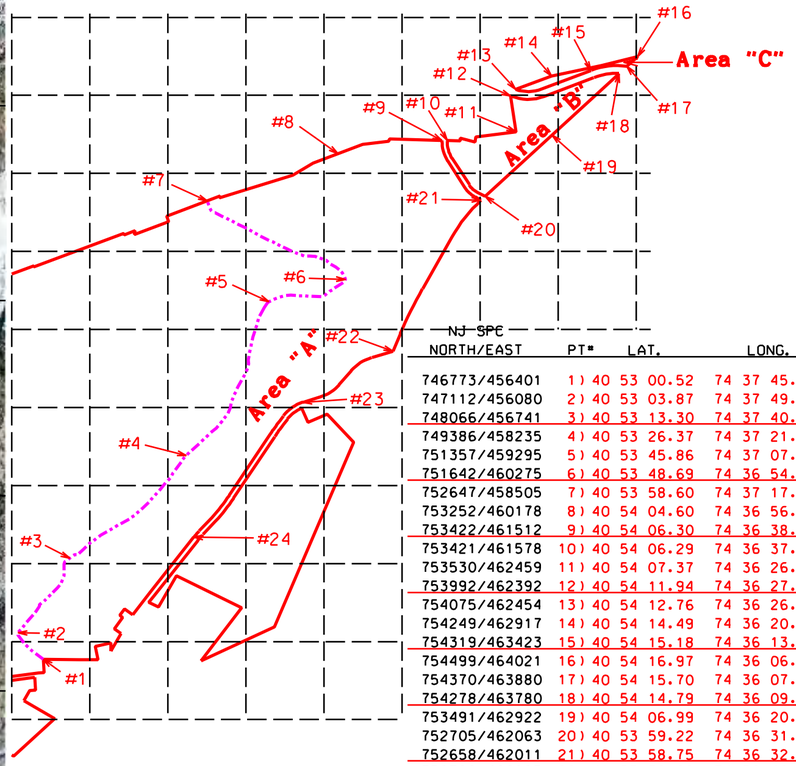
2) This drawing was prepared without benefit of survey and its native format is Microstation/IRASC. The boundaries were derived from the plan of GEOD Survey & Aerial Mapping Project No. 08503M.

3) There are three easement areas designated by the letters A. B & C.

4) Easement Area A contains Part of Lot 1 and all of Lots 4 and 5 in Tax Block 6701.

5) Easement Area B is the entirety of Lot 2 in Tax Block 7204.

6) Easement Area C is the entirety of Lot 4 in Tax Block 12702.



NJ SPC NORTH/EAST	PT*	LAT.	LONG.
746773/456401	1)	40 53 00.52	74 37 45.14
747112/456080	2)	40 53 03.87	74 37 49.32
748066/456741	3)	40 53 13.30	74 37 40.73
749386/458235	4)	40 53 26.37	74 37 21.31
751357/459295	5)	40 53 45.86	74 37 07.54
751642/460275	6)	40 53 48.69	74 36 54.78
752647/458505	7)	40 53 58.60	74 37 17.85
753252/460178	8)	40 54 04.60	74 36 56.08
753422/461512	9)	40 54 06.30	74 36 38.70
753421/461578	10)	40 54 06.29	74 36 37.84
753530/462459	11)	40 54 07.37	74 36 26.37
753992/462392	12)	40 54 11.94	74 36 27.25
754075/462454	13)	40 54 12.76	74 36 26.44
754249/462917	14)	40 54 14.49	74 36 20.41
754319/463423	15)	40 54 15.18	74 36 13.83
754499/464021	16)	40 54 16.97	74 36 06.04
754370/463880	17)	40 54 15.70	74 36 07.87
754278/463780	18)	40 54 14.79	74 36 09.17
753491/462922	19)	40 54 06.99	74 36 20.34
752705/462063	20)	40 53 59.22	74 36 31.51
752658/462011	21)	40 53 58.75	74 36 32.19
750722/460883	22)	40 53 39.62	74 36 46.85
750065/459729	23)	40 53 33.10	74 37 01.86
748336/458330	24)	40 53 16.00	74 37 20.05

Proposed Conservation Easements Over Hercules Incorporated Property Kenvil, New Jersey

GRAPHIC SCALE 1 INCH = 600 FEET

DRAWN:	BY:	REV.
2-23-11	L.R. Wells	3-09-11

ASHLAND

ASHLAND INC.
CORPORATE REAL ESTATE
LEXINGTON, KENTUCKY

DEED FILE NO.	DRAWING NO.
N/A	R.E.- 20247

Attachment 2

Hercules' 21 December 2023 Remedial Timeframe
Extension Request

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

Bureau of Case Assignment and Initial Notice
P.O. Box 420
Trenton, NJ 08625-0435
Phone #: 609-292-2943
Fax #: 609-633-1439

Via email: edmeeks@ashland.com

01/11/2024

Hercules Incorporated
ATTN: Edward Meeks
500 Hercules Road, Building 8145
Wilmington, DE 19808-1599

RE: Alliant Techsystems Inc
100 Howard Blvd
Roxbury Twp, Morris County
SRP PI# 000741
LSR120001

Dear Mr. Edward Meeks:

On 12/21/23, the Department received your "Remedial Timeframe Notification Form" requesting an extension to a mandatory time frame (MTF). The Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) rules at N.J.A.C. 7:26C-3.3(d) and 3.5 list the requirements which must be met for approval of an MTF extension requests upon submission to the Department. Those rules also indicate that the Department may deny an extension request.

The Department has considered your request and hereby **approves** the MTF extension for the submittal of the Remedial Action Report to 5/6/29.

Be advised that if the permit application is not administratively and technically complete and a MTF date is missed, the Site is immediately subject to the direct oversight requirements at N.J.A.C. 7:26C-14.2(b) and shall comply with all requirements.

Should you have any questions please contact the Bureau of Case Assignment and Initial Notice Duty Officer at 609-292-2943.

Sincerely,

Kirstin Hahn

Kirstin Hahn, Bureau Chief
Bureau of Case Assignment and Initial Notice

cc: Caryn Barnes, LSRP via email: cbarnes@langan.com

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

REMEDIAL TIMEFRAME NOTIFICATION FORM

☒ Extension Request
☐ Lengthen Remedial Investigation Report (RIR) Timeframe Notification
☐ Contaminated Media Notification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Kenvil Works Facility

List all AKAs: Alliant Techsystems Inc.

Street Address: 100 Howard Blvd.

Municipality: Roxbury Township (Township, Borough or City)

County: Morris Zip Code: 07847

Program Interest (PI) Number(s): 000741

Case Tracking Number(s) for this submission: 849

SECTION B. NJDEP CASE MANAGER

Do you have an assigned Case Manager? ..... ☐ Yes ☒ No

If "Yes," please list the Case Manager: _____

SECTION C. EXTENSION REQUEST

(Complete this section only if you are filing an extension request)

An extension is requested to the regulatory timeframe pursuant to NJAC 7:26C-3.2(b) or the mandatory or site-specific timeframe pursuant to NJAC 7:26C-3.5 as follows:

Report Type	Current Regulatory Timeframe	Proposed Regulatory Timeframe**	Current Mandatory or Expedited Site-Specific Timeframe	Proposed Mandatory or Expedited Site Specific Timeframe
Initial Receptor Evaluation*				
Preliminary Assessment Report*				
Site Investigation Report*				
Remedial Investigation Report*				
Remedial Action Report*	05/06/2024	12/18/2034	05/06/2024	12/18/2034
LNAPL Interim Remedial Measures Report*				
Immediate Environmental Concern Engineered System Response Action Report				
Immediate Environmental Concern Source Control Report*				
Other (write in):				
Other (write in):				
Other (write in):				

* This report has a mandatory remediation timeframe
** This date cannot exceed the mandatory remediation timeframe.

Note: Extensions to the regulatory timeframe are deemed approved provided the requirements of N.J.A.C. 7:26C-3.2(b) are met. If these requirements are not met, the NJDEP will notify the requestor in writing the extension is denied.

Justification for Extension

1. Describe the cause or causes of the need for additional time to complete the work:

TThe Kenvil Works Facility (Facility) spans 1,059 acres with more than 1,100 areas of concern (AOCs). The scale, complexity, and cost of the remedial actions required to close the site requires work that will extend beyond the May 2024 mandatory timeframe established by NJDEP. A series of large-scale, multi-year remedial actions (e.g., TNT bioremediation, Development Area capping) are underway that will address close to 70 percent of the Facility's AOCs. While current efforts are prioritized in these areas, Hercules has developed a sequence and estimated schedule for the remainder of the AOCs necessary to achieve site closure. Hercules anticipates having engineering and institutional controls, Remedial Action Permits (RAPs), and Response Action Outcomes (RAOs) in place sitewide in 2034.

2. Describe in detail the steps taken to minimize the additional time needed to complete the work:

(For any site where access is a cause of the need for additional time to complete the work, detail the steps taken to obtain access)

Hercules has prioritized, and has begun implementing, a series of complex, multi-year remedies. Hercules has sequenced additional remedial planning (pre-design investigations) for successive remedial actions. Hercules continues to focus on large-scale remedies that address multiple AOCs concurrently (e.g., capping and redevelopment). The TNT bioremediation and Development Area capping remedies discussed in the supplemental narrative are examples of ongoing large-scale remedies that will result in the closure of multiple AOCs.

3. Additional information:

Please see supplemental narrative (Exhibit A) and project schedule (Exhibit B) appended to the form for additional details related to the completed and in-progress remedies noted above, as well as a prioritized list of forthcoming remedial actions that will move the Facility through the Remedial Action Report (RAR) and RAP/RAO processes for sitewide closure.

SECTION D. CONTAMINATED MEDIA NOTIFICATION (to Adjust RI/RA Regulatory Timeframes)

(Complete this section only when notifying the NJDEP of the discovery of contamination in any media other than soil.)

Contamination was discovered in:

- ☐ Ground Water Date: _____
- ☐ Sediment Date: _____
- ☐ Surface Water Date: _____

For sites not subject to N.J.S.A. 58:10C-27 wherein the remedial investigation must be completed by May 7, 2014, checking any box will increase the regulatory timeframe to complete the remedial investigation and remedial action from 3 years to 5 years and requires the Annual Remediation Fee Form be updated via the NJ Portal pursuant to N.J.A.C 7:26C-4.3(e).

SECTION E. LENGTHEN RIR TIMEFRAME NOTIFICATION

(Complete this section only if you are lengthening the Remedial Investigation Report Regulatory Timeframe)

1. Is the request for an Industrial Establishment subject to ISRA? ..... ☐ Yes ☐ No
2. Indicate the number of additional years requested beyond the initial Remedial Investigation Report Regulatory Timeframe due date. Number of Years: _____ (Maximum of 4 years)
3. The initial Remedial Investigation Report Regulatory Timeframe Due Date: ..... _____
4. The revised Remedial Investigation Report Regulatory Timeframe Due Date: ..... _____
5. Justification (check all that apply)
   - ☐ Access to real property not owned or controlled by the person responsible for conducting the remediation is required, or contamination has impacted an environmentally sensitive natural resource, as defined in N.J.A.C. 7:26E-1.8.
   - ☐ Ground water contamination exists in a consolidated aquifer or a dense non-aqueous phase liquid exists in ground water.
   - ☐ Ground water contamination exists in more than one aquifer or there are two or more distinct ground water contaminant plumes.
   - ☐ The person responsible for conducting the remediation wants a final remediation document for the entire site, the discharge was not discovered prior to May 7, 1999, and the site does not include an industrial establishment that the owner or operator are required to remediate pursuant to the Industrial Site Recovery Act, N.J.S.A. 13:1K-6 et seq., and the Industrial Site Recovery Act rules, N.J.A.C. 7:26B.

SECTION F. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 575011

First Name: Caryn Last Name: Barnes

Phone Numbers: (215) 845-8911 Ext.: Fax:

Mailing Address: 300 Kimball Drive, 4th Floor

Municipality: Parsippany State: NJ Zip Code: 07054

Email Address: cbarnes@langan.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

(1) I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3)concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.

(2) I certify:

- *That I have read this submission and all attachments to this submission;*
- *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
- *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
- *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
- *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*

(3) I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.

(4) I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.

(5) I certify that I understand and acknowledge that:

- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
- *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than $5,000 nor more than $75,000 per day of violation, or by imprisonment, or both.*

(6) I certify that I have read this certification prior to signing, certifying, and making this submission.

LSRP Signature: Date: 12/14/2023

LSRP Name: Caryn Barnes

Company Name: Langan Engineering and Environmental Services, Inc.

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Hercules LLC

Representative First Name: Edward Representative Last Name: Meeks

Title: Senior Manager - Remediation

Phone Number: (302) 383-5939 Ext.: FAX:

Mailing Address: 500 Hercules Road, Building 8145

Municipality: Wilmington State: DE Zip code: 09808

Email Address: edmeeks@ashland.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Edward D Meeks Date: 12/11/2023

Name/Title: Edward D. Meeks, Senior Manager - Remediation

Company Name: Hercules LLC

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Overview: Remedial Timeframes

In compliance with the Site Remediation Reform Act and enabling regulations and guidance, Hercules LLC (Hercules), the Person Responsible for Conducting Remediation (PRCR) for the Kenvil Facility (Facility, Program Interest No. 000741), has:

- Submitted an initial Receptor Evaluation (RE) in 2011,
- Retained a Licensed Site Professional in 2012,
- Applied for and received an extension of the Remedial Investigation regulatory timeframe from May 7, 2014 to May 7, 2016, and
- Submitted the Phase II Remedial Investigation Report, including an updated RE, on May 4, 2016 (RIR, Hercules 2016); submission established a Remedial Action regulatory timeframe of May 6, 2021.
- Applied for and received a 2-year extension of the Remedial Action regulatory timeframe from May 6, 2021 to May 6, 2023; this timeframe was further extended to May 6, 2024 by Executive Order 103.

The RIR included an Ecological Evaluation (EE)/Ecological Risk Assessment (ERA), as well as an ERA work plan (ERAWP) to refine areas and constituents identified in the ERA. Subsequent ecological risk assessment activities occurred between 2016 and 2019 per the ERAWP, culminating in a technical consultation with NJDEP in December 2019. Given the pending development at that time and resulting widespread changes to receptor pathways and exposure areas, NJDEP and Hercules agreed to forego supplemental risk assessment activities necessary to refine areas considered for remediation and establish ecological-based remediation goals in areas of the Facility subject to remedial capping remedy integrated with redevelopment (See Development Area Capping below).

Concurrent with the submission of the RIR, Hercules actively began positioning the property for an integrated approach to remediation and redevelopment. Complex, multi-year remedies in areas of the Facility beyond those available for development were also initiated. These large remedies often required focused, pre-design activities necessary to support remedy selection and development. Hercules has spent approximately $55 million since 2000 on the investigation and remediation of the Facility, with nearly $20 million spent since submission of the RIR in 2016. An overview of completed and in-progress remediation projects at the Facility, spanning the current remedial timeframe, is provided below. A schedule (Exhibit B) provides an estimated timeline for completion of in-progress and forthcoming remedies necessary to complete the Remedial Action Report (RAR)/Remedial Action Permit (RAP)/Response Action Outcome (RAO) process and achieve site closure.

TNT Soil Bioremediation

Hercules, acknowledging the complexity and scale of the remedy, initiated study and design activities for a 2,4,6-trinitrotoluene (TNT) soil bioremediation remedy in 2013 prior to finalizing the RIR. This large-scale remedy is underway and will take place over the next decade. At this

estimated duration, the TNT remedy will define the schedule to attain the Remedial Action timeframe for the Facility.

Following the 2013 activities, bench-scale and field pilot studies occurred between 2014 and 2016, followed by design verification studies in 2017 to inform the engineering design of the multi-phase remediation project that relies on physical, chemical, and biological processes to degrade TNT mass in soil. With a remedial approach in place, Hercules focused on refining the Site Investigation/Remedial Investigation (SI/RI) delineation of TNT in soil to define the volume of soil requiring remediation in 2018 and identifying land use constraints proximate to the project area. In 2019, Hercules led a technical consultation with NJDEP Site Remediation Program staff to discuss the remedy, remedial objectives, and timeline. In follow up to the technical consultation, Hercules prepared and submitted the TNT Soil Bioremediation Remedial Action Work Plan (RAWP) (Hercules 2020) detailing the remedial action to degrade TNT (and degradates) constituent mass in approximately 100,000 tons of soil. Permits and approvals were applied for and obtained in 2021. Hercules evaluated, selected, and contracted an environmental services contractor in 2021 to prepare the site and implement the remedy. Remedial construction began in 2021 and was completed in fall 2023. Wet testing of the processing system occurred in fall 2023 and initial soil processing activities are scheduled for the first quarter of 2024.

Hercules designed the TNT soil bioremediation project to occur within the known footprint of the TNT groundwater plume. Given this constraint and the limited availability of flat upland areas in the valley, the remedy will occur in annual cycles, with sufficient space to bioremediate approximately 20,000T of soil each annual cycle, and the entire 100,000T volume remediated over approximately 5 years. Hercules has spent approximately $15 million to date on TNT Area remediation.

In 2029, following the estimated 5 years of annual treatment cycles and backfilling of excavation areas, long term monitoring will begin to document the continued degradation of residuals in soil under in-situ conditions and the anticipated reduction in constituent concentrations in groundwater over time absent a constituent source in soil. Long term monitoring of soil is expected to occur over 5 years (2029 through 2033), with groundwater monitoring to support a monitored natural attenuation (MNA) remedy occurring concurrent with this phase of soil monitoring. Hercules anticipates submitting a TNT Area RAR, updated CEA, and groundwater RAP application in 2034. The RAR/RAP process associated with the TNT remedy is the longest lead-time item shown on the schedule (Exhibit B) and drives the duration of this extension request.

Development Area Capping

Despite ceasing operations as an industrial manufacturing facility more than 25 years ago, the property retains an intrinsic commercial value and garners significant interest from developers. In 2020, Hercules participated in a technical consultation with NJDEP to contemplate regulatory closure via large-scale capping via various conceptual redevelopment scenarios. Shortly thereafter, Hercules began collaborating with Hartz Mountain Industries (Hartz) to integrate consolidation and remedial capping with the proposed development of approximately 200 acres of the property (Development Area) and remediation of and future public access to other portions of the site (Remediation Area). Hercules has prioritized remediation of the Development Area, both in support of the ongoing development activities, and in support of remedial goals. The

Development Area makes less than 20 percent of the areal extent of the site, but contains approximately 50 percent of the areas of concern (AOCs) identified at the Facility. As such, consolidation and capping via development achieves significant progress toward sitewide RAR/RAP/RAO and AOC closure. In addition, more than half of the Development Area is underlain by mapped historic fill material, where capping is the presumptive remedy (irrespective of redevelopment). In 2022, Hercules submitted the Development Area Soil Capping RAWP (Hercules 2022a) to NJDEP for the remedial capping of the approximately 200-acre portion of the property associated with Hartz's development plan.

Hercules' recent remedial efforts in the Development Area focused on addressing conditions that require remediation to facilitate a capping remedy. The polychlorinated biphenyl (PCB) Remediation and Concrete Management activities (discussed separately below) represent two of these efforts. Additional in progress and forthcoming efforts include the remediation of constituents present in a World War I-era burning ground, evaluating emerging contaminants (e.g., PFAS and 1,4-dioxane) in Development Area groundwater and soil, and other interim remedies necessary to prepare the area for capping.

Hercules is supporting Hartz as they develop a Fill Use Plan to supplement the RAWP and provide the basis and rationale for on-site movement of clean and alternative fill in accordance with the Technical Requirements for Site Remediation (TRSR) (New Jersey Administrative Code [N.J.A.C.] 7:26E) and Fill Guidance to achieve remedial capping and development design elevations. The integrated approach to capping and development outlined by the Fill Use Plan will optimize the beneficial use of on-site alternative fill materials in concert with appropriate engineering and institutional controls that are protective of public health, safety, and the environment addressing approximately 600 AOCs.

Hartz filed its general development plan and site plan application with the Township of Roxbury Planning Board in August 2022. The application has been deemed administratively complete and is undergoing technical review by the Planning Board. Concurrently, Hartz has applied for and/or obtained associated local (e.g., Mount Arlington Borough), county (e.g., Morris County, Morris County Soil Conservation District) and state (e.g., NJDEP – Land Use, NJDEP – Dam Safety) permits and approvals necessary for development. Based on the anticipated schedule for receipt of permits and approvals, development activities associated with the remedial cap construction would begin at some point in 2025. In the intervening timeframe, Hercules has and will continue to conduct pre-capping interim remedial actions to prepare the area for capping and support Hartz in the planning of development activities in manner that satisfies the TRSR and applicable guidance documents. Specific remedies required in the Remediation Area will follow remedial capping in the Development Area and are outlined in the schedule (Exhibit B).

PCB Soil Excavation & Disposal

The Phase II RIR (May 2016) identified PCBs in two areas of the Facility (Maintenance Area and M5-3 Area) that required further investigation and remediation in accordance with NJDEP's TRSR and United States Environmental Protection Agency's (USEPA's) Toxic Substances Control Act (TSCA). Between 2018 and 2021, Hercules collected nearly 1,000 soil samples as part of a pre-design investigation (PDI) focused on refining delineation of PCBs in soil and defining excavation extents. A USEPA-approved Self Implementing Procedure Plan (SIPP, Hercules 2021a) and

interim remedial action work plans (IRAWP); the Maintenance Area PCB IRAWP (Hercules 2021b) and M5-3 Area PCB IRAWP (Hercules 2021c), addressed Total PCB concentrations requiring remedial excavation and offsite disposal. Hercules established a site-specific migration to groundwater standard for Total PCBs and cleanup objectives in each area representative of anticipated future uses. Specifically, NJDEP Non-Residential Soil Remediation Standards (NRSRS) and USEPA TSCA high occupancy use criteria in the Maintenance Area and NJDEP NRSRS and USEPA TSCA low occupancy use criteria in the M5-3 Area. Excavation, verification sampling, restoration, and supporting tasks were completed from April through October 2022. The project resulted in excavation and offsite disposal of nearly 10,000 cy of PCB-contaminated soil (9,570 cy). Over 3,000 verification samples were collected to verify that the excavation of soil achieved cleanup objectives. Hercules summarized remedial activities in a PCB Soil Interim RAR that will be submitted to NJDEP with the next milestone deliverable. The interim remedial excavation activities in these areas represent PCB-specific components of comprehensive remedies addressing an array of constituents present in the Maintenance Area (part of the Development Area Capping discussed previously) and the M5-3 Area (part of the Old Burning Ground capping remedy - see schedule [Exhibit B]). Remedial action reports for these comprehensive remedies will document capping of residual PCBs in soil consistent with the interim remedial documents. Hercules has spent an estimated $6 million on the remediation of PCBs at the Facility to date.

Concrete Characterization

Concrete demolition debris stockpiles resulting from site decommissioning occur across the site. In 2018 Hercules surveyed the site, identifying more than 260 individual concrete piles totaling approximately 53,000 cubic yards. Concrete stockpile characterization activities followed in 2020/21, yielding over 1,000 samples. Characterization results and proposed future onsite reuse scenarios were presented in a March 2022 Sitewide Concrete Characterization Memo (Hercules 2022b). The memo included an evaluation of the concrete piles for potential reuse during redevelopment and was appended to the Development Area Capping RAWP (Hercules 2022a). Certain stockpiles categorized for unrestricted on-site reuse were crushed in November 2021 and used as road base as part of the TNT Area remedial action in accordance with NJDEP Fill Guidance. Concrete piles requiring disposal within the PCB Remediation area were disposed of offsite as a part of the PCB Excavation event. Hercules continues to manage concrete stockpiles in accordance with both NJDEP – Site Remediation and Solid Waste regulations, with a preference to reuse the material onsite. Concrete reuse is incorporated into the fill use plan that will govern soil movement and use of alternative fill during proposed redevelopment activities. Hercules spent an estimated $1 million on the characterization and management of concrete stockpiles at the Facility to date, the timing of final concrete disposition is dependent upon which remedial project(s) the materials are able to be reused in. Concrete unable to be reused onsite as part of forthcoming remedial actions will be disposed of in accordance with applicable regulations.

Groundwater Monitoring

Hercules continued to evaluate groundwater quality at the Facility following submission of the Phase II RIR (May 2016), conducting periodic sampling of a representative network of groundwater monitoring wells. Eight groundwater sampling events of the representative well network were conducted between 2016 and 2023. As NJDEP subsequently established monitoring protocols and comparison criteria for various emerging contaminants (e.g., PFAS, 1,4-dioxane [1,4-D], 1,2,3-trichloropropane [1,2,3-TCP]), Hercules assessed potential onsite sources and, where appropriate, is conducting groundwater investigations to evaluate the potential presence of these constituents. Specifically:

- No known or potential use of 1,2,3-TCP was identified during a review of operational records and interviews with manager familiar with Facility operations.
- While there are no documented uses of PFAS or 1,4-D onsite, their presence in commercially available products potentially used onsite could not be ruled out. Sampling is currently being conducted for PFAS compounds and 1,4-dioxane.

Given the nature of manufacturing activities at the Facility and potential historical uses of perchlorate, perchlorate was included in the groundwater monitoring analyte list during the SI/RI.

The Receptor Evaluation (RE) submitted as part of the RIR resulted in potable well sampling at a number of downgradient properties that were not entirely reliant on the public water supply. Potable well sampling activities to assess downgradient groundwater quality and potential receptors occurred between 2017 and 2019.

In anticipation of site preparation for the TNT soil bioremediation remedy that required the abandonment of certain wells that were used to monitor the TNT groundwater plume, Hercules conducted a focused round of groundwater sampling in that area for TNT and degradates prior to well abandonment (2021).

Consistent with observations during the SI/RI, groundwater conditions are the site remain stable and consistent over time. Hercules submitted a draft CEA with the Phase II RIR, and updated that CEA in a January 2023 submission to NJDEP. A groundwater RAR/RAP for Facility (excluding TNT Area addressed separately) will be prepared upon completion of emerging contaminant evaluations, Development Area capping, and completion of other soil remedies with an influence on groundwater quality.

Forthcoming Large Remediation Projects

Hercules' remedial strategy has involved the prioritization of complex remedies that require lengthy timeframes for study, design, engineering, permitting, and implementation; or those remedies that facilitate integrated remedial capping and development at the Facility addressing many AOCs at once. Beyond those completed and in-progress projects summarized above, Hercules has identified the following forthcoming remediation projects necessary to close large and/or complex AOCs beyond the Development Area where activities will be focused through 2024.

- Former Burning Ground (H13-7/H12-237)
  The Former Burning Ground supported the thermal destruction of off-specification and/or residual material on the ground surface in the early part of the 20th century. These historical practices resulted in residual chemical concentrations as well as physical debris in the surface soils. A portion of this area will be addressed via pre-capping excavation and disposal and Development Area capping. Hercules has completed an initial phase of pre-design investigation and is working to complete remedial work associated with development in 2024 and 2025, with the remaining work occurring by 2026.

- Old Burning Ground (M5-3)
  The Old Burning Ground historically supported thermal destruction of off-specification and residual energetic material. Old Burning Ground is an open Resource Conservation and Recovery Act (RCRA)-permitted operable unit (OU) subject to a corrective action (i.e., remedy). Hercules is managing the corrective action and closure of this OU through the NJDEP's RCRA Program Coordinator. The remedy selected to fulfill NJDEP requirements will also fulfill Hercules' obligation related to RCRA OU closure. Previous investigation into the Old Burning Ground has identified volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), PCBs, metals, and explosives and energetics (E&E) as constituent classes that potentially will require remediation in this area. Hercules is preparing to conduct pre-design investigatory activities to guide remedial design. The remedy for soil is likely to include a combination of soil consolidation, stabilization, and capping. Remedial activities in this area are anticipated to occur between 2025 and 2028.

- Experimental Dynamite (K5-1)
  Hercules operated an experimental dynamite batch production line that included both formulation and detonation testing. These processes resulted in metals and E&E in soil at the location of former facilities and features. Environmental investigations also identified similar constituents in the sediment of an isolated pond adjacent to the area. Additional investigation and remediation of soil in this area is anticipated to occur between 2026 and 2029, with components of the work potentially coordinated with the closure of the Old Burning Ground.

- WWII Disposal Area (M8-1)
  The WWII Disposal Area was a historical disposal area for empty drums and drum carcasses, discarded smokeless powder storage containers, and other miscellaneous solid debris. Previous investigations identified a concentration of metal debris along either side of a former rail bed bisecting the WWII Disposal Area, with the amount of debris decreasing moving radially away from the former rail bed. Additional investigation and remediation of the debris material in this area and adjacent wetland areas is anticipated to occur between 2026 and 2030.

- WWI Disposal Area (N8-1)
  The WWI Disposal Area was a historical disposal area for remnant equipment resulting from operational area retrofits and realignment in support of and following the war effort. Hercules has completed environmental investigations and a geophysical survey and

environmental investigations to characterize the debris and soil conditions in the area. Remedial activities in this area are anticipated to occur between 2027 and 2030.

- Ballistics Range (H5-8126)
  The Ballistics Range was composed of structures associated with testing propellant (i.e., smokeless powder) formulations to achieve manufacturer-specified projectile velocities. These activities resulted in the lead enrichment of Ballistics Range soil via the introduction of lead shot and bullets to surface soil in discrete areas (e.g., backstop). Environmental investigations identified lead in soil at concentrations requiring active remediation in this area. Additional investigation and remediation of soil in this area is anticipated between 2027 and 2029.

- Former Acid Recovery Area (B11-1)
  The Former Acid Recovery Area was composed of structures associated with the production of nitroglycerin (NG), and later pentaerythritol tetranitrate (PETN). Both NG and PETN production processes relied heavily on concentrated nitric acid solutions. Given the sensitivity of NG to static electrical charges, building floors, process equipment and conveyances were typically lined with lead. Environmental investigations identified lead in soil at concentrations requiring active remediation in this area, as well as lead sheeting and lead debris on the ground surface of this area. Additional investigation and remediation of soil in this area is anticipated between 2026 and 2028.

- NG Area Stormwater Catchment Area
  The NG Area Stormwater Catchment Area is a remnant stormwater management feature at the base of the hillside on which the NG and PETN production lines sat (including the Former Acid Recovery Area). Particulates present in stormwater runoff from these manufacturing areas accumulated and settled in the Stormwater Catchment Area. Site demolition altered the drainage and conveyances, and this feature no longer functions as a stormwater catchment. Environmental investigations identified lead in soil at concentrations requiring active remediation in this feature. Additional investigation and remediation of this feature is anticipated between 2027 and 2029, and will potentially be coordinated with Former Acid Recovery remediation.

In addition to the defined AOCs/Areas noted above, a number of former rail beds exist across the Facility. These rail beds were constructed of historic fill materials during Facility expansion and contain metals and PAHs. In many places these rail beds span wetlands and waters onsite. Focused remediation may be required based on the results of the ERA and/or SRS attainment evaluations. The magnitude and extent of rail bed remediation remains uncertain at this time; the schedule (Exhibit B) acknowledges the likelihood that a subset of the existing rail beds will require active remediation in the 2027 to 2029 timeframe.

Estimated Remedial Timeframe

The schedule (Exhibit B) outlines the estimate remedial timeframe to attain RARs/RAOs with sitewide coverage for environmental media of concern. This schedule represents Hercules' best effort to forecast a path to site closure, and relies, in part, on external factors beyond Hercules'

control. These external factors (e.g., development approvals, regulatory permit review/approval, stakeholder engagement, updates/changes to current regulations and guidance) have the potential to influence scope and/or schedule, the direction and magnitude of these influences cannot be estimated at this time.

References

Hercules, Inc. 2016. Phase II Remedial Investigation Report. Hercules, Incorporated. Kenvil Works Facility. Kenvil, New Jersey. May.

Hercules, LLC. 2020. TNT Soil Bioremediation Remedial Action Work Plan. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. August.

Hercules, LLC. 2021a. PCB Self Implementing Procedure Plan. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. January.

Hercules, LLC. 2021b. PCB Maintenance Area Interim Remedial Action Work Plan. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. August.

Hercules, LLC. 2021c. PCB M5-3 Area Interim Remedial Action Work Plan. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. August.

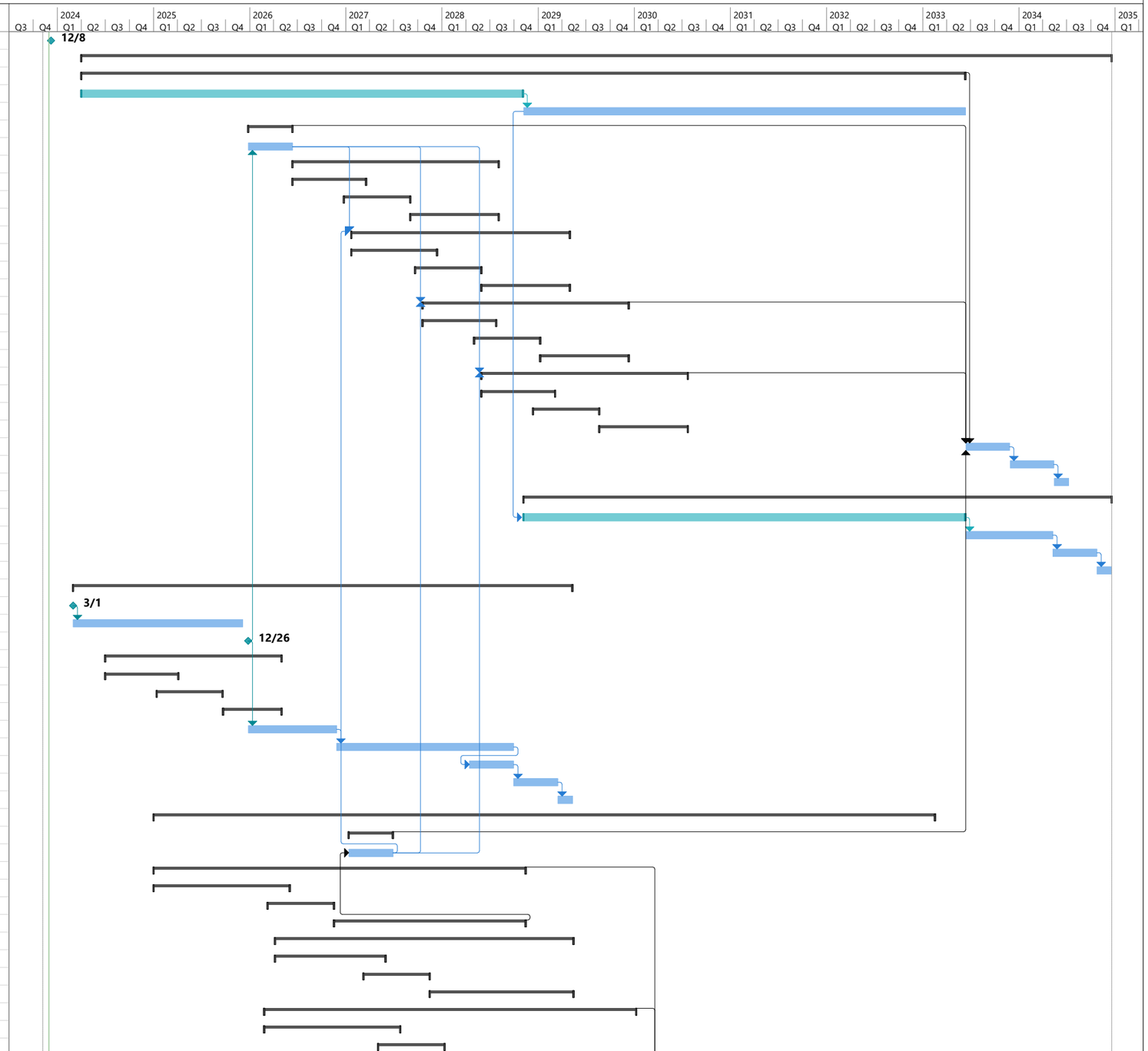
Hercules, LLC. 2022a. Development Area Soil Capping Remedial Action Work Plan. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. August

Hercules, LLC. 2022b. Sitewide Concrete Characterization Technical Memorandum. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. September.

Hercules, LLC. 2023. PCB Interim Remedial Action Report. Hercules, LLC. Kenvil Works Facility. Kenvil, New Jersey. September. (to be submitted to NJDEP with next milestone deliverable)

Exhibit B - Estimated Remedial Action Report Timeframe

ID	Task Mode	Task Name	Duration	Start	Finish
1		Remedial Timeframe Extension Request Submission	0 mons	Fri 12/8/23	Fri 12/8/23
2		**TNT Area Soil**	**139.8 mons**	**Mon 4/1/24**	**Mon 12/18/34**
3		**TNT Soil Bioremediation**	**120 mons**	**Mon 4/1/24**	**Fri 6/10/33**
4		Operations (Annually; April-Aug active, Sept - Mar inactive)	60 mons	Mon 4/1/24	Fri 11/3/28
5		Demobilization and Long-Term Monitoring	60 mons	Mon 11/6/28	Fri 6/10/33
6		**Ecological Risk Assessment**	**6 mons**	**Fri 12/26/25**	**Thu 6/11/26**
7		ERA Risk Characterization and Revised Exposure Areas	6 mons	Fri 12/26/25	Thu 6/11/26
8		**Former Acid Recovery Area (B11-1) Remediation**	**28 mons**	**Fri 6/12/26**	**Thu 8/3/28**
9		**PDI & RAWP**	**10 mons**	**Fri 6/12/26**	**Thu 3/18/27**
14		**Permits/Approval**	**9 mons**	**Fri 12/25/26**	**Thu 9/2/27**
19		**Implementation/Reporting**	**12 mons**	**Fri 9/3/27**	**Thu 8/3/28**
24		**NG Area Stormwater Catchment Remediation**	**29.6 mons**	**Fri 1/22/27**	**Mon 4/30/29**
25		**PDI & RAWP**	**11.6 mons**	**Fri 1/22/27**	**Mon 12/13/27**
30		**Permits/Approval**	**9 mons**	**Tue 9/21/27**	**Mon 5/29/28**
35		**Implementation/Reporting**	**12 mons**	**Tue 5/30/28**	**Mon 4/30/29**
40		**Former Rail Bed Remediation**	**28 mons**	**Tue 10/19/27**	**Mon 12/10/29**
41		**PDI & RAWP**	**10 mons**	**Tue 10/19/27**	**Mon 7/24/28**
46		**Permits/Approval**	**9 mons**	**Tue 5/2/28**	**Mon 1/8/29**
51		**Implementation/Reporting**	**12 mons**	**Tue 1/9/29**	**Mon 12/10/29**
56		**Miscellaneous Removals and/or Capping (as identified)**	**28 mons**	**Tue 5/30/28**	**Mon 7/22/30**
57		**PDI & RAWP**	**10 mons**	**Tue 5/30/28**	**Mon 3/5/29**
62		**Permits/Approval**	**9 mons**	**Tue 12/12/28**	**Mon 8/20/29**
67		**Implementation/Reporting**	**12 mons**	**Tue 8/21/29**	**Mon 7/22/30**
72		TNT Area Soil RAR/RAP Application	6 mons	Mon 6/13/33	Fri 11/25/33
73		NJDEP Soil RAP Application Review & Approval	6 mons	Mon 11/28/33	Fri 5/12/34
74		RAO	2 mons	Mon 5/15/34	Fri 7/7/34
75		**TNT Area Groundwater**	**79.8 mons**	**Mon 11/6/28**	**Mon 12/18/34**
76		Periodic Monitoring	60 mons	Mon 11/6/28	Fri 6/10/33
77		Groundwater CEA, MNA RAP Application	11.8 mons	Mon 6/13/33	Mon 5/8/34
78		NJDEP GW RAP Application Review & Approval	6 mons	Tue 5/9/34	Mon 10/23/34
79		RAO	2 mons	Tue 10/24/34	Mon 12/18/34
80		**Development Area Soil**	**67.75 mons**	**Fri 3/1/24**	**Thu 5/10/29**
81		Fill Use Plan Approval	0 mons	Fri 3/1/24	Fri 3/1/24
82		Focused Pre-Capping Removals	23 mons	Fri 3/1/24	Thu 12/4/25
83		GDP/ Site Plan Approval	0 mons	Fri 12/26/25	Fri 12/26/25
84		**Former Burning Ground (H13-7/H12-237) Remediation**	**24 mons**	**Mon 7/1/24**	**Fri 5/1/26**
85		**PDI & RAWP**	**10 mons**	**Mon 7/1/24**	**Fri 4/4/25**
90		**Permits/Approval**	**9 mons**	**Mon 1/13/25**	**Fri 9/19/25**
95		**Implementation**	**8 mons**	**Mon 9/22/25**	**Fri 5/1/26**
99		Clearing, Grading, Soils/Concrete Management	12 mons	Fri 12/26/25	Thu 11/26/26
100		Cap Construction	24 mons	Fri 11/27/26	Thu 9/28/28
101		Capping RAR/Permit Application	6 mons	Fri 4/14/28	Thu 9/28/28
102		NJDEP Soil RAP Permit Review	6 mons	Fri 9/29/28	Thu 3/15/29
103		RAO	2 mons	Fri 3/16/29	Thu 5/10/29
104		**Remediation Area Soil**	**106 mons**	**Wed 1/1/25**	**Tue 2/15/33**
105		**Ecological Risk Assessment**	**6 mons**	**Tue 1/12/27**	**Mon 6/28/27**
106		ERA Risk Characterization and Revised Exposure Areas	6 mons	Tue 1/12/27	Mon 6/28/27
107		**Old Burning Ground (M5-3) Remediation**	**50.45 mons**	**Wed 1/1/25**	**Mon 11/13/28**
108		**PDI & RAWP**	**18.45 mons**	**Wed 1/1/25**	**Mon 6/1/26**
113		**Permits/Approval**	**9 mons**	**Tue 3/10/26**	**Mon 11/16/26**
118		**Implementation/Reporting**	**26 mons**	**Tue 11/17/26**	**Mon 11/13/28**
123		**Experimental Dynamite (K5-1) Remediation**	**40.5 mons**	**Tue 4/7/26**	**Mon 5/14/29**
124		**PDI & RAWP**	**15 mons**	**Tue 4/7/26**	**Mon 5/31/27**
129		**Permits/Approval**	**9 mons**	**Tue 3/9/27**	**Mon 11/15/27**
134		**Implementation/Reporting**	**19.5 mons**	**Tue 11/16/27**	**Mon 5/14/29**
139		**WWII Disposal Area (M8-1) Remediation**	**50.45 mons**	**Wed 2/25/26**	**Mon 1/7/30**
140		**PDI & RAWP**	**18.45 mons**	**Wed 2/25/26**	**Mon 7/26/27**
145		**Permits/Approval**	**9 mons**	**Tue 5/4/27**	**Mon 1/10/28**

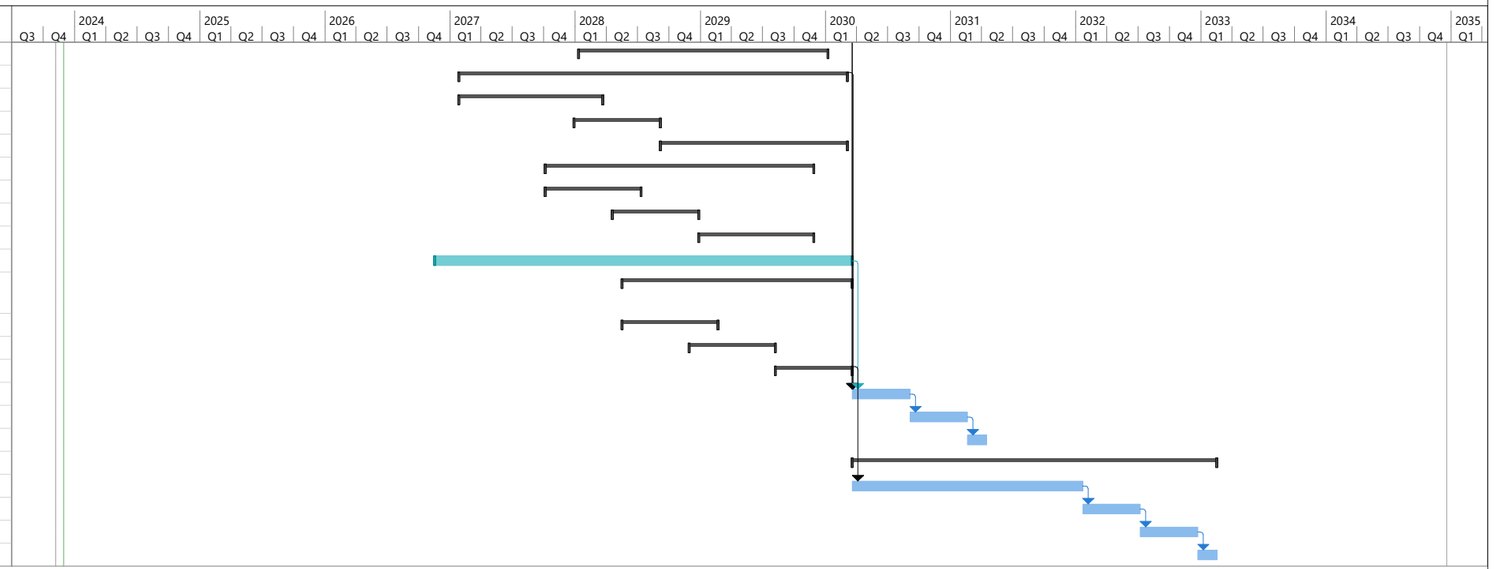


Project: Exhibit B - Estimated Re
Date: Thu 11/30/23

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress		
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline			
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress			

Exhibit B - Estimated Remedial Action Report Timeframe

ID	Task Mode	Task Name	Duration	Start	Finish
150		**Implementation/Reporting**	**26 mons**	**Tue 1/11/28**	**Mon 1/7/30**
155		**WWI Disposal Area (N8-1) Remediation**	**40.5 mons**	**Wed 1/27/27**	**Tue 3/5/30**
156		**PDI & RAWP**	**15 mons**	**Wed 1/27/27**	**Tue 3/21/28**
161		**Permits/Approval**	**9 mons**	**Wed 12/29/27**	**Tue 9/5/28**
166		**Implementation/Reporting**	**19.5 mons**	**Wed 9/6/28**	**Tue 3/5/30**
171		**Ballistics Range (H5-8126) Remediation**	**28 mons**	**Wed 10/6/27**	**Tue 11/27/29**
172		**PDI & RAWP**	**10 mons**	**Wed 10/6/27**	**Tue 7/11/28**
177		**Permits/Approval**	**9 mons**	**Wed 4/19/28**	**Tue 12/26/28**
182		**Implementation/Reporting**	**12 mons**	**Wed 12/27/28**	**Tue 11/27/29**
187		Concrete Management	43.55 mons	Tue 11/17/26	Tue 3/19/30
188		**Miscellaneous Removals, Consolidation, and/or Capping (as identified)**	**24 mons**	**Wed 5/17/28**	**Tue 3/19/30**
189		**PDI & RAWP**	**10 mons**	**Wed 5/17/28**	**Tue 2/20/29**
194		**Permits/Approval**	**9 mons**	**Wed 11/29/28**	**Tue 8/7/29**
199		**Implementation**	**8 mons**	**Wed 8/8/29**	**Tue 3/19/30**
203		Remediation Area Soil RAR/RAP Application	6 mons	Wed 3/20/30	Tue 9/3/30
204		NJDEP Soil RAP Application Review	6 mons	Wed 9/4/30	Tue 2/18/31
205		RAO	2 mons	Wed 2/19/31	Tue 4/15/31
206		**Remediation & Development Area Groundwater**	**38 mons**	**Wed 3/20/30**	**Tue 2/15/33**
207		Groundwater Monitoring	24 mons	Wed 3/20/30	Tue 1/20/32
208		GW RAR/RAP Application	6 mons	Wed 1/21/32	Tue 7/6/32
209		NJDEP GW RAP Application Review	6 mons	Wed 7/7/32	Tue 12/21/32
210		RAO	2 mons	Wed 12/22/32	Tue 2/15/33



Project: Exhibit B - Estimated Re
Date: Thu 11/30/23

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

Attachment 3

NJDEP Email Correspondence dated 8 July 2019

From:	Foley, Mark
To:	Scott Larew; Edward Meeks
Subject:	FW: Alliant Techsystems Inc PI No. 000741
Date:	Monday, July 8, 2019 10:39:30 AM
Attachments:	image001.png

Mark Foley
Practice Leader
Water & Environment

Phone: +1 609 512 3676
Cell: +1 609 306 9687
Email: Mark.Foley@wsp.com

WSP USA
2000 Lenox Drive, 3rd Floor
Lawrenceville, NJ 08648
wsp.com

WSP | Parsons Brinckerhoff is now WSP.

From: Pecchioli, Joel <Joel.Pecchioli@dep.nj.gov>
Sent: Monday, July 08, 2019 10:35 AM
To: Foley, Mark <Mark.Foley@wsp.com>
Cc: Motter, Allan <Allan.Motter@dep.nj.gov>; Zagorski, Ted <Ted.Zagorski@dep.nj.gov>; Dillman, Andy <Andy.Dillman@dep.nj.gov>
Subject: Alliant Techsystems Inc PI No. 000741

Good morning -

An Ecological Component Review of the Phase II Remedial Investigation Report (RIR; May 2016) prepared by Hercules, Inc. for the above-referenced site (also known as the form Kenvil Works Facility) is currently underway. This includes a review of the Ecological Evaluation/Ecological Risk Assessment (EE/ERA, dated April 2016) included as Volume F of the RIR.

The following major issues/concerns with the EE/ERA have been identified that preclude completion of its review, as well as the Ecological Component Review of the Phase II RIR of which it is a part.

General Comment A: the EE/ERA (RIR Volume F) takes a facility-wide approach in its evaluation of potential COPEC impacts to terrestrial (Section 3.3.3.1, page 31 and Figure 3-2, e-page 215) and aquatic (Section 3.3.3.2, page 32 and Figure 3-3, e-page 216) receptors. This approach does not consider (a) the size of specific habitat patches on the site relative to the home ranges of the

receptor species using those patches, (b) specific Environmentally Sensitive Natural Resources (ESNRs) with elevated COPEC (greater than the 95UCL) concentrations, and (c) other specific areas with elevated COPEC concentrations (greater than the 95UCL) that could potentially impact ESNRs. To evaluate the appropriateness of this approach, please note the following comments –

1. The EE/ERA (RIR Volume F) and the RIR Summary (Volume A) do not identify and discuss potential impacts to specific Environmentally Sensitive Natural Resources (ESNRs) on and adjacent to the site as required by NJAC 7:26E-1.16(a), and as specified in Section 5.2.1 of the NJDEP Site Remediation and Waste Management Program Ecological Evaluation Technical Guidance (EETG; Version 2.0, August 2018). RIR Summary (Volume A) Figure A-6 (e-page 101) and RIR Volume F (EE/ERA) Figure 2-2 (e-page 213) provide mapping of selected types of habitat present on the site (including forest, wetlands, and aquatic areas – but not vernal pools). However, RIR Summary (Volume A) Section 2.3.2 (page 2-4) provides a very cursory overview (or none at all) of these habitats; RIR Volume F (EE/ERA) Section 2.6 (and sub-sections; pages 10-15) describes various types of terrestrial, aquatic, and wetlands habitats on the site but does not identify specific ESNRs. RIR Volume F (EE/ERA) Section 2.5 (page 9) discusses the presence of State and federal Threatened and Endangered (T/E) species on the site and states that "[n]one of the T & E species listed as possibly present on or near the Facility have been identified onsite[sic]". However, potential habitat for bog turtle (*Glyptemys muhlenbergii)* has been identified on-site, and species-specific surveys for other T/E species that may be present on the site have apparently not been conducted.

2. RIR Volume F (EE/ERA) Section 3.3.3.1 (page 31) states the "formerly developed portion of the Facility (the Remedial Area) provides patches of habitat for ecological receptors. Upper-trophic-level [sic] ecological receptors using onsite [sic] terrestrial habitats are likely to move among the habitat patches that share a common list of Facility-related constituents, as well as similarities in habitat type and composition". However, it could be expected that the distribution of lower trophic level receptors/prey would be limited to smaller habitat patches with a variety and range of COPEC concentrations (potentially including concentrations greater than the 95UCL).

3. RIR Summary (Volume A) Section 4.2.2 (page 4-8) notes that "natural succession of flora and fauna growth has been allowed to progress uninhibited with vegetative communities expanding" since the completion of facility demolition activities in 2003. RIR Summary (Volume A) Section 5.3.3 (page 5-17) further states that the "combination of increased habitat and decreased activity and disturbance likely increased the number and variety of ecological receptors using the Facility". It appears that field surveys of the site were last conducted in July 2010 and May-July 2011 (RIR Volume F [EE/ERA] Section 2.6, page 10); given the age of these surveys and continuing post-demolition secondary succession occurring on-site, it may be appropriate to conduct additional surveys to develop an updated habitat characterization.

General Comment B: RIR Volume F (EE/ERA) Section 3.3.4.1 (page 33) and Figure 3-2 (e-page 215)

identify terrestrial "Areas of Presumed Remedial Action" (including areas where ecological risk is likely/very likely; Executive Summary, page ES-2) that have been excluded from the EE/ERA terrestrial ecological risk evaluations. However, these areas have not been otherwise so identified for remediation in the Phase II RIR. See Comments #4-#8 below – based on these conclusions and recommendations of the Phase II RIR, it appears to be premature/inappropriate for the EE/ERA to identify terrestrial "Areas of Presumed Remedial Action". Further, such a designation appears to potentially pre-judge future decisions regarding the need to conduct remedial activities on the site.

4. RIR Volume F (EE/ERA) Section 3.3.4.1 (page 33) prioritizes the "Areas of Presumed Remedial Action" using a tiered system "to guide the feasibility study process". This tiered system is "based (in part) on elements such as complexity of the remedy, severity of the effects, duration of remedy implementation, and/or alignment with Facility redevelopment planning". This tiered priority system, and the associated data and evaluations used to implement it, were not included in the Phase II RIR. Table 3-1 (e-page 138) of RIR Volume F (EE/ERA) summarizes the "History", "Fate and Transport", and "Remedial Objective" (including presumptive remedies, additional investigations, and the need to conduct additional evaluations during the feasibility study process) for each of the areas. RIR Volume F (EE/ERA) Section 3.2.2 (page 23) notes that "[p]re-design investigations are underway in these areas to support remedy selection and design"; also see the descriptions of these areas in RIR Volume F (EE/ERA) Appendix B, e-page 1984.

5. The Phase II RIR concludes (RIR Summary [Volume A] Section 6, page 6-1) that "refining the extent of certain constituents on an area- or constituent-specific basis is necessary to develop appropriate remedies protective of human health and the environment". Further, additional investigations are recommended that "would inform the preparation of a soil management plan and remedial action selection report (feasibility study), and ultimately remedial action design and implementation. Hercules believes a document focused on remedial action selection … represents a meaningful step in the remedy process given the scale and complexity of the Facility".

6. RIR Volume B (Soil) Section 6.4 (page 47) also states "refining the extent of certain constituents on an area- or constituent-specific basis is necessary to develop appropriate remedies protective of human health and the environment". Further, "additional data should be collected as part of pre-design investigation[s] supporting the feasibility study/remedial design process, as they may reduce the footprint and/or quantity of soil subject to remediation and reduce disturbance to ecologically sensitive areas".

7. RIR Volume D (Sediment) Section 6.4 (page 44) states the EE/ERA "acknowledges that remedial action is necessary in certain areas of the Facility, prioritizes these areas based on complexity and severity, and outlines presumptive remedies with each area … Hercules is committed to addressing these areas, and other areas identified via ongoing risk assessment activities. Comprehensive remedies addressing both upland source areas and related sediment influences will be developed to address protection of both human health and [the] environment".

8. RIR Volume E (Surface Water) Section 6.4 (page 30) states that Hercules will (a) "[c]ollectively evaluate remedial actions related to soil and sediment to identify their influence on surface water quality and incorporate surface water quality remedial goals into the design process", and (b) "[e]valuate Facility-related influences on surface water quality that do not coincide with soil and/or sediment remedies as part of the remedial design process". Further, the "results of the EE/ERA (Volume F) will also influence remedial decision making with respect to ecological endpoints".

9. RIR Volume F (EE/ERA) Section 3.3.3.2, page 32 and Figure 3-3, e-page 216: The Southern Drainage Aquatic Exposure Area includes areas/ditches along Route 46 and the southeastern boundary of the site that are outside the established Remedial Area Boundary, but "receive surface water and suspended sediment from the southern wetland complex (within the Remedial Area boundary) that drains operational areas of the Facility. These drainage channels also receive runoff from Howard Boulevard and Route 46". Are terrestrial/upland parcels in this area also impacted by these discharges?

10. A review and comparison of RIR Volume F (EE/ERA) Figure 3-2 (e-page 215) and RIR Summary (Volume A) Figure A-6 (e-page 101) indicates that the boundaries of the terrestrial "Areas of Presumed Remedial Action" include streams/ditches (particularly in the TNT Area; areas denoted "1" on EE/ERA Figure 3-2), and thus potentially riparian areas and wetlands associated with these waterbodies. Have the extent of wetlands and riparian areas on the site been verified by a NJDEP Land Use Regulation Program Letter of Interpretation? RIR Volume F (EE/ERA) Section 2.6 (page 10) notes that a Facility-wide wetlands assessment was conducted in May-July 2011.

Please provide the following information concerning these "Areas of Presumed Remedial Action": (a) the basis for concluding (and prioritizing – see Comment #1 above) that remedial action is needed in these areas, (b) the status/schedule of remedial actions in these areas, (c) the type of remedial actions (to be) completed in these areas, and (d) an evaluation of the potential effects of these remedial actions to eliminate/reduce potential COPEC-related impacts to terrestrial and aquatic receptors (it appears that these areas are within/adjacent to wetlands and/or surface waterbodies).

General Comment C: RIR Volume F (EE/ERA) Section 3.3.4.2 (page 34) discusses "Areas Beyond the Remedial Area Boundary", and notes that these areas were identified in the Site Investigation/Phase I RI by comparing sample results to "criteria protective of human health (i.e., soil remediation goals)". It is also stated that "sample results from the undeveloped areas around the margins of the Facility (outside the Remedial Area) were evaluated in the context of potential ecological risk". This analysis was conducted in RIR Volume F (EE/ERA) Appendix C (e-page 2133) in which the 95UCL of the mean for each COPEC was compared to ecological screening benchmarks. Those COPECs with an HQ $\geq$ 1 that also bioaccumulate were then further evaluated using a food web model to estimate potential impacts to upper trophic level species.

- A review of the soil data used in this analysis (Table C-1, e-page 2140) indicates that for a

number of the COPECs – particularly arsenic, beryllium, chromium, cobalt, copper, lead, manganese, nickel, selenium, zinc, and nitroglycerin – the maximum detected concentration in the soil samples is substantially greater than its 95UCL. Thus, there may be locations in the "Areas Beyond the Remedial Area Boundary" where elevated COPEC concentrations potentially result in adverse ecological impacts.

- RIR Volume F (EE/ERA) Appendix C, Section 3.1, page 2: identifies seven (7) metals with 95UCL concentrations with an HQ $\geq$ 1 for potential impacts to terrestrial plants and soil invertebrates. However, the conclusions of this evaluation (Section 4, page 3) appear to disregard these results when stating that "potential ecological risks beyond the Remedial Area are unlikely".

- RIR Volume F (EE/ERA) Appendix C, Figure C-1 (e-page 2148): a wetlands area in the southern portion of the site along Route 46 is included in the "Areas Beyond the Remedial Area Boundary". However, the evaluation of the soil/sediment data collected in this area did not include comparisons to the NJDEP Freshwater Sediment Ecological Screening Criteria to calculate HQs.

General Comment D: Section 5.3.3.1 of the NJDEP Site Remediation and Waste Management Program Ecological Evaluation Technical Guidance (EETG; Version 2.0, August 2018) specifies that soil (and sediment) samples should be collected from the 0 to 6-inch below ground surface (bgs) depth interval (except for those to be analyzed for VOCs). A cursory review of the collected soil data (RIR Volume B [Soil] Appendix F, e-page 22028), and previous NJDEP November 18, 2010 comments on the Phase I Remedial Investigation (RI; noted below), indicate that very few of the soil samples collected during the Site Investigation (SI), Phase I RI, and Phase II RI work were collected from the 0-6 inch bgs depth interval. The requirement to collect soil (and sediment) samples at this depth interval was previously identified in the following NJDEP November 18, 2010 comments (RIR Volume A-Summary, Attachment 2, e-page 230) –

11. "Volume B – No. 2: Section 2.4 – Soil Sampling" stated "[t]ables indicate that most surface soil samples were collected from [the 6-12 inch interval below ground surface]. This is deficient according to NJAC 7:26E-3.6(a)3 which states that initial characterization of soil samples (except VOC samples) shall be collected at 0-6 inches below grade … ";

12. "Volume B – No.3: Section 2.4.1.3" stated that "no (0-6") [soil samples] were collected from any of the AOCs";

13. "Volume A – No. 14 -Section 8.0 – Future Actions" (Bullet #3) stated that additional "surface soil sampling from the 0-6" interval from various AOCs throughout the site, particularly … [in] areas where surface discharges may have occurred" may be required;

14. In addition, it appears that many/most of the Phase II RI soil samples were not collected at the 0-6 inches below ground surface depth interval (for example, see RIR Volume B (Soil Remedial Investigation), Figure B-3, e-page 163).

Section 3.3.1.1 (page 26 – Footnote 3) of RIR Volume F (EE/ERA) states that the soil samples used in the EE/ERA were collected "with a starting depth of 0 to 1 foot [bgs] and an end depth of no more than 3 feet bgs … and includes intervals spanning the biologically active zone (BAZ)". However, the EE/ERA (RIR Volume F) soil (and sediment) dataset included samples collected from the 0-12 inch bgs interval, including samples that included any portion of the 0-12 inch bgs interval (Volume F [EE/ERA] Section 4.1.1, page 38). Table 4-1 (e-page 141) of RIR Volume F (EE/ERA) provides a summary of the collected soil (and sediment) data. Of the forty-five (45) depth intervals listed, only four (4) solely encompass the 0-6 inch (0.5 feet) bgs depth interval, with an additional nine (9) depth intervals of 0-12 inches (1.0 foot) bgs and seven (7) depth intervals within the 0-12 inch bgs interval. Thus, twenty-five of the soil sample depth intervals listed extend deeper than the 0-12 inch bgs depth of the BAZ.

15. In order to evaluate the suitability of the soil (and sediment) data used in the EE/ERA, Table 4-1 (e-page 141) of RIR Volume F (EE/ERA) should be revised to indicate (a) the total number of soil (and sediment) samples collected in each of the listed depth intervals, and (b) the total number of samples collected in each of the listed depth intervals within each of the 13 soil AOCs.

16. In addition, to further evaluate the suitability of the soil (and sediment) data used in the EE/ERA: within each of the 13 soil AOCs, an analysis should be conducted – where the appropriate data are available – comparing COPEC concentrations in samples collected within the 0-12 inch bgs depth interval (i.e., the twenty (20) intervals noted above) with those collected at deeper depths to verify that COPEC concentrations are not elevated in the 0-12 bgs depth interval samples compared to those in the other (i.e., "deeper") depth interval samples. If that were the case, inclusion of these deeper samples in the calculations of the mean, 95UCL, etc. statistics would result in underestimates of the COPEC concentrations in the biologically active zone (0-12 inches bgs).

17. Samples collected outside the 0-12 in bgs depth interval (i.e., three (3) intervals listed in EE/ERA Table 4-1 of 1-1.5 ft bgs, 1-1.6 ft bgs, and 1.08-1.58 ft bgs) are outside what is generally considered to be the biologically active zone and therefore should not be used in the EE/ERA. In addition, some samples (5 depth intervals) were collected to depths extending beyond 3 feet bgs (up to 10 ft bgs) as stated in Section 3.3.1.1 (page 26 – Footnote 3) of RIR Volume F (EE/ERA).

General Comment E: see General Comment D. RIR Volume F (EE/ERA) Table 4-1 (e-page 141) incudes sediment samples collected at a depth interval of 1-1.5 feet bgs; these samples are outside what is generally considered to be the biologically active zone (0-12 inches bgs) and therefore should not be used in the EE/ERA. In addition -

18. A cursory review of the data presented in RIR Volume D (Sediment) Appendix G (e-page 9667) indicates that all of the previous SI and Phase I RI sediment samples were collected

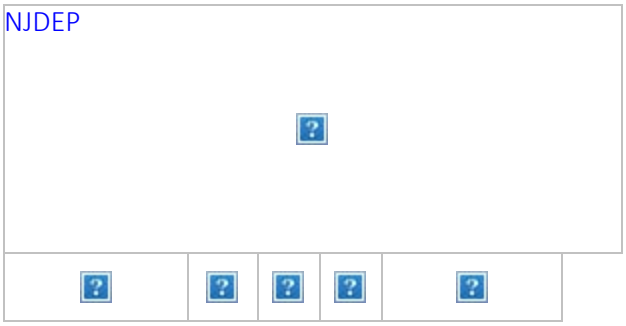
at depth intervals of 0.5-1 ft bgs, 1-1.5 ft bgs, and 1.5-2 ft bgs. RIR Volume F (EE/ERA) Table 4-1 (e-page 141) includes sediment samples collected at a depth interval of 0.0-0.5 ft bgs; are these limited to the Phase II RIR sediment samples?

General Comment F: RIR Volume F (EE/ERA), Section 7, page 66: for HQ calculation and ecological risk characterization purposes, concludes that the HQ-LOAEL "provides a more representative indicator of potential ecological risk to upper-trophic-level [sic] receptors than the HQ-NOAEL"; also see Section 7.4, page 75. Section 6.1.33 of the NJDEP EETG states that both "NOAEL-based and LOAEL-based HQs should be developed to bound the risk estimates". Tables 7-3 to 7-9 (e-pages 181-186), Tables 7-13 to 7-18 (e-pages 191-196), and Tables 7-22 to 7-28 (e-pages 201-207) include HQs calculated using both NOAELs and LOAELs. Section 7.1.3 (and subsections; pages 68-69) should also present and discuss the NOAEL-based HQs.

Please provide a response to these comments by July 26, 2019 so that the Ecological Component Review of the Phase II RIR can be completed. If you would like to discuss these comments via a teleconference, please contact me as indicated below.

Joel A. Pecchioli
Research Scientist I
Environmental Toxicology and Risk Assessment
New Jersey Department of Environmental Protection
(609) 633-2200
joel.pecchioli@dep.nj.gov

NJDEP



NOTE: This E-mail is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521. This E-Mail and its contents, may be Privileged & Confidential due to the Attorney-Client Privilege, Attorney Work Product, and Deliberative Process or under the New Jersey Open Public Records Act. If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

NOTICE: This communication and any attachments ("this message") may contain information which is privileged, confidential, proprietary or otherwise subject to restricted disclosure under applicable law. This message is for the sole use of the intended recipient(s). Any unauthorized use, disclosure, viewing, copying, alteration, dissemination or distribution of, or reliance on, this message is strictly prohibited. If you have received this message in error, or you are not an authorized or intended recipient, please notify the sender immediately by replying to this message, delete this message and all copies from your e-mail system and destroy any printed copies.

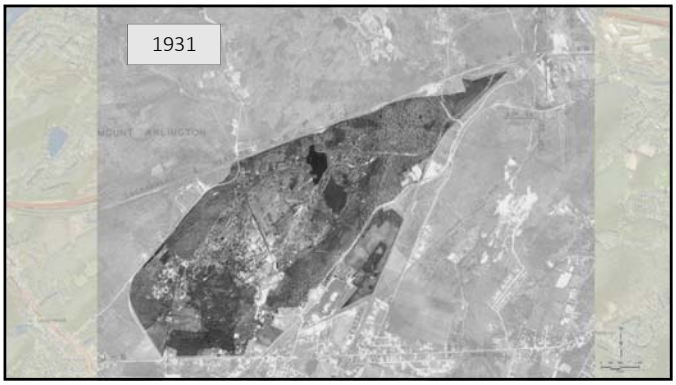
-LAEmHhHzdJzBlTWfa4Hgs7pbKl

Attachment 4

NJDEP Technical Consultation Presentation

Kenvil Works Facility Ecological Risk Assessment
Framework and Path Forward
Hercules LLC, Former Kenvil Works Facility
December 5, 2019
HERCULES

Facility


1931

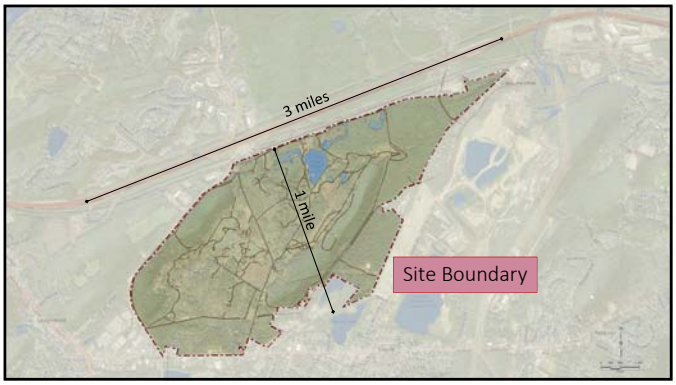
1957

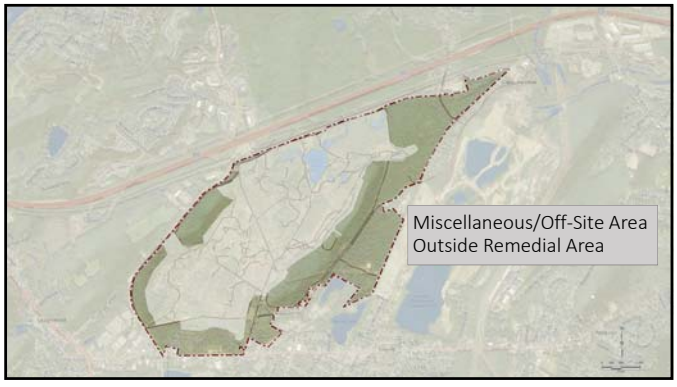
1979

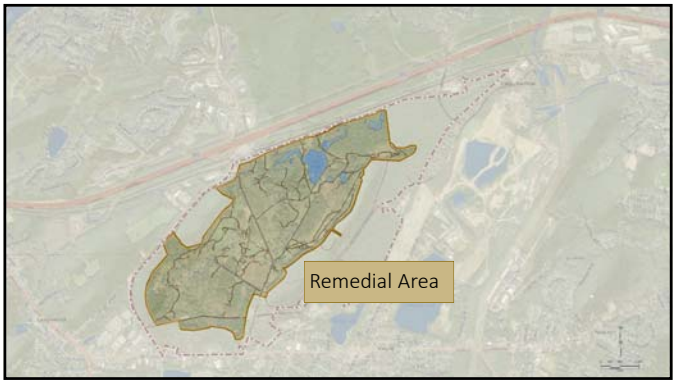
1995
Shooting Pond
Duck Pond

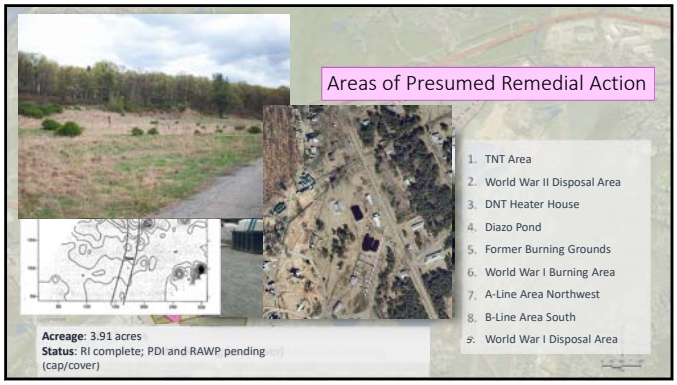
2002
Shooting Pond
Duck Pond

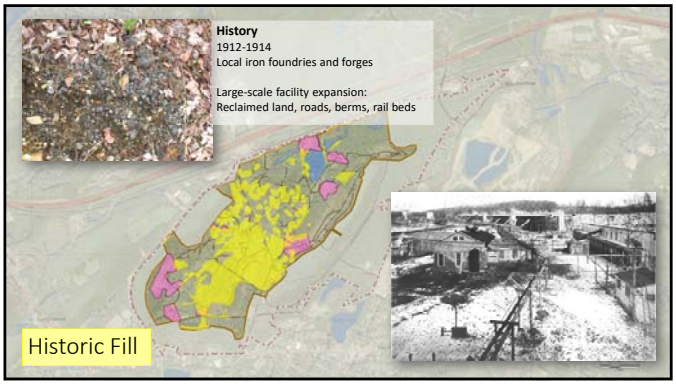
2017
Shooting Pond
Duck Pond


3 miles
1 mile
Site Boundary

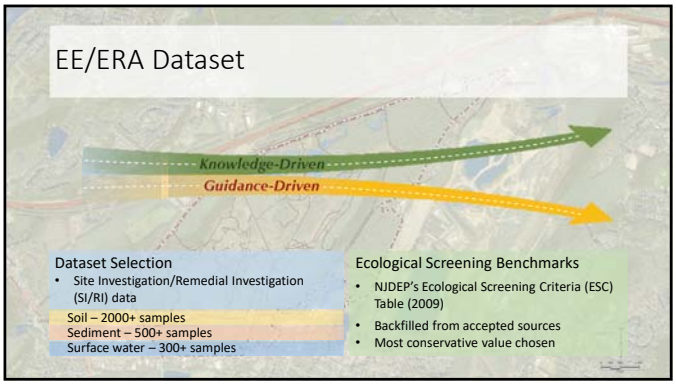

Miscellaneous/Off-Site Area
Outside Remedial Area

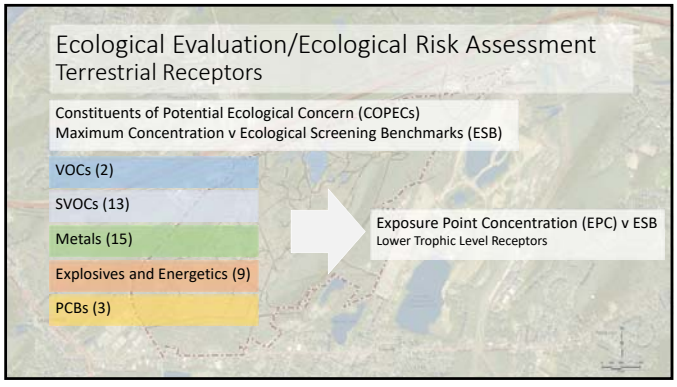

Remedial Area

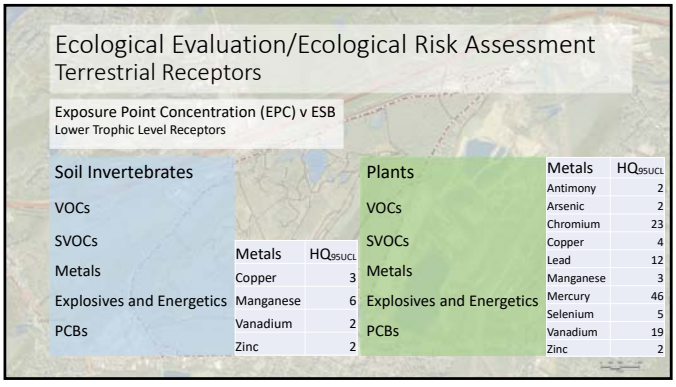

Areas of Presumed Remedial Action
1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. Diazo Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area
Acreage: 3.91 acres
Status: RI complete; PDI and RAWP pending (cap/cover)


History
1912-1914
Local iron foundries and forges
Large-scale facility expansion:
Reclaimed land, roads, berms, rail beds
Historic Fill

Discussion


EE/ERA Dataset
Knowledge-Driven
Guidance-Driven
Dataset Selection
• Site Investigation/Remedial Investigation (SI/RI) data
Soil – 2000+ samples
Sediment – 500+ samples
Surface water – 300+ samples
Ecological Screening Benchmarks
• NJDEP's Ecological Screening Criteria (ESC) Table (2009)
• Backfilled from accepted sources
• Most conservative value chosen


Ecological Evaluation/Ecological Risk Assessment
Terrestrial Receptors
Constituents of Potential Ecological Concern (COPECs)
Maximum Concentration v Ecological Screening Benchmarks (ESB)
VOCs (2)
SVOCs (13)
Metals (15)
Explosives and Energetics (9)
PCBs (3)
Exposure Point Concentration (EPC) v ESB
Lower Trophic Level Receptors


Ecological Evaluation/Ecological Risk Assessment
Terrestrial Receptors
Exposure Point Concentration (EPC) v ESB
Lower Trophic Level Receptors
Soil Invertebrates
VOCs
SVOCs
Metals
Explosives and Energetics
PCBs
Metals HQ95UCL
Copper 3
Manganese 6
Vanadium 2
Zinc 2
Plants
VOCs
SVOCs
Metals
Explosives and Energetics
PCBs
Metals HQ95UCL
Antimony 2
Arsenic 2
Chromium 23
Copper 4
Lead 12
Manganese 3
Mercury 46
Selenium 5
Vanadium 19
Zinc 2

Upper Trophic Level Receptor Dose Model Setup

Estimated Prey Item Tissue Concentrations
- Soil BAFs estimate COPEC concentrations in biological tissue
- Sourced from literature
- BSAFs use as surrogate in absence of BAF

Food Web Model
- Estimates the dose of a COPEC through dietary ingestion of soil/sediment and prey item tissue

$$DDD = \frac{\{[(IR_f \times C_f) + (IR_s \times C_s)] \times SUF\}}{BW}$$

- DDD = Daily dietary dose of COPEC (mg/kg per day)
- Cf = Concentration of a COPEC in food (mg/kg)
- IRf = Daily ingestion of food (kg/day)
- Cs = Concentration of a COPEC in soil/sediment(mg/kg)
- IRs = Daily incidental ingestion rate of soil/sediment (kg/day)
- SUF = Site use factor (unitless)
- BW = Body weight (kg)

Most conservative input parameters used for site use factor, dietary composition, and bioavailability

Ecological Evaluation/Ecological Risk Assessment
Terrestrial Receptors

Dietary Dose v Toxicity Reference Value (TRV)
Upper Trophic Level Receptors

(LOAEL-based HQs)

Birds

	Total PCBs		Copper		Lead		Mercury		Zinc	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
American Robin (insectivorous)	**42**	**3**	**8**	**3**	**51**	**25**	**2**	≤1	**2**	≤1
Northern Bobwhite (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Red-tailed Hawk (carnivorous)	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1

Ecological Evaluation/Ecological Risk Assessment
Terrestrial Receptors

Dietary Dose v Toxicity Reference Value (TRV)
Upper Trophic Level Receptors

(LOAEL-based HQs)

Mammals

	Total PCBs		Copper		Lead		Mercury		Zinc	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Short-tailed Shrew (insectivorous)	**4**	≤1	**2**	≤1	**5**	**3**	≤1	≤1	≤1	≤1
White-tailed Deer (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Red Fox (carnivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Refined Risk Assessment
Terrestrial Receptors

American Robin
Site Use Factor (SUF)
1.0 → 0.67
Considers migratory behavior

Dietary Composition
100% earthworms → 62.5% plants, 37.5% invertebrates
Empirical data representing diet

Soil Ingestion Rate
10% → 20%
Updated species-specific information

Revised Toxicity Reference Values - Lead
Birds
NOAEL: 1.63 → 1.13 mg/kg bw/day
LOAEL: 3.3 → 11.3 mg/kg bw/day
Mammals
NOAEL: 4.7 → 8 mg/kg bw/day
LOAEL: 8.9 → 80 mg/kg bw/day

Bioaccessibility – Lead
Birds
100% → 53% soil; 73% earthworm tissue
Mammals
100% → 66% soil; 77% earthworm tissue, 50% vegetation

Refined Risk Assessment
Terrestrial Receptors

Dietary Dose v Toxicity Reference Value (TRV)
Upper Trophic Level Receptors

(LOAEL-based HQs)

Birds

American Robin (insectivorous/herbivorous)

	Total PCBs		Copper		Lead	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
	≤1	≤1	≤1	≤1	**27**	**3**

Mammals

Short-tailed Shrew (insectivorous)

	Lead	
	HQ NOAEL	HQ LOAEL
	≤1	≤1

Terrestrial Lead Investigation

Site-specific ESC for Lead (488 mg/kg)
- Back-calculated from American robin food web model ($HQ_{LOAEL} = 1$)
- Most conservative of upper trophic level terrestrial receptors

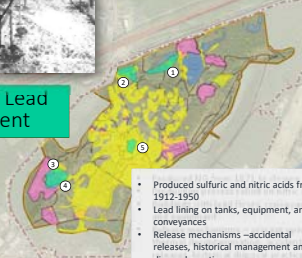
Food Web Model

$$DDD = \frac{\{[(IR_f \times C_f) + (IR_s \times C_s)] \times SUF\}}{BW}$$

- DDD = Daily dietary dose of COPEC (mg/kg per day)
- Cf = Concentration of a COPEC in food (mg/kg)
- IRf = Daily ingestion of food (kg/day)
- Cs = Concentration of a COPEC in soil/sediment(mg/kg)
- IRs = Daily incidental ingestion rate of soil/sediment (kg/day)
- SUF = Site use factor (unitless)
- BW = Body weight (kg)

Terrestrial Lead Investigation

Areas of Lead Enrichment

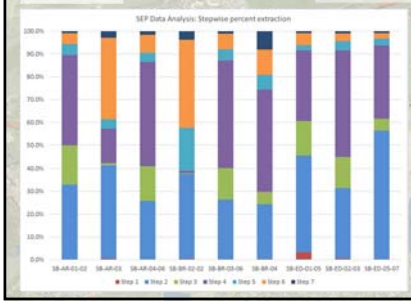


- Produced sulfuric and nitric acids from 1912-1950
- Lead lining on tanks, equipment, and conveyances
- Release mechanisms –accidental releases, historical management and disposal practices

1. Development Area – Experimental Dynamite Production Area
2. Development Area – Ballistics Range
3. Pentaerythritol tetranitrate (PETN)/Nitroglycerin (NG) Area – Acid Recovery
4. NG Area – Former Ponds
5. Maintenance Area – Acid Production Plant

Terrestrial Lead Investigation

SEP Analysis



- Step 1 – exchangeable fraction
- Step 2 – carbonate fraction
- Pb species in these soil fractions
  - are weakly bound
  - can easily enter the food chain
  - can be easily remobilized by changes in environmental conditions

Ecological Evaluation/Ecological Risk Assessment
Terrestrial Receptors

Other COPECs

Soil Invertebrates
- VOCs
- SVOCs
- Metals
- Explosives and Energetics
- PCBs

Metals	HQ_{95UCL}
Copper	3
Manganese	6
Vanadium	2
Zinc	2

Plants
- VOCs
- SVOCs
- Metals
- Explosives and Energetics
- PCBs

Metals	HQ_{95UCL}
Antimony	2
Arsenic	2
Chromium	23
Copper	4
Lead	12
Manganese	3
Mercury	46
Selenium	5
Vanadium	19
Zinc	2

Terrestrial ERA & Redevelopment

Other COPECs

Soil Invertebrates

Metals	HQ_{95UCL} Sitewide	HQ_{95UCL} Excluding Redevelopment Area
Copper	3	3
Manganese	6	5
Vanadium	2	2
Zinc	2	5

Plants

Metals	HQ_{95UCL} Sitewide	HQ_{95UCL} Excluding Redevelopment Area
Antimony	2	
Arsenic	2	2
Chromium	23	18
Copper	4	4
Lead	12	16
Manganese	3	2
Mercury	46	88
Selenium	5	4
Vanadium	19	22
Zinc	2	3

Terrestrial ERA & Redevelopment

Manganese

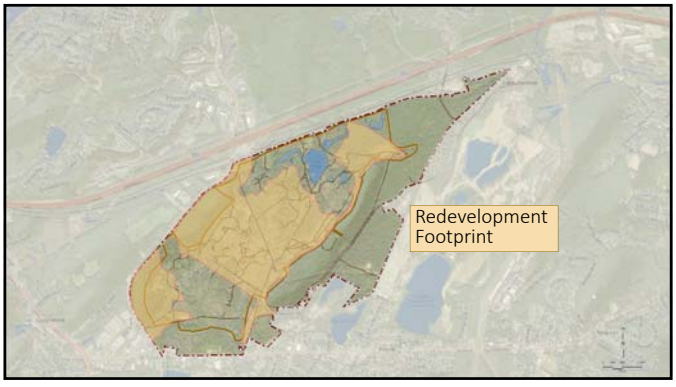
	Facility Soil - Sitewide	Facility Soil – Excluding Redevelopment Area	Ambient Level Metals Soil Concentrations – Ridge & Valley Province
Analyses/Detects	25/25	12/12	23/23
Median (mg/kg)	342	252	470
90th Percentile (mg/kg)	559*	503*	1,192

*95UCL calculated

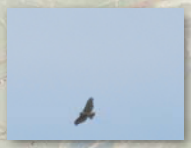
Mercury

	Minimum	1st Quartile	Median	3rd Quartile	Maximum
Mercury (mg/kg)	0.0039	0.05	0.118	0.334	2940

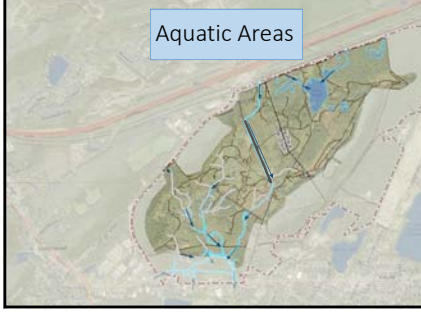
Maximum sample concentration @ H6-8285-05
Next highest sample concentration (324) @ H7-8123A-05



Discussion



Aquatic Areas



Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors

Constituents of Potential Ecological Concern (COPECs)
Maximum Concentration v Ecological Screening Benchmarks (ESB)

Northern Drainage Area		Southern Drainage Area	
Surface Water	Sediment	Surface Water	Sediment
	SVOCs (9)		VOCs (1)
Metals (4)	Metals (10)	SVOCs (1)	SVOCs (18)
	Explosives and Energetics (2)	Metals (10)	Metals (14)
			Explosives and Energetics (3)

Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors

Exposure Point Concentration (EPC) v ESB
Lower Trophic Level Receptors

Northern Drainage Area

Benthic Invertebrates		Plants	
COPEC	HQ_{95UCL}	COPEC	HQ_{95UCL}
Pyrene	2	Chromium	21
Arsenic	2	Lead	2
Cadmium	2	Mercury	3
Copper	4	Zinc	2
Lead	6		
Mercury	4		
Zinc	3		

Southern Drainage Area

Benthic Invertebrates		Plants	
SVOCs (15 PAHS, 2 other)		PAHs (9)	
Metals	HQ_{95UCL}	Metals	HQ_{95UCL}
Arsenic	3	Chromium	26
Copper	3	Lead	38
Lead	126	Manganese	12
Manganese	5	Mercury	6
Mercury	8	Selenium	3
		Thallium	3

Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors

Exposure Point Concentration (EPC) v ESB
Lower Trophic Level Receptors

Northern Drainage Area
Fish and Aquatic Invertebrates

COPEC	HQ_{95UCL}
Copper	3
Lead	4

Southern Drainage Area
Fish and Aquatic Invertebrates

COPEC	HQ_{95UCL}
Aluminum	8
Manganese	11
Lead	3

Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors – Northern Drainage Area

Dietary Dose v Toxicity Reference Value (TRV) (LOAEL-based HQs)
Upper Trophic Level Receptors

Birds	Copper		Lead		Nickel		Zinc	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Tree Swallow (insectivorous)	**20**	**7**	**21**	**10**	**2**	≤1	**9**	≤1
Mallard Duck (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Great Blue Heron (carnivorous)	**2**	≤1	**2**	≤1	≤1	≤1	≤1	≤1

Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors – Northern Drainage Area

Dietary Dose v Toxicity Reference Value (TRV) (LOAEL-based HQs)
Upper Trophic Level Receptors

	Nitroglycerin		Copper		Lead		Nickel		Zinc	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Mammals										
Little Brown Bat (insectivorous)	5	≤1	4	3	2	≤1	3	≤1	5	≤1
Muskrat (herbivorous)	7	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Mink (carnivorous)	2	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors – Southern Drainage Area

Dietary Dose v Toxicity Reference Value (TRV) (LOAEL-based HQs)
Upper Trophic Level Receptors

	Benzo(a) anthracene		Benzo(a) pyrene		Benzo(k) fluoranthene		Chrysene		Fluoranthene		Pyrene	
Birds	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Tree Swallow (insectivorous)	6	≤1	2	≤1	5	≤1	3	≤1	28	3	13	≤1
Mallard Duck (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	3	≤1
Great Blue Heron (carnivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

	Copper		Lead		Mercury		Selenium		Zinc		2,4,6-TNT	
Birds	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Tree Swallow (insectivorous)	13	4	454	224	2	≤1	4	2	4	≤1	5	≤1
Mallard Duck (herbivorous)	≤1	≤1	3	2	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Great Blue Heron (carnivorous)	≤1	≤1	48	24	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Ecological Evaluation/Ecological Risk Assessment
Aquatic Receptors – Southern Drainage Area

Dietary Dose v Toxicity Reference Value (TRV) (LOAEL-based HQs)
Upper Trophic Level Receptors

Mammals

	Benzo(a) anthracene		Benzo(a) pyrene		Benzo(k) fluoranthene		Chrysene		Fluoranthene		Pyrene	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Little Brown Bat (insectivorous)	6	≤1	2	≤1	5	≤1	3	≤1	28	6	13	3
Muskrat (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	6	≤1	8	2
Mink (carnivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

	Copper		Lead		Selenium	
	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Little Brown Bat (insectivorous)	3	2	49	26	3	2
Muskrat (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1
Mink (carnivorous)	≤1	≤1	15	8	≤1	≤1

Refined Risk Assessment
Aquatic Receptors

Site Use Factor (SUF)

Mink
1.0 → 0.13
Considers home range

Mallard Duck
1.0 → 0.23
Considers home range

Revised Toxicity Reference Values - Lead

Birds
NOAEL: 1.63 → 1.13 mg/kg bw/day
LOAEL: 3.3 → 11.3 mg/kg bw/day

Mammals
NOAEL: 4.7 → 8 mg/kg bw/day
LOAEL: 8.9 → 80 mg/kg bw/day

Dietary Composition

Tree Swallow
100% invertebrates → 20% plants, 80% invertebrates
Empirical diet data

Aerial Invertebrate Sampling

Tissue data to refine modeled prey item tissue concentrations

Refined Risk Assessment
Aquatic Receptors – Northern Drainage Area

Dietary Dose v Toxicity Reference Value (TRV) (LOAEL-based HQs)
Upper Trophic Level Receptors

	Copper		Lead	
Birds	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Tree Swallow (insectivorous)	3	≤1	≤1	≤1

	Copper	
Mammals	HQ NOAEL	HQ LOAEL
Little Brown Bat (insectivorous)	≤1	≤1

Refined Risk Assessment
Aquatic Receptors – Southern Drainage Area

Dietary Dose v Toxicity Reference Value (TRV) (LOAEL-based HQs)
Upper Trophic Level Receptors

	Fluoranthene		Copper		Lead		Selenium	
Birds	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Tree Swallow (insectivorous)	≤1	≤1	3	≤1	≤1	≤1	2	≤1
Mallard Duck (herbivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Great Blue Heron (carnivorous)	≤1	≤1	≤1	≤1	14	≤1	≤1	≤1

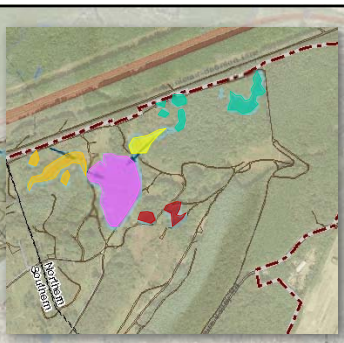
	Fluoranthene		Pyrene		Copper		Lead		Selenium	
Mammals	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL	HQ NOAEL	HQ LOAEL
Little Brown Bat (insectivorous)	≤1	≤1	6	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Muskrat (herbivorous)	6	≤1	8	2	≤1	≤1	≤1	≤1	≤1	≤1
Mink (carnivorous)	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1

Discussion

Aquatic Areas – Digging Deeper

Northern Drainage Area

- Duck Pond
- Eastern Tributary
- Western Tributary
- Unnamed Ponds
- Northeast Ponds



Refined Risk Assessment
Aquatic Receptors – Northern Drainage Area

	Duck Pond		Eastern Tributary		Western Tributary		Unnamed Ponds		Northeast Ponds	
	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL
PAHs (6)	**(≤ 1-2)**	≤ 1	--	--	≤ 1	≤ 1	**(3-6)**	≤ 1	**(≤ 1-3)**	≤ 1
Arsenic	**2**	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	**9**	**2**	≤ 1	≤ 1
Cadmium	**2**	≤ 1	--	--	**2**	≤ 1	**5**	≤ 1	≤ 1	≤ 1
Copper	**7**	≤ 1	**3**	≤ 1	**5**	≤ 1	**8**	≤ 1	**3**	≤ 1
Lead	**7**	≤ 1	**2**	≤ 1	**9**	≤ 1	**26**	**3**	**3**	≤ 1
Mercury	**3**	≤ 1	≤ 1	≤ 1	**5**	≤ 1	**19**	**2**	≤ 1	≤ 1
Zinc	**3**	≤ 1	≤ 1	≤ 1	**3**	≤ 1	**13**	**2**	**2**	≤ 1

Surface water data discussed in Unnamed Ponds and Western Tributary, where COPECs were identified from SI/RI data

Refined Risk Assessment
Aquatic Receptors – Northern Drainage Area

Evaluation Approach

COPEC	Approach	
PAHs (6)	Equilibrium Partitioning	Conservative approach using 13-PAH dataset and correction factor
Arsenic	Background Threshold (Sanders 2003)	
Cadmium	Acid Volatile Sulfide/Simultaneously Extracted Metals (AVS/SEM)	Toxicity unlikely if ∑SEM-AVS /fOC <130 umol/gOC
Copper	AVS/SEM	
Lead	AVS/SEM	No observed effect concentrations (NOEC) in mercury-spiked sediment and field-collected sediment from mercury sites
Mercury	Study Comparison (Conder et al 2015)	
Zinc	AVS/SEM	
Benthic Community		Comparison to reference locations; High Gradient Benthic Index and Shannon-Wiener Diversity Indices and Abundance

Discussion

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Unnamed Ponds	
	HQLEL	HQSEL
PAHs (6)	**(3-6)**	≤ 1
Arsenic	**9**	**2**
Cadmium	**5**	≤ 1
Copper	**8**	≤ 1
Lead	**26**	**3**
Mercury	**19**	**2**
Zinc	**13**	**2**

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Unnamed Ponds	
	HQLEL	HQSEL
PAHs (6)	**(3-6)**	≤ 1
Arsenic	**9**	**2**
Cadmium	**5**	≤ 1
Copper	**8**	≤ 1
Lead	**26**	**3**
Mercury	**19**	**2**
Zinc	**13**	**2**

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Approach	ESC Screen			Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL	Surface Water			
PAHs (6)	Equilibrium Partitioning	-	+	+		+	+ (large pond) - (small pond)
Arsenic	Background Threshold	-	-	+	-		
Cadmium	AVS/SEM	-	+	+		+	
Copper	AVS/SEM	-	+	+		+	
Lead	AVS/SEM	-	-	+		+	
Mercury	Study Comparison	-	-	+	-		
Zinc	AVS/SEM	-	-	+		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Unnamed Ponds	
	HQLEL	HQSEL
PAHs (6)	**(3-6)**	≤ 1
Arsenic	**9**	**2**
Cadmium	**5**	≤ 1
Copper	**8**	≤ 1
Lead	**26**	**3**
Mercury	**19**	**2**
Zinc	**13**	**2**

Arsenic
- Avg. As concentration (14.7 mg/kg) greater than Facility background threshold
- Consistent with As observed in historic fill material
- Benthic community to provide supplemental line of evidence

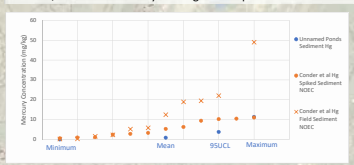
Arsenic Summary Statistics

Dataset (mg/kg)	Detection Frequency	Range	Average	Median	90th Percentile Concentration
Undeveloped Areas (Facility-specific background)	127/131	1.6 - 164	7.53	5.3	14.5
Undeveloped Areas (less outlier)	126/130	1.6 – 21.2	6.28	5.2	11.6
Regional Background - Sanders (2003)	13/13	NA	NA	4.9	7.32
Unnamed Ponds Sediment	20/22	2.16-111	14.7	NA	28.8

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Unnamed Ponds	
	HQLEL	HQSEL
PAHs (6)	**(3-6)**	≤ 1
Arsenic	**9**	**2**
Cadmium	**5**	≤ 1
Copper	**8**	≤ 1
Lead	**26**	**3**
Mercury	**19**	**2**
Zinc	**13**	**2**

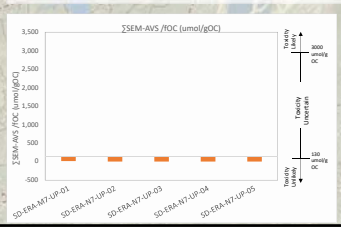
Mercury
- Conder et al (2015) no observed effect concentrations (NOEC) in mercury-spiked sediment and field-collected sediment from mercury sites
- Above range of NOEC spiked sediment concentrations from Conder et al; benthic community investigation required



Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Unnamed Ponds	
	HQLEL	HQSEL
PAHs (6)	**(3-6)**	≤ 1
Arsenic	**9**	**2**
Cadmium	**5**	≤ 1
Copper	**8**	≤ 1
Lead	**26**	**3**
Mercury	**19**	**2**
Zinc	**13**	**2**

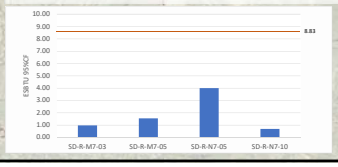
AVS/SEM –
- Toxicity unlikely



Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Unnamed Ponds	
	HQLEL	HQSEL
Benzo(a)anthracene	4	≤ 1
Benzo(a)pyrene	3	≤ 1
Benzo(g,h,i)perylene	5	≤ 1
Benzo(k)fluoranthene	5	≤ 1
Chrysene	6	≤ 1
Pyrene	3	≤ 1

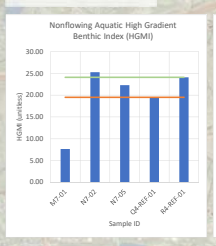
PAHs - Equilibrium Partitioning Approach
- 34 PAH dataset unavailable
- Conservative approach using 13-PAH dataset and correction factor (CF)
- Equilibrium Partitioning Benchmark Toxic Units (ESBTU) - Comparison to Central Drainage Basin 34-PAH dataset
  - 34-PAH ESBTU = 1.0; same dataset using 13-PAH ESBTU = 8.83

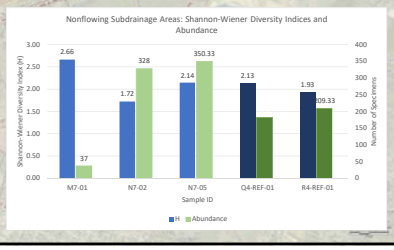


Additional 34-PAH dataset samples collected in 2019 – average 13-PAH ESBTU was 7.48

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

Benthic Community

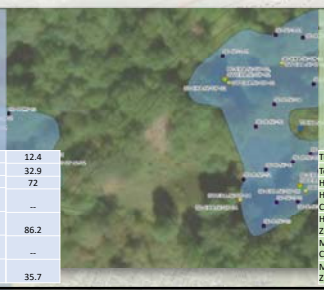




Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

Smaller Pond
- Water depths < 3 inches may have influenced sample results
- Additional investigation of zinc when standing water was present - no exceedances

Turbidity (NTU)	71,000	12.4
Total Suspended Solids (mg/l)	1,880	32.9
Hardness (mg/l CaCO3)	120	72
Hardness-dependent SWQS - Copper (ug/l)	9.9	--
Hardness-dependent SWQS - Zinc (ug/l)	133	86.2
Maximum Detected Dissolved Copper (ug/l)	4.4	--
Maximum Detected Dissolved Zinc (ug/l)	**247**	35.7



Larger Pond
- Potential risks to aquatic life attributable to copper and zinc are acceptable
- No further evaluation is necessary

Turbidity (NTU)	12.5
Total Suspended Solids (mg/l)	44
Hardness (mg/l CaCO3)	22.1
Hardness-dependent SWQS - Copper (ug/l)	2.33
Hardness-dependent SWQS - Zinc (ug/l)	31.7
Maximum Detected Dissolved Copper (ug/l)	ND
Maximum Detected Dissolved Zinc (ug/l)	8.7

Refined Risk Assessment
Aquatic Receptors – Unnamed Ponds

	Approach	ESC Screen			Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL	Surface Water			
PAHs (6)	Equilibrium Partitioning	-	+	+		+	+ (large pond) - (small pond)
Arsenic	Background Threshold	-	-	+	-		
Cadmium	AVS/SEM	-	+	+		+	
Copper	AVS/SEM	-	+	+		+	
Lead	AVS/SEM	-	-	+		+	
Mercury	Study Comparison	-	-	+	-		
Zinc	AVS/SEM	-	-	+		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Duck Pond

	Duck Pond	
	HQLEL	HQSEL
PAHs (6)	**(≤ 1-2)**	≤ 1
Arsenic	**2**	≤ 1
Cadmium	**2**	≤ 1
Copper	**7**	≤ 1
Lead	**7**	≤ 1
Mercury	**3**	≤ 1
Zinc	**3**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Duck Pond

	Duck Pond	
	HQLEL	HQSEL
PAHs (6)	**(≤ 1-2)**	≤ 1
Arsenic	**2**	≤ 1
Cadmium	**2**	≤ 1
Copper	**7**	≤ 1
Lead	**7**	≤ 1
Mercury	**3**	≤ 1
Zinc	**3**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Duck Pond

	Approach	ESC Screen		Chemistry	Bioavailability/Toxicity
		HQLEL	HQSEL		
PAHs (6)	Equilibrium Partitioning	-	+		+
Arsenic	Background Threshold	-	+	+	
Cadmium	AVS/SEM	-	+		+
Copper	AVS/SEM	-	+		+
Lead	AVS/SEM	-	+		+
Mercury	Study Comparison	-	+	+	
Zinc	AVS/SEM	-	+		+

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Eastern Tributary

	Eastern Tributary	
	HQLEL	HQSEL
Copper	**3**	≤ 1
Lead	**2**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Eastern Tributary

	Eastern Tributary	
	HQLEL	HQSEL
Copper	**3**	≤ 1
Lead	**2**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Eastern Tributary

	Approach	ESC Screen		Bioavailability/Toxicity
		HQLEL	HQSEL	
Copper	AVS/SEM	-	+	+
Lead	AVS/SEM	-	+	+

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Western Tributary

	Western Tributary	
	HQLEL	HQSEL
Cadmium	**2**	≤ 1
Copper	**5**	≤ 1
Lead	**9**	≤ 1
Mercury	**5**	≤ 1
Zinc	**3**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Western Tributary

	Western Tributary	
	HQLEL	HQSEL
Cadmium	**2**	≤ 1
Copper	**5**	≤ 1
Lead	**9**	≤ 1
Mercury	**5**	≤ 1
Zinc	**3**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Western Tributary

	Approach	ESC Screen			Chemistry	Bioavailability/ Toxicity
		HQLEL	HQSEL	Surface Water		
Cadmium	AVS/SEM	-	+	+		+
Copper	AVS/SEM	-	+	-		+
Lead	AVS/SEM	-	+	+		+
Mercury	Study Comparison	-	+	+	+	
Zinc	AVS/SEM	-	+	+		+

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Western Tributary

Surface Water - Copper

- Additional investigation of former operational influences on sediment and surface-water quality in the isolated pond near AOC K5-1 is recommended

Western Tributary – Copper in Surface-Water Summary

Copper in SW By Area	SWQS	Detection Frequency	Min Detect	Max Detect
Isolated Pond – N. Boundary	3.38	0/2	---	---
Wetland to Duck Pond	11.09	0/6	---	---
Isolated Pond – K5-1	2.93	2/2	**5.5**	**57.9**

Refined Risk Assessment
Aquatic Receptors – Northeast Ponds

	Northeast Ponds	
	HQLEL	HQSEL
PAHs (6)	(≤ 1-**3**)	≤ 1
Copper	**3**	≤ 1
Lead	**3**	≤ 1
Zinc	**2**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Northeast Ponds

	Northeast Ponds	
	HQLEL	HQSEL
PAHs (6)	(≤ 1-**3**)	≤ 1
Copper	**3**	≤ 1
Lead	**3**	≤ 1
Zinc	**2**	≤ 1

Refined Risk Assessment
Aquatic Receptors – Northeast Ponds

	Approach	ESC Screen		Bioavailability/Toxicity
		HQLEL	HQSEL	
PAHs (6)	Equilibrium Partitioning	-	+	+
Copper	AVS/SEM	-	+	+
Lead	AVS/SEM	-	+	+
Zinc	AVS/SEM	-	+	+

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Northern Drainage Area Summary

	Unnamed Ponds	Duck Pond	Eastern Tributary	Western Tributary	Northeast Ponds
ESC Screen	-	-	-	-	-
Chemistry	-	+	NA	+	NA
Bioavailability/Toxicity	-	+	+	+	+
Biological Community	-	NA	NA	NA	NA
Risk Drivers	As, Hg				
Additional Investigation? (Y/N)	**Y**	N	N	N	N

+ = acceptable risk - = potential unacceptable risk NA = not analyzed

Discussion

Southern Drainage Area

- Development Area Stream
- TNT-PETN-NG Ditches
- Miscellaneous TNT Ponds
- Maintenance NG Area
- Maintenance Dynamite Area - West
- Maintenance Dynamite Area - East
- Central Drainage Basin
- Miscellaneous Offsite Streams - Upper
- Miscellaneous Offsite Streams - Lower

Refined Risk Assessment
Aquatic Receptors – Southern Drainage Area

	Central Drainage Basin		Development Area		Maintenance Dynamite Area - East		Maintenance Dynamite Area - West		Maintenance - NG Area		Misc. TNT Ponds		Misc. Offsite Streams - Lower		Misc. Offsite Streams - Upper		TNT-PETN-NG Ditches	
	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL	HQLEL	HQSEL
Arsenic	**8**	≤1	**2**	≤1	≤1	≤1	**3**	≤1	**5**	≤1	**5**	≤1	≤1	≤1	**2**	≤1	**13**	**2**
Cadmium	**2**	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Copper	**6**	≤1	≤1	≤1	**2**	≤1	**2**	≤1	**18**	**3**	**2**	≤1	≤1	≤1	**2**	≤1	**2**	≤1
Lead	**35**	**4**	**2**	≤1	**10**	≤1	**10**	≤1	**99**	**12**	**835**	**104**	**2**	≤1	**10**	≤1	**29**	**4**
Manganese	**2**	≤1	--	--	**2**	≤1	--	--	≤1	≤1	≤1	≤1	≤1	≤1	--	--	≤1	≤1
Mercury	**39**	**3**	**2**	≤1	**11**	≤1	**18**	**2**	**33**	**3**	**2**	≤1	≤1	≤1	**7**	≤1	**20**	**2**
Silver	≤1	--	≤1	--	**6**	--	≤1	--	**7**	--	≤1	--	≤1	--	**3**	--	≤1	--
Zinc	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	**2**	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	**39**	--	--	--	--	--	--	--	**16**	--
PAHs (14)	(≤1 -10227)	(≤1 -703)	≤1	≤1	(≤1 - 9)	≤1	(≤1 - 13)	≤1	(≤1 - 6)	≤1	≤1	≤1	(≤1 - 5)	≤1	≤1	≤1	(≤1 - 3)	≤1
PCE	--	--	--	--	--	--	--	--	--	--	--	--	**4**	**2**	--	--	--	--

Refined Risk Assessment
Aquatic Receptors – Southern Drainage Area

Surface Water

Southern Drainage Area Surface-Water Sample COPEC Results Summary

Dissolved Metals	SWQS	Detection Frequency	Min Detect	Max Detect	Median	Average
Maintenance-Dynamite Area – East						
Copper	17.7*	0/5	---	---	---	---
Lead	5.4	1/5	0.32 J		---	---
Maintenance-Dynamite Area – West						
Copper	11.2*	0/2	---	---	---	---
Lead	5.4	0/2	---	---	---	---
Mercury	0.77	0/2	---	---	---	---
TNT-PETN-NG Ditches						
Arsenic	150	0/1	---	---	---	---
Copper	8.06*	0/1	---	---	---	---
Lead	5.4	1/1	0.36 J		---	---
Mercury	0.77	0/1	---	---	---	---

Compared to surface water quality standards (SWQS) protective of aquatic life
*hardness dependent value

Surface Water Dataset

- The ERAWP identified COPECs in the MDE, MDW, and TPND subareas based on **total metals** data from the SI/RI
- Dissolved metals results (collected in 2016), estimate the potential for ecological risk to aquatic receptors
- No additional evaluation of surface water in the SDA is recommended

Refined Risk Assessment
Aquatic Receptors – Northern Drainage Area

Evaluation Approach

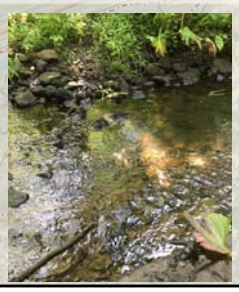
COPEC	Approach	
2,4-Dinitrotoluene	Dataset Evaluation	Evaluation of dataset size, concentrations, and locations; proximity to historic fill or offsite influences
Arsenic	Background Threshold (Sander 2003)	
Cadmium	Acid Volatile Sulfide/Simultaneously Extracted Metals (AVS/SEM)	Toxicity unlikely if ∑SEM-AVS /fOC <130 umol/gOC
Copper	AVS/SEM	
Lead	AVS/SEM	
Manganese	Dataset Evaluation	
Mercury	Study Comparison (Conder et al 2015)	No observed effect concentrations (NOEC) in Hg-spiked sediment and field-collected sediment from Hg sites
Silver	AVS/SEM (monovalent); dataset evaluation (divalent)	
Zinc	AVS/SEM	
PAHs (14)	Equilibrium Partitioning	Conservative approach using 13-PAH dataset and correction factor
Benthic Community		Comparison to reference locations; High Gradient Benthic Index and Shannon-Wiener Diversity Indices and Abundance

Refined Risk Assessment
Aquatic Receptors – Development Area

	Development Area	
	HQLEL	HQSEL
Arsenic	**2**	≤1
Lead	**2**	≤1
Mercury	**2**	≤1

Refined Risk Assessment
Aquatic Receptors – Development Area

	Development Area	
	HQLEL	HQSEL
Arsenic	**2**	≤1
Lead	**2**	≤1
Mercury	**2**	≤1



Refined Risk Assessment
Aquatic Receptors – Development Area

	Approach	ESC Screen		Chemistry	Bioavailability/Toxicity
		HQLEL	HQSEL		
Arsenic	Background Threshold	-	+	+	
Lead	AVS/SEM	-	+		+
Mercury	Study Comparison	-	+	+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – TNT-PETN-NG Ditches

	TNT-PETN-NG Ditches	
	HQLEL	HQSEL
Arsenic	**13**	**2**
Copper	**2**	≤1
Lead	**29**	**4**
Mercury	**20**	**2**
2,4-Dinitrotoluene	**16**	--
PAHs (14)	**(≤1 - 3)**	≤1

Refined Risk Assessment
Aquatic Receptors – TNT-PETN-NG Ditches

	TNT-PETN-NG Ditches	
	HQLEL	HQSEL
Arsenic	**13**	**2**
Copper	**2**	≤1
Lead	**29**	**4**
Mercury	**20**	**2**
2,4-Dinitrotoluene	**16**	--
PAHs (14)	**(≤1 - 3)**	≤1

Refined Risk Assessment
Aquatic Receptors – TNT-PETN-NG Ditches

	Approach	ESC Screen		Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL			
Arsenic	Background Threshold	-	-	-		+
Copper	AVS/SEM	-	+		+	
Lead	AVS/SEM	-	-		+	
Mercury	Study Comparison	-	-	+		
2,4-Dinitrotoluene	Dataset Evaluation	-		-		
PAHs (14)	Equilibrium Partitioning	-	+		+	

+ = acceptable risk - = potential unacceptable risk

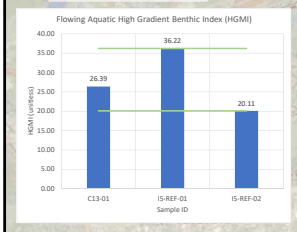
Refined Risk Assessment
Aquatic Receptors – TNT-PETN-NG Ditches

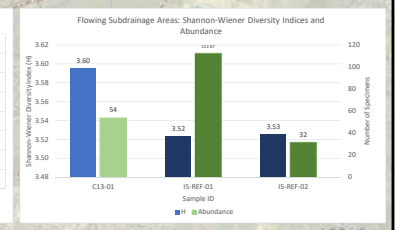
	TNT-PETN-NG Ditches	
	HQLEL	HQSEL
Arsenic	**13**	**2**
Copper	**2**	≤1
Lead	**29**	**4**
Mercury	**20**	**2**
2,4-Dinitrotoluene	**16**	--
PAHs (14)	**(≤1 - 3)**	≤1

2,4-Dinitrotoluene –
- Detected in 1/7 samples (0.4 mg/kg)
- Benthic community to provide supplemental information – targeted location near DNT exceedance

Refined Risk Assessment
Aquatic Receptors – TNT-PETN-NG Ditches

Benthic community





Refined Risk Assessment
Aquatic Receptors – TNT-PETN-NG Ditches

	Approach	ESC Screen		Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL			
Arsenic	Background Threshold	-	-	-		+
Copper	AVS/SEM	-	+		+	
Lead	AVS/SEM	-	-		+	
Mercury	Study Comparison	-	-	+		
2,4-Dinitrotoluene	Dataset Evaluation	-		-		
PAHs (14)	Equilibrium Partitioning	-	+		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Miscellaneous TNT Ponds

	Misc. TNT Ponds	
	HQLEL	HQSEL
Arsenic	5	≤1
Copper	2	≤1
Lead	835	104
Mercury	2	≤1

Refined Risk Assessment
Aquatic Receptors – Miscellaneous TNT Ponds

	Misc. TNT Ponds	
	HQLEL	HQSEL
Arsenic	5	≤1
Copper	2	≤1
Lead	835	104
Mercury	2	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

	Maintenance - NG Area	
	HQLEL	HQSEL
Arsenic	5	≤1
Copper	18	3
Lead	99	12
Mercury	33	3
Silver	7	--
Zinc	2	≤1
2,4-Dinitrotoluene	39	--
PAHs (14)	(≤1 - 6)	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

	Maintenance - NG Area	
	HQLEL	HQSEL
Arsenic	5	≤1
Copper	18	3
Lead	99	12
Mercury	33	3
Silver	7	--
Zinc	2	≤1
2,4-Dinitrotoluene	39	--
PAHs (14)	(≤1 - 6)	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

	Approach	ESC Screen		Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL			
Arsenic	Background Threshold	-	+	-		
Copper	AVS/SEM	-	-		+	
Lead	AVS/SEM	-	-		+	
Mercury	Study Comparison	-	-	-		
Silver	Dataset Evaluation	-		-		-
Zinc	AVS/SEM	-	+		+	
2,4-Dinitrotoluene	Dataset Evaluation	-		-		
PAHs (14)	Equilibrium Partitioning	-	+		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

	Maintenance - NG Area	
	HQLEL	HQSEL
Arsenic	**5**	≤1
Copper	**18**	**3**
Lead	**99**	**12**
Mercury	**33**	**3**
Silver	**7**	--
Zinc	**2**	≤1
2,4-Dinitrotoluene	**39**	--
PAHs (14)	**(≤1 - 6)**	≤1

Silver
- 4/15 detections
- 1 sample exceeds LEL (8.68)
- Benthic community to provide supplemental information – targeted location near silver exceedance

COPEC	Units	LEL	SEL	Count Of Analyses	Count Of Detections	Minimum Detect	Maximum Detect	Average	95UCL	EPC	HQ LEL	HQ SEL
Silver	mg/kg	0.5	--	15	4	0.294	8.68	2.415	3.4	3.4	**7**	--

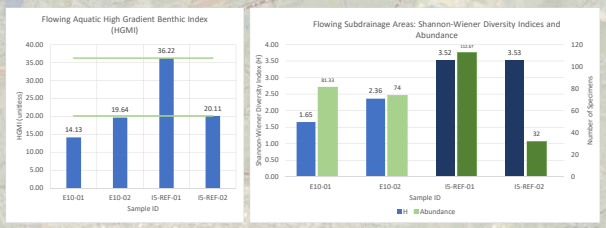
Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

	Maintenance - NG Area	
	HQLEL	HQSEL
Arsenic	**5**	≤1
Copper	**18**	**3**
Lead	**99**	**12**
Mercury	**33**	**3**
Silver	**7**	--
Zinc	**2**	≤1
2,4-Dinitrotoluene	**39**	--
PAHs (14)	**(≤1 - 6)**	≤1

2,4-Dinitrotoluene –
- Detected in 2/6 samples (0.56 mg/kg and 0.12 mg/kg)
- Benthic community to provide supplemental information – targeted location near DNT exceedance

Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

Benthic community



Refined Risk Assessment
Aquatic Receptors – Maintenance NG Area

	Approach	ESC Screen		Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL			
Arsenic	Background Threshold	-	+	-		
Copper	AVS/SEM	-	-		+	
Lead	AVS/SEM	-	-		+	
Mercury	Study Comparison	-	-	-		
Silver	Dataset Evaluation	-		-		-
Zinc	AVS/SEM	-	+		+	
2,4-Dinitrotoluene	Dataset Evaluation	-		-		
PAHs (14)	Equilibrium Partitioning	-	+		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - West

	Maintenance Dynamite Area - West	
	HQLEL	HQSEL
Arsenic	**3**	≤1
Copper	**2**	≤1
Lead	**10**	≤1
Mercury	**18**	**2**
PAHs (14)	**(≤1 - 13)**	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - West

	Maintenance Dynamite Area - West	
	HQLEL	HQSEL
Arsenic	3	≤1
Copper	2	≤1
Lead	10	≤1
Mercury	18	2
PAHs (14)	(≤1 - 13)	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - West

	Approach	ESC Screen		Chemistry	Bioavailability/ Toxicity	Biological Community
		HQLEL	HQSEL			
Arsenic	Background Threshold	-	+	-		+
Copper	AVS/SEM	-	+		+	
Lead	AVS/SEM	-	+		+	
Mercury	Study Comparison	-	-	-		
PAHs (14)	Equilibrium Partitioning	-	+		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - East

	Maintenance Dynamite Area - East	
	HQLEL	HQSEL
Cadmium	2	≤1
Copper	2	≤1
Lead	10	≤1
Manganese	2	≤1
Mercury	11	≤1
Silver	6	--
PAHs (14)	(≤1 - 9)	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - East

	Maintenance Dynamite Area - East	
	HQLEL	HQSEL
Cadmium	2	≤1
Copper	2	≤1
Lead	10	≤1
Manganese	2	≤1
Mercury	11	≤1
Silver	6	--
PAHs (14)	(≤1 - 9)	≤1

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - East

	Approach	ESC Screen		Chemistry	Bioavailability/Toxicity
		HQLEL	HQSEL		
Cadmium	AVS/SEM	-	+		+
Copper	AVS/SEM	-	+		+
Lead	AVS/SEM	-	+		+
Manganese	Dataset Evaluation	-	+		+
Mercury	Study Comparison	-	+	+	
Silver	AVS/SEM	-			+
PAHs (14)	Equilibrium Partitioning	-	+		+

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Maintenance Dynamite Area - East

Manganese
- Single elevated exceedance (7280 mg/kg)
- Max detect located at former rail crossing culvert and area of historic fill

COPEC	Unit	LEL	SEL	Count Of Analyses	Count Of Detections	Minimum Detect	Maximum Detect	Average	95UCL	EPC	HQ LEL	HQ SEL
Manganese	mg/kg	630	1100	6	6	66.7	7280	1400	--	1400	2	≤ 1

Refined Risk Assessment
Aquatic Receptors – Central Drainage Basin

	Central Drainage Basin	
	HQLEL	HQSEL
Arsenic	8	≤1
Cadmium	2	≤1
Copper	6	≤1
Lead	35	4
Manganese	2	≤1
Mercury	39	3
Zinc	2	≤1
PAHs (14)	(≤1 -10227)	(≤1 -703)

Refined Risk Assessment
Aquatic Receptors – Central Drainage Basin

	Central Drainage Basin	
	HQLEL	HQSEL
Arsenic	8	≤1
Cadmium	2	≤1
Copper	6	≤1
Lead	35	4
Manganese	2	≤1
Mercury	39	3
Zinc	2	≤1
PAHs (14)	(≤1 -10227)	(≤1 -703)

Refined Risk Assessment
Aquatic Receptors – Central Drainage Basin

	Approach	ESC Screen		Chemistry	Bioavailability/Toxicity	Biological Community
		HQLEL	HQSEL			
Arsenic	Background Threshold	-	+	-		+
Cadmium	AVS/SEM	-	+		+	
Copper	AVS/SEM	-	+		+	
Lead	AVS/SEM	-	-		+	
Manganese	Dataset evaluation	-	+		+	
Mercury	Study Comparison	-	-	-		
Zinc	AVS/SEM	-	+		+	
PAHs (14)	Equilibrium Partitioning	-	-		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Central Drainage Basin

Manganese
- Small dataset (n=2) with single elevated detection (2400 mg/kg)
- Location of max detect is at former rail crossing culvert and area of historic fill material

COPEC	Unit	LEL	SEL	Count Of Analyses	Count Of Detections	Minimum Detect	Maximum Detect	Average	95UCL	EPC	HQ LEL	HQ SEL
Manganese	mg/kg	630	1100	2	2	679	2400	1549	--	1549	2	≤ 1

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Upper

	Misc. Offsite Streams - Upper	
	HQLEL	HQSEL
Arsenic	2	≤1
Copper	2	≤1
Lead	10	≤1
Mercury	7	≤1
Silver	3	--

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Upper

	Misc. Offsite Streams - Upper	
	HQLEL	HQSEL
Arsenic	2	≤1
Copper	2	≤1
Lead	10	≤1
Mercury	7	≤1
Silver	3	--

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Upper

	Approach	ESC Screen		Chemistry	Bioavailability/Toxicity
		HQLEL	HQSEL		
Arsenic	Background Threshold	-	+	+	
Copper	AVS/SEM	-	+		+
Lead	AVS/SEM	-	+		+
Mercury	Study Comparison	-	+	+	
Silver	Dataset Evaluation	-		+	

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Upper

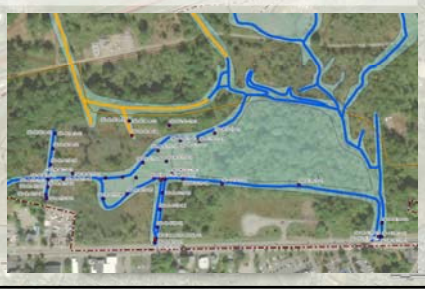
	Misc. Offsite Streams - Upper	
	HQLEL	HQSEL
Arsenic	**2**	≤1
Copper	**2**	≤1
Lead	**10**	≤1
Mercury	**7**	≤1
Silver	**3**	--

Silver
- 2/21 detections
- 1 sample exceeds LEL (3.9 mg/kg)

COPEC	Units	LEL	SEL	Count Of Analyses	Count Of Detections	Minimum Detect	Maximum Detect	Average	95UCL	EPC	HQ LEL	HQ SEL
Silver	mg/kg	0.5	--	21	2	0.31	3.9	2.1	1.3	1.3	3	--

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Lower

	Misc. Offsite Streams - Lower	
	HQLEL	HQSEL
Lead	**2**	≤1
PAHs (14)	**(≤1 - 5)**	≤1



Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Lower

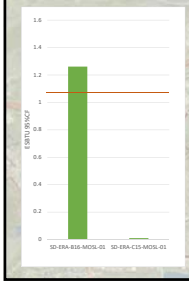
	Misc. Offsite Streams - Lower	
	HQLEL	HQSEL
Lead	**2**	≤1
PAHs (14)	**(≤1 - 5)**	≤1

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Lower

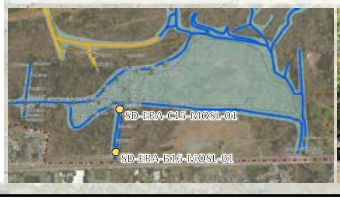
	Approach	ESC Screen		Bioavailability/Toxicity
		HQLEL	HQSEL	
Lead	AVS/SEM	-	+	+
PAHs (14)	Equilibrium Partitioning	-	+	+

+ = acceptable risk - = potential unacceptable risk

Refined Risk Assessment
Aquatic Receptors – Miscellaneous Offsite Streams - Lower



PAHs - Equilibrium Partitioning Approach
- 34 PAH dataset collected
- 34-PAH ESBTU = 1.0
- SD-ERA-B16-MOSL-01 likely represents run-on from offsite sources



Refined Risk Assessment

Aquatic Receptors – Miscellaneous Offsite Streams - Lower

	Approach	ESC Screen		Bioavailability/Toxicity
		HQLEL	HQSEL	
Lead	AVS/SEM	-	+	+
PAHs (14)	Equilibrium Partitioning	-	+	+

+ = acceptable risk - = potential unacceptable risk

Drainage Area Summary

	Unnamed Ponds	Duck Pond	Eastern Tributary	Western Tributary	Northeast Ponds
ESC Screen	-	-	-	-	-
Chemistry	-	+	NA	+	NA
Bioavailability/Toxicity	-	+	+	+	+
Biological Community	-	NA	NA	NA	NA
Risk Drivers	As, Hg				
Additional Investigation? (Y/N)	Y	N	N	N	N

	Central Drainage Basin	Development Area	Maintenance Dynamite Area - East	Maintenance Dynamite Area - West	Maintenance NG Area	Miscellaneous TNT Ponds	Miscellaneous Offsite Streams - Lower	Miscellaneous Offsite Streams - Upper	TNT-PETN-NG Ditches
ESC Screen	-	-	-	-	-	Terrestrial	-	-	-
Chemistry	-	+	+	-	-		-	+	+/-
Bioavailability/Toxicity	+	+	+	+	+		+	-	+
Biological Community	+	NA	NA	+	-		NA	NA	+
Risk Drivers					As, Hg, Ag, 2,4-DNT				
Additional Investigation? (Y/N)	N	N	N	N	Y		N	N	N

+ = screened out by analysis - = not screened out by analysis NA = not analyzed

Ecological Risk Assessment Summary – Remaining Areas

Terrestrial

	Soil Invertebrates	Plants	American Robin
Antimony	N	Y	N
Arsenic	N	Y	N
Chromium	N	Y	N
Copper	Y	Y	N
Lead	N	Y	Y
Manganese	Y	Y	N
Mercury	N	Y	N
Selenium	N	Y	N
Vanadium	Y	Y	N
Zinc	Y	Y	N

Aquatic

	Lower Trophic Level Receptors - Maintenance NG Area	Upper Trophic Level Receptors – Muskrat Southern Drainage Area
Arsenic	Y	N
Mercury	Y	N
Silver	Y	N
2,4 - Dinitrotoluene	Y	N
Pyrene	N	Y

Y = further analysis required N = no further analysis required

Final Conclusions

HERCULES

Questions/Discussion

HERCULES

Attachment 5

Hercules Email Correspondence dated 3 June 2024

From:	Caryn Barnes
To:	Pecchioli, Joel [DEP]
Cc:	Pinkstone, Raymond [DEP]; Edward Meeks; Scott Larew; Ian Mccary; Andrea Berlinghof
Subject:	FW: Hercules Kenvil/Alliant TechSystems - PI No. 000741
Date:	Monday, June 3, 2024 9:22:41 AM

Hi, Joel,
The following provides an update of activity since our meeting and recommendations to move the ERA forward.

During the Dec 2019 meeting, Hercules and NJDEP discussed the pending development activities at the site, their influence on the ERA, and the value of defining the footprint of development prior to additional risk-related work. Subsequent to our meeting, Hercules entered into an agreement with a buyer who has put forth a plan to develop an approximately 210-acre portion of the facility (www.roxburycommercecenter.com) where the development functions as a remedial cap (and rendering ecological exposure pathways incomplete in that area). The development will remediate more than 50% of the AOCs onsite.

Hercules has completed large soil removal efforts (e.g., PCBs in soil) to prepare the area for capping and is working with the developer and NJDEP to optimize the use of onsite sources of fill (clean and alternative) in the remedial capping. Hercules was working on an update to the Ecological Risk Assessment using the developer's proposed footprint of development. As the developer engaged with various authorities (incl. NJDEP) to permit the proposed development, the design (including extents/footprint) was modified in response to agency feedback. As each of these changes influenced the ERA dataset, Hercules deferred completing the update until the developer had final submissions/approvals in place that define the limits of the remedial cap and development. A majority of development approvals are currently in place.

In the interest of making progress on the ERA in parallel with development, Hercules will prepare A) a status update memorandum discussing the tiered areas of presumed remedial action, and B) a data summary report presenting the results of ERA activities conducted since the Phase II RIR (2016). These documents will be submitted with a cover letter addressing how NJDEP's 2019 comments are/will be incorporated into the ERA. The data summary report will not include a full ERA risk characterization update at this time, that update would follow upon receipt of the pending development approvals and definition of the approved footprint of development (and associated ERA dataset). Following NJDEP review of these documents, we believe it would be valuable to meet onsite to discuss the steps to complete the ERA in areas that will remain undeveloped and review the status of the areas of presumed remedial action.

Thank you.

Caryn

Caryn Barnes, LSRP, PG
Principal/Vice President

LANGAN

Direct: 215.845.8911
Mobile: 215.510.1652
File Sharing Link

Phone: 215.845.8900 Fax: 215.845.8901
1818 Market Street

Suite 3300
Philadelphia, PA 19103-3638
www.langan.com

PENNSYLVANIA NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS VIRGINIA WASHINGTON, DC OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA ATHENS CALGARY DUBAI LONDON PANAMA

carbon neutral - diversity - safety

From: Caryn Barnes
Sent: Monday, May 13, 2024 9:12 AM
To: 'Pecchioli, Joel [DEP]' <Joel.Pecchioli@dep.nj.gov>
Cc: Pinkstone, Raymond [DEP] <Raymond.Pinkstone@dep.nj.gov>
Subject: RE: Hercules Kenvil/Alliant TechSystems - PI No. 000741

Good morning, Joel.
Thanks for the email - I will check with the team on the status of this and get back to you shortly.

Caryn Barnes, LSRP, PG
Principal/Vice President

LANGAN

Direct: 215.845.8911
Mobile: 215.510.1652
File Sharing Link
www.langan.com

PENNSYLVANIA NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS VIRGINIA WASHINGTON, DC OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA ATHENS CALGARY DUBAI LONDON PANAMA

From: Pecchioli, Joel [DEP] <Joel.Pecchioli@dep.nj.gov>
Sent: Monday, May 13, 2024 9:06 AM
To: Caryn Barnes <cbarnes@Langan.com>
Cc: Pinkstone, Raymond [DEP] <Raymond.Pinkstone@dep.nj.gov>
Subject: [External] Hercules Kenvil/Alliant TechSystems - PI No. 000741

Good morning -

I am writing to request a status update on the above-referenced site.

Initial Ecological Component Review comments/questions on the Phase II Remedial Investigation Report (May 2016) prepared by Hercules, Inc. were transmitted to the previous LSRP (Mark Foley) in a July 8, 2019 e-mail from myself.

These comments - and proposed additional work to be completed - were discussed at a December 5, 2019 meeting.

However, the COVID pandemic struck a few months later, and it is not known if the additional work has been completed and if any efforts have been undertaken to address the initial Ecological Component Review Comments.

Please contact me if you have any questions.

Thank you -

Joel A. Pecchioli
Research Scientist I
Environmental Toxicology and Risk Assessment
Bureau of Environmental Evaluation and Risk Assessment
New Jersey Department of Environmental Protection
609-940-4570
joel.pecchioli@dep.nj.gov

This message may contain confidential, proprietary, or privileged information. Confidentiality or privilege is not intended to be waived or lost by erroneous transmission of this message. If you receive this message in error, please notify the sender immediately by return email and delete this message from your system. Disclosure, use, distribution, or copying of a message or any of its attachments by anyone other than the intended recipient is strictly prohibited.

CONFIDENTIALITY NOTICE - This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential or exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited, and we request that you destroy or permanently delete this message, and notify the sender.

This message may contain confidential, proprietary, or privileged information. Confidentiality or privilege is not intended to be waived or lost by erroneous transmission of this message. If you receive this message in error, please notify the sender immediately by return email and

delete this message from your system. Disclosure, use, distribution, or copying of a message or any of its attachments by anyone other than the intended recipient is strictly prohibited.

Attachment 6

Hercules Email Correspondence dated 19 August 2024

From: Caryn Barnes
To: Scott Larew
Cc: Andrea Berlinghof
Subject: FW: RAW Withdrawal -LSR 120001 - Alliant
Date: Wednesday, September 4, 2024 10:04:54 AM
Attachments: image001.png
image007.png
image012.png

Caryn Barnes, LSRP, PG
Principal/Vice President

LANGAN

Direct: 215.845.8911
Mobile: 215.510.1652
File Sharing Link
www.langan.com

PENNSYLVANIA NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS VIRGINIA WASHINGTON, DC OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA ATHENS CALGARY DUBAI LONDON PANAMA

carbon neutral - diversity - safety

From: Davis, Atwood [DEP] <Atwood.Davis@dep.nj.gov>
Sent: Monday, August 19, 2024 9:43 PM
To: Gard, Diane [DEP] <Diane.Gard@dep.nj.gov>; Caryn Barnes <cbarnes@Langan.com>
Cc: Edward Meeks (edmeeks@ashland.com) <edmeeks@ashland.com>; Dillman, Andy [DEP] <Andy.Dillman@dep.nj.gov>
Subject: [External] RE: RAW Withdrawal -LSR 120001 - Alliant

Hercules Inc., AKA "Alliant Techsystems Inc."
100 Howard Blvd, Kenvil, Morris County
SRP PI#: 000741
ISRA Case #: E94632
LSD220001 RAW – AOC

Caryn,

The Department is in your receipt of your request to withdraw the RAW-A (LSD220001) received on August 12, 2022. The status of the document has been updated to "Withdrawn." Please allow an overnight cycle to occur prior to checking the document status in data miner.

Should you require any further assistance, please do not hesitate to contact me.

Best,

AD
Atwood F. Davis, Chief
New Jersey Department of Environmental Protection
Contaminated Site Remediation and Redevelopment
Bureau of Inspection and Review
401 East State Street
Mail Code 401-05P
PO Box 420
Trenton, NJ 08625
Tel - (609)-940-4770

NOTE: This E-mail is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521. This E-Mail and its contents, may be Privileged & Confidential due to the Attorney-Client Privilege, Attorney Work Product, and Deliberative Process or under the New Jersey Open Public Records Act. If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

NOTE: Nothing in this correspondence affects your potential liability and obligations to the State Trustee, the Department or its Commissioner regarding natural resource injuries, restoration, or damages.

From: Gard, Diane [DEP] <Diane.Gard@dep.nj.gov>
Sent: Monday, August 19, 2024 3:06 PM
To: Caryn Barnes <cbarnes@Langan.com>; Davis, Atwood [DEP] <Atwood.Davis@dep.nj.gov>
Cc: Edward Meeks (edmeeks@ashland.com) <edmeeks@ashland.com>
Subject: RE: RAW Withdrawal -LSR 120001 - Alliant

+ Atwood

Hi Caryn,
I left the site remediation program last year. I added Atwood to the email, he will assist with your request.

Thanks,
Diane

Diane Gard she/her
Section Chief | Air Energy and Materials Sustainability

Bureau of Recycling and Hazardous Waste Management
diane.gard@dep.nj.gov
609-940-5824

NOTE: This E-mail is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521. This E-Mail and its contents, may be Privileged & Confidential due to the Attorney-Client Privilege, Attorney Work Product, and Deliberative Process or under the New Jersey Open Public Records Act. If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

From: Caryn Barnes <cbarnes@Langan.com>
Sent: Monday, August 19, 2024 3:04 PM
To: Gard, Diane [DEP] <Diane.Gard@dep.nj.gov>
Cc: Edward Meeks (edmeeks@ashland.com) <edmeeks@ashland.com>
Subject: [EXTERNAL] RAW Withdrawal -LSR 120001 - Alliant

Hi, Diane,

We are respectfully requesting to withdraw the following report:

DEVELOPMENT AREA – SOIL REMEDIAL ACTION WORK PLAN, dated August 2022, prepared by Ramboll US Consulting, Inc.

- The online submission name for this report was RAW-AOC#1407236 @ 000741 – ALLIANT TECHSYSTEMS INC
- Activity Number Reference: LSR120001
- Created on: 8/12/2022

This remedial action work plan specifically addresses a proposed development plan and development area for a property transaction that is no longer viable. Ongoing remediation activities at the site will continue as planned, in accordance with separate remedial action work plan submittals. The document that we are requesting to withdraw does not have an associated NJDEP timeframe, so we do not believe the withdraw should cause administrative issues for the site remedial timeframe.

Please let us know if additional information should be provided to DEP to withdraw this report.

Thanks for your help.
Caryn

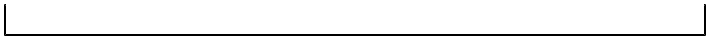
Caryn Barnes, LSRP, PG
Principal/Vice President

LANGAN

Direct: 215.845.8911
Mobile: 215.510.1652
File Sharing Link

Phone: 215.845.8900 Fax: 215.845.8901
1818 Market Street
Suite 3300
Philadelphia, PA 19103-3638
www.langan.com

PENNSYLVANIA NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS VIRGINIA WASHINGTON, DC OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA ATHENS CALGARY DUBAI LONDON PANAMA



This message may contain confidential, proprietary, or privileged information. Confidentiality or privilege is not intended to be waived or lost by erroneous transmission of this message. If you receive this message in error, please notify the sender immediately by return email and delete this message from your system. Disclosure, use, distribution, or copying of a message or any of its attachments by anyone other than the intended recipient is strictly prohibited.
This message may contain confidential, proprietary, or privileged information. Confidentiality or privilege is not intended to be waived or lost by erroneous transmission of this message. If you receive this message in error, please notify the sender immediately by return email and delete this message from your system. Disclosure, use, distribution, or copying of a message or any of its attachments by anyone other than the intended recipient is strictly prohibited.

Attachment 7

NJDEP Email Correspondence dated 30 June 2025

From:	Caryn Barnes
To:	Pecchioli, Joel [DEP]
Cc:	Motter, Allan [DEP]; Olguin-Lira, Iman [DEP]; Brown, Kendrick [DEP]; Strassler, Raymond [DEP]; Edward Meeks; Ian Mccary
Subject:	RE: Alliant Techsystems/Hercules Anvil PI No. 000741
Date:	Monday, June 30, 2025 10:37:54 AM

Good morning, Joel –
Confirming receipt of this email. I'm on vacation this week but have informed Hercules.

Thank you.
Caryn

Caryn Barnes, LSRP, PG
Senior Principal

LANGAN

Direct: 215.845.8911
Mobile: 215.510.1652
File Sharing Link
www.langan.com

Technical Excellence ● Practical Experience ● Client Responsiveness

PENNSYLVANIA NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS VIRGINIA WASHINGTON, DC OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON OREGON NEVADA CALIFORNIA ATHENS CALGARY DUBAI LONDON PANAMA

From: Pecchioli, Joel [DEP] <Joel.Pecchioli@dep.nj.gov>
Sent: Monday, June 30, 2025 10:11 AM
To: Caryn Barnes <cbarnes@Langan.com>
Cc: Motter, Allan [DEP] <Allan.Motter@dep.nj.gov>; Olguin-Lira, Iman [DEP] <Iman.Olguin-Lira@dep.nj.gov>; Brown, Kendrick [DEP] <Kendrick.Brown@dep.nj.gov>; Strassler, Raymond [DEP] <Raymond.Strassler@dep.nj.gov>
Subject: Alliant Techsystems/Hercules Anvil PI No. 000741

Good morning -

Initial Ecological Component Review comments on the Phase II Remedial Investigation Report (RIR; May 2016) prepared for the above-referenced site were transmitted in a July 8, 2019 e-mail from Joel Pecchioli to Mark Foley (WSP). This included a review of the April 2016 Ecological Evaluation/Ecological Risk Assessment (EE/ERA). The July 2019 e-mail presented "major issues/concerns with the EE/ERA … that preclude completion of

its review, as well as the Ecological Component Review of the Phase II RIR".

Subsequently, a Technical Consultation was held on December 5, 2019 to discuss these comments.

Since that time, it appears the following two (2) documents have been submitted to the Department - these documents have not been reviewed by ETRA:

(1) Remedial Action Workplan - M5-3 Area PCB Soil IRM (dated August 2021), prepared by Kennedy Jenks.

(2) PCB Pre-design Investigation Report and Maintenance Area Soil Interim Remedial Action Workplan (dated August 2021), prepared by Kennedy Jenks.

A June 3, 2024 e-mail from Caryn Barnes (Langan) to Joel Pecchioli provided an updated status of the site, including notice of pending redevelopment activities on a 210-acre portion of the site. In addition, it was reported that "Hercules was working on an update to the Ecological Risk Assessment using the developer's proposed footprint of development".

A September 10, 2024 e-mail from Caryn Barnes to Joel Pecchioli reported that "[t]he proposed redevelopment project .... has fallen through".

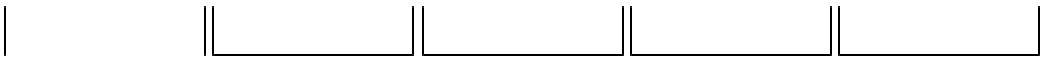
Consistent with the Department's "7/60 Day" policy, please provide an updated EE/ERA report by September 2, 2025. This report must resolve all the outstanding comments and issues in the above-refenced July 8, 2019 review e-mail, and provide all the data and information needed for the Department to complete its Ecological Component Review of the May 2016 RIR. If it does not, the May 2016 RIR will be returned to the Bureau of Inspection and Review (BIR) for further instruction.

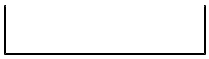
Please confirm receipt of this e-mail by July 8, 2025.

Please contact me if you have any questions.

Joel Pecchioli
Research Scientist I **|** Environmental Toxicology and Risk Assessment
Bureau of Environmental Evaluation and Risk Assessment
Contaminated Site Remediation and Redevelopment

joel.pecchioli@dep.nj.gov
609-940-4570





NOTE: This E-mail is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521. This E-Mail and its contents, may be Privileged & Confidential due to the Attorney-Client Privilege, Attorney Work Product, and Deliberative Process or under the New Jersey Open Public Records Act. If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

This message may contain confidential, proprietary, or privileged information. Confidentiality or privilege is not intended to be waived or lost by erroneous transmission of this message. If you receive this message in error, please notify the sender immediately by return email and delete this message from your system. Disclosure, use, distribution, or copying of a message or any of its attachments by anyone other than the intended recipient is strictly prohibited.

Attachment 8

Terrestrial Lead Work Plan

Kennedy/Jenks Consultants

214 Carnegie Center, Suite 103
Princeton, New Jersey 08540
609.285.2620

Ecological Risk Assessment: Terrestrial Lead Work Plan

Hercules LLC – Kenvil Works Facility

August 2018

Prepared for

Hercules LLC
500 Hercules Road
Wilmington, Delaware 09808

K/J Project No. 1540001*43

Table of Contents

List of Tables ..... *ii*

List of Figures ..... *ii*

List of Appendices ..... *ii*

Section 1: Introduction 1-1

1.1 Background 1-1
1.2 Scope and Objectives 1-3

Section 2: Areas of Enrichment 2-4

2.1 Dataset 2-4
2.2 Conceptual Site Model 2-5
2.2.1 Lead Fate and Transport 2-6
2.2.2 Development Area - Experimental Dynamite Production Area 2-6
2.2.3 Development Area - Ballistics Range 2-3
2.2.4 PETN/NG Area – Acid Recovery & Former Ponds 2-2
2.2.5 Maintenance Area - Acid Production Plant 2-3

Section 3: Terrestrial Exposure Area 3-1

3.1 Spatially-Weighted Exposure Point Concentration 3-1

Section 4: Field Sampling Plan 4-3

4.1 Scope Overview 4-3
4.1.1 Rationale and Data Use Objectives 4-3
4.2 Sample Location Selection 4-4
4.3 Sampling Methods and Analyses 4-5
4.3.1 Soil Sampling 4-5
4.3.2 Sequential Extraction Sample Selection and Analysis 4-8
4.3.3 Terrestrial Invertebrate Sampling 4-8
4.4 Investigation-Derived Waste Management 4-9
4.5 Schedule and Reporting 4-9

References *1*

List of Tables

1 AoE-1 – Development Area - Experimental Dynamite Production Area Soil Dataset
2 AoE-2 – Development Area - Ballistics Range Soil Dataset
3 AoE-3 – PETN/NG Area - Acid Recovery Soil Dataset
4 AoE-4 – NG Area - Former Ponds Soil Dataset
5 AoE-5 – Maintenance Area - Acid Production Plant Soil Dataset
6 Groundwater Dataset - Lead

List of Figures

1 Facility Location
2 Facility Layout
3 Remedial Area - Lead Concentrations in Soil (0-2 ft bgs)
4 Development Area – Experimental Dynamite Production Area – Lead Concentrations in Soil (0-2 ft bgs)
5 Development Area – Ballistics Range – Lead Concentrations in Soil (0-2 ft bgs)
6 PETN/NG Area – Acid Recovery and Former Ponds – Lead Concentrations in Soil (0-2 ft bgs)
7 Maintenance Area – Acid Production Plant – Lead Concentrations in Soil (0-2 ft bgs)
8 Development Area - Experimental Dynamite Production Area – Proposed Sampling Locations
9 Development Area - Ballistics Range – Proposed Sampling Locations
10 PETN/NG Area – Acid Recovery and Former Ponds – Proposed Sampling Locations

List of Appendices

A Spatial Weighting Calculations – Tables and Figures
B Spatial Weighting Datasets
C Standard Operating Guidelines
D TestAmerica 7-Step Sequential Extraction Procedure Summary
E Back-Calculated EPC - Lead

Section 1: Introduction

On behalf of Hercules LLC (Hercules), Kennedy/Jenks Consultants (K/J) prepared this Ecological Risk Assessment: Terrestrial Lead Work Plan (TLWP) for the former Hercules Kenvil Works Facility, located on Hercules Road in Kenvil, Morris County, New Jersey (the Facility) (**Figures 1 and 2**). This document summarizes the characterization of potential ecological risk in terrestrial habitat at the Facility and outlines a sampling plan to provide additional lines of evidence related to terrestrial assessment endpoints.

This TLWP was prepared in accordance with New Jersey Administrative Code (N.J.A.C.) 7:26E - New Jersey Department of Environmental Protection's (NJDEP's) Technical Requirements for Site Remediation (TRSR), NJDEP's Ecological Evaluation Technical Guidance (EETG, NJDEP 2015), and NJDEP's Field Sampling Procedures Manual (NJDEP 2005). As recommended in the EETG (NJDEP 2015), ecological investigation and assessment activities are consistent with United States Environmental Protection Agency's (USEPA's) Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (USEPA 1997) and other federal guidance on conducting ecological risk assessments.

1.1 Background

The Phase II Remedial Investigation Report (RIR) (Hercules 2016) included an Ecological Evaluation/Ecological Risk Assessment (EE/ERA) that evaluated potential ecological risks using site investigation (SI)/remedial investigation (RI) results. Data generated during the SI focused RI activities within and immediately adjacent to the former manufacturing areas onsite (the Remedial Area). The EE/ERA reviewed SI/RI data to identify areas where historical operations (e.g., emplacement of historic fill, point source releases, process upsets) influenced environmental media within the Remedial Area. Based on this information, the EE/ERA separated the Facility into three general categories to focus the risk assessment:

- Areas where ecological risk is negligible (undeveloped areas beyond the Remedial Area).
- Areas where constituent concentrations and/or physical characteristics merit remediation (e.g., ecological risk likely), regardless of the outcome of the ecological risk assessment process (Areas of Presumed Remedial Action).
- Areas where ecological risk is uncertain.

This reductive approach focused the quantitative evaluation of ecological risk presented in the EE/ERA on places where potential ecological risk was uncertain within the Remedial Area, without confounding the process by evaluating locations where potential ecological risk is unlikely or very likely. Areas where potential ecological risk is unlikely or very likely were evaluated separately. Using this approach, the EE/ERA identified areas of the Facility that present unacceptable ecological risk and provided a foundation on which to base additional focused ecological evaluation.

Results of the exposure assessment, effects characterization, risk characterization, and uncertainty analysis conducted as a part of the EE/ERA indicated that adverse effects by exposure to COPECs at the Facility are unlikely for terrestrial invertebrate communities, as well as herbivorous and carnivorous avian and mammalian populations. EE/ERA results indicated that adverse effects to terrestrial plant communities and insectivorous avian and mammalian populations by exposure to metals COPECs at the Facility are possible. Hazard quotients (HQ) based on a comparison to lowest observed adverse effects level (LOAEL) ecological screening benchmarks (ESB) presented in the EE/ERA are summarized below.

Summary of Findings - EE/ERA

Terrestrial Receptor		**HQ_{LOAEL}**
Terrestrial Invertebrates		**HQs>1 (Cu, Mn, V, Zn)**
Plants		**HQs > 1 (10 metals)**
Avian	American robin (*Turdus migratorius*)	**HQs > 1 (PCBs, Pb, Cu)**
	Northern bobwhite (*Colinus virginianus*)	≤ 1
	Red-tailed hawk (*Buteo jamaicensis*)	≤ 1
Mammalian	Short-tailed shrew (*Blarina brevicauda*)	**Pb HQ > 1**
	White-tailed deer (*Odocoileus virginianus*)	≤ 1
	Red fox (*Vulpes vulpes*)	≤ 1

Pb = lead, Cu = Copper, Mn = Manganese, V = Vanadium, Zn = Zinc, PCBs = Polychlorinated biphenyls

Overall, the EE/ERA concluded that potential ecological risk at the Facility is low, with the greatest potential for adverse effects attributable to lead; and recommended additional ecological risk assessment activities to refine risk estimates and identify areas of the Facility driving risk.

An ERA Work Plan, included as an attachment to the EE/ERA, addressed these recommendations. The ERA Work Plan presented a desktop evaluation that refined risk estimates using more realistic exposure parameters and assumptions relative to the EE/ERA's initial conservative assessment.

The desktop evaluation:

- Modified site use factors (SUFs), conservatively set at 1 in the EE/ERA, to reflect species-specific migratory patterns and home ranges from USEPA (1993)
- Updated dietary composition to reflect information available from species-specific field studies presented by USEPA (1993) and Hansen (2011).
- Preferentially selected toxicity reference values (TRVs) based on species-specific studies of wild (rather than domesticated/lab-raised) individuals presented in USEPA documents and/or peer-reviewed scientific literature.

These refined modeling parameters yielded the following HQs.

COPEC	Short-tailed Shrew	American Robin
Copper	-	≤1
Lead	≤1	**3**
Total PCBs	-	≤1

Based on these results, the ERA Work Plan concluded that additional evaluation of the form(s) and speciation of lead is needed to better understand and assess its potential bioavailability to American robin.

1.2 Scope and Objectives

This TLWP builds upon the findings of the EE/ERA and the ERA Work Plan presented in the RIR (Hercules 2016) and outlines data collection activities to refine existing conclusions regarding lead in soil and its potential risk to terrestrial receptors.

The objectives of this TLWP are as follows:

- Identify areas of lead concentrations in soil driving risk estimates (areas of enrichment [AoEs].
- Develop conceptual site models (CSMs) for each AoE.
- Establish a sampling plan to evaluate bioavailability, chemical speciation, and physical form of lead in soil of AoEs and the potential for upper trophic level receptor prey items to bioaccumulate lead.

Ultimately, the information in this TLWP will be coupled with the data and field information generated by the proposed sampling activities to inform a refined risk characterization presented in an ERA addendum.

Section 2: Areas of Enrichment

Historical information regarding uses of lead during operations indicates that lead was most commonly used in elemental form as an anti-static, non-sparking material in various stages/structures in manufacturing processes. Based on operational layout and specific process-related uses, lead was limited to distinct areas where raw, intermediate, and final products remained sensitive to electrical charges and/or concentrated acids were used in the production processes.

Acknowledging that lead was used in defined areas and in association with discrete processes, identification of AoEs relied on Facility knowledge and field reconnaissance along with a focused review of the SI/RI dataset and case inventory document (CID). The data/CID review identified clusters of areas of concern (AOCs) with related processes and lead influences in surface soil. These groups of AOCs were aggregated to form AoEs. This evaluation identified five AoEs where lead concentrations in surface soil disproportionately influence ecological risk assessment results relative to the area over which they occur and merit further investigation:

- Development Area – Experimental Dynamite Production Area (EDPA; AoE-1)
- Development Area – Ballistics Range (AoE-2)
- Pentaerythritol tetranitrate (PETN)/Nitroglycerin (NG) Area – Acid Recovery (AoE-3)
- NG Area – Former Ponds (AoE-4)
- Maintenance Area – Acid Production Plant (AoE-5)

Figure 3 presents Remedial Area SI/RI sample locations and associated lead concentrations in soil between 0 and 2 feet below ground surface (ft bgs). **Sections 2.2.3** through **2.2.5** identify areas of concern associated with each AoE and present conceptual site models specific to each AoE.

As illustrated on **Figure 3**, the five AoEs noted above contain clusters of samples with elevated lead concentrations (i.e., concentrations exceeding a back-calculated, risk-based, site-specific ESC [SSESC] for lead of 488 milligrams per kilogram [mg/kg]). Beyond these areas, remaining elevated lead concentrations exist either a) in Areas of Presumed Remedial Action, or b) as individual isolated samples with minimal influence on risk to upper trophic level receptors across the exposure area. On February 27, 2018 a field reconnaissance site visit documented observations of surface soil conditions and the presence of debris in AoEs.

Figures 4 through **7** present SI/RI sample locations and associated lead concentrations in the 0 and 2 ft bgs soil interval for each AoE.

2.1 Dataset

The dataset for each AoE consists of surface soil samples within the AoE boundary. Consistent with the EE/ERA, surface soil samples are defined as any sample with all or a portion of the

sample interval between 0 and 2 ft bgs. Groundwater data are also available in each AoE from sampling events from 2005 through 2016, utilizing an existing network of monitoring wells (**Table 6)**.

Lead data from soil samples in each AoE were compared to the SSESC for lead (488 mg/kg). This value, derived from the American robin, represents the most conservative ESC back-calculated to an HQ_{LOAEL} of 1 using the ERA Work Plan food web models for terrestrial receptors (Table 4, ERAWP 2016). The equation considers the toxicity reference values, site use factors, and diet of the American robin and is provided in **Appendix E**. Sediment samples in the NG Area - Former Ponds collected during the RI have been reclassified as soil samples based on recent and current conditions (habitat does not support aquatic/benthic communities) resulting from changes in Facility hydrology following cessation of Facility operations. **Tables 1** through **5** present the datasets for lead in soil in each AoE. These datasets are summarized below.

AoE	Detected / Analyzed	Exceeds SSESC*	Minimum	1st Quartile	Median	3rd Quartile	Maximum	Location of Maximum
AoE-1	44 / 44	23	4.82	59.6	474	1,848	98,550	TP-R-K5-2-31.0N
AoE-2	23 / 23	6	6.58	67.3	133	522	144,000	I5-3-060.75N
AoE-3	106 / 106	60	4.34	155	491	1,388	68,200	C11-1-041N
AoE-4	8 / 8	7	36.1	1,032	1,400	1,760	148,000	SD-R-D11-071.0N
AoE-5	25 / 25	21	62.5	866	2,040	4,245	16,800	H10-9104-021N

*SSESC = site specific environmental screening criteria

AoE-specific fate and transport of lead is explored further in the CSMs that follow.

2.2 Conceptual Site Model

Historically, elemental lead was prevalent in structures where explosives were manufactured due to its non-sparking, non-static properties. Lead-lined floors and material conveyances were common, as were lead process equipment and tools. Given its importance onsite, lead was commonly recycled/reclaimed when demolishing buildings and re-formed into sheeting, conveyances, and equipment to support other operations onsite. However, process upsets, as well as thermal decontamination and demolition could have introduced elemental lead into surface soil. Propellant development required testing of ammunition at the Ballistics Range, resulting in the introduction of lead shot and bullets to surface soil in discrete areas.

The manufacturing, use, and recovery of nitric and sulfuric acid may have leached lead from conveyances and equipment. Typically, spent acids were recovered and purified for re-use onsite. However, process upsets, incidental releases, and/or historical waste management practices (prior to the development of recovery/purification processes in the early 1900s) could have introduced spent acid containing dissolved lead to soil.

2.2.1 Lead Fate and Transport

A toxicological profile of lead completed by the Agency for Toxic Substances and Disease Registry (ATSDR 2007) found that at approximately neutral pH, lead predominately binds to carbon forming organic carbon-lead complexes. This form of lead is not bioavailable if consumed by ecological receptors. At low pH, dissolved lead in ions and ion pairs were the predominant species identified. ATSDR concluded that the mobility of lead increases in environments with low pH due to the enhanced solubility of lead under acidic conditions. Most lead is retained strongly in soil, and very little is transported through runoff to surface water or leaching to groundwater except under acidic conditions (ATSDR 2007). Bioavailability of lead in soil to plants is limited because lead strongly adsorbs to soil organic matter; however, the bioavailability increases as pH and organic matter content of soil are reduced. Plants and animals may bioconcentrate lead, but biomagnification of lead in higher level ecological receptors has not been observed (ATSDR 2007).

The EE/ERA conservatively assumed that COPECs are completely absorbed into an organism's gastrointestinal tract and enter the bloodstream where they can cause adverse effects. Kaufman et al. (2007) provide gastric models for both birds and mammals to evaluate the proportion of lead that mobilizes into the digestive juices (bioaccessible fraction) from soil, earthworms, and vegetation collected at a rifle and pistol range. Results for the avian gastric model suggest that the bioaccessible fraction of lead in soil was 53% and in earthworm tissue was 73% (Kaufman et al. 2007). For the mammalian model, the bioaccessible fraction of lead in soils was 66%, in earthworm tissue was 77%, and in unwashed vegetation was 50% (Kaufman et al. 2007). These results were incorporated into the upper trophic level exposure models presented in the ERA Work Plan.

2.2.2 Development Area - Experimental Dynamite Production Area

Established in 1915, the Development Area (**Figure 4**) housed research and quality control activities related to the development and improvement of propellants and explosives produced onsite. The EDPA (AoE-1) produced and tested formulations of dynamite within the Development Area. NG, a component of dynamite, was manufactured in the NG Area and transported in small batches to the EDPA. EDPA structures supporting formulation and mixing of dynamite were known to have lead floors, conveyances and equipment.

AOCs with lead concentrations exceeding the SSESC for lead (488 mg/kg) in soil in AoE-1 include:

- K5-1 – Drum Disposal Area
- K5-2 – Pond
- J5-5-04 – Old Decon Oven
- K6-9214 – Storehouse #4
- L5-4 – Dynamite Test Shed
- L5-6 – Stressed Vegetation
- L5-8318 – Dynamite Test House

Potential sources of lead in these AOCs include, but are not limited to, the following:

- Non-sparking and anti-static floor and wall covering (i.e., lead sheeting)
- Non-sparking and anti-static process equipment and conveyances
- Containers/vessels used during detonation testing

Release mechanisms associated with the sources of lead above include, but are not limited to, the following:

- Test detonations
- Process upsets (i.e., fire, explosions)
- Thermal decontamination
- Accidental releases (i.e., spills)

During the February 27, 2018 field reconnaissance site visit, lead sheeting as well as lead and copper debris (pictured below) were found on the ground surface in the EDPA.

Lead sheeting

Lead and copper debris material

The distribution of lead in AoE-1, as characterized during SI/RI sampling, indicates individual isolated areas of lead concentrations indicative of elemental lead chunks in soil among a majority of samples with concentrations at or below the SSEPC for lead (488 mg/kg) in soil.

Lead in AoE-1 has likely remained in solid form (i.e., lead sheeting in surface soil). Neither historical processes nor current conditions are expected to influence the form or solubility of lead in surface soil. Three groundwater samples were collected in 2013 (2 samples) and 2016 (1 sample) from an adjacent monitoring well (MW-3A) (**Figure 4**). Lead was not detected above the NJDEP groundwater quality standard in groundwater samples collected during the 2013 and 2016 sampling events (**Table 6**) In addition, historical data from 2005 show that lead was not detected in samples collected from MW-3A or a nearby monitoring well (MW-4). These data support the fate and transport model indicating that elemental lead in surface soil is insoluble and not influencing groundwater.

However, further evaluation of the physical form, speciation, and extent of lead in AoE-1 is recommended to assess the bioavailability of lead to ecological receptors.

2.2.3 Development Area - Ballistics Range

The Ballistics Range (AoE-2, **Figure 5**) tested propellant (i.e., smokeless powder) formulations to achieve manufacturer-specified projectile velocities. During test firing on the range, projectiles impacted a backstop constructed of timber and sand. Historical Facility knowledge regarding range maintenance practices indicates that spent shotgun shells and lead shot were periodically collected at the firing station and backstop, respectively, and stockpiled near the Bullet Kiln for recycling (lead) and/or disposal. When sufficient material accumulated in this area, offsite disposal was coordinated. Remnants of these stockpiles remained following cessation of Facility operations.

AOCs with lead concentrations exceeding the SSEPC for lead (488 mg/kg) in soil in AoE-2 include:

- H5-8126 – Ballistics Building
- I5-2 – Bunker
- I5-3 – Bullet Kiln
- I5-5 – Front Face of Shooting Plate
- I6-11 – Stressed Soil Area

Potential sources of lead in these AOCs include, but are not limited to, the following:

- Lead bullets and shot
- Lead particulates generated during projectile impact with the backstop
- Solid debris generated during testing activities

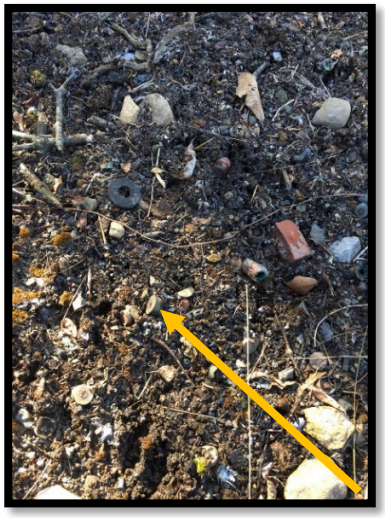
Release mechanisms associated with the sources of lead above include, but are not limited to, the following:

- Historical disposal/management practices
- Natural environmental processes (i.e., erosion)

During the February 27, 2018 field reconnaissance site visit, a shooting plate, spent casings, flattened lead bullets and shot were found in/on surface soil at the historical stockpile location. The photos below illustrate items found in AoE-2.

Shooting plate

Lead shot (identified in red box)



Shell casings

Based on the sources and release mechanisms discussed above, the location of lead detected in soil during SI/RI sampling, and evidence observed in the field, lead appears to be present in surface soil as a solid debris (e.g., projectile fragments). Lead concentrations consistent with soil containing lead projectile fragments (i.e., concentrations in the parts per thousand range) occurred around the Ballistics Building, Bullet Kiln, Bunker, and Backstop. Each of these AOCs historically handled or used lead projectiles. Three groundwater samples were collected in 2013 (2 samples) and 2016 (1 sample) from monitoring well MW-7PD, side-gradient to the AOCs within the Ballistics Range (**Figure 5**). Lead was not detected above the NJDEP groundwater quality standard in groundwater samples collected during the 2013 and 2016 sampling events (**Table 6**) Historical data from 2005 and 2006 sampling events did not identify lead in groundwater at wells MW-7PD and MW-7P (**Figure 5**). These data support the fate and transport model indicating that elemental lead in surface soil is insoluble and not influencing groundwater.

However, further evaluation of the physical form, speciation, and extent of lead in AoE-2 is recommended to assess the bioavailability of lead to ecological receptors.

2.2.4 PETN/NG Area – Acid Recovery & Former Ponds

The PETN Area and a majority of the NG Area make up AoE-3, while the NG Area - Former Ponds (remnant stormwater management features) represent AoE-4. The former PETN and NG operational areas of the Facility produced NG, and later PETN, from site development in 1871 through Facility closure. Both NG and PETN production processes relied heavily on concentrated nitric acid solutions. Given the sensitivity of NG to static electrical charges, building floors, process equipment and conveyances were typically lined with lead; and the production line was set on a hillside such that materials could be conveyed between processes

via gravity flow. The NG Area - Former Ponds occupy an area at the base of the hill and collected stormwater runoff during precipitation events.

AOCs with elevated lead concentrations include:

- C10-2 – PETN Crystallizer Tank Saddle
- C10-211C – Mixed Acid Storage
- C10-2179 – PETN Nitric Acid Store
- C10-3 – PETN Crystallizer Tank Saddle
- B11-1 – Acid Recovery Area
- B11-11 – Absorption Tower
- B11-2044 – Redford Paste House/Heater House Catch Tank
- C11-1 – Former Pond
- C11-10 – Coal Pile
- C11-12 – Unknown
- C11-15 – Shot Building
- C11-19 – Catch Tank House
- C11-2233 – Neutralizer #3
- C11-4 – Stressed Vegetation
- C11-8 – Stressed Vegetation
- D10-1 – Stressed Vegetation
- D10-164B – Waste Acid House
- D10-165B – Waste Acid House
- D10-2233B – Neutralizer #2
- D10-4 – Sucrose Nitrator
- D10-6 – Unknown

Potential sources of lead in these AOCs include, but are not limited to, the following:

- Non-sparking and anti-static floor and wall covering (i.e., lead sheeting)
- Non-sparking and anti-static process equipment and conveyances
- Corrosion-resistant coating/lining on tanks, equipment, and conveyances
- Spent acid waste streams

Release mechanisms associated with the sources of lead above include, but are not limited to, the following:

- Process upsets (i.e., fire, explosions)
- Thermal decontamination
- Accidental releases (i.e., spills)
- Historical disposal practices

- Surface-water and stormwater management practices (i.e., erosion, sedimentation)

Lead sheeting and lead debris were found on the ground surface in AoE-3 during the February 27, 2018 field reconnaissance site visit. The photos below illustrate lead material representative of what was observed in the Acid Recovery Area AOC (B11-11) and areas of stressed vegetation (AOCs C11-4, C11-8 and D10-1).

Lead sheeting

Lead exists in AoE-3 in both solid and potentially dissolved forms. Similar to the other AoEs, lead debris is present in soil as a result of facility operations. The mobility of lead increases in environments with a low pH due to the enhanced solubility of lead under acidic conditions (ATSDR 2007). Until the late 1800s there was not an established method to recover spent acids from nitrating explosive and energetic (E&E) constituents. Following the late 1800s an economical method of recovering spent acids was developed and they were no longer considered a waste material (Hercules 2007). The use of concentrated nitric and sulfuric acid in AoE-3 would have slowly eroded (via dissolution) lead equipment and materials, resulting in a spent acid solution containing dissolved lead. Over time, accidental discharges of acid solutions likely contributed to mobilizing lead from solid forms located in surface soil, as well as the transport of dissolved lead from the process stream to the environment. Additionally, acid releases reduced soil pH creating conditions under which lead in solid forms would more readily move into solution (ATSDR 2007).

Historical surface water management practices involved the collection and channelization of water, which flowed naturally from the PETN/NG Area hillside to the base of the hill. A series of depressions (unknown origin) exist at the base of the hill (NG Area - Former Ponds). Lead particulates present in surface soil and mobilized as suspended solids may have settled out and accumulated in these depressions.

These source – release mechanism combinations may have introduced lead into soil in both a solid, relatively immobile form (lead sheeting), or as more mobile lead particulates entrained in spent acid. One groundwater sample was collected in September 2016 from an adjacent monitoring well (MW-38) (**Figure 6**). Total lead was detected above the NJDEP groundwater quality standard in the groundwater sample collected during the 2016 sampling event (**Table 6**). A dissolved lead groundwater sample was not collected during this groundwater sampling event. During a 2006 sampling event, groundwater samples were collected from MW-38 and two additional wells in and near the NG area (MW-39 and MW-43). Total lead was not detected in these historical samples, and no dissolved lead data was collected.

Further evaluation of the physical form, speciation, and extent of lead in AoE-3 and AoE-4 is recommended to assess the bioavailability of lead to ecological receptors.

2.2.5 Maintenance Area - Acid Production Plant

The Maintenance Area – Acid Production Plant (AoE-5) produced sulfuric and nitric acids used to support various manufacturing processes onsite, as well as supply other nearby manufacturing installations. The Facility produced acids in this area from 1912 to 1950 (Hercules 2007). AOCs with lead exceedances include:

- H10-10 – Unknown Foundation
- H10-11 – Acid Mix Equipment
- H10-12 – Spent Acid Store Tank
- H10-14 - Unknown
- H10-16 – Unknown Concrete Footer
- H10-2003 – Spent Acid Tower
- H10-2092 – Spent Acid Recovery Tanks
- H10-267 – Absorption Tower
- H10-502 – Nitric Acid Recovery Area
- H10-503 – Sulfuric Acid Recovery Area
- H10-68 – Spent Acid Recovery
- H10-9002 – Oil Storage
- H10-9103 – Sulfuric Acid Store Tank
- H10-9104 – Nitric Acid Store Tank
- H10-9320 – Can Paint House

Potential sources of lead in these AOCs include, but are not limited to, the following:

- Corrosion-resistant coating/lining on tanks, equipment, and conveyances
- Spent acid waste streams

Release mechanisms associated with the sources of lead above include, but are not limited to, the following:

- Accidental releases (i.e., spills)

- Historical management and disposal practices

The lead dataset from AoE-5 exhibits the smallest range between minimum and maximum values, and highest median and 3rd quartile values; indicating that historical influences on soil are more widespread than in other AoEs. Lead debris has not been observed on the ground surface, indicating that lead likely occurs in a fine particulate or dissolved form. Despite the increased concentrations of lead in soil in AoE-5, dissolved lead was detected at concentrations less than the NJDEP GWQS in side-gradient groundwater monitoring wells MW-J2 and MW-J1 during a 2013 sampling event for those monitoring wells (**Figure 7** and **Table 6**). In 2016, total lead was detected at concentrations less than the NJDEP GWQS at MW-J2 and not detected at MW-J1. Despite historical influences in this area related to acid production and disposal, sampling events in 2013 and 2018 indicate that groundwater and soil pH in this area are circumneutral. Historically, lead was likely mobile throughout the maintenance area under acidic conditions, which have since been remediated by the natural buffering capacity of the soil and groundwater over time. The pH of groundwater and soil in the maintenance area support the interpretation that lead is no longer mobile throughout the site, but occurs in a fine particulate or dissolved form.

AoE-5 occurs within the footprint of Facility redevelopment. Redevelopment will function as a remedial cap (engineering control) and will eliminate potential ecological exposure pathways. As such, no additional investigation in this AoE is recommended at this time.

Section 3: Terrestrial Exposure Area

Section 2 outlined the dataset analysis used to identify clusters of lead concentrations in soil and define the five AoEs in which to focus additional ERA activities related to lead in the terrestrial exposure area. These five AoEs represent 206 of the more than 1,700 lead sample results in the terrestrial exposure area. This section evaluates potential ecological risk attributable to lead in the remaining terrestrial exposure area.

Building on the dataset analysis used to identify the AoEs, the remaining terrestrial exposure area (excluding areas of presumed remedial action) was evaluated using spatial data analysis in GIS. Specifically, the remaining terrestrial exposure area is defined as the terrestrial exposure area from the EE/ERA[1], less the five AoEs identified herein and areas of presumed remedial action. Beyond these baseline conditions, an additional evaluation that considers potential future redevelopment of the Facility was conducted to confirm that acceptable ecological risks exist in portions of the terrestrial exposure area that may not be subject to redevelopment.

3.1 Spatially-Weighted Exposure Point Concentration

Spatial weighting using Thiessen polygons was used to generate a lead EPC representative of the remaining terrestrial exposure area. Thiessen polygons are polygons whose boundaries define the area that is closest to each point relative to all other points. This approach incorporates the spatial distribution of samples within the exposure areas (i.e., higher density sampling results in a lower proportion of the overall exposure area represented by each sample result).

Baseline and redevelopment conditions were evaluated to ensure protectiveness of ecological receptors under current and future conditions. The redevelopment scenario is based on the current conceptual redevelopment plan and assumes that redeveloped areas would include a cover type that would eliminate potential ecological exposure pathways.

For each scenario, GIS was used to create Thiessen polygons around each sample location. The results of each sample were then weighted proportionally based on the fraction of the overall area represented by the corresponding polygon. In sample locations with non-detect values, the reporting limit was weighted proportionally based on the Thiessen polygon surrounding that location. Spatially-weighted EPCs based on the average and 95UCL were evaluated to provide a bounded range of risk estimates (HQs). HQs were calculated using the SSESC for lead in soil (488 mg/kg), back-calculated from the robin exposure model.

The following tables provide a data distribution summary and present HQs. **Appendix A** presents spatial weighting calculations (95UCL input and output files). **Appendix B** presents the datasets for the terrestrial exposure area current and future conditions (excluding redevelopment footprint) used for spatial weighting.

[1] The TNT Area boundary used in the EE/ERA has been updated to reflect the results of the 2017 refined delineation activities.

Lead SSESC	Arithmetic Average HQ (EPC)	Area-Weighted Average HQ (EPC)	Area-Weighted 95UCL HQ (EPC)
Terrestrial Exposure Area (Current Conditions)			
488	≤1 (497)	≤1 (381)	**2** (745)
Terrestrial Exposure Area (Excluding Redevelopment Footprint)			
488	≤1 (497)	≤1 (337)	**2** (857)

Units are in mg/kg

Area-weighted risk characterization results for the remaining areas onsite under both current and potential future conditions indicate that ecological risk attributable to lead is possible, but unlikely. The results of the bioavailability evaluations in each AoE will provide insight into the potential influences of lower lead concentrations elsewhere in the terrestrial exposure area, as well as the degree and direction of uncertainty associated with the assessment presented above.

Section 4: Field Sampling Plan

This section presents field activities proposed to inform a refined risk characterization for AoEs within the terrestrial exposure area. Field sampling and analysis activities will be conducted in accordance with the *Final Field Quality Assurance Project Plan* (FQAPP; Hercules, 2006) and the *Final Analytical Quality Assurance Project Plan* (AQAPP; Hercules, 2005) approved by NJDEP.

The following documents will supplement the procedures established in the QAPPs.

- Kennedy/Jenks Standard Operating Guidelines (**Appendix C**) addressing field tasks specific to this work plan
- Facility-specific Health and Safety Plan Addendum
- NJDEP's Data of Known Quality Protocol (DKQP; NJDEP 2014) providing supplemental data quality control procedures.

4.1 Scope Overview

The CSMs for each AoE presented in Section 2 identify the potential sources and release mechanisms from which lead was introduced to surface soil at the Facility. While the CSMs provide information regarding fate, transport, and bioavailability of lead in soil based on anecdotal and visual observations, additional data is needed to verify the CSM and provide additional lines of evidence regarding potential risk to American robin. Supplemental data collection will target the four AoEs (AoEs 1, 2, 3 and 4) outside the footprint of redevelopment, and focus on:

- Assessing the extent of lead influences on surface soil samples taken at and surrounding SI/RI soil sample locations using X-ray fluorescence spectrophotometry (XRF) analysis
- Confirming and supplementing existing soil chemistry data via analysis of total lead in soil
- Evaluating the speciation and bioavailability of lead in soil via sequential extraction procedure (SEP) analysis
- Quantifying the bioaccumulation potential of invertebrate prey items in the American robin's diet, if SEP analysis indicates lead may be bioavailable in soil.

4.1.1 Rationale and Data Use Objectives

The EE/ERA conservatively assumed that lead was 100 percent bioavailable. The ERA Work Plan refined risk evaluation incorporated measures of bioaccessibility from field studies presented in peer-reviewed scientific literature (Kaufman et al. 2007), resulting in a lead HQ_{LOAEL}

for robin of 3. The bioaccessibility values from Kaufman et al. (2007) were developed through studies at a rifle range, where lead was present in bullet fragments and particulates generated during projectile impact. Lead debris observed in the AoEs is present in similar (e.g., ballistics range) and larger (e.g., remnant sheeting) forms, as well as in fine particulates mobilized via the historical uses of acids. These AoEs are targeted for additional investigation to further refine risk estimates for American robin.

Specifically, XRF will be used to quickly quantify the extent of lead across the AoE, focused on areas of historically high lead concentrations. Based on XRF results, sample volume for laboratory analysis (total lead, TOC, pH, grain size, and SEP) will be collected from a subset of surface soil sample locations to confirm historical sample results, supplement existing data, and to evaluate speciation and bioavailability of lead in soil. If SEP results identify that lead in soil is bioavailable, terrestrial invertebrate sampling will be conducted to provide current and site-specific inputs for the American robin food web models.

The remainder of Section 4 presents specific tasks that will be completed during implementation of the TLWP.

4.2 Sample Location Selection

Proposed sample locations in each AoE are focused around SI/RI sample locations with elevated lead concentrations. Sample location selection will follow a stepwise process:

- Prior to sampling, KJ field personnel will use a handheld differential global positioning system (GPS) unit with sub-meter accuracy to field-locate SI/RI sample locations.
- Guided by the location of SI/RI sample results, a proposed primary sample location will then be selected, giving consideration to areas with visual evidence of lead in surface soil and/or operational influences (e.g., visible lead debris, areas devoid of vegetation). A sample will be collected at that location.
- In addition, step-out samples will be collected at 15ft and 30ft from the initial sample location in four cardinal directions (or directions aligned with the Facility grid). These step-out distances may vary based on field observations and conditions (e.g., stressed vegetation, surficial debris).

The step-out sampling approach is intended to collect soil samples from each AoE to evaluate bioavailability of lead across concentration ranges, as follows:

- Less than 488 mg/kg
- Between 488 and 800 mg/kg
- Between 800 and 1,500 mg/kg
- Between 1,500 and 5,000 mg/kg
- Greater than 5,000 mg/kg

The following values form the basis of the lower ranges provided above; the upper ranges are general incremental increases intended to support rapid visual assessment of source area distribution.

- The site-specific, back-calculated ecological screening benchmark for upper trophic level wildlife (488 mg/kg)

- NJDEP's Non-Residential Soil Remediation Standard (800 mg/kg)

Proposed samples in each AoE are detailed below.

AoE	***No. Proposed Sample Locations***		
	Primary	***Step-Out***	***Total***
1 - Experimental Dynamite	5	40	45
2 – Ballistics Range	4	32	36
3 – Acid Recovery	5	40	45
4 – Former Ponds	2	16	18

Figures 8 through **10** illustrate proposed primary sample locations targeting AOCs within each AoE with SI/RI sample lead results exceeding the SSEPC. Step-out sample location selection will follow the stepwise process outlined earlier in **Section 4.2**. Sampling will follow the methods and analyses outlined in **Section 4.3**.

4.3 Sampling Methods and Analyses

In accordance with Ashland's and K/J's subsurface utility clearance policies, a New Jersey One Call markout will be coordinated by K/J personnel at least seven days in advance of land disturbance.

Figures 8 through **10** illustrate the proposed primary sample locations. Step-out locations will be identified based on field conditions and the guidance provided in Section 4.2. A handheld GPS unit will be used to record each sampling location. Horizontal coordinates will be referenced in feet to the North American Datum of 1983 New Jersey State Plane Coordinate System.

4.3.1 Soil Sampling

Soil sampling will target the top 6-inch interval (0 to 0.5 ft bgs) at each sample location. The sample interval represents the surface soil interval to which ecological receptors of interest are most likely to be exposed, as well as the soil interval most likely to contain lead released to the ground surface.

Soil sampling will be conducted in accordance with the current NJDEP FSPM (NJDEP 2005) and K/J SOGs (**Appendix C**). Soil samples will be collected by field personnel via a hand trowel or stainless-steel bucket auger. Sampling equipment will be decontaminated in accordance with procedures outlined in the FQAPP prior to use and between each sample location. Field personnel will empty the soil into a decontaminated stainless-steel bowl (or similar decontaminated, dedicated vessel, or disposable container).

The potential for lead ingestion via soil by American robin (representing insectivorous birds) is driven by the physical size of lead particles. The larger the particle, the less likely incidental ingestion will occur. Conversely, fine particles can adhere to food items and/or ingested during foraging. As such, soil samples will be sieved such that the grain size fraction analyzed represents that with potential to be ingested. Grain size segregation is based on the processes outlined in USEPA's *Recommendations for Sieving Soil and Dust Samples at Lead Sites for Assessment of Incidental Ingestion* (2016) and modified based on receptor-specific information.

USEPA (2016) indicates that fines (less than 150 micrometer [µm]) represent the particle size range expected to adhere to objects and/or be ingested. When discussing lead introduced to soil at shooting ranges, Bennett et al. (2011) recommend selecting a soil fraction particle size range that includes the specific pellet/shot sizes used and present in soil. Given the various sources of lead and potential for lead to be present across a range of particle sizes, literature-based values for particle size ingestion in American robin and prey items, and sieving/sampling techniques established in USEPA-authored ERAs provide the basis for the sieving and sampling strategy below.

Specifically:

- Best (1995) identified 0.6 mm as the mean grit particle size ingested by American robin during studies of granular pesticides. Grit is expected to be the largest mineral particle ingested by birds.

- Bolton and Phillipson (1976) studied particle size distribution in the digestive tracts of earthworms and found that maximum sizes ranged from 0.1 to 0.3 mm dependent upon species and correlated to body size. Earthworms represent the prey item with the greatest potential (i.e., most conservative) to influence American robin dietary exposure via ingested soil exposure.

- USEPA and United States Fish and Wildlife (USFWS) (2004) sieved soil samples through 0.5 mm mesh prior to analysis for lead to estimate exposures for insectivorous birds (including American robin).

- Massachusetts Department of Environmental Protection (MDEP) (2009) indicates that, for ecological risk assessments of shotgun practice ranges, lead shot becomes part of the soil matrix at particle sizes less than 0.5 mm.

Based on this information, a No. 35 (0.5 millimeter [mm]) sieve will be used to separate soil that may be incidentally ingested by American robins during feeding or adhered to/ingested by their prey items.

Prior to performing XRF screening, soil samples from SI/RI locations will be placed in foil pans and dried in a drying oven to facilitate sieving and homogenization. Dried soil samples will be processed as follows:

1. Weigh the total sample

2. Sieve through 12.5-millimeter (mm) (0.5 inch) mesh

3. Sieve through No. 10 (2 millimeter [mm]) mesh
4. Sieve through No. 35 (0.5 mm) mesh
5. Combine the retained fractions and set aside (oversize)
6. Weigh the passing fraction (target)
7. Homogenize the passing fraction (target), divide into two equal parts (by mass)
8. Sieve one part through No. 100 (0.149 mm) mesh
9. Weigh both the retained (coarse) and passing (fine) fractions

The segregated grain size fractions will be processed as follows.

- The oversize fraction (Step 4) will be logged and photographed. Lead fragments in the oversize fraction, if present, will be separated and weighed.
- The target (Step 5) and fines (Step 8) fractions will be screened via XRF.

XRF methods and procedures will follow the FQAPP and K/J Metals Analysis Using X-Ray Fluorescence SOG (**Appendix C**).

Samples collected from locations established by the SI/RI results will be selected for laboratory analysis based on XRF screening results. For each AoE, XRF will help identify five samples corresponding to each of the five lead concentration ranges outlined in **Section 4.2**. Selected samples will be collected and submitted to Eurofins Lancaster Laboratories Environmental (ELLE) in Lancaster, Pennsylvania, a NJELAP-accredited laboratory. In the event that field observations and XRF screening identifies discrete area(s) within an AoE where the source of lead differs from that of other AOCs in the AoE, additional samples from this area(s) may be collected and submitted to ELLE.

Samples will be analyzed for the following:

- Lead via USEPA SW 846 Method 6020A
- pH via USEPA SW 846 Method 9040C
- TOC via USEPA SW 846 Method 5310C
- Grain size via ASTM International Method D422

ELLE will prepare Level 2 “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

QA/QC samples will include one field blank collected at the conclusion of each sampling day, and one blind duplicate sample and one MS/MSD sample collected per twenty field samples.

4.3.2 Sequential Extraction Sample Selection and Analysis

Upon receipt of sample analytical results from ELLE, total lead results from the laboratory confirmation samples will be evaluated to identify samples on which to run the sequential extraction procedure (SEP). Samples with total lead concentrations less than 488 mg/kg will not be considered for SEP analysis. For those remaining samples with total lead concentrations exceeding 488 mg/kg, three samples from each AoE will be selected. The samples will represent the maximum detected concentration, lowest concentration exceeding 488 mg/kg, and a sample nearest to the arithmetic average of those two samples.

Selected samples will be shipped to TestAmerica in Knoxville, Tennessee for SEP analysis via USEPA 6010B. The extractions will follow the 7-step process outlined in TestAmerica's 7-Step SEP Summary (**Appendix D**).

SEP results will report the concentration of lead partitioned across the seven fractions below.

Step 1 - Exchangeable Phase: a potentially bioavailable fraction where variations in soil chemistry can influence sorption and desorption.

Step 2 - Carbonate Phase: a fraction where lead is associated with carbonates, where mobility (and bioavailability) is a function of pH

Step 3 – Non-Crystalline Materials Phase: a fraction where lead is complexed with trace minerals, and mobility (and bioavailability) is a function of redox conditions in soil.

Step 4 - Metal Hydroxide Phase: a fraction where lead is bound as hydroxides, and mobility (and bioavailability) is a function of redox conditions in soil.

Step 5 - Organic Phase: a fraction where lead is strongly bound via chemisorption to organic material.

Step 6 - Acid/Sulfide Fraction: a fraction where lead is precipitated as sulfide minerals.

Step 7 - Residual Fraction: a fraction where lead remains strongly bound after the previous 6 extraction steps.

If SEP analysis indicates lead is bioavailable in soil at concentrations greater than SSESC, terrestrial invertebrate tissue data will be collected to provide site-specific inputs for the American robin food web model. Terrestrial invertebrate sample locations will be guided by total lead and SEP results.

4.3.3 Terrestrial Invertebrate Sampling

If SEP analysis results indicate lead in soil is bioavailable, terrestrial invertebrate sampling will be conducted to provide site-specific inputs for the American robin food web model. Common terrestrial invertebrates in an American robin's diet include beetles, caterpillars, moths, grasshoppers, spiders, millipedes, and earthworms (USEPA 1993). Terrestrial invertebrate sampling with consist of a combination of soil cores, pit traps and Berlese-Tullgren traps to obtain a representative sample of the terrestrial invertebrates in American robin's diet. Pit traps

are created by sinking a paint-style can (or similar size metal, glass, or plastic container) into the ground until the mouth is level with the soil. Invertebrates then fall into the can and are trapped. The can contains a preservative solution to trap, kill, and preserve invertebrates that fall into the trap (DERM 2009). A Berlese-Tullgren trap extracts insects from soil and litter samples. This technique uses a heat source to dry a leaf litter sample suspended in a funnel on a screen, the insects move away from the heat (deeper into the litter) where they fall through the screen and into a jar of preserving fluid below the funnel. Terrestrial invertebrate sampling will follow the procedures in the K/J Terrestrial Invertebrate Sampling SOG (**Appendix C**). Collected invertebrates will be segregated into two groups at each sample location – earthworms, and all other invertebrates. These groups will each represent a discrete sample and will be analyzed separately.

Tissue samples will be submitted to ELLE. Tissue samples will be analyzed for total lead using USEPA Method 6020A. ELLE will prepare Level 2 “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

4.4 Investigation-Derived Waste Management

Investigation-derived wastes (IDW) generated during field activities will include decontamination water, personal protective equipment (PPE) and dedicated/single-use soil sample collection equipment. PPE and sampling equipment that comes in contact with soil along with soil cutting and decontamination water will be stored in United States Department of Transportation (USDOT)-approved steel drums, labeled, and temporarily staged near the former wastewater treatment building.

K/J will coordinate directly with a Hercules-approved waste disposal facility (e.g., Tradebe) to profile and dispose of these materials at the conclusion of the project. Waste characterization samples will be collected for the soil cuttings and decontamination water separately and sent to ELLE for analyses requested by the selected disposal facility.

4.5 Schedule and Reporting

Field sampling is scheduled to occur during late summer/early fall 2018. Following receipt of results from Eurofins and TestAmerica, K/J will evaluate the data and present the results in an ERA addendum. The ERA addendum will summarize the results of the field sampling efforts, present a refined risk characterization, and provide conclusions and recommendations to support a scientifically-based management decision. The document will be submitted to the LSRP for review and approval.

References

Agency for Toxic Substances and Disease Registry. 2007. Toxicological Profile for Lead. August 2007.

Best, Louis B. 1995. Grit-Use Behavior in Birds: A Review of Research to Develop Safer Granular Pesticide. National Wildlife Research Center Repellents Conference 1995. 6.

Bolton, J. & Phillipson, J. (1976). Burrowing, feeding, egestion and energy budgets of *Allolobophora rosea* (Savigny) (Lumbricidae). Oecologia 23, 225–245.

DERM Animal Ethics Committee. 2009. Standard Operating Procedure: Use of Pitfall Traps. July 2009.

Hansen, J.A., D. Audet, B.L. Spears, K.A. Healy, R.E. Brazzle, D.J. Hoffman, A. Dailey, and W.N. Beyer. 2011. Lead exposure and poisoning of songbirds using the Coeur d'Alene River Basin, Idaho. *Integr Environ Assess Manag* 7(4):587-595.

Hercules, Inc. 2005. Final Analytical Quality Assurance Project Plan., Incorporated. Kenvil Works Facility. Kenvil, New Jersey. July.

Hercules, Inc. 2006. Final Field Quality Assurance Project Plan. Hercules, Incorporated. Kenvil Works Facility. Kenvil, New Jersey. February.

Hercules, Inc. 2007. Remedial Investigation Report. Hercules, Incorporated. Kenvil Works Facility. Kenvil, New Jersey. May.

Hercules, Inc. 2016a. Phase II Remedial Investigation Report. Hercules, Incorporated. Kenvil Works Facility. Kenvil, New Jersey.

Hercules, Inc. 2016b. Ecological Evaluation/Ecological Risk Assessment (EE/ERA). Hercules Incorporated. Kenvil Works Facility. Kenvil, New Jersey. June.

Kaufman, C.A., J.R. Bennett, I. Koch, and K.J. Reimer. 2007. Lead bioaccessibility in food web intermediates and the influence on ecological risk characterization. *Environ. Sci. Technol.* 41: 5902-5907.

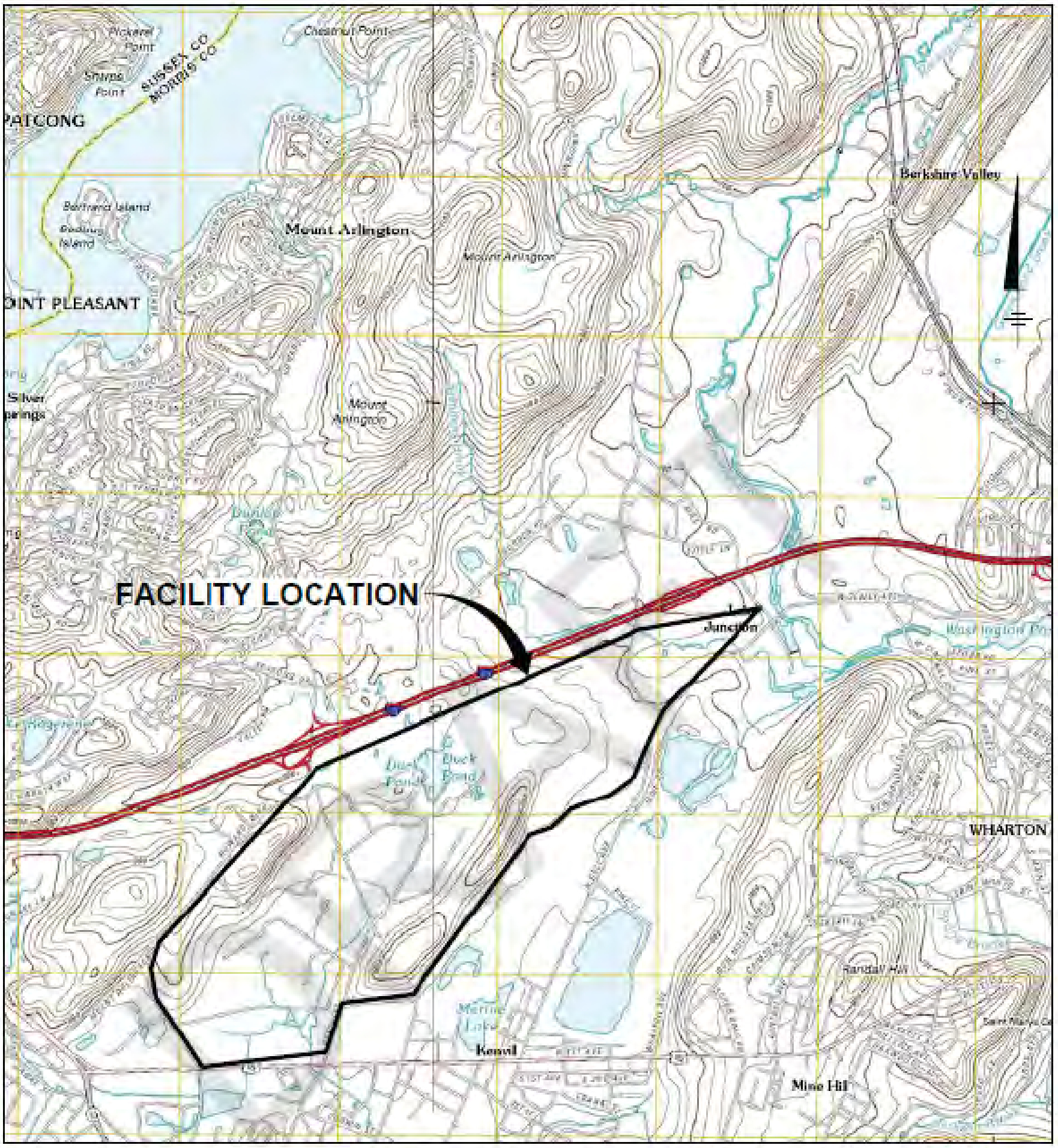
MDEP. 2009. Assessment of Ecological Risk Associated with Lead Shot at Trap, Skeet, and Sporting Clays Ranges. Office of Research and Standards. May 2009

NJDEP. 2005. Field Sampling Procedures Manual.

NJDEP, 2014. Data of Known Quality Protocols Technical Guidance. Version 1.0. April.

NJDEP. 2015. Ecological Evaluation Technical Guidance. New Jersey Department of Environmental Protection Site Remediation Program. Version 1.3. February.

Figures



SOURCES:

USGS QUADRANGLE MAPS
DOVER, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

STANHOPE, NJ 2011
7.5 MINUTE SERIES
CONTOUR INTERVAL 20 FEET

NEW JERSEY

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY
Ecological Risk Assessment - Terrestrial Lead Work Plan

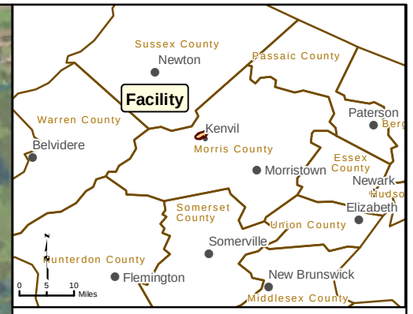
FACILITY LOCATION

Kennedy/Jenks Consultants

FIGURE
1

\\sfofiles\data\Z_Drive\Projects\Ashland\Kenvil\Events\20160407_Ph2Remedialinvestigation

Development Area
Storage Area
Diazo Area
Finishing Area
B-Line Area
A-Line Area
NG Area
Maintenance Area
PETN
AN Area
TNT Area
Dynamite Area
Lake Junction
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



Index Map

Legend

- Facility Boundary
- Remedial Area Boundary
- Former Operational Area Boundary
- Miscellaneous/Off-site Area Inside Remedial Area
- Miscellaneous/Off-site Area Outside Remedial Area

Notes:
1. Basemap information from electronic file provided by Ashland, Inc. Titled: "Site Plan.dwg"

2. Operational areas digitized from MWH, Remedial Investigation Report, Hercules Incorporated Kenvil Works Facility, figure titled: "Sediment Sample Location Map", figure D-1.

N

0 250 500 1,000
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Facility Layout

1540001.43
August 2018

Figure 2

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead\2018\Fig1_FormerOperationalAreas.mxd Last Saved By: KatieEngberg

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead\2018\Lead in Soil_sitewide.mxd Last Saved By: KatieEngberg

Facility

0 5 10 Miles

Index Map

Legend

Lead Concentrations in Soil (0-2ft bgs)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg
- Facility Boundary
- Remedial Area Boundary
- Area of Presumed Remedial Action
- Terrestrial Exposure Area
- Area of Lead Enrichment (AoE)
- Groundwater Monitoring Well
- Stream/Water Feature
- Pond
- Road

Area of Presumed Remedial Action

1. TNT Area
2. World War II Disposal Area
3. DNT Heater House
4. DIAZO Pond
5. Former Burning Grounds
6. World War I Burning Area
7. A-Line Area Northwest
8. B-Line Area South
9. World War I Disposal Area

Notes:
ft = feet
bgs = below ground surface
mg/kg = milligrams per kilogram

0 250 500 1,000
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Remedial Area
Lead Concentrations in Soil (0-2ft bgs)

1540001.43
August 2018

Figure 3

Legend

- Groundwater Monitoring Wells
- Former Building Outlines
- GW Flow Direction
- Groundwater Potentiometric Contour
- Site Boundary
- Area of Lead Enrichment (AoE)
- Remedial Area Boundary
- Pond
- Road

Lead in Soil (0-2ft)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg

N

0 30 60 120
Feet

Kennedy/Jenks Consultants
Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Development Area - Experimental Dynamite Production Area
Lead in Soil Concentrations (0-2ft)

1540001.43
August 2018

Figure 4

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead\2018\Lead in Soil_exp dyn area.mxd Last Saved By: KatieEngberg

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead\2018\Lead in Soil_Ballistics range.mxd Last Saved By: KatieErgberg

Legend

- Groundwater Monitoring Wells
- Former Building Outlines
- Facility Boundary
- Groundwater Potentiometric Contour
- GW Flow Direction
- Remedial Area Boundary
- Area of Lead Enrichment (AoE)
- Pond
- Road

Lead in Soil (0-2ft)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg
mg/kg = milligrams per kilogram
ft = feet
bgs = below ground surface

N

0 30 60 120
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Development Area - Ballistics Range
Lead Concentrations in Soil (0-2ft bgs)

1540001.43
August 2018
Figure 5

Legend

- Groundwater Monitoring Wells
- Groundwater Potentiometric Contour
- GW Flow Direction
- Remedial Area Boundary
- Road
- Former Building Outlines
- Area of Lead Enrichment (AoE) - Acid Recovery Area
- AoE - Former Ponds

Lead Concentrations in Soil (0-2ft bgs)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Lead Concentrations in Soil (0-2ft bgs) - NG Area Former Ponds

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg
mg/kg = milligrams per kilogram
ft = feet
bgs = below ground surface

0 30 60 120
Feet

Source: Esri, MAPS, Delorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Kennedy/Jenks Consultants

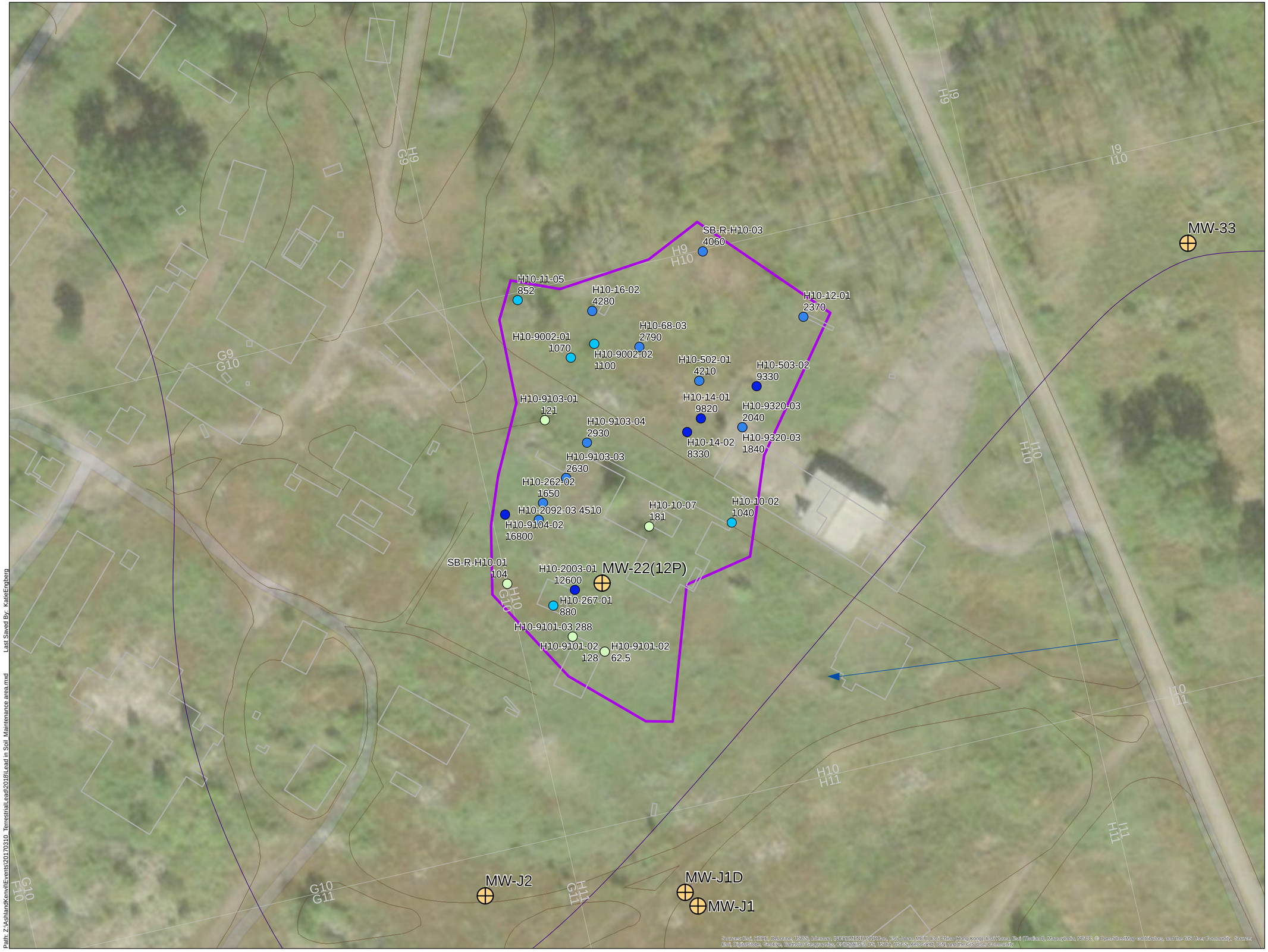
Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

PETN/NG Area - Acid Recovery and Former Ponds Lead in Soil (0-2ft)

1540001.43
June 2018

Figure 6

Path: \\SFOISGDATA\Z_Drive\Projects\Ashland\Kenvil\Events\20170310_TerrestrialLead2018\Lead in Soil_NG area_revised.mxd Last Saved By: KatieEnnberg



Legend

- Groundwater Monitoring Wells
- Groundwater Potentiometric Contour
- GW Flow Direction
- Road
- Former Building Outlines
- Area of Lead Enrichment (AoE)

Lead Concentrations in Soil (0-2ft bgs)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg
mg/kg = milligrams per kilogram
ft = feet
bgs = below ground surface

N

0 25 50 100
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Maintenance Area - Acid Production Plant Lead Concentrations in Soil (0-2ft bgs)

1540001.43
August 2018
Figure 7

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead\2018\Lead in Soil_Maintenance area.mxd Last Saved By: KatieEngberg

Source: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Former Building Outlines
- Facility Boundary
- Remedial Area Boundary
- Area of Lead Enrichment (AoE)
- Pond
- Road
- Proposed Sample Locations

Lead in Soil (0-2ft bgs)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg
mg/kg = millgrams per kilogram
f t = feet
bgs = below ground surface

N

0 30 60 120
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Development Area - Experimental Dynamite Production Area
Proposed Sampling Locations

1540001.43
June 2018

Figure 8

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead\2018\Proposed samples_exp dyn area.mxd Last Saved By: KatieEnnberg

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), Mapmyindia, NGCC, © OpenStreetMap contributors, and the GIS User Community, Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Former Building Outlines (36)
- Facility Boundary
- Remedial Area Boundary
- Area of Lead Enrichment (AoE)
- Pond
- Road
- Proposed Sample Locations

Lead Concentrations in Soil (0-2ft bgs)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg
mg/kg = millgrams per kilogram
f t = feet
bgs = below ground surface

N

0 30 60 120
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Development Area - Ballistics Range
Proposed Sampling Locations

1540001.43
June 2018

Figure 9

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead2018\Proposed samples_ballistics range.mxd Last Saved By: KatieEngberg

TP-R-C10-439-1 7510
TP-R-C10-439-2 160
SB-R-C10-03 9.25
TP-R-C10-439-3 1610
SD-C9-1-01 68.8
C10-440-02 1550
C10-211C-06 491
C10-10-01 56.2
C10-211C-07 174
C10-10-02 120
SB-R-D10-04 95.7
C10-241C-04 44.7
C10-241C-03 12.3
C10-7-01 3260
C10-12-03 1110
SD-C10-1-01 840
C10-5-01 1110
SB-R-C10-02 50.5
D10-6-02 12900
D10-5-01 166
D10-8234-02 1240
D10-164B-02 4260
D10-164B-01 908
D10-4-01 1370
D10-165B-02 1350
D10-2233D-03 58.5
D10-16-03 176
D10-16-02 169
C10-13-01 1040
D10-1-02 1620
C11-1-09 1200
C10-2179-03 603
C10-2176-02 377
C10-2-05 813
C10-2-07 782
C10-2-07 1440
C10-2-04 1130
C11-1-04 68200
C10-3-02 971
SD-C10-3-01 5490
SB-R-D11-04 61.7
D10-2233A-01 140
D10-2233C-02 187
D10-2233-04 282
D10-2233B-02 386
D10-2233B-03 28.4
D10-2233E-02 2470
D11-112-05 14.9
D11-112-01 4.34
SB-R-D11-03 5100
SB-R-C11-04 680
D11-20-01 762
SD-C10-4-01 2290
B10-2178-05 270
B10-2178-05 318
SB-R-C11-03
C11-18-01 447
C11-18-01 419
C11-18-02 263
C11-15-05 755
D11-3-02 433
SD-D11-1-01 36.1
B11-11-05 7320
C11-10-01 2090
C11-12-02 2470
C11-2233-02 246
C11-2233D-06 316
C11-23-02 269
C11-2233-03 297
C11-2233-01 660
C11-2233-01 961
C11-2233C-01 290
C11-24-04 140
C11-2233D-05 267
SD-C11-1-01 1220
SD-D11-2-01 85300
SD-R-D11-09 1830
SD-R-D11-07 148000
SD-R-D11-09 1550
SD-R-D11-08 1250
B11-1-11 33800
B11-1-08 16900
C11-1-17 10900
C11-9-04 11800
C11-8-05 4930
C11-19-05 2110
SB-R-C11-02 500
SD-C11-4-01 1450
SD-C11-4-01 1350
C11-4-19 2070
SD-R-C11-05 884
SD-R-C11-01 959
SB-R-C11-01
C11-30-05 176
C11-27-02 319
B11-6-03 450
C11-30-01 126
SB-R-B11-04 61
B11-2044-04 39.4
B11-2044-04 27.3
B11-2044-08 37.5
B11-2044-03 63.8
B11-2044-06 489
B11-2044-05 74.5

B9 B10 C9 C10 D9 D10 E10 E11 D10 C10 C10 B10 B9 B10 B10 B11 C11 B11 C11 B11 D10 C10 D11 C11 D10 D11 D11 D12 C11 C12 D12 C12 E10 D11

Lamington River Tributary

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Remedial Area Boundary
- Road
- Former Building Outlines
- Area of Lead Enrichment (AoE) - Acid Recovery
- AoE - Former Ponds
- Proposed Sample Locations

Lead in Soil (0-2ft bgs)

- <488 mg/kg
- >488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- >5000 mg/kg

Notes:
Units are mg/kg
mg/kg = milligrams per kilogram
ft = feet
bgs = below ground surface

0 30 60 120
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

PETN/NG Area
Acid Recovery and Former Ponds
Proposed Sampling Locations

1540001.43
June 2018

Figure 10

Path: Z:\Ashland\Kenvil\Events\20170310_TerrestrialLead2018\Proposed samples_NG area.mxd Last Saved By: KatieEnyberg

Tables

Table 1
AoE-1 - Development Area - Experimental Dynamite Production Area Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	J5-4-01	J5-4-02	J5-5-04	J6-2-03	J6-2-03	J6-8133-01	J6-8133-01	J6-8133-04	J6-8133-05
			Sample Date	7/7/2000	4/11/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/11/2000
			Sample Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
			Sample ID	J5-4-011N	J5-4-021.5N	J5-5-041.5N	J6-2-032FD	J6-2-032N	J6-8133-012N	J6-8133-011.5N	J6-8133-042N	J6-8133-052N
			Parent ID				J6-2-032N					
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	28.6	20.9	7680	126	129	480	NA	388	NA

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 1
AoE-1 - Development Area - Experimental Dynamite Production Area Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	J6-8133-05	J6-8136-04	J6-8136-07	J6-8167-02	J6-9-01	J6-915-01	K5-4-01	K5-4-02	K6-1-01
			Sample Date	4/13/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/18/2000	7/7/2000	7/13/2000
			Sample Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft
			Sample ID	J6-8133-051.5N	J6-8136-042N	J6-8136-072N	J6-8167-021.5N	J6-9-012N	J6-915-011N	K5-4-010.5N	K5-4-021.25N	K6-1-011N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	338	467	218	414	1710	21.6	17.9	28.9	24.6

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 1
AoE-1 - Development Area - Experimental Dynamite Production Area Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	K6-1-02	K6-2-02	K6-2-03	K6-9214-03	K6-9217-01	L5-1-01	L5-1-01	L5-4-02	L5-6-02
			Sample Date	9/27/2000	7/7/2000	4/11/2000	4/11/2000	4/11/2000	7/14/2000	7/14/2000	4/6/2000	4/11/2000
			Sample Depths	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	K6-1-021.25N	K6-2-021.5N	K6-2-031N	K6-9214-031N	K6-9217-012N	L5-1-011.5FD	L5-1-011.5N	L5-4-021N	L5-6-021N
			Parent ID						L5-1-011.5N			
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	64.2	45.9	131	5220	231	993	809	1590	2260

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 1
AoE-1 - Development Area - Experimental Dynamite Production Area Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	L5-6-05	L5-8-05	L5-6-10	L5-7-01	L5-8318-02	L5-8318-02	SB-R-J6-03	SB-R-K6-03	SB-R-K6-04
			Sample Date	4/11/2000	4/18/2000	4/11/2000	4/14/2000	4/11/2000	4/11/2000	4/20/2006	8/3/2006	4/20/2006
			Sample Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	1.0-1.5 ft	1.5-2.0 ft	0.5-1.0 ft
			Sample ID	L5-6-052N	L5-8-052N	L5-6-101.5N	L5-7-011.5N	L5-8318-022FD	L5-8318-022N	SB-R-J6-031.5N	SB-R-K6-032.0N	SB-R-K6-041.0N
			Parent ID					L5-8318-022N				
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	2630	1710	1490	518	923	625	4660	64.1	4.82

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 1
AoE-1 - Development Area - Experimental Dynamite Production Area Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	SB-R-L5-01	SB-R-L5-02	SO-R2-K-5-1	SO-R2-K-5-1	TP-R-K5-1-1	TP-R-K5-1-2	TP-R-K5-1-3	TP-R-K5-1-4	TP-R-K5-1-5
			Sample Date	4/21/2006	4/21/2006	11/13/2013	11/13/2013	7/27/2006	7/27/2006	7/27/2006	7/27/2006	7/27/2006
			Sample Depths	0.5-1.0 ft	1.5-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	1.5-2.0 ft	1.5-2.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
			Sample ID	SB-R-L5-011.0N	SB-R-L5-022.0N	SO-DUP-03_20131113	SO-R2-K-5-1_20131113	TP-R-K5-1-12.0N	TP-R-K5-1-22.0N	TP-R-K5-1-31.0N	TP-R-K5-1-41.5N	TP-R-K5-1-51.0N
			Parent ID			SO-R2-K-5-1_20131113						
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	13.4	28.8	13.2	23.3	3890	2990	2570	2670	2820

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 1
AoE-1 - Development Area - Experimental Dynamite Production Area Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	TP-R-K5-2-1	TP-R-K5-2-2	TP-R-K5-2-3	TP-R-K5-2-4	TP-R-K5-2-5
			Sample Date	7/27/2006	7/27/2006	7/27/2006	7/26/2006	7/27/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	TP-R-K5-2-11.0N	TP-R-K5-2-21.0N	TP-R-K5-2-31.0N	TP-R-K5-2-41.0N	TP-R-K5-2-51.0N
			Parent ID					
Chemical	CAS Number	Units	SSESC					
Lead	7439-92-1	mg/kg	488	863	2320	98500	588	146

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 2
AoE-2 – Development Area - Ballistics Range - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	H5-4-03	H5-8126-06	H5-8126-07	H5-8254-01	H5-8254-04	H5-8254-04	H5-938-01	I5-2-01	I5-3-06
			Sample Date	4/13/2000	7/13/2000	7/13/2000	9/27/2000	7/13/2000	7/13/2000	4/13/2000	7/19/2000	4/14/2000
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft
			Sample ID	H5-4-031N	H5-8126-061N	H5-8126-070.75N	H5-8254-011N	H5-8254-041.25FD	H5-8254-041.25N	H5-938-011N	I5-2-012N	I5-3-060.75N
			Parent ID					H5-8254-041.25N				
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	235	4980	288	230	460	392	147	15200	144000

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 2
AoE-2 – Development Area - Ballistics Range - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	I5-4-03	I5-5-02	I5-7-01	I5-7-05	I5-8141-01	I5-8141-03	I5-8168-01	I5-8168-02	I5-8169-02
			Sample Date	4/6/2000	4/6/2000	7/21/2000	4/13/2000	4/6/2000	6/21/2000	6/21/2000	4/6/2000	4/6/2000
			Sample Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft
			Sample ID	I5-4-031N	I5-5-022N	I5-7-011N	I5-7-050.5N820	I5-8141-011N	I5-8141-031.25N	I5-8168-011.5N	I5-8168-022N	I5-8169-021N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	64.8	734	103	89.3	87.6	68.1	91.5	118	47.6

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 2
AoE-2 – Development Area - Ballistics Range - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	I6-11-01	SB-R-I5-01	SB-R-I5-02	SB-R-I6-02	SB-R-I6-03	SB-R-I6-04
			Sample Date	4/13/2000	4/19/2006	4/19/2006	4/19/2006	4/19/2006	4/19/2006
			Sample Depths	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
			Sample ID	I6-11-010.5N	SB-R-I5-011.0N	SB-R-I5-021.0N	SB-R-I6-021.0N	SB-R-I6-031.5N	SB-R-I6-041.5N
			Parent ID						
Chemical	CAS Number	Units	SSESC						
Lead	7439-92-1	mg/kg	488	3820	11.3	6.58	706	10.3	8.25

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	C10-440-02	C11-18-02	C11-30-01	C11-30-05	D11-3-02	B11-2044-03	B11-2044-04	B11-2044-04	B11-2044-05
			Sample Date	10/8/1999	11/5/1999	11/5/1999	11/5/1999	11/5/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999
			Sample Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-0.5 ft
			Sample ID	C10-440-022N	C11-18-022N	C11-30-011N	C11-30-051N	D11-3-021N	B11-2044-030.5N	B11-2044-041.3FD	B11-2044-041.3N	B11-2044-050.5N
			Parent ID							B11-2044-041.3N		
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	1550	263	126	176	433	63.8	39.4	27.3	74.5

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	B11-2044-06	B11-2044-08	B11-6-03	C11-10-01	C11-2233C-01	C11-2233D-05	C11-2233D-06	C11-24-04	C11-8-05
			Sample Date	11/9/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999
			Sample Depths	0.0-0.7 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
			Sample ID	B11-2044-060.7N	B11-2044-080.8N	B11-6-031N	C11-10-012N	C11-2233C-012N	C11-2233D-052N	C11-2233D-062N	C11-24-041N	C11-8-052N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	489	37.5	450	2090	290	267	316	140	4930

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	B11-1-08	B11-11-05	B11-1-11	C11-12-02	C11-15-05	C11-2233-01	C11-2233-02	C11-2233-03	C11-23-02
			Sample Date	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
			Sample Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
			Sample ID	B11-1-081N	B11-11-050.5N	B11-1-111N	C11-12-021N	C11-15-052N	C11-2233-011N	C11-2233-021N	C11-2233-032N	C11-23-021N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	16900	7320	33800	2470	755	660	246	297	269

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	C11-4-19	D10-1-02	D10-4-01	D10-5-01	D10-6-02	D10-1-02	D10-4-01	D10-5-01	D10-6-02
			Sample Date	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999
			Sample Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	C11-4-192N	D10-1-021N	D10-4-011N	D10-5-011N	D10-6-021N	D10-1-021N	D10-4-011N	D10-5-011N	D10-6-021N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	2070	1620	1370	166	12900	1620	1370	166	12900

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	C10-10-01	C10-12-03	C10-12-03	C10-211C-06	C10-211C-07	C10-241C-04	C10-5-01	C10-7-01	D10-164B-02
			Sample Date	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999
			Sample Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	C10-10-012N	C10-12-031FD	C10-12-031N	C10-211C-061N	C10-211C-071N	C10-241C-042N	C10-5-011N	C10-7-011N	D10-164B-021N
			Parent ID		C10-12-031N							
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	56.2	884	1110	491	174	44.7	1110	3260	4260

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	D10-165B-02	C10-10-01	C10-12-03	C10-12-03	C10-211C-06	C10-211C-07	C10-241C-04	C10-5-01	C10-7-01
			Sample Date	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999
			Sample Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Sample ID	D10-165B-021N	C10-10-012N	C10-12-031FD	C10-12-031N	C10-211C-061N	C10-211C-071N	C10-241C-042N	C10-5-011N	C10-7-011N
			Parent ID			C10-12-031N						
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	1350	56.2	884	1110	491	174	44.7	1110	3260

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	D10-164B-02	D10-165B-02	C11-1-04	C11-1-09	C11-1-17	C11-19-05	D10-2233A-01	D11-20-01	D10-2233A-01
			Sample Date	11/16/1999	11/16/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999	11/18/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-2.0 ft
			Sample ID	D10-164B-021N	D10-165B-021N	C11-1-041N	C11-1-090.8N	C11-1-171N	C11-19-050.5N	D10-2233A-012N	D11-20-010.8N	D10-2233A-012N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	4260	1350	68200	1200	10900	2110	140	762	140

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	D11-20-01	C10-2176-02	C10-2179-03	C10-13-01	C10-13-01	D10-16-03	D10-2233-04	D10-2233B-03	D10-2233D-03
			Sample Date	11/18/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999
			Sample Depths	0.0-0.8 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft
			Sample ID	D11-20-010.8N	C10-2176-021N	C10-2179-030.5N	C10-13-011.5FD	C10-13-011.5N	D10-16-031N	D10-2233-041.5N	D10-2233B-031N	D10-2233D-032N
			Parent ID				C10-13-011.5N					
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	762	377	603	1040	810	176	282	28.4	58.5

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	C10-13-01	C10-13-01	D10-16-03	D10-2233-04	D10-2233B-03	D10-2233D-03	C10-2-04	C10-2-04	C10-2-07
			Sample Date	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/22/1999	11/22/1999	11/22/1999
			Sample Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Sample ID	C10-13-011.5FD	C10-13-011.5N	D10-16-031N	D10-2233-041.5N	D10-2233B-031N	D10-2233D-032N	C10-2-040.5N	C10-2-041N	C10-2-070.5FD
			Parent ID	C10-13-011.5N								C10-2-070.5N
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	1040	810	176	282	28.4	58.5	NA	1130	NA

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	C10-2-07	C10-2-07	C10-2-07	C10-3-02	D10-164B-01	D10-16-02	D10-2233B-02	D10-2233C-02	C11-18-01
			Sample Date	11/22/1999	11/22/1999	11/22/1999	11/22/1999	11/30/1999	6/29/2000	6/29/2000	6/29/2000	6/30/2000
			Sample Depths	0.0-0.5 ft	0.0-1.7 ft	0.0-1.7 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Sample ID	C10-2-070.5N	C10-2-071.67FD	C10-2-071.67N	C10-3-021N	D10-164B-011N	D10-16-021.25N	D10-2233B-021N	D10-2233C-022N	C11-18-012FD
			Parent ID		C10-2-071.67N							C11-18-012N
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	NA	1440	782	971	908	169	386	187	447

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	C11-18-01	C10-10-02	C10-241C-03	D11-112-05	C11-2233-01	D11-112-01	SD-C10-1-01	SD-C9-1-01	SD-C10-3-01
			Sample Date	6/30/2000	6/30/2000	6/30/2000	7/13/2000	7/19/2000	9/27/2000	4/25/2001	4/25/2001	5/2/2001
			Sample Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-2.0 ft	1.5-2.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Sample ID	C11-18-012N	C10-10-021N	C10-241C-032N	D11-112-050.75N	C11-2233-012N	D11-112-012N	SD-C10-1-012N	SD-C9-1-011N	SD-C10-3-011.5N
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	419	120	12.3	14.9	961	4.34	840	68.8	5490

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	SD-C10-4-01	SB-R-B11-04	SB-R-C11-01	SB-R-C11-01	SB-R-C11-02	SB-R-C11-03	SB-R-C10-02	SB-R-D11-03	SB-R-D11-03
			Sample Date	5/2/2001	5/31/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006
			Sample Depths	1.5-2.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft
			Sample ID	SD-C10-4-012N	SB-R-B11-041.0N	SB-R-C11-011.0FD	SB-R-C11-011.0N	SB-R-C11-021.5N	SB-R-C11-031.0N	SB-R-C10-021.0N	SB-R-D11-031.5FD	SB-R-D11-031.5N
			Parent ID			SB-R-C11-					SB-R-D11-	
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	2290	61	110	102	500	473	50.5	3760	5100

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	SB-R-D11-03	SB-R-D11-03	SB-R-D10-04	SB-R-C11-04	SB-R-C10-03	SB-R-D11-04	TP-R-C10-439-1	TP-R-C10-439-2	TP-R-C10-439-3
			Sample Date	6/1/2006	6/1/2006	6/2/2006	6/7/2006	6/7/2006	6/8/2006	8/11/2006	8/11/2006	8/11/2006
			Sample Depths	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
			Sample ID	SB-R-D11-031.5FD	SB-R-D11-031.5N	SB-R-D10-041.0N	SB-R-C11-041.0N	SB-R-C10-031.0N	SB-R-D11-041.0N	TP-R-C10-439-12.0N	TP-R-C10-439-22.0N	TP-R-C10-439-32.0N
			Parent ID	SB-R-D11-								
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	3760	5100	95.7	680	9.25	61.7	7510	160	1610

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 3
AoE-3 - PETN/NG Area - Acid Recovery - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**TP-R-C10-439-2**	**TP-R-C10-439-3**
			Sample Date	**8/11/2006**	**8/11/2006**
			Sample Depths	**1.5-2.0 ft**	**1.5-2.0 ft**
			Sample ID	**TP-R-C10-439-22.0N**	**TP-R-C10-439-32.0N**
			Parent ID		
Chemical	CAS Number	Units	SSESC		
Lead	7439-92-1	mg/kg	488	160	1610

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 4
AoE-4 - NG Area - Former Ponds - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**SD-C11-4-01**	**SD-C11-4-01**	**SD-C11-4-01**	**SD-C11-4-01**	**SD-D11-1-01**	**SD-D11-1-01**	**SD-D11-2-01**	**SD-D11-2-01**	**SD-R-C11-01**
			Sample Date	**5/2/2001**	**5/2/2001**	**5/2/2001**	**5/2/2001**	**4/17/2001**	**4/17/2001**	**5/2/2001**	**5/2/2001**	**5/18/2006**
			Sample Depths	**0.0-0.5 ft**	**0.5-1.0 ft**	**1.5-2.0 ft**	**1.5-2.0 ft**	**0.5-1.0 ft**	**1.5-2.0 ft**	**0.5-1.0 ft**	**1.5-2.0 ft**	**0.5-1.0 ft**
			Sample ID	**SD-C11-4-010.5FD**	**SD-C11-4-011N**	**SD-C11-4-012FD**	**SD-C11-4-012N**	**SD-D11-1-011N**	**SD-D11-1-012N**	**SD-D11-2-011N**	**SD-D11-2-012N**	**SD-R-C11-011.0N**
			Parent ID	**SD-C11-4-011N**		**SD-C11-4-012N**						
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	NA	NA	1450	1350	NA	36.1	NA	85300	959

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 4
AoE-4 - NG Area - Former Ponds - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	SD-R-C11-05	SD-R-D11-07	SD-R-D11-08	SD-R-D11-09	SD-R-D11-09
			Sample Date	6/6/2006	5/18/2006	5/18/2006	5/18/2006	5/18/2006
			Sample Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Sample ID	SD-R-C11-051.0N	SD-R-D11-071.0N	SD-R-D11-081.0N	SD-R-D11-091.0FD	SD-R-D11-091.0N
			Parent ID				SD-R-D11-	
Chemical	CAS Number	Units	SSESC					
Lead	7439-92-1	mg/kg	488	884	148000	1250	1830	1550

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 5
AoE-5 - Maintenance Area - Acid Production - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**H10-10-02**	**H10-10-06**	**H10-10-07**	**H10-1-02**	**H10-11-05**	**H10-11-05**	**H10-12-01**	**H10-12-01**	**H10-14-01**
			Sample Date	**12/3/1999**	**12/3/1999**	**12/3/1999**	**12/9/1999**	**12/9/1999**	**12/9/1999**	**12/9/1999**	**12/9/1999**	**12/3/1999**
			Sample Depths	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**
			Sample ID	**H10-10-021.5N**	**H10-10-061.5N**	**H10-10-071N**	**H10-1-020.5N**	**H10-11-051N**	**H10-11-050.5N**	**H10-12-012N**	**H10-12-010.5N**	**H10-14-011N**
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	1040	NA	181	NA	852	NA	2370	NA	9820

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 5
AoE-5 - Maintenance Area - Acid Production - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**H10-14-02**	**H10-16-02**	**H10-17-03**	**H10-2003-01**	**H10-2003-01**	**H10-2092-03**	**H10-262-02**	**H10-267-01**	**H10-267-01**
			Sample Date	**12/3/1999**	**12/2/1999**	**7/13/2000**	**12/10/1999**	**12/10/1999**	**12/1/1999**	**12/14/1999**	**12/10/1999**	**12/10/1999**
			Sample Depths	**0.0-2.0 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.5-1.0 ft**	**0.0-0.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**
			Sample ID	**H10-14-022N**	**H10-16-020.75N**	**H10-17-031N**	**H10-2003-011.3N**	**H10-2003-010.5N**	**H10-2092-030.5N**	**H10-262-020.5N**	**H10-267-011N**	**H10-267-010.5N**
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	8330	4280	NA	12600	NA	4510	1650	880	NA

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 5
AoE-5 - Maintenance Area - Acid Production - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**H10-502-01**	**H10-502-01**	**H10-503-02**	**H10-503-02**	**H10-68-03**	**H10-68-03**	**H10-9002-01**	**H10-9002-01**	**H10-9002-02**
			Sample Date	**12/10/1999**	**12/10/1999**	**12/14/1999**	**12/14/1999**	**12/9/1999**	**12/9/1999**	**12/3/1999**	**12/3/1999**	**12/3/1999**
			Sample Depths	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**
			Sample ID	**H10-502-011N**	**H10-502-010.5N**	**H10-503-021.5N**	**H10-503-020.5N**	**H10-68-031N**	**H10-68-030.5N**	**H10-9002-010.5N**	**H10-9002-011N**	**H10-9002-020.5N**
			Parent ID									
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	4210	NA	9330	NA	2790	NA	NA	1070	NA

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 5
AoE-5 - Maintenance Area - Acid Production - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-02	H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03
			Sample Date	12/3/1999	6/23/2000	6/23/2000	6/23/2000	6/23/2000	12/14/1999	12/14/1999	12/9/1999	12/9/1999
			Sample Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
			Sample ID	H10-9002-021N	H10-9101-021FD	H10-9101-021N	H10-9101-020.5FD	H10-9101-020.5N	H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N
			Parent ID		H10-9101-021N		H10-9101-020.5N					
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	1100	62.5	128	NA	NA	288	NA	NA	NA

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 5
AoE-5 - Maintenance Area - Acid Production - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**H10-9103-01**	**H10-9103-01**	**H10-9103-03**	**H10-9103-03**	**H10-9103-04**	**H10-9103-04**	**H10-9104-02**	**H10-9104-02**	**H10-9320-03**
			Sample Date	**12/1/1999**	**12/1/1999**	**12/1/1999**	**12/1/1999**	**12/1/1999**	**12/1/1999**	**12/1/1999**	**12/1/1999**	**12/3/1999**
			Sample Depths	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
			Sample ID	**H10-9103-010.5N**	**H10-9103-011N**	**H10-9103-030.5N**	**H10-9103-031N**	**H10-9103-040.5N**	**H10-9103-042N**	**H10-9104-020.5N**	**H10-9104-021N**	**H10-9320-031FD**
			Parent ID									**H10-9320-031N**
Chemical	CAS Number	Units	SSESC									
Lead	7439-92-1	mg/kg	488	NA	121	NA	2630	NA	2930	NA	16800	1840

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 5
AoE-5 - Maintenance Area - Acid Production - Soil Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

			Location	**H10-9320-03**	**SB-R-H10-01**	**SB-R-H10-03**
			Sample Date	**12/3/1999**	**5/4/2006**	**5/9/2006**
			Sample Depths	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
			Sample ID	**H10-9320-031N**	**SB-R-H10-011.0N**	**SB-R-H10-031.0N**
			Parent ID			
Chemical	CAS Number	Units	SSESC			
Lead	7439-92-1	mg/kg	488	2040	104	4060

Notes:
Exceeds SSESC
SSESC = Site-specific ecological screening criterion
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet
Samples with Parent IDs are field duplicate samples

Table 6
Groundwater Dataset - Lead
Kenvil Works Facility
Kenvil, NJ

AoE/Well	Date	Total lead	Dissolved lead
AoE 1			
MW-3A	11/30/2005	0.0200 U	NA
MW-3A	11/12/2013	0.001 U	0.001 U
MW-3A	10/6/2016	0.00028 J	NA
MW-4	12/1/2005	0.0200 U	NA
AoE 2			
MW-7P	11/22/2005	0.0200 U	NA
MW-7PD	7/19/2006	0.0150 U	NA
MW-7PD	11/11/2013	0.00032 J	0.001 U
MW-7PD	9/29/2016	0.00009 U	NA
AoE 3			
MW-38	7/20/2006	0.0150 U	NA
MW-38	9/28/2016	**0.0094**	NA
MW-39	7/18/2006	0.0150 U	NA
MW-39	10/8/2008	0.015 U	NA
AoE 4			
MW-43	7/10/2006	0.0150 U	NA
AoE 5			
MW-J1	7/13/2016	0.0150 U	NA
MW-J1D	7/13/2006	0.0150 U	NA
MW-J1D	11/14/2013	0.0027 J	0.001 U
MW-J2	2/22/2006	0.0200 U	NA
MW-J2	11/14/2013	0.001	0.00046 J
MW-J2	9/28/2016	0.00028 J	NA

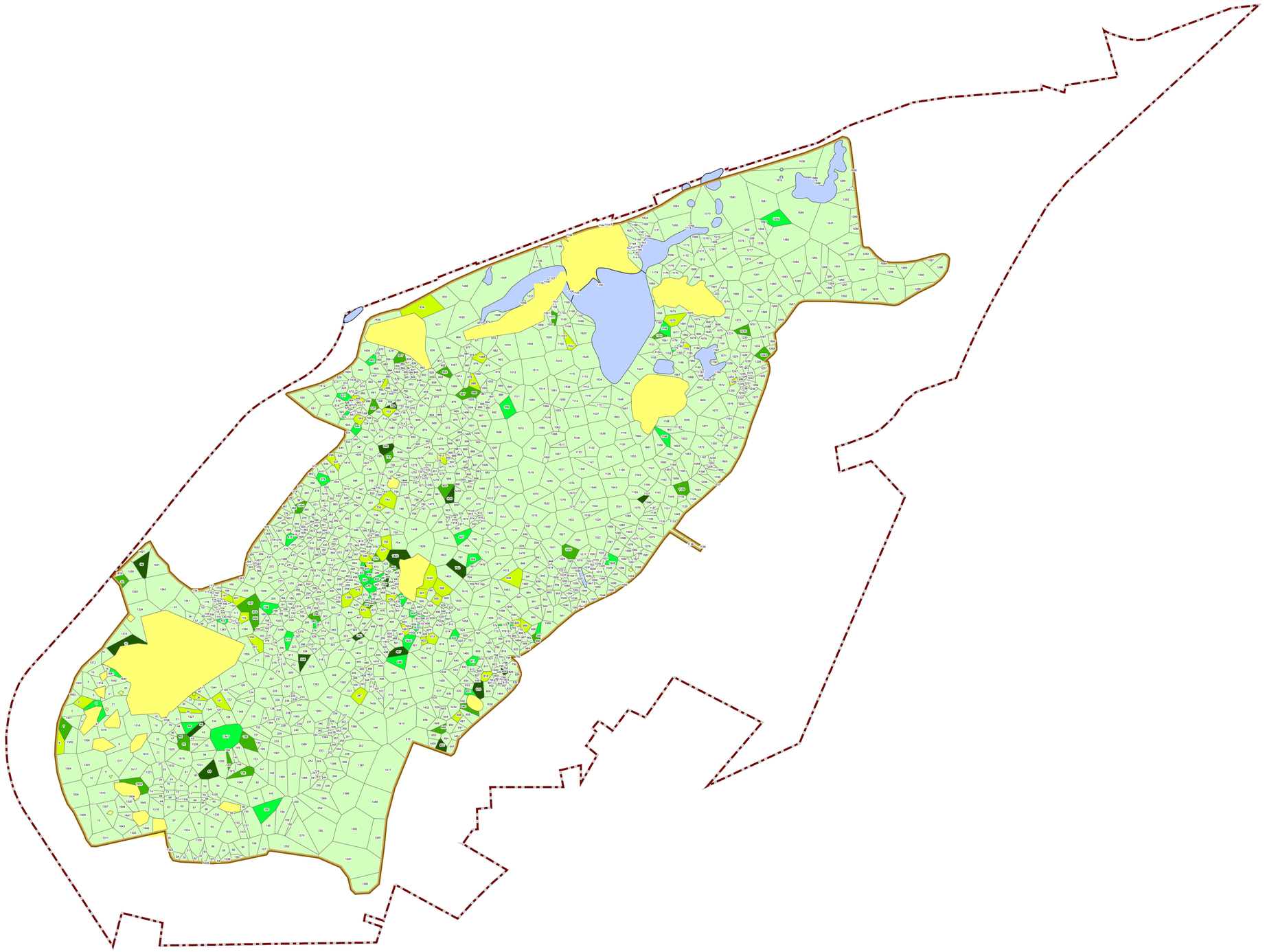
Notes:

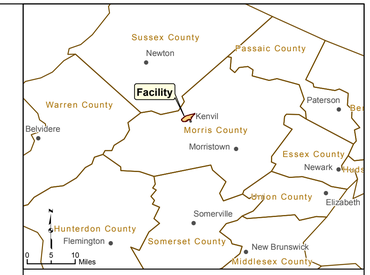
Results presented in milligrams per liter (mg/L)
NJDEP Groundwater Quality Standard for lead is 0.005 mg/L
U = lead not detected at the corresponding reporting limit
J = estimated concentration, results is less than the reporting limit, but greater than the method detection limit

Appendices

Appendix A

Spatial Weighting Calculations





Index Map

Legend

- Facility Boundary
- Remedial Area Boundary
- Area of Presumed Remedial Action (removed from analysis)
- Water Bodies (removed from analysis)

Lead Concentration (mg/kg)

- <488 mg/kg
- 488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- > 5000 mg/kg

Notes:
mg/kg = milligrams per kilogram

N

0 250 500 1,000
Feet

Kennedy/Jenks Consultants

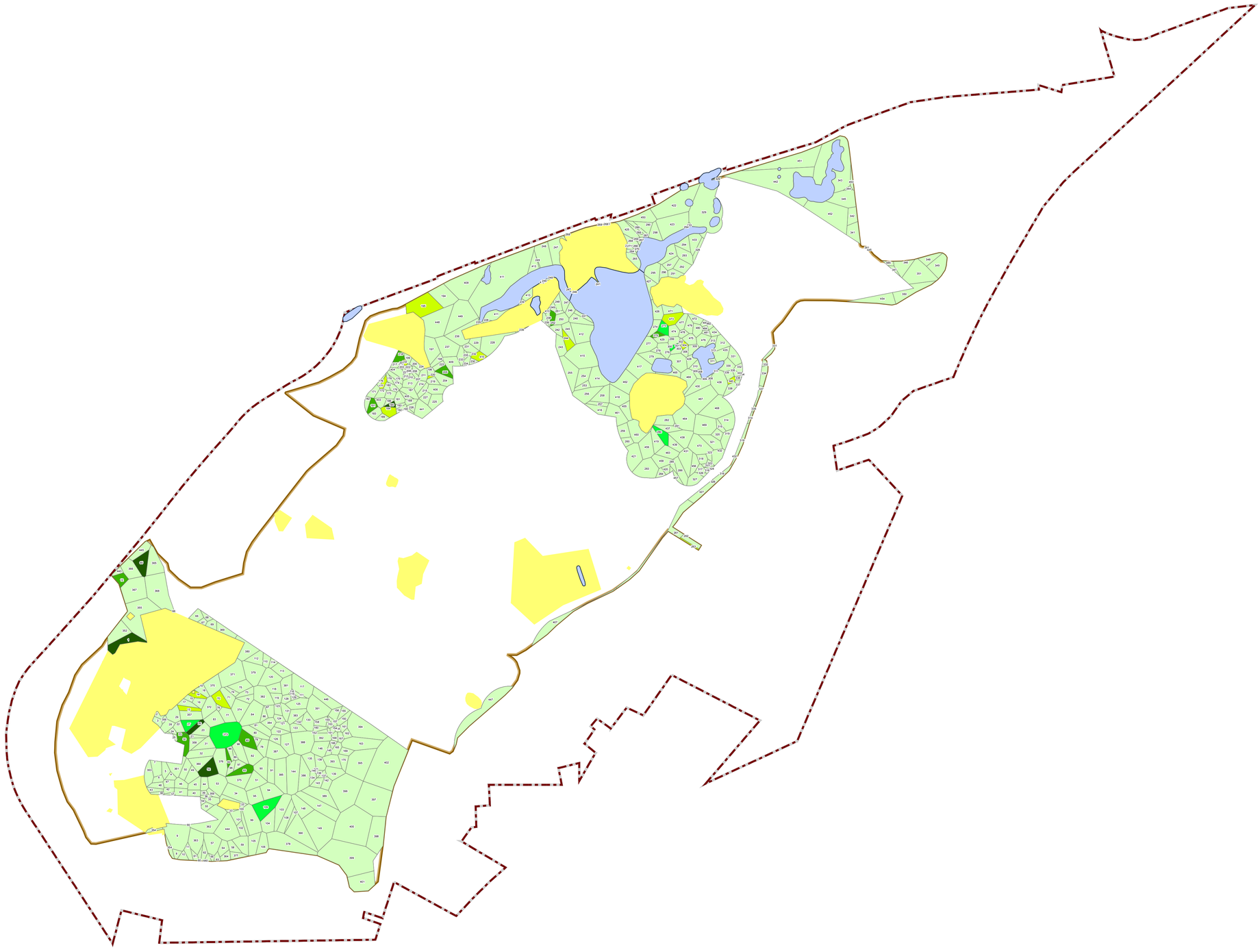
HerculesLLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

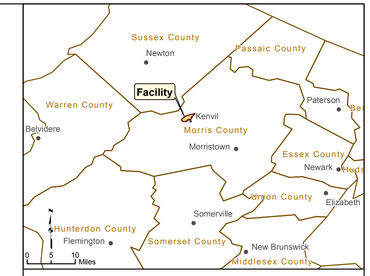
Terrestrial Exposure Area Spatial Weighting Current Conditions

1540001.43
June 2018

Figure A-1

Path: \\SFOISGDATA\Z_Drive\Projects\Ashland\Kenvil\Events\20170310_TerrestrialLead\SpatialWeighting\ThiessenPoly_devincluded_revised.mxd Last Saved By: KatieEngberg





Index Map

Legend

- Facility Boundary
- Remedial Area Boundary
- Area of Presumed Remedial Action (removed from analysis)
- Water Bodies (removed from analysis)

Lead Concentration

- <488 mg/kg
- 488 - 800 mg/kg
- 800 - 1500 mg/kg
- 1500 - 5000 mg/kg
- > 5000 mg/kg

Notes:
mg/kg = milligrams per kilogram

N

0 250 500 1,000
Feet

Kennedy/Jenks Consultants

Hercules LLC - Kenvil Works Facility
Ecological Risk Assessment
Terrestrial Lead Work Plan

Terrestrial Exposure Area Spatial Weighting Future Conditions (Excluding Redevelopment Footprint)

1540001.43
June 2018

Figure A-2

Path: \\SFOISGDATA\Z_Drive\Projects\AshlandKenvil\Events\20170310_TerrestrialLeadSpatialWeighting\ThiessenPoly_devremoved_revised.mxd Last Saved By: KatieEngberg

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
563	F11-2-03	100000	307.2494596	5602.955942	0.000256921	25.69214835
331	C12-3-03	93300	481.741221	8814.384584	0.00040418	37.71002782
440	I12-2341-03	73600	479.04689	14880.12955	0.000682323	50.21896298
575	E11-7-02	61400	498.271354	11152.67934	0.000511402	31.40008331
1293	H7-13-05	53100	429.7705493	11346.65959	0.000520297	27.62776546
1462	H7-8123A-05	44000	306.2381842	4060.67755	0.000186201	8.192838511
904	G10-8106B-04	35300	303.6911861	3686.623852	0.000169049	5.967421952
236	C13-282B-03	13500	614.8646568	21849.00612	0.001001878	13.52535486
883	I10-2-02	10400	579.3081095	19115.8532	0.00087655	9.116124329
983	C8-1-01	10200	664.3905779	21484.9909	0.000985186	10.04890081
120	B10-20-01	8400	938.8022329	25055.15414	0.001148895	9.650716957
901	G10-8108-07	7650	185.370579	1021.798282	4.68542E-05	0.35843451
540	G11-9300-05	6590	500.048905	13340.64434	0.00061173	4.031302932
1120	L9-8210-05	6530	318.6397186	5231.537419	0.00023989	1.566483161
1207	I8-588E-06	6080	452.669139	9547.196932	0.000437783	2.661721875
889	SB-R-H10-04	5910	718.1106017	25003.14045	0.00114651	6.775872962
279	H13-8164-02	5350	420.6152548	10490.34594	0.000481031	2.573515604
481	I12-2013-01	5020	233.5982701	2941.725824	0.000134892	0.677156612
1496	G6-8243-03	4710	143.927662	1105.472197	5.0691E-05	0.238754708
25	E10-2177-06	4630	628.0068239	24915.32102	0.001142483	5.289695732
1494	G6-8244-03	4360	102.5103224	578.1992215	2.65131E-05	0.115597171
726	G10-3-01	3990	236.9526785	2940.780164	0.000134848	0.538045086
343	C12-274-05	3770	263.2815491	3280.464308	0.000150424	0.567100305
251	D13-268-01	3680	636.3659128	15465.39051	0.00070916	2.609708036
910	G10-172A-01	3560	212.0645565	1722.711654	7.89943E-05	0.281219741
1208	I8-588E-03	3520	473.1682908	12553.81815	0.000575651	2.02629051
1224	H8-9328-06	3520	343.6750825	7011.92941	0.000321529	1.131783641
667	F10-460-01	3480	360.5704025	7653.391175	0.000350943	1.22128316
899	G10-8213-07	3420	247.4351576	2985.391709	0.000136894	0.468177612
147	SD-B13-3-01	3260	818.8756902	19765.24415	0.000906328	2.954629278
853	K10-3-02	3100	511.5129743	17418.92945	0.000798739	2.476089666
652	E10-5-06	3040	489.1252404	8662.304311	0.000397207	1.207508604
892	G9-8182-01	2860	285.4434254	4469.853097	0.000204963	0.586195522
1620	L6-9-01	2850	353.6786518	6315.92679	0.000289614	0.825401323
1448	I6-8132-03	2720	411.9343324	9282.822539	0.00042566	1.157796322
720	G10-8502-03	2660	232.4009155	3091.942504	0.00014178	0.377134497
446	H13-2014-01	2630	505.8989468	9210.683578	0.000422353	1.110787094
1460	H7-8255-02	2540	404.1072822	8895.530466	0.000407901	1.036069244
992	SB-R-F8-01	2230	396.256861	9355.064739	0.000428973	0.956609906
984	B9-2-05	2190	445.3622473	11030.8323	0.000505815	1.107734318
736	TP-R-H11-1-5	2150	188.7296021	2105.771063	9.65594E-05	0.207602618
234	D13-265A-06	2100	430.4801832	5656.648364	0.000259384	0.544705413
281	H13-408-02	2010	411.7082776	8052.176956	0.00036923	0.74215152
1547	M7-2-05	1980	343.1509475	5144.036942	0.000235878	0.467038285
1424	J7-2133-01	1950	407.5414427	10303.96439	0.000472484	0.921344768
478	J11-317-03	1920	297.2607504	5990.856444	0.000274709	0.527440355
1589	O7-1-03	1920	534.062782	13427.33435	0.000615705	1.182154516
1507	I6-8184-02	1860	375.5174541	9610.725489	0.000440696	0.819695084
651	E10-5-08	1810	385.9313511	5732.276778	0.000262851	0.475761112
356	A11-9-03	1700	580.7033147	17951.1373	0.000823143	1.399342755
338	C12-5-02	1630	453.6312682	13389.56525	0.000613974	1.00077695
323	D12-289-03	1590	603.4345366	20307.32791	0.000931185	1.48058423
1575	O7-9319-01	1580	454.8941023	10816.97092	0.000496008	0.783692991
71	J7-2133-06	1570	377.2538364	8674.774762	0.000397779	0.624512411
1143	M9-2191-05	1510	484.8131638	15328.71168	0.000702892	1.061367577
630	D10-2230-03	1390	265.08537	3947.459823	0.000181009	0.251602952
677	F10-1-06	1370	281.2697486	3349.721444	0.0001536	0.210432335
1082	I9-519-03	1370	512.7748914	14064.40239	0.000644918	0.883537657
341	C12-4-01	1360	507.2736909	11736.65039	0.00053818	0.731924509
512	H11-9312-04	1350	320.6696251	6484.075095	0.000297325	0.401388586
44	P5-535-04	1330	732.8516651	28469.58658	0.001305462	1.736265018
1257	F8-2150-05	1330	404.4659245	10811.72469	0.000495768	0.659370986
657	E10-2169-03	1320	488.6123204	14232.22001	0.000652613	0.861449441
365	A11-1-01	1250	816.9505967	14677.95042	0.000673052	0.841315021
518	SB-R-H11-02	1210	465.667775	13403.16029	0.000614597	0.743662351
137	SB-R-D12-02	1160	927.398794	61046.70102	0.002799274	3.24715786
900	G10-8108-08	1120	327.8972984	5655.83528	0.000259346	0.290467796
717	G10-8522-02	1110	366.1409347	8726.592205	0.000400155	0.44417169
916	G9-8267-04	1070	242.0469227	3229.937328	0.000148108	0.158475119
129	H12-1-06	1060	362.6010198	5323.313355	0.000244099	0.25874449
1273	G6-8129-05	1050	276.932665	3390.857369	0.000155487	0.163260843
368	TP-R-B10-501-1	1040	367.5377583	4963.686044	0.000227608	0.236712317
477	J11-317-05	1040	333.5405233	4548.88138	0.000208587	0.216930774
499	I12-2186-06	1030	373.6351374	8545.105705	0.000391833	0.403587659
788	I11-8504-03	1030	186.5496768	1524.478414	6.99044E-05	0.072001529
1498	G6-8128-04	1010	374.6632855	8784.007786	0.000402787	0.40681532
752	H11-4-03	998	252.1833445	4017.379191	0.000184215	0.183847014
1266	G7-8249-02	996	340.3723917	7636.731501	0.00035018	0.348778796
724	G10-4-05	995	182.5342823	1559.165707	7.1495E-05	0.071137495
716	G10-9100-01	965	334.3770212	6144.286174	0.000281744	0.271882943
577	E11-218B-02	944	458.17074	10504.49977	0.00048168	0.454705894
758	H11-2-02	943	143.4212082	1261.887677	5.78634E-05	0.054565182

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1571	N7-2-07	942	261.7199361	2966.309992	0.000136019	0.128129948
738	TP-R-H11-1-3	938	221.9137049	3258.943194	0.000149438	0.140172508
1497	G6-8129-06	928	145.4649986	1134.906619	5.20407E-05	0.048293793
790	I11-8260-02	924	253.9490993	1812.513422	8.31121E-05	0.076795614
1515	H6-8250-04	915	352.6514958	7043.24567	0.000322965	0.295513377
541	G11-9300-03	901	578.331184	17289.9867	0.000792826	0.714336208
1405	J7-3-03	880	577.6310287	20258.11572	0.000928928	0.81745703
182	D14-667-03	875	822.0527026	32001.82924	0.001467432	1.284003094
905	G10-8106A-04	853	376.7350404	6638.52427	0.000304407	0.259659246
822	SB-R-L11-03	852	396.736973	9691.161289	0.000444385	0.37861571
1342	M8-2-05	822	554.6068326	13516.94943	0.000619815	0.509487719
995	F9-563-01	811	374.0355003	8446.365743	0.000387305	0.31410435
929	G10-8159-03	806	361.5813062	8021.22165	0.00036781	0.296454995
1549	M7-2-02	806	417.6833544	10330.58733	0.000473705	0.381806457
107	I10-550-02	803	459.9132001	11506.71645	0.000527636	0.423691909
1488	H6-8130-03	797	230.106405	1667.692542	7.64714E-05	0.060947728
631	D10-2228-01	782	151.3047356	1306.144828	5.98928E-05	0.046836162
894	G9-8107-02	745	224.0127333	2713.382262	0.000124421	0.092693753
1417	J7-2324-06	744	460.7010447	10351.76288	0.000474676	0.353159151
1511	I6-8125-05	739	183.6970927	2141.663052	9.82052E-05	0.072573622
763	H10-8264-01	728	381.0953152	9000.076269	0.000412695	0.300442096
1437	I6-8192-03	717	193.0029962	1681.382032	7.70992E-05	0.055280094
439	I12-7-02	713	345.2466062	8032.910652	0.000368346	0.262630814
692	G10-9515-02	709	406.2933488	10119.28912	0.000464016	0.328987542
1365	O8-732-04	685	251.4582118	3636.908946	0.000166769	0.114236848
636	D10-2041-03	681	149.3830792	1373.260427	6.29704E-05	0.04288281
364	A11-1-04	679	497.5662945	13740.32656	0.000630058	0.427809124
590	E10-618A-04	670	529.858856	15257.27422	0.000699617	0.468743187
371	C11-4-09	662	532.0406285	9002.981357	0.000412828	0.2732924
773	SB-R0-J11-02	654.82	280.6631263	4977.666792	0.000228249	0.149462062
272	H13-8226-01	646	327.8923598	6374.770068	0.000292313	0.188834028
649	E10-8277-01	635	381.6275363	8105.783374	0.000371688	0.236021699
1567	N7-2-17	629	246.2093352	3519.782527	0.000161398	0.101519551
759	H10-9308-03	621	352.5716209	8134.304789	0.000372996	0.231630239
529	TP-R-H11-1-1	616	331.7737094	5640.593014	0.000258647	0.159326748
409	F12-8206-03	614	488.7621099	15850.73718	0.00072683	0.446273449
1523	SB-R-J6-02	610	378.9415422	9312.93726	0.000427041	0.2604952
1468	H6-8285-07	608	308.1964483	4434.021496	0.00020332	0.123618818
1541	L6-370-03	604	504.5505319	10951.21913	0.000502164	0.303307131
615	D9-4-03	600	366.1127633	7074.840064	0.000324414	0.194648513
1051	H8-585-01	599	323.1154692	5518.949314	0.000253069	0.151588565
660	D10-251-02	589	401.106468	9351.968745	0.000428831	0.25258151
1615	TP-R-N6-1-15	584	586.2603728	17809.8087	0.000816662	0.47693074
1251	G7-2115-07	582	262.2194075	3260.056681	0.000149489	0.087002423
1190	SD-I8-1-01	578	338.5713145	7576.912822	0.000347437	0.200818326
355	A11-9-04	577	662.369433	17854.51184	0.000818712	0.472396866
52	I5-8-02	565	1068.909294	55380.87543	0.00253947	1.434800363
528	H11-2319-02	563	255.6987529	4029.012665	0.000184749	0.104013627
1252	G7-2115-06	563	372.9555002	8024.848403	0.000367976	0.207170753
887	SB-R-H10-02	562	716.6082812	24129.81853	0.001106464	0.621832741
729	G10-2009-03	556	327.2525814	6033.318013	0.000276656	0.153820501
526	H11-761-03	554	370.3306759	9567.477952	0.000438713	0.243047103
378	D11-208A-01	553	557.91721	15805.25912	0.000724744	0.400783622
782	J11-8265-04	553	389.1421649	9334.68653	0.000428039	0.236705355
1490	H6-8120-06	541	315.2589506	4805.788254	0.000220368	0.1192189
765	H10-154B-03	538	563.0941911	19903.85736	0.000912684	0.491024023
891	G9-8182-05	528	429.9864979	12353.7361	0.000566476	0.299099341
872	J10-2033-01	524	630.4613033	22181.57408	0.001017128	0.53297503
890	SB-R-G10-03	523	257.6400929	4043.865762	0.00018543	0.096979878
1046	H9-2261-04	521	432.4861045	11543.72534	0.000529333	0.275782638
24	SB-R-G10-02	519	429.676936	12312.32963	0.000564577	0.293015642
1268	G7-8139-05	510	332.5523612	7609.569279	0.000348934	0.17795634
1463	H7-8123A-03	500	374.5498449	7962.001576	0.000365095	0.182547327
896	G9-2-03	496	348.8960308	8061.081774	0.000369638	0.183340418
1049	H8-8262-01	496	543.0419827	20056.84657	0.000919699	0.456170863
719	G10-8502-07	495	395.4116153	10586.10636	0.000485422	0.240283896
383	C11-4-13	492	526.2483913	7241.939724	0.000332076	0.163381629
112	M11-3-03	490	445.8777588	2269.795864	0.000104081	0.050999521
555	F11-8113-02	481	445.8050522	12663.89842	0.000580698	0.279315932
476	J11-317-06	478	344.4721907	6547.988859	0.000300256	0.143522186
764	H10-8225-03	473	361.0984123	7568.647655	0.000347058	0.164158223
389	D12-286A-04	471	760.3633774	35254.22719	0.00161657	0.76140429
184	D14-204B-01	469	864.1278327	29977.91099	0.001374626	0.644699632
787	I11-8504-04	465	231.211855	2160.569651	9.90721E-05	0.046068539
762	H10-9000-01	464	238.6129239	2678.907747	0.00012284	0.056997913
1124	M10-6-02	459	811.4114388	22387.96252	0.001026592	0.47120563
732	G10-18-04	455	271.6426619	3597.658108	0.000164969	0.075061027
1658	P6-541-01	455	863.936164	37705.84213	0.001728988	0.786689322
377	D11-218C-03	452	530.9676495	13688.00353	0.000627658	0.283701582
628	D10-2231-03	451	174.5636193	1908.655653	8.75207E-05	0.039471837
388	E11-8228-02	450	451.8605008	11815.49789	0.000541795	0.243807889
1225	H8-9328-05	450	413.5586249	5680.620077	0.000260483	0.117217235

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
926	G10-8204-02	448	241.7197925	3141.377242	0.000144047	0.064532921
1338	TP-R-M8-1-22	446	575.0684139	18488.24042	0.000847771	0.378106073
1484	H6-8152-07	444	323.3428206	6100.28001	0.000279726	0.124198386
1126	M10-1-04	443	433.6557083	12209.41997	0.000559858	0.248017298
470	J12-3-02	436	465.8390251	9133.096661	0.000418795	0.182594527
903	G10-8106C-04	436	329.9061866	6427.581926	0.000294734	0.1285042
1486	H6-8152-04	432	275.747118	5290.068614	0.000242574	0.104792033
1243	G8-2249-01	424	359.6005462	4628.775248	0.000212251	0.089994333
1253	G7-2115-04	419	409.4044764	9439.183039	0.00043283	0.181355881
733	G10-16-02	412	379.9417962	8032.877024	0.000368345	0.151757984
835	K11-1-04	412	503.7400196	4490.648772	0.000205917	0.084837824
282	G13-1-03	408	1129.512284	56257.25651	0.002579656	1.052499567
1517	H6-8245-01	405	299.3259747	5506.17618	0.000252484	0.102255892
909	G10-271-01	400	258.7770918	2659.76923	0.000121963	0.048785096
754	H11-3-02	399	266.6700551	4563.730267	0.000209268	0.083498001
1115	M10-B14-02	391	412.1737608	8192.069269	0.000375644	0.14687693
313	E12-286D-05	383	370.0730188	8066.069918	0.000369867	0.141658934
18	C11-4B-01	379	492.2501949	8731.775621	0.000400392	0.151748704
1080	I9-520-03	379	168.1862396	1511.081403	6.92901E-05	0.026260941
1473	H6-8123B-06	376	338.2924587	7477.583403	0.000342882	0.12892357
66	H6-8246-01	375	433.1592724	11370.41302	0.000521386	0.19551979
545	G11-3-01	375	463.7965256	11793.73144	0.000540797	0.202798956
453	I12-9112-04	371	76.81835272	284.864199	1.30623E-05	0.004846129
725	G10-4-02	370	201.4350461	2350.441475	0.000107779	0.039878093
301	F12-2075-05	369	218.1164294	2927.51987	0.00013424	0.049534688
761	H10-9001-03	368	319.5431659	5903.437896	0.0002707	0.09961759
907	G10-8106-01	367	203.4243648	2049.433995	9.3976E-05	0.034489207
309	E12-9317-04	366	436.2269093	10421.96803	0.000477896	0.174909757
556	F11-6813-01	364	465.6577765	11549.93891	0.000529618	0.192781025
1487	H6-8130-06	364	240.3610703	2260.205647	0.000103641	0.037725287
121	E10-4-03	363	296.703798	2376.180555	0.000108959	0.039552075
745	H11-697-02	362	226.3915038	3205.449516	0.000146985	0.053208464
693	G10-8501-06	361	298.2211417	4986.907002	0.000228673	0.082550876
379	C11-N3-03	359	145.723787	525.0752915	2.40771E-05	0.008643691
228	B13-7-06	355	478.5357418	14118.97068	0.00064742	0.229834173
278	H13-8164-05	350	376.9586215	9259.020891	0.000424569	0.148599149
1449	I6-8132-02	350	431.292836	10778.36178	0.000494238	0.172983235
1474	H6-8123B-04	349	352.7943542	7243.631485	0.000332154	0.115921766
655	E10-2169A-04	348	263.2736043	2205.540779	0.000101134	0.035194723
1045	H9-3-01	348	560.2095722	20648.85698	0.000946846	0.329502318
1628	K6-529-02	347	739.9423405	12885.34684	0.000590853	0.205025935
746	H11-697-01	345	207.5590635	2831.281278	0.000129827	0.04479044
1229	H8-9121-02	343	376.8843731	8404.810069	0.000385399	0.13219202
895	G9-8105-05	342	376.4211915	8503.925298	0.000389944	0.133360973
731	G10-2-03	341	310.1450349	5587.132939	0.000256196	0.087362811
204	A13-753-01	334	836.7902899	36923.97264	0.001693135	0.565507151
500	I12-2186-03	331	302.7720893	5244.392624	0.00024048	0.079598779
1499	G6-4-01	330	342.0800629	6832.523284	0.000313303	0.103389938
1516	H6-8250-01	324	240.6977251	2289.447214	0.000104982	0.03401409
1425	J6-2340-04	321	388.7753548	6756.366118	0.000309811	0.099449229
1629	K6-529-01	321	302.1003904	3614.604508	0.000165746	0.053204582
521	H11-9335-05	320	226.527969	2884.878404	0.000132285	0.042331212
623	D10-9119-01	320	280.3908584	3968.94963	0.000181995	0.058238312
427	SB-R-H13-01	319	584.4433625	16891.73532	0.000774564	0.247086015
520	H11-9335-06	317	278.4254723	4586.240982	0.0002103	0.066665225
23	SB-R-H11-03	314	374.3833834	9407.163945	0.000431362	0.135447681
634	D10-2227-02	314	290.3635836	4629.584567	0.000212288	0.0666584
908	G10-271-02	314	186.6738772	1434.361197	6.57721E-05	0.020652441
503	I11-9303-02	313	393.6806678	9759.634308	0.000447524	0.14007515
954	F9-558A-01	312	335.1036706	7334.823629	0.000336336	0.104936719
166	C14-2-03	311	469.9919323	7652.431536	0.000350899	0.109129724
1683	O5-534-04	310	1884.00517	95567.72976	0.004382223	1.358489158
686	E10-2101-12	309	266.281614	3223.542303	0.000147814	0.045674633
723	G10-8224-02	309	319.3968422	6037.932673	0.000276867	0.085551959
1287	H7-8134-02	309	244.1389912	3934.497752	0.000180415	0.055748219
1116	M10-B14-01	308	366.1548415	5626.285997	0.000257991	0.079461313
527	H11-2319-04	307	446.8076407	11430.97742	0.000524163	0.160918122
363	A11-3-03	305	621.7823038	21821.18947	0.001000603	0.305183798
924	G9-15-01	305	390.9087277	8522.43764	0.000390793	0.119191939
932	G10-5-02	304	168.2328961	1196.332415	5.48574E-05	0.016676644
1270	G7-2164-01	302	303.586291	5172.771675	0.000237196	0.071633054
1274	G6-8129-01	300	141.6632752	1021.44629	4.6838E-05	0.014051413
291	F13-1-15	299	858.7103064	36797.33325	0.001687328	0.504511126
902	G10-8108-06	298	343.6764817	5666.973078	0.000259857	0.077437376
445	H13-8214-02	291	533.0007956	13468.61295	0.000617598	0.179721103
125	H11-763-03	289	429.0333624	11892.98907	0.000545349	0.157605757
132	SB-R-D11-01	288	590.2590848	21677.97356	0.000994036	0.286282225
1643	M5-12-03	288	479.5088609	12222.08698	0.000560439	0.161406519
1054	G9-9321-02	287	439.551824	12076.78809	0.000553777	0.158933906
906	G10-8106-02	286	271.4915024	3628.896755	0.000166402	0.047590894
1682	P5-536-01	283	606.4265097	20612.34386	0.000945171	0.267483519
870	J10-5-01	280	416.3228721	10114.7564	0.000463808	0.129866361

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1544	M7-2-18	280	663.475079	16458.40592	0.000754694	0.211314362
369	B11-523-03	279	989.5830137	38561.63826	0.00176823	0.493336097
530	SO-G11-9304-C-SIDEW	278	356.4373235	7166.854043	0.000328633	0.091360101
1495	G6-8244-01	274	189.6586243	2171.285584	9.95635E-05	0.027280399
1562	N7-573-01	274	403.4625412	3770.850029	0.000172911	0.047377598
34	G7-2-04	273	516.966372	8600.198871	0.000394359	0.107659995
466	I12-10-03	272	126.0784716	1001.806307	4.59375E-05	0.012494989
109	K10-2197-05	267	459.7570762	14327.79163	0.000656996	0.175417829
254	D13-264A-05	267	334.4792427	3318.11318	0.000152151	0.040624279
513	H11-9312-02	266	268.0895904	4145.780306	0.000190103	0.050567459
893	G9-8107-05	265	297.6263732	5240.302441	0.000240292	0.063677417
586	SB-R-E11-02	262	430.6961408	12620.48587	0.000578708	0.151621427
803	J11-2188-03	261	426.196501	9181.869086	0.000421031	0.109889151
393	D11-7-01	260	443.1129669	8923.059063	0.000409164	0.106382534
467	I12-10-01	256	132.7822907	959.3486918	4.39906E-05	0.011261589
1260	F8-2116-09	256	315.6709639	4902.980713	0.000224824	0.05755504
103	F9-A5-01	255	471.7395855	13787.62513	0.000632226	0.161217752
573	F10-44-04	255	323.7849733	5988.493967	0.0002746	0.070023048
1316	I8-8236-01	253	456.4314429	12896.72332	0.000591375	0.149617749
1485	H6-8152-05	252	305.3564546	4888.273917	0.00022415	0.056485801
598	B10-506-02	250	502.9163483	11424.78883	0.000523879	0.130969872
944	F10-2145-04	249	387.2914004	8901.682877	0.000408183	0.101637665
1285	H7-8142-05	248	403.8580775	10634.12908	0.000487624	0.120930771
1492	H6-8120-04	248	187.4217432	1538.759698	7.05593E-05	0.017498696
579	E11-2083-03	245	246.6832258	2138.434015	9.80571E-05	0.024023991
361	B10-503-06	244	465.2358027	10867.91867	0.000498344	0.121596037
760	H10-9308-02	244	359.296879	8127.436836	0.000372681	0.090934073
522	H11-9-04	243	466.8068286	14682.66828	0.000673268	0.16360421
576	E11-52-04	242	435.6252774	10488.7359	0.000480957	0.116391624
931	G10-5-03	242	171.5917504	1205.649688	5.52846E-05	0.013378879
1249	G7-2149-04	242	350.73502	7409.675192	0.000339768	0.082223839
456	I12-9110-03	241	207.6632079	2097.734325	9.61908E-05	0.023181991
1012	F8-2144-06	241	210.8852212	2086.519818	9.56766E-05	0.02305806
1501	G6-3-01	241	314.1392706	4017.905848	0.00018424	0.044401742
385	SB-R-D12-03	239	631.6820179	23680.66701	0.001085868	0.259522518
402	E11-4-01	239	176.2842158	1416.544518	6.49551E-05	0.015524276
131	E11-5-01	237	643.8387742	21485.64119	0.000985216	0.233496233
559	F11-456-02	236	433.4435226	12449.64542	0.000570874	0.134726243
671	F10-2323-05	236	272.7014452	4669.096532	0.0002141	0.05052753
702	F10-8274-02	235	158.7176642	1205.438679	5.52749E-05	0.012989613
836	K10-5-04	233	203.9072097	2522.069823	0.000115649	0.02694612
1334	K8-1-01	233	594.4405466	12804.3135	0.000587137	0.136802941
261	E13-2074-01	230	235.0350429	2564.314793	0.000117586	0.027044714
1269	G7-2164-05	229	427.7094954	10919.51791	0.00050071	0.114662699
362	A11-570-05	227	561.8570138	16470.48309	0.000755248	0.171441283
497	I12-6-04	226	373.3433139	7736.615153	0.00035476	0.080175679
721	G10-8224-04	226	214.113909	2668.722896	0.000122373	0.027656367
755	H11-2295-02	226	306.9580687	5925.659282	0.000271719	0.061408477
639	D10-15-03	225	206.3278832	2845.599498	0.000130484	0.029358882
1651	N5-582-02	225	458.8150878	11400.7214	0.000522776	0.117624574
943	F10-2162-04	223	320.0016046	6602.948931	0.000302776	0.067519002
970	E9-2297-02	223	285.914098	4077.775168	0.000186985	0.041697628
480	I12-4-01	222	477.3689866	11788.59719	0.000540562	0.120004717
168	C14-125-01	220	344.6218493	3462.971869	0.000158793	0.034934526
951	F9-A4-02	219	411.7220563	10374.10031	0.000475701	0.104178421
1528	J6-8134-04	219	379.2725056	7655.435167	0.000351037	0.076877139
1250	G7-2149-01	218	438.3974433	12887.57499	0.000590955	0.128828192
624	D10-8284-03	217	346.8944589	7877.090428	0.000361201	0.078380635
366	TP-R-B10-502-2	216	498.3147616	12446.96779	0.000570751	0.123282244
1036	F9-2109-05	216	442.0025151	12543.29819	0.000575168	0.124236358
417	G12-8203-01	215	296.5422839	4158.318079	0.000190678	0.040995801
431	H12-5-03	215	470.1801219	9796.914095	0.000449234	0.096585287
687	E10-2101-05	215	339.5330933	7091.832152	0.000325193	0.069916571
471	J12-2-03	213	313.2428655	4794.27716	0.00021984	0.046825881
635	D10-2041-05	213	164.6995388	1531.157635	7.02107E-05	0.014954873
449	H12-1-07	211	286.9232913	4727.170759	0.000216763	0.045736925
718	G10-8503-03	211	359.0900637	6984.747302	0.000320283	0.067579717
509	H12-689-01	210	511.0424124	12200.15297	0.000559434	0.117481041
1435	I6-9215-01	210	339.3457485	5792.796619	0.000265627	0.055781577
1572	N7-2-06	210	350.1367574	7834.420342	0.000359244	0.075441337
169	C14-1-05	208	608.4777404	24313.76948	0.001114899	0.231898983
22	J11-10-05	205	581.8693329	22306.46399	0.001022855	0.209685214
187	D14-120-04	204	579.1966236	6926.939158	0.000317632	0.064796978
432	H12-4-01	204	549.8419554	15709.89853	0.000720372	0.14695581
504	I11-9117-02	204	479.0671834	11709.52153	0.000536936	0.109534904
178	E14-668-03	202	685.4360603	25091.31428	0.001150553	0.232411703
1543	SB-R-N7-03	202	395.7586621	8575.119762	0.000393209	0.07942821
569	F11-43-02	201	266.0268129	4199.025654	0.000192545	0.0387015
707	F10-20-02	201	497.5391149	11968.31426	0.000548803	0.110309332
536	G11-9309-01	199	296.3684474	4599.037045	0.000210887	0.041966543
1284	H7-8143-03	197	429.204791	8366.395236	0.000383638	0.075576681
86	H8-2181-01	194	462.9097597	11065.09912	0.000507386	0.098432894

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
958	F9-2105B-01	194	465.2067653	15158.26984	0.000695077	0.134844916
1500	G6-3-02	194	356.9831453	6205.056634	0.000284531	0.055198934
757	H11-2-03	193	220.9064649	2736.130898	0.000125464	0.024214605
1258	F8-2150-02	193	297.9079916	4262.361676	0.000195449	0.037721662
1686	N5-6-14	191	522.4102907	14377.29892	0.000659266	0.125919759
711	H10-269-03	190	331.9478939	6938.611972	0.000318167	0.060451825
772	H11-9310-03	190	519.6642399	17814.59348	0.000816882	0.15520751
40	N5-533-01	187	554.5632559	16513.14737	0.000757204	0.141597204
922	G9-2108-02	187	303.2722437	5924.94444	0.000271686	0.05080531
247	D13-3-04	186	376.0017132	7016.733366	0.00032175	0.059845449
519	H12-689-03	186	485.9596029	10189.83899	0.000467251	0.086908745
948	SB-R-F10-03	186	446.525967	12058.91202	0.000552957	0.102849997
1489	H6-8122-01	186	662.60871	30427.42259	0.001395238	0.259514318
1503	G6-2-02	186	156.2912703	1234.273513	5.65972E-05	0.010527071
108	J10-9334-01	185	545.3893964	15567.97213	0.000713864	0.132064772
930	G10-8114-03	183	325.3493827	5581.15923	0.000255922	0.046833727
492	SB-R-I12-04	182	302.454869	4248.645799	0.00019482	0.035457256
1332	K8-393-05	182	570.2403392	21890.25683	0.00100377	0.182686081
324	D12-209B-02	181	603.9288408	20699.65045	0.000949175	0.171800649
753	H11-3-03	179	182.4453917	2134.563357	9.78796E-05	0.017520452
1226	H8-9221-04	179	502.2618201	15349.1988	0.000703832	0.125985904
1631	SO-R2-J-5-1	179	1051.700369	58529.75548	0.00268386	0.480411013
869	J10-587B-02	177	575.8078728	23035.00401	0.001056262	0.186958309
1108	L10-8210-03	177	348.7710876	7475.533027	0.000342788	0.060673444
1519	H6-1-02	177	215.4103308	2809.137584	0.000128812	0.022799719
487	I12-11-04	176	228.3138866	2321.877722	0.000106469	0.018738517
595	E10-1-13	176	385.4693763	7777.159874	0.000356619	0.06276491
675	F10-2096-06	176	208.9787421	1705.591225	7.82093E-05	0.013764829
740	H11-9336-02	176	266.6907852	3240.611926	0.000148597	0.026153084
391	D11-B232-06	175	365.4836242	5393.094915	0.000247298	0.043277217
1024	G9-9322-04	174	468.9640011	11671.8001	0.000535206	0.093125861
26	C10-241A-03	171	661.4165295	19514.6533	0.000894837	0.153017169
665	F10-464-01	170	218.9719846	2317.648688	0.000106275	0.018066738
1352	N9-3-05	170	311.3087961	3980.287335	0.000182515	0.031027484
658	E10-2031B-04	169	372.0889303	4826.713124	0.000221327	0.037404289
567	F11-A2-01	168	327.2516597	6604.376515	0.000302841	0.050877331
1512	I6-8125-03	167	55.12957238	136.4540199	6.25705E-06	0.001044927
84	F8-2116-10	166	495.8506312	14963.8241	0.000686161	0.113902668
585	SB-R-E11-03	166	791.2541717	26622.59613	0.001220769	0.202647712
416	G12-8203-03	165	203.8816604	1981.111296	9.08431E-05	0.014989116
435	H12-2-03	165	483.7468868	12420.09857	0.000569519	0.093970643
810	K11-2302-05	165	339.5357414	6960.295009	0.000319162	0.052661692
1050	H8-69E-01	165	483.9199946	12856.26823	0.000589519	0.097270709
1469	H6-8285-05	165	259.5533928	3094.024109	0.000141875	0.023409431
36	TP-R-N6-1-21	163	405.5288289	10983.65308	0.000503651	0.082095174
834	K11-1-05	163	497.7354381	7111.799951	0.000326109	0.053155762
1228	H8-9121-04	163	307.3198831	4262.169845	0.00019544	0.031856758
599	B10-503-02	162	289.3077758	3718.793385	0.000170524	0.027624872
163	SB-R-C14-03	159	549.0192169	19086.18721	0.00087519	0.139155225
243	C13-2-01	159	379.5177385	8203.899055	0.000376187	0.059813697
1389	SB-R-M7-02	159	826.3967501	36230.9438	0.001661357	0.264155699
1518	H6-1-03	158	235.9044219	3231.032289	0.000148158	0.023408932
498	I12-2186-13	157	308.7005414	5265.655716	0.000241455	0.037908389
1451	H7-8131-06	157	322.4149172	5498.761112	0.000252144	0.039586556
549	G11-2017B-07	156	289.1684861	4577.04121	0.000209879	0.032741052
672	F10-2323-02	156	273.6073003	4276.68707	0.000196106	0.030592522
1013	F8-2144-03	156	308.0151887	5790.809496	0.000265535	0.041423529
1079	I9-520-05	156	424.7957672	11481.12008	0.000526463	0.082128156
1627	L6-1-01	156	581.752382	14333.80236	0.000657271	0.102534312
82	J7-8240-01	155	402.2327505	8082.052496	0.0003706	0.057442929
259	E13-2078-03	155	98.89726178	453.8579196	2.08115E-05	0.003225781
582	E11-2-03	155	432.5752773	11095.30965	0.000508771	0.078859558
710	SB-R-G10-01	155	177.4974922	1467.247834	6.72801E-05	0.010428417
1071	H9-8155-02	155	500.1351539	15401.55718	0.000706233	0.109466074
1125	M10-2315-02	155	305.2228154	5252.550022	0.000240854	0.037332331
271	H13-8226-02	154	416.4032604	9900.536685	0.000453985	0.069913762
800	K11-2300-01	154	326.0096049	5993.774425	0.000274842	0.042325717
696	G10-1-02	153	336.607916	6756.059877	0.000309797	0.047398886
919	G9-2123-05	153	250.2360492	2379.27691	0.000109101	0.016692433
1232	H8-8177-02	153	479.0298346	10330.80372	0.000473715	0.072478426
153	SB-R-E14-02	151	1042.352495	47094.99107	0.002159523	0.326088047
673	F10-2096-08	151	317.5393902	5821.801243	0.000266957	0.04031044
747	H11-696-02	151	330.2210997	7291.408028	0.000334345	0.05048607
433	H12-3-02	150	423.5977271	10987.4147	0.000503824	0.075573579
708	SB-R-H11-04	150	374.9832104	8344.640384	0.00038264	0.057396062
989	SD-F9-1-01	150	252.3983079	3393.261686	0.000155597	0.023339515
30	SB-R0-M8-02	149.48	676.750828	25774.7952	0.001181894	0.176669478
376	D12-1-01	149	206.1289576	2339.223231	0.000107264	0.015982369
1281	H7-8145-03	149	248.0715241	3628.794139	0.000166397	0.024793156
1550	TP-R-N6-1-38	149	197.2568728	2367.977989	0.000108583	0.016178831
429	H12-8607-04	148	310.8638738	3791.03522	0.000173837	0.025727806
1265	G7-E49-02	148	462.9704959	13686.80657	0.000627603	0.092885315

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
436	SO-R2-I-13-2	147	714.8188584	22498.75681	0.001031672	0.151655816
674	F10-2096-07	146	357.9369771	8516.372988	0.000390515	0.057015212
676	F10-1-07	146	238.3862761	1883.518131	8.6368E-05	0.012609733
420	G12-6-04	145	562.1316728	15503.55497	0.00071091	0.103081922
798	K11-2301-02	145	429.0620367	7677.238181	0.000352037	0.051045355
1123	L10-1-02	145	552.5817141	19883.14738	0.000911734	0.132201489
465	I12-2010-05	144	137.9882159	851.4509124	3.9043E-05	0.005622187
854	K10-2197A-05	144	319.1001185	4615.181365	0.000211627	0.030474352
484	I12-11-09	143	210.2294547	1729.889615	7.93235E-05	0.011343254
564	SB-R-F11-04	143	673.7543861	25398.66953	0.001164647	0.166544471
1532	J6-3-02	143	431.3704241	11423.33467	0.000523813	0.074905232
54	L6-4-02	142	1326.952151	39630.96009	0.001817263	0.25805136
789	I11-8260-03	141	367.3534584	8602.642745	0.000394471	0.055620414
1059	G8-2293-02	141	522.5689832	18215.87782	0.000835282	0.117774815
960	F9-2105-05	140	306.1083208	4482.566999	0.000205546	0.028776504
1509	I6-8183-01	140	59.56642661	142.5029972	6.53442E-06	0.000914819
1347	SB-R0-M8-04	138.69	508.4537243	12319.11321	0.000564888	0.078344373
443	I12-14-01	138	435.9749681	11818.95833	0.000541954	0.07478965
475	J11-B20-02	138	306.5333338	5035.215534	0.000230888	0.031862538
546	G11-2259-06	138	262.374817	3100.992347	0.000142195	0.019622891
1555	TP-R-N6-1-33	138	441.5183181	10345.6285	0.000474395	0.065466508
664	F10-464-05	137	351.295958	7589.717667	0.000348024	0.047679248
1037	F9-2109-01	137	260.9573724	4345.916226	0.00019928	0.027301413
357	A11-3-05	136	525.7026329	5794.127166	0.000265688	0.036133509
1276	H7-8252-01	136	305.0055062	5138.751861	0.000235636	0.032046438
1432	I7-8-03	136	296.2255625	4476.745679	0.00020528	0.027918016
310	E12-9317-01	135	323.1079113	4136.825201	0.000189693	0.025608501
515	SO-R2-H-11-4	135	651.5574041	19664.35858	0.000901702	0.12172976
1353	N9-3-04	135	670.5324056	28077.92376	0.001287503	0.173812887
460	I12-2287-01	134	81.5369191	288.981122	1.32511E-05	0.00177565
455	I12-9110-04	133	380.0099558	8993.871776	0.000412411	0.054850621
565	SB-R-F11-03	133	388.2084175	8678.794107	0.000397963	0.052929067
791	I11-1-03	133	386.3492408	7756.364505	0.000355665	0.047303477
1018	F8-2107-01	133	220.1152413	2639.539292	0.000121035	0.016097669
1035	F9-2109-08	133	295.5183116	4920.794951	0.000225641	0.030010285
414	SB-R-G12-03	132	216.5109237	2736.203982	0.000125468	0.016561727
697	F11-2016-01	132	391.9261493	7990.50885	0.000366402	0.048365043
1510	I6-8125-07	130	194.8194704	2337.15911	0.00010717	0.013932044
380	C11-N3-02	129	399.6265626	8270.830522	0.000379256	0.04892401
1093	I10-552-04	129	507.817793	15915.16901	0.000729784	0.094142164
572	F10-44-05	128	335.311118	6074.074237	0.000278524	0.035651128
812	M11-3-02	128	495.0968495	8512.267996	0.000390327	0.049961845
1047	H9-10-05	128	589.5962117	22620.36889	0.001037249	0.132767833
1275	H7-9-04	128	309.2271216	6226.338065	0.000285506	0.036544825
553	G11-2017A-06	127	304.5006438	5171.906678	0.000237156	0.030118797
641	D10-14-03	127	166.6482713	1275.755586	5.84993E-05	0.007429411
829	K11-B3-01	127	184.984576	1662.838584	7.62489E-05	0.009683604
1508	I6-8183-05	127	236.4356151	3334.604112	0.000152907	0.019419195
1632	I5-8-01	127	763.0609774	35450.34861	0.001625563	0.206446462
143	SB-R-H13-02	126	479.6098701	10308.49007	0.000472692	0.059559195
218	C13-2-19	126	355.8570347	8047.355356	0.000369009	0.046495073
625	D10-8-02	126	372.511037	8158.065537	0.000374085	0.047134722
701	F10-8274-04	126	315.1796764	5875.999657	0.000269442	0.033949667
322	D12-3-02	125	394.7424279	6689.866948	0.000306761	0.038345173
501	I12-1-04	125	329.1743844	6461.346578	0.000296283	0.037035334
799	K11-2300-05	125	354.5692623	6061.239396	0.000277936	0.034741988
1623	L6-4-03	125	611.2867396	5371.453086	0.000246306	0.030788251
557	F11-458-02	124	373.1633923	8600.839491	0.000394388	0.048904153
1144	TP-R-M8-1-12	123	528.5159029	15985.25514	0.000732998	0.090158753
1283	H7-8143-04	123	459.3392267	12255.78106	0.000561984	0.069124073
33	I7-566A-01	122	601.2921358	23409.08657	0.001073415	0.130956636
398	E12-298B-03	122	243.8963886	2808.569701	0.000128786	0.015711884
473	J11-B83-03	121	226.1032778	3339.081919	0.000153112	0.018526597
776	SB-R-J11-04	121	625.4165877	21008.62737	0.000963343	0.116564488
63	M7-2-13	120	581.4130568	19589.66143	0.000898277	0.107793206
544	G11-66-03	120	441.1626153	10420.85663	0.000477845	0.057341346
997	F9-2251-01	119	211.5778681	2508.163047	0.000115011	0.013686296
1227	H8-9221-03	119	250.8103644	3125.257226	0.000143308	0.017053595
292	F13-1-01	118	309.2672253	5726.920361	0.000262606	0.030987488
315	E12-2081-04	118	358.022635	7464.132143	0.000342265	0.040387274
1313	J7-8240-02	117	454.9643963	13985.57945	0.000641304	0.075032521
486	I12-11-06	116	434.4337972	5494.59013	0.000251952	0.029226479
704	F10-8237-04	116	467.1478402	13134.32132	0.000602269	0.069863259
941	F9-16-04	116	280.1901863	3962.304769	0.00018169	0.021076043
421	G12-6-03	115	559.0974605	17520.10753	0.000803378	0.09238848
1095	J9-3-03	115	639.5148333	25293.58776	0.001159828	0.133380239
756	H11-2295-01	114	186.2785042	1644.031489	7.53865E-05	0.008594056
1006	F8-3-01	114	379.2865541	6832.533367	0.000313303	0.035716577
1475	H6-8116-02	114	383.5130402	8942.4175	0.000410051	0.046745844
612	D9-8279-01	113	259.788907	3343.498499	0.000153315	0.017324583
523	H11-9-02	112	435.0189198	12575.63718	0.000576651	0.064584936
1255	F8-2151-06	112	312.1185997	5352.126765	0.00024542	0.027487018

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
235	D13-264A-03	111	357.8174296	5248.171543	0.000240653	0.02671248
296	F12-2221-05	109	234.0809019	1386.484818	6.35768E-05	0.006929866
749	H11-6-01	109	287.764075	4674.261795	0.000214337	0.023362684
784	I11-9301-05	109	586.2926436	22639.09431	0.001038107	0.1131537
821	L10-2-01	109	352.5647315	7024.080132	0.000322087	0.035107441
1058	G9-8187-01	109	206.0895459	2389.465554	0.000109568	0.011942919
1690	N4-2-01	109	234.5942728	1906.399025	8.74172E-05	0.009528478
61	S7-1-01	108	836.19454	23276.89775	0.001067354	0.115274187
1346	TP-R-M8-1-23	108	767.7043799	38689.59755	0.001774097	0.191602504
1467	H6-8285-08	108	303.5402573	3919.046948	0.000179706	0.019408297
1692	R5-2-05	108	774.6335036	33628.60059	0.001542027	0.166538928
269	E13-2076-02	107	525.7763066	16897.95965	0.00077485	0.08290892
748	H11-696-01	107	207.3582032	2289.872762	0.000105001	0.011235136
898	G10-8216-01	107	191.8607873	1129.422804	5.17893E-05	0.005541452
844	K10-1-01	106	115.6668342	839.2934155	3.84855E-05	0.004079462
253	D13-264B-03	105	605.7820585	19856.01956	0.00091049	0.0956015
525	H11-762-03	105	353.2228398	7896.789028	0.000362104	0.038020957
712	G11-8257-03	104	410.538523	12095.74815	0.000554646	0.057683192
950	F9-A6-01	104	443.6411129	10239.22931	0.000469516	0.048829674
1441	I6-8175-04	104	434.9207602	12075.00489	0.000553695	0.05758427
1465	H7-15-02	104	382.5439266	9388.040646	0.000430485	0.044770456
275	H13-2031A-02	103	436.866802	12054.87572	0.000552772	0.056935505
482	I12-11-13	103	289.7851581	3145.276302	0.000144225	0.014855225
925	G10-8204-05	103	363.3096546	7594.894161	0.000348261	0.035870891
991	SB-R-F9-03	102	527.1594818	11996.84691	0.000550111	0.056111322
400	E12-286B-02	99.8	569.1574898	18595.3695	0.000852684	0.085097846
618	D9-2229-01	99.5	105.9104799	631.5525073	2.89596E-05	0.002881481
873	J10-2-04	99.2	437.8628972	11781.95569	0.000540257	0.053593519
1171	J9-2142-04	99	496.9959748	7963.043484	0.000365142	0.036149101
263	E13-2040-04	98.8	357.5030255	6377.236946	0.000292426	0.028891674
268	E13-3-03	98	380.5041864	9210.792202	0.000422357	0.041391034
1070	H9-8238-01	97.9	393.8996686	7765.220627	0.000356071	0.034859384
1290	H7-6-02	97.7	353.4911401	7915.419319	0.000362959	0.035461059
681	E10-2160-03	96.8	251.8340492	2368.411505	0.000108603	0.010512735
1170	J9-2142-05	96.7	576.3459496	13060.96729	0.000598906	0.057914196
474	J11-B83-01	95.9	250.9580067	3185.854843	0.000146086	0.014009667
524	H11-8-01	95.8	262.6093014	4592.898924	0.000210606	0.020176025
727	G10-269-03	95.6	337.5001044	6138.73799	0.00028149	0.026910403
744	H11-762-02	95.6	328.501569	7101.777062	0.000325649	0.03113208
1570	N7-2-10	95.5	93.7129464	373.4090177	1.71225E-05	0.001635202
451	SB-R-I13-02	95.4	484.4722744	16403.11229	0.000752159	0.071755938
81	K8-1-05	95.3	667.5522053	22262.13471	0.001020822	0.097284336
1282	H7-8145-01	94.8	405.3050055	9860.087137	0.000452131	0.042861987
1694	R5-2-01	94.5	2621.657752	98906.53644	0.004535323	0.428588009
464	I12-2011-01	93.9	190.1369494	2153.757378	9.87598E-05	0.009273541
592	E10-2031C-01	93.6	246.4961035	1888.548143	8.65987E-05	0.008105636
1139	N9-2195-05	93.6	319.2591714	5683.020728	0.000260593	0.024391488
917	G9-7-11	93.4	355.9093457	7272.681155	0.000333486	0.031147604
588	E11-12-04	93.3	552.247355	15079.07459	0.000691445	0.064511857
979	E9-2161-04	93.3	504.7279962	14545.46713	0.000666977	0.062228958
1471	H6-8247-02	93.2	395.2186001	5576.911206	0.000255727	0.023833776
920	G9-2123-01	92.8	337.7095021	5842.109445	0.000267888	0.024859986
1098	J10-2-08	92.6	323.0946057	5014.676421	0.000229946	0.021293013
741	H11-9336-01	92.2	253.7886345	3006.661342	0.000137869	0.012711554
785	I11-9301-02	92.2	520.1565573	15120.49079	0.000693345	0.063926367
629	D10-2230A-03	92	503.9140511	15701.62444	0.000719992	0.066239284
1072	H9-8155-01	91.6	349.8216973	6138.141867	0.000281462	0.025781941
434	H12-3-01	91.5	356.7015591	7968.376774	0.000365387	0.033432909
1247	G8-2114-06	90.8	385.8254232	8953.446802	0.000410557	0.037278576
461	I12-2012-03	90.4	143.015241	1059.769865	4.85954E-05	0.00439302
437	SB-R-I12-02	89.8	340.7732239	5533.917592	0.000253756	0.022787267
152	D14-120-03	89.3	793.9221235	35298.66656	0.001618607	0.144541638
1038	F9-1-04	89	223.5310967	2746.708884	0.000125949	0.01120949
454	I12-9112-03	88.8	80.26394808	352.258374	1.61527E-05	0.001434358
1579	O7-395-02	88.7	454.6207937	11530.66967	0.000528735	0.04689876
855	K10-2197A-01	88.6	358.9730411	7298.812976	0.000334684	0.029653036
728	G10-269-02	88.1	197.4940259	1826.931153	8.37733E-05	0.007380424
183	D14-204B-04	88	648.0568877	22056.08464	0.001011374	0.089000881
297	F12-2221-04	88	401.0714906	8831.58741	0.000404969	0.035637289
535	G11-9309-05	87.6	181.5360716	1224.193983	5.6135E-05	0.004917423
424	G11-2017A-02	87.2	239.6273225	3198.431959	0.000146663	0.012789007
426	SB-R-H13-03	87.2	480.769322	14885.08895	0.00068255	0.059518384
164	C14-4-03	86.9	434.8695473	11299.51813	0.000518135	0.045025953
1092	I9-2-01	86.9	497.3044336	13708.97991	0.00062862	0.054627098
543	G11-66-05	86.7	358.1753278	5500.986951	0.000252246	0.021869705
574	F10-1-04	86.1	310.2066768	4396.467796	0.000201598	0.017357623
1676	R5-1-01	85.8	406.7576929	9758.579068	0.000447476	0.038393445
277	H13-9329-02	85.6	637.0024759	23607.69172	0.001082522	0.092663885
1075	SB-R-I9-02	85.6	408.1895607	9586.504665	0.000439586	0.037628531
115	G10-8682-05	85.1	395.2336399	8644.672231	0.000396398	0.033733492
550	G11-2017B-01	85.1	273.8647597	4424.345944	0.000202877	0.017264812
768	SB-R-I11-04	85.1	579.6125722	19648.27641	0.000900964	0.076672078

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
795	K11-604-03	85.1	327.4865773	6963.562762	0.000319312	0.027173418
1588	O7-576-02	84.2	491.9423726	15627.14848	0.000716577	0.060335796
928	G10-8159-05	84.1	179.6365658	1555.787173	7.134E-05	0.005999698
493	SB-R-I12-01	83.8	469.9659881	14683.74151	0.000673318	0.056424012
534	G11-B86-01	83.8	217.6577834	2446.073707	0.000112164	0.009399327
276	SB-R-H13-04	83.5	368.8154328	8258.653414	0.000378698	0.031621242
838	K10-2266-05	83.5	175.6879832	1647.283949	7.55356E-05	0.006307223
124	G11-9305-01	83.3	340.7205702	4057.377499	0.00018605	0.015497928
722	G10-8224-03	83.2	240.8254481	3744.454609	0.000171701	0.014285489
375	D12-1-02	82.2	518.0823985	16788.13594	0.000769814	0.063278694
955	F9-5-03	81.7	330.0658296	6616.789082	0.00030341	0.024788632
28	J9-4-03	81.6	699.8625546	32393.58978	0.001485396	0.121208325
596	E10-1-05	81.5	442.0398954	13006.67887	0.000596416	0.048607943
1429	I7-5-03	81.4	518.6991964	18984.98723	0.00087055	0.070862738
621	D10-N4-01	81.1	202.0951651	2111.350122	9.68152E-05	0.007851711
659	E10-2031B-01	80.6	384.9754697	3047.348374	0.000139735	0.011262644
840	K10-2090-08	80.6	379.8763093	8596.290634	0.00039418	0.031770887
1000	F8-A5-03	80.4	266.2819112	4484.857239	0.000205651	0.016534379
422	G12-12-03	80.2	208.1343607	1535.225226	7.03972E-05	0.005645854
766	G11-8212-04	79.7	336.1465837	6775.586316	0.000310692	0.024762154
921	G9-2108-05	79.6	340.3283218	5328.788408	0.00024435	0.019450231
1693	R5-2-03	79.3	223.6061055	1957.278984	8.97503E-05	0.007117199
594	E10-2-03	79.1	199.5600788	2397.642642	0.000109943	0.008696493
699	F10-8569-03	78.6	271.4542008	3626.034453	0.00016627	0.013068859
374	D12-282A-05	78.3	562.2896919	19508.74662	0.000894566	0.070044549
1476	H6-8116-01	78.2	391.1356144	9720.473556	0.000445729	0.034855987
862	J10-609-01	77.9	532.2815733	14182.0938	0.000650315	0.050659515
952	F9-A3-02	77.8	419.4063639	8791.388027	0.000403126	0.031363192
1383	TP-R-M8-1-6	77.6	909.8281618	49922.22651	0.002289165	0.17763923
257	E13-325-02	77.5	970.530251	45984.05439	0.002108582	0.163415097
1009	F8-2207-03	77.5	453.9930108	12325.52976	0.000565183	0.043801654
1254	SB-R-G8-04	77.3	394.2481113	7544.099945	0.000345932	0.026740538
547	G11-2259-01	77	406.4623493	8276.956452	0.000379537	0.029224333
1291	H7-4-04	77	322.8477454	5473.291387	0.000250976	0.019325134
1206	I8-9334-01	76.7	253.7705782	3435.914913	0.000157553	0.012084286
627	D10-2349-02	76.6	259.6401509	2792.659739	0.000128056	0.009809119
1001	F8-9-02	76.3	337.0642628	7134.255578	0.000327139	0.02496068
68	G6-8242-04	76.1	348.0423256	7179.379488	0.000329208	0.025052714
1542	L6-3-01	75.8	341.8187366	6529.674653	0.000299416	0.02269572
488	I12-11-02	75.7	466.0496655	10862.87569	0.000498113	0.037707167
683	E10-2159-02	75.7	267.6179515	4094.374289	0.000187746	0.014212374
1564	N7-5-02	75.7	610.4633368	22984.16033	0.00105393	0.079782517
1086	I9-3-01	75.3	195.2348512	2190.503911	0.000100445	0.00756349
1626	L6-1-02	74.9	514.526407	6344.422678	0.000290921	0.021789995
705	F10-37B-03	74.8	183.3289017	2071.755147	9.49996E-05	0.007105968
923	G9-15-02	74.6	325.6153335	5389.037992	0.000247112	0.018434582
201	SB-R-B13-02	74.2	586.4902865	14919.5915	0.000684132	0.050762623
1416	J7-8281-01	74	321.7663733	5507.432738	0.000252541	0.018688056
430	H12-8607-01	73.6	379.3323979	7898.377202	0.000362177	0.026656241
852	K11-2264-03	73.5	196.0238996	2187.429582	0.000100304	0.007372328
1149	M9-2251-03	72.9	470.649941	13158.77469	0.000603391	0.043987187
578	E11-2083-04	72.8	292.1814143	4916.157152	0.000225429	0.0164112
1039	F9-1-01	72.8	247.6211318	4009.346949	0.000183847	0.013384071
1175	I8-525-04	72.7	321.7748144	6119.862108	0.000280624	0.020401367
133	B11-523-01	72.4	684.7520357	17695.6043	0.000811425	0.058747201
186	D14-129-03	72.4	441.105965	10999.56755	0.000504381	0.036517193
1234	H8-69F-02	72.2	414.7334736	6542.70654	0.000300013	0.021660968
1097	J10-2-11	72	543.2686839	16139.05212	0.00074005	0.053283621
640	D10-14-05	71.6	279.0342333	4384.744642	0.000201061	0.014395957
638	D10-2007-02	71.4	133.106436	1100.225718	5.04504E-05	0.003602162
969	E9-560-03	71.4	524.9405861	13946.95323	0.000639532	0.045662614
999	F9-2106-04	71.4	297.6833413	5446.464443	0.000249746	0.017831838
1388	TP-R-M8-1-1	71.3	537.3620092	12651.81762	0.000580144	0.041364299
91	L9-79B-03	71.2	495.2422032	14942.30432	0.000685174	0.048784379
177	E14-668-05	71.2	1089.522238	74535.95351	0.003417819	0.243348693
442	I12-15-01	71.1	147.8872461	911.7373474	4.18074E-05	0.002972505
713	G11-1-02	71.1	406.4963317	8381.718515	0.000384341	0.027326618
637	D10-2007-04	71	229.3934534	2433.747186	0.000111599	0.007923499
1004	F8-573-02	71	412.5590206	11314.87536	0.000518839	0.036837601
703	F10-8237-05	70.8	342.854468	4365.523247	0.000200179	0.014172706
123	SB-R-F11-01	70.6	632.47247	22659.6392	0.001039049	0.073356889
136	C12-275-02	70.5	340.0510777	6814.166272	0.000312461	0.022028507
98	SB-R-H9-04	70.3	398.2216812	10312.27615	0.000472866	0.033242454
888	TP-R-G9-4-1	69.9	248.3025357	3559.550552	0.000163222	0.011409209
1280	H7-8146-03	69.8	189.633705	2052.973022	9.41383E-05	0.006570855
1556	TP-R-N6-1-32	69.7	291.1682266	5465.470108	0.000250617	0.017468013
796	K11-604-02	69.6	325.1175764	6739.195639	0.000309023	0.021508024
1298	SB-R-I7-01	69.2	421.9286095	11257.61939	0.000516214	0.035722009
1480	SB-R-H6-03	69.2	301.9544179	5820.504518	0.000266897	0.018469279
142	H13-8158-04	68.9	394.0088508	8758.197094	0.000401604	0.027670509
700	F10-8564-01	68.8	379.6872261	9329.846559	0.000427817	0.029433788
603	C10-241A-05	68.7	337.7964243	6726.685129	0.00030845	0.021190492

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1017	F8-2107-02	68.6	248.6930045	3398.888605	0.000155855	0.010691638
606	SB-R-D10-02	68.3	140.6535507	1023.47876	4.69312E-05	0.003205404
1602	P7-9209-03	68.3	593.8621016	16322.19153	0.000748448	0.051119004
998	F9-2109C-05	68	280.7387434	4947.061784	0.000226846	0.015425507
489	I12-1-02	67.9	346.8793191	6417.44453	0.00029427	0.019980903
1295	SB-R-I8-04	67.8	487.6262325	15711.9713	0.000720467	0.04884764
797	K11-2301-04	67.6	397.1339078	7021.077046	0.000321949	0.021763746
1277	H7-8248-02	67.5	327.2041055	6189.044687	0.000283796	0.019156255
252	D13-264B-05	67.4	606.3021442	15830.50801	0.000725902	0.048925803
994	F9-611-02	67.3	234.1183567	2820.136068	0.000129316	0.008702987
1299	I8-2138-03	67.3	414.242446	10260.32078	0.000470483	0.031663522
1652	N5-533-05	67.3	582.6252831	12396.49635	0.000568437	0.038255795
448	H12-120-02	67.1	342.7715362	5547.594469	0.000254383	0.017069093
483	I12-11-11	67.1	285.4410116	3858.930584	0.00017695	0.011873334
165	C14-4-01	67	270.6247189	3977.213195	0.000182374	0.012219034
626	D10-241B-03	66.8	331.3571981	7286.218082	0.000334107	0.022318338
809	K11-601-01	66.7	513.7590276	15192.2858	0.000696637	0.046465666
1031	G8-2204-03	66.7	373.0297917	7381.259787	0.000338465	0.022575612
554	F11-8227-01	66.6	578.8428447	22450.90782	0.001029478	0.068563243
607	D9-N1-03	66.5	415.7593971	10533.48397	0.000483009	0.032120101
832	K11-3-02	66.5	402.4933546	9518.533684	0.000436469	0.029025179
5	SB-R-L7-04	66.1	881.2620235	52642.02674	0.002413881	0.159557519
935	F9-8188-01	66.1	275.4853052	4544.360989	0.00020838	0.013773918
159	B14-3-02	65.8	333.865149	5571.039813	0.000255458	0.016809135
1461	H7-8124-01	65.8	281.5688516	3434.370766	0.000157482	0.010362303
987	E9-6-03	65.6	524.8205029	7978.964492	0.000365872	0.024001235
1166	J9-1-02	65.2	616.3001352	21893.94453	0.001003939	0.065456808
510	H11-9313-04	65.1	372.3678878	5730.452412	0.000262768	0.017106183
1016	F8-2107-05	65.1	247.3828671	3753.814433	0.00017213	0.011205649
320	D13-303F-02	64.9	600.8103067	18202.98337	0.000834691	0.054171453
1041	F8-563D-02	64.8	302.5655152	5862.754423	0.000268834	0.017420472
1176	I8-525-03	64.4	364.6073161	7768.813743	0.000356236	0.022941605
1654	N5-3-01	64.4	361.2787396	8638.194631	0.000396101	0.02550892
698	F10-8576-05	64.1	539.8067306	15598.77491	0.000715276	0.045849197
881	I10-2079-05	64.1	589.4667818	13328.21097	0.00061116	0.03917537
1267	G7-8140-02	64	306.4584496	5113.299046	0.000234468	0.015005981
1321	I7-2133A-03	64	293.7715188	4802.741923	0.000220228	0.01409459
1578	O7-395-03	63.9	436.195833	11622.33897	0.000532938	0.034054743
959	F9-2105A-04	63.7	199.2624446	2149.275189	9.85542E-05	0.006277904
1023	SB-R-G8-02	63.7	390.2909729	8802.338062	0.000403628	0.025711102
1513	H6-862-04	63.7	279.6669958	3204.525968	0.000146942	0.009360228
933	F9-9-05	63.6	185.9882032	1557.987435	7.14409E-05	0.004543644
1438	I6-8192-01	63.6	354.0811453	6906.387746	0.00031669	0.020141476
1212	I8-2170-04	63.5	386.121622	8336.861751	0.000382284	0.024275017
775	SB-R0-I11-01	63.41	440.9810503	11080.045	0.000508071	0.032216807
1021	SB-R-G9-03	63.4	642.9219419	25972.70155	0.001190969	0.075507414
939	F9-2105A-01	63.3	243.0188556	2889.553955	0.000132499	0.008387214
1455	SB-R-H6-01	63.3	447.7454793	10896.693	0.000499664	0.031628722
604	SD-D10-1-01	62.8	137.9678754	1184.777709	5.43275E-05	0.00341177
542	G11-8208-05	62.4	457.7207871	14371.76528	0.000659012	0.041122349
735	G10-108B-04	62.3	306.5514815	5300.273817	0.000243042	0.015141523
966	SO-R2-E-9-1	62.3	491.6751929	12451.01335	0.000570937	0.035569352
794	K11-B2-01	62.2	271.4673738	3711.042884	0.000170169	0.010584481
505	I11-2326-04	61.9	463.6493045	10488.29476	0.000480937	0.029769994
342	C12-275-01	61.2	249.0387258	3187.425678	0.000146158	0.008944884
39	P6-9225-03	60.9	907.4792118	50543.71392	0.002317663	0.141145702
610	D9-9108-04	60.8	308.4358308	6063.947394	0.00027806	0.016906053
857	K10-2-05	60.8	366.8359594	8354.667624	0.0003831	0.023292493
1121	L10-2088-02	60.8	502.8794535	14837.52984	0.000680369	0.041366464
447	H12-120-03	60.6	353.614196	6299.582549	0.000288865	0.017505221
1052	G9-9322-02	60.5	356.6736312	6315.22592	0.000289582	0.017519733
1371	O8-3-13	60	223.9202665	2941.018273	0.000134859	0.008091559
1263	SB-R-G7-02	59.9	697.9435869	31512.49648	0.001444994	0.086555137
605	SB-R-D10-03	59.8	489.8620348	11340.28791	0.000520005	0.031096283
914	SB-R-G9-02	59.6	253.9386319	3291.473708	0.000150929	0.008995387
197	TP-R-B13-2-9	59.4	486.9559624	7786.017829	0.000357025	0.021207284
1536	J6-9200-01	59.4	438.386147	9935.795906	0.000455602	0.027062775
122	F11-54-02	59.3	392.8110338	9228.73192	0.00042318	0.02509458
403	E11-11-02	59.2	350.4700039	3431.226157	0.000157338	0.009314387
1078	I9-523-03	59.2	517.8079616	16795.98928	0.000770174	0.045594295
1182	I8-2405-01	59.1	275.5996185	3988.738392	0.000182902	0.010809516
1569	N7-2-13	59	180.2490446	1829.536287	8.38927E-05	0.00494967
1246	G8-2148-02	58.9	403.1803258	10214.0197	0.00046836	0.027586411
780	J11-B25-01	58.6	340.3398337	5659.843729	0.00025953	0.015208461
1237	H8-2-03	58.4	484.6080398	14688.70284	0.000673545	0.039335032
114	I11-8278-03	58.3	722.7427517	30751.99238	0.001410121	0.082210072
1077	I9-523-05	58.1	263.0152952	4125.919362	0.000189193	0.010992085
1292	H7-4-02	58.1	328.2783494	5596.952084	0.000256646	0.014911143
17	A12-4-01	57.9	617.4793442	21820.30979	0.001000562	0.057932556
751	H11-510-01	57.8	326.1873784	6812.593286	0.000312389	0.018056082
1302	I7-2124-04	57.6	335.011946	6257.139866	0.000286919	0.016526526
1104	SB-R-L10-02	57.5	463.700311	12185.77086	0.000558774	0.032129507

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1214	H8-558-04	57.5	478.9275674	13705.96799	0.000628482	0.036137722
1675	S6-1-02	56.8	556.9737879	12261.54175	0.000562248	0.031935714
962	F10-11-01	56.7	275.6045243	4447.790604	0.000203952	0.011564067
295	F12-2221-06	56.5	360.9410301	5984.771202	0.000274429	0.015505266
485	I12-11-08	56.5	151.3415883	1158.601972	5.31273E-05	0.003001691
656	E10-2169A-01	56.4	222.2795698	2478.726598	0.000113661	0.006410486
1286	H7-8134-04	56.4	194.9515483	2234.084746	0.000102443	0.005777793
1535	J6-9200-02	56.4	518.0526495	14777.83289	0.000677632	0.03821845
911	G10-13-01	56.2	260.6570789	4034.949861	0.000185021	0.010398188
1003	F8-575-02	56.2	219.6682317	1750.380112	8.0263E-05	0.004510783
314	E12-2081-05	56.1	329.2164636	6394.783395	0.00029323	0.016450228
340	C12-418-01	56.1	432.7382693	11516.07773	0.000528066	0.029624475
884	I10-1-03	55.9	466.6559895	6571.026771	0.000301312	0.016843342
739	SB-R-H11-01	55.8	425.87949	12280.15346	0.000563102	0.031421087
839	K10-2266-04	55.7	137.3410965	1045.580327	4.79447E-05	0.00267052
1110	L10-4-02	55.6	548.4377707	10928.26434	0.000501112	0.027861802
666	F10-462-01	55.5	433.9250769	12081.84033	0.000554008	0.030747463
384	SB-R-E11-01	55.3	759.5018117	35292.25217	0.001618313	0.089492722
441	I12-15-04	54.8	210.2136812	2557.059663	0.000117253	0.006425466
459	I12-2287-04	54.7	137.093245	827.8516687	3.79608E-05	0.002076458
1114	SB-R-M10-01	54.7	672.3848503	21847.73309	0.00100182	0.054799541
691	SB-R-F10-01	54.6	384.0068194	8997.105429	0.000412559	0.022525719
401	E11-4-02	54.5	124.0390711	699.4168401	3.20715E-05	0.001747897
1408	J7-2-03	54.4	453.5905714	12465.94226	0.000571621	0.031096193
568	F11-43-03	54.2	300.590253	5604.287194	0.000256983	0.013928453
709	SB-R-G11-01	54	456.1754232	14105.86635	0.000646819	0.034928243
1010	F8-2207-01	54	294.7578366	5123.732606	0.000234947	0.012687131
382	C11-4A-01	53.9	266.1599415	4075.976286	0.000186902	0.010074039
1044	H9-3-03	53.9	359.522367	5679.000846	0.000260408	0.014036018
99	F8-567-05	53.8	372.4488575	9019.873319	0.000413603	0.02225184
514	TP-R-H11-1-2	53.7	229.7123815	3422.478213	0.000156936	0.008427489
1053	G9-9321-08	53.6	388.0822994	9502.895794	0.000435752	0.023356296
413	SB-R-G12-04	53.5	654.7786854	24381.20518	0.001117991	0.059812529
1592	SB-R-R7-02	53.5	826.9585255	42679.05873	0.001957033	0.104701241
878	I10-3-02	53.3	480.8949487	13800.81758	0.000632831	0.033729914
937	F9-8-02	53.3	421.4058039	8801.475229	0.000403588	0.021511262
1426	J6-2340-02	53.3	425.4096032	8987.504012	0.000412119	0.021965926
859	J11-2296-04	53.1	339.9679123	7247.793352	0.000332345	0.017647514
643	D10-10-01	53	326.864543	7070.531743	0.000324217	0.017183481
897	G10-8216-02	53	285.2885833	4495.540742	0.000206141	0.010925492
386	E11-R2-03	52.9	650.7090844	25019.62756	0.001147266	0.060690362
62	O7-396-03	52.6	534.9209585	19534.43763	0.000895744	0.047116158
1483	H6-918-01	52.3	329.1491432	7087.753695	0.000325006	0.016997831
381	C11-4A-02	52	392.7235687	9070.690048	0.000415933	0.021628524
216	C13-262B-01	51.9	482.0274959	13041.8	0.000598027	0.031037598
151	C13-1-01	51.7	667.5454696	26696.97703	0.00122418	0.063290109
706	F10-37B-02	51.6	272.502573	4631.737025	0.000212387	0.010959148
274	H13-6-01	51.4	407.586987	10853.07065	0.000497664	0.025579907
502	I11-B5-04	51.4	498.5879239	16818.15597	0.00077119	0.039639184
506	I11-2326-01	51.3	410.4316753	9629.852646	0.000441573	0.022652713
593	E10-2-04	51.3	285.0361148	4984.55731	0.000228565	0.011725387
1218	H8-2171-03	51.3	173.5167304	1664.36655	7.63189E-05	0.00391516
1546	M7-2-11	51.2	466.6637457	13892.9501	0.000637056	0.032617273
786	I11-8504-06	51	123.8576881	746.2692219	3.42199E-05	0.001745215
185	D14-129-05	50.9	405.6563077	8490.767192	0.000389341	0.019817457
312	E12-286D-07	50.9	584.535463	20138.97531	0.000923465	0.047004384
539	G11-9304-02	50.9	402.5240402	6674.450074	0.000306054	0.015578172
714	G11-1-01	50.9	383.7835144	4993.196103	0.000228961	0.011654124
645	SB-R-E10-03	50.8	548.2470452	19515.23872	0.000894864	0.045459096
1661	O5-6-03	50.8	737.3795376	21868.85171	0.001002788	0.050941638
335	SB-R-C12-03	50.5	595.0930866	18205.96226	0.000834828	0.042158799
1525	J6-942A-04	50.5	716.8598662	32528.93326	0.001491602	0.075325915
1181	I8-2405-05	50.4	191.0605495	1778.723326	8.15627E-05	0.00411076
1390	SB-R-M8-01	50.4	672.1887427	27627.50418	0.001266849	0.063849192
1506	SB-R-H5-01	50.3	1234.745486	32909.4305	0.00150905	0.075905206
858	K10-2-02	50.2	476.7738695	12175.20276	0.000558289	0.02802613
344	C12-274-01	50.1	369.6506891	8549.076266	0.000392015	0.019639939
1458	H7-8282-03	49.8	253.7582256	3044.590644	0.000139609	0.006952507
160	B14-128-02	49.6	669.3148795	27431.49794	0.001257861	0.062389918
1215	H8-558-03	49.6	364.2959202	7894.557244	0.000362002	0.0179553
882	I10-2079-02	49.5	234.7390575	1235.748711	5.66648E-05	0.002804908
622	D10-9119-02	49.4	223.554288	1650.043245	7.56621E-05	0.003737709
300	F12-2075A-03	49.2	280.2402778	3125.925233	0.000143338	0.007052237
1147	M9-3-01	49.2	468.7760708	13595.73739	0.000623428	0.030672635
1236	H8-2181-05	49.2	506.8971759	9426.454889	0.000432247	0.021266534
326	D12-2073-03	49	291.1455932	3960.076919	0.000181588	0.008897806
1502	G6-2-03	49	343.0884508	6838.457885	0.000313575	0.015365174
1320	I7-8181-01	48.8	418.904122	9006.040232	0.000412969	0.020152871
4	I6-3-03	48.7	696.7349618	27362.99834	0.00125472	0.061104875
495	I12-8271-02	48.7	299.2481819	2683.180904	0.000123036	0.005991867
1452	H7-8131-04	48.7	478.496618	11535.51278	0.000528957	0.025760191
174	C14-121-03	48.6	434.1706263	9220.379526	0.000422797	0.02054794

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1076	I9-524-01	48.6	552.0726781	19990.65481	0.000916664	0.044549876
1373	O8-3-09	48.3	108.0390524	571.3097244	2.61972E-05	0.001265325
663	F10-8-01	48.1	317.1711419	5061.911614	0.000232112	0.011164592
769	SB-R-I11-03	48.1	499.9933385	13588.14232	0.000623079	0.029970113
613	D9-5-05	47.9	517.4664024	16131.73633	0.000739715	0.035432341
452	I12-9120-03	47.7	306.0403106	5144.388193	0.000235894	0.011252145
934	F9-9-01	47.7	300.6576224	5937.423457	0.000272258	0.012986724
230	B13-262A-05	47.3	461.6747164	10672.34836	0.000489377	0.023147514
1306	H7-2172A-05	47.2	391.4741565	8823.777464	0.000404611	0.019097642
1387	N7-571-02	47.2	382.2075324	3334.182061	0.000152888	0.007216299
912	TP-R-G9-4-3	47.1	242.951868	3762.294308	0.000172519	0.008125627
1604	P6-651-04	47	635.0357326	21885.8192	0.001003566	0.047167611
1622	L6-5-01	46.9	431.1152983	12422.06511	0.000569609	0.026714673
918	G9-7-05	46.4	426.1465325	12051.56221	0.00055262	0.025641566
993	F9-A10-03	46.4	282.1125728	4946.891062	0.000226838	0.010525277
1210	I8-560-01	46.4	219.666069	3402.788784	0.000156034	0.00723996
1271	G7-2-01	46.4	475.251979	11775.83033	0.000539976	0.025054903
1341	SB-R-M9-02	46.2	615.0751282	16838.73077	0.000772134	0.035672582
1415	J7-8281-02	46.2	405.9685651	10398.58233	0.000476823	0.02202923
491	I11-7-01	46	187.939667	2301.002058	0.000105512	0.004853534
620	D9-2-01	45.9	250.558273	3240.775499	0.000148605	0.00682095
778	SB-R-J11-01	45.9	288.1866207	3567.95729	0.000163607	0.007509578
438	I12-9111-01	45.8	341.2844786	5044.905671	0.000231332	0.010595019
1514	H6-862-01	45.8	385.8439551	9205.144373	0.000422099	0.019332112
1133	N9-B41-10-01	45.6	444.2058845	4938.652285	0.00022646	0.01032658
802	J11-2188-08	45.5	396.8833645	9261.433114	0.00042468	0.019322922
1025	G8-C3-02	45.5	364.4590475	9338.195521	0.0004282	0.019483078
419	G12-8109-01	45.3	413.8863519	7177.315746	0.000329113	0.014908827
1235	H8-69F-01	45.2	412.9954082	10324.02532	0.000473404	0.021397878
1446	I6-8171-04	45.2	230.9812686	2654.782652	0.000121734	0.005502381
1565	N7-394-03	45.2	300.7858693	4878.954514	0.000223723	0.010112264
1096	J9-2-02	45	730.575712	33084.77003	0.00151709	0.068269048
318	SB-R-E13-03	44.9	658.7976273	26365.71444	0.00120899	0.054283657
819	L10-2316-02	44.9	282.548647	4400.408608	0.000201779	0.009059882
841	K10-2090-04	44.9	292.5200657	2484.943743	0.000113946	0.005116184
648	E9-610-04	44.8	406.739595	9619.040957	0.000441078	0.019760276
258	E13-2078-04	44.3	140.5854444	1070.207706	4.9074E-05	0.002173977
423	G12-12-01	44.3	423.2082793	11580.42545	0.000531016	0.023524015
1545	M7-2-15	44.2	275.0924578	3236.866812	0.000148425	0.0065604
332	C12-1-04	43.9	411.8168358	4778.070808	0.000219097	0.009618344
1062	I9-516-04	43.9	557.6172682	16017.90759	0.000734495	0.032244342
450	H12-1-02	43.8	448.8840585	13540.9926	0.000620917	0.027196175
250	D13-273B-02	43.7	638.4552513	25026.17108	0.001147566	0.050148628
511	H11-9313-02	43.7	427.8180546	7008.632724	0.000321378	0.014044231
551	SB-R-G11-03	43.7	482.6726785	13945.38982	0.000639461	0.027944433
1459	H7-8282-02	43.6	236.6991371	2614.04881	0.000119866	0.005226168
267	E13-3-05	43.5	392.7674011	8515.565788	0.000390478	0.016985799
818	L10-725-01	43.5	393.8575908	9565.396421	0.000438618	0.019079871
1524	SB-R-J6-01	43.3	565.2044656	20399.92743	0.000935431	0.04050417
490	I11-7-03	43.2	235.0010219	2943.569089	0.000134976	0.005830975
1355	N9-2267-05	43.2	357.9021071	7823.48899	0.000358743	0.015497707
868	J10-8280-01	43.1	569.9198995	18628.49042	0.000854203	0.036816131
1034	F9-2109C-01	43.1	214.596382	2729.226169	0.000125148	0.005393864
571	F11-2016-06	43	320.2321342	5927.959211	0.000271824	0.011688449
199	TP-R-B13-2-2	42.9	528.3888445	14071.14953	0.000645227	0.027680255
1366	O8-732-01	42.8	331.1333902	6656.69685	0.00030524	0.013064288
538	G11-9304-05	42.7	378.360467	8118.583668	0.000372275	0.015896128
608	D9-9108-10	42.7	591.281892	6411.551596	0.000293999	0.012553772
1033	F9-2109D-02	42.7	223.112308	2388.991237	0.000109546	0.004677628
1591	S7-1-02	42.7	947.997894	50914.72592	0.002334676	0.099690666
1630	SO-R2-J-5-2	42.6	1053.564251	58658.29549	0.002689755	0.114583544
949	F9-C1-04	42.2	286.0019436	4942.060036	0.000226616	0.00956321
280	H13-408-03	42.1	482.8633121	11812.66758	0.000541666	0.022804119
1344	L8-1-01	42.1	553.7290592	18337.73231	0.00084087	0.035400626
611	D9-9108-01	41.8	448.3709239	10522.53928	0.000482507	0.0201688
813	SB-R-L11-02	41.8	206.416363	2659.244769	0.000121939	0.005097037
27	G8-A12-05	41.3	430.9058742	10430.87936	0.000478304	0.019753961
479	I12-8101-01	41.3	340.5118631	7052.849796	0.000323406	0.013356661
46	R5-1-03	41.1	500.9424428	14045.11762	0.000644034	0.026469785
650	E10-615-04	41	459.8848201	11657.26617	0.00053454	0.021916126
871	J10-2187-01	41	384.8114515	7691.184652	0.000352676	0.014459734
130	G12-775-03	40.8	608.4709961	17782.36266	0.000815404	0.033268471
1111	K10-79A-03	40.8	694.897842	25114.41018	0.001151612	0.046985771
1337	L8-8235-01	40.7	508.2552743	17519.68734	0.000803359	0.032696704
127	I12-8101-02	40.5	378.9132298	7552.095828	0.000346299	0.014025092
986	E9-6-04	40.5	335.6767303	2949.909613	0.000135267	0.005478314
1336	L8-8235-02	40.5	489.287713	13305.27575	0.000610109	0.024709395
1040	F8-A9-02	40.3	327.4696218	6460.51842	0.000296245	0.011938661
811	K11-2302-03	40.2	325.4491567	5411.7774	0.000248155	0.009975833
1328	K8-9212A-04	40.2	809.1313473	42563.79723	0.001951747	0.07846024
1482	H6-918-03	40.2	181.6480134	1896.29024	8.69537E-05	0.003495538
750	H11-510-03	40	225.3654936	3185.59754	0.000146074	0.005842976

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1394	L7-6-01	40	687.2382567	22446.53982	0.001029278	0.041171113
1479	SB-R-H7-04	40	250.3759999	3272.142206	0.000150043	0.006001715
601	SB-R-D10-01	39.9	774.7273142	38981.5906	0.001787486	0.071320711
1374	O8-3-06	39.9	241.2568471	3699.012616	0.000169617	0.006767713
1085	I9-3-03	39.4	308.0008931	5343.365444	0.000245018	0.009653711
1099	J10-2-03	39.3	430.0897541	11829.38239	0.000542432	0.021317577
1521	I6-5-02	39.3	296.5674369	4786.278747	0.000219473	0.008625291
1577	O7-396-02	39.3	353.6664209	6023.258926	0.000276194	0.010854437
64	L6-3-02	39.2	469.2180526	12489.27756	0.000572691	0.022449496
864	SD-J10-1-01	39.2	677.3839812	21247.25118	0.000974285	0.038191968
1527	J6-8134-05	39.2	237.5531334	2440.165675	0.000111893	0.004386202
1444	I6-8171-07	39.1	139.5076159	1132.079129	5.19111E-05	0.002029723
425	F12-4-03	39	318.3450514	4928.831206	0.00022601	0.00881438
1264	H7-5-01	39	290.1292651	5059.86499	0.000232018	0.009048712
1356	N9-2267-03	38.8	382.0081131	7804.880013	0.00035789	0.013886128
833	K11-2225B-02	38.7	311.3034993	5730.308273	0.000262761	0.010168858
964	E9-558B-03	38.5	255.2622982	3834.42275	0.000175826	0.006769303
6	P7-575-04	38.4	338.9699527	7082.193704	0.000324751	0.012470453
327	D12-2073-01	38.4	462.9401754	12759.58055	0.000585086	0.022467297
1585	SB-R-P7-01	38.4	411.7166142	8311.86206	0.000381137	0.014635675
793	K11-B2-03	38.3	304.954773	5178.912763	0.000237477	0.009095374
458	I12-8581-01	38.2	145.6557657	667.1739983	3.0593E-05	0.001168653
779	J11-B25-02	38.2	501.1270902	14535.48036	0.000666519	0.02546103
558	F11-458-01	38.1	295.5542788	5275.99625	0.000241929	0.00921749
851	K11-2264-04	38.1	156.0990792	1343.733596	6.16164E-05	0.002347585
1611	O6-1-02	38.1	445.994484	10307.13686	0.00047263	0.018007202
209	A12-4-02	37.8	740.2084305	22327.37353	0.001023813	0.03870015
961	F9-2105-01	37.8	217.2605946	1791.637688	8.21549E-05	0.003105455
1314	J7-2282-06	37.8	497.1761648	14980.86541	0.000686942	0.02596641
1612	TP-R-N6-1-7	37.6	419.0521432	8274.877673	0.000379441	0.014266999
75	TP-R-M8-1-2	37.5	788.856467	30775.45064	0.001411197	0.052919886
358	UD-06	37.5	542.1978035	14033.01711	0.000643479	0.024130456
1074	SB-R-J10-01	37.5	563.9891333	21300.82849	0.000976742	0.036627812
1650	O5-5-02	37.5	288.3550714	4130.602724	0.000189407	0.007102773
1138	N9-2260-01	37.4	342.3871233	7752.597228	0.000355492	0.013295419
95	M10-724-03	37.2	510.9299798	11329.99313	0.000519533	0.019326615
1217	H8-2291-02	37.2	118.2580031	851.9954665	3.90679E-05	0.001453327
1603	P7-4-01	37.2	572.3256192	14600.86658	0.000669517	0.024906046
1091	I9-2-02	37	201.8666309	1179.570574	5.40888E-05	0.002001285
1548	M7-2-04	36.9	490.9214447	10433.66005	0.000478432	0.017654128
583	E11-2-02	36.8	469.5383943	9730.084573	0.000446169	0.016419036
8	A11-570-01	36.7	507.4050274	13088.89616	0.000600187	0.022026845
305	F12-2026A-05	36.5	356.4879269	6742.073269	0.000309155	0.011284168
584	E10-3-02	36.5	394.8418072	9332.72502	0.000427949	0.015620127
1069	H9-8238-02	36.4	316.452453	2542.310646	0.000116577	0.004243393
90	SB-R-K9-04	36.3	801.1567178	40915.33763	0.001876158	0.068104527
646	SB-R-E10-02	36	511.9235407	16989.8287	0.000779062	0.028046244
321	D12-3-04	35.8	384.0388894	8718.684244	0.000399792	0.014312556
1369	O8-3-18	35.8	225.4580554	3317.046056	0.000152102	0.005445249
1530	J6-6-05	35.8	209.6942995	1924.284772	8.82374E-05	0.003158898
20	I12-9120-02	35.7	283.2766697	4871.953865	0.000223402	0.007975439
359	SB-R-B11-03	35.7	573.2186894	11323.40815	0.000519231	0.018536537
1022	SB-R-G9-01	35.7	367.6502104	5012.906125	0.000229865	0.008206179
373	SB-R-D11-02	35.6	861.9956825	44190.25563	0.002026328	0.072137274
1030	G8-2204-05	35.6	363.6493561	4726.137717	0.000216715	0.007715065
587	E11-2064-02	35.5	387.7666359	8215.821751	0.000376733	0.013374039
1625	L6-371-01	35.4	402.8382773	8203.438587	0.000376166	0.013316264
1150	L9-1-02	35.3	566.3582993	20531.04534	0.000941444	0.033232957
2	E9-2153-02	35.2	410.5858869	5953.300611	0.000272986	0.009609122
1443	I6-8171A-02	35	190.6911329	1939.596249	8.89395E-05	0.003112882
7	I9-516-02	34.9	616.6217581	21302.83369	0.000976834	0.034091493
463	I12-2011-04	34.9	207.9940626	2174.912317	9.97298E-05	0.00348057
1122	L10-2088-01	34.8	452.9901178	11664.00011	0.000534848	0.018612726
1531	J6-6-01	34.8	407.6153113	9271.07812	0.000425122	0.014794241
953	F9-558B-03	34.7	296.1731818	4984.539058	0.000228564	0.007931178
1067	I8-2170-05	34.7	486.7554163	13937.5777	0.000639102	0.022176857
74	L7-8115-04	34.6	630.5894336	19610.90389	0.000899251	0.031114077
792	SB-R-K11-01	34.6	344.0587292	6440.243844	0.000295315	0.010217899
1329	K8-9212A-01	34.6	499.8324892	9042.523146	0.000414642	0.014346598
957	F9-2276-03	34.5	392.6861595	7846.989979	0.000359821	0.012413819
1663	O5-2-04	34.4	518.3345169	7974.819335	0.000365682	0.012579475
537	G11-9305-02	34.3	385.4146756	8064.140902	0.000369778	0.012683393
619	D9-2-04	34.3	123.7467846	841.7506861	3.85982E-05	0.001323917
689	E10-2097-02	34.3	307.0473304	5033.555631	0.000230812	0.007916846
1305	H7-8176-01	34.3	254.8911191	3475.627978	0.000159374	0.005466516
1377	O8-2268-05	34.3	631.9829886	24998.06763	0.001146277	0.039317308
1396	L7-1-01	34.3	361.8078826	6640.364952	0.000304491	0.010444058
286	F13-8230-02	34.2	375.0529269	7713.178266	0.000353685	0.012096025
1020	SB-R-G9-04	34.2	174.2993919	1730.241592	7.93396E-05	0.002713414
1221	SB-R-H8-03	34.2	458.4665889	11491.93035	0.000526958	0.018021972
3	SD-P4-2-01	34.1	1926.526851	102370.4538	0.00469416	0.160070839
830	K11-598-03	34	364.4140789	7720.155385	0.000354005	0.012036166

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
860	J11-2296-02	34	383.9664239	8770.986575	0.00040219	0.013674472
985	E9-A7-01	34	406.9119843	9862.522877	0.000452242	0.01537624
1242	SB-R-G8-01	33.9	389.7315056	8860.713717	0.000406305	0.013773732
1087	I9-2329A-04	33.7	235.831733	3022.780919	0.000138609	0.004671107
1350	M8-3-01	33.5	178.8362104	1151.842422	5.28173E-05	0.00176938
1660	P5-2-01	33.4	286.0689098	3626.954036	0.000166313	0.005554842
444	I12-13-03	33	231.1625716	2868.877918	0.000131551	0.004341194
1014	F8-2118-10	33	349.5395622	6159.116292	0.000282424	0.009319992
945	SD-F9-2-01	32.9	340.9205096	4959.083078	0.000227397	0.007481359
1155	L9-79B-01	32.8	535.5739319	19422.1473	0.000890595	0.02921153
1156	L8-8215-01	32.8	625.8009022	15097.74168	0.000692301	0.022707486
1433	I7-2305-02	32.7	491.3083522	14540.96119	0.00066677	0.021803393
1331	K8-9212-02	32.5	558.5318699	19463.292	0.000892482	0.029005668
653	E10-2314-02	32.3	400.3654568	7868.029249	0.000360786	0.011653374
694	G10-459-05	32.3	484.6388991	15436.94356	0.000707855	0.022863728
817	L10-8215-02	32.3	204.967223	1644.145624	7.53917E-05	0.002435152
161	B14-128-01	32.2	309.2904312	5232.782115	0.000239947	0.007726303
1106	L10-B462-03	32.2	311.6691537	4339.516265	0.000198987	0.006407379
1130	SB-R-N9-01	32.2	679.4387603	23750.68874	0.001089079	0.035068347
1245	G8-2210-02	32.2	289.5032793	4592.058095	0.000210567	0.006780262
1029	G8-2209-01	32.1	265.3075253	4052.159102	0.00018581	0.00596451
1073	SB-R-J9-01	32.1	625.9257087	24424.44948	0.001119974	0.03595117
390	D11-B232-07	32	573.1694713	16514.4529	0.000757264	0.024232453
392	D11-7-02	32	470.4657529	8954.601818	0.00041061	0.013139519
865	SB-R-J11-03	32	399.4327026	8306.25734	0.00038088	0.012188172
1491	H6-8120-05	32	201.7158277	2539.8253	0.000116463	0.003726808
410	F12-4-01	31.9	275.6092738	4483.597237	0.000205594	0.006558439
678	E10-A1-02	31.9	515.0383042	18957.61006	0.000869294	0.027730486
293	F12-R1-01	31.8	318.2140129	5391.555311	0.000247228	0.007861844
1608	O6-650-01	31.8	620.1531356	23752.82901	0.001089177	0.034635836
97	I9-2329-06	31.7	277.6950818	3928.200047	0.000180126	0.00571
682	E10-2159-05	31.6	253.4905795	4283.204932	0.000196405	0.006206391
1370	O8-3-15	31.6	191.5346373	2187.524555	0.000100308	0.003169737
533	G11-B86-03	31.5	179.314111	1789.300968	8.20477E-05	0.002584504
111	L10-8215-01	31.4	462.6246198	13773.18515	0.000631564	0.01983112
589	E11-1-01	31.3	441.2742967	10875.29737	0.000498683	0.01560877
781	J11-8265A-03	31.3	524.5057374	16356.33077	0.000750014	0.023475424
820	L10-2-02	31.3	389.6612684	8639.422259	0.000396158	0.012399731
1140	N9-2195-02	31.3	547.8279326	15698.22224	0.000719836	0.022530873
496	I12-8271-01	31.2	372.260756	6295.760887	0.00028869	0.009007122
1411	SB-R-J7-02	31.2	397.9565693	8399.686117	0.000385165	0.012017133
581	E11-2064-01	31	420.4359339	9243.937694	0.000423877	0.013140198
1223	SB-R-H8-01	31	352.015977	6896.235894	0.000316224	0.009802955
1259	F8-2117-07	31	295.1353518	4846.513403	0.000222235	0.006889288
1638	M5-8166E-01	31	157.7769426	732.3203268	3.35803E-05	0.001040989
117	D9-2229-05	30.9	175.7348494	1581.651105	7.2526E-05	0.002241054
469	SB-R-I12-03	30.9	255.2594797	4291.935034	0.000196805	0.006081278
1395	L7-1-03	30.7	558.0565795	17452.98591	0.0008003	0.024569218
1687	N4-3-03	30.7	519.0849991	11596.21731	0.00053174	0.016324427
348	B11-2044C-01	30.6	420.296042	5690.348862	0.000260929	0.007984423
1472	H6-8127-02	30.5	491.3883468	13878.79378	0.000636407	0.019410413
55	SB-R-N6-02	30.4	631.7359259	10169.13632	0.000466302	0.014175581
299	F12-2075A-04	30.4	362.3718542	8368.982884	0.000383757	0.011666202
32	SB-R-K8-02	30.3	960.991957	64963.88862	0.002978895	0.090260525
684	E10-2101C-05	30.3	249.5388494	3160.216922	0.000144911	0.004390791
67	G6-9219-04	30.2	738.7817105	32801.44242	0.001504098	0.045423762
387	E11-8228-05	30.2	387.1803014	9119.948998	0.000418192	0.012629396
552	G11-5-02	30.2	367.8978656	8194.586396	0.00037576	0.011347944
65	J6-1-04	30.1	701.7411126	11818.84706	0.000541949	0.016312661
138	D12-208D-01	30	641.0845158	16269.86304	0.000746049	0.022381458
170	C14-1-03	30	216.002338	2391.305679	0.000109652	0.003289573
1008	F8-2208-01	30	349.9046487	8137.6174	0.000373147	0.011194424
1089	I9-2329-05	29.9	285.8457586	3527.038746	0.000161731	0.004835759
642	D10-10-04	29.8	255.5377072	3767.757257	0.000172769	0.00514852
1117	M10-724-01	29.8	460.3338125	12879.35198	0.000590578	0.017599223
1526	J6-941A-01	29.8	1067.717145	28815.70106	0.001321333	0.039375734
1669	Q6-1-01	29.8	351.8904488	6352.469983	0.00029129	0.008680447
372	SB-R-D12-01	29.6	576.6668035	20024.89256	0.000918234	0.027179729
843	K10-1-02	29.6	126.3916875	1020.821904	4.68094E-05	0.001385559
1289	H7-606L-01	29.6	475.3602038	16224.27399	0.000743958	0.02202116
221	C13-2-14	29.5	303.9571018	5301.297539	0.000243089	0.007171127
861	J10-609-02	29.5	514.2959583	8926.042096	0.0004093	0.012074361
936	F9-8-05	29.5	203.5693262	1618.429622	7.42125E-05	0.002189269
1665	P6-9225-05	29.4	505.3046495	11239.25179	0.000515372	0.01515193
737	TP-R-H11-1-4	29.3	228.7105879	3095.595752	0.000141947	0.004159059
968	SB-R-E9-01	29.3	474.3368641	9578.666628	0.000439226	0.012869329
1456	I6-9-04	29.2	180.8573956	2048.162785	9.39178E-05	0.002742398
354	SB-R-A11-01	28.9	536.7054023	13772.97882	0.000631555	0.018251936
690	SB-R-G11-04	28.8	368.5661873	7544.339573	0.000345943	0.009963156
1248	G8-2114-03	28.7	620.1435308	24524.5743	0.001124565	0.032275025
1063	I9-515-01	28.6	673.3442934	27593.73062	0.0012653	0.03618759
1450	I6-1-04	28.6	262.6074563	4562.725068	0.000209222	0.005983751

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1309	H7-2172-03	28.4	265.0893005	1482.573171	6.79828E-05	0.001930713
1673	UD-08	28.4	496.9443354	9112.157117	0.000417835	0.011866503
1616	TP-R-N6-1-14	28.3	416.376943	8665.776258	0.000397366	0.011245457
223	C13-2-10	28.2	341.1772856	4455.734464	0.000204316	0.005761713
262	E13-2040-07	28.2	513.2868762	15807.04592	0.000724826	0.020440101
415	SB-R-G12-01	28.1	664.8958857	28020.2812	0.00128486	0.036104557
1028	G8-2209-05	28.1	196.1243182	2171.889091	9.95912E-05	0.002798512
113	J11-8570-01	28	611.8641476	24956.14649	0.001144355	0.032041938
188	SO-R2-C-14-1	28	782.1479047	38369.38178	0.001759414	0.049263589
517	SB-R-H12-02	28	613.209223	23432.33177	0.001074481	0.030085467
1464	H7-5-02	28	364.2488699	7398.967743	0.000339277	0.009499754
1005	F8-4-02	27.9	353.4667151	5516.160375	0.000252942	0.007057068
1279	H7-8146-04	27.8	279.8825622	4872.36939	0.000223421	0.006211096
266	F13-8230-03	27.7	457.45655	10553.54251	0.000483929	0.013404828
609	D9-9108-07	27.6	146.5925773	1277.463505	5.85776E-05	0.001616742
87	H8-2171-05	27.4	173.7456347	1840.077008	8.43761E-05	0.002311904
591	E10-2031C-03	27.4	385.253532	8900.439206	0.000408126	0.011182662
1301	I7-3-03	27.3	491.4041471	14201.39378	0.0006512	0.017777751
1404	K7-8651-02	27.2	753.2578645	33123.92213	0.001518885	0.041313679
285	SB-R-F13-01	27.1	479.8769892	13314.55656	0.000610534	0.016545474
560	F11-456-01	27.1	448.1266181	10306.16757	0.000472586	0.012807068
1297	SB-R-I7-04	27.1	388.4825015	5603.995269	0.000256969	0.006963864
685	E10-2101C-01	27	352.4657608	7233.436963	0.000331687	0.008955538
1066	I9-3-09	27	281.8486352	3413.414949	0.000156521	0.004226064
83	SB-R-H7-01	26.9	456.9941078	13820.07537	0.000633714	0.017046919
831	K11-598-02	26.9	362.4583134	7171.964575	0.000328868	0.008846544
1442	I6-8172-06	26.9	368.4148387	8811.527472	0.000404049	0.010868928
1065	I9-3-11	26.8	247.3078911	2936.048391	0.000134631	0.003608122
1137	N9-B4-01	26.8	177.1956723	1659.092859	7.60771E-05	0.002038866
1681	P5-3-01	26.8	372.0486846	5955.24879	0.000273076	0.00731843
1439	I6-8181-02	26.7	395.6016825	7288.759637	0.000334223	0.008923765
306	E13-5-03	26.6	556.5432414	19847.60944	0.000910105	0.024208788
370	B11-2-03	26.6	498.5464554	9751.087453	0.000447133	0.011893725
1581	O7-2-02	26.6	404.6742829	7725.067339	0.00035423	0.009422521
654	E10-2314-01	26.5	304.0309243	4565.672417	0.000209357	0.005547967
1447	I6-8171-01	26.5	261.9406576	3751.019727	0.000172002	0.004558043
408	F12-F6-01	26.4	308.0827108	5048.382021	0.000231492	0.006111381
614	D9-5-02	26.4	388.5552753	7639.608904	0.000350311	0.009248222
879	I10-2080-02	26.3	497.6574708	10825.29053	0.00049639	0.01305505
1445	I6-8171-06	26.3	159.0692292	1137.438848	5.21568E-05	0.001371725
1244	G8-2210-03	26.2	498.8014226	16871.07203	0.000773617	0.02026876
947	SB-R-F9-01	26.1	375.1469221	6095.140144	0.00027949	0.0072947
1027	G8-2260-01	26.1	469.451463	10955.31655	0.000502352	0.013111387
507	H12-8563-03	26	377.1028738	6461.21633	0.000296277	0.007703194
688	E10-2097-07	25.7	328.7228327	5866.812557	0.000269021	0.006913828
116	SB-R-F10-02	25.5	332.114096	7183.373408	0.000329391	0.008399469
1466	H6-941C-02	25.5	319.1046946	5313.415284	0.000243645	0.00621294
15	C13-263C-01	25.3	643.1920282	21989.81237	0.001008335	0.025510869
1163	K9-1-01	25.3	482.053951	8701.60301	0.000399009	0.010094923
1201	PT-11	25.3	282.0698107	4334.084879	0.000198738	0.005028068
1609	O6-649-03	25.3	259.7503415	3258.209722	0.000149404	0.003779921
457	I12-8581-04	25.2	196.5913751	1938.815072	8.89037E-05	0.002240372
1646	SB-R-O5-01	25.1	679.7965256	15474.58358	0.000709581	0.017810492
742	H11-9307-02	25	248.4946439	4035.830533	0.000185062	0.004626538
1378	O8-2268-01	25	342.9638691	4442.705777	0.000203719	0.005092966
1026	G8-A12-01	24.7	360.864117	7947.305896	0.000364421	0.009001193
1671	SB-R-R6-01	24.7	949.7641447	56575.19903	0.002594235	0.064077603
1161	K9-3-01	24.6	710.3272383	28516.13444	0.001307597	0.032166883
1213	H8-8102-02	24.6	176.8215296	2072.00542	9.5011E-05	0.002337272
1382	O8-2247-04	24.6	345.8663822	5690.311697	0.000260927	0.006418808
347	B11-2044C-05	24.5	506.2425715	14924.21946	0.000684345	0.016766443
196	C13-2-03	24.4	433.9822846	11537.18182	0.000529033	0.012908411
617	D9-3-01	24.4	243.5430022	2941.941421	0.000134902	0.0032916
806	SB-R-K11-03	24.4	386.0161384	9721.641708	0.000445782	0.010877088
462	I12-2012-02	24.3	183.6737676	2085.278435	9.56197E-05	0.002323558
808	L11-2225-02	24.3	300.7067675	3690.107339	0.000169209	0.004111767
1261	F8-1-02	24.3	452.3549885	12635.3026	0.000579387	0.014079108
1691	SO-R2-P-4-1	24.3	1769.489415	68839.62463	0.003156616	0.076705761
990	SD-F8-1-01	24.1	323.8279014	6590.054774	0.000302185	0.007282647
1272	G7-1-01	24.1	365.2745642	6707.460192	0.000307568	0.007412392
150	C13-1-11	24	793.3486438	33435.78874	0.001533186	0.036796459
1002	F8-575-04	24	273.6228217	4051.443354	0.000185777	0.004458659
172	D14-360-01	23.9	617.1282404	19313.39167	0.000885608	0.021166042
777	SB-R-J11-02	23.9	461.6415836	10461.63772	0.000479715	0.011465178
239	C13-2-12	23.8	345.8981718	6575.032157	0.000301496	0.007175597
220	C13-2-15	23.7	366.7331684	5491.586723	0.000251815	0.005968008
669	F10-2356-06	23.7	342.5539599	5781.045859	0.000265088	0.006282579
317	E12-130E-02	23.4	431.0328706	10156.07613	0.000465703	0.010897453
730	G10-2008-03	23.4	281.2488074	2188.199166	0.000100339	0.002347934
1372	O8-3-12	23.4	165.5814988	1879.903256	8.62023E-05	0.002017133
1606	SB-R-O7-04	23.2	634.553643	24272.56949	0.00111301	0.025821826
157	SD-C14-1-01	23.1	240.5181882	2861.449803	0.000131211	0.003030968

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
743	H11-9307-01	23.1	233.0890244	3128.977755	0.000143478	0.003314345
1011	F8-2152-02	23.1	351.3370694	6859.353149	0.000314533	0.007265715
1296	SB-R-I8-03	23.1	604.294273	19808.63826	0.000908318	0.020982142
245	C13-133-03	23	1017.012859	11185.6542	0.000512914	0.011797023
695	G10-459-04	23	391.8875357	9393.976915	0.000430757	0.009907419
1057	G9-8187-02	23	153.329703	1104.247654	5.06349E-05	0.001164602
1310	TP-R-J7-1-6	23	539.1918771	15043.59273	0.000689818	0.015865823
1659	P5-2-03	23	588.3101149	18373.53528	0.000842512	0.019377769
1481	SB-R-G6-01	22.9	674.2851308	17600.62965	0.00080707	0.018481912
1566	N7-394-01	22.9	370.4151553	7603.694606	0.000348665	0.00798442
668	F10-2356-07	22.7	310.2305384	4758.403469	0.000218195	0.004953023
1060	SB-R-I9-03	22.7	377.8623343	8888.536266	0.000407581	0.009252079
1354	N9-2269-04	22.7	598.4152002	17736.1944	0.000813287	0.018461607
1642	M5-8166-01	22.7	169.9725158	1239.432673	5.68337E-05	0.001290126
774	SB-R0-J11-01	22.62	462.4492359	9917.467639	0.000454762	0.010286713
298	F12-2075A-05	22.6	296.2714803	3728.50165	0.000170969	0.003863901
1205	I8-9334-02	22.4	201.0494276	1910.592353	8.76095E-05	0.001962453
1668	Q6-584-02	22.4	1022.148216	47317.47318	0.002169725	0.048601847
662	F10-8-04	22.3	345.0159293	6653.07325	0.000305074	0.006803155
1209	I8-560-03	22.3	452.2302165	13639.43517	0.000625431	0.013947118
1312	SB-R-J8-03	22.3	426.7186623	8110.321705	0.000371896	0.008293277
134	SB-R-A12-04	22	962.4665233	36050.37882	0.001653077	0.036367691
783	J11-2188-06	22	453.2240754	12504.28563	0.000573379	0.012614347
1168	SB-R-J8-01	21.9	438.7978421	12570.06716	0.000576396	0.012623068
311	E12-325B-02	21.8	499.9802497	15948.4305	0.000731309	0.015942545
468	SB-R-J12-01	21.7	298.7114769	4924.59812	0.000225816	0.004900199
885	SO-R2-H-9-1	21.7	947.346224	50461.23363	0.002313881	0.050211224
179	E14-2020-03	21.5	1084.805204	42498.76121	0.001948765	0.041898449
647	SB-R-E10-01	21.5	428.1176137	12111.26977	0.000555358	0.011940193
110	K10-2090-07	21.4	330.1993825	3424.664856	0.000157037	0.003360586
1186	I8-2328A-02	21.3	207.3847656	1680.588578	7.70628E-05	0.001641437
1596	Q6-8-05	21.2	450.2300492	10104.18151	0.000463324	0.009822459
1084	I9-3-05	21.1	111.2434304	697.492662	3.19833E-05	0.000674847
1349	M8-3-02	21.1	539.7501572	16634.76216	0.000762781	0.016094677
1430	SB-R-I7-02	21.1	358.9818229	4117.67727	0.000188815	0.003983988
971	E9-2296D-03	21	385.7909911	8517.312162	0.000390558	0.008201723
1412	SB-R-J7-01	21	558.2021448	20621.19992	0.000945578	0.019857128
167	C14-125-04	20.9	316.1826591	4360.798957	0.000199963	0.004179223
1191	SB-R-I8-02	20.9	373.6459439	9597.641295	0.000440096	0.009198013
880	I10-2080-01	20.8	292.1287553	4339.517742	0.000198987	0.004138929
330	C12-8229-01	20.7	602.9671666	15390.03748	0.000705705	0.014608083
1304	I7-15-04	20.7	360.5997483	7753.158543	0.000355518	0.007359227
1343	L8-1-05	20.7	527.5735501	16223.81779	0.000743937	0.0153995
76	SB-R-N8-01	20.6	672.1231401	19706.67597	0.000903642	0.018615033
842	K10-2090-01	20.6	398.0459134	9850.054151	0.000451671	0.009304415
1112	K10-79A-01	20.6	489.9123378	6858.936431	0.000314514	0.006478989
1400	K7-F5-02	20.5	674.8989357	22837.69552	0.001047214	0.02146789
1204	I8-F2-01	20.4	437.9360636	12658.67932	0.000580459	0.011841365
308	SB-R-E12-03	20.3	546.5768601	15998.67595	0.000733613	0.014892352
51	SB-R-J5-01	20.2	1251.746832	68821.67375	0.003155793	0.063747009
1413	J7-F1-02	20.2	405.708259	10073.58626	0.000461921	0.009330796
1414	J7-F1-01	20.2	341.5117494	4709.657993	0.00021596	0.004362385
1470	H6-8247-05	20.2	406.5666809	6676.749003	0.00030616	0.006184429
1644	M5-11-02	20.2	258.4005339	3104.549547	0.000142358	0.002875631
1348	SB-R0-M8-01	20.16	601.7320617	11186.04771	0.000512932	0.010340711
1522	I6-3-04	20.1	403.0901768	7469.643499	0.000342518	0.006884607
128	SB-R-J12-02	20	622.484156	21489.97837	0.000985415	0.019708301
804	J11-14-03	20	468.7167056	12940.71779	0.000593392	0.011867837
1127	M10-1-02	20	437.3013316	11671.11715	0.000535175	0.010703496
1157	SO-R2-K-9-1	20	679.4522793	28160.53126	0.001291291	0.025825816
1386	N7-571-03	20	336.0430284	4180.620992	0.000191701	0.003834017
770	SB-R-I11-02	19.9	690.1900584	28538.36066	0.001308616	0.026041459
1154	SB-R-L9-01	19.9	792.7158661	41735.86135	0.001913783	0.038084273
1339	TP-R-M8-1-13	19.9	681.5653854	26157.69814	0.001199452	0.023869087
1398	L7-4-02	19.9	689.0129029	27235.4433	0.001248871	0.024852538
1520	I6-5-05	19.9	221.881947	3042.728145	0.000139523	0.002776511
1136	N9-B4-04	19.8	257.9770829	3537.276565	0.000162201	0.00321157
1610	O6-649-02	19.8	502.2047879	13375.20862	0.000613315	0.012143642
1635	N5-581-05	19.8	452.1158403	8061.834047	0.000369672	0.007319514
349	SB-R-B12-04	19.7	1038.338219	50112.07668	0.002297871	0.045268056
771	SB-R-I11-01	19.7	634.0430539	20468.5854	0.000938579	0.018490015
1427	J6-2245-05	19.7	461.8095195	11766.29222	0.000539539	0.010628918
927	G10-8159-06	19.5	174.0233435	925.1433945	4.24221E-05	0.000827231
1158	SB-R-K9-01	19.5	670.5007205	29534.03781	0.001354272	0.026408313
102	E9-2-03	19.3	125.9751532	891.4003777	4.08748E-05	0.000788884
1586	P7-575-01	19.3	328.3050362	6585.351414	0.000301969	0.005827999
963	E9-562-01	19.2	512.3039622	16919.31733	0.000775829	0.014895918
1384	TP-R-M8-1-5	19.2	685.2865759	18905.73964	0.000866916	0.016644782
1590	SB-R-R7-01	19.2	978.3442085	63795.95819	0.00292534	0.056166532
334	SO-R2-C-12-1	19.1	660.4932392	28206.50517	0.001293399	0.024703919
411	F12-191-01	19.1	312.7215927	5492.284836	0.000251847	0.004810272
942	F10-7-03	19.1	401.1426698	9782.400369	0.000448568	0.008567656

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1180	I8-2405-06	19.1	366.0280322	9252.245975	0.000424258	0.008103334
1537	SB-R-L7-02	19.1	869.191981	50930.43011	0.002335396	0.044606066
1216	H8-2291-04	19	130.4653187	810.7047077	3.71746E-05	0.000706317
1358	N8-2304-01	19	471.7264664	12829.00412	0.000588269	0.011177116
562	F11-2016-07	18.9	286.5940011	4672.179915	0.000214241	0.004049157
837	K10-5-02	18.9	377.5737622	8713.244426	0.000399543	0.007551355
1007	F8-2208-03	18.9	241.7857009	3616.141156	0.000165817	0.003133938
767	SD-I10-2-01	18.8	647.9560513	23922.75804	0.001096969	0.020623022
977	E9-2296-05	18.8	524.3667847	18751.50629	0.000859843	0.016165056
307	E13-5-02	18.6	332.1243221	4229.038537	0.000193921	0.003606931
988	E9-6-01	18.6	90.51881893	326.7204308	1.49816E-05	0.000278659
418	G12-8109-02	18.5	316.3055167	4872.852234	0.000223443	0.004133693
1100	SO-R2-H-10-1	18.5	667.8433445	28087.50854	0.001287942	0.023826934
1101	SB-R-K9-03	18.5	715.0437687	27094.01315	0.001242386	0.022984141
47	R6-11-02	18.4	610.4599659	17887.37859	0.000820219	0.015092033
1453	SB-R-I6-01	18.4	367.9407135	7692.157711	0.000352721	0.006490068
1587	O7-615E-04	18.3	520.5839113	15934.75023	0.000730682	0.013371483
190	C13-742-05	18.2	362.9510547	7955.63421	0.000364803	0.006639409
1118	M10-2262-05	18.2	475.5077405	11605.89179	0.000532184	0.009685747
1199	PT-3	18.2	326.7616488	6445.341495	0.000295549	0.005378987
38	R6-1-01	17.9	634.2136438	19640.98027	0.00090063	0.016121276
1102	SB-R-K10-03	17.9	723.416106	33078.17719	0.001516788	0.027150499
1153	SB-R-L9-02	17.9	760.2312561	31452.49877	0.001442243	0.025816145
1529	J6-8134-01	17.9	456.52432	9583.212379	0.000439435	0.007865881
213	SB-R-C13-02	17.7	304.4266027	3198.636008	0.000146672	0.002596099
633	D10-2227E-01	17.7	348.5496168	7711.932737	0.000353628	0.006259213
1119	M10-2262-04	17.7	453.8610832	8737.208947	0.000400642	0.007091355
1184	I8-2333-02	17.7	266.0337062	3382.655948	0.00015511	0.002745455
1599	SB-R-P7-02	17.7	721.0911408	27291.09753	0.001251423	0.022150191
395	SB-R-F12-03	17.6	872.9441678	49404.72115	0.002265435	0.039871662
1088	I9-2329A-01	17.6	182.9444065	1582.538147	7.25667E-05	0.001277174
1582	O7-2-01	17.6	405.4194159	7170.559135	0.000328803	0.005786939
1597	Q6-8-03	17.6	249.4383323	2900.43297	0.000132998	0.00234077
53	SB-R-K5-02	17.4	3044.318547	178865.3823	0.008201806	0.14271143
256	SB-R-E13-01	17.4	858.7256524	35146.87468	0.001611647	0.028042658
580	E11-2064-05	17.4	147.4841446	1022.770838	4.68988E-05	0.000816039
807	L11-2225-05	17.4	401.0866239	8122.14409	0.000372438	0.00648042
816	L11-2089-01	17.4	199.0699146	1813.229538	8.3145E-05	0.001446723
1107	L10-B462-01	17.4	453.8058393	11927.44839	0.000546929	0.00951656
1406	J7-2246-02	17.4	508.5390351	11992.54621	0.000549914	0.0095685
339	C12-418-04	17.3	502.9838536	15830.40477	0.000725897	0.012558025
1105	SB-R-L10-01	17.3	729.9684291	35558.0802	0.001630503	0.028207696
397	E12-6-01	17.1	454.2427665	10739.74554	0.000492467	0.008421187
1636	N5-581-01	17	580.0501588	21085.40847	0.000966864	0.016436682
1645	TP-R-N6-1-28	17	568.1282247	13170.16208	0.000603913	0.01026652
814	L11-2303-03	16.9	426.9561297	12027.78728	0.00055153	0.009320853
940	F9-16-05	16.9	398.0569261	8989.58955	0.000412214	0.006966422
1146	M9-5-02	16.9	591.8665477	24128.66226	0.001106411	0.018698345
1015	F8-2118-02	16.8	435.0050435	10530.18995	0.000482858	0.008112014
1056	G9-8205-02	16.8	258.7377229	3330.131984	0.000152702	0.002565393
1653	N5-3-03	16.8	433.3202674	11369.28834	0.000521335	0.00875842
45	SO-R2-Q-5-1	16.6	1309.770613	118394.6327	0.005428942	0.090120443
863	J10-2187-05	16.6	436.2192896	10636.10456	0.000487715	0.008096063
1196	PT-6	16.6	254.8836318	4124.239542	0.000189115	0.003139317
1200	PT-2	16.6	413.3570877	10976.39241	0.000503318	0.008355086
399	E12-298B-02	16.5	318.1812156	6893.051854	0.000316078	0.005215293
1219	H8-2171-01	16.5	157.9470102	1439.172214	6.59927E-05	0.00108888
1685	SB-R-N4-01	16.5	1427.915211	70830.00327	0.003247884	0.053590082
1303	I7-15-05	16.4	472.7205198	13941.09607	0.000639264	0.010483927
19	F12-191-02	16.3	436.5852895	11396.01845	0.00052256	0.008517732
29	SB-R-M10-02	16.3	463.9697143	13643.12392	0.0006256	0.010197287
825	L11-2091-02	16.3	540.290914	9747.669188	0.000446976	0.007285705
1173	J8-2354-02	16.3	470.866826	9886.754351	0.000453353	0.007389662
1300	I7-4-01	16.3	584.0289159	19668.70195	0.000901901	0.014700988
1440	I6-8181-01	16.3	387.3084377	8056.619617	0.000369433	0.006021763
1457	I6-8173-01	16.3	233.6764596	3484.665916	0.000159788	0.002604546
260	E13-2074-09	16.2	444.9573268	12090.35516	0.000554399	0.00898126
273	H13-6-04	16.2	401.3327812	6976.829282	0.00031992	0.005182703
824	L11-2091-05	16.2	382.3415746	8265.314688	0.000379003	0.006139848
1113	SB-R-M10-03	16.2	342.687568	6839.050671	0.000313602	0.005080355
191	C13-742-01	16.1	226.571211	2910.818299	0.000133475	0.002148939
336	SB-R-C12-02	16.1	220.3887654	2570.244199	0.000117858	0.001897507
1148	M9-2254-03	16.1	601.2389925	23025.04995	0.001055805	0.016998464
1364	SB-R-O8-01	16.1	624.5559761	27741.3098	0.001272068	0.020480288
1478	SO-R2-G-5-1	16.1	406.4837343	9176.338188	0.000420778	0.00677452
284	SB-R-F13-03	16	734.5162734	26231.31291	0.001202827	0.019245235
680	E10-2160-05	16	273.3707996	3088.690556	0.000141631	0.002266092
965	E9-556-04	16	448.3190461	13815.15848	0.000633489	0.010135824
1162	K9-1-02	16	528.4473168	15207.50217	0.000697334	0.011157351
1583	N7-574-03	16	473.6728127	5477.122821	0.000251151	0.004018423
1637	M5-8166E-02	16	205.9515047	1885.983571	8.64811E-05	0.001383697
1563	N7-572-01	15.9	344.0082332	6413.740592	0.0002941	0.004676185

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
938	F9-7-03	15.8	397.4381871	7879.597722	0.000361316	0.005708794
1392	SB-R-L7-03	15.8	668.9710377	26150.49071	0.001199121	0.018946114
11	D14-360-03	15.7	577.9644353	17528.42118	0.000803759	0.012619021
494	I12-9111-04	15.7	243.4706009	3488.468267	0.000159962	0.00251141
981	SO-R2-C-8-2	15.7	625.9640468	16353.02543	0.000749862	0.011772833
548	G11-2017B-08	15.6	431.0648667	11979.93516	0.000549336	0.008569634
1202	PT-10	15.6	271.4605805	4641.746453	0.000212846	0.003320391
1647	O5-580.5-05	15.6	459.8555224	12589.42166	0.000577283	0.009005619
328	SB-R-C12-04	15.5	474.0820167	10168.1479	0.000466257	0.007226979
1680	P5-3-02	15.5	535.5067276	14734.9388	0.000675665	0.010472811
60	SO-R2-R-7-1	15.4	706.5153387	20527.09999	0.000941263	0.014495444
104	SB-R-G10-04	15.4	418.1160501	10201.53825	0.000467788	0.007203932
805	J11-14-01	15.4	349.0225742	3808.192049	0.000174623	0.002689198
70	SB-R-I7-03	15.3	499.6352674	15147.41641	0.000694579	0.010627062
1454	SB-R-H7-02	15.3	357.4869824	7836.942095	0.00035936	0.005498209
1315	I8-8236-05	15.1	362.1179608	7513.081962	0.00034451	0.005202095
1325	SB-R-L8-01	15.1	837.3097027	45163.29623	0.002070946	0.03127129
1540	L6-370-05	15	561.8119368	13179.16119	0.000604326	0.009064884
85	SB-R-G8-03	14.9	614.4084638	21596.00689	0.000990277	0.014755127
1048	H8-9226-02	14.9	601.2649366	22057.19752	0.001011425	0.015070228
1083	I9-3-07	14.9	175.093826	1653.830277	7.58358E-05	0.001129953
227	C13-2-04	14.8	494.5103114	14885.56995	0.000682572	0.010102071
407	F12-F6-02	14.8	340.0828523	6501.898182	0.000298142	0.004412504
570	F11-2292-02	14.8	503.9283333	11272.46533	0.000516895	0.007650042
734	G10-108B-05	14.7	311.9704548	6322.977604	0.000289938	0.004262086
1068	H9-8238-03	14.7	333.06547	4351.288898	0.000199527	0.002933043
146	C13-3-02	14.5	643.249649	28023.38256	0.001285002	0.018632528
679	E10-606-02	14.5	364.0660679	8142.706188	0.000373381	0.005414022
1407	J7-2246-01	14.5	446.0460134	9636.535021	0.00044188	0.006407257
826	L10-2242-03	14.4	422.8366371	9700.56125	0.000444816	0.006405346
1533	J6-1-01	14.4	772.337871	20182.14772	0.000925445	0.013326407
1684	SB-R-N4-02	14.4	949.1105698	50468.86014	0.002314231	0.033324927
106	SB-R-I10-02	14.2	797.5455682	40687.35906	0.001865704	0.026492995
1131	SB-R-M9-01	14.2	573.0698843	21929.27732	0.001005559	0.014278937
1172	J8-2354-05	14.2	632.003254	19228.92563	0.000881735	0.012520641
1319	I7-8181-04	14.2	389.6998418	8487.575025	0.000389195	0.005526564
238	C13-2-16	14.1	392.0865016	9382.007404	0.000430208	0.00606594
566	SB-R-E11-04	14.1	516.4380423	15857.87446	0.000727157	0.010252914
1422	J7-2281-05	14.1	532.1902639	18359.85957	0.000841885	0.011870573
140	F13-8209-02	14	285.0750019	5036.990986	0.000230969	0.003233571
1203	PT-1	14	344.4729409	6965.444288	0.000319398	0.00447157
412	F11-79C-01	13.9	657.6063158	26951.62823	0.001235857	0.017178412
1648	O5-580.5-02	13.9	497.5169987	12202.8318	0.000559556	0.007777833
141	SB-R-G13-01	13.8	1107.523384	69573.08552	0.003190248	0.044025426
1641	M5-8166-03	13.8	313.700907	2495.484547	0.00011443	0.001579127
219	C13-2-18	13.7	408.2906559	10671.81149	0.000489352	0.006704122
229	B13-7-01	13.7	319.5928472	6057.602657	0.000277769	0.003805437
37	S6-1-05	13.6	650.8936779	25959.90916	0.001190382	0.016189196
193	C13-1-08	13.6	693.130414	26066.90402	0.001195288	0.016255921
248	D13-3-02	13.5	385.1990333	6549.637364	0.000300331	0.004054471
346	B12-422-04	13.5	532.9852868	18710.32048	0.000857955	0.011582391
815	L11-2089-05	13.5	377.6064674	7712.731509	0.000353664	0.00477447
1198	PT-4	13.5	241.9183746	3737.242791	0.00017137	0.002313494
1557	TP-R-N6-1-31	13.5	458.1623402	10930.86938	0.000501231	0.006766618
1672	R6-1-02	13.5	573.1727334	15201.97268	0.000697081	0.009410592
156	SB-R-D14-03	13.4	1197.294397	58032.00739	0.002661036	0.035657887
1576	O7-615E-01	13.4	510.1370627	16672.81434	0.000764526	0.010244645
1197	PT-5	13.3	247.7305961	3779.280948	0.000173298	0.002304857
215	C13-262B-05	13.2	452.9440625	10876.28685	0.000498728	0.006583211
237	C13-2-17	13.2	453.739371	11968.99856	0.000548834	0.007244609
532	SB-R-G11-02	13.1	309.9369775	4810.353038	0.000220577	0.002889558
801	J11-2298-04	13.1	377.2968099	7044.554519	0.000323025	0.004231633
1032	F9-2109D-03	13.1	250.1357879	3629.685435	0.000166438	0.002180336
1193	PT-9	13.1	344.0222757	7318.117751	0.00033557	0.004395962
224	C13-2-09	13	291.4759172	4527.261573	0.000207596	0.002698747
158	B14-3-05	12.9	422.1247504	8191.441933	0.000375616	0.004845441
96	SB-R-K10-02	12.8	846.6853045	47566.60251	0.002181149	0.027918708
49	SB-R-O6-02	12.7	872.9062607	52289.42653	0.002397712	0.030450948
1262	SB-R-H7-03	12.7	482.4873277	16060.78726	0.000736461	0.009353061
394	SB-R-F12-04	12.6	711.3332852	34578.67749	0.001585593	0.019978466
845	SD-J10-2-01	12.6	381.275176	9959.994792	0.000456712	0.00575457
1185	I8-2328A-03	12.6	231.0864961	2899.060397	0.000132935	0.001674985
1195	PT-7	12.6	301.1446242	5618.128635	0.000257617	0.003245977
1375	O8-3-04	12.6	267.8637653	3933.996493	0.000180392	0.002272939
1505	SB-R-H6-02	12.6	628.2547701	26548.28348	0.001217362	0.015338758
289	F13-236B-01	12.5	366.2835279	8562.142034	0.000392614	0.004907673
302	F12-2075-03	12.5	258.5512618	3051.079472	0.000139906	0.001748827
516	SB-R-H12-04	12.5	823.8476171	38067.83093	0.001745586	0.02181983
561	F11-2292-03	12.5	437.5428985	7207.717351	0.000330507	0.00413134
715	G10-9106A-01	12.5	276.3727412	3843.450584	0.00017624	0.002203
866	SB-R-J10-04	12.5	721.0511782	28129.72051	0.001289878	0.016123475
1043	SB-R-H9-02	12.5	393.75363	9607.662091	0.000440556	0.005506948

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1391	SB-R-L8-02	12.5	701.6387342	30233.33447	0.001386338	0.01732923
80	TP-R-M8-1-14	12.4	845.0637553	25969.81587	0.001190836	0.014766371
241	C13-2-07	12.4	321.3398376	5409.831254	0.000248066	0.003076016
1256	F8-2151-01	12.4	232.6275196	2691.472281	0.000123416	0.001530364
57	SB-R-O6-01	12.3	743.4554415	33701.51874	0.001545371	0.01900806
1081	I9-519-04	12.3	465.4235835	10959.26473	0.000502533	0.006181157
1568	N7-2-14	12.3	330.4406567	6525.770351	0.000299237	0.003680613
1278	H7-8176-02	12.2	292.8090503	5571.18337	0.000255465	0.003116668
1436	I6-9-05	12.2	204.0921924	2525.23983	0.000115794	0.001412686
192	C13-2-02	12.1	400.833712	10377.48268	0.000475856	0.005757853
875	SB-R-I10-01	12.1	610.4565237	19075.25369	0.000874689	0.010583734
1109	L10-4-05	12.1	632.8903496	17555.68856	0.00080501	0.009740617
1183	I8-2333-03	12.1	207.0024297	2623.359924	0.000120293	0.001455548
214	SB-R-B13-03	12	544.6838021	17158.4031	0.000786792	0.009441507
661	SB-R-F10-04	12	458.8558934	14760.04222	0.000676816	0.008121796
976	E9-2296-06	12	203.6924798	2685.487955	0.000123142	0.001477705
828	K11-B3-02	11.8	193.4520615	1333.051866	6.11266E-05	0.000721294
867	SB-R-J10-02	11.8	581.2496818	18422.10637	0.000844739	0.009967919
1601	SB-R-P6-01	11.8	906.8517463	37498.47951	0.001719479	0.020289852
1664	O5-2-01	11.8	459.290443	7118.740721	0.000326427	0.003851841
58	P6-651-02	11.7	624.082445	23845.73486	0.001093437	0.012793218
92	SB-R-M9-04	11.7	639.1017319	27893.32395	0.001279038	0.014964746
126	I12-2184-01	11.7	419.481888	11331.85429	0.000519618	0.006079531
211	SO-R2-B-12-1	11.7	790.6008539	35682.072	0.001636188	0.019143403
270	E13-2074-06	11.7	272.8695231	3817.79329	0.000175064	0.002048243
1351	TP-R-M8-1-8	11.7	729.7998317	36296.04427	0.001664342	0.019472799
1399	L7-2-02	11.7	591.1422919	19551.15573	0.000896511	0.010489179
1605	TP-R-N6-1-9	11.7	668.8293445	21959.77999	0.001006958	0.011781404
249	D13-273B-04	11.6	561.0182295	20426.56023	0.000936652	0.010865168
1367	O8-4-02	11.6	280.9859922	4355.251425	0.000199708	0.002316618
329	C12-8229-03	11.5	608.1852335	17235.20543	0.000790314	0.009088611
1322	I7-2124-06	11.5	401.5734282	8081.74534	0.000370585	0.004261733
1662	O5-6-02	11.5	550.7745716	11322.18301	0.000519175	0.005970507
9	SB-R-E12-02	11.4	656.3211595	27959.5586	0.001282075	0.014615658
1152	SB-R-L9-03	11.4	816.1842122	44450.65526	0.002038268	0.02323626
1551	TP-R-N6-1-37	11.4	343.2319208	6633.560347	0.000304179	0.003467646
217	C13-2-20	11.3	385.3773517	7671.338361	0.000351766	0.00397496
632	D10-2227E-02	11.3	110.9473334	463.3399157	2.12463E-05	0.000240083
1145	SB-R-M9-03	11.3	375.1774896	6134.493193	0.000281295	0.003178633
1420	J7-2281B-03	11.3	110.2310533	623.3179437	2.8582E-05	0.000322977
1431	I7-B59-02	11.3	375.0754503	8393.171689	0.000384866	0.004348984
240	C13-2-11	11.2	214.7358025	2696.280536	0.000123637	0.001384734
847	SB-R-K10-04	11.2	642.5282484	26348.93494	0.001208221	0.013532072
877	I10-E50-01	11.2	405.8226252	9382.395465	0.000430226	0.004818534
980	E9-2-01	11.2	158.5461214	1177.768157	5.40061E-05	0.000604869
1174	J8-2339-02	11.1	438.8917351	9626.462979	0.000441418	0.004899739
1649	O5-5-03	11.1	559.1438309	20949.89244	0.00096065	0.010663211
202	SB-R-A14-01	11	838.1853732	38803.80854	0.001779334	0.019572678
222	C13-2-13	11	355.3038488	6720.617393	0.000308171	0.003389886
876	I10-E50-05	11	548.6246218	21163.6821	0.000970453	0.010674981
1141	M9-8151-03	11	570.0005572	15248.4447	0.000699212	0.00769133
1326	SB-R-K8-04	11	419.0274547	7050.128157	0.000323281	0.003556091
1379	O8-2252-02	11	266.9783284	4234.828811	0.000194187	0.002136052
48	Q6-584-01	10.9	844.5088622	22007.10094	0.001009128	0.01099949
77	O8-3-20	10.8	385.5244374	9769.638915	0.000447983	0.004838219
846	SB-R-K11-02	10.8	211.8341384	2696.671668	0.000123655	0.001335473
996	F9-2251-03	10.8	227.3421879	2944.007071	0.000134996	0.001457961
975	E9-2296-07	10.7	313.8093092	5107.906268	0.000234221	0.002506166
41	SO-R2-R-4-1	10.6	531.0389546	4192.101658	0.000192227	0.002037609
288	F13-236B-03	10.6	271.9709257	3737.132165	0.000171365	0.001816467
827	L10-2242-02	10.6	481.2459899	14952.67509	0.000685649	0.007267884
1142	M9-8151-02	10.6	337.4295274	4136.738145	0.000189689	0.002010699
1324	SB-R-L8-03	10.6	755.467501	36141.61104	0.00165726	0.017566959
1380	O8-2252-01	10.6	217.4074011	2882.819724	0.000132191	0.001401221
1477	SO-R2-G-6-1	10.6	668.8986383	29347.19604	0.001345705	0.014264472
1151	SB-R-L9-04	10.5	782.747404	38679.84954	0.00177365	0.018623328
1288	H7-642B-03	10.5	563.4061009	20169.00178	0.000924842	0.009710843
200	SB-R-B14-02	10.4	529.8745074	15092.77067	0.000692073	0.007197564
333	C12-1-03	10.4	514.3302547	14327.41424	0.000656978	0.006832574
1318	I8-2332-01	10.4	378.3561357	6969.202701	0.00031957	0.00332353
1560	SB-R-O7-01	10.4	413.9254503	11199.55633	0.000513552	0.005340936
1688	N4-3-02	10.4	560.2099361	6457.49422	0.000296106	0.003079503
1160	K9-4-01	10.3	351.6583323	5606.571554	0.000257087	0.002647999
1434	I6-E4-01	10.3	265.7774233	3888.31263	0.000178297	0.001836461
145	SB-R-E13-02	10.2	801.362266	26365.39477	0.001208975	0.01233155
1595	Q6-9311-01	10.2	432.5582328	11270.10265	0.000516786	0.005271221
226	C13-2-05	10.1	343.6455464	5100.328565	0.000233874	0.002362124
404	SO-R2-F-12-1	10.1	698.9231391	31826.12501	0.001459375	0.01473969
472	J12-2-02	10.1	242.990179	3125.485827	0.000143318	0.001447512
856	K10-2197-04	10.1	239.4146796	3367.445358	0.000154413	0.001559571
1340	SB-R-M9-05	10.1	710.4899333	35388.52257	0.001622728	0.01638955
12	SB-R-B14-04	10	540.1024926	6144.87402	0.000281771	0.002817709

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
287	F13-8209-03	10	280.7060449	4808.10853	0.000220474	0.00220474
1593	SB-R-Q7-01	10	642.9355312	22339.97074	0.001024391	0.010243911
105	G10-13-02	9.97	308.6458239	5461.026678	0.000250413	0.002496621
1164	SB-R-K9-02	9.95	948.9540745	58674.7003	0.002690507	0.026770543
1294	SD-I7-1-01	9.9	507.2881971	16579.70254	0.000760256	0.007526536
35	SB-R-K6-01	9.89	1004.37952	66651.15553	0.003056264	0.030226453
1	SB-R-L10-04	9.87	737.0352692	31973.91738	0.001466152	0.014470922
1607	O6-650-03	9.8	675.8671335	22889.23377	0.001049577	0.010285858
848	SB-R-K10-01	9.76	639.1925662	26157.15121	0.001199427	0.011706403
1241	SO-R2-G-7-1	9.76	595.3857037	21611.69972	0.000990997	0.009672126
1192	SB-R-I8-01	9.74	159.2568709	1269.248233	5.82009E-05	0.000566877
42	SO-R2-N-4-1	9.65	739.9832887	21789.4804	0.000999149	0.009641784
1132	N9-B41-10-03	9.56	604.8334405	16478.43553	0.000755613	0.007223656
1357	N8-2304-05	9.5	358.5894905	5727.366788	0.000262626	0.00249495
69	H6-941C-03	9.47	253.9442471	3376.655362	0.000154835	0.00146629
1594	Q6-9311-03	9.44	481.5294518	12426.68888	0.000569821	0.005379113
1679	SB-R-P5-03	9.44	1092.116533	67776.54502	0.003107869	0.029338279
233	SB-R-C13-01	9.43	346.8457711	5584.730503	0.000256086	0.002414889
1189	I8-2299-03	9.43	444.9542356	11535.14842	0.00052894	0.004987904
1493	G6-906-02	9.43	382.5997921	7766.411512	0.000356126	0.003358268
1333	K8-393-01	9.42	634.6042109	23406.72753	0.001073307	0.010110551
31	SB-R-L8-04	9.41	877.258312	54033.97932	0.002477708	0.023315235
1042	SB-R-H9-03	9.4	457.6441704	7848.609863	0.000359895	0.003383014
1159	K9-4-02	9.4	587.9227037	23109.97273	0.001059699	0.009961173
1617	TP-R-N6-1-12	9.4	601.8312509	15244.26797	0.00069902	0.006570791
1220	SB-R-H8-04	9.38	284.7964104	3782.424734	0.000173442	0.001626883
244	C13-133-05	9.3	728.0592059	29186.83317	0.001338351	0.012446669
1621	L6-5-02	9.27	213.5902664	2230.919365	0.000102298	0.000948302
1558	TP-R-N6-1-23	9.25	449.7012535	13213.09307	0.000605882	0.005604404
1667	SB-R-Q6-01	9.23	761.4724664	29166.35594	0.001337413	0.012344318
616	D9-3-02	9.2	169.2604146	1011.801594	4.63958E-05	0.000426841
972	E9-2296D-01	9.2	175.5428075	1470.406285	6.74249E-05	0.000620309
1330	K8-9212-07	9.2	608.7797477	21246.26974	0.00097424	0.008963007
1401	K7-3-03	9.2	562.5963872	18826.95561	0.000863303	0.007942389
1381	O8-2247-05	9	346.3576606	6512.410578	0.000298624	0.002687618
119	SB-R-B10-01	8.99	687.0645939	21867.44693	0.001002724	0.009014486
982	SO-R2-B-8-1	8.98	313.7619501	4745.849224	0.000217619	0.00195422
1135	N9-B4-11-03	8.92	361.0781016	3044.025716	0.000139583	0.001245078
242	C13-2-06	8.9	263.8806885	2910.605256	0.000133465	0.001187836
195	SB-R-B13-01	8.86	611.3008831	23005.31054	0.0010549	0.009346414
203	SB-R-A13-01	8.81	901.1881428	27929.75852	0.001280709	0.011283045
1094	SB-R-J9-04	8.69	752.2916352	38134.81033	0.001748658	0.015195835
1634	SB-R-N5-02	8.68	608.9718088	16358.59468	0.000750117	0.006511019
1674	R6-11-03	8.63	640.1457681	18747.84191	0.000859675	0.007418999
1090	I9-2329-04	8.6	265.5892657	4020.566907	0.000184362	0.00158551
171	SB-R-D14-02	8.52	440.1253894	7983.062822	0.00036606	0.003118835
345	B12-422-06	8.5	584.1828948	18669.36228	0.000856077	0.007276652
915	G9-A11-02	8.5	391.9301427	6806.623838	0.000312115	0.002652979
1308	H7-2172-06	8.5	387.1136847	7179.809973	0.000329228	0.002798434
210	TP-R-B13-2-3	8.49	664.4239285	18741.63503	0.000859391	0.007296228
94	SB-R-N9-03	8.44	714.4988242	34979.81995	0.001603987	0.013537648
1385	TP-R-M8-1-4	8.44	660.4121165	9036.044193	0.000414344	0.003497067
1559	TP-R-N6-1-19	8.41	392.2305463	10560.87208	0.000484265	0.004072668
88	I8-2405A-02	8.4	316.5094132	4718.838584	0.000216381	0.001817597
1167	SB-R-J9-02	8.39	625.4230963	24549.25489	0.001125697	0.009444598
1633	SB-R-N5-03	8.39	745.6182085	17531.44732	0.000803898	0.006744705
173	C14-121-04	8.38	587.2539841	18956.64338	0.00086925	0.007284314
1678	SB-R-P5-04	8.35	1173.991737	94871.27281	0.004350287	0.036324899
367	TP-R-B10-502-1	8.31	173.4577937	1632.572988	7.4861E-05	0.000622095
316	E12-130E-03	8.3	446.266484	9152.495974	0.000419684	0.00348338
1233	H8-8177-01	8.3	345.3219615	4540.321486	0.000208195	0.001728017
974	E9-2296B-03	8.2	157.1097504	1119.205454	5.13208E-05	0.00042083
1178	I8-2409-01	8.2	375.1137952	8630.285565	0.000395739	0.003245056
1327	SB-R-K8-03	8.17	369.1363922	6059.477131	0.000277855	0.002270076
225	C13-2-08	8.1	308.8609049	3484.229788	0.000159768	0.001294121
144	SB-R-G14-02	8.03	1349.282936	114940.6017	0.005270559	0.042322589
1317	I8-2332-02	8	353.647769	7006.745299	0.000321292	0.002570334
1103	SB-R-L10-03	7.99	776.3583568	39774.39745	0.00182384	0.014572484
180	D14-6-02	7.98	781.1530241	20239.52493	0.000928076	0.007406046
155	SB-R-F15-01	7.95	1009.545146	51398.36849	0.002356853	0.018736984
1666	SB-R-Q6-02	7.95	768.3812754	34687.77739	0.001590595	0.012645232
1624	L6-371-02	7.83	1498.322644	36334.6922	0.001666114	0.013045672
1393	L7-8115-02	7.8	482.2344847	6468.914352	0.00029663	0.002313712
1409	SB-R-J7-04	7.76	442.4488641	11432.38484	0.000524228	0.004068008
1614	TP-R-N6-1-4	7.73	494.3844513	11959.74594	0.00054841	0.004239207
978	E9-2296-04	7.7	482.0302911	8170.905966	0.000374674	0.002884989
1360	TP-R-M8-1-7	7.7	787.2000781	33871.65224	0.001553172	0.011959426
1539	SB-R-L6-01	7.7	741.288834	32012.04418	0.001467901	0.011302834
1222	SB-R-H8-02	7.64	249.7121093	2270.600931	0.000104118	0.000795458
1552	TP-R-N6-1-36	7.62	294.385336	4919.059584	0.000225562	0.00171878
1677	SB-R-Q5-01	7.62	1615.751186	99099.83841	0.004544187	0.034626702
21	SB-R-L11-01	7.52	355.3163193	6823.854208	0.000312905	0.002353048

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
56	TP-R-N6-1-16	7.52	547.2857527	4788.438272	0.000219572	0.001651182
1554	TP-R-N6-1-34	7.51	378.8332395	9499.649996	0.000435603	0.003271378
1561	SB-R-N7-01	7.51	404.7810829	8240.557924	0.000377868	0.002837787
1230	H8-8179-02	7.5	242.9389606	3035.920164	0.000139211	0.001044083
1335	TP-R-M8-1-15	7.5	709.454317	32856.07461	0.001506603	0.011299524
43	SB-R-P5-02	7.47	1956.465889	139276.1288	0.006386456	0.047706824
1584	N7-574-02	7.4	508.3684483	13485.06295	0.000618353	0.004575809
79	SB-R-O9-01	7.37	676.3833311	28824.7347	0.001321748	0.00974128
1397	SB-R-K7-04	7.37	682.1215933	23233.10452	0.001065345	0.007851596
1134	N9-B4-11-05	7.24	284.8553876	3229.114743	0.00014807	0.001072026
73	SB-R-L7-01	7.22	596.0377285	19984.25251	0.000916371	0.006616195
1240	G8-8177A-01	7.2	532.7227233	17274.90398	0.000792134	0.005703367
1307	H7-2172A-03	7.2	289.3572393	3127.186053	0.000143396	0.001032451
1361	SB-R-O8-04	7.18	516.2056556	16502.55497	0.000756719	0.005433239
93	TP-R-M8-1-10	7.16	528.4019392	11446.47739	0.000524874	0.003758098
1129	SB-R-N9-02	7.15	637.915824	23509.0273	0.001077998	0.007707684
290	F13-2077-01	7.1	221.0139534	3206.447906	0.00014703	0.001043916
1421	J7-2281B-01	7.1	151.6877357	1247.183387	5.71891E-05	0.000406043
1580	O7-2271-02	7.08	468.3729562	12202.88634	0.000559559	0.003961677
1656	SB-R-P5-01	7.07	587.7673827	20992.4159	0.0009626	0.006805579
198	TP-R-B13-2-5	6.99	942.718473	18811.77594	0.000862607	0.006029623
1194	PT-8	6.95	373.7442732	9082.18068	0.00041646	0.002894397
1640	M5-8166A-B-C-01	6.94	1288.387473	8498.384632	0.00038969	0.002704451
1128	TP-R-M8-1-11	6.89	475.0314506	11156.1796	0.000511563	0.003524666
294	F12-6-06	6.86	598.0751659	19668.76952	0.000901904	0.006187063
1187	I8-2328-02	6.8	344.7465762	6510.351395	0.00029853	0.002030002
1538	SB-R-L6-03	6.8	732.869034	32733.16246	0.001500967	0.010206576
1165	SB-R-J8-02	6.77	881.9206929	51862.44967	0.002378134	0.016099964
531	SB-R-G12-02	6.69	686.1473471	30624.03512	0.001404254	0.009394458
1534	SB-R-K6-02	6.66	812.6132621	41612.56358	0.001908129	0.012708138
1179	I8-2405A-01	6.64	312.585991	4202.770957	0.000192717	0.001279638
1169	SB-R-I9-04	6.56	434.9787166	9933.344534	0.00045549	0.002988013
1598	SB-R-P7-03	6.54	577.8815834	20039.43431	0.000918901	0.006009612
1553	TP-R-N6-1-35	6.53	253.8424449	3176.769822	0.00014567	0.000951223
600	SB-R-C9-03	6.51	849.7702753	48062.26614	0.002203878	0.014347243
1655	SB-R-P6-03	6.48	797.7755797	26564.37769	0.0012181	0.007893286
946	SB-R-F9-02	6.46	174.692475	926.4088945	4.24801E-05	0.000274422
1428	J6-2245-03	6.46	546.5633109	16688.05805	0.000765225	0.004943352
405	SB-R-F12-02	6.43	682.2894413	30912.50813	0.001417482	0.009114407
118	SB-R-C10-04	6.4	1584.962084	66687.03489	0.003057909	0.01957062
325	D12-208D-03	6.4	551.1722053	13610.45529	0.000624102	0.003994255
1323	I7-2124-05	6.4	345.9628222	5835.047323	0.000267564	0.001712409
1423	J7-2281-02	6.4	422.220625	11645.3594	0.000533994	0.003417559
154	SB-R-F15-04	6.39	1269.926962	107628.6644	0.004935273	0.031536393
14	SB-R-F14-01	6.33	1075.300853	78466.98181	0.003598075	0.022775812
162	SB-R-C14-04	6.32	347.7171997	6921.033439	0.000317361	0.002005724
181	D14-6-01	6.3	587.4134943	6967.566629	0.000319495	0.00201282
1504	G6-9219-05	6.3	480.7950067	13753.60434	0.000630666	0.003973199
1639	M5-8166A-B-C-03	6.3	209.2111755	1833.561035	8.40773E-05	0.000529687
100	SB-R-C9-02	6.27	615.0086586	23511.51214	0.001078112	0.006759761
194	SB-R-C14-02	6.15	756.3968092	31622.87461	0.001450055	0.00891784
265	SB-R-F13-02	6.14	548.3487501	17887.46812	0.000820223	0.005036171
337	SB-R-C12-01	6.12	552.0679325	17749.32841	0.000813889	0.004981
670	F10-2356-04	6.1	384.9989069	9801.906017	0.000449463	0.002741723
1188	I8-2299-05	6.1	302.063123	4933.008829	0.000226201	0.001379828
212	SB-R-C13-04	6.06	550.8407662	16189.03979	0.000742342	0.004498595
428	SB-R-H12-01	5.97	609.9662426	19339.61783	0.000886811	0.005294262
10	SB-R-H12-03	5.93	901.2585093	54116.68315	0.002481501	0.014715299
597	SB-R-B10-03	5.93	784.6715894	28158.57748	0.001291201	0.007656823
1618	SB-R-N6-01	5.87	573.4400387	14052.13114	0.000644355	0.003782366
1177	I8-2409-04	5.86	234.876085	2990.116248	0.000137111	0.000803469
148	SB-R-A13-02	5.82	908.7364917	38203.66217	0.001751815	0.010195563
89	SB-R-J9-03	5.76	867.5047365	47941.67192	0.002198348	0.012662483
1345	TP-R-M8-1-9	5.76	697.4939581	30232.61186	0.001386305	0.007985119
353	SB-R-A12-03	5.74	693.3860683	26304.37363	0.001206177	0.006923458
396	SB-R-E12-01	5.72	509.5278754	16396.97396	0.000751877	0.004300738
1064	I9-3-13	5.7	356.1307697	8131.788194	0.00037288	0.002125417
874	SB-R-I10-03	5.69	552.1102309	18696.84523	0.000857337	0.004878247
1573	SB-R-O7-03	5.6	476.7433718	14215.68201	0.000651855	0.003650387
602	SB-R-C9-04	5.52	1136.130669	87660.9064	0.004019659	0.022188516
1311	SB-R-J8-04	5.47	831.7248674	44844.29551	0.002056319	0.011248063
135	A12-3-03	5.4	846.8507193	25905.90439	0.001187906	0.006414691
1211	I8-2328-07	5.4	275.0938446	4457.931351	0.000204417	0.001103851
59	SB-R-Q7-02	5.36	682.8723938	26008.01877	0.001192588	0.006392272
644	SB-R-E10-04	5.36	595.1157193	24184.17893	0.001108957	0.005944008
78	SO-R2-O-8-1	5.31	560.7975914	17505.96464	0.00080273	0.004262494
1019	F8-2-01	5.3	290.3602508	4899.974694	0.000224687	0.001190839
1574	SB-R-O7-02	5.29	490.1783801	14815.06261	0.000679339	0.003593705
1055	G9-8205-05	5.2	375.6089605	8865.308863	0.000406515	0.00211388
1418	J7-2282-03	5.2	339.5483845	6046.766531	0.000277272	0.001441816
1419	J7-2281B-05	5.1	124.6995479	718.6990579	3.29557E-05	0.000168074
1402	SB-R-K7-03	5.02	940.504196	58904.62119	0.00270105	0.01355927

Appendix A-1
Spatial Weighting Calculcations - Terrestrial Exposure Area - Current Conditions
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
1376	O8-2274-01	4.9	264.0333821	3953.581748	0.00018129	0.000888321
189	SB-R-C14-01	4.87	595.6882089	17490.17634	0.000802006	0.003905767
72	SB-R-K7-01	4.8	698.9968821	28155.46652	0.001291059	0.006197081
1239	G8-8178-01	4.8	279.3455621	4460.08441	0.000204516	0.000981675
205	SB-R-A13-04	4.75	1013.654721	49216.33856	0.002256797	0.010719786
283	F12-6-12	4.75	975.9436794	59024.90822	0.002706565	0.012856186
1362	SB-R-O8-03	4.73	625.1286037	23936.55113	0.001097602	0.005191656
913	TP-R-G9-4-2	4.71	245.4345368	3480.424511	0.000159594	0.000751686
13	SB-R-F15-03	4.7	1552.560729	134230.2658	0.006155079	0.028928873
149	TP-R-B13-2-1	4.7	636.3493159	25547.76255	0.001171483	0.005505971
406	SB-R-F12-01	4.66	560.4841659	16628.16532	0.000762478	0.003553149
1600	SB-R-P6-02	4.62	711.4879897	25924.36496	0.001188752	0.005492035
823	L11-2226-02	4.6	548.5710054	15685.80856	0.000719267	0.003308628
967	SB-R-E9-02	4.53	576.415399	15820.4886	0.000725443	0.003286255
101	SB-R-C9-01	4.52	893.952533	39231.10098	0.001798928	0.008131153
360	SB-R-A11-02	4.45	579.2769588	16849.39313	0.000772623	0.003438171
1368	O8-4-01	4.4	227.0237416	2945.193903	0.000135051	0.000594223
1363	SB-R-O8-02	4.39	291.9905962	4769.467396	0.000218702	0.000960103
1410	SB-R-J7-03	4.39	334.5557396	5934.16472	0.000272109	0.001194558
232	SB-R-C13-03	4.37	575.9085012	16770.97162	0.000769027	0.003360647
352	SB-R-B12-01	4.37	717.5227644	28096.41633	0.001288351	0.005630093
1359	O7-2271-04	4.33	427.2741152	9551.788764	0.000437994	0.001896513
304	F12-2039-01	4.28	156.1777644	1326.024793	6.08044E-05	0.000260243
1231	H8-8179-01	4.2	131.3963161	858.1442247	3.93499E-05	0.00016527
1238	G8-8178-02	4.14	238.554222	3448.180197	0.000158115	0.000654596
886	SB-R-I10-04	4.12	751.589193	34590.71707	0.001586145	0.006534916
264	SB-R-F13-04	4.06	995.7569788	58876.34459	0.002699753	0.010960998
850	K11-607-01	4.06	300.1925311	6099.264059	0.00027968	0.001135499
1613	TP-R-N6-1-6	3.98	705.6183554	29830.33697	0.001367859	0.005444079
246	SB-R-D13-01	3.92	661.9908182	22350.00429	0.001024851	0.004017417
255	SB-R-E14-01	3.82	908.2510946	31875.76642	0.001461652	0.005583509
1670	SB-R-R6-02	3.82	880.1632173	44210.2902	0.002027247	0.007744082
50	M5-8166D-04	3.8	197.6844404	1631.698059	7.48209E-05	0.000284319
956	F9-2279-02	3.8	399.9933518	8788.694	0.000403002	0.001531409
207	SB-R-A12-02	3.74	961.779306	61564.03607	0.002822996	0.010558006
16	B13-262A-01	3.6	307.9727818	5172.456933	0.000237181	0.000853852
350	SB-R-B12-03	3.55	862.9429884	43257.35323	0.00198355	0.007041603
206	SB-R-A13-03	3.51	901.1134505	53821.14003	0.002467949	0.0086625
1657	SB-R-O5-03	3.48	663.5987011	25799.8933	0.001183045	0.004116995
1619	SB-R-L6-04	3.41	1173.919811	20524.87965	0.000941161	0.003209358
175	SB-R-F16-01	3.2	861.6503603	43749.82333	0.002006132	0.006419623
1403	SB-R-K7-02	2.99	797.3302378	40981.15257	0.001879176	0.005618735
176	SB-R-F14-02	2.94	1126.491702	83187.39772	0.003814528	0.011214711
303	F12-2039-02	2.9	320.9133412	3175.89295	0.000145629	0.000422325
508	H12-8563-01	2.85	438.0362333	11600.75467	0.000531948	0.001516053
973	E9-2296B-04	2.82	302.4455712	4658.235232	0.000213602	0.000602357
1689	N4-2-02	2.7	511.1333266	4933.399611	0.000226219	0.000610792
351	SB-R-B12-02	2.61	1179.982013	36739.2098	0.001684663	0.00439697
1061	SB-R-H9-01	2.42	757.6383004	36066.59096	0.00165382	0.004002245
849	K11-607-02	2	236.9634501	3530.170191	0.000161875	0.000323749
139	SB-R-E13-04	1.94	788.5060051	42309.42644	0.001940083	0.003763761
208	SB-R-A12-01	1.9	877.4219725	48997.06926	0.002246743	0.004268811
319	SB-R-E12-04	1.77	409.5591933	10430.15865	0.000478271	0.00084654
231	SB-R-D13-02	1.45	697.733532	27647.47509	0.001267765	0.001838259
				Numerical Average of Maximum Concentrations:		497.3
				Spatially Weighted Average:		380.50

Notes:
mg/kg = milligrams per kilogram
ft = feet

Appendix A-2
Spatial Weighting Calculcations - Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
148	C12-3-03	93300	481.741221	8814.384584	0.001109396	103.5066045
322	H7-8123A-05	44000	306.2381842	4060.67755	0.000511085	22.48772925
136	C13-282B-03	13500	614.8646568	21849.00612	0.002749958	37.12443713
248	C8-1-01	10200	664.3905779	21484.9909	0.002704143	27.58225497
245	B10-20-01	8400	940.1858375	25904.91724	0.003260443	27.38772245
165	C12-274-05	3770	263.2815491	3280.464308	0.000412886	1.556578724
121	D13-268-01	3680	636.3659128	15465.39051	0.001946504	7.163134935
438	L6-9-01	2850	376.2657028	6715.201625	0.000845188	2.408786674
353	I6-8132-03	2720	468.5042173	10346.05155	0.001302174	3.541913616
317	H7-8255-02	2540	409.2124116	8947.07825	0.001126097	2.860285438
244	B9-2-05	2190	445.3622473	11030.8323	0.001388362	3.040512685
122	D13-265A-06	2100	430.4801832	5656.648364	0.000711957	1.495109152
434	M7-2-05	1980	343.1509475	5144.036942	0.000647438	1.281928172
297	I6-8184-02	1860	369.3140603	8347.790931	0.001050669	1.954244646
162	C12-5-02	1630	600.1815359	14259.77648	0.001794763	2.925463914
127	D12-289-03	1590	603.4345366	20307.32791	0.00255592	4.063912314
175	C12-4-01	1360	507.2736909	11736.65039	0.001477198	2.008988724
113	SB-R-D12-02	1160	927.398794	61046.70102	0.007683456	8.912809242
409	N7-2-07	942	261.7199361	2966.309992	0.000373346	0.351691491
47	D14-667-03	875	822.0527026	32001.82924	0.004027812	3.524335783
281	M8-2-05	822	554.6068326	13516.94943	0.001701269	1.398443515
436	M7-2-02	806	417.6833544	10330.58733	0.001300228	1.04798358
311	I6-8125-05	739	183.6970927	2141.663052	0.000269554	0.199200308
351	I6-8192-03	717	193.0029962	1681.382032	0.000211622	0.151732978
386	O8-732-04	685	251.4582118	3636.908946	0.000457748	0.313557666
176	C11-4-09	662	532.0406285	9002.981357	0.001133133	0.750133849
405	N7-2-17	629	246.2093352	3519.782527	0.000443007	0.278651188
336	SB-R-J6-02	610	386.3582551	8955.435271	0.001127148	0.687560561
329	H6-8285-07	608	336.7742161	4641.954267	0.000584245	0.355221186
446	L6-370-03	604	532.0171795	11378.10697	0.001432071	0.864970655
424	TP-R-N6-1-15	584	558.4955008	17501.64308	0.002202791	1.286429802
455	I5-8-02	565	948.5249268	49776.06613	0.006264912	3.539675431
195	D11-208A-01	553	557.91721	15805.25912	0.001989281	1.100072161
323	H7-8123A-03	500	421.6653444	11488.01155	0.001445903	0.722951713
201	C11-4-13	492	526.2489504	7241.946959	0.000911485	0.448450864
249	M11-3-03	490	445.8782156	2269.815553	0.000285683	0.139984861
187	D12-286A-04	471	760.3633774	35254.22719	0.004437165	2.089904922
68	D14-204B-01	469	864.1278327	29977.91099	0.003773078	1.769573603
250	M10-6-02	459	2557.984467	30407.5404	0.003827152	1.756662785
194	D11-218C-03	452	530.9676495	13688.00353	0.001722799	0.778705005
228	E11-8228-02	450	451.8605008	11815.49789	0.001487121	0.669204671
253	TP-R-M8-1-22	446	575.0684139	18488.24042	0.002326966	1.037826753
109	E12-286D-05	383	370.0730188	8066.069918	0.001015211	0.388825894
198	C11-4B-01	379	492.2501949	8731.775621	0.001098998	0.416520326
333	H6-8123B-06	376	338.2924587	7477.583403	0.000941143	0.353869827
91	F12-2075-05	369	218.1164294	2927.51987	0.000368463	0.135962969
216	E12-9317-04	366	436.2269093	10421.96803	0.001311729	0.480092857
196	C11-N3-03	359	145.723787	525.0752915	6.6087E-05	0.023725231
167	B13-7-06	355	486.7761946	13782.74324	0.001734723	0.615826597
354	I6-8132-02	350	518.4624313	15182.02475	0.001910839	0.668793683
334	H6-8123B-04	349	352.7943542	7243.631485	0.000911698	0.318182432
450	K6-529-02	347	849.112041	7273.97881	0.000915517	0.317684429
451	K6-529-01	321	335.2548577	3816.614944	0.000480367	0.154197667
56	C14-2-03	311	469.9915667	7652.405489	0.000963147	0.299538594
34	O5-534-04	310	2522.321047	97842.34196	0.012314627	3.817534373
75	F13-1-15	299	915.9099802	38669.95893	0.004867076	1.455255744
183	SB-R-D11-01	288	590.2590848	21677.97356	0.002728432	0.785788363
471	M5-12-03	288	479.5088609	12222.08698	0.001538296	0.443029128
367	M7-2-18	280	663.475079	16458.40592	0.002071487	0.580016333
399	N7-573-01	274	403.4625412	3770.850029	0.000474607	0.130042181
125	D13-264A-05	267	334.4792427	3318.11318	0.000417624	0.111505652
193	D11-7-01	260	443.1129669	8923.059063	0.001123074	0.291999117
24	H7-8142-05	248	329.2612774	5800.547052	0.000730068	0.181056891
180	SB-R-D12-03	239	631.6820179	23680.66701	0.002980495	0.712338233
230	E11-4-01	239	176.2842158	1416.544518	0.000178289	0.042611081
17	E11-5-01	237	713.5372787	30825.8466	0.003879801	0.919512805
105	E13-2074-01	230	235.0350429	2564.314793	0.00032275	0.074232416
428	N5-582-02	225	458.8150878	11400.7214	0.001434917	0.322856306
58	C14-125-01	220	344.6221391	3462.997516	0.00043586	0.095889109
26	J6-8134-04	219	294.5757222	4797.41798	0.000603812	0.132234902
350	I6-9215-01	210	339.3457485	5792.796619	0.000729093	0.153109451
410	N7-2-06	210	350.1367574	7834.420342	0.000986055	0.207071623
60	C14-1-05	208	636.1342436	26137.45785	0.003289711	0.684259922
52	D14-120-04	204	579.1966236	6926.939158	0.000871838	0.177854953
64	E14-668-03	202	685.4360603	25091.31428	0.003158042	0.637924383
361	SB-R-N7-03	202	395.7586621	8575.119762	0.001079281	0.218014805
459	N5-6-14	191	522.4102907	14377.29892	0.001809555	0.345624955
477	N5-533-01	187	575.6355718	17373.12618	0.002186615	0.408897074
118	D13-3-04	186	376.0017132	7016.733366	0.00088314	0.16426398
128	D12-209B-02	181	603.9288408	20699.65045	0.002605298	0.471558969
453	SO-R2-J-5-1	179	1051.700369	58529.75548	0.007366669	1.318633678
16	D11-B232-06	175	365.4836242	5393.094915	0.000678785	0.118787443
312	I6-8125-03	167	55.12957238	136.4540199	1.71744E-05	0.002868119

Appendix A-2
Spatial Weighting Calculcations - Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
235	SB-R-E11-03	166	825.3837917	23863.33779	0.003003486	0.498578676
330	H6-8285-05	165	331.8910065	3032.263982	0.000381647	0.062971694
377	TP-R-N6-1-21	163	405.5288289	10983.65308	0.001382424	0.225335094
45	SB-R-C14-03	159	662.2956324	26949.03857	0.003391858	0.539305467
143	C13-2-01	159	379.5177385	8203.899055	0.001032559	0.164176826
363	SB-R-M7-02	159	826.3967501	36230.9438	0.004560097	0.725055405
319	H7-8131-06	157	322.4149172	5498.761112	0.000692085	0.108657305
449	L6-1-01	156	581.752382	14333.80236	0.00180408	0.281436508
101	E13-2078-03	155	98.89726178	453.8579196	5.71234E-05	0.008854133
62	SB-R-E14-02	151	1042.352495	47094.99107	0.005927467	0.895047511
257	SB-R0-M8-02	149.48	676.750828	25774.7952	0.003244066	0.484922946
190	D12-1-01	149	206.1289576	2339.223231	0.000294419	0.043868457
415	TP-R-N6-1-38	149	197.2568728	2367.977989	0.000298038	0.044407707
18	SO-R2-I-13-2	147	1778.230561	56523.77398	0.007114192	1.045786205
345	J6-3-02	143	261.6252959	3244.898593	0.000408409	0.05840252
442	L6-4-02	142	1326.952151	39630.96009	0.00498803	0.708300194
299	I6-8183-01	140	59.56642661	142.5029972	1.79357E-05	0.002510999
256	SB-R0-M8-04	138.69	508.4537243	12319.11321	0.001550507	0.215039884
420	TP-R-N6-1-33	138	441.5183181	10345.6285	0.001302121	0.179692681
293	I7-8-03	136	296.7136828	4476.851096	0.000563465	0.076631263
217	E12-9317-01	135	323.1079113	4136.825201	0.000520669	0.070290294
310	I6-8125-07	130	194.8194704	2337.15911	0.000294159	0.038240719
197	C11-N3-02	129	399.6265626	8270.830522	0.001040983	0.134286778
22	M11-3-02	128	495.0969511	8512.255404	0.001071369	0.13713523
298	I6-8183-05	127	274.6041015	4242.949892	0.000534026	0.06782129
456	I5-8-01	127	763.0609774	35450.34861	0.00446185	0.566654907
155	C13-2-19	126	355.8570347	8047.355356	0.001012856	0.127619826
236	D10-8-02	126	354.7258385	7672.913114	0.000965728	0.121681694
186	D12-3-02	125	394.7424279	6689.866948	0.000842	0.105249954
441	L6-4-03	125	611.2867396	5371.453086	0.000676062	0.084507689
284	TP-R-M8-1-12	123	528.5159029	15985.25514	0.002011935	0.247468033
220	E12-298B-03	122	243.8963886	2808.569701	0.000353492	0.043126028
369	M7-2-13	120	581.4130568	19589.66143	0.002465593	0.295871136
90	F13-1-01	118	309.2672253	5726.920361	0.000720801	0.085054554
224	E12-2081-04	118	358.022635	7464.132143	0.00093945	0.110855118
126	D13-264A-03	111	357.8174296	5248.171543	0.000660545	0.073320501
209	F12-2221-05	109	234.0809019	1386.484818	0.000174506	0.019021118
463	N4-2-01	109	234.5942728	1906.399025	0.000239943	0.026153796
5	S7-1-01	108	1093.883072	27763.04536	0.003494311	0.377385562
25	H6-8285-08	108	325.4782961	4167.401047	0.000524517	0.056647856
252	TP-R-M8-1-23	108	767.7043799	38689.59755	0.004869548	0.525911165
480	R5-2-05	108	774.6341162	33628.65507	0.004232568	0.45711732
102	E13-2076-02	107	525.7763066	16897.95965	0.00212681	0.227568669
124	D13-264B-03	105	605.7820585	19856.01956	0.002499117	0.262407301
302	I6-8175-04	104	434.9207602	12075.00489	0.001519784	0.158057489
326	H7-15-02	104	382.5439266	9388.040646	0.001181597	0.122886089
222	E12-286B-02	99.8	575.2583817	18635.48828	0.002345499	0.234080772
107	E13-2040-04	98.8	357.5030255	6377.236946	0.000802651	0.07930196
99	E13-3-03	98	380.5041864	9210.792202	0.001159288	0.113610242
324	H7-6-02	97.7	381.041291	9250.708786	0.001164312	0.113753298
408	N7-2-10	95.5	93.7129464	373.4090177	4.6998E-05	0.004488307
482	R5-2-01	94.5	2624.918148	99106.09217	0.012473685	1.178763238
272	N9-2195-05	93.6	319.2591714	5683.020728	0.000715276	0.066949835
184	E11-12-04	93.3	535.9251874	14797.4686	0.001862438	0.173765476
332	H6-8247-02	93.2	395.2186001	5576.911206	0.000701921	0.065419025
53	D14-120-03	89.3	793.9221235	35298.66656	0.004442759	0.396738349
396	O7-395-02	88.7	454.6207937	11530.66967	0.001451272	0.128727867
67	D14-204B-04	88	648.0568877	22056.08464	0.002776022	0.244289902
210	F12-2221-04	88	401.0714906	8831.58741	0.001111561	0.097817344
54	C14-4-03	86.9	434.8695473	11299.51813	0.001422179	0.123587379
483	R5-1-01	85.8	684.1197858	17995.31735	0.002264926	0.194330613
189	D12-1-02	82.2	518.0823985	16788.13594	0.002112987	0.173687561
481	R5-2-03	79.3	223.6061055	1957.278984	0.000246347	0.019535312
188	D12-282A-05	78.3	562.2896919	19508.74662	0.002455409	0.192258502
335	H6-8116-01	78.2	385.2838537	8222.660999	0.00103492	0.080930749
379	TP-R-M8-1-6	77.6	910.5419544	49923.25237	0.006283437	0.487594743
97	E13-325-02	77.5	970.530251	45984.05439	0.005787642	0.448542279
447	L6-3-01	75.8	413.1480624	9001.478502	0.001132944	0.085877121
402	N7-5-02	75.7	610.4633368	22984.16033	0.002892831	0.218987308
448	L6-1-02	74.9	514.526407	6344.422678	0.000798521	0.059809249
51	D14-129-03	72.4	441.105965	10999.56755	0.001384427	0.100232509
237	D10-14-05	71.6	342.1669206	4526.735735	0.000569744	0.040793652
360	TP-R-M8-1-1	71.3	537.3620092	12651.81762	0.001592382	0.113536859
63	E14-668-05	71.2	1089.522238	74535.95351	0.00938124	0.667944269
163	C12-275-02	70.5	348.1851789	2673.321019	0.000336469	0.023721091
421	TP-R-N6-1-32	69.7	291.1682266	5465.470108	0.000687895	0.047946259
123	D13-264B-05	67.4	606.3021442	15830.50801	0.001992458	0.1342917
476	N5-533-05	67.3	582.6252831	12396.49635	0.001560247	0.105004629
55	C14-4-01	67	270.6247189	3977.213195	0.00050058	0.033538845
365	SB-R-L7-04	66.1	939.6878046	57550.44318	0.00724341	0.478789431
38	B14-3-02	65.8	333.865149	5571.039813	0.000701182	0.046137768
321	H7-8124-01	65.8	281.5688516	3434.370766	0.000432257	0.028442482
117	D13-303F-02	64.9	600.8103067	18202.98337	0.002291063	0.148689976

Appendix A-2
Spatial Weighting Calculcations - Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
430	N5-3-01	64.4	406.1073756	9298.07418	0.001170274	0.075365624
395	O7-395-03	63.9	507.1462946	14499.40179	0.001824923	0.11661257
352	I6-8192-01	63.6	354.0811453	6906.387746	0.000869251	0.055284387
164	C12-275-01	61.2	249.0387258	3187.425678	0.000401176	0.024551946
391	O8-3-13	60	223.9202665	2941.018273	0.000370162	0.022209736
20	SB-R-D10-03	59.8	560.7203965	12488.37207	0.001571811	0.093994282
233	E11-11-02	59.2	350.4700039	3431.226157	0.000431861	0.025566158
407	N7-2-13	59	180.2490446	1829.536287	0.000230269	0.01358587
36	S6-1-02	56.8	556.9737879	12261.54175	0.001543261	0.08765725
208	F12-2221-06	56.5	360.9410301	5984.771202	0.000753255	0.042558903
174	C12-418-01	56.1	406.2474179	10604.13862	0.001334657	0.074874284
223	E12-2081-05	56.1	329.2164636	6394.783395	0.00080486	0.045152637
179	SB-R-E11-01	55.3	759.5018117	35292.25217	0.004441951	0.245639909
229	E11-4-02	54.5	124.0390711	699.4168401	8.803E-05	0.004797633
200	C11-4A-01	53.9	266.1599796	4075.972129	0.00051301	0.027651226
239	D10-10-01	53	483.299119	10386.30783	0.001307241	0.069283765
226	E11-R2-03	52.9	650.7090844	25019.62756	0.003149019	0.166583098
199	C11-4A-02	52	392.7235687	9070.690048	0.001141655	0.059366042
153	C13-262B-01	51.9	482.0274959	13041.8	0.001641466	0.085192099
370	M7-2-11	51.2	466.6637457	13892.9501	0.001748594	0.089527995
50	D14-129-05	50.9	405.6563077	8490.767192	0.001068664	0.05439502
108	E12-286D-07	50.9	584.535463	20138.97531	0.002534731	0.129017783
171	SB-R-C12-03	50.5	595.0930866	18205.96226	0.002291438	0.115717606
339	J6-942A-04	50.5	716.8598662	32528.93326	0.004094155	0.20675481
362	SB-R-M8-01	50.4	672.1887427	27627.50418	0.003477251	0.175253465
166	C12-274-01	50.1	369.6506891	8549.076266	0.001076003	0.053907767
315	H7-8282-03	49.8	260.4158175	3080.621351	0.000387733	0.019309102
39	B14-128-02	49.6	911.6735774	49813.55264	0.00626963	0.310973667
213	F12-2075A-03	49.2	418.3930421	7048.901652	0.000887188	0.043649671
278	M9-3-01	49.2	309.8356244	5387.28665	0.000678054	0.033360274
131	D12-2073-03	49	291.1455932	3960.076919	0.000498423	0.024422725
320	H7-8131-04	48.7	478.496618	11535.51278	0.001451882	0.070706654
356	I6-3-03	48.7	696.7349618	27362.99834	0.00344396	0.167720855
10	C14-121-03	48.6	434.1706263	9220.379526	0.001160495	0.05640005
393	O8-3-09	48.3	107.2054512	568.3103969	7.15286E-05	0.003454834
169	B13-262A-05	47.3	427.8389518	9831.046139	0.001237355	0.05852687
29	N7-571-02	47.2	382.2075324	3334.182061	0.000419647	0.019807321
440	L6-5-01	46.9	435.4611131	12445.19103	0.001566376	0.073463029
285	SB-R-M9-02	46.2	615.0751282	16838.73077	0.002119355	0.097914216
263	N9-B41-10-01	45.6	348.7969633	2656.595612	0.000334364	0.015247011
308	I6-8171-04	45.2	230.9812686	2654.782652	0.000334136	0.015102952
403	N7-394-03	45.2	300.7858693	4878.954514	0.000614075	0.027756176
81	SB-R-E13-03	44.9	658.7976273	26365.71444	0.00331844	0.148997955
100	E13-2078-04	44.3	140.5854444	1070.207706	0.000134698	0.00596714
368	M7-2-15	44.2	275.0924578	3236.866812	0.000407398	0.018007007
149	C12-1-04	43.9	411.8168358	4778.070808	0.000601377	0.026400462
120	D13-273B-02	43.7	638.4552513	25026.17108	0.003149842	0.137648115
316	H7-8282-02	43.6	296.6202952	4073.15258	0.000512655	0.022351753
98	E13-3-05	43.5	392.7674011	8515.565788	0.001071786	0.046622675
337	SB-R-J6-01	43.3	624.8047914	15985.63032	0.002011982	0.08711884
269	N9-2267-05	43.2	357.9021071	7823.48899	0.00098468	0.042538155
387	O8-732-01	42.8	331.1333902	6656.69685	0.000837825	0.035858901
411	S7-1-02	42.7	908.3105205	48649.1347	0.006123074	0.261455281
452	SO-R2-J-5-2	42.6	1053.564251	58658.29549	0.007382847	0.314509277
288	L8-1-01	42.1	465.4291038	13445.46535	0.001692272	0.071244666
35	R5-1-03	41.1	500.943073	14045.16906	0.001767752	0.072654617
373	L7-6-01	40	748.6613545	27134.9135	0.003415253	0.136610115
394	O8-3-06	39.9	849.4145208	11423.00779	0.001437722	0.057365105
314	I6-5-02	39.3	296.5670715	4786.273517	0.00060241	0.0236747
341	J6-8134-05	39.2	237.5531334	2440.165675	0.000307124	0.01203926
358	L6-3-02	39.2	537.3541558	15912.30619	0.002002754	0.078507946
306	I6-8171-07	39.1	139.5076159	1132.079129	0.000142486	0.00557119
270	N9-2267-03	38.8	1241.109773	21089.88232	0.002654414	0.102991244
132	D12-2073-01	38.4	462.9401754	12759.58055	0.001605946	0.06166831
28	TP-R-M8-1-2	37.5	788.856467	30775.45064	0.003873458	0.145254673
475	O5-5-02	37.5	564.5259457	6868.542403	0.000864488	0.032418303
271	N9-2260-01	37.4	342.3871233	7752.597228	0.000975757	0.036493309
435	M7-2-04	36.9	490.9214447	10433.66005	0.001313201	0.048457106
215	F12-2026A-05	36.5	438.8797918	8491.23554	0.001068723	0.039008403
234	D12-3-04	35.8	384.0388894	8718.684244	0.001097351	0.039285148
343	J6-6-05	35.8	209.6942995	1924.284772	0.000242194	0.008670553
389	O8-3-18	35.8	635.6631315	6559.255203	0.000825561	0.029555069
182	SB-R-D11-02	35.6	861.9956825	44190.25563	0.005561871	0.198002619
231	E11-2064-02	35.5	300.6308079	4904.963912	0.000617348	0.021915864
444	L6-371-01	35.4	402.8382773	8203.438587	0.001032501	0.036550525
305	I6-8171A-02	35	190.6911329	1939.596249	0.000244121	0.008544247
344	J6-6-01	34.8	407.6153113	9271.07812	0.001166876	0.040607281
371	L7-8115-04	34.6	630.5894336	19610.90389	0.002468266	0.085402018
318	H7-8176-01	34.3	243.3814918	2114.441958	0.000266128	0.009128182
375	L7-1-01	34.3	416.9627678	7431.532972	0.000935347	0.032082408
84	F13-8230-02	34.2	375.0529269	7713.178266	0.000970796	0.033201209
485	SD-P4-2-01	34.1	2652.973375	121531.9818	0.015296251	0.521602161
280	M8-3-01	33.5	178.8362104	1151.842422	0.000144973	0.0048566

Appendix A-2
Spatial Weighting Calculcations - Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
349	I7-2305-02	32.7	493.1587715	15203.41682	0.001913532	0.062572481
40	B14-128-01	32.2	309.2904312	5232.782115	0.000658608	0.021207181
260	SB-R-N9-01	32.2	685.1059548	23774.37431	0.002992289	0.096351702
191	D11-B232-07	32	573.1694713	16514.4529	0.002078541	0.066513315
192	D11-7-02	32	470.4657529	8954.601818	0.001127044	0.036065394
207	F12-R1-01	31.8	318.2140129	5391.555311	0.000678592	0.021579213
390	O8-3-15	31.6	178.5400943	2017.194227	0.000253888	0.00802286
185	E11-1-01	31.3	381.3718711	8279.774445	0.001042108	0.032617995
273	N9-2195-02	31.3	551.8994366	7554.429507	0.000950815	0.029760514
232	E11-2064-01	31	542.6910566	16203.57544	0.002039413	0.063221817
465	M5-8166E-01	31	157.7769426	732.3203268	9.21713E-05	0.002857309
374	L7-1-03	30.7	592.8302207	17895.67083	0.002252384	0.069148184
460	N4-3-03	30.7	519.0849991	11596.21731	0.001459522	0.044807338
15	B11-2044C-01	30.6	293.2053795	3358.173947	0.000422666	0.012933588
4	SB-R-N6-02	30.4	631.7359259	10169.13632	0.001279907	0.03890918
212	F12-2075A-04	30.4	431.4409761	9842.939062	0.001238851	0.037661083
227	E11-8228-05	30.2	387.1803014	9119.948998	0.001147854	0.034665205
346	J6-1-04	30.1	701.7411126	11818.84706	0.001487543	0.044775045
61	C14-1-03	30	216.002338	2391.305679	0.000300974	0.009029231
130	D12-208D-01	30	641.0845158	16269.86304	0.002047757	0.061432696
238	D10-10-04	29.8	255.5367088	3767.728757	0.000474214	0.014131567
340	J6-941A-01	29.8	1067.717145	28815.70106	0.0036268	0.108078641
181	SB-R-D12-01	29.6	576.6668035	20024.89256	0.002520372	0.074603006
158	C13-2-14	29.5	303.9571018	5301.297539	0.000667232	0.019683332
296	I6-9-04	29.2	180.8573956	2048.162785	0.000257786	0.007527344
357	I6-1-04	28.6	262.6074563	4562.725068	0.000574273	0.01642422
412	UD-08	28.4	318.1038983	3489.709622	0.000439222	0.012473894
31	TP-R-N6-1-14	28.3	401.2470171	8521.072814	0.001072479	0.030351149
106	E13-2040-07	28.2	513.2868762	15807.04592	0.001989505	0.056104054
160	C13-2-10	28.2	309.0884756	3241.36801	0.000407965	0.011504609
41	SO-R2-C-14-1	28	804.2998318	40261.95336	0.005067448	0.141888532
325	H7-5-02	28	359.2156373	5625.1331	0.00070799	0.019823725
83	F13-8230-03	27.7	457.45655	10553.54251	0.001328289	0.036793615
78	SB-R-F13-01	27.1	479.8769892	13314.55656	0.001675796	0.04541407
304	I6-8172-06	26.9	368.4148387	8811.527472	0.001109036	0.029833067
267	N9-B4-01	26.8	177.1956723	1659.092859	0.000208817	0.005596286
300	I6-8181-02	26.7	395.6016825	7288.759637	0.000917377	0.024493977
95	E13-5-03	26.6	556.5432414	19847.60944	0.002498059	0.06644836
309	I6-8171-01	26.5	261.9406576	3751.019727	0.000472111	0.012510931
307	I6-8171-06	26.3	159.0692292	1137.438848	0.00014316	0.003765115
328	H6-941C-02	25.5	319.1046946	5313.415284	0.000668757	0.017053297
137	C13-263C-01	25.3	643.1920282	21989.81237	0.00276768	0.070022315
473	SB-R-O5-01	25.1	729.7116904	17895.98149	0.002252423	0.056535816
177	B11-2044C-05	24.5	313.5237507	5671.349364	0.000713807	0.017488272
2	SO-R2-P-4-1	24.3	1769.488772	68839.62585	0.008664289	0.21054222
49	D14-360-01	23.9	617.1282404	19313.39167	0.002430821	0.058096621
140	C13-2-12	23.8	368.1219182	7712.609278	0.000970724	0.02310323
157	C13-2-15	23.7	375.9835648	5391.98794	0.000678646	0.016083912
225	E12-130E-02	23.4	431.0328706	10156.07613	0.001278263	0.029911365
392	O8-3-12	23.4	600.1416342	10713.84585	0.001348465	0.031554091
42	SD-C14-1-01	23.1	240.5181882	2861.449803	0.000360148	0.00831941
145	C13-133-03	23	1017.012859	11185.6542	0.001407848	0.032380507
404	N7-394-01	22.9	370.4151553	7603.694606	0.000957016	0.021915661
268	N9-2269-04	22.7	602.6662287	17784.00369	0.002238329	0.050810073
470	M5-8166-01	22.7	169.9725158	1239.432673	0.000155997	0.003541141
211	F12-2075A-05	22.6	296.2714803	3728.50165	0.000469276	0.010605648
219	E12-325B-02	21.8	499.9802497	15948.4305	0.0020073	0.043759149
94	E14-2020-03	21.5	1084.805204	42498.76121	0.005348977	0.115002996
279	M8-3-02	21.1	539.7501572	16634.76216	0.002093683	0.044176721
290	SB-R-I7-02	21.1	358.9818229	4117.67727	0.000518259	0.010935262
57	C14-125-04	20.9	316.1826591	4360.798957	0.000548859	0.011471145
147	C12-8229-01	20.7	604.629391	15390.39712	0.001937065	0.040097251
287	L8-1-05	20.7	356.9662636	7754.334357	0.000975976	0.020202694
384	SB-R-N8-01	20.6	672.1231401	19706.67597	0.00248032	0.051094602
205	SB-R-E12-03	20.3	546.5768601	15998.67595	0.002013624	0.040876575
3	SB-R-J5-01	20.2	1251.746832	68821.67375	0.008662029	0.174972994
331	H6-8247-05	20.2	438.1705837	7269.380468	0.000914938	0.018481754
472	M5-11-02	20.2	258.4005339	3104.549547	0.000390745	0.007893042
258	SB-R0-M8-01	20.16	601.7320617	11186.04771	0.001407898	0.028383217
355	I6-3-04	20.1	403.0901768	7469.643499	0.000940144	0.018896891
19	SB-R-J12-02	20	2019.400454	28924.80499	0.003640532	0.072810642
401	N7-571-03	20	336.0430284	4180.620992	0.000526181	0.010523621
27	L7-4-02	19.9	860.7064025	31452.29672	0.003958647	0.078777077
283	TP-R-M8-1-13	19.9	681.5653854	26157.69814	0.003292259	0.065515947
313	I6-5-05	19.9	221.881947	3042.728145	0.000382964	0.007620977
266	N9-B4-04	19.8	257.9770829	3537.276565	0.000445208	0.008815128
432	N5-581-05	19.8	452.1158403	8061.834047	0.001014678	0.020090626
380	TP-R-M8-1-5	19.2	685.2865759	18905.73964	0.002379513	0.045686651
275	N8-2304-01	19	835.5545388	21576.96584	0.002715719	0.051598657
96	E13-5-02	18.6	332.1243221	4229.038537	0.000532275	0.009900315
291	SB-R-I6-01	18.4	408.5949055	8643.605107	0.001087901	0.020017377
414	R6-11-02	18.4	605.0282334	17858.44489	0.002247699	0.041357653
133	C13-742-05	18.2	362.2400511	6627.603342	0.000834163	0.015181767

Appendix A-2
Spatial Weighting Calculcations - Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
342	J6-8134-01	17.9	440.5754902	9524.577018	0.001198782	0.021458193
82	SB-R-E13-01	17.4	858.7256524	35146.87468	0.004423654	0.076971577
454	SB-R-K5-02	17.4	3044.31747	178865.3746	0.022512343	0.39171477
173	C12-418-04	17.3	502.9838536	15830.40477	0.001992445	0.034469306
218	E12-6-01	17.1	454.2427665	10739.74554	0.001351725	0.023114501
433	N5-581-01	17	580.0501588	21085.40847	0.00265385	0.045115457
429	N5-3-03	16.8	487.3410408	14515.12694	0.001826902	0.030691954
479	SO-R2-Q-5-1	16.6	1235.927003	72493.89991	0.009124223	0.1514621
221	E12-298B-02	16.5	318.1812156	6893.051854	0.000867573	0.014314953
458	SB-R-N4-01	16.5	1427.914774	70829.98092	0.008914799	0.147094181
301	I6-8181-01	16.3	387.3084377	8056.619617	0.001014022	0.016528555
303	I6-8173-01	16.3	233.6764596	3484.665916	0.000438587	0.007148965
103	E13-2074-09	16.2	444.9573268	12090.35516	0.001521716	0.024651792
134	C13-742-01	16.1	214.8701148	2442.102758	0.000307368	0.004948621
172	SB-R-C12-02	16.1	220.3887654	2570.244199	0.000323496	0.005208284
286	M9-2254-03	16.1	711.9873998	34158.1254	0.004299208	0.069217248
382	SB-R-O8-01	16.1	643.8581078	28644.99361	0.003605314	0.058045563
74	SB-R-F13-03	16	1045.040054	55505.76203	0.006986063	0.111777007
397	N7-574-03	16	473.6728127	5477.122821	0.000689361	0.011029781
464	M5-8166E-02	16	205.9515047	1885.983571	0.000237374	0.003797977
400	N7-572-01	15.9	344.0082332	6413.740592	0.000807246	0.012835209
366	SB-R-L7-03	15.8	668.9710377	26150.49071	0.003291352	0.052003354
21	SO-R2-C-8-2	15.7	589.4334688	15132.62302	0.001904621	0.029902554
48	D14-360-03	15.7	577.9644353	17528.42118	0.002206161	0.034636729
116	SB-R-C12-04	15.5	496.3716772	10355.3126	0.00130334	0.020201766
30	SO-R2-R-7-1	15.4	1031.115555	26556.47024	0.003342449	0.051473713
292	SB-R-H7-02	15.3	357.4869824	7836.942095	0.000986373	0.015091503
338	SB-R-I7-03	15.3	501.300807	14401.10613	0.001812551	0.027732033
445	L6-370-05	15	561.8119368	13179.16119	0.001658755	0.024881322
135	C13-3-02	14.5	643.249649	28023.38256	0.003527077	0.051142621
347	J6-1-01	14.4	1144.836597	35819.42558	0.004508302	0.064919555
474	SB-R-N4-02	14.4	949.1105698	50468.86014	0.006352109	0.091470365
139	C13-2-16	14.1	392.0865016	9382.007404	0.001180838	0.016649811
86	F13-8209-02	14	285.0750019	5036.990986	0.000633965	0.008875516
469	M5-8166-03	13.8	313.700907	2495.484547	0.000314087	0.004334394
156	C13-2-18	13.7	408.2906559	10671.81149	0.001343175	0.018401496
168	B13-7-01	13.7	319.5928472	6057.602657	0.000762422	0.010445176
484	S6-1-05	13.6	650.8936779	25959.90916	0.003267365	0.044436158
14	D13-3-02	13.5	385.1990333	6549.637364	0.00082435	0.011128726
422	TP-R-N6-1-31	13.5	439.2199613	10635.13351	0.001338559	0.01807054
11	SB-R-D14-03	13.4	1197.294397	58032.00739	0.007304021	0.097873882
138	C13-2-17	13.2	453.739371	11968.99856	0.001506441	0.019885026
152	C13-262B-05	13.2	523.5680406	13239.65911	0.001666369	0.021996073
161	C13-2-09	13	254.397025	2149.874328	0.000270587	0.003517636
37	B14-3-05	12.9	422.1247504	8191.441933	0.001030991	0.013299781
203	SB-R-F12-04	12.6	747.4056119	36238.67635	0.00456107	0.057469484
88	F13-236B-01	12.5	366.2835279	8562.142034	0.001077648	0.013470598
214	F12-2075-03	12.5	258.5512618	3051.079472	0.000384015	0.004800185
364	SB-R-L8-02	12.5	540.7126554	12654.27916	0.001592692	0.019908652
282	TP-R-M8-1-14	12.4	845.0637553	25969.81587	0.003268611	0.040530782
406	N7-2-14	12.3	330.4406567	6525.770351	0.000821346	0.010102557
295	I6-9-05	12.2	204.0921924	2525.23983	0.000317832	0.003877545
9	SB-R-B13-03	12	571.6355234	15350.36128	0.001932026	0.023184315
104	E13-2074-06	11.7	272.8695231	3817.79329	0.000480515	0.005622024
251	TP-R-M8-1-8	11.7	729.7998317	36296.04427	0.004568291	0.053449
119	D13-273B-04	11.6	561.0182295	20426.56023	0.002570927	0.029822747
146	C12-8229-03	11.5	682.6857527	20301.41584	0.002555176	0.029384519
178	SB-R-E12-02	11.4	656.3211595	27959.5586	0.003519044	0.040117105
416	TP-R-N6-1-37	11.4	238.4747319	3471.192082	0.000436891	0.004980557
154	C13-2-20	11.3	407.6877761	7802.203342	0.000982	0.011096605
261	SB-R-M9-03	11.3	295.9594599	5118.878433	0.000644272	0.007280273
348	I7-B59-02	11.3	375.0754503	8393.171689	0.001056381	0.011937104
141	C13-2-11	11.2	215.7459711	2697.30386	0.000339488	0.003802264
159	C13-2-13	11	388.5968901	9022.202718	0.001135552	0.012491071
276	M9-8151-03	11	656.8622544	18057.64345	0.00227277	0.02500047
388	O8-3-20	10.8	585.8133485	10280.99699	0.001293986	0.013975051
87	F13-236B-03	10.6	271.9709257	3737.132165	0.000470363	0.004985845
277	M9-8151-02	10.6	337.4295274	4136.738145	0.000520658	0.005518974
478	SO-R2-R-4-1	10.6	531.0405901	4192.154887	0.000527633	0.005592907
150	C12-1-03	10.4	514.3302547	14327.41424	0.001803276	0.018754072
426	SB-R-O7-01	10.4	326.7020318	6523.894125	0.00082111	0.008539544
461	N4-3-02	10.4	560.2099361	6457.49422	0.000812753	0.008452629
294	I6-E4-01	10.3	265.7774233	3888.31263	0.000489391	0.005040723
8	SB-R-E13-02	10.2	801.362266	26365.39477	0.0033184	0.033847677
6	SB-R-M9-05	10.1	726.9669728	30537.73145	0.003843538	0.038819735
202	SO-R2-F-12-1	10.1	773.9568797	23735.71285	0.002987423	0.030172971
1	SB-R-B14-04	10	943.9702467	9710.679893	0.001222205	0.01222205
85	F13-8209-03	10	280.7060449	4808.10853	0.000605158	0.006051579
289	SD-I7-1-01	9.9	549.5366402	19644.3831	0.00247248	0.024477554
33	SO-R2-N-4-1	9.65	739.9832887	21789.4804	0.002742466	0.0264648
262	N9-B41-10-03	9.56	1145.046766	29278.4654	0.003685044	0.035229025
274	N8-2304-05	9.5	358.5894905	5727.366788	0.000720857	0.006848146
327	H6-941C-03	9.47	253.9442471	3376.655362	0.000424992	0.004024678

Appendix A-2
Spatial Weighting Calculcations - Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, NJ

Object ID	Location ID	Maximum Concentration (mg/kg)	Shape Length (ft)	Shape Area (ft²)	Fractional Area (ft²)	Fractional Concentration (mg/kg)
115	SB-R-C13-01	9.43	346.8457711	5584.730503	0.000702905	0.006628394
425	TP-R-N6-1-12	9.4	551.2985475	14002.75528	0.001762414	0.016566691
144	C13-133-05	9.3	728.0592059	29186.83317	0.003673511	0.034163657
439	L6-5-02	9.27	213.5902664	2230.919365	0.000280788	0.002602903
376	TP-R-N6-1-23	9.25	449.7012535	13213.09307	0.001663026	0.015382986
240	SO-R2-B-8-1	8.98	313.7619501	4745.849224	0.000597322	0.00536395
265	N9-B4-11-03	8.92	225.8970159	1363.064092	0.000171558	0.001530296
142	C13-2-06	8.9	270.3123528	2982.568629	0.000375392	0.003340988
427	SB-R-N5-02	8.68	608.9718088	16358.59468	0.002058924	0.017871464
413	R6-11-03	8.63	344.8893316	3013.310177	0.000379261	0.003273023
43	SB-R-D14-02	8.52	440.1253894	7983.062822	0.001004764	0.008560587
259	SB-R-N9-03	8.44	920.9522729	17743.7962	0.002233269	0.018848787
381	TP-R-M8-1-4	8.44	660.4121165	9036.044193	0.001137294	0.009598762
423	TP-R-N6-1-19	8.41	392.2305463	10560.87208	0.001329212	0.011178672
457	SB-R-N5-03	8.39	745.6182085	17531.44732	0.002206542	0.018512887
59	C14-121-04	8.38	587.2539841	18956.64338	0.00238592	0.019994009
110	E12-130E-03	8.3	446.266484	9152.495974	0.001151951	0.009561192
13	SB-R-G14-02	8.03	1460.102981	129153.5306	0.016255514	0.130531777
65	D14-6-02	7.98	781.1530241	20239.52493	0.002547386	0.020328139
12	SB-R-F15-01	7.95	948.3949864	48936.63069	0.006159259	0.048966111
443	L6-371-02	7.83	1498.322644	36334.6922	0.004573155	0.035807803
372	L7-8115-02	7.8	482.2344847	6468.914352	0.00081419	0.006350683
378	TP-R-M8-1-7	7.7	912.2214832	44547.49563	0.005606834	0.043172624
437	SB-R-L6-01	7.7	741.288834	32012.04418	0.004029098	0.031024055
417	TP-R-N6-1-36	7.62	206.3654594	2617.620894	0.000329459	0.002510476
385	SB-R-N7-01	7.51	404.7810829	8240.557924	0.001037173	0.007789166
419	TP-R-N6-1-34	7.51	378.8332395	9499.649996	0.001195644	0.008979289
359	TP-R-M8-1-15	7.5	721.0945889	24689.26626	0.003107439	0.023305792
398	N7-574-02	7.4	528.908123	14559.90878	0.001832538	0.013560784
264	N9-B4-11-05	7.24	284.3400016	3229.023677	0.000406411	0.002942417
255	TP-R-M8-1-10	7.16	528.4019392	11446.47739	0.001440676	0.010315239
89	F13-2077-01	7.1	221.0139534	3206.447906	0.00040357	0.002865345
468	M5-8166A-B-C-01	6.94	1288.387473	8498.384632	0.001069623	0.007423185
254	TP-R-M8-1-11	6.89	525.2120636	5813.695366	0.000731723	0.005041571
418	TP-R-N6-1-35	6.53	253.8424449	3176.769822	0.000399834	0.002610919
242	SB-R-C9-03	6.51	849.7702753	48062.26614	0.00604921	0.039380358
7	SB-R-C10-04	6.4	1595.664155	66727.19246	0.008398414	0.053749849
129	D12-208D-03	6.4	551.1722053	13610.45529	0.001713038	0.010963445
70	SB-R-F15-04	6.39	1269.926962	107628.6644	0.013546353	0.086561193
76	SB-R-F14-01	6.33	1075.300853	78466.98181	0.009876007	0.062515122
44	SB-R-C14-04	6.32	347.7171997	6921.033439	0.000871095	0.005505318
66	D14-6-01	6.3	587.4134943	6967.566629	0.000876951	0.005524794
467	M5-8166A-B-C-03	6.3	209.2111755	1833.561035	0.000230776	0.001453886
246	SB-R-C9-02	6.27	615.0086586	23511.51214	0.002959205	0.018554212
77	SB-R-F13-02	6.14	548.3487501	17887.46812	0.002251351	0.013823298
151	SB-R-C13-04	6.06	678.2492941	16071.6505	0.002022809	0.012258223
243	SB-R-B10-03	5.93	712.9904706	25739.14963	0.003239579	0.019210705
431	SB-R-N6-01	5.87	573.4400387	14052.13114	0.001768628	0.010381849
23	TP-R-M8-1-9	5.76	697.4939581	30232.61186	0.003805135	0.021917579
206	SB-R-E12-01	5.72	530.9755418	16980.06858	0.002137144	0.012224466
241	SB-R-C9-04	5.52	1085.290372	65134.84554	0.008197998	0.045252949
383	SB-R-O7-02	5.29	523.5428164	15246.65621	0.001918974	0.010151371
46	SB-R-C14-01	4.87	1255.141258	42140.28494	0.005303858	0.025829789
71	SB-R-F15-03	4.7	1498.735299	125365.3252	0.015778723	0.074159999
247	SB-R-C9-01	4.52	784.1268105	30900.6867	0.00388922	0.017579276
114	SB-R-C13-03	4.37	622.0741668	17799.03089	0.002240221	0.009789764
93	F12-2039-01	4.28	156.1777644	1326.024793	0.000166896	0.000714315
73	SB-R-F13-04	4.06	995.7569788	58876.34459	0.007410291	0.030085781
112	SB-R-D13-01	3.92	661.9908182	22350.00429	0.002813015	0.011027018
79	SB-R-E14-01	3.82	908.2510946	31875.76642	0.004011946	0.015325633
466	M5-8166D-04	3.8	197.6844404	1631.698059	0.000205369	0.000780401
170	B13-262A-01	3.6	307.9727818	5172.456933	0.000651015	0.002343656
32	SB-R-L6-04	3.41	1173.919811	20524.87965	0.002583301	0.008809057
69	SB-R-F16-01	3.2	776.6445023	38485.17433	0.004843819	0.01550022
72	SB-R-F14-02	2.94	1126.491702	83187.39772	0.010470127	0.030782174
92	F12-2039-02	2.9	320.9133412	3175.89295	0.000399724	0.0011592
462	N4-2-02	2.7	511.1333266	4933.399611	0.000620927	0.001676504
80	SB-R-E13-04	1.94	788.5060051	42309.42644	0.005325147	0.010330784
204	SB-R-E12-04	1.77	409.5591933	10430.15865	0.00131276	0.002323585
111	SB-R-D13-02	1.45	697.733532	27647.47509	0.003479765	0.005045659
				Numerical Average of Maximum Concentrations:		496.66
				Spatially Weighted Average:		337.22

Notes:
mg/kg = milligrams per kilgram
ft = feet

UCL Statistics for Terrestrial Exposure Area - Current Conditions - Soil Data

User Selected Options	
Date/Time of Computation	ProUCL 5.14/16/2018 11:36:19 AM
From File	95 UCL_input_dev included.xls
Full Precision	OFF
Confidence Coefficient	95%
ımber of Bootstrap Operations	2000

Lead

General Statistics

Total Number of Observations	1694	Number of Distinct Observations	1694
		Number of Missing Observations	0
Minimum	1.6527E-4	Mean	0.225
Maximum	50.22	Median	0.0175
SD	2.037	Std. Error of Mean	0.0495
Coefficient of Variation	9.07	Skewness	17.56

Normal GOF Test

Shapiro Wilk Test Statistic	0.0941	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.456	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0217	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	0.306	95% Adjusted-CLT UCL (Chen-1995)	0.329
		95% Modified-t UCL (Johnson-1978)	0.31

Gamma GOF Test

A-D Test Statistic	5.903E+2	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.877	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.254	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.0259	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.29	k star (bias corrected MLE)	0.29
Theta hat (MLE)	0.774	Theta star (bias corrected MLE)	0.774
nu hat (MLE)	983.3	nu star (bias corrected)	982.9
MLE Mean (bias corrected)	0.225	MLE Sd (bias corrected)	0.417
		Approximate Chi Square Value (0.05)	911.1
Adjusted Level of Significance	0.0499	Adjusted Chi Square Value	911.1

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.242	95% Adjusted Gamma UCL (use when n<50)	0.242

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.97	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0478	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0217	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-8.708	Mean of logged Data	-3.882

Maximum of Logged Data	3.916	SD of logged Data	1.696

Assuming Lognormal Distribution

95% H-UCL	N/A	90% Chebyshev (MVUE) UCL	0.103
95% Chebyshev (MVUE) UCL	0.111	97.5% Chebyshev (MVUE) UCL	0.121
99% Chebyshev (MVUE) UCL	0.142		

Nonparametric Distribution Free UCL Statistics
Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	0.306	95% Jackknife UCL	0.306
95% Standard Bootstrap UCL	0.306	95% Bootstrap-t UCL	0.352
95% Hall's Bootstrap UCL	0.328	95% Percentile Bootstrap UCL	0.31
95% BCA Bootstrap UCL	0.334		
90% Chebyshev(Mean, Sd) UCL	0.373	95% Chebyshev(Mean, Sd) UCL	0.44
97.5% Chebyshev(Mean, Sd) UCL	0.534	99% Chebyshev(Mean, Sd) UCL	0.717

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	0.44

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician

UCL Statistics for Terrestrial Exposure Area - Future Conditions (Excluding Redevelopment Area) - Soil Data

User Selected Options	
Date/Time of Computation	ProUCL 5.14/16/2018 11:36:53 AM
From File	95 UCL_input_dev removed.xls
Full Precision	OFF
Confidence Coefficient	95%
ımber of Bootstrap Operations	2000

Lead

General Statistics

Total Number of Observations	485	Number of Distinct Observations	485
		Number of Missing Observations	0
Minimum	7.1432E-4	Mean	0.695
Maximum	103.5	Median	0.0448
SD	5.409	Std. Error of Mean	0.246
Coefficient of Variation	7.78	Skewness	15.53

Normal GOF Test

Shapiro Wilk Test Statistic	0.129	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.449	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0406	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1.1	95% Adjusted-CLT UCL (Chen-1995)	1.284
		95% Modified-t UCL (Johnson-1978)	1.129

Gamma GOF Test

A-D Test Statistic	2.062E+2	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.884	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.257	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.0449	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.276	k star (bias corrected MLE)	0.275
Theta hat (MLE)	2.521	Theta star (bias corrected MLE)	2.524
nu hat (MLE)	267.5	nu star (bias corrected)	267.2
MLE Mean (bias corrected)	0.695	MLE Sd (bias corrected)	1.325
		Approximate Chi Square Value (0.05)	230.3
Adjusted Level of Significance	0.0495	Adjusted Chi Square Value	230.2

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.807	95% Adjusted Gamma UCL (use when n<50)	0.807

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	7.7609E-8	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0622	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0406	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-7.244	Mean of logged Data	-2.898

Maximum of Logged Data	4.64	SD of logged Data	1.808

Assuming Lognormal Distribution

95% H-UCL	0.358	90% Chebyshev (MVUE) UCL	0.39
95% Chebyshev (MVUE) UCL	0.44	97.5% Chebyshev (MVUE) UCL	0.509
99% Chebyshev (MVUE) UCL	0.645		

Nonparametric Distribution Free UCL Statistics
Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	1.099	95% Jackknife UCL	1.1
95% Standard Bootstrap UCL	1.097	95% Bootstrap-t UCL	1.694
95% Hall's Bootstrap UCL	2.403	95% Percentile Bootstrap UCL	1.133
95% BCA Bootstrap UCL	1.349		
90% Chebyshev(Mean, Sd) UCL	1.432	95% Chebyshev(Mean, Sd) UCL	1.766
97.5% Chebyshev(Mean, Sd) UCL	2.229	99% Chebyshev(Mean, Sd) UCL	3.139

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	1.766

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	A10-3-01	A10-3-01	A10-516-05	A10-516-05	A10-516-06	A11-9-03	A11-9-04	A12-3-03	A12-3-03	A12-3-03	A12-3-03	A12-4-01	A12-5-03
			Depths	0.0-0.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft
			Collection Date	10/8/1999	10/8/1999	10/8/1999	10/8/1999	7/21/2000	10/14/1999	10/14/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999	10/15/1999	10/15/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	A10-3-010.5N	A10-3-011.3N	A10-516-051.5N	A10-516-050.5N	A10-516-060.5N	A11-9-031.3N	A11-9-041N	A12-3-030.5N	A12-3-0310/15/1999	A12-3-031.5N	A12-3-0311/18/1999	A12-4-011N	A12-5-030.5N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	1700	577	NA	NA	NA	5.4	57.9	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	A12-5-03	A12-5-05	A12-5-05	A12-6-01	A12-6-02	A12-6-02	A13-1-01	A13-753-01	A13-753-01	A13-753-01	A13-753-01	A13-753-01
				Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	10/15/1999	10/15/1999	10/15/1999	10/14/1999	6/8/2000	6/8/2000	10/14/1999	10/15/1999	10/15/1999	10/15/1999	11/18/1999	11/18/1999
				Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N
				Sample Name	A12-5-031.5N	A12-5-050.5N	A12-5-051N	A12-6-012N	A12-6-022N	A12-6-022FD	A13-1-012N	A13-753-010.5N	A13-753-0110/15/1999	A13-753-012N10/15/1999	A13-753-0111/18/1999	A13-753-012N11/18/1999
				Parent Sample						A12-6-022N						
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	NA	91.1	4.94	11.3	417	NA	NA	NA	334	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	B11-3-01	B11-3-01	B11-4-01	B11-4-01	B11-4-02	B11-4-02	B11-513-05	B11-6-03	B12-422-04	B12-422-06	B13-262A-01	B13-262A-05	B13-7-01	B13-7-06	B14-128-01
			Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.7 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
			Collection Date	11/30/1999	11/18/1999	11/9/1999	11/9/1999	11/9/1999	11/9/1999	10/14/1999	11/9/1999	6/22/2000	11/3/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/3/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	B11-3-011N	B11-3-011.5N	B11-4-011.7N	B11-4-010.5N	B11-4-021N	B11-4-020.5N	B11-513-051N	B11-6-031N	B12-422-042N	B12-422-062N	B13-262A-012N	B13-262A-052N	B13-7-012N	B13-7-061N	B14-128-012N
			Parent Sample															
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	450	13.5	8.5	3.6	47.3	13.7	355	32.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	B14-128-02	B14-3-02	B14-3-05	B9-2-05	C10-10-01	C10-10-02	C10-1-01	C10-12-03	C10-12-03	C10-13-01	C10-13-01	C10-15-02	C10-15-02	C10-211C-04
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft
			Collection Date	7/6/2000	7/6/2000	11/3/1999	10/15/1999	11/16/1999	6/30/2000	11/18/1999	11/16/1999	11/16/1999	11/19/1999	11/19/1999	11/22/1999	11/22/1999	11/16/1999
			Sample Type	N	N	N	N	N	N	N	N	FD	N	FD	N	N	N
			Sample Name	B14-128-022N	B14-3-022N	B14-3-052N	B9-2-052N	C10-10-012N	C10-10-021N	C10-1-011N	C10-12-031N	C10-12-031FD	C10-13-011.5N	C10-13-011.5FD	C10-15-020.5N	C10-15-021N	C10-211C-042N
			Parent Sample									C10-12-031N		C10-13-011.5N			
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	49.6	65.8	12.9	2190	56.2	120	NA	1110	884	810	1040	NA	NA	1280

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C10-211C-06	C10-211C-07	C10-241A-03	C10-241A-05	C10-241C-03	C10-241C-04	C10-4-02	C10-4-07	C10-440-02	C10-5-01	C10-7-01	C11-1-05	C11-22-03	C11-22-03
			Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.5-1.0 ft
			Collection Date	11/16/1999	11/16/1999	11/18/1999	6/30/2000	6/30/2000	11/16/1999	11/19/1999	11/19/1999	10/8/1999	11/16/1999	11/16/1999	11/18/1999	11/9/1999	11/9/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	C10-211C-061N	C10-211C-071N	C10-241A-030.5N	C10-241A-051.5N	C10-241C-032N	C10-241C-042N	C10-4-020.5N	C10-4-071N	C10-440-022N	C10-5-011N	C10-7-011N	C11-1-051.5N	C11-22-032N	C11-22-030.5N
			Parent Sample														
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	491	174	171	68.7	12.3	44.7	NA	NA	1550	1110	3260	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**C11-27-02**	**C11-27-03**	**C11-4-02**	**C11-4-09**	**C11-4-13**	**C11-4-20**	**C11-4A-01**	**C11-4A-02**	**C11-4B-01**	**C11-N3-02**	**C11-N3-03**	**C12-1-03**	**C12-1-04**	**C12-274-01**	**C12-274-05**
				Depths	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**
				Collection Date	**11/12/1999**	**11/12/1999**	**11/11/1999**	**11/11/1999**	**11/11/1999**	**11/11/1999**	**11/5/1999**	**6/30/2000**	**11/5/1999**	**6/30/2000**	**11/10/1999**	**10/19/1999**	**10/19/1999**	**10/21/1999**	**10/21/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**C11-27-021N**	**C11-27-030.5N**	**C11-4-021N**	**C11-4-091.5N**	**C11-4-131N**	**C11-4-201N**	**C11-4A-012N**	**C11-4A-022N**	**C11-4B-012N**	**C11-N3-021N**	**C11-N3-031N**	**C12-1-032N**	**C12-1-042N**	**C12-274-012N**	**C12-274-051N**
				Parent Sample															
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	319	NA	NA	662	492	380	53.9	52	379	129	359	10.4	43.9	50.1	3770	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C12-275-01	C12-275-02	C12-275-02	C12-3-03	C12-4-01	C12-418-01	C12-5-02	C12-8229-01	C12-8229-03	C13-1-01	C13-1-08	C13-1-11	C13-2-01	C13-2-01	C13-2-02
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	6/22/2000	10/20/1999	10/20/1999	10/19/1999	10/19/1999	9/27/2000	10/20/1999	6/22/2000	10/20/1999	11/2/1999	11/2/1999	11/2/1999	10/29/1999	10/29/1999	4/18/2000
			Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N
			Sample Name	C12-275-012N	C12-275-022N	C12-275-022FD	C12-3-032N	C12-4-012N	C12-418-012N	C12-5-022N	C12-8229-012N	C12-8229-032N	C13-1-012N	C13-1-082N	C13-1-112N	C13-2-012N	C13-2-012FD	C13-2-022N
			Parent Sample			C12-275-022N											C13-2-012N	
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	61.2	42.8	70.5	93300	1360	56.1	1630	20.7	11.5	51.7	13.6	24	159	144	12.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C13-2-03	C13-2-04	C13-2-06	C13-2-07	C13-2-08	C13-2-09	C13-2-10	C13-2-11	C13-2-12	C13-2-13	C13-2-14	C13-2-15	C13-2-16	C13-2-17	C13-2-18	C13-2-19	C13-2-20
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft
			Collection Date	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	10/29/1999	10/29/1999	4/18/2000	4/18/2000	4/18/2000	10/29/1999	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000	4/18/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	C13-2-032N	C13-2-042N	C13-2-062N	C13-2-072N	C13-2-082N	C13-2-092N	C13-2-102N	C13-2-112N	C13-2-122N	C13-2-132N	C13-2-142N	C13-2-151.5N	C13-2-162N	C13-2-172N	C13-2-182N	C13-2-191N	C13-2-202N
			Parent Sample																	
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	24.4	14.8	8.9	12.4	8.1	13	28.2	11.2	23.8	11	29.5	23.7	14.1	13.2	13.7	126	11.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	C13-3-02	C13-742-01	C13-742-01	C13-742-05	C14-1-03	C14-1-05	C14-1-05	C14-121-03	C14-121-04	C14-125-01
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/4/1999	10/29/1999	10/29/1999	10/29/1999	7/6/2000	11/4/1999	11/4/1999	11/3/1999	7/6/2000	11/3/1999
			Sample Type	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N
			Sample Name	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	C13-3-022N	C13-742-012N	C13-742-012FD	C13-742-052N	C14-1-031N	C14-1-052N	C14-1-052FD	C14-121-032N	C14-121-041.5N	C14-125-012N
			Parent Sample							C13-742-012N				C14-1-052N			
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	51.9	13.2	25.3	13500	14.5	11.2	16.1	18.2	30	19.2	208	48.6	8.38	220

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C14-125-04	C14-2-03	C14-4-01	C14-4-03	C8-1-01	C8-1-01	C8-1-01	D10-10-01	D10-10-04	D10-1-02	D10-11-01	D10-11-01	D10-11-03
			Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft
			Collection Date	7/6/2000	11/3/1999	11/3/1999	7/6/2000	10/8/1999	11/18/1999	11/18/1999	11/16/1999	11/12/1999	11/12/1999	11/22/1999	11/22/1999	7/21/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	C14-125-041.5N	C14-2-032N	C14-4-012N	C14-4-032N	C8-1-010.5N10/8/1999	C8-1-010.5N	C8-1-010.5N11/18/1999	D10-10-011N	D10-10-041N	D10-1-021N	D10-11-010.5N	D10-11-011N	D10-11-031.5N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	20.9	311	67	86.9	NA	10200	NA	53	29.8	1620	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**D10-11-03**	**D10-14-03**	**D10-14-05**	**D10-15-03**	**D10-16-02**	**D10-16-03**	**D10-164B-01**	**D10-164B-02**	**D10-165B-02**	**D10-2007-02**	**D10-2007-04**	**D10-2041-03**	**D10-2041-05**
				Depths	**0.5-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**7/21/2000**	**6/29/2000**	**11/16/1999**	**11/11/1999**	**6/29/2000**	**11/19/1999**	**11/30/1999**	**11/16/1999**	**11/16/1999**	**11/12/1999**	**6/29/2000**	**11/12/1999**	**11/12/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**D10-11-030.5N**	**D10-14-032N**	**D10-14-051N**	**D10-15-031N**	**D10-16-021.25N**	**D10-16-031N**	**D10-164B-011N**	**D10-164B-021N**	**D10-165B-021N**	**D10-2007-021N**	**D10-2007-042N**	**D10-2041-031N**	**D10-2041-051N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	127	71.6	225	169	176	908	4260	1350	71.4	71	681	213

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	D10-2227-02	D10-2227E-01	D10-2227E-01	D10-2227E-02	D10-2228-01	D10-2230-03	D10-2230A-03	D10-2231-03	D10-2233-02	D10-2233-04	D10-2233A-01	D10-2233A-02
				Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	11/11/1999	11/11/1999	11/11/1999	6/29/2000	11/18/1999	11/12/1999	11/12/1999	11/18/1999	6/29/2000	11/19/1999	11/18/1999	6/29/2000
				Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N
				Sample Name	D10-2227-021.5N	D10-2227E-012N	D10-2227E-012FD	D10-2227E-022N	D10-2228-011N	D10-2230-030.5N	D10-2230A-030.5N	D10-2231-031N	D10-2233-021.5N	D10-2233-041.5N	D10-2233A-012N	D10-2233A-022N
				Parent Sample			D10-2227E-012N									
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	314	15.3	17.7	11.3	782	1390	92	451	125	282	140	143

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	D10-2233B-02	D10-2233B-03	D10-2233C-01	D10-2233C-02	D10-2233D-02	D10-2233D-03	D10-2233E-02	D10-2349-02	D10-241B-03	D10-251-02	D10-3-01	D10-3-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft	0.0-1.5 ft
				Collection Date	6/29/2000	11/19/1999	11/18/1999	6/29/2000	6/29/2000	11/19/1999	11/18/1999	11/12/1999	11/19/1999	11/17/1999	11/12/1999	11/30/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	D10-2233B-021N	D10-2233B-031N	D10-2233C-011N	D10-2233C-022N	D10-2233D-021.25N	D10-2233D-032N	D10-2233E-021N	D10-2349-021.5N	D10-241B-031.5N	D10-251-020.75N	D10-3-011.25N	D10-3-011.5N
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	386	28.4	47.8	187	68.6	58.5	2470	76.6	66.8	589	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	D10-4-01	D10-5-01	D10-6-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-9119-01	D10-9119-02	D10-N4-01	D11-112-01	D11-112-05	D11-20-01	D11-208A-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-2.0 ft
				Collection Date	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/19/1999	6/29/2000	11/12/1999	9/27/2000	7/13/2000	11/18/1999	11/4/1999
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
				Sample Name	D10-4-011N	D10-5-011N	D10-6-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-9119-011N	D10-9119-022N	D10-N4-011N	D11-112-012N	D11-112-050.75N	D11-20-010.8N	D11-208A-012N
				Parent Sample					D10-8-021N									
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	1370	166	12900	126	110	1240	217	320	49.4	81.1	4.34	14.9	762	553

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**D11-218C-03**	**D11-3-02**	**D11-7-01**	**D11-7-02**	**D11-B232-06**	**D11-B232-07**	**D12-1-01**	**D12-1-02**	**D12-1-02**	**D12-2073-01**	**D12-2073-03**	**D12-208D-01**	**D12-208D-03**	**D12-209B-02**
				Depths	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**
				Collection Date	**11/4/1999**	**11/5/1999**	**10/27/1999**	**6/22/2000**	**6/22/2000**	**10/29/1999**	**6/22/2000**	**10/27/1999**	**10/27/1999**	**6/28/2000**	**10/22/1999**	**6/28/2000**	**10/22/1999**	**11/4/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**D11-218C-032N**	**D11-3-021N**	**D11-7-012N**	**D11-7-022N**	**D11-B232-062N**	**D11-B232-072N**	**D12-1-012N**	**D12-1-022N**	**D12-1-022FD**	**D12-2073-012N**	**D12-2073-032N**	**D12-208D-012N**	**D12-208D-032N**	**D12-209B-022N**
				Parent Sample									**D12-1-022N**					
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	452	433	260	32	175	32	149	82.2	42.6	38.4	49	30	6.4	181

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	D12-282A-05	D12-286A-04	D12-289-03	D12-3-02	D12-3-04	D13-2-01	D13-264A-03	D13-264A-05	D13-264B-03	D13-264B-05	D13-265A-06	D13-268-01	D13-273B-02
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	10/27/1999	10/22/1999	10/22/1999	6/28/2000	11/4/1999	10/29/1999	6/28/2000	11/4/1999	11/2/1999	11/2/1999	11/4/1999	11/3/1999	11/2/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	D12-282A-052N	D12-286A-042N	D12-289-031.25N	D12-3-022N	D12-3-042N	D13-2-012N	D13-264A-032N	D13-264A-052N	D13-264B-032N	D13-264B-052N	D13-265A-062N	D13-268-012N	D13-273B-022N
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	78.3	471	1590	125	35.8	NA	111	267	105	67.4	2100	3680	43.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**D13-3-02**	**D13-303F-02**	**D13-3-04**	**D14-120-03**	**D14-120-04**	**D14-129-03**	**D14-129-03**	**D14-129-05**	**D14-129-05**	**D14-204B-01**	**D14-204B-04**	**D14-360-01**	**D14-360-03**	**D14-6-01**
				Depths	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**
				Collection Date	**6/28/2000**	**11/4/1999**	**11/3/1999**	**7/6/2000**	**11/3/1999**	**7/6/2000**	**7/6/2000**	**11/3/1999**	**11/3/1999**	**10/26/1999**	**10/26/1999**	**7/6/2000**	**11/3/1999**	**10/26/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**D13-3-022N**	**D13-303F-022N**	**D13-3-042N**	**D14-120-032N**	**D14-120-042N**	**D14-129-032N**	**D14-129-032FD**	**D14-129-052N**	**D14-129-052FD**	**D14-204B-012N**	**D14-204B-042N**	**D14-360-012N**	**D14-360-032N**	**D14-6-012N**
				Parent Sample							**D14-129-032N**		**D14-129-052N**					
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	13.5	64.9	186	89.3	204	71.6	72.4	46.4	50.9	469	88	23.9	15.7	6.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	D14-6-02	D14-667-03	D14-667-03	D9-2-01	D9-2-01	D9-2-04	D9-2-04	D9-2229-01	D9-2229-05	D9-3-01	D9-3-02	D9-4-03	D9-4-03	D9-5-02	D9-5-05
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
				Collection Date	7/6/2000	10/22/1999	10/22/1999	6/29/2000	6/29/2000	11/18/1999	11/18/1999	11/11/1999	6/29/2000	6/29/2000	11/11/1999	11/10/1999	11/10/1999	6/29/2000	11/11/1999
				Sample Type	N	N	FD	N	FD	N	FD	N	N	N	N	N	FD	N	N
				Sample Name	D14-6-022N	D14-667-032N	D14-667-032FD	D9-2-012N	D9-2-012FD	D9-2-041N	D9-2-041FD	D9-2229-010.5N	D9-2229-050.75N	D9-3-011N	D9-3-021N	D9-4-031N	D9-4-031FD	D9-5-021N	D9-5-051.5N
				Parent Sample			D14-667-032N		D9-2-012N		D9-2-041N						D9-4-031N		
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	7.98	875	529	43.1	45.9	24.1	34.3	99.5	30.9	24.4	9.2	600	468	26.4	47.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**D9-8279-01**	**D9-8284-03**	**D9-8284-05**	**D9-8284-05**	**D9-9108-01**	**D9-9108-04**	**D9-9108-07**	**D9-9108-10**	**D9-N1-03**	**E10-1-05**	**E10-1-13**	**E10-1-18**	**E10-2-03**	**E10-2031B-01**
				Depths	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**
				Collection Date	**11/19/1999**	**7/21/2000**	**11/22/1999**	**11/22/1999**	**11/10/1999**	**11/10/1999**	**11/10/1999**	**11/10/1999**	**11/10/1999**	**11/4/1999**	**11/4/1999**	**11/4/1999**	**10/28/1999**	**6/30/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**D9-8279-011N**	**D9-8284-030.5N**	**D9-8284-050.5N**	**D9-8284-052N**	**D9-9108-010.5N**	**D9-9108-041N**	**D9-9108-071N**	**D9-9108-100.5N**	**D9-N1-030.5N**	**E10-1-052N**	**E10-1-132N**	**E10-1-182N**	**E10-2-032N**	**E10-2031B-011.5N**
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	113	NA	NA	NA	41.8	60.8	27.6	42.7	66.5	81.5	176	NA	79.1	80.6	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-2031C-03	E10-2-04	E10-2-04	E10-2097-02	E10-2097-07	E10-2097-07	E10-2101-05	E10-2101-05	E10-2101-12	E10-2101C-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	11/12/1999	11/12/1999	11/12/1999	6/30/2000	6/22/2000	6/22/2000	3/24/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000	3/16/2000	3/23/2000
				Sample Type	N	N	FD	N	N	FD	N	N	FD	N	FD	N	N
				Sample Name	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-2031C-031.5N	E10-2-042N	E10-2-042FD	E10-2097-021N	E10-2097-072N	E10-2097-072FD	E10-2101-052N	E10-2101-052FD	E10-2101-121N	E10-2101C-011N
				Parent Sample			E10-2031C-011N			E10-2-042N			E10-2097-072N		E10-2101-052N		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	169	93.6	61.3	27.4	43.5	51.3	34.3	12.6	25.7	199	215	309	27

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E10-2101C-05	E10-2159-02	E10-2159-05	E10-2160-03	E10-2160-05	E10-2169-03	E10-2169A-01	E10-2169A-04	E10-2177-06	E10-2288-03	E10-2288-05	E10-2314-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft
				Collection Date	3/23/2000	3/24/2000	3/24/2000	3/16/2000	3/16/2000	11/18/1999	11/18/1999	6/30/2000	11/18/1999	3/24/2000	3/24/2000	7/21/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	E10-2101C-051N	E10-2159-021N	E10-2159-052N	E10-2160-031N	E10-2160-051N	E10-2169-031N	E10-2169A-011N	E10-2169A-041.5N	E10-2177-060.75N	E10-2288-030.5N	E10-2288-051N	E10-2314-012N
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	30.3	75.7	31.6	96.8	16	1320	56.4	348	4630	NA	NA	26.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**E10-2314-01**	**E10-2314-02**	**E10-2314-02**	**E10-3-02**	**E10-4-03**	**E10-5-06**	**E10-5-08**	**E10-606-02**	**E10-615-04**	**E10-615-04**	**E10-618A-04**	**E10-8277-01**	**E10-8277-01**
				Depths	**0.5-1.0 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-0.8 ft**	**0.0-0.8 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**7/21/2000**	**11/22/1999**	**11/22/1999**	**10/28/1999**	**11/17/1999**	**11/17/1999**	**11/17/1999**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**11/12/1999**	**11/12/1999**	**11/12/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**FD**
				Sample Name	**E10-2314-010.5N**	**E10-2314-020.5N**	**E10-2314-022N**	**E10-3-022N**	**E10-4-030.75N**	**E10-5-061N**	**E10-5-081N**	**E10-606-022N**	**E10-615-040.75N**	**E10-615-040.75FD**	**E10-618A-040.5N**	**E10-8277-011N**	**E10-8277-011FD**
				Parent Sample										**E10-615-040.75N**			**E10-8277-011N**
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	NA	32.3	36.5	363	3040	1810	14.5	40.3	41	670	635	353

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E10-A1-02	E11-1-01	E11-11-02	E11-12-02	E11-12-04	E11-2-02	E11-2-03	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05	E11-207B-04	E11-2083-03	E11-2083-03
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.5 ft
				Collection Date	3/16/2000	10/25/1999	7/12/2000	10/25/1999	10/25/1999	6/22/2000	10/20/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/9/1999	10/20/1999	11/30/1999
				Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
				Sample Name	E10-A1-022N	E11-1-012N	E11-11-022N	E11-12-022N	E11-12-042N	E11-2-021.5N	E11-2-031.5N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N	E11-207B-040.5N	E11-2083-032N	E11-2083-032.5N
				Parent Sample									E11-2064-012N					
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	31.9	31.3	59.2	NA	93.3	36.8	155	31	6.4	35.5	17.4	NA	245	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E11-2083-04	E11-218B-02	E11-4-01	E11-4-02	E11-5-01	E11-52-04	E11-6-02	E11-6-02	E11-6-04	E11-6-04	E11-7-02	E11-8-01	E11-8228-02	E11-8228-02	E11-8228-05
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
				Collection Date	11/30/1999	7/12/2000	9/27/2000	7/12/2000	7/12/2000	7/12/2000	7/14/2000	7/14/2000	7/14/2000	7/14/2000	7/12/2000	11/4/1999	10/19/1999	10/19/1999	6/22/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
				Sample Name	E11-2083-042N	E11-218B-022N	E11-4-012N	E11-4-022N	E11-5-012N	E11-52-042N	E11-6-022N	E11-6-020.5N	E11-6-041.5N	E11-6-040.5N	E11-7-022N	E11-8-012N	E11-8228-022N	E11-8228-022FD	E11-8228-051.5N
				Parent Sample														E11-8228-022N	
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	72.8	944	239	54.5	237	242	NA	NA	NA	NA	61400	NA	399	450	30.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E11-R2-03	E12-130E-02	E12-130E-03	E12-2081-04	E12-2081-05	E12-286B-02	E12-286D-05	E12-286D-07	E12-286D-07	E12-298B-02	E12-298B-03	E12-325B-02	E12-325B-02
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	10/28/1999	10/20/1999	11/30/1999	10/20/1999	11/30/1999	10/19/1999	10/25/1999	7/27/2000	7/27/2000	6/22/2000	10/19/1999	7/12/2000	7/12/2000
				Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	FD
				Sample Name	E11-R2-032N	E12-130E-022N	E12-130E-032N	E12-2081-042N	E12-2081-052N	E12-286B-022N	E12-286D-052N	E12-286D-071N	E12-286D-071FD	E12-298B-022N	E12-298B-032N	E12-325B-022N	E12-325B-022FD
				Parent Sample									E12-286D-071N				E12-325B-022N
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	52.9	23.4	8.3	118	56.1	99.8	383	50.9	45	16.5	122	15	21.8

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E12-6-01	E12-9317-01	E12-9317-04	E13-1-01	E13-2040-04	E13-2040-07	E13-2074-01	E13-2074-06	E13-2074-09	E13-2074A-01	E13-2074A-05	E13-2074A-05	E13-2076-02
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	10/20/1999	6/28/2000	10/28/1999	10/29/1999	10/28/1999	10/28/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	6/29/2000	6/29/2000	10/25/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N
				Sample Name	E12-6-012N	E12-9317-012N	E12-9317-042N	E13-1-012N	E13-2040-042N	E13-2040-072N	E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-2074A-012N	E13-2074A-052N	E13-2074A-052FD	E13-2076-022N
				Parent Sample												E13-2074A-052N	
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	17.1	135	366	NA	98.8	28.2	230	11.7	16.2	NA	NA	NA	107	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E13-2078-03	E13-2078-04	E13-3-03	E13-3-05	E13-3-05	E13-325-02	E13-5-02	E13-5-03	E14-2020-03	E14-668-03	E14-668-05	E15-8560-01	E15-8560-01	E15-8560-02
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
			Collection Date	10/28/1999	6/29/2000	10/25/1999	6/29/2000	10/26/1999	10/25/1999	10/28/1999	6/29/2000	10/26/1999	10/27/1999	10/26/1999	9/29/1999	9/29/1999	9/29/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	E13-2078-032N	E13-2078-042N	E13-3-031N	E13-3-051N	E13-3-052N	E13-325-022N	E13-5-022N	E13-5-032N	E14-2020-032N	E14-668-032N	E14-668-052N	E15-8560-010.5N	E15-8560-011.5N	E15-8560-020.5N
			Parent Sample														
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	155	44.3	98	18	43.5	77.5	18.6	26.6	21.5	202	71.2	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E15-8560-02	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-03	E15-8560-04	E15-8560-04	E15-8560-05	E15-8560-05	E15-8560-06	E15-8560-07	E15-8560-07
				Depths	0.0-1.5 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft
				Collection Date	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999	9/29/1999
				Sample Type	N	N	FD	N	FD	N	N	N	N	N	N	N
				Sample Name	E15-8560-021.5N	E15-8560-030.8N	E15-8560-030.8FD	E15-8560-031.5N	E15-8560-031.5FD	E15-8560-040.5N	E15-8560-042N	E15-8560-050.5N	E15-8560-051.5N	E15-8560-060.5N	E15-8560-070.5N	E15-8560-071.5N
				Parent Sample			E15-8560-030.8N		E15-8560-031.5N							
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**E15-8560-08**	**E15-8560-08**	**E15-8560-09**	**E15-8560-09**	**E15-8560-10**	**E15-8560-10**	**E15-8560-11**	**E15-8560-11**	**E15-8560-12**	**E15-8560-12**	**E15-8560-13**	**E15-8560-13**
				Depths	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.8 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**
				Collection Date	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**	**9/29/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**E15-8560-080.5N**	**E15-8560-082N**	**E15-8560-090.5N**	**E15-8560-091.5N**	**E15-8560-100.5N**	**E15-8560-101.5N**	**E15-8560-110.5N**	**E15-8560-111N**	**E15-8560-120.8N**	**E15-8560-122N**	**E15-8560-130.5N**	**E15-8560-131N**
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E15-8560-14	E15-8560-14	E15-8560-15	E15-8560-15	E15-8560-16	E15-8560-16	E15-8560-17	E15-8560-17	E15-8560-18	E15-8560-18	E15-8560-19	E15-8560-19
			Depths	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-1.5 ft	0.3-0.8 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft
			Collection Date	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/1/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD
			Sample Name	E15-8560-141.5N	E15-8560-140.5N	E15-8560-151.5N	E15-8560-150.8N	E15-8560-161.5N	E15-8560-160.8N	E15-8560-172N	E15-8560-170.5N	E15-8560-180.5N	E15-8560-182N	E15-8560-190.5N	E15-8560-190.5FD
			Parent Sample												E15-8560-190.5N
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	E15-8560-19	E15-8560-19	E15-8560-20	E15-8560-20	E15-8560-21	E15-8560-21	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-22	E15-8560-23	E15-8560-23
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft
				Collection Date	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999	10/5/1999
				Sample Type	N	FD	N	N	N	N	N	FD	N	FD	N	N
				Sample Name	E15-8560-192N	E15-8560-192FD	E15-8560-200.5N	E15-8560-202N	E15-8560-210.5N	E15-8560-211.5N	E15-8560-220.5N	E15-8560-220.5FD	E15-8560-222N	E15-8560-222FD	E15-8560-230.5N	E15-8560-231.5N
				Parent Sample		E15-8560-192N						E15-8560-220.5N		E15-8560-222N		
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**E15-8560-24**	**E15-8560-24**	**E15-8560-25**	**E15-8560-25**	**E15-8560-26**	**E15-8560-26**	**E15-8560-27**	**E15-8560-27**	**E9-2-01**	**E9-2-03**	**E9-2153-02**	**E9-2161-04**	**E9-2161-04**
			Depths	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-1.2 ft**	**0.0-0.5 ft**	**0.0-1.4 ft**	**0.0-0.5 ft**	**0.0-1.4 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**
			Collection Date	**10/5/1999**	**10/5/1999**	**10/5/1999**	**10/5/1999**	**10/5/1999**	**10/5/1999**	**10/5/1999**	**10/5/1999**	**6/16/2000**	**3/24/2000**	**3/23/2000**	**3/17/2000**	**3/17/2000**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**
			Sample Name	**E15-8560-240.5N**	**E15-8560-241.5N**	**E15-8560-250.5N**	**E15-8560-251.2N**	**E15-8560-260.5N**	**E15-8560-261.4N**	**E15-8560-270.5N**	**E15-8560-271.4N**	**E9-2-011.5N**	**E9-2-031N**	**E9-2153-021.5N**	**E9-2161-042N**	**E9-2161-042FD**
			Parent Sample													**E9-2161-042N**
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	11.2	19.3	35.2	67.1	93.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E9-2296-04	E9-2296-05	E9-2296-06	E9-2296-07	E9-2296A-01	E9-2296A-01	E9-2296B-03	E9-2296B-04	E9-2296C-01	E9-2296C-01	E9-2296C-01	E9-2296D-01	E9-2296D-03
			Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	3/21/2000	3/21/2000	3/21/2000	3/21/2000	3/31/2000	3/31/2000	3/21/2000	6/16/2000	3/31/2000	6/16/2000	3/31/2000	3/21/2000	6/16/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	E9-2296-042N	E9-2296-051N	E9-2296-061N	E9-2296-072N	E9-2296A-011N	E9-2296A-010.5N	E9-2296B-032N	E9-2296B-042N	E9-2296C-011.5N	E9-2296C-012N	E9-2296C-010.5N	E9-2296D-011.5N	E9-2296D-032N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	7.7	18.8	12	10.7	NA	NA	8.2	2.82	NA	NA	NA	9.2	19.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**E9-2296D-03**	**E9-2297-02**	**E9-556-04**	**E9-558B-03**	**E9-560-03**	**E9-562-01**	**E9-6-01**	**E9-6-01**	**E9-6-03**	**E9-6-04**	**E9-610-04**	**E9-A7-01**	**F10-1-01**	**F10-1-04**	**F10-1-06**
			Depths	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**
			Collection Date	**6/16/2000**	**7/12/2000**	**3/17/2000**	**3/23/2000**	**3/17/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/17/2000**	**3/23/2000**	**11/23/1999**	**11/23/1999**	**11/23/1999**
			Sample Type	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
			Sample Name	**E9-2296D-032FD**	**E9-2297-021N**	**E9-556-041N**	**E9-558B-031.5N**	**E9-560-030.8N**	**E9-562-011N**	**E9-6-010.5N**	**E9-6-010.5FD**	**E9-6-030.5N**	**E9-6-041N**	**E9-610-041N**	**E9-A7-011N**	**F10-1-011N**	**F10-1-042N**	**F10-1-061N**
			Parent Sample	**E9-2296D-032N**							**E9-6-010.5N**							
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	21	223	16	38.5	71.4	19.2	18.6	16.9	65.6	40.5	44.8	34	NA	86.1	1370

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F10-1-07	F10-11-01	F10-20-02	F10-20-03	F10-2096-06	F10-2096-07	F10-2096-08	F10-2145-01	F10-2145-04	F10-2162-02	F10-2162-04	F10-2162-04	F10-2222-01
			Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft
			Collection Date	11/23/1999	3/24/2000	7/12/2000	7/12/2000	3/21/2000	3/21/2000	3/21/2000	3/23/2000	3/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	F10-1-071N	F10-11-011.5N	F10-20-021.5N	F10-20-031.25N	F10-2096-061N	F10-2096-071N	F10-2096-081N	F10-2145-011N	F10-2145-041N	F10-2162-020.5N	F10-2162-041N	F10-2162-040.5N	F10-2222-011N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	146	56.7	201	NA	176	146	151	NA	249	NA	223	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**F10-2222-01**	**F10-2222-02**	**F10-2289-01**	**F10-2323-02**	**F10-2323-05**	**F10-2356-04**	**F10-2356-06**	**F10-2356-07**	**F10-3-01**	**F10-3-01**	**F10-3-07**	**F10-3-07**	**F10-3-07**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**
				Collection Date	**3/30/2000**	**3/30/2000**	**3/16/2000**	**3/17/2000**	**3/17/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**6/16/2000**	**3/31/2000**	**6/16/2000**	**3/31/2000**	**3/31/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**F10-2222-010.5N**	**F10-2222-020.5N**	**F10-2289-011N**	**F10-2323-021N**	**F10-2323-050.5N**	**F10-2356-040.5N**	**F10-2356-062N**	**F10-2356-071N**	**F10-3-011.5N**	**F10-3-010.5N**	**F10-3-071N**	**F10-3-072N**	**F10-3-070.5N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	NA	NA	156	236	6.1	23.7	22.7	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**F10-37B-02**	**F10-37B-03**	**F10-37B-03**	**F10-44-04**	**F10-44-05**	**F10-460-01**	**F10-462-01**	**F10-464-01**	**F10-464-05**	**F10-5-01**	**F10-5-01**	**F10-7-03**	**F10-8-01**	**F10-8-01**
				Depths	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**12/10/1999**	**6/23/2000**	**6/23/2000**	**4/18/2000**	**12/8/1999**	**3/16/2000**	**3/16/2000**	**3/16/2000**	**3/16/2000**	**6/16/2000**	**3/31/2000**	**3/23/2000**	**3/21/2000**	**3/21/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**
				Sample Name	**F10-37B-020.5N**	**F10-37B-031N**	**F10-37B-030.5N**	**F10-44-041.5N**	**F10-44-052N**	**F10-460-011N**	**F10-462-012N**	**F10-464-011N**	**F10-464-051N**	**F10-5-011.5N**	**F10-5-010.5N**	**F10-7-031.5N**	**F10-8-011N**	**F10-8-011FD**
				Parent Sample														**F10-8-011N**
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	51.6	74.8	NA	255	128	3480	55.5	170	137	NA	NA	19.1	48.1	29.7	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	F10-8-04	F10-8237-04	F10-8237-05	F10-8274-02	F10-8274-04	F10-8564-01	F10-8569-03	F10-8576-05	F10-9-01	F11-2016-01	F11-2016-06	F11-2016-07	F11-2-03
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	6/16/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	3/17/2000	7/19/2000	12/16/1999	3/17/2000	3/24/2000	3/24/2000	3/24/2000	12/10/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	F10-8-041N	F10-8237-041N	F10-8237-052N	F10-8274-020.5N	F10-8274-040.5N	F10-8564-010.5N	F10-8569-031N	F10-8576-051.5N	F10-9-011N	F11-2016-011.5N	F11-2016-062N	F11-2016-072N	F11-2-032N
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	22.3	116	70.8	235	126	68.8	78.6	64.1	NA	132	43	18.9	100000

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F11-2-03	F11-2292-02	F11-2292-03	F11-2292-03	F11-43-02	F11-43-02	F11-43-03	F11-456-01	F11-456-02	F11-458-01	F11-458-02	F11-54-02	F11-6813-01	F11-79C-01
			Depths	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	12/10/1999	4/18/2000	12/8/1999	12/8/1999	6/23/2000	6/23/2000	12/10/1999	4/18/2000	12/8/1999	4/18/2000	12/16/1999	10/21/1999	12/8/1999	10/21/1999
			Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
			Sample Name	F11-2-030.5N	F11-2292-022N	F11-2292-032N	F11-2292-032FD	F11-43-021N	F11-43-020.5N	F11-43-030.5N	F11-456-011N	F11-456-022N	F11-458-012N	F11-458-022N	F11-54-022N	F11-6813-012N	F11-79C-012N
			Parent Sample				F11-2292-032N										
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	14.8	12.5	12.3	201	NA	54.2	27.1	236	38.1	124	59.3	364	13.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	F11-8113-02	F11-8113-02	F11-8227-01	F11-A2-01	F12-191-01	F12-191-02	F12-2026A-05	F12-2039-01	F12-2039-02	F12-2075-03	F12-2075-05	F12-2075A-03
				Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft
				Collection Date	12/10/1999	12/10/1999	12/8/1999	12/10/1999	6/29/2000	10/21/1999	10/25/1999	6/29/2000	10/28/1999	10/29/1999	10/29/1999	11/1/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	F11-8113-021.5N	F11-8113-022N	F11-8227-011N	F11-A2-011N	F12-191-011.5N	F12-191-022N	F12-2026A-052N	F12-2039-011.25N	F12-2039-022N	F12-2075-030.5N	F12-2075-052N	F12-2075A-031N
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	481	66.6	168	19.1	16.3	36.5	4.28	2.9	12.5	369	49.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F12-2075A-04	F12-2075A-05	F12-2221-04	F12-2221-05	F12-2221-06	F12-4-01	F12-4-03	F12-6-06	F12-6-12	F12-8206-03	F12-F6-01	F12-F6-02	F12-R1-01	F13-1-01	F13-1-15
			Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	11/1/1999	11/1/1999	10/28/1999	10/28/1999	10/28/1999	4/18/2000	12/9/1999	7/12/2000	7/12/2000	10/21/1999	4/18/2000	12/2/1999	10/28/1999	11/1/1999	11/1/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	F12-2075A-041N	F12-2075A-052N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-4-011.5N	F12-4-032N	F12-6-062N	F12-6-122N	F12-8206-031N	F12-F6-012N	F12-F6-021N	F12-R1-012N	F13-1-012N	F13-1-152N
			Parent Sample															
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	30.4	22.6	88	109	56.5	31.9	39	6.86	4.75	614	26.4	14.8	31.8	118	299

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F13-2077-01	F13-2077-01	F13-236B-01	F13-236B-03	F13-236B-03	F13-8209-02	F13-8209-02	F13-8209-03	F13-8209-03	F13-8230-02	F13-8230-03	F8-1-02	F8-2-01
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft
			Collection Date	11/1/1999	11/1/1999	6/29/2000	10/28/1999	10/28/1999	6/29/2000	6/29/2000	11/2/1999	11/2/1999	10/25/1999	6/29/2000	3/23/2000	3/23/2000
			Sample Type	N	FD	N	N	FD	N	FD	N	FD	N	N	N	N
			Sample Name	F13-2077-012N	F13-2077-012FD	F13-236B-012N	F13-236B-032N	F13-236B-032FD	F13-8209-021.5N	F13-8209-021.5FD	F13-8209-031N	F13-8209-031FD	F13-8230-022N	F13-8230-031.25N	F8-1-022N	F8-2-011.5N
			Parent Sample		F13-2077-012N			F13-236B-032N		F13-8209-021.5N		F13-8209-031N				
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	7.1	6.4	12.5	10.6	7.8	8.34	14	10	8.7	34.2	27.7	24.3	5.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F8-2107-02	F8-2116-03	F8-2116-07	F8-2116-09	F8-2116-10	F8-2117-07	F8-2117-08	F8-2144-03	F8-2144-04	F8-2144-06	F8-2150-02	F8-2150-05	F8-2151-01
			Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft
			Collection Date	3/21/2000	3/16/2000	3/16/2000	3/16/2000	3/16/2000	3/24/2000	3/24/2000	3/21/2000	3/21/2000	3/21/2000	3/16/2000	3/16/2000	3/23/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	F8-2107-021N	F8-2116-030.5N	F8-2116-071N	F8-2116-090.5N	F8-2116-100.5N	F8-2117-071N	F8-2117-081.5N	F8-2144-031.5N	F8-2144-041.5N	F8-2144-062N	F8-2150-020.5N	F8-2150-050.75N	F8-2151-012N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	68.6	NA	NA	256	166	31	NA	156	NA	241	193	1330	12.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**F8-2151-06**	**F8-2207-01**	**F8-2207-03**	**F8-2208-01**	**F8-2208-03**	**F8-3-01**	**F8-4-02**	**F8-563D-02**	**F8-567-05**	**F8-567-05**	**F8-573-02**	**F8-573-02**	**F8-575-04**	**F8-8-01**
				Depths	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**
				Collection Date	**3/23/2000**	**3/25/1999**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/16/2000**	**3/16/2000**	**7/14/2000**	**7/14/2000**	**4/18/2000**	**7/13/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**
				Sample Name	**F8-2151-062N**	**F8-2207-012N**	**F8-2207-030.5N**	**F8-2208-011.5N**	**F8-2208-032N**	**F8-3-010.5N**	**F8-4-020.5N**	**F8-563D-020.5N**	**F8-567-050.5N**	**F8-567-050.5FD**	**F8-573-021N**	**F8-573-020.5N**	**F8-575-041N**	**F8-8-011.5N**
				Parent Sample										**F8-567-050.5N**				
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	112	54	77.5	30	18.9	114	27.9	64.8	49.7	53.8	71	NA	24	NA	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	F8-9-02	F8-A9-02	F9-1-01	F9-1-01	F9-1-04	F9-1-04	F9-1-04	F9-1-04	F9-16-04	F9-16-05	F9-16-05	F9-2104-03	F9-2105-01	F9-2105-05	F9-2105A-01
				Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
				Collection Date	3/23/2000	3/23/2000	6/23/2000	6/23/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	12/21/1999	12/21/1999	12/21/1999	3/23/2000	3/17/2000	3/17/2000	12/21/1999
				Sample Type	N	N	N	N	N	FD	N	FD	N	N	FD	N	N	N	N
				Sample Name	F8-9-020.5N	F8-A9-020.5N	F9-1-011N	F9-1-010.5N	F9-1-041N	F9-1-041FD	F9-1-040.5N	F9-1-040.5FD	F9-16-041N	F9-16-051.5N	F9-16-051.5FD	F9-2104-030.5N	F9-2105-011N	F9-2105-050.5N	F9-2105A-011N
				Parent Sample						F9-1-041N		F9-1-040.5N			F9-16-051.5N				
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	76.3	40.3	72.8	NA	89	65	NA	NA	116	15	16.9	NA	37.8	140	63.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	F9-2105A-04	F9-2105B-01	F9-2109-05	F9-2251-01	F9-2251-03	F9-2276-03	F9-2279-02	F9-3-01	F9-4-01	F9-4-01	F9-5-03	F9-558A-01	F9-558B-03	F9-563-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.7 ft
				Collection Date	4/18/2000	3/23/2000	7/12/2000	6/29/2000	3/24/2000	3/16/2000	3/16/2000	3/24/2000	3/30/2000	3/30/2000	12/21/1999	3/23/2000	3/23/2000	3/16/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
				Sample Name	F9-2105A-041N	F9-2105B-011N	F9-2109-051.5N	F9-2251-011N	F9-2251-030.5N	F9-2276-031.5N	F9-2279-022N	F9-3-011.5N	F9-4-011N	F9-4-010.5N	F9-5-031.3N	F9-558A-011N	F9-558B-031.5FD	F9-563-010.67N
				Parent Sample													F9-558B-031.5FD	
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	63.7	194	216	119	10.8	34.5	3.8	NA	NA	NA	81.7	312	34.7	811

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**F9-611-02**	**F9-7-03**	**F9-8-02**	**F9-8-05**	**F9-8188-01**	**F9-9-01**	**F9-9-05**	**F9-9-05**	**F9-A3-02**	**F9-A4-02**	**F9-A5-01**	**F9-A6-01**	**F9-C1-04**	**G10-1-02**	**G10-1-02**
				Depths	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**3/16/2000**	**12/21/1999**	**3/17/2000**	**3/17/2000**	**12/21/1999**	**3/17/2000**	**3/17/2000**	**3/17/2000**	**3/23/2000**	**3/23/2000**	**3/23/2000**	**3/17/2000**	**12/21/1999**	**11/23/1999**	**11/23/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**
				Sample Name	**F9-611-020.5N**	**F9-7-031N**	**F9-8-020.5N**	**F9-8-051N**	**F9-8188-011N**	**F9-9-010.5N**	**F9-9-050.5N**	**F9-9-050.5FD**	**F9-A3-021.5N**	**F9-A4-020.5N**	**F9-A5-010.5N**	**F9-A6-011N**	**F9-C1-041.3N**	**G10-1-021N**	**G10-1-021FD**
				Parent Sample								**F9-9-050.5N**							**G10-1-021N**
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	67.3	15.8	53.3	29.5	66.1	47.7	63.6	46.4	77.8	219	255	104	42.2	120	153

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G10-108B-04	G10-108B-05	G10-13-01	G10-13-02	G10-16-02	G10-16-02	G10-172A-01	G10-172A-01	G10-172A-03	G10-18-04	G10-18-04	G10-2008-03	G10-2009-03
				Depths	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	11/22/1999	11/22/1999	7/13/2000	9/27/2000	11/30/1999	11/30/1999	12/1/1999	12/1/1999	11/30/1999	7/13/2000	7/13/2000	11/30/1999	11/30/1999
				Sample Type	N	N	N	N	N	FD	N	N	N	N	FD	N	N
				Sample Name	G10-108B-042N	G10-108B-050.5N	G10-13-010.5N	G10-13-021N	G10-16-021N	G10-16-021FD	G10-172A-010.5N	G10-172A-012N	G10-172A-031N	G10-18-041.25N	G10-18-041.25FD	G10-2008-031N	G10-2009-031N
				Parent Sample						G10-16-021N					G10-18-041.25N		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	62.3	14.7	56.2	9.97	412	321	NA	3560	NA	438	455	23.4	556

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**G10-2-03**	**G10-269-02**	**G10-269-03**	**G10-271-01**	**G10-271-02**	**G10-3-01**	**G10-3-01**	**G10-4-02**	**G10-4-05**	**G10-459-04**	**G10-459-05**	**G10-5-02**	**G10-5-03**	**G10-8106-01**
				Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**
				Collection Date	**11/22/1999**	**9/27/2000**	**7/13/2000**	**7/13/2000**	**9/27/2000**	**12/15/1999**	**12/15/1999**	**12/14/1999**	**12/14/1999**	**4/18/2000**	**12/15/1999**	**12/15/1999**	**4/18/2000**	**12/1/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**G10-2-031N**	**G10-269-021N**	**G10-269-031.25N**	**G10-271-010.5N**	**G10-271-022N**	**G10-3-010.5N**	**G10-3-010.5FD**	**G10-4-020.8N**	**G10-4-051N**	**G10-459-041N**	**G10-459-052N**	**G10-5-021N**	**G10-5-031.5N**	**G10-8106-010.5N**
				Parent Sample							**G10-3-010.5N**							
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	341	88.1	95.6	400	314	2910	3990	370	995	23	32.3	304	242	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G10-8106-01	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106-02	G10-8106A-04	G10-8106B-04	G10-8106C-04	G10-8108-06	G10-8108-07	G10-8108-08	G10-8114-03
				Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
				Collection Date	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	11/30/1999	11/30/1999	11/30/1999	11/23/1999	11/23/1999	11/23/1999	12/15/1999
				Sample Type	N	N	FD	N	FD	N	N	N	N	N	N	N
				Sample Name	G10-8106-011N	G10-8106-020.5N	G10-8106-020.5FD	G10-8106-022N	G10-8106-022FD	G10-8106A-041N	G10-8106B-041N	G10-8106C-042N	G10-8108-061N	G10-8108-071N	G10-8108-081N	G10-8114-032N
				Parent Sample			G10-8106-020.5N		G10-8106-022N							
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	367	NA	NA	253	286	853	35300	436	298	7650	1120	183	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G10-8159-03	G10-8159-03	G10-8159-05	G10-8159-05	G10-8159-06	G10-8159-06	G10-8204-02	G10-8204-05	G10-8213-07	G10-8213-07	G10-8216-01	G10-8216-02
				Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft
				Collection Date	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	11/22/1999	11/22/1999	11/30/1999	11/30/1999	7/13/2000	9/27/2000
				Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N
				Sample Name	G10-8159-030.5N	G10-8159-031.5N	G10-8159-050.5N	G10-8159-052N	G10-8159-060.5N	G10-8159-062N	G10-8204-022N	G10-8204-050.5N	G10-8213-071N	G10-8213-071FD	G10-8216-011.25N	G10-8216-021.5N
				Parent Sample										G10-8213-071N		
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	806	NA	84.1	NA	19.5	448	103	3420	2730	107	53

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G10-8224-02	G10-8224-03	G10-8224-04	G10-8501-06	G10-8502-03	G10-8502-07	G10-8503-03	G10-8503-03	G10-8503-03	G10-8503-03	G10-8522-01	G10-8522-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
				Collection Date	11/30/1999	11/30/1999	11/30/1999	12/16/1999	12/15/1999	12/15/1999	12/17/1999	12/17/1999	12/17/1999	12/17/1999	12/15/1999	12/15/1999
				Sample Type	N	N	N	N	N	N	N	FD	N	FD	N	FD
				Sample Name	G10-8224-021N	G10-8224-031N	G10-8224-041.5N	G10-8501-061N	G10-8502-030.5N	G10-8502-071N	G10-8503-030.5N	G10-8503-030.5FD	G10-8503-032N	G10-8503-032FD	G10-8522-011.5N	G10-8522-011.5FD
				Parent Sample								G10-8503-030.5N		G10-8503-032N		G10-8522-011.5N
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	309	83.2	226	361	2660	495	NA	NA	211	164	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G10-8522-02	G10-8682-05	G10-9100-01	G10-9106A-01	G10-9515-02	G11-1-01	G11-1-01	G11-1-02	G11-1-02	G11-1-02	G11-1-02	G11-2017A-02	G11-2017A-06
				Depths	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	12/15/1999	12/2/1999	11/22/1999	7/13/2000	11/23/1999	7/14/2000	7/14/2000	9/27/2000	9/27/2000	9/27/2000	9/27/2000	12/16/1999	12/16/1999
				Sample Type	N	N	N	N	N	N	N	N	FD	N	FD	N	N
				Sample Name	G10-8522-020.5N	G10-8682-052N	G10-9100-010.5N	G10-9106A-010.5N	G10-9515-021N	G11-1-011N	G11-1-010.5N	G11-1-021N	G11-1-021FD	G11-1-020.5N	G11-1-020.5FD	G11-2017A-022N	G11-2017A-062N
				Parent Sample									G11-1-021N		G11-1-020.5N		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	1110	85.1	965	12.5	709	50.9	NA	66.1	71.1	NA	NA	87.2	127

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**G11-2017B-01**	**G11-2017B-01**	**G11-2017B-07**	**G11-2017B-07**	**G11-2017B-08**	**G11-2017B-08**	**G11-2259-01**	**G11-2259-06**	**G11-253-01**	**G11-253-03**	**G11-3-01**	**G11-3-01**
				Depths	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**
				Collection Date	**12/15/1999**	**12/15/1999**	**12/15/1999**	**12/15/1999**	**12/15/1999**	**12/15/1999**	**12/2/1999**	**12/2/1999**	**4/18/2000**	**12/2/1999**	**12/9/1999**	**12/9/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**
				Sample Name	**G11-2017B-010.5N**	**G11-2017B-011N**	**G11-2017B-070.5N**	**G11-2017B-072N**	**G11-2017B-080.5N**	**G11-2017B-082N**	**G11-2259-011.5N**	**G11-2259-061N**	**G11-253-010.75N**	**G11-253-031N**	**G11-3-010.5N**	**G11-3-010.5FD**
				Parent Sample												**G11-3-010.5N**
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	85.1	NA	156	NA	15.6	77	138	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	G11-3-01	G11-3-01	G11-4-01	G11-5-02	G11-5-02	G11-66-03	G11-66-03	G11-66-05	G11-8208-05	G11-8212-04	G11-8257-03	G11-8257-03	G11-9300-03
			Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft
			Collection Date	12/9/1999	12/9/1999	12/8/1999	12/2/1999	12/2/1999	12/9/1999	12/9/1999	12/9/1999	12/10/1999	12/2/1999	12/9/1999	12/9/1999	12/7/1999
			Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	G11-3-011.5N	G11-3-011.5FD	G11-4-012N	G11-5-020.5N	G11-5-021N	G11-66-030.5N	G11-66-031.5N	G11-66-050.5N	G11-8208-051.5N	G11-8212-040.5N	G11-8257-031.5N	G11-8257-030.5N	G11-9300-032N
			Parent Sample		G11-3-011.5N											
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	327	375	NA	NA	30.2	NA	120	86.7	62.4	79.7	104	NA	901

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G11-9300-05	G11-9304-02	G11-9304-05	G11-9304-05	G11-9305-01	G11-9305-02	G11-9309-01	G11-9309-05	G11-B86-01	G11-B86-03	G12-12-01	G12-12-03
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft
				Collection Date	12/7/1999	12/2/1999	12/2/1999	12/2/1999	4/18/2000	12/7/1999	12/3/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	4/18/2000
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N
				Sample Name	G11-9300-052N	G11-9304-022N	G11-9304-050.5N	G11-9304-050.5FD	G11-9305-011N	G11-9305-022N	G11-9309-010.5N	G11-9309-051N	G11-B86-011N	G11-B86-030.5N	G12-12-011N	G12-12-031.5N
				Parent Sample				G11-9304-050.5N								
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	6590	50.9	27.3	42.7	83.3	34.3	199	87.6	83.8	31.5	44.3	80.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	G12-252-02	G12-252-03	G12-6-03	G12-6-04	G12-7-01	G12-7-01	G12-775-03	G12-8109-01	G12-8109-02	G12-8203-01	G12-8203-03	G13-1-03	G13-1-03	G13-1-04
			Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
			Collection Date	4/18/2000	12/10/1999	6/15/2000	12/1/1999	12/1/1999	12/1/1999	12/1/1999	6/15/2000	12/10/1999	12/1/1999	12/1/1999	6/1/2000	6/1/2000	9/13/2000
			Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
			Sample Name	G12-252-021.5N	G12-252-032N	G12-6-031N	G12-6-040.5N	G12-7-012N	G12-7-012FD	G12-775-031N	G12-8109-012N	G12-8109-021N	G12-8203-012N	G12-8203-032N	G13-1-032N	G13-1-032FD	G13-1-041N
			Parent Sample						G12-7-012N							G13-1-032N	
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	NA	115	145	NA	NA	40.8	45.3	18.5	215	165	350	408	516

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G6-1-02	G6-1-03	G6-2-02	G6-2-02	G6-2-03	G6-3-01	G6-3-02	G6-4-01	G6-4-01	G6-8128-04	G6-8129-01	G6-8129-05	G6-8129-06	G6-8242-04	G6-8243-03
				Depths	0.0-1.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft
				Collection Date	6/21/2000	4/4/2000	6/21/2000	6/21/2000	3/30/2000	3/28/2000	6/21/2000	3/31/2000	3/31/2000	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	3/30/2000
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	G6-1-021N	G6-1-031.25N	G6-2-021.25N	G6-2-021.25FD	G6-2-031N	G6-3-012N	G6-3-021N	G6-4-011N	G6-4-010.5N	G6-8128-041N	G6-8129-011N	G6-8129-050.5N	G6-8129-060.5N	G6-8242-041.5N	G6-8243-031N
				Parent Sample				G6-2-021.25N											
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	NA	NA	186	182	49	241	194	330	NA	1010	300	1050	928	76.1	4710

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**G6-8243-03**	**G6-8244-01**	**G6-8244-01**	**G6-8244-03**	**G6-8244-03**	**G6-8261-03**	**G6-8261-03**	**G6-8261-05**	**G6-906-02**	**G6-906-02**	**G6-9219-04**	**G6-9219-05**	**G7-1-01**
				Depths	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**
				Collection Date	**3/30/2000**	**3/31/2000**	**3/31/2000**	**7/14/2000**	**7/14/2000**	**3/30/2000**	**3/30/2000**	**3/30/2000**	**8/17/2000**	**9/13/2000**	**6/22/2000**	**3/30/2000**	**12/16/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**G6-8243-030.5N**	**G6-8244-011.5N**	**G6-8244-010.5N**	**G6-8244-031N**	**G6-8244-030.5N**	**G6-8261-031N**	**G6-8261-030.5N**	**G6-8261-050.5N**	**G6-906-022N**	**G6-906-020.5N**	**G6-9219-041.5N**	**G6-9219-051.5N**	**G7-1-011N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	274	NA	4360	NA	NA	NA	NA	9.43	NA	30.2	6.3	24.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**G7-2-01**	**G7-2115-04**	**G7-2115-06**	**G7-2115-07**	**G7-2149-01**	**G7-2149-04**	**G7-2149-04**	**G7-2164-01**	**G7-2164-05**	**G7-2164-07**	**G7-58-01**	**G7-58-04**	**G7-8139-02**	**G7-8139-05**
				Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**4/20/2000**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**12/21/1999**	**9/27/2000**	**7/13/2000**	**3/28/2000**	**3/28/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**G7-2-011N**	**G7-2115-041N**	**G7-2115-060.5N**	**G7-2115-071N**	**G7-2149-010.5N**	**G7-2149-041N**	**G7-2149-041FD**	**G7-2164-011.5N**	**G7-2164-050.5N**	**G7-2164-072N**	**G7-58-011N**	**G7-58-040.75N**	**G7-8139-021N**	**G7-8139-051N**
				Parent Sample							**G7-2149-041N**							
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	46.4	419	563	582	218	192	242	302	229	NA	NA	NA	NA	510

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G7-8139-08	G7-8140-02	G7-8140-02	G7-8249-02	G7-E49-02	G7-E49-05	G8-2114-03	G8-2114-06	G8-2148-02	G8-2204-03	G8-2204-05	G8-2209-01	G8-2209-05	G8-2210-02
				Depths	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
				Collection Date	3/28/2000	3/28/2000	3/28/2000	3/28/2000	4/4/2000	6/21/2000	12/17/1999	12/17/1999	12/17/1999	6/16/2000	12/17/1999	3/23/2000	3/23/2000	12/17/1999
				Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	G7-8139-080.5N	G7-8140-022N	G7-8140-022FD	G7-8249-020.5N	G7-E49-021N	G7-E49-051N	G8-2114-031N	G8-2114-061N	G8-2148-021N	G8-2204-031N	G8-2204-051N	G8-2209-011N	G8-2209-051N	G8-2210-022N
				Parent Sample			G7-8140-022N											
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	64	38.9	996	148	NA	28.7	90.8	58.9	66.7	35.6	32.1	28.1	32.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G8-2210-03	G8-2210-03	G8-2249-01	G8-2260-01	G8-2293-02	G8-3-02	G8-3-02	G8-5-01	G8-5-02	G8-8177A-01	G8-8178-01	G8-8178-02	G8-A12-01	G8-A12-05
				Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.0 ft
				Collection Date	12/17/1999	12/17/1999	12/17/1999	12/17/1999	4/4/2000	7/14/2000	7/14/2000	12/17/1999	4/20/2000	4/4/2000	4/4/2000	7/7/2000	6/15/2000	12/16/1999
				Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	G8-2210-031.5N	G8-2210-031.5FD	G8-2249-011N	G8-2260-011N	G8-2293-020.5N	G8-3-021.25N	G8-3-020.5N	G8-5-012N	G8-5-021N	G8-8177A-012N	G8-8178-012N	G8-8178-022N	G8-A12-010.75N	G8-A12-051N
				Parent Sample		G8-2210-031.5N												
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	25.9	26.2	424	26.1	141	NA	NA	NA	NA	7.2	4.8	4.14	24.7	41.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G8-C3-02	G8-F7-01	G9-1-02	G9-1-02	G9-14-01	G9-15-01	G9-15-01	G9-15-02	G9-15-02	G9-2-03	G9-2108-02	G9-2108-05	G9-2123-01	G9-2123-01	G9-2123-05
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-0.5 ft
				Collection Date	12/17/1999	12/17/1999	12/10/1999	12/10/1999	3/16/2000	12/10/1999	12/10/1999	6/15/2000	6/15/2000	11/23/1999	12/21/1999	12/21/1999	12/17/1999	12/17/1999	12/17/1999
				Sample Type	N	N	FD	N	N	N	FD	N	FD	N	N	N	N	N	N
				Sample Name	G8-C3-021N	G8-F7-011N	G9-1-020.5FD	G9-1-021N	G9-14-012N	G9-15-011N	G9-15-011FD	G9-15-022N	G9-15-022FD	G9-2-031N	G9-2108-022N	G9-2108-051N	G9-2123-010.5N	G9-2123-011.5N	G9-2123-050.5N
				Parent Sample			G9-1-021N				G9-15-011N		G9-15-022N						
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	45.5	NA	NA	NA	NA	61.8	305	20.4	74.6	496	187	79.6	NA	92.8	NA	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	G9-2123-05	G9-3-03	G9-3-03	G9-7-05	G9-7-05	G9-7-11	G9-8105-05	G9-8105-05	G9-8107-02	G9-8107-05	G9-8182-01	G9-8182-05	G9-8187-01	G9-8187-02
			Depths	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	12/17/1999	12/17/1999	12/17/1999	3/24/2000	3/24/2000	3/24/2000	6/23/2000	6/23/2000	11/23/1999	11/23/1999	11/22/1999	11/22/1999	12/9/1999	6/15/2000
			Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
			Sample Name	G9-2123-051.5N	G9-3-030.5N	G9-3-031N	G9-7-051N	G9-7-051FD	G9-7-111N	G9-8105-051N	G9-8105-050.5N	G9-8107-021N	G9-8107-052N	G9-8182-010.5N	G9-8182-051N	G9-8187-011N	G9-8187-021N
			Parent Sample					G9-7-051N									
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	153	NA	NA	41.1	46.4	93.4	342	NA	745	265	2860	528	109	23

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**G9-8205-02**	**G9-8205-05**	**G9-8207-04**	**G9-8207-04**	**G9-8207-05**	**G9-8207-05**	**G9-8267-04**	**G9-9321-02**	**G9-9321-08**	**G9-9322-02**	**G9-9322-02**	**G9-9322-04**	**G9-9322-04**
				Depths	**0.0-1.3 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**6/15/2000**	**12/9/1999**	**12/2/1999**	**12/2/1999**	**12/2/1999**	**12/2/1999**	**11/23/1999**	**12/9/1999**	**12/9/1999**	**4/7/2000**	**4/7/2000**	**4/7/2000**	**4/7/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**G9-8205-021.25N**	**G9-8205-050.5N**	**G9-8207-040.5N**	**G9-8207-042N**	**G9-8207-050.5N**	**G9-8207-051N**	**G9-8267-042N**	**G9-9321-021N**	**G9-9321-081N**	**G9-9322-021.5N**	**G9-9322-020.5N**	**G9-9322-041N**	**G9-9322-040.5N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	16.8	5.2	NA	NA	NA	NA	1070	287	53.6	60.5	NA	174	NA	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	G9-A11-02	H10-10-02	H10-10-06	H10-10-07	H10-1-02	H10-11-05	H10-11-05	H10-12-01	H10-12-01	H10-14-01	H10-14-02	H10-154B-03	H10-16-02	H10-17-03
				Depths	0.0-0.8 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-1.0 ft
				Collection Date	12/21/1999	12/3/1999	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	12/9/1999	12/3/1999	12/3/1999	12/3/1999	12/2/1999	7/13/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	G9-A11-020.8N	H10-10-021.5N	H10-10-061.5N	H10-10-071N	H10-1-020.5N	H10-11-051N	H10-11-050.5N	H10-12-012N	H10-12-010.5N	H10-14-011N	H10-14-022N	H10-154B-031N	H10-16-020.75N	H10-17-031N
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	8.5	1040	NA	181	NA	852	NA	2370	NA	9820	8330	538	4280	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H10-2003-01	H10-2003-01	H10-2092-03	H10-262-02	H10-267-01	H10-267-01	H10-269-03	H10-502-01	H10-502-01	H10-503-02	H10-503-02	H10-68-03	H10-68-03
				Depths	0.0-1.3 ft	0.5-1.0 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
				Collection Date	12/10/1999	12/10/1999	12/1/1999	12/14/1999	12/10/1999	12/10/1999	12/8/1999	12/10/1999	12/10/1999	12/14/1999	12/14/1999	12/9/1999	12/9/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	H10-2003-011.3N	H10-2003-010.5N	H10-2092-030.5N	H10-262-020.5N	H10-267-011N	H10-267-010.5N	H10-269-031N	H10-502-011N	H10-502-010.5N	H10-503-021.5N	H10-503-020.5N	H10-68-031N	H10-68-030.5N
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	12600	NA	4510	1650	880	NA	190	4210	NA	9330	NA	2790	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H10-8225-03	H10-8225-03	H10-8264-01	H10-9000-01	H10-9001-03	H10-9002-01	H10-9002-01	H10-9002-02	H10-9002-02	H10-9101-02	H10-9101-02	H10-9101-02
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
				Collection Date	12/9/1999	12/9/1999	7/13/2000	12/8/1999	6/16/2000	12/3/1999	12/3/1999	12/3/1999	12/3/1999	6/23/2000	6/23/2000	6/23/2000
				Sample Type	N	FD	N	N	N	N	N	N	N	N	FD	N
				Sample Name	H10-8225-031N	H10-8225-031FD	H10-8264-011N	H10-9000-011.5N	H10-9001-031N	H10-9002-010.5N	H10-9002-011N	H10-9002-020.5N	H10-9002-021N	H10-9101-021N	H10-9101-021FD	H10-9101-020.5N
				Parent Sample		H10-8225-031N									H10-9101-021N	
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	284	473	728	464	368	NA	1070	NA	1100	128	62.5	NA	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H10-9101-02	H10-9101-03	H10-9101-03	H10-9102-03	H10-9102-03	H10-9103-01	H10-9103-01	H10-9103-03	H10-9103-03	H10-9103-04	H10-9103-04	H10-9104-02
				Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.5 ft
				Collection Date	6/23/2000	12/14/1999	12/14/1999	12/9/1999	12/9/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999	12/1/1999
				Sample Type	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	H10-9101-020.5FD	H10-9101-031N	H10-9101-030.5N	H10-9102-031.5N	H10-9102-030.5N	H10-9103-010.5N	H10-9103-011N	H10-9103-030.5N	H10-9103-031N	H10-9103-040.5N	H10-9103-042N	H10-9104-020.5N
				Parent Sample	H10-9101-020.5N											
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	288	NA	NA	NA	NA	NA	121	NA	2630	NA	2930	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H10-9104-02	H10-9308-02	H10-9308-03	H10-9320-03	H10-9320-03	H11-10-02	H11-10-02	H11-12-01	H11-2-02	H11-2-02	H11-2-03	H11-2295-01	H11-2295-02
				Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	12/1/1999	12/3/1999	6/15/2000	12/3/1999	12/3/1999	12/9/1999	12/9/1999	12/10/1999	12/8/1999	12/8/1999	6/15/2000	6/15/2000	12/3/1999
				Sample Type	N	N	N	N	FD	N	N	N	N	FD	N	N	N
				Sample Name	H10-9104-021N	H10-9308-022N	H10-9308-032N	H10-9320-031N	H10-9320-031FD	H11-10-021N	H11-10-020.5N	H11-12-011.5N	H11-2-021.3N	H11-2-021.3FD	H11-2-031.5N	H11-2295-011N	H11-2295-021N
				Parent Sample					H10-9320-031N					H11-2-021.3N			
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	16800	244	621	2040	1840	NA	NA	NA	162	943	193	114	226

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**H11-2319-02**	**H11-2319-02**	**H11-2319-04**	**H11-2319-04**	**H11-3-02**	**H11-3-02**	**H11-3-03**	**H11-3-03**	**H11-4-03**	**H11-4-03**	**H11-510-01**	**H11-510-01**	**H11-510-03**
				Depths	**0.0-1.3 ft**	**0.5-1.0 ft**	**0.0-1.3 ft**	**0.5-1.0 ft**	**0.0-1.3 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.3 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**
				Collection Date	**6/23/2000**	**6/23/2000**	**12/9/1999**	**12/9/1999**	**12/10/1999**	**12/10/1999**	**6/23/2000**	**6/23/2000**	**12/10/1999**	**12/10/1999**	**6/15/2000**	**6/15/2000**	**12/3/1999**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**
				Sample Name	**H11-2319-021.25N**	**H11-2319-020.5N**	**H11-2319-041.3N**	**H11-2319-040.5N**	**H11-3-021.3N**	**H11-3-020.5N**	**H11-3-031N**	**H11-3-030.5N**	**H11-4-031N**	**H11-4-030.5N**	**H11-510-011.25N**	**H11-510-011.25FD**	**H11-510-031N**
				Parent Sample												**H11-510-011.25N**	
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	563	NA	307	NA	399	NA	179	NA	998	NA	57.8	50	40	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	H11-6-01	H11-696-01	H11-696-02	H11-697-01	H11-697-02	H11-761-03	H11-762-02	H11-762-03	H11-763-03	H11-8-01	H11-8-01	H11-8-02	H11-8-02	H11-9-02
			Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-0.4 ft	0.0-2.0 ft	0.0-1.5 ft
			Collection Date	12/3/1999	7/13/2000	9/27/2000	12/8/1999	6/15/2000	12/7/1999	6/15/2000	12/7/1999	12/8/1999	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/10/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	H11-6-011N	H11-696-010.5N	H11-696-020.5N	H11-697-012N	H11-697-021N	H11-761-031N	H11-762-021.5N	H11-762-031.5N	H11-763-031N	H11-8-010.5N	H11-8-012N	H11-8-020.4N	H11-8-020N	H11-9-021.5N
			Parent Sample														
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	109	107	151	345	362	554	95.6	105	289	NA	95.8	NA	NA	112

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	H11-9-04	H11-9307-01	H11-9307-02	H11-9310-03	H11-9312-02	H11-9312-02	H11-9312-04	H11-9313-02	H11-9313-04	H11-9335-05	H11-9335-06	H11-9336-01	H11-9336-02
			Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	6/15/2000	6/15/2000	12/9/1999	12/3/1999	12/10/1999	12/10/1999	12/10/1999	12/9/1999	12/9/1999	12/8/1999	12/8/1999	12/3/1999	12/3/1999
			Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N
			Sample Name	H11-9-041N	H11-9307-011N	H11-9307-021N	H11-9310-031N	H11-9312-021N	H11-9312-021FD	H11-9312-041N	H11-9313-021N	H11-9313-041N	H11-9335-052N	H11-9335-061N	H11-9336-011N	H11-9336-021N
			Parent Sample						H11-9312-021N							
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	243	23.1	25	190	265	266	1350	43.7	65.1	320	317	92.2	176

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**H12-1-02**	**H12-1-06**	**H12-1-07**	**H12-120-02**	**H12-120-03**	**H12-2-03**	**H12-3-01**	**H12-3-02**	**H12-4-01**	**H12-5-03**	**H12-689-01**	**H12-689-03**	**H12-8563-01**	**H12-8563-01**
				Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**5/25/2000**	**5/25/2000**	**5/25/2000**	**9/12/2000**	**5/25/2000**	**12/14/1999**	**12/14/1999**	**6/15/2000**	**12/10/1999**	**12/14/1999**	**6/15/2000**	**12/15/1999**	**6/23/2000**	**6/23/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**H12-1-021N**	**H12-1-061N**	**H12-1-072N**	**H12-120-021N**	**H12-120-031N**	**H12-2-031.5N**	**H12-3-011.5N**	**H12-3-020.75N**	**H12-4-011N**	**H12-5-032N**	**H12-689-011.25N**	**H12-689-031N**	**H12-8563-011N**	**H12-8563-010.5N**
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	43.8	1060	211	67.1	60.6	165	91.5	150	204	215	210	186	2.85	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**H12-8563-03**	**H12-8563-03**	**H12-8607-01**	**H12-8607-01**	**H12-8607-04**	**H12-8607-04**	**H13-2-01**	**H13-2014-01**	**H13-2-02**	**H13-2-03**	**H13-2031A-02**	**H13-3-01**	**H13-3-02**
				Depths	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**
				Collection Date	**12/15/1999**	**12/15/1999**	**6/23/2000**	**6/23/2000**	**12/14/1999**	**12/14/1999**	**5/25/2000**	**6/2/2000**	**5/25/2000**	**5/25/2000**	**5/25/2000**	**5/25/2000**	**5/25/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**H12-8563-030.5N**	**H12-8563-031N**	**H12-8607-012N**	**H12-8607-010.5N**	**H12-8607-041.5N**	**H12-8607-040.5N**	**H13-2-011N**	**H13-2014-011.5N**	**H13-2-021N**	**H13-2-031N**	**H13-2031A-021.25N**	**H13-3-011.5N**	**H13-3-021N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	26	73.6	NA	148	NA	NA	2630	NA	NA	103	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H13-3-03	H13-408-02	H13-408-03	H13-5-01	H13-6-01	H13-6-04	H13-8158-04	H13-8164-02	H13-8164-05	H13-8214-02	H13-8226-01	H13-8226-02	H13-9329-02
				Depths	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft
				Collection Date	5/25/2000	12/14/1999	6/15/2000	12/8/1999	5/25/2000	9/12/2000	5/25/2000	5/25/2000	5/25/2000	6/1/2000	9/12/2000	6/1/2000	12/14/1999
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	H13-3-031.5N	H13-408-021.3N	H13-408-031N	H13-5-012N	H13-6-011N	H13-6-041N	H13-8158-042N	H13-8164-021N	H13-8164-052N	H13-8214-021N	H13-8226-010.5N	H13-8226-021.25N	H13-9329-021N
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	2010	42.1	NA	51.4	16.2	68.9	5350	350	291	646	154	85.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H5-2-01	H5-8126-11	H6-1-02	H6-1-03	H6-12-01	H6-4-01	H6-7-01	H6-8116-01	H6-8116-02	H6-8120-04	H6-8120-04	H6-8120-05	H6-8120-05	H6-8120-06
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft
				Collection Date	7/13/2000	7/13/2000	4/14/2000	6/21/2000	4/7/2000	4/14/2000	3/30/2000	3/30/2000	6/21/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	H5-2-011N	H5-8126-111N	H6-1-022N	H6-1-032N	H6-12-012N	H6-4-012N	H6-7-011N	H6-8116-011N	H6-8116-021.25N	H6-8120-041.5N	H6-8120-040.5N	H6-8120-052N	H6-8120-050.5N	H6-8120-062N
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	NA	177	158	NA	NA	NA	78.2	114	248	NA	32	NA	541

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**H6-8120-06**	**H6-8122-01**	**H6-8123B-04**	**H6-8123B-06**	**H6-8127-02**	**H6-8130-03**	**H6-8130-06**	**H6-8152-04**	**H6-8152-05**	**H6-8152-07**	**H6-8245-01**	**H6-8246-01**	**H6-8246-01**
				Depths	**0.5-1.0 ft**	**0.0-0.8 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**3/30/2000**	**3/30/2000**	**4/4/2000**	**4/4/2000**	**3/30/2000**	**3/30/2000**	**3/30/2000**	**3/30/2000**	**3/30/2000**	**3/30/2000**	**4/6/2000**	**4/6/2000**	**4/6/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**
				Sample Name	**H6-8120-060.5N**	**H6-8122-010.75N**	**H6-8123B-042N**	**H6-8123B-061N**	**H6-8127-021.5N**	**H6-8130-031N**	**H6-8130-061.5N**	**H6-8152-041N**	**H6-8152-052N**	**H6-8152-071.5N**	**H6-8245-011N**	**H6-8246-011N**	**H6-8246-011FD**
				Parent Sample													**H6-8246-011N**
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	186	349	376	30.5	797	364	432	252	444	405	375	323	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	H6-8247-02	H6-8247-02	H6-8247-05	H6-8247-05	H6-8250-01	H6-8250-04	H6-8251-02	H6-8251-03	H6-8275-02	H6-8275-04	H6-8285-05	H6-8285-07	H6-8285-08
			Depths	0.0-2.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/6/2000	4/6/2000	6/21/2000	4/4/2000	4/4/2000	6/21/2000	7/13/2000	7/13/2000	7/13/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	H6-8247-022N	H6-8247-020.5N	H6-8247-052N	H6-8247-050.5N	H6-8250-011N	H6-8250-041N	H6-8251-021.5N	H6-8251-031N	H6-8275-021.25N	H6-8275-041.5N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	93.2	NA	20.2	NA	324	915	NA	NA	NA	NA	165	608	108

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H6-8520-01	H6-8520-02	H6-8520-03	H6-8520-03	H6-8520-04	H6-8520-04	H6-8520-05	H6-862-01	H6-862-04	H6-9-01	H6-918-01	H6-918-03	H6-941C-02	H6-941C-03
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	3/28/2000	3/30/2000	4/14/2000	6/21/2000	4/14/2000	6/21/2000
				Sample Type	N	N	N	FD	N	FD	N	N	N	N	N	N	N	N
				Sample Name	H6-8520-011N	H6-8520-021N	H6-8520-032N	H6-8520-032FD	H6-8520-042N	H6-8520-042FD	H6-8520-052N	H6-862-011.5N	H6-862-041N	H6-9-012N	H6-918-010.5N	H6-918-031N	H6-941C-021N	H6-941C-031N
				Parent Sample				H6-8520-032N		H6-8520-042N								
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	45.8	63.7	NA	52.3	40.2	25.5	9.47

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H7-10-01	H7-13-05	H7-13-05	H7-15-02	H7-2-01	H7-2172-03	H7-2172-06	H7-2172A-03	H7-2172A-05	H7-4-04	H7-5-01	H7-5-02	H7-6-02	H7-606L-01
				Depths	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-0.5 ft	0.0-1.0 ft
				Collection Date	7/19/2000	3/28/2000	3/28/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	7/13/2000	7/13/2000	3/30/2000	3/28/2000	6/21/2000	3/28/2000	3/28/2000
				Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	H7-10-011.5N	H7-13-051N	H7-13-051FD	H7-15-021.5N	H7-2-011.5N	H7-2172-031.5N	H7-2172-062N	H7-2172A-031.25N	H7-2172A-051N	H7-4-041.5N	H7-5-011N	H7-5-021.25N	H7-6-020.5N	H7-606L-011N
				Parent Sample			H7-13-051N											
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	17900	53100	104	NA	28.4	8.5	7.2	47.2	77	39	28	97.7	29.6	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H7-642B-03	H7-8123A-03	H7-8123A-05	H7-8124-01	H7-8131-04	H7-8131-04	H7-8131-06	H7-8134-02	H7-8134-04	H7-8142-05	H7-8143-03	H7-8143-04	H7-8144-01
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft
				Collection Date	4/18/2000	4/4/2000	4/4/2000	4/4/2000	3/30/2000	3/30/2000	3/30/2000	3/28/2000	6/21/2000	7/19/2000	6/21/2000	3/30/2000	6/21/2000
				Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N
				Sample Name	H7-642B-032N	H7-8123A-032N	H7-8123A-051N	H7-8124-011N	H7-8131-041N	H7-8131-041FD	H7-8131-062N	H7-8134-021.5N	H7-8134-041.25N	H7-8142-051N	H7-8143-031.25N	H7-8143-042N	H7-8144-011N
				Parent Sample						H7-8131-041N							
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	10.5	500	44000	65.8	48.7	46.9	157	309	56.4	248	197	123	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	H7-8144-05	H7-8145-01	H7-8145-03	H7-8146-03	H7-8146-04	H7-8176-01	H7-8176-01	H7-8176-02	H7-8176-02	H7-8248-02	H7-8248-02	H7-8248-02
			Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Collection Date	3/30/2000	3/30/2000	3/30/2000	3/30/2000	6/21/2000	4/4/2000	6/16/2000	6/21/2000	6/21/2000	3/31/2000	3/31/2000	3/31/2000
			Sample Type	N	N	N	N	N	FD	N	N	FD	N	FD	N
			Sample Name	H7-8144-051.5N	H7-8145-012N	H7-8145-031.5N	H7-8146-031.5N	H7-8146-041.5N	H7-8176-011.5FD	H7-8176-011.5N	H7-8176-022N	H7-8176-022FD	H7-8248-021N	H7-8248-021FD	H7-8248-020.5N
			Parent Sample						H7-8176-011.5N			H7-8176-022N		H7-8248-021N	
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	NA	94.8	149	69.8	27.8	24.7	34.3	12.2	11.5	55.8	67.5	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	H7-8248-02	H7-8252-01	H7-8252-01	H7-8255-02	H7-8255-02	H7-8255-02	H7-8282-02	H7-8282-03	H7-9-04	H7-916-01	H7-916-01	H8-2-03	H8-2171-01
			Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	3/31/2000	3/31/2000	3/31/2000	4/13/2000	4/13/2000	4/13/2000	6/21/2000	3/30/2000	3/28/2000	3/30/2000	3/30/2000	3/28/2000	4/18/2000
			Sample Type	FD	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	H7-8248-020.5FD	H7-8252-011N	H7-8252-010.5N	H7-8255-021N	H7-8255-021FD	H7-8255-020.5N	H7-8282-021.25N	H7-8282-031N	H7-9-041N	H7-916-011.5N	H7-916-010.5N	H8-2-031N	H8-2171-011N
			Parent Sample	H7-8248-020.5N				H7-8255-021N								
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	136	NA	2160	2540	NA	43.6	49.8	128	NA	NA	58.4	16.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H8-2171-03	H8-2171-05	H8-2181-01	H8-2181-05	H8-2291-02	H8-2291-04	H8-558-03	H8-558-03	H8-558-04	H8-564-02	H8-585-01	H8-585-01	H8-69E-01
				Depths	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft
				Collection Date	4/18/2000	3/23/1999	6/2/2000	6/2/2000	4/18/2000	7/20/2000	4/20/2000	4/20/2000	7/20/2000	4/20/2000	12/2/1999	12/2/1999	12/1/1999
				Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N
				Sample Name	H8-2171-032N	H8-2171-051.25N	H8-2181-011N	H8-2181-051.5N	H8-2291-021.25N	H8-2291-041.5N	H8-558-031.25N	H8-558-031.25FD	H8-558-041N	H8-564-021N	H8-585-010.5N	H8-585-011N	H8-69E-012N
				Parent Sample								H8-558-031.25N					
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	51.3	27.4	194	49.2	37.2	19	44.9	49.6	57.5	NA	NA	599	165

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	H8-69F-01	H8-69F-02	H8-8102-02	H8-8177-01	H8-8177-02	H8-8179-01	H8-8179-02	H8-8262-01	H8-9121-02	H8-9121-04	H8-9221-03	H8-9221-04	H8-9226-02
			Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.8 ft
			Collection Date	6/2/2000	9/12/2000	4/6/2000	4/14/2000	4/14/2000	4/14/2000	4/14/2000	12/2/1999	6/2/2000	9/12/2000	3/28/2000	3/28/2000	12/1/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	H8-69F-011N	H8-69F-021N	H8-8102-022N	H8-8177-012N	H8-8177-022N	H8-8179-012N	H8-8179-022N	H8-8262-011.25N	H8-9121-021.5N	H8-9121-041N	H8-9221-031N	H8-9221-041.25N	H8-9226-021.75N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	45.2	72.2	24.6	8.3	153	4.2	7.5	496	343	163	119	179	14.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	H8-9328-05	H8-9328-06	H9-10-05	H9-10-05	H9-1-03	H9-1-04	H9-1-04	H9-2261-04	H9-3-01	H9-3-03	H9-8155-01	H9-8155-02	H9-8238-01	H9-8238-02
				Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	6/2/2000	6/2/2000	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	12/2/1999	6/15/2000	6/15/2000	12/1/1999	12/1/1999	12/1/1999
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
				Sample Name	H8-9328-051.5N	H8-9328-061.5N	H9-10-051N	H9-10-051FD	H9-1-032N	H9-1-040.5N	H9-1-042N	H9-2261-041.25N	H9-3-011.25N	H9-3-032N	H9-8155-011N	H9-8155-021N	H9-8238-011N	H9-8238-021N
				Parent Sample				H9-10-051N										
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	450	3520	128	110	NA	NA	NA	521	348	53.9	91.6	155	97.9	36.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**H9-8238-03**	**I10-1-03**	**I10-2-02**	**I10-2-02**	**I10-2079-02**	**I10-2079-05**	**I10-2080-01**	**I10-2080-02**	**I10-2121-02**	**I10-2122-03**	**I10-2155-02**	**I10-2155-03**	**I10-2156-03**	**I10-3-02**
				Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**
				Collection Date	**12/1/1999**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**7/20/2000**	**4/27/2000**	**7/20/2000**	**4/28/2000**	**4/28/2000**	**4/28/2000**	**7/20/2000**	**4/27/2000**	**4/27/2000**
				Sample Type	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**H9-8238-031N**	**I10-1-031N**	**I10-2-022N**	**I10-2-022FD**	**I10-2079-021N**	**I10-2079-051.25N**	**I10-2080-011N**	**I10-2080-021N**	**I10-2121-021.5N**	**I10-2122-031.5N**	**I10-2155-021N**	**I10-2155-031N**	**I10-2156-032N**	**I10-3-021N**
				Parent Sample				**I10-2-022N**										
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	14.7	55.9	5700	10400	49.5	64.1	20.8	26.3	NA	NA	NA	NA	NA	53.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I10-550-02**	**I10-552-04**	**I10-E50-01**	**I10-E50-05**	**I11-1-03**	**I11-2326-01**	**I11-2326-04**	**I11-7-01**	**I11-7-03**	**I11-8260-02**	**I11-8260-03**	**I11-8278-03**	**I11-8504-03**
				Depths	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**
				Collection Date	**4/27/2000**	**4/27/2000**	**7/20/2000**	**4/28/2000**	**7/19/2000**	**9/12/2000**	**6/1/2000**	**8/2/2000**	**5/25/2000**	**7/19/2000**	**8/2/2000**	**5/4/2000**	**6/2/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**I10-550-021N**	**I10-552-040.5N**	**I10-E50-011N**	**I10-E50-051.25N**	**I11-1-031N**	**I11-2326-011N**	**I11-2326-041N**	**I11-7-011N**	**I11-7-032N**	**I11-8260-021N**	**I11-8260-031.25N**	**I11-8278-031.5N**	**I11-8504-031N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	803	129	11.2	11	133	51.3	61.9	46	43.2	924	141	58.3	1030

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	I11-8504-03	I11-8504-04	I11-8504-04	I11-8504-06	I11-8504-06	I11-9117-02	I11-9117-02	I11-9301-02	I11-9301-05	I11-9303-02	I11-B5-04	I12-10-01
				Depths	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft
				Collection Date	6/2/2000	6/2/2000	6/2/2000	6/2/2000	6/2/2000	12/15/1999	12/15/1999	7/25/2000	5/9/2000	6/1/2000	6/1/2000	9/12/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	I11-8504-030.5N	I11-8504-041N	I11-8504-040.5N	I11-8504-060.5N825	I11-8504-060.5N830	I11-9117-020.5N	I11-9117-021N	I11-9301-021N	I11-9301-051N	I11-9303-021N	I11-B5-041.5N	I12-10-011.5N
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	465	NA	NA	51	NA	204	92.2	109	313	51.4	256	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**I12-10-03**	**I12-1-02**	**I12-1-04**	**I12-1-04**	**I12-11-02**	**I12-11-04**	**I12-11-06**	**I12-11-08**	**I12-11-08**	**I12-11-08**	**I12-11-09**	**I12-11-11**	**I12-11-13**	**I12-12-01**
			Depths	**0.0-2.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**
			Collection Date	**6/1/2000**	**9/12/2000**	**6/2/2000**	**6/2/2000**	**9/12/2000**	**9/12/2000**	**5/31/2000**	**5/31/2000**	**5/31/2000**	**5/31/2000**	**9/12/2000**	**5/31/2000**	**5/31/2000**	**6/2/2000**
			Sample Type	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**
			Sample Name	**I12-10-032N**	**I12-1-020.5N**	**I12-1-041N**	**I12-1-041FD**	**I12-11-020.5N**	**I12-11-040.5N**	**I12-11-061N**	**I12-11-081N810**	**I12-11-081N815**	**I12-11-081FD**	**I12-11-091N**	**I12-11-111N**	**I12-11-130.5N**	**I12-12-011N**
			Parent Sample				**I12-1-041N**						**I12-11-081N815**				
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	272	67.9	125	123	75.7	176	116	48.2	NA	56.5	143	67.1	103	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I12-12-01**	**I12-13-03**	**I12-13-03**	**I12-14-01**	**I12-15-01**	**I12-15-04**	**I12-2010-05**	**I12-2011-01**	**I12-2011-04**	**I12-2012-02**	**I12-2012-03**	**I12-2013-01**	**I12-2184-01**
				Depths	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**
				Collection Date	**6/2/2000**	**6/2/2000**	**6/2/2000**	**6/2/2000**	**5/31/2000**	**5/31/2000**	**6/2/2000**	**6/2/2000**	**9/12/2000**	**6/2/2000**	**9/12/2000**	**5/31/2000**	**6/2/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**I12-12-010.5N**	**I12-13-031N**	**I12-13-030.5N**	**I12-14-011N**	**I12-15-011N**	**I12-15-040.5N**	**I12-2010-051.5N**	**I12-2011-011.5N**	**I12-2011-042N**	**I12-2012-021.5N**	**I12-2012-031N**	**I12-2013-011N**	**I12-2184-011.5N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	33	NA	138	71.1	54.8	144	93.9	34.9	24.3	90.4	5020	11.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I12-2186-03**	**I12-2186-06**	**I12-2186-13**	**I12-2287-01**	**I12-2287-04**	**I12-2341-03**	**I12-4-01**	**I12-6-04**	**I12-7-02**	**I12-7-04**	**I12-8-01**	**I12-8101-01**	**I12-8101-02**	**I12-8271-01**
				Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**
				Collection Date	**6/1/2000**	**6/1/2000**	**6/1/2000**	**5/31/2000**	**9/12/2000**	**6/2/2000**	**5/25/2000**	**6/1/2000**	**5/26/2000**	**5/26/2000**	**6/1/2000**	**5/25/2000**	**8/2/2000**	**9/12/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**I12-2186-031N**	**I12-2186-061N**	**I12-2186-131N**	**I12-2287-011N**	**I12-2287-040.5N**	**I12-2341-031N**	**I12-4-012N**	**I12-6-041N**	**I12-7-021.5N**	**I12-7-041.5N**	**I12-8-011N**	**I12-8101-011N**	**I12-8101-021N**	**I12-8271-012N**
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	331	1030	157	134	54.7	73600	222	226	713	NA	NA	41.3	40.5	31.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	I12-8271-02	I12-8581-01	I12-8581-01	I12-8581-04	I12-8581-04	I12-9-01	I12-9-01	I12-9110-03	I12-9110-04	I12-9111-01	I12-9111-01	I12-9111-04	I12-9111-04
			Depths	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Collection Date	6/1/2000	9/13/2000	9/13/2000	6/2/2000	6/2/2000	6/1/2000	6/1/2000	5/31/2000	5/31/2000	9/13/2000	9/13/2000	6/2/2000	6/2/2000
			Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	N
			Sample Name	I12-8271-020.5N	I12-8581-012N	I12-8581-010.5N	I12-8581-041N	I12-8581-040.5N	I12-9-011N	I12-9-011FD	I12-9110-031N	I12-9110-041N	I12-9111-011N	I12-9111-010.5N	I12-9111-041N	I12-9111-040.5N
			Parent Sample							I12-9-011N						
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	48.7	38.2	NA	25.2	NA	NA	NA	241	133	45.8	NA	15.7	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I12-9112-03**	**I12-9112-03**	**I12-9112-04**	**I12-9112-04**	**I12-9120-02**	**I12-9120-03**	**I5-1-01**	**I5-1-02**	**I5-1-02**	**I5-1-03**	**I5-3-03**	**I5-8-01**	**I5-8-02**	**I5-8170-02**	**I6-1-04**
				Depths	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**
				Collection Date	**9/12/2000**	**9/12/2000**	**6/2/2000**	**6/2/2000**	**7/13/2000**	**9/27/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/14/2000**	**4/13/2000**	**6/21/2000**	**4/13/2000**	**3/30/2000**
				Sample Type	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**I12-9112-030.5N**	**I12-9112-030.5FD**	**I12-9112-041N**	**I12-9112-041FD**	**I12-9120-020.5N**	**I12-9120-031N**	**I5-1-012N**	**I5-1-021.5N**	**I5-1-021.5FD**	**I5-1-032N**	**I5-3-031N**	**I5-8-012N**	**I5-8-022N**	**I5-8170-021N**	**I6-1-041.5N**
				Parent Sample		**I12-9112-030.5N**		**I12-9112-041N**					**I5-1-021.5N**						
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	88.8	73.8	345	371	35.7	47.7	NA	NA	NA	NA	NA	127	565	736	28.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**I6-3-03**	**I6-3-04**	**I6-3-04**	**I6-5-02**	**I6-5-05**	**I6-8-01**	**I6-8-01**	**I6-8125-03**	**I6-8125-03**	**I6-8125-05**	**I6-8125-05**	**I6-8125-07**	**I6-8125-07**	**I6-8132-02**	**I6-8132-03**
			Depths	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**
			Collection Date	**6/21/2000**	**3/31/2000**	**3/31/2000**	**3/30/2000**	**3/30/2000**	**7/14/2000**	**7/14/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**	**4/13/2000**
			Sample Type	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
			Sample Name	**I6-3-032N**	**I6-3-042N**	**I6-3-042FD**	**I6-5-021N**	**I6-5-051N**	**I6-8-010.5N**	**I6-8-011N**	**I6-8125-031.5N**	**I6-8125-030.5N**	**I6-8125-051N**	**I6-8125-050.5N**	**I6-8125-071N**	**I6-8125-070.5N**	**I6-8132-021N**	**I6-8132-032N**
			Parent Sample			**I6-3-042N**												
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	48.7	17	20.1	39.3	19.9	NA	NA	167	NA	739	NA	130	NA	350	2720

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	I6-8132-05	I6-8171-01	I6-8171-01	I6-8171-04	I6-8171-04	I6-8171-06	I6-8171-06	I6-8171-07	I6-8171-07	I6-8171A-02	I6-8171A-02	I6-8171C-01	I6-8171C-02
			Depths	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft
			Collection Date	4/13/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/13/2000	4/13/2000	4/4/2000	6/21/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	I6-8132-050.5N	I6-8171-012N	I6-8171-010.5N	I6-8171-041N	I6-8171-040.5N	I6-8171-062N	I6-8171-060.5N	I6-8171-071.5N	I6-8171-070.5N	I6-8171A-021N	I6-8171A-020.5N	I6-8171C-012N	I6-8171C-021N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	26.5	NA	45.2	NA	26.3	NA	39.1	NA	35	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	I6-8171C-02	I6-8172-06	I6-8173-01	I6-8174-02	I6-8174-04	I6-8175-04	I6-8175-04	I6-8181-01	I6-8181-02	I6-8183-01	I6-8183-01	I6-8183-05	I6-8184-02
				Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
				Collection Date	6/21/2000	4/4/2000	4/6/2000	4/4/2000	6/21/2000	4/4/2000	4/4/2000	4/13/2000	6/21/2000	4/6/2000	4/6/2000	4/6/2000	4/6/2000
				Sample Type	FD	N	N	N	N	N	FD	N	N	N	FD	N	N
				Sample Name	I6-8171C-021FD	I6-8172-062N	I6-8173-010.5N	I6-8174-022N	I6-8174-041.5N	I6-8175-041N	I6-8175-041FD	I6-8181-010.5N	I6-8181-021N	I6-8183-012N	I6-8183-012FD	I6-8183-052N	I6-8184-021.5N
				Parent Sample	I6-8171C-021N						I6-8175-041N				I6-8183-012N		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	26.9	16.3	NA	NA	70.8	104	16.3	26.7	140	124	127	1860

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	I6-8192-01	I6-8192-03	I6-8263-01	I6-8263-02	I6-9-04	I6-9-05	I6-9210-02	I6-9210-03	I6-9215-01	I6-E3-04	I6-E3-05	I6-E4-01	I6-E4-01	I7-12-01	I7-13-01	I7-13-02
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	3/30/2000	3/30/2000	3/31/2000	6/21/2000	4/6/2000	4/6/2000	6/21/2000	4/13/2000	3/31/2000	6/21/2000	3/30/2000	7/14/2000	7/14/2000	4/18/2000	4/20/2000	4/20/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	I6-8192-012N	I6-8192-032N	I6-8263-012N	I6-8263-021.5N	I6-9-042N	I6-9-052N	I6-9210-022N	I6-9210-031N	I6-9215-012N	I6-E3-041N	I6-E3-051.5N	I6-E4-011N	I6-E4-010.5N	I7-12-012N	I7-13-011N	I7-13-021N
				Parent Sample																
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	63.6	717	NA	NA	29.2	12.2	NA	NA	210	NA	NA	10.3	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**I7-15-04**	**I7-15-04**	**I7-15-05**	**I7-15-05**	**I7-2124-04**	**I7-2124-05**	**I7-2124-06**	**I7-2124A-03**	**I7-2124A-05**	**I7-2124A-05**	**I7-2133A-03**	**I7-2305-02**	**I7-3-03**
			Depths	**0.0-1.3 ft**	**0.0-1.3 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.5 ft**
			Collection Date	**7/19/2000**	**7/19/2000**	**4/20/2000**	**4/20/2000**	**4/20/2000**	**4/20/2000**	**4/20/2000**	**4/25/2000**	**4/25/2000**	**4/25/2000**	**4/27/2000**	**4/20/2000**	**4/20/2000**
			Sample Type	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**
			Sample Name	**I7-15-041.25N**	**I7-15-041.25FD**	**I7-15-051.5N**	**I7-15-051.5FD**	**I7-2124-041.5N**	**I7-2124-052N**	**I7-2124-062N**	**I7-2124A-032N**	**I7-2124A-051.5N**	**I7-2124A-051.5FD**	**I7-2133A-031N**	**I7-2305-021.25N**	**I7-3-031.5N**
			Parent Sample		**I7-15-041.25N**		**I7-15-051.5N**						**I7-2124A-051.5N**			
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	13.7	20.7	16.4	15.9	57.6	6.4	11.5	NA	NA	NA	64	32.7	27.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I7-4-01**	**I7-5-03**	**I7-5-03**	**I7-5-03**	**I7-5-03**	**I7-566-02**	**I7-566A-01**	**I7-567-01**	**I7-567-02**	**I7-8-03**	**I7-8181-01**	**I7-8181-01**	**I7-8181-04**	**I7-8181-04**
				Depths	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**
				Collection Date	**4/20/2000**	**4/28/2000**	**4/28/2000**	**4/28/2000**	**4/28/2000**	**4/20/2000**	**7/13/2000**	**4/27/2000**	**7/19/2000**	**3/30/2000**	**4/28/2000**	**4/28/2000**	**7/21/2000**	**7/21/2000**
				Sample Type	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**I7-4-011N**	**I7-5-031.25N**	**I7-5-031.25FD**	**I7-5-030.5N**	**I7-5-030.5FD**	**I7-566-021.5N**	**I7-566A-012N**	**I7-567-011.5N**	**I7-567-022N**	**I7-8-032N**	**I7-8181-012N**	**I7-8181-010.5N**	**I7-8181-041.5N**	**I7-8181-040.5N**
				Parent Sample			**I7-5-031.25N**		**I7-5-030.5N**									
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	16.3	67.5	81.4	NA	NA	NA	122	NA	NA	136	48.8	NA	14.2	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	I7-B59-02	I8-2138-03	I8-2170-04	I8-2170-04	I8-2170-05	I8-2299-03	I8-2299-05	I8-2328-02	I8-2328-07	I8-2328A-02	I8-2328A-03	I8-2332-01	I8-2332-02
				Depths	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.5 ft
				Collection Date	4/20/2000	4/20/2000	7/19/2000	7/19/2000	4/20/2000	7/19/2000	4/20/2000	4/20/2000	3/23/1999	4/20/2000	7/19/2000	7/19/2000	4/20/2000
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N
				Sample Name	I7-B59-021.25N	I8-2138-032N	I8-2170-041N	I8-2170-041FD	I8-2170-051N	I8-2299-031N	I8-2299-051N	I8-2328-022N	I8-2328-071.5N	I8-2328A-022N	I8-2328A-031N	I8-2332-011.25N	I8-2332-021.5N
				Parent Sample				I8-2170-041N									
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	11.3	67.3	61.2	63.5	34.7	9.43	6.1	6.8	5.4	21.3	12.6	10.4	8

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	I8-2333-02	I8-2333-03	I8-2405-01	I8-2405-05	I8-2405-06	I8-2405-06	I8-2405A-01	I8-2405A-02	I8-2409-01	I8-2409-04	I8-525-03	I8-525-04	I8-560-01	I8-560-03
			Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Collection Date	4/20/2000	7/19/2000	4/20/2000	4/20/2000	4/20/2000	4/20/2000	7/19/2000	4/28/2000	4/20/2000	7/19/2000	4/20/2000	7/19/2000	7/19/2000	4/27/2000
			Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	I8-2333-021N	I8-2333-031.5N	I8-2405-011N	I8-2405-050.5N	I8-2405-062N	I8-2405-062FD	I8-2405A-011.5N	I8-2405A-021N	I8-2409-011N	I8-2409-041N	I8-525-030.5N	I8-525-041N	I8-560-011N	I8-560-031.5N
			Parent Sample						I8-2405-062N								
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	17.7	12.1	59.1	50.4	11.3	19.1	6.64	8.4	8.2	5.86	64.4	72.7	46.4	22.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I8-588E-03**	**I8-588E-06**	**I8-8236-01**	**I8-8236-05**	**I8-9334-01**	**I8-9334-02**	**I8-F2-01**	**I8-F2-01**	**I9-2-01**	**I9-2-01**	**I9-2-02**	**I9-2311-01**	**I9-2311-06**	**I9-2311-06**	**I9-2329-04**
				Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**4/20/2000**	**4/20/2000**	**4/25/2000**	**4/25/2000**	**4/20/2000**	**7/19/2000**	**5/4/2000**	**5/4/2000**	**4/20/2000**	**4/20/2000**	**7/19/2000**	**4/28/2000**	**4/28/2000**	**4/28/2000**	**4/25/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**FD**	**N**
				Sample Name	**I8-588E-031N**	**I8-588E-061N**	**I8-8236-011.25N**	**I8-8236-052N**	**I8-9334-011N**	**I8-9334-021N**	**I8-F2-011N**	**I8-F2-011FD**	**I9-2-011N**	**I9-2-011FD**	**I9-2-021.5N**	**I9-2311-011.5N**	**I9-2311-061N**	**I9-2311-061FD**	**I9-2329-041N**
				Parent Sample								**I8-F2-011N**		**I9-2-011N**				**I9-2311-061N**	
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	3520	6080	253	15.1	76.7	22.4	20.4	16.5	82.1	86.9	37	NA	NA	NA	8.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	I9-2329-05	I9-2329-06	I9-2329A-01	I9-2329A-04	I9-2329A-04	I9-3-01	I9-3-03	I9-3-05	I9-3-07	I9-3-09	I9-3-11	I9-3-11	I9-3-13	I9-5-01	I9-5-05	I9-515-01
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
				Collection Date	4/25/2000	4/25/2000	4/20/2000	7/19/2000	7/19/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/27/2000	7/20/2000	4/28/2000
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N
				Sample Name	I9-2329-051N	I9-2329-061N	I9-2329A-011N	I9-2329A-042N	I9-2329A-042FD	I9-3-011N	I9-3-031N	I9-3-051N	I9-3-071N	I9-3-091N	I9-3-111.5N	I9-3-111.5FD	I9-3-131.5N	I9-5-011N	I9-5-051.5N	I9-515-012N
				Parent Sample					I9-2329A-042N							I9-3-111.5N				
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	29.9	31.7	17.6	23.6	33.7		75.3	39.4	21.1	14.9	27	22	26.8	5.7	NA	NA	28.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**I9-515-01**	**I9-516-02**	**I9-516-04**	**I9-519-03**	**I9-519-04**	**I9-520-03**	**I9-520-05**	**I9-523-03**	**I9-523-05**	**I9-524-01**	**J10-2033-01**	**J10-2-08**	**J10-2-11**	**J10-587B-02**
				Depths	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**
				Collection Date	**4/28/2000**	**7/19/2000**	**4/28/2000**	**7/19/2000**	**4/28/2000**	**4/28/2000**	**7/19/2000**	**4/28/2000**	**7/19/2000**	**4/27/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**4/28/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**I9-515-010.5N**	**I9-516-021N**	**I9-516-041N**	**I9-519-030.5N**	**I9-519-040.5N**	**I9-520-031N**	**I9-520-051.5N**	**I9-523-030.5N**	**I9-523-051N**	**I9-524-011N**	**J10-2033-011N**	**J10-2-081N**	**J10-2-111.5N**	**J10-587B-022N**
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	34.9	43.9	1370	12.3	379	156	59.2	58.1	48.6	524	92.6	72	177	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**J10-6-01**	**J10-6-01**	**J10-6-05**	**J10-6-05**	**J10-609-01**	**J10-609-01**	**J10-609-02**	**J11-1-12**	**J11-1-12**	**J11-1-12**	**J11-1-12**	**J11-1-16**	**J11-1-16**	**J11-3-02**	**J11-3-02**
			Depths	**0.0-1.3 ft**	**0.5-1.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**
			Collection Date	**7/19/2000**	**5/25/2000**	**5/25/2000**	**5/25/2000**	**8/2/2000**	**8/2/2000**	**5/18/2000**	**8/1/2000**	**8/1/2000**	**8/1/2000**	**8/1/2000**	**8/1/2000**	**8/1/2000**	**5/25/2000**	**5/25/2000**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**N**
			Sample Name	**J10-6-011.25N**	**J10-6-010.5N**	**J10-6-052N**	**J10-6-050.5N**	**J10-609-011.5N**	**J10-609-011.5FD**	**J10-609-022N**	**J11-1-122N**	**J11-1-122FD**	**J11-1-120.5N**	**J11-1-120.5FD**	**J11-1-161N**	**J11-1-160.5N**	**J11-3-021.5N**	**J11-3-020.5N**
			Parent Sample						**J10-609-011.5N**			**J11-1-122N**		**J11-1-120.5N**				
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	20.6	77.9	29.5	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**J11-317-01**	**J11-317-03**	**J11-317-05**	**J11-317-06**	**J11-8265-04**	**J11-B20-02**	**J11-B83-01**	**J11-B83-03**	**J12-2-02**	**J12-2-03**	**J12-2-03**	**J12-3-02**	**J5-4-01**	**J6-1-01**
				Depths	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.5 ft**	**0.0-0.8 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**
				Collection Date	**5/23/2000**	**5/23/2000**	**5/23/2000**	**5/23/2000**	**5/23/2000**	**5/18/2000**	**5/18/2000**	**8/1/2000**	**8/2/2000**	**5/23/2000**	**5/23/2000**	**5/23/2000**	**7/7/2000**	**7/7/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**
				Sample Name	**J11-317-011.5N**	**J11-317-031N**	**J11-317-051N**	**J11-317-062N**	**J11-8265-041N**	**J11-B20-021.25N**	**J11-B83-011.5N**	**J11-B83-030.75N**	**J12-2-021N**	**J12-2-031.5N**	**J12-2-031.5FD**	**J12-3-022N**	**J5-4-011N**	**J6-1-011.5N**
				Parent Sample											**J12-2-031.5N**			
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	1920	1040	478	553	138	95.9	121	10.1	213	198	436	28.6	14.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	J6-1-04	J6-2-03	J6-2-03	J6-2245-03	J6-2245-05	J6-2340-02	J6-2340-02	J6-2340-04	J6-3-02	J6-4-01	J6-4-01	J6-5-01	J6-6-01	J6-6-05	J6-8-01
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
			Collection Date	4/13/2000	4/13/2000	4/13/2000	7/7/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
			Sample Type	N	N	FD	N	N	N	FD	N	N	N	FD	N	N	N	N
			Sample Name	J6-1-042N	J6-2-032N	J6-2-032FD	J6-2245-031N	J6-2245-052N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J6-3-021.25N	J6-4-011.5N	J6-4-011.5FD	J6-5-011N	J6-6-011N	J6-6-051N	J6-8-012N
			Parent Sample			J6-2-032N				J6-2340-021.5N				J6-4-011.5N				
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	30.1	129	126	6.46	19.7	53.3	39.7	321	143	NA	NA	NA	34.8	35.8	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	J6-8134-01	J6-8134-04	J6-8134-05	J6-8136-04	J6-9-01	J6-9200-01	J6-9200-02	J6-941A-01	J6-942A-04	J6-942A-04	J7-2-03	J7-2133-01	J7-2133-06	J7-2246-01
			Depths	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	4/13/2000	4/13/2000	4/13/2000	4/11/2000	4/11/2000	7/7/2000	4/13/2000	4/11/2000	4/13/2000	4/13/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-8136-042N	J6-9-012N	J6-9200-011N	J6-9200-021N	J6-941A-012N	J6-942A-042N	J6-942A-040.5N	J7-2-031.5N	J7-2133-011.5N	J7-2133-061.5N	J7-2246-012N
			Parent Sample														
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	17.9	219	39.2	467	1710	59.4	56.4	29.8	50.5	NA	54.4	1950	1570	14.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**J7-2246-02**	**J7-2246-02**	**J7-2281-02**	**J7-2281-05**	**J7-2281B-01**	**J7-2281B-03**	**J7-2281B-03**	**J7-2281B-05**	**J7-2282-03**	**J7-2282-06**	**J7-2324-06**	**J7-241-04**	**J7-241-05**
			Depths	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**
			Collection Date	**7/20/2000**	**7/20/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**4/27/2000**	**7/20/2000**	**4/27/2000**
			Sample Type	**N**	**FD**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**
			Sample Name	**J7-2246-021.5N**	**J7-2246-021.5FD**	**J7-2281-021N**	**J7-2281-052N**	**J7-2281B-012N**	**J7-2281B-032N**	**J7-2281B-032FD**	**J7-2281B-052N**	**J7-2282-032N**	**J7-2282-061N**	**J7-2324-062N**	**J7-241-041.25N**	**J7-241-051N**
			Parent Sample		**J7-2246-021.5N**					**J7-2281B-032N**						
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	17.4	11.4	6.4	14.1	7.1	11.1	11.3	5.1	5.2	37.8	744	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	J7-3-03	J7-5-01	J7-8240-01	J7-8240-02	J7-8281-01	J7-8281-02	J7-F1-01	J7-F1-02	J8-1-01	J8-1-02	J8-2-01	J8-2-02	J8-2339-02	J8-2354-01	J8-2354-02
				Depths	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.5 ft
				Collection Date	4/18/2000	7/13/2000	7/20/2000	4/25/2000	7/20/2000	4/27/2000	4/20/2000	7/20/2000	4/20/2000	7/20/2000	4/14/2000	4/14/2000	4/20/2000	6/16/2000	4/20/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	J7-3-030.5N	J7-5-012N	J7-8240-011N	J7-8240-021.5N	J7-8281-010.5N	J7-8281-021N	J7-F1-011.5N	J7-F1-022N	J8-1-011N	J8-1-021N	J8-2-011.25N	J8-2-022N	J8-2339-020.5N	J8-2354-012N	J8-2354-021.5N
				Parent Sample															
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	880	NA	155	117	74	46.2	20.2	20.2	NA	NA	NA	NA	11.1	NA	16.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	J8-2354-05	J8-2354A-03	J8-2354A-04	J8-8272-02	J8-9220-02	J8-9220-05	J9-1-02	J9-2-02	J9-2111-04	J9-2111-05	J9-2142-04	J9-2142-05	J9-3-03	J9-4-03
				Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-0.8 ft	0.0-1.3 ft
				Collection Date	4/20/2000	7/20/2000	4/20/2000	4/20/2000	5/9/2000	5/9/2000	4/25/2000	5/9/2000	7/20/2000	4/25/2000	4/25/2000	4/25/2000	4/28/2000	4/28/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	J8-2354-051N	J8-2354A-030.5N	J8-2354A-041N	J8-8272-021N	J8-9220-021.5N	J8-9220-052N	J9-1-020.75N	J9-2-021.5N	J9-2111-041N	J9-2111-051.25N	J9-2142-041N	J9-2142-051.5N	J9-3-030.75N	J9-4-031.25N
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	14.2	NA	NA	NA	NA	NA	65.2	45	NA	NA	99	96.7	115	81.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	J9-5-01	J9-6-01	J9-6-02	K10-1-01	K10-1-02	K10-2090-01	K10-2090-04	K10-2090-07	K10-2090-08	K10-2090-08	K10-3-02	K10-602B-02	K10-602B-03
				Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft
				Collection Date	4/25/2000	7/25/2000	5/9/2000	5/16/2000	7/25/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000	8/1/2000	5/18/2000
				Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N
				Sample Name	J9-5-011N	J9-6-011N	J9-6-022N	K10-1-011.25N	K10-1-022N	K10-2090-011.5N	K10-2090-041.25N	K10-2090-072N	K10-2090-081N	K10-2090-081FD	K10-3-022N	K10-602B-020.5N	K10-602B-031.5N
				Parent Sample										K10-2090-081N			
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	NA	NA	106	29.6	20.6	44.9	21.4	80.6	39.7	3100	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**K10-602B-03**	**K10-79A-01**	**K10-79A-03**	**K11-2301-02**	**K11-2301-04**	**K11-3-02**	**K11-3-02**	**K6-529-01**	**K6-529-02**	**K6-8273-03**	**K6-9214-05**	**K6-9214-05**	**K6-9217-05**
				Depths	**0.0-1.5 ft**	**0.0-1.3 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**
				Collection Date	**5/18/2000**	**5/18/2000**	**8/1/2000**	**8/1/2000**	**5/18/2000**	**5/12/2000**	**5/12/2000**	**7/7/2000**	**4/14/2000**	**4/27/2000**	**4/11/2000**	**4/11/2000**	**4/11/2000**
				Sample Type	**FD**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**FD**	**N**
				Sample Name	**K10-602B-031.5FD**	**K10-79A-011.25N**	**K10-79A-031.5N**	**K11-2301-021N**	**K11-2301-041.5N**	**K11-3-021N**	**K11-3-021FD**	**K6-529-011.5N**	**K6-529-021.5N**	**K6-8273-031N**	**K6-9214-051N**	**K6-9214-051FD**	**K6-9217-052N**
				Parent Sample	**K10-602B-031.5N**						**K11-3-021N**					**K6-9214-051N**	
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	20.6	40.8	145	67.6	62.6	66.5	321	347	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	K7-2125-01	K7-2125-05	K7-2126-03	K7-2126-05	K7-2127-03	K7-2127-05	K7-2132-03	K7-2132-05	K7-3-03	K7-8651-02	K7-F5-02	K8-1-01	K8-1-05	K8-393-01
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
			Collection Date	4/28/2000	4/28/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	4/28/2000	4/28/2000	5/2/2000	4/14/2000	5/2/2000	4/28/2000	4/28/2000	7/25/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	K7-2125-012N	K7-2125-052N	K7-2126-032N	K7-2126-051.5N	K7-2127-031N	K7-2127-052N	K7-2132-032N	K7-2132-052N	K7-3-030.5N	K7-8651-022N	K7-F5-021N	K8-1-011N	K8-1-050.5N	K8-393-011N
			Parent Sample														
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	9.2	27.2	20.5	233	95.3	9.42

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**K8-393-05**	**K8-9207-02**	**K8-9207-04**	**K8-9207-04**	**K8-9212-02**	**K8-9212-07**	**K8-9212A-01**	**K8-9212A-04**	**K8-9212A-04**	**K9-1-01**	**K9-1-02**	**K9-3-01**	**K9-4-01**
				Depths	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**
				Collection Date	**4/28/2000**	**5/5/2000**	**7/25/2000**	**7/25/2000**	**5/9/2000**	**3/23/1999**	**5/9/2000**	**7/25/2000**	**7/25/2000**	**8/1/2000**	**5/25/2000**	**5/9/2000**	**8/1/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**
				Sample Name	**K8-393-050.5N**	**K8-9207-021.5N**	**K8-9207-041.5N835**	**K8-9207-041.5N900**	**K8-9212-022N**	**K8-9212-071.5N**	**K8-9212A-011.5N**	**K8-9212A-041N**	**K8-9212A-041FD**	**K9-1-011N**	**K9-1-021N**	**K9-3-011.5N**	**K9-4-010.5N**
				Parent Sample									**K8-9212A-041N**				
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	182	NA	NA	NA	32.5	9.2	34.6	34.5	40.2	25.3	16	24.6	10.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	K9-4-02	K9-4-02	K9-9203-01	K9-9203-07	K9-9204-01	K9-9204-05	L10-1-02	L10-1-02	L10-2-01	L10-2-02	L10-2088-01	L10-2088-02	L10-2191-02	L10-2191-06
			Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
			Collection Date	5/25/2000	5/25/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/16/2000	5/16/2000	8/2/2000	5/18/2000	8/2/2000	5/18/2000	5/16/2000	5/16/2000
			Sample Type	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N
			Sample Name	K9-4-021N	K9-4-021FD	K9-9203-011N	K9-9203-070.5N	K9-9204-011.5N	K9-9204-052N	L10-1-021.5N	L10-1-021.5FD	L10-2-011.5N	L10-2-021N	L10-2088-011N	L10-2088-021N	L10-2191-021.5N	L10-2191-061N
			Parent Sample		K9-4-021N						L10-1-021.5N						
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	9.4	9.4	NA	NA	NA	NA	145	74.4	109	31.3	34.8	60.8	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**L10-2242-02**	**L10-2242-03**	**L10-2316-02**	**L10-4-02**	**L10-4-05**	**L10-6-01**	**L10-6-05**	**L10-6-05**	**L10-725-01**	**L10-725-01**	**L10-8210-03**	**L10-8210-03**	**L10-8215-01**
				Depths	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
				Collection Date	**8/2/2000**	**5/18/2000**	**5/18/2000**	**7/25/2000**	**5/16/2000**	**8/2/2000**	**5/18/2000**	**5/18/2000**	**5/18/2000**	**5/18/2000**	**5/25/2000**	**5/26/2000**	**8/2/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**L10-2242-021N**	**L10-2242-031.5N**	**L10-2316-021N**	**L10-4-021N**	**L10-4-051N**	**L10-6-011N**	**L10-6-052N**	**L10-6-052FD**	**L10-725-011N**	**L10-725-010.5N**	**L10-8210-031N1630**	**L10-8210-031N810**	**L10-8215-011N**
				Parent Sample								**L10-6-052N**					
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	10.6	14.4	44.9	55.6	12.1	NA	NA	NA	43.5	NA	NA	177	31.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	L10-8215-02	L10-8521-01	L10-8521-02	L10-8521-03	L10-B462-01	L10-B462-03	L11-1-04	L11-2-01	L11-2-01	L11-2089-01	L11-2089-05	L11-2091-02	L11-2091-05
				Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft
				Collection Date	5/18/2000	5/18/2000	5/18/2000	5/18/2000	8/2/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	L10-8215-021N	L10-8521-012N	L10-8521-022N	L10-8521-031.5N	L10-B462-011.25N	L10-B462-031N	L11-1-041N	L11-2-011N	L11-2-010.5N	L11-2089-011N	L11-2089-051N	L11-2091-020.5N	L11-2091-051N
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	32.3	NA	NA	NA	17.4	32.2	NA	NA	NA	17.4	13.5	16.3	16.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**L11-2225-02**	**L11-2225-05**	**L11-2226-02**	**L11-2226-02**	**L11-2303-03**	**L5-1-01**	**L5-1-01**	**L5-1-01**	**L5-1-01**	**L5-4-02**	**L5-6-02**	**L5-6-03**	**L5-6-05**	**L5-8-05**	**L6-1-01**
			Depths	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**
			Collection Date	**5/25/2000**	**5/25/2000**	**5/18/2000**	**5/18/2000**	**5/18/2000**	**7/14/2000**	**7/14/2000**	**7/14/2000**	**7/14/2000**	**4/6/2000**	**4/11/2000**	**4/11/2000**	**4/11/2000**	**4/18/2000**	**4/7/2000**
			Sample Type	**N**	**N**	**N**	**FD**	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**
			Sample Name	**L11-2225-021.5N**	**L11-2225-051N**	**L11-2226-021.5N**	**L11-2226-021.5FD**	**L11-2303-031N**	**L5-1-011.5N**	**L5-1-011.5FD**	**L5-1-010.5N**	**L5-1-010.5FD**	**L5-4-021N**	**L5-6-021N**	**L5-6-032N**	**L5-6-052N**	**L5-8-052N**	**L6-1-011.5N**
			Parent Sample				**L11-2226-021.5N**			**L5-1-011.5N**		**L5-1-010.5N**						
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	24.3	17.4	3.4	4.6	16.9	809	993	NA	NA	1590	2260	NA	2630	1710	156

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	L6-1-02	L6-1-07	L6-2128-03	L6-2128-05	L6-2129-03	L6-2129-05	L6-3-01	L6-3-02	L6-370-03	L6-370-03	L6-370-05	L6-371-01	L6-371-02	L6-4-02	L6-4-03
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
				Collection Date	4/7/2000	4/7/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	7/7/2000	4/13/2000	7/7/2000	7/7/2000	4/13/2000	4/11/2000	7/7/2000	4/18/2000	7/7/2000
				Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
				Sample Name	L6-1-022N	L6-1-072N	L6-2128-032N	L6-2128-051N	L6-2129-032N	L6-2129-051.5N	L6-3-012N	L6-3-021N	L6-370-031.5N	L6-370-031.5FD	L6-370-051.5N	L6-371-011N	L6-371-022N	L6-4-021N	L6-4-031.5N
				Parent Sample										L6-370-031.5N					
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	74.9	54.9	NA	NA	NA	NA	75.8	39.2	450	604	15	35.4	7.83	142	125

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**L6-5-01**	**L6-5-02**	**L6-9-01**	**L7-1-01**	**L7-1-03**	**L7-2-02**	**L7-2-02**	**L7-2130-01**	**L7-2130-01**	**L7-2130-06**	**L7-2131-04**	**L7-2131-05**	**L7-2131-05**	**L7-4-02**	**L7-5-01**
				Depths	**0.0-1.5 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**
				Collection Date	**4/18/2000**	**7/7/2000**	**4/11/2000**	**8/2/2000**	**5/23/2000**	**5/9/2000**	**5/9/2000**	**5/11/2000**	**5/11/2000**	**5/11/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**	**N**	**FD**	**N**	**N**
				Sample Name	**L6-5-011.5N**	**L6-5-021.25N**	**L6-9-011N**	**L7-1-011.5N**	**L7-1-031.5N**	**L7-2-022N**	**L7-2-022FD**	**L7-2130-012N**	**L7-2130-012FD**	**L7-2130-061N**	**L7-2131-041N**	**L7-2131-051.5N**	**L7-2131-051.5FD**	**L7-4-022N**	**L7-5-011N**
				Parent Sample							**L7-2-022N**		**L7-2130-012N**				**L7-2131-051.5N**		
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	46.9	9.27	2850	34.3	30.7	9	11.7	NA	NA	NA	NA	NA	NA	19.9	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	L7-6-01	L7-8115-02	L7-8115-02	L7-8115-04	L7-9206-01	L7-9206-02	L7-9315-01	L7-9315-02	L8-1-01	L8-1-05	L8-1-05	L8-8215-01	L8-8235-01	L8-8235-02	L8-9202-01
				Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	5/5/2000	5/5/2000	5/5/2000	7/25/2000	5/23/2000	8/2/2000	5/23/2000	8/2/2000	7/13/2000	7/13/2000	7/13/2000	5/4/2000	5/4/2000	7/25/2000	5/4/2000
				Sample Type	N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N
				Sample Name	L7-6-011N	L7-8115-022N	L7-8115-022FD	L7-8115-041N	L7-9206-012N	L7-9206-021N	L7-9315-011.5N	L7-9315-021N	L8-1-011N	L8-1-051N	L8-1-051FD	L8-8215-010.5N	L8-8235-011N	L8-8235-021N	L8-9202-011N
				Parent Sample			L7-8115-022N								L8-1-051N				
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	40	7.8	3.9	34.6	NA	NA	NA	NA	42.1	20.7	19.6	32.8	40.7	40.5	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	L8-9202-07	L9-1-02	L9-3-01	L9-79B-01	L9-79B-03	L9-79B-03	L9-8210-05	M10-1-02	M10-1-04	M10-2-01	M10-2262-04	M10-2262-05	M10-2315-02	M10-4-02
				Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.5-1.0 ft
				Collection Date	5/4/2000	5/12/2000	5/16/2000	5/25/2000	9/13/2000	9/13/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000	5/23/2000	5/18/2000	5/25/2000
				Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
				Sample Name	L8-9202-071N	L9-1-020.5N	L9-3-011.5N	L9-79B-011.5N	L9-79B-031N	L9-79B-031FD	L9-8210-051N	M10-1-021.5N	M10-1-041N	M10-2-012N	M10-2262-041.5N	M10-2262-051N	M10-2315-021.5N	M10-4-020.5N845
				Parent Sample						L9-79B-031N								
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	35.3	NA	32.8	63.1	71.2	6530	20	443	NA	17.7	18.2	155	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	M10-4-02	M10-6-02	M10-7-02	M10-7-03	M10-7-03	M10-724-01	M10-724-01	M10-724-03	M10-724-03	M10-8-01	M10-B14-01	M10-B14-01	M10-B14-02
				Depths	0.5-1.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.5 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft
				Collection Date	5/25/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/18/2000	5/18/2000	8/2/2000	8/2/2000	5/25/2000	5/18/2000	5/18/2000	8/2/2000
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	FD	N
				Sample Name	M10-4-020.5N850	M10-6-022N	M10-7-020.5N	M10-7-031.5N	M10-7-031.5FD	M10-724-010.5N925	M10-724-010.5N930	M10-724-031.5N	M10-724-030.5N	M10-8-012N	M10-B14-011N	M10-B14-011FD	M10-B14-020.5N
				Parent Sample					M10-7-031.5N							M10-B14-011N	
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	459	NA	NA	NA	NA	NA	29.8	37.2	NA	NA	308	295	391

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**M11-3-02**	**M11-3-03**	**M4-2-01**	**M5-11-02**	**M5-12-03**	**M5-8166-01**	**M5-8166-03**	**M5-8166A-B-C-01**	**M5-8166A-B-C-03**	**M5-8166D-04**	**M5-8166E-01**	**M5-8166E-02**	**M6-1-01**
				Depths	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**
				Collection Date	**5/25/2000**	**8/2/2000**	**4/6/2000**	**4/7/2000**	**4/7/2000**	**4/7/2000**	**7/7/2000**	**7/7/2000**	**4/7/2000**	**4/7/2000**	**4/7/2000**	**7/7/2000**	**5/5/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**M11-3-021N**	**M11-3-030.5N**	**M4-2-011.25N**	**M5-11-021N**	**M5-12-031N**	**M5-8166-011N**	**M5-8166-031N**	**M5-8166A-B-C-011.25N**	**M5-8166A-B-C-031N**	**M5-8166D-041N**	**M5-8166E-012N**	**M5-8166E-022N**	**M6-1-011N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	128	490	NA	20.2	288	22.7	13.8	6.94	6.3	3.8	31	16	NA	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	M6-1-06	M6-1-07	M6-1-11	M6-1-13	M6-1-14	M6-1-15	M7-1-01	M7-1-05	M7-1-05	M7-2-02	M7-2-04	M7-2-05	M7-2-11	M7-2-13	M7-2-15	M7-2-18	M7-2-20
			Depths	0.0-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	5/5/2000	7/19/2000	5/5/2000	5/5/2000	5/5/2000	5/5/2000	5/23/2000	5/23/2000	5/23/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
			Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	M6-1-061N	M6-1-070.5N	M6-1-110.5N	M6-1-130.5N	M6-1-141N	M6-1-150.5N	M7-1-012N	M7-1-051N	M7-1-051FD	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N	M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N
			Parent Sample									M7-1-051N								
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	53.5	NA	NA	NA	NA	NA	NA	NA	NA	806	36.9	1980	51.2	120	44.2	280	1790

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	M7-9205-01	M7-9205-05	M8-2-05	M8-2196-03	M8-2196-07	M8-2196-08	M8-3-01	M8-3-02	M8-9201-01	M8-9201-10	M9-2191-05	M9-2192-03	M9-2192-05
			Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	5/23/2000	5/23/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	7/25/2000	5/5/2000	5/5/2000	5/18/2000	5/12/2000	5/12/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	M7-9205-011.5N	M7-9205-052N	M8-2-051.5N	M8-2196-032N	M8-2196-071.5N	M8-2196-081.5N	M8-3-011.5N	M8-3-021.25N	M8-9201-012N	M8-9201-100.5N	M9-2191-051.25N	M9-2192-031N	M9-2192-051N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	NA	822	NA	NA	NA	33.5	21.1	NA	NA	1510	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	M9-2192-06	M9-2193-01	M9-2193-05	M9-2193-06	M9-2251-03	M9-2251-03	M9-2251-03	M9-2251-03	M9-2254-03	M9-2261-01	M9-2261-02	M9-2292-01	M9-2292-02
				Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
				Collection Date	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/25/2000	5/25/2000	5/25/2000	5/25/2000	5/12/2000	5/18/2000	8/2/2000	5/18/2000	8/2/2000
				Sample Type	N	N	N	N	N	FD	N	FD	N	N	N	N	N
				Sample Name	M9-2192-062N	M9-2193-011N	M9-2193-052N	M9-2193-061N	M9-2251-031N	M9-2251-031FD	M9-2251-030.5N	M9-2251-030.5FD	M9-2254-031N	M9-2261-012N	M9-2261-021N	M9-2292-011N	M9-2292-021N
				Parent Sample						M9-2251-031N		M9-2251-030.5N					
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	72.9	55.9	NA	NA	16.1	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	M9-3-01	M9-5-02	M9-8151-02	M9-8151-03	M9-8151-03	N4-2-01	N4-2-02	N4-2-02	N4-3-02	N4-3-03	N5-3-01	N5-3-03	N5-533-01	N5-533-05	N5-581-01
				Depths	0.0-1.3 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-0.8 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
				Collection Date	5/18/2000	5/18/2000	7/13/2000	9/27/2000	9/27/2000	7/7/2000	4/6/2000	4/6/2000	4/6/2000	7/7/2000	7/25/2000	5/12/2000	7/25/2000	5/12/2000	5/12/2000
				Sample Type	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N
				Sample Name	M9-3-011.25N	M9-5-022N	M9-8151-021.25N	M9-8151-031.5N	M9-8151-031.5FD	N4-2-012N	N4-2-022N	N4-2-022FD	N4-3-020.5N	N4-3-030.75N	N5-3-012N	N5-3-031.5N	N5-533-012N	N5-533-052N	N5-581-012N
				Parent Sample					M9-8151-031.5N			N4-2-022N							
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	49.2	16.9	10.6	9.03	11	109	1.9	2.7	10.4	30.7	64.4	16.8	187	67.3	17

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**N5-581-05**	**N5-582-02**	**N5-6-14**	**N5-8-01**	**N5-8-03**	**N5-8-05**	**N6-9208-03**	**N6-9208-03**	**N6-9208-04**	**N7-2-06**	**N7-2-07**	**N7-2-10**	**N7-2-13**	**N7-2-14**	**N7-2-17**	**N7-394-01**
				Depths	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**
				Collection Date	**7/25/2000**	**5/12/2000**	**4/6/2000**	**4/6/2000**	**4/6/2000**	**4/6/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**	**5/2/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**N5-581-051.5N**	**N5-582-021.5N**	**N5-6-140.5N**	**N5-8-011N**	**N5-8-031N**	**N5-8-051N**	**N6-9208-032N**	**N6-9208-032FD**	**N6-9208-042N**	**N7-2-061N**	**N7-2-071N**	**N7-2-101N**	**N7-2-131N**	**N7-2-142N**	**N7-2-171N**	**N7-394-011.25N**
				Parent Sample								**N6-9208-032N**								
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	19.8	225	191	27.5	35.4	7.2	NA	NA	NA	210	942	95.5	59	12.3	629	22.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	N7-394-03	N7-4-01	N7-5-02	N7-571-02	N7-571-03	N7-572-01	N7-573-01	N7-574-02	N7-574-03	N7-9222-01	N7-9222-06	N8-2304-01	N8-2304-05	N8-389-04	N8-389-05
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
				Collection Date	7/26/2000	5/5/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/4/2000	5/5/2000	7/26/2000	7/26/2000	5/5/2000	5/25/2000	5/25/2000	8/2/2000	4/28/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	N7-394-032N	N7-4-012N	N7-5-021N	N7-571-021N	N7-571-031.5N	N7-572-012N	N7-573-011N	N7-574-022N	N7-574-031N	N7-9222-012N	N7-9222-062N	N8-2304-011N	N8-2304-051N	N8-389-041.5N	N8-389-051N
				Parent Sample															
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	45.2	NA	75.7	47.2	20	15.9	274	7.4	16	NA	NA	19	9.5	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	N9-1-01	N9-2195-02	N9-2195-05	N9-2260-01	N9-2267-03	N9-2267-05	N9-2267-05	N9-2269-04	N9-3-04	N9-3-05	N9-B4-01	N9-B4-04	N9-B4-04	N9-B41-10-01
			Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
			Collection Date	9/13/2000	5/23/2000	5/23/2000	7/13/2000	6/15/2000	6/15/2000	6/15/2000	5/25/2000	8/2/2000	5/25/2000	9/12/2000	5/26/2000	5/26/2000	9/12/2000
			Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N
			Sample Name	N9-1-011N	N9-2195-021.5N	N9-2195-051N	N9-2260-011N	N9-2267-031.5N	N9-2267-052N	N9-2267-052FD	N9-2269-041.5N	N9-3-041N	N9-3-051N	N9-B4-011.5N	N9-B4-042N	N9-B4-042FD	N9-B41-10-011N
			Parent Sample							N9-2267-052N						N9-B4-042N	
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	NA	31.3	93.6	37.4	38.8	43.2	41.2	22.7	135	170	26.8	19.1	19.8	45.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	N9-B41-10-03	N9-B4-11-03	N9-B4-11-05	O5-2-01	O5-2-04	O5-5-02	O5-5-03	O5-534-02	O5-534-04	O5-537-02	O5-537-02	O5-537-05	O5-578-02	O5-578-04
				Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
				Collection Date	5/26/2000	9/12/2000	5/26/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	9/27/2000	5/11/2000	7/25/2000	7/25/2000	5/9/2000	7/25/2000	5/9/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
				Sample Name	N9-B41-10-031.5N	N9-B4-11-031.5N	N9-B4-11-051N	O5-2-012N	O5-2-041N	O5-5-021.5N	O5-5-031.25N	O5-534-021N	O5-534-041N	O5-537-021N	O5-537-021FD	O5-537-052N	O5-578-021N	O5-578-041.5N
				Parent Sample											O5-537-021N			
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	9.56	8.92	7.24	11.8	34.4	37.5	11.1	65.5	310	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	O5-579-01	O5-579-04	O5-580.5-02	O5-580.5-05	O5-580.75-04	O5-580.75-05	O5-6-02	O5-6-03	O6-1-02	O6-3-01	O6-577-01	O6-577-03	O6-649-02	O6-649-03
				Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft
				Collection Date	7/25/2000	5/11/2000	5/11/2000	7/25/2000	7/25/2000	5/11/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000	5/10/2000	5/10/2000	7/25/2000
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	O5-579-010.5N	O5-579-041.5N	O5-580.5-022N	O5-580.5-051N	O5-580.75-041N	O5-580.75-051.5N	O5-6-022N	O5-6-031N	O6-1-021N	O6-3-011.5N	O6-577-011N	O6-577-032N	O6-649-021.5N	O6-649-031N
				Parent Sample														
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	NA	NA	13.9	15.6	NA	NA	11.5	50.8	38.1	NA	NA	NA	19.8	25.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	O6-650-01	O6-650-03	O6-9224-03	O6-9224-06	O7-1-01	O7-1-01	O7-1-03	O7-2-01	O7-2-02	O7-2-02	O7-2271-02	O7-2271-04	O7-391-02	O7-391-03	O7-395-02
				Depths	0.0-0.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
				Collection Date	7/25/2000	5/10/2000	5/9/2000	5/9/2000	7/26/2000	7/26/2000	7/19/2000	7/26/2000	5/4/2000	5/4/2000	9/12/2000	5/26/2000	7/26/2000	5/5/2000	5/5/2000
				Sample Type	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N
				Sample Name	O6-650-010.5N	O6-650-031.5N	O6-9224-031N	O6-9224-061.5N	O7-1-012N	O7-1-012FD	O7-1-032N	O7-2-011N	O7-2-022N	O7-2-022FD	O7-2271-022N	O7-2271-041N	O7-391-021N	O7-391-031.5N	O7-395-021N
				Parent Sample						O7-1-012N				O7-2-022N					
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	31.8	9.8	NA	NA	NA	NA	NA	1920	17.6	14.2	26.6	7.08	4.33	NA	NA	88.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	O7-395-03	O7-396-02	O7-396-03	O7-576-02	O7-615E-01	O7-615E-04	O7-9319-01	O7-9319-01	O8-2247-04	O8-2247-05	O8-2252-01	O8-2252-02	O8-2268-01
				Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
				Collection Date	7/26/2000	5/10/2000	7/26/2000	5/10/2000	5/5/2000	7/26/2000	5/5/2000	5/5/2000	5/16/2000	5/16/2000	7/25/2000	5/16/2000	9/12/2000
				Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N
				Sample Name	O7-395-031N	O7-396-022N	O7-396-032N	O7-576-021.5N	O7-615E-012N	O7-615E-041.25N	O7-9319-011.25N	O7-9319-011.25FD	O8-2247-041.5N	O8-2247-051N	O8-2252-011N	O8-2252-022N	O8-2268-010.5N
				Parent Sample								O7-9319-011.25N					
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	63.9	39.3	52.6	84.2	13.4	18.3	534	1580	24.6	9	10.6	11	25

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**O8-2268-05**	**O8-2274-01**	**O8-3-04**	**O8-3-06**	**O8-3-09**	**O8-3-12**	**O8-3-13**	**O8-3-15**	**O8-3-18**	**O8-3-20**	**O8-392-02**	**O8-4-01**	**O8-4-02**	**O8-732-01**	**O8-732-04**	**P5-2-01**
				Depths	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.3 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**
				Collection Date	**5/26/2000**	**5/16/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/2/2000**	**7/25/2000**	**5/16/2000**	**5/4/2000**	**7/26/2000**	**5/11/2000**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**O8-2268-051.5N**	**O8-2274-012N**	**O8-3-041N**	**O8-3-062N**	**O8-3-091.25N**	**O8-3-122N**	**O8-3-131N**	**O8-3-152N**	**O8-3-181N**	**O8-3-201.5N**	**O8-392-022N**	**O8-4-011N**	**O8-4-020.5N**	**O8-732-012N**	**O8-732-042N**	**P5-2-012N**
				Parent Sample																
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	34.3	4.9	12.6	39.9	48.3	23.4	60	31.6	35.8	10.8	NA	4.4	11.6	42.8	685	33.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	P5-2-03	P5-3-01	P5-3-02	P5-3-02	P5-535-04	P5-536-01	P6-541-01	P6-541-05	P6-651-02	P6-651-04	P6-9225-03	P6-9225-05	P7-4-01	P7-4-01	P7-575-01	P7-575-04
				Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
				Collection Date	7/26/2000	7/26/2000	5/11/2000	5/11/2000	5/11/2000	7/19/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000	5/4/2000	5/4/2000	5/12/2000	5/12/2000	5/9/2000	5/9/2000
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N
				Sample Name	P5-2-031.5N	P5-3-012N	P5-3-022N	P5-3-022FD	P5-535-041N	P5-536-012N	P6-541-011N	P6-541-052N	P6-651-021N	P6-651-041N	P6-9225-031N	P6-9225-052N	P7-4-012N	P7-4-012FD	P7-575-012N	P7-575-041N
				Parent Sample				P5-3-022N										P7-4-012N		
Chemical	Cas Number	SSESC	Units																	
Lead	7439-92-1	488	mg/kg	23	26.8	15.5	14.9	1330	283	455	NA	11.7	47	60.9	29.4	29.6	37.2	19.3	38.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	P7-9209-03	P7-9209-03	P7-9209-06	Q4-2-03	Q6-1-01	Q6-583-01	Q6-583-01	Q6-583-02	Q6-584-01	Q6-584-02	Q6-8-03	Q6-8-05	Q6-9311-01	Q6-9311-03	R5-1-01
				Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft
				Collection Date	5/10/2000	5/10/2000	5/10/2000	5/10/2000	10/6/1999	5/25/2000	5/25/2000	9/13/2000	7/26/2000	5/10/2000	5/4/2000	7/26/2000	9/27/2000	7/13/2000	5/4/2000
				Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	P7-9209-032N	P7-9209-032FD	P7-9209-061.25N	Q4-2-032N	Q6-1-012N	Q6-583-011N	Q6-583-010.5N	Q6-583-020.5N	Q6-584-011N	Q6-584-021N	Q6-8-031N	Q6-8-050.5N	Q6-9311-011N	Q6-9311-032N	R5-1-011.25N
				Parent Sample		P7-9209-032N													
Chemical	Cas Number	SSESC	Units																
Lead	7439-92-1	488	mg/kg	68.3	53.6	NA	20.9	29.8	NA	NA	NA	10.9	22.4	17.6	21.2	10.2	9.44	59.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	R5-1-01	R5-1-03	R5-1-03	R5-2-01	R5-2-03	R5-2-05	R6-1-01	R6-1-02	R6-11-02	R6-11-03	S6-1-05	S7-1-01	S7-1-02	SB-R0-I11-01	SB-R0-J11-01
			Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
			Collection Date	5/4/2000	7/26/2000	7/26/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	7/26/2000	5/10/2000	7/27/2000	5/10/2000	7/27/2000	5/10/2000	12/20/2005	12/21/2005
			Sample Type	FD	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	R5-1-011.25FD	R5-1-031N	R5-1-031FD	R5-2-011N	R5-2-031N	R5-2-051N	R6-1-012N	R6-1-022N	R6-11-021.25N	R6-11-032N	S6-1-052N	S7-1-011.5N	S7-1-021N	SB-R0-I11-011.5N1701	SB-R0-J11-011.0N0851
			Parent Sample	R5-1-011.25N		R5-1-031N												
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	85.8	40.9	41.1	94.5	79.3	108	17.9	13.5	18.4	8.63	13.6	108	42.7	63.41	22.62

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R0-J11-02	SB-R0-M8-01	SB-R0-M8-02	SB-R0-M8-02	SB-R0-M8-04	SB-R0-M8-05	SB-R0-M9-01	SB-R0-M9-01	SB-R0-M9-02
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.2-0.7 ft
			Collection Date	12/21/2005	12/22/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/23/2005	12/22/2005
			Sample Type	N	N	N	N	N	N	N	FD	N
			Sample Name	SB-R0-J11-021.0N0919	SB-R0-M8-011.0N1459	SB-R0-M8-021.0N1333	SB-R0-M8-021.0N1320	SB-R0-M8-041.5N1529	SB-R0-M8-051.0N1415	SB-R0-M9-011.5N1538	SB-R0-M9-011.5FD1538	SB-R0-M9-020.67N1124
			Parent Sample								SB-R0-M9-011.5N1538	
Chemical	Cas Number	SSESC	Units									
Lead	7439-92-1	488	mg/kg	654.82	20.16	77.5	149.48	138.69	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SB-R0-M9-03	SB-R0-M9-03	SB-R0-M9-09	SB-R-A11-02	SB-R-A12-01	SB-R-A12-02	SB-R-A12-02	SB-R-A12-03	SB-R-A13-01	SB-R-A13-02	SB-R-A13-03
				Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Collection Date	12/22/2005	12/23/2005	12/22/2005	5/25/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006	5/19/2006	5/19/2006	5/19/2006
				Sample Type	N	FD	N	N	N	N	FD	N	N	N	N
				Sample Name	SB-R0-M9-031.0N1052	SB-R0-M9-031.0FD1052	SB-R0-M9-091.0N1530	SB-R-A11-021.0N	SB-R-A12-011.0N	SB-R-A12-021.0N	SB-R-A12-021.0FD	SB-R-A12-031.0N	SB-R-A13-011.5N	SB-R-A13-021.0N	SB-R-A13-031.0N
				Parent Sample		SB-R0-M9-031.0N1052					SB-R-A12-021.0N				
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	NA	NA	NA	4.45	1.9	3.36	3.74	5.74	8.81	5.82	3.51

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-A13-04**	**SB-R-A13-04**	**SB-R-A14-01**	**SB-R-B10-01**	**SB-R-B10-01**	**SB-R-B10-03**	**SB-R-B11-02**	**SB-R-B11-02**	**SB-R-B12-01**	**SB-R-B12-02**	**SB-R-B12-03**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**5/23/2006**	**5/23/2006**	**5/18/2006**	**5/25/2006**	**5/25/2006**	**6/13/2006**	**5/25/2006**	**5/25/2006**	**5/23/2006**	**5/23/2006**	**5/24/2006**
				Sample Type	**N**	**FD**	**N**	**N**	**FD**	**N**	**N**	**FD**	**N**	**N**	**N**
				Sample Name	**SB-R-A13-041.0N**	**SB-R-A13-041.0FD**	**SB-R-A14-011.0N**	**SB-R-B10-011.0N**	**SB-R-B10-011.0FD**	**SB-R-B10-031.0N**	**SB-R-B11-021.0N**	**SB-R-B11-021.0FD**	**SB-R-B12-011.0N**	**SB-R-B12-021.0N**	**SB-R-B12-031.0N**
				Parent Sample		**SB-R-A13-041.0N**			**SB-R-B10-011.0N**			**SB-R-B11-021.0N**			
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	4.34	4.75	11	8.05	8.99	5.93	173	183	4.37	2.61	3.55

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-B14-02**	**SB-R-B14-04**	**SB-R-C10-02**	**SB-R-C10-03**	**SB-R-C10-04**	**SB-R-C11-01**	**SB-R-C11-01**	**SB-R-C11-03**	**SB-R-C12-01**	**SB-R-C12-01**	**SB-R-C12-03**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**
				Collection Date	**5/18/2006**	**6/6/2006**	**6/1/2006**	**6/7/2006**	**6/12/2006**	**5/31/2006**	**5/31/2006**	**6/1/2006**	**5/31/2006**	**5/31/2006**	**6/6/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**FD**	**N**
				Sample Name	**SB-R-B14-021.0N**	**SB-R-B14-041.0N**	**SB-R-C10-021.0N**	**SB-R-C10-031.0N**	**SB-R-C10-041.0N**	**SB-R-C11-011.0N**	**SB-R-C11-011.0FD**	**SB-R-C11-031.0N**	**SB-R-C12-011.0N**	**SB-R-C12-011.0FD**	**SB-R-C12-031.5N**
				Parent Sample							**SB-R-C11-011.0N**			**SB-R-C12-011.0N**	
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	10.4	10	50.5	9.25	6.4	102	110	473	5.48	6.12	50.5	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-C12-04**	**SB-R-C13-01**	**SB-R-C13-02**	**SB-R-C13-03**	**SB-R-C13-04**	**SB-R-C14-01**	**SB-R-C14-02**	**SB-R-C14-03**	**SB-R-C14-04**	**SB-R-C9-01**	**SB-R-C9-02**	**SB-R-C9-03**
				Depths	**0.5-1.0 ft**	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.8-1.3 ft**	**0.6-1.1 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**6/6/2006**	**5/18/2006**	**5/19/2006**	**5/31/2006**	**6/2/2006**	**5/18/2006**	**5/18/2006**	**6/6/2006**	**6/6/2006**	**5/16/2006**	**5/16/2006**	**5/16/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-C12-041.0N**	**SB-R-C13-011.33N**	**SB-R-C13-021.0N**	**SB-R-C13-031.0N**	**SB-R-C13-041.0N**	**SB-R-C14-011.0N**	**SB-R-C14-021.25N**	**SB-R-C14-031.08N**	**SB-R-C14-041.0N**	**SB-R-C9-011.0N**	**SB-R-C9-021.0N**	**SB-R-C9-031.0N**
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	15.5	9.43	17.7	4.37	6.06	4.87	6.15	159	6.32	4.52	6.27	6.51

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-C9-04**	**SB-R-D10-01**	**SB-R-D10-02**	**SB-R-D10-03**	**SB-R-D10-03**	**SB-R-D10-04**	**SB-R-D11-01**	**SB-R-D11-02**	**SB-R-D11-03**	**SB-R-D11-03**	**SB-R-D11-04**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**
				Collection Date	**5/25/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/2/2006**	**5/31/2006**	**5/31/2006**	**6/1/2006**	**6/1/2006**	**6/8/2006**
				Sample Type	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**FD**	**N**
				Sample Name	**SB-R-C9-041.0N**	**SB-R-D10-011.0N**	**SB-R-D10-021.5N**	**SB-R-D10-031.0N**	**SB-R-D10-031.0FD**	**SB-R-D10-041.0N**	**SB-R-D11-011.5N**	**SB-R-D11-021.0N**	**SB-R-D11-031.5N**	**SB-R-D11-031.5FD**	**SB-R-D11-041.0N**
				Parent Sample					**SB-R-D10-031.0N**					**SB-R-D11-031.5N**	
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	5.52	39.9	68.3	44.3	59.8	95.7	288	35.6	5100	3760	61.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-D12-01**	**SB-R-D12-02**	**SB-R-D12-03**	**SB-R-D13-01**	**SB-R-D14-02**	**SB-R-D14-03**	**SB-R-E10-02**	**SB-R-E10-03**	**SB-R-E10-03**	**SB-R-E10-04**	**SB-R-E11-01**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**5/30/2006**	**6/6/2006**	**6/12/2006**	**5/19/2006**	**6/6/2006**	**7/6/2006**	**6/1/2006**	**6/2/2006**	**6/2/2006**	**6/8/2006**	**5/17/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**
				Sample Name	**SB-R-D12-011.0N**	**SB-R-D12-021.0N**	**SB-R-D12-031.25N**	**SB-R-D13-011.0N**	**SB-R-D14-021.0N**	**SB-R-D14-031.0N**	**SB-R-E10-021.0N**	**SB-R-E10-031.0N**	**SB-R-E10-031.0FD**	**SB-R-E10-041.0N**	**SB-R-E11-011.0N**
				Parent Sample									**SB-R-E10-031.0N**		
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	29.6	1160	239	3.92	8.52	13.4	36	50.8	45.3	5.36	55.3	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-E11-02	SB-R-E11-03	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02	SB-R-E12-03	SB-R-E12-04	SB-R-E13-01	SB-R-E13-02	SB-R-E13-03	SB-R-E13-04
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	5/17/2006	5/17/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006	5/30/2006	6/8/2006	5/26/2006	5/30/2006	6/2/2006	6/8/2006
			Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
			Sample Name	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N	SB-R-E12-031.5N	SB-R-E12-041.0N	SB-R-E13-011.0N	SB-R-E13-021.0N	SB-R-E13-031.0N	SB-R-E13-041.5N
			Parent Sample					SB-R-E12-011.0N							
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	262	166	14.1	5.44	5.72	11.4	20.3	1.77	17.4	10.2	44.9	1.94

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-E14-01	SB-R-E14-02	SB-R-E9-01	SB-R-F10-02	SB-R-F10-03	SB-R-F10-04	SB-R-F11-01	SB-R-F11-03	SB-R-F11-04	SB-R-F12-01	SB-R-F12-02	SB-R-F12-03
			Depths	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	6/5/2006	7/6/2006	5/9/2006	5/8/2006	5/9/2006	5/9/2006	5/5/2006	5/8/2006	5/17/2006	5/16/2006	5/17/2006	5/26/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-E14-011.5N	SB-R-E14-021.0N	SB-R-E9-011N	SB-R-F10-021.5N	SB-R-F10-031.25N	SB-R-F10-041N	SB-R-F11-011.0N	SB-R-F11-031.0N	SB-R-F11-041.0N	SB-R-F12-011.5N	SB-R-F12-021.0N	SB-R-F12-031.0N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	3.82	151	29.3	25.5	186	12	70.6	133	143	4.66	6.43	17.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-F12-04	SB-R-F13-02	SB-R-F13-03	SB-R-F13-03	SB-R-F13-04	SB-R-F14-01	SB-R-F14-02	SB-R-F15-01	SB-R-F15-03	SB-R-F15-04	SB-R-F8-01	SB-R-F9-01
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	5/30/2006	5/26/2006	5/30/2006	5/30/2006	6/8/2006	6/5/2006	6/7/2006	6/5/2006	6/5/2006	6/6/2006	5/11/2006	5/9/2006
			Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	SB-R-F12-041.0N	SB-R-F13-021.0N	SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-F13-041.0N	SB-R-F14-011.0N	SB-R-F14-021.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-F15-041.0N	SB-R-F8-011.0N	SB-R-F9-011.5N
			Parent Sample				SB-R-F13-031.0N								
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	12.6	6.14	16	13.9	4.06	6.33	2.94	7.95	4.7	6.39	2230	26.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-F9-03**	**SB-R-G10-01**	**SB-R-G10-01**	**SB-R-G10-02**	**SB-R-G10-03**	**SB-R-G11-01**	**SB-R-G11-02**	**SB-R-G11-03**	**SB-R-G11-04**	**SB-R-G12-01**	**SB-R-G12-02**
				Depths	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.8-1.3 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**
				Collection Date	**5/9/2006**	**5/4/2006**	**5/4/2006**	**5/8/2006**	**5/8/2006**	**5/5/2006**	**5/5/2006**	**5/5/2006**	**5/5/2006**	**5/5/2006**	**5/5/2006**
				Sample Type	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-F9-031.25N**	**SB-R-G10-011.0N**	**SB-R-G10-011.0FD**	**SB-R-G10-021.5N**	**SB-R-G10-031.25N**	**SB-R-G11-011.0N**	**SB-R-G11-021.5N**	**SB-R-G11-031.5N**	**SB-R-G11-041.5N**	**SB-R-G12-011.0N**	**SB-R-G12-021.5N**
				Parent Sample			**SB-R-G10-011.0N**								
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	102	133	155	519	523	54	13.1	43.7	28.8	28.1	6.69

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-G12-03**	**SB-R-G12-04**	**SB-R-G13-01**	**SB-R-G14-02**	**SB-R-G7-02**	**SB-R-G8-01**	**SB-R-G8-02**	**SB-R-G8-03**	**SB-R-G8-04**	**SB-R-G9-01**	**SB-R-G9-02**	**SB-R-G9-03**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.9-1.4 ft**	**0.5-1.0 ft**	**0.8-1.3 ft**	**0.8-1.3 ft**	**0.8-1.3 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**
				Collection Date	**5/5/2006**	**5/16/2006**	**5/16/2006**	**6/7/2006**	**7/5/2006**	**5/10/2006**	**5/10/2006**	**5/11/2006**	**5/11/2006**	**5/9/2006**	**5/9/2006**	**5/10/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-G12-031.0N**	**SB-R-G12-041.0N**	**SB-R-G13-011.0N**	**SB-R-G14-021.25N**	**SB-R-G7-021.0N**	**SB-R-G8-011.42N**	**SB-R-G8-021.0N**	**SB-R-G8-031.25N**	**SB-R-G8-041.25N**	**SB-R-G9-011.25N**	**SB-R-G9-021.5N**	**SB-R-G9-031.0N**
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	132	53.5	13.8	8.03	59.9	33.9	63.7	14.9	77.3	35.7	59.6	63.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-G9-04**	**SB-R-H10-01**	**SB-R-H10-02**	**SB-R-H10-03**	**SB-R-H10-04**	**SB-R-H11-01**	**SB-R-H11-02**	**SB-R-H11-03**	**SB-R-H11-04**	**SB-R-H12-02**	**SB-R-H12-03**
				Depths	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**5/10/2006**	**5/4/2006**	**5/4/2006**	**5/9/2006**	**5/9/2006**	**5/4/2006**	**5/4/2006**	**5/4/2006**	**5/4/2006**	**5/3/2006**	**5/3/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-G9-041.33N**	**SB-R-H10-011.0N**	**SB-R-H10-021.0N**	**SB-R-H10-031.0N**	**SB-R-H10-041.5N**	**SB-R-H11-011.5N**	**SB-R-H11-021.0N**	**SB-R-H11-031.5N**	**SB-R-H11-041.0N**	**SB-R-H12-021.0N**	**SB-R-H12-031.0N**
				Parent Sample											
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	34.2	104	562	4060	5910	55.8	1210	314	150	28	5.93

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-H12-04	SB-R-H13-01	SB-R-H13-02	SB-R-H13-03	SB-R-H13-04	SB-R-H5-01	SB-R-H6-01	SB-R-H6-02	SB-R-H6-03	SB-R-H7-01	SB-R-H7-02	SB-R-H7-03
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	5/4/2006	5/2/2006	5/12/2006	5/12/2006	5/12/2006	4/19/2006	4/7/2006	4/19/2006	5/11/2006	4/7/2006	4/7/2006	5/11/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-H12-041.0N	SB-R-H13-011.0N	SB-R-H13-021.0N	SB-R-H13-031.0N	SB-R-H13-041.0N	SB-R-H5-011.5N	SB-R-H6-011.5N	SB-R-H6-021.5N	SB-R-H6-031.0N	SB-R-H7-011.0N	SB-R-H7-021.0N	SB-R-H7-031.0N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	12.5	319	126	87.2	83.5	50.3	63.3	12.6	69.2	26.9	15.3	12.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-H7-04**	**SB-R-H8-01**	**SB-R-H8-02**	**SB-R-H8-03**	**SB-R-H8-04**	**SB-R-H9-01**	**SB-R-H9-02**	**SB-R-H9-03**	**SB-R-H9-04**	**SB-R-I10-01**	**SB-R-I10-01**	**SB-R-I10-02**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.8-1.3 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**
				Collection Date	**5/11/2006**	**5/10/2006**	**5/10/2006**	**5/11/2006**	**5/11/2006**	**5/9/2006**	**5/9/2006**	**5/10/2006**	**5/10/2006**	**3/31/2006**	**3/31/2006**	**3/31/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-H7-041.0N**	**SB-R-H8-011.0N**	**SB-R-H8-021.5N**	**SB-R-H8-031.25N**	**SB-R-H8-041.5N**	**SB-R-H9-011.5N**	**SB-R-H9-021.0N**	**SB-R-H9-031.5N**	**SB-R-H9-041.0N**	**SB-R-I10-011.0N**	**SB-R-I10-011.5N**	**SB-R-I10-021.0N**
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	40	31	7.64	34.2	9.38	2.42	12.5	9.4	70.3	12.1	9.09	14.2	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-I10-03**	**SB-R-I10-04**	**SB-R-I11-02**	**SB-R-I11-03**	**SB-R-I11-04**	**SB-R-I12-01**	**SB-R-I12-01**	**SB-R-I12-02**	**SB-R-I12-04**	**SB-R-I13-02**	**SB-R-I6-01**	**SB-R-I7-01**
				Depths	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**4/3/2006**	**5/4/2006**	**3/31/2006**	**5/3/2006**	**5/4/2006**	**5/3/2006**	**5/3/2006**	**5/15/2006**	**5/15/2006**	**5/12/2006**	**4/7/2006**	**4/7/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-I10-031.0N**	**SB-R-I10-041.5N**	**SB-R-I11-021.33N**	**SB-R-I11-031.0N**	**SB-R-I11-041.0N**	**SB-R-I12-011.5N**	**SB-R-I12-011.5FD**	**SB-R-I12-021.0N**	**SB-R-I12-041.0N**	**SB-R-I13-021.0N**	**SB-R-I6-011.0N**	**SB-R-I7-011.0N**
				Parent Sample							**SB-R-I12-011.5N**					
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	5.69	4.12	19.9	48.1	85.1	67.7	83.8	89.8	182	95.4	18.4	69.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-I7-02	SB-R-I7-03	SB-R-I7-04	SB-R-I8-01	SB-R-I8-02	SB-R-I8-03	SB-R-I8-04	SB-R-I9-02	SB-R-I9-02	SB-R-I9-03	SB-R-I9-04	SB-R-J10-01	SB-R-J10-04
			Depths	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	4/7/2006	4/11/2006	4/11/2006	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/3/2006	4/4/2006	4/4/2006	3/31/2006	4/12/2006
			Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N
			Sample Name	SB-R-I7-021.0N	SB-R-I7-031.5N	SB-R-I7-041.0N	SB-R-I8-011.0N	SB-R-I8-021.0N	SB-R-I8-031.0N	SB-R-I8-041.0N	SB-R-I9-021.5N	SB-R-I9-021.5FD	SB-R-I9-031.0N	SB-R-I9-041.0N	SB-R-J10-011.0N	SB-R-J10-041.5N
			Parent Sample									SB-R-I9-021.5N				
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	21.1	15.3	27.1	9.74	20.9	23.1	67.8	79.9	85.6	22.7	6.56	37.5	12.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-J11-01	SB-R-J11-04	SB-R-J12-01	SB-R-J12-02	SB-R-J5-01	SB-R-J6-01	SB-R-J6-02	SB-R-J7-01	SB-R-J7-02	SB-R-J7-03	SB-R-J7-04	SB-R-J8-01
			Depths	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft
			Collection Date	3/22/2006	3/31/2006	3/22/2006	3/22/2006	4/24/2006	4/20/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/4/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-J11-011.0N	SB-R-J11-041.5N	SB-R-J12-011.5N	SB-R-J12-021.5N	SB-R-J5-011N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-J7-011.0N	SB-R-J7-021.0N	SB-R-J7-031.0N	SB-R-J7-041.0N	SB-R-J8-011.25N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	45.9	121	21.7	20	20.2	43.3	610	21	31.2	4.39	7.76	21.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SB-R-J8-02	SB-R-J8-02	SB-R-J8-03	SB-R-J8-04	SB-R-J9-01	SB-R-J9-02	SB-R-J9-03	SB-R-J9-04	SB-R-K10-01	SB-R-K10-02	SB-R-K10-02	SB-R-K10-03
				Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.8-1.3 ft
				Collection Date	4/4/2006	4/4/2006	4/6/2006	4/6/2006	4/3/2006	4/4/2006	4/4/2006	4/4/2006	3/23/2006	3/30/2006	3/30/2006	4/5/2006
				Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N
				Sample Name	SB-R-J8-021.0N	SB-R-J8-021.0FD	SB-R-J8-031.0N	SB-R-J8-041.0N	SB-R-J9-011.5N	SB-R-J9-021.25N	SB-R-J9-031.0N	SB-R-J9-041.0N	SB-R-K10-011.0N	SB-R-K10-021.0N	SB-R-K10-021.5N	SB-R-K10-031.25N
				Parent Sample		SB-R-J8-021.0N										
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	6.62	6.77	22.3	5.47	32.1	8.39	5.76	8.69	9.76	10	12.8	17.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SB-R-K10-04	SB-R-K5-01	SB-R-K5-02	SB-R-K6-01	SB-R-K7-01	SB-R-K7-02	SB-R-K7-03	SB-R-K7-04	SB-R-K8-02	SB-R-K8-02	SB-R-K8-03	SB-R-K8-04
				Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Collection Date	4/13/2006	4/24/2006	5/2/2006	4/20/2006	4/11/2006	4/11/2006	4/11/2006	4/13/2006	4/6/2006	4/6/2006	4/6/2006	4/12/2006
				Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N
				Sample Name	SB-R-K10-041.0N	SB-R-K5-011N	SB-R-K5-021.0N	SB-R-K6-011.0N	SB-R-K7-011.0N	SB-R-K7-021.5N	SB-R-K7-031.5N	SB-R-K7-041.0N	SB-R-K8-021.0N	SB-R-K8-021.0FD	SB-R-K8-031.0N	SB-R-K8-041.0N
				Parent Sample										SB-R-K8-021.0N		
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	11.2	7.67	17.4	9.89	4.8	2.99	5.02	7.37	30.3	22.7	8.17	11

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-K9-01	SB-R-K9-01	SB-R-K9-02	SB-R-K9-03	SB-R-K9-04	SB-R-L10-01	SB-R-L10-02	SB-R-L10-03	SB-R-L10-04	SB-R-L10-04	SB-R-L11-01	SB-R-L11-02
			Depths	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
			Collection Date	3/30/2006	3/30/2006	4/5/2006	4/5/2006	4/5/2006	3/23/2006	3/23/2006	4/12/2006	4/12/2006	4/12/2006	3/23/2006	3/23/2006
			Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N
			Sample Name	SB-R-K9-011.0N	SB-R-K9-011.5N	SB-R-K9-021.0N	SB-R-K9-031.0N	SB-R-K9-041.0N	SB-R-L10-010.75N	SB-R-L10-021.0N	SB-R-L10-031.0N	SB-R-L10-041.0N	SB-R-L10-041.0FD	SB-R-L11-011.5N	SB-R-L11-021.0N
			Parent Sample										SB-R-L10-041.0N		
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	19.5	8.59	9.95	18.5	36.3	17.3	57.5	7.99	9.87	9.48	7.52	41.8

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SB-R-L11-03	SB-R-L5-01	SB-R-L6-01	SB-R-L6-02	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-L7-01	SB-R-L7-02	SB-R-L7-03	SB-R-L7-04	SB-R-L8-01	SB-R-L8-01
				Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
				Collection Date	3/29/2006	4/21/2006	4/13/2006	4/13/2006	4/21/2006	4/21/2006	4/21/2006	4/13/2006	4/13/2006	4/13/2006	4/13/2006	3/30/2006	3/30/2006
				Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N
				Sample Name	SB-R-L11-031.0N	SB-R-L5-011.0N	SB-R-L6-011.0N	SB-R-L6-021.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-L7-011.0N	SB-R-L7-021.0N	SB-R-L7-031.0N	SB-R-L7-041.0N	SB-R-L8-011.0N	SB-R-L8-011.5N
				Parent Sample						SB-R-L6-031.0N							
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	852	13.4	7.7	44.5	6.8	6.67	3.41	7.22	19.1	15.8	66.1	15.1	3.78

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-L8-02**	**SB-R-L8-03**	**SB-R-L8-04**	**SB-R-L9-01**	**SB-R-L9-01**	**SB-R-L9-01**	**SB-R-L9-02**	**SB-R-L9-02**	**SB-R-L9-03**	**SB-R-L9-04**	**SB-R-M10-01**	**SB-R-M10-02**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**4/6/2006**	**4/6/2006**	**4/12/2006**	**3/30/2006**	**3/30/2006**	**3/30/2006**	**3/30/2006**	**3/30/2006**	**4/12/2006**	**4/28/2006**	**3/29/2006**	**3/30/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-L8-021.0N**	**SB-R-L8-031.0N**	**SB-R-L8-041.0N**	**SB-R-L9-011.0N**	**SB-R-L9-011.5N**	**SB-R-L9-011.5FD**	**SB-R-L9-021.0N**	**SB-R-L9-021.5N**	**SB-R-L9-031.0N**	**SB-R-L9-041.0N**	**SB-R-M10-011.0N**	**SB-R-M10-021.0N**
				Parent Sample						**SB-R-L9-011.5N**						
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	12.5	10.6	9.41	19.9	12.9	13	17.9	8.36	11.4	10.5	54.7	16.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-M10-03**	**SB-R-M7-01**	**SB-R-M7-02**	**SB-R-M7-03**	**SB-R-M8-01**	**SB-R-M9-01**	**SB-R-M9-02**	**SB-R-M9-03**	**SB-R-M9-04**	**SB-R-M9-05**	**SB-R-N4-02**	**SB-R-N5-01**
				Depths	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.8-1.3 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**4/28/2006**	**4/17/2006**	**4/17/2006**	**4/27/2006**	**4/6/2006**	**3/29/2006**	**3/30/2006**	**3/30/2006**	**4/13/2006**	**4/28/2006**	**8/3/2006**	**4/27/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-M10-031.5N**	**SB-R-M7-011.0N**	**SB-R-M7-021.0N**	**SB-R-M7-031.25N**	**SB-R-M8-011.0N**	**SB-R-M9-011.0N**	**SB-R-M9-021.0N**	**SB-R-M9-031.0N**	**SB-R-M9-041.5N**	**SB-R-M9-051.0N**	**SB-R-N4-021.0N**	**SB-R-N5-011.0N**
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	16.2	24.6	159	21.7	50.4	14.2	46.2	7.41	11.7	10.1	14.4	14

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-N5-02	SB-R-N5-02	SB-R-N5-03	SB-R-N6-01	SB-R-N6-02	SB-R-N7-01	SB-R-N7-02	SB-R-N7-03	SB-R-N8-01	SB-R-N9-01	SB-R-N9-02	SB-R-N9-03
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	5/2/2006	5/2/2006	5/2/2006	4/27/2006	8/3/2006	4/17/2006	4/27/2006	4/27/2006	4/17/2006	3/29/2006	3/30/2006	3/30/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-N5-021.0N0855	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-N6-011.0N	SB-R-N6-021.5N	SB-R-N7-011.0N	SB-R-N7-021.5N	SB-R-N7-031.5N	SB-R-N8-011.5N	SB-R-N9-011.0N	SB-R-N9-021.0N	SB-R-N9-031.5N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	NA	8.68	8.39	5.87	30.4	7.51	18.9	202	20.6	32.2	6.2	8.44

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-O5-01**	**SB-R-O5-02**	**SB-R-O5-03**	**SB-R-O5-03**	**SB-R-O5-04**	**SB-R-O6-01**	**SB-R-O6-02**	**SB-R-O7-01**	**SB-R-O7-02**	**SB-R-O7-03**	**SB-R-O7-04**	**SB-R-O8-01**
				Depths	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
				Collection Date	**4/26/2006**	**4/26/2006**	**4/27/2006**	**4/27/2006**	**5/2/2006**	**4/18/2006**	**4/26/2006**	**4/18/2006**	**4/18/2006**	**4/18/2006**	**4/18/2006**	**4/17/2006**
				Sample Type	**N**	**N**	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-O5-011.0N**	**SB-R-O5-021.5N**	**SB-R-O5-031.0N**	**SB-R-O5-031.0FD**	**SB-R-O5-041.0N**	**SB-R-O6-011.0N**	**SB-R-O6-021.0N**	**SB-R-O7-011.5N**	**SB-R-O7-021.0N**	**SB-R-O7-031.5N**	**SB-R-O7-041.0N**	**SB-R-O8-011.0N**
				Parent Sample				**SB-R-O5-031.0N**								
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	25.1	22.2	3.48	3.14	4.76	12.3	12.7	10.4	5.29	5.6	23.2	16.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-O8-02**	**SB-R-O8-03**	**SB-R-O8-04**	**SB-R-O9-01**	**SB-R-P5-01**	**SB-R-P5-02**	**SB-R-P5-03**	**SB-R-P5-03**	**SB-R-P5-04**	**SB-R-P6-01**	**SB-R-P6-02**	**SB-R-P6-03**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**
				Collection Date	**4/18/2006**	**4/28/2006**	**6/29/2006**	**4/28/2006**	**4/25/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/26/2006**	**4/18/2006**	**4/18/2006**	**4/25/2006**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-O8-021.0N**	**SB-R-O8-031.0N**	**SB-R-O8-041.0N**	**SB-R-O9-011.5N**	**SB-R-P5-011.0N**	**SB-R-P5-021.0N**	**SB-R-P5-031.0N**	**SB-R-P5-031.0N1440**	**SB-R-P5-041.0N**	**SB-R-P6-011.0N**	**SB-R-P6-021.5N**	**SB-R-P6-031.0N**
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	4.39	4.73	7.18	7.37	7.07	7.47	NA	9.44	8.35	11.8	4.62	6.48

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SB-R-P7-01	SB-R-P7-01	SB-R-P7-02	SB-R-P7-03	SB-R-Q5-01	SB-R-Q6-01	SB-R-Q6-02	SB-R-Q7-01	SB-R-Q7-01	SB-R-Q7-02	SB-R-R6-01	SB-R-R6-02	SB-R-R7-01
				Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft
				Collection Date	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/26/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	6/28/2006	4/25/2006	4/24/2006	4/25/2006
				Sample Type	N	FD	N	N	N	N	N	N	FD	N	N	N	N
				Sample Name	SB-R-P7-011.0N	SB-R-P7-011.0FD	SB-R-P7-021.0N	SB-R-P7-031.0N	SB-R-Q5-011.0N	SB-R-Q6-011N	SB-R-Q6-021N	SB-R-Q7-011N	SB-R-Q7-011FD	SB-R-Q7-021.0N	SB-R-R6-011.5N	SB-R-R6-021N	SB-R-R7-011N
				Parent Sample		SB-R-P7-011.0N							SB-R-Q7-011N				
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	38.4	19.8	17.7	6.54	7.62	9.23	7.95	10	8.24	5.36	24.7	3.82	19.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	**SB-R-R7-02**	**SD-C10-1-01**	**SD-C10-3-01**	**SD-C10-3-01**	**SD-C11-1-01**	**SD-C14-1-01**	**SD-C9-1-01**	**SD-D10-1-01**	**SD-F8-2-01**	**SD-F9-1-01**	**SD-F9-1-01**	**SD-F9-2-01**	**SD-F9-2-01**
				Depths	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**
				Collection Date	**4/25/2006**	**4/25/2001**	**5/2/2001**	**5/2/2001**	**5/1/2001**	**4/12/2001**	**4/25/2001**	**5/1/2001**	**4/25/2001**	**4/25/2001**	**4/25/2001**	**5/1/2001**	**5/1/2001**
				Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
				Sample Name	**SB-R-R7-021N**	**SD-C10-1-011N**	**SD-C10-3-011N**	**SD-C10-3-011.5N**	**SD-C11-1-011N**	**SD-C14-1-011N**	**SD-C9-1-011N**	**SD-D10-1-011N**	**SD-F8-2-011.5N**	**SD-F9-1-011N**	**SD-F9-1-011.5N**	**SD-F9-2-011N**	**SD-F9-2-011.5N**
				Parent Sample													
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	53.5	NA	NA	5490	NA	NA	68.8	62.8	NA	NA	150	NA	32.9	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SD-I10-2-01	SD-I10-2-01	SD-I7-1-01	SD-I7-1-01	SD-I8-1-01	SD-J10-1-01	SD-J10-1-01	SD-P4-1-01	SD-P4-1-01	SD-P4-2-01	SO-R2-B-12-1	SO-R2-B-8-1
				Depths	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.2-0.7 ft	0.3-0.8 ft
				Collection Date	4/18/2001	4/18/2001	4/19/2001	4/19/2001	4/19/2001	4/20/2001	4/20/2001	4/23/2001	4/23/2001	4/23/2001	11/14/2013	11/14/2013
				Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N
				Sample Name	SD-I10-2-011N	SD-I10-2-011.5N	SD-I7-1-011N	SD-I7-1-011.5N	SD-I8-1-011N	SD-J10-1-011N	SD-J10-1-011.5N	SD-P4-1-010.5FD	SD-P4-1-011N	SD-P4-2-011N	SO-R2-B-12-1_20131114	SO-R2-B-8-1_20131114
				Parent Sample								SD-P4-1-012N				
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	18.8	NA	9.9	578	NA	39.2	NA	NA	34.1	11.7	8.98	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SO-R2-C-12-1	SO-R2-C-14-1	SO-R2-C-14-1	SO-R2-C-8-2	SO-R2-E-9-1	SO-R2-E-9-1	SO-R2-F-12-1	SO-R2-G-5-1
				Depths	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.5-1.0 ft	0.0-0.5 ft	0.0-0.5 ft	0.4-0.9 ft	0.4-0.9 ft
				Collection Date	11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/15/2013	11/15/2013	11/14/2013	11/13/2013
				Sample Type	N	FD	N	N	FD	N	N	N
				Sample Name	SO-R2-C-12-1_20131114	SO-DUP-06FD_20131115	SO-R2-C-14-1_20131115	SO-R2-C-8-2_20131114	SO-DUP-04FD_20131115	SO-R2-E-9-1_20131115	SO-R2-F-12-1_20131114	SO-R2-G-5-1_20131113
				Parent Sample		SO-R2-C-14-1_20131115			SO-R2-E-9-1_20131115			
Chemical	Cas Number	SSESC	Units									
Lead	7439-92-1	488	mg/kg	19.1	5.52	28	15.7	62.3	50.3	10.1	16.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SO-R2-G-7-1	SO-R2-H-10-1	SO-R2-H-9-1	SO-R2-I-13-2	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-K-9-1	SO-R2-N-4-1
				Depths	0.2-0.7 ft	0.3-0.8 ft	0.1-0.6 ft	0.0-0.5 ft	0.2-0.7 ft	0.1-0.6 ft	0.5-1.0 ft	0.2-0.7 ft
				Collection Date	11/14/2013	11/12/2013	11/14/2013	11/11/2013	11/13/2013	11/13/2013	11/15/2013	11/12/2013
				Sample Type	N	N	N	N	N	N	N	N
				Sample Name	SO-R2-G-7-1_20131114	SO-R2-H-10-1_20131112	SO-R2-H-9-1_20131114	SO-R2-I-13-2_20131111	SO-R2-J-5-1_20131113	SO-R2-J-5-2_20131113	SO-R2-K-9-1_20131115	SO-R2-N-4-1_20131112
				Parent Sample								
Chemical	Cas Number	SSESC	Units									
Lead	7439-92-1	488	mg/kg	9.76	18.5	21.7	147	179	42.6	20	9.65	

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	SO-R2-P-4-1	SO-R2-Q-5-1	SO-R2-R-7-1	SO-R2-R-7-2	TP-R-A12-426-1	TP-R-A12-426-2	TP-R-A13-625-2	TP-R-A13-625-3	TP-R-C11-8572C-1
				Depths	0.3-0.8 ft	0.0-0.5 ft	0.0-0.5 ft	0.3-0.8 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Collection Date	11/13/2013	11/13/2013	11/12/2013	11/12/2013	8/15/2006	8/16/2006	8/16/2006	8/16/2006	8/15/2006
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Name	SO-R2-P-4-1_20131113	SO-R2-Q-5-1_20131113	SO-R2-R-7-1_20131112	SO-R2-R-7-2_20131112	TP-R-A12-426-11.0N	TP-R-A12-426-21.0N	TP-R-A13-625-21.0N	TP-R-A13-625-31.0N	TP-R-C11-8572C-11.0N
				Parent Sample									
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	24.3	16.6	15.4	23.8	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	TP-R-C11-8572D-1	TP-R-C13-666-4	TP-R-D11-2031-1	TP-R-D11-2031-2	TP-R-D11-2031-3	TP-R-E9-2119/E9-1-1	TP-R-E9-2119/E9-1-2	TP-R-E9-2119/E9-1-3
				Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				Collection Date	8/15/2006	8/17/2006	8/15/2006	8/15/2006	8/15/2006	8/9/2006	8/9/2006	8/9/2006
				Sample Type	N	N	N	N	N	N	N	N
				Sample Name	TP-R-C11-8572D-11.0N	TP-R-C13-666-41.0N	TP-R-D11-2031-11.0N	TP-R-D11-2031-21.0N	TP-R-D11-2031-31.5N	TP-R-E9-2119/E9-1-11.0N	TP-R-E9-2119/E9-1-21.0N	TP-R-E9-2119/E9-1-31.0N
				Parent Sample								
Chemical	Cas Number	SSESC	Units									
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	TP-R-E9-2119/E9-1-4	TP-R-F10-2094-1	TP-R-G8-2110-1	TP-R-G8-2110-2	TP-R-G8-2110-3	TP-R-G8-2110-4	TP-R-G9-4-1	TP-R-G9-4-2	TP-R-G9-4-3	TP-R-H8-01A-01
				Depths	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
				Collection Date	8/9/2006	8/9/2006	8/9/2006	8/9/2006	8/18/2006	8/18/2006	8/8/2006	8/8/2006	8/8/2006	12/19/2006
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Name	TP-R-E9-2119/E9-1-41.5N	TP-R-F10-2094-11.5N	TP-R-G8-2110-11.5N	TP-R-G8-2110-21.5N	TP-R-G8-2110-31.0N	TP-R-G8-2110-41.5N	TP-R-G9-4-11.0N	TP-R-G9-4-21.5N	TP-R-G9-4-31.5N	TP-R-H8-01A-011.5N1530
				Parent Sample										
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	69.9	4.71	47.1	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	TP-R-H8-01A-01	TP-R-H8-01A-04	TP-R-H8-01A-04	TP-R-H8-01B-02	TP-R-H8-01B-04	TP-R-H8-01B-05	TP-R-J7-1-1	TP-R-J7-1-2	TP-R-J7-1-3	TP-R-J7-1-4
				Depths	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft
				Collection Date	12/19/2006	12/20/2006	12/20/2006	12/20/2006	12/21/2006	12/21/2006	7/28/2006	7/28/2006	7/28/2006	7/28/2006
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Name	TP-R-H8-01A-011.5N1535	TP-R-H8-01A-041.5N1200	TP-R-H8-01A-04N1200	TP-R-H8-01B-02N1440	TP-R-H8-01B-041.5N800	TP-R-H8-01B-051.5N820	TP-R-J7-1-11.0N	TP-R-J7-1-21.5N	TP-R-J7-1-31.5N	TP-R-J7-1-41.0N
				Parent Sample										
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	TP-R-J7-1-5	TP-R-J7-1-6	TP-R-J7-1-7	TP-R-M5-3-2	TP-R-M5-3-6	TP-R-M8-1-1	TP-R-M8-1-10	TP-R-M8-1-11	TP-R-M8-1-13	TP-R-M8-1-15	TP-R-M8-1-2	TP-R-M8-1-22
				Depths	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft
				Collection Date	7/28/2006	7/28/2006	7/28/2006	7/21/2006	7/24/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/19/2006	7/25/2006
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Name	TP-R-J7-1-51.5N	TP-R-J7-1-61.0N	TP-R-J7-1-71.0N	TP-R-M5-3-21.5N	TP-R-M5-3-61.5N	TP-R-M8-1-11.5N	TP-R-M8-1-101.0N	TP-R-M8-1-111.5N	TP-R-M8-1-131.0N	TP-R-M8-1-151.5N	TP-R-M8-1-21.5N	TP-R-M8-1-221.5N
				Parent Sample												
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	NA	23	NA	618	11.3	71.3	7.16	6.89	10.7	7.5	37.5	446

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-1
Terrestrial Exposure Area Dataset - Current Conditions
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	UD-06	UD-06	UD-08
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.0-0.7 ft	0.0-1.0 ft	0.0-1.5 ft
			Collection Date	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	9/15/1999	9/15/1999	9/20/1999
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Name	TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	UD-060.67N	UD-061N	UD-081.5N
			Parent Sample									
Chemical	Cas Number	SSESC	Units									
Lead	7439-92-1	488	mg/kg	8.44	19.2	77.6	7.7	11.7	5.76	NA	37.5	28.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C10-440-02	B9-2-05	C12-1-03	C12-1-04	C12-3-03	C12-4-01	E11-8228-02	E11-8228-02	E12-286B-02	E12-298B-03	C12-8229-03	E11-2-03	E12-130E-02
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	10/8/1999	10/15/1999	10/19/1999	10/19/1999	10/19/1999	10/19/1999	10/19/1999	10/19/1999	10/19/1999	10/19/1999	10/20/1999	10/20/1999	10/20/1999
			Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N
			Sample Name	C10-440-022N	B9-2-052N	C12-1-032N	C12-1-042N	C12-3-032N	C12-4-012N	E11-8228-022N	E11-8228-022FD	E12-286B-022N	E12-298B-032N	C12-8229-032N	E11-2-031.5N	E12-130E-022N
			Parent Sample								E11-8228-022N					
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	1550	2190	10.4	43.9	93300	1360	399	450	99.8	122	11.5	155	23.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**E12-2081-04**	**E12-6-01**	**C12-274-01**	**F11-54-02**	**D12-2073-03**	**D12-208D-03**	**D12-286A-04**	**D12-289-03**	**D14-667-03**	**E11-1-01**	**E11-12-04**	**E12-286D-05**
			Depths	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.3 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**
			Collection Date	**10/20/1999**	**10/20/1999**	**10/21/1999**	**10/21/1999**	**10/22/1999**	**10/22/1999**	**10/22/1999**	**10/22/1999**	**10/22/1999**	**10/25/1999**	**10/25/1999**	**10/25/1999**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**	**N**
			Sample Name	**E12-2081-042N**	**E12-6-012N**	**C12-274-012N**	**F11-54-022N**	**D12-2073-032N**	**D12-208D-032N**	**D12-286A-042N**	**D12-289-031.25N**	**D14-667-032FD**	**E11-1-012N**	**E11-12-042N**	**E12-286D-052N**
			Parent Sample									**D14-667-032N**			
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	118	17.1	50.1	59.3	49	6.4	471	1590	529	31.3	93.3	383

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E13-2076-02	E13-3-03	E13-325-02	F12-2026A-05	F13-8230-02	D14-204B-01	D14-204B-04	D14-6-01	E13-2074-01	E13-2074-06	E13-2074-09	E13-3-05
			Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	E13-2076-022N	E13-3-031N	E13-325-022N	F12-2026A-052N	F13-8230-022N	D14-204B-012N	D14-204B-042N	D14-6-012N	E13-2074-012N	E13-2074-062N	E13-2074-092N	E13-3-052N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	107	98	77.5	36.5	34.2	469	88	6.3	230	11.7	16.2	43.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E14-2020-03	E14-668-05	D11-7-01	D12-1-02	D12-1-02	D12-282A-05	E14-668-03	E10-2-03	E10-3-02	E11-2064-01	E11-2064-01	E11-2064-02	E11-2064-05
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999
			Sample Type	N	N	N	N	FD	N	N	N	N	N	FD	N	N
			Sample Name	E14-2020-032N	E14-668-052N	D11-7-012N	D12-1-022N	D12-1-022FD	D12-282A-052N	E14-668-032N	E10-2-032N	E10-3-022N	E11-2064-012N	E11-2064-012FD	E11-2064-022N	E11-2064-052N
			Parent Sample					D12-1-022N						E11-2064-012N		
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	21.5	71.2	260	82.2	42.6	78.3	202	79.1	36.5	31	6.4	35.5	17.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E11-R2-03	E12-9317-04	E13-2040-04	E13-2040-07	E13-2078-03	E13-5-02	F12-2039-02	F12-2221-04	F12-2221-05	F12-2221-06	F12-R1-01	F13-236B-03
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	E11-R2-032N	E12-9317-042N	E13-2040-042N	E13-2040-072N	E13-2078-032N	E13-5-022N	F12-2039-022N	F12-2221-042N	F12-2221-051N	F12-2221-062N	F12-R1-012N	F13-236B-032N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	52.9	366	98.8	28.2	155	18.6	2.9	88	109	56.5	31.8	10.6

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F13-236B-03	C13-2-01	D11-B232-07	F12-2075-03	F12-2075-05	C13-262B-01	C13-262B-05	C13-263C-01	C13-282B-03	F12-2075A-03	F12-2075A-04
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	10/28/1999	10/29/1999	10/29/1999	10/29/1999	10/29/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999
			Sample Type	FD	FD	N	N	N	N	N	N	N	N	N
			Sample Name	F13-236B-032FD	C13-2-012FD	D11-B232-072N	F12-2075-030.5N	F12-2075-052N	C13-262B-012N	C13-262B-052N	C13-263C-012N	C13-282B-032N	F12-2075A-031N	F12-2075A-041N
			Parent Sample	F13-236B-032N	C13-2-012N									
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	7.8	144	32	12.5	369	51.9	13.2	25.3	13500	49.2	30.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F12-2075A-05	F13-1-01	F13-1-15	F13-2077-01	F13-2077-01	B13-262A-01	B13-262A-05	B13-7-06	D13-264B-03	D13-264B-05	D13-273B-02	F13-8209-03
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft
			Collection Date	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/1/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999	11/2/1999
			Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
			Sample Name	F12-2075A-052N	F13-1-012N	F13-1-152N	F13-2077-012N	F13-2077-012FD	B13-262A-012N	B13-262A-052N	B13-7-061N	D13-264B-032N	D13-264B-052N	D13-273B-022N	F13-8209-031N
			Parent Sample					F13-2077-012N							
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	22.6	118	299	7.1	6.4	3.6	47.3	355	105	67.4	43.7	10

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F13-8209-03	B12-422-06	B14-128-01	B14-3-05	C14-121-03	C14-125-01	C14-2-03	C14-4-01	D13-268-01	D13-3-04	D14-120-04	D14-129-05	D14-129-05
			Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	11/2/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999	11/3/1999
			Sample Type	FD	N	N	N	N	N	N	N	N	N	N	N	FD
			Sample Name	F13-8209-031FD	B12-422-062N	B14-128-012N	B14-3-052N	C14-121-032N	C14-125-012N	C14-2-032N	C14-4-012N	D13-268-012N	D13-3-042N	D14-120-042N	D14-129-052N	D14-129-052FD
			Parent Sample	F13-8209-031N												D14-129-052N
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	8.7	8.5	32.2	12.9	48.6	220	311	67	3680	186	204	46.4	50.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	D14-360-03	C13-3-02	C14-1-05	C14-1-05	D11-208A-01	D11-218C-03	D12-209B-02	D12-3-04	D13-264A-05	D13-265A-06	D13-303F-02	E10-1-05	E10-1-13
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	11/3/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999	11/4/1999
			Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N
			Sample Name	D14-360-032N	C13-3-022N	C14-1-052N	C14-1-052FD	D11-208A-012N	D11-218C-032N	D12-209B-022N	D12-3-042N	D13-264A-052N	D13-265A-062N	D13-303F-022N	E10-1-052N	E10-1-132N
			Parent Sample				C14-1-052N									
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	15.7	14.5	19.2	208	553	452	181	35.8	267	2100	64.9	81.5	176

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C11-4A-01	C11-4B-01	D11-3-02	C11-N3-03	D9-4-03	D9-4-03	C11-4-09	C11-4-13	C11-4-20	D10-15-03	D10-2227-02	D10-2227E-01	D10-2227E-01
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	11/5/1999	11/5/1999	11/5/1999	11/10/1999	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
			Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	FD
			Sample Name	C11-4A-012N	C11-4B-012N	D11-3-021N	C11-N3-031N	D9-4-031N	D9-4-031FD	C11-4-091.5N	C11-4-131N	C11-4-201N	D10-15-031N	D10-2227-021.5N	D10-2227E-012N	D10-2227E-012FD
			Parent Sample						D9-4-031N							D10-2227E-012N
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	53.9	379	433	359	600	468	662	492	380	225	314	15.3	17.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**C11-27-02**	**D10-10-04**	**D10-1-02**	**D10-2007-02**	**D10-2041-03**	**D10-2041-05**	**D10-2230-03**	**D10-2230A-03**	**D10-2349-02**	**D10-4-01**	**D10-5-01**	**D10-6-02**
			Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**
			Collection Date	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**	**11/12/1999**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
			Sample Name	**C11-27-021N**	**D10-10-041N**	**D10-1-021N**	**D10-2007-021N**	**D10-2041-031N**	**D10-2041-051N**	**D10-2230-030.5N**	**D10-2230A-030.5N**	**D10-2349-021.5N**	**D10-4-011N**	**D10-5-011N**	**D10-6-021N**
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	319	29.8	1620	71.4	681	213	1390	92	76.6	1370	166	12900

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	D10-N4-01	E10-2031B-04	E10-2031C-01	E10-2031C-01	E10-618A-04	E10-8277-01	E10-8277-01	C10-10-01	C10-12-03	C10-211C-04	C10-211C-06	C10-211C-07
			Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999
			Sample Type	N	N	N	FD	N	N	FD	N	FD	N	N	N
			Sample Name	D10-N4-011N	E10-2031B-041N	E10-2031C-011N	E10-2031C-011FD	E10-618A-040.5N	E10-8277-011N	E10-8277-011FD	C10-10-012N	C10-12-031FD	C10-211C-042N	C10-211C-061N	C10-211C-071N
			Parent Sample				E10-2031C-011N			E10-8277-011N		C10-12-031N			
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	81.1	169	93.6	61.3	670	635	353	56.2	884	1280	491	174

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C10-241C-04	C10-5-01	C10-7-01	D10-10-01	D10-14-05	D10-164B-02	D10-165B-02	D10-8-02	D10-8-02	D10-8234-02	D10-8284-03	D10-251-02	E10-4-03
			Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.8 ft	0.0-0.8 ft
			Collection Date	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/16/1999	11/17/1999	11/17/1999
			Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N
			Sample Name	C10-241C-042N	C10-5-011N	C10-7-011N	D10-10-011N	D10-14-051N	D10-164B-021N	D10-165B-021N	D10-8-021N	D10-8-021FD	D10-8234-021N	D10-8284-031N	D10-251-020.75N	E10-4-030.75N
			Parent Sample									D10-8-021N				
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	44.7	1110	3260	53	71.6	4260	1350	126	110	1240	217	589	363

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**E10-5-06**	**E10-5-08**	**C10-241A-03**	**C8-1-01**	**D10-2228-01**	**D10-2231-03**	**D10-2233A-01**	**D10-2233C-01**	**D10-2233E-02**	**D11-20-01**	**C10-13-01**
			Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.5 ft**	**0.0-0.5 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-0.8 ft**	**0.0-1.5 ft**
			Collection Date	**11/17/1999**	**11/17/1999**	**11/18/1999**	**11/18/1999**	**11/18/1999**	**11/18/1999**	**11/18/1999**	**11/18/1999**	**11/18/1999**	**11/18/1999**	**11/19/1999**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**
			Sample Name	**E10-5-061N**	**E10-5-081N**	**C10-241A-030.5N**	**C8-1-010.5N11/18/1999**	**D10-2228-011N**	**D10-2231-031N**	**D10-2233A-012N**	**D10-2233C-011N**	**D10-2233E-021N**	**D11-20-010.8N**	**C10-13-011.5FD**
			Parent Sample											**C10-13-011.5N**
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	3040	1810	171	NA	782	451	140	47.8	2470	762	1040

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	D10-16-03	D10-2233-04	D10-2233B-03	D10-2233D-03	D10-241B-03	D10-9119-01	D9-8279-01	E10-2314-02	D10-164B-01	E11-2083-03	E11-2083-04
			Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.5 ft	0.0-2.0 ft
			Collection Date	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/19/1999	11/22/1999	11/30/1999	11/30/1999	11/30/1999
			Sample Type	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	D10-16-031N	D10-2233-041.5N	D10-2233B-031N	D10-2233D-032N	D10-241B-031.5N	D10-9119-011N	D9-8279-011N	E10-2314-022N	D10-164B-011N	E11-2083-032.5N	E11-2083-042N
			Parent Sample											
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	176	282	28.4	58.5	66.8	320	113	32.3	908	NA	72.8

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E12-130E-03	E12-2081-05	H8-8262-01	H6-8116-01	H6-8127-02	H7-8131-04	I6-1-04	H6-8123B-04	H6-8123B-06	L5-4-02	N4-2-02	N4-3-02
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-0.5 ft
			Collection Date	11/30/1999	11/30/1999	12/2/1999	3/30/2000	3/30/2000	3/30/2000	3/30/2000	4/4/2000	4/4/2000	4/6/2000	4/6/2000	4/6/2000
			Sample Type	N	N	N	N	N	FD	N	N	N	N	FD	N
			Sample Name	E12-130E-032N	E12-2081-052N	H8-8262-011.25N	H6-8116-011N	H6-8127-021.5N	H7-8131-041FD	I6-1-041.5N	H6-8123B-042N	H6-8123B-061N	L5-4-021N	N4-2-022FD	N4-3-020.5N
			Parent Sample						H7-8131-041N					N4-2-022N	
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	8.3	56.1	496	78.2	30.5	46.9	28.6	349	376	1590	2.7	10.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	N5-6-14	N5-8-01	N5-8-03	N5-8-05	I6-8171-04	L6-1-01	L6-1-02	L6-1-07	M5-11-02	M5-12-03	M5-8166-01	M5-8166A-B-C-03	M5-8166D-04	M5-8166E-01
			Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft
			Collection Date	4/6/2000	4/6/2000	4/6/2000	4/6/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000	4/7/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	N5-6-140.5N	N5-8-011N	N5-8-031N	N5-8-051N	I6-8171-040.5N	L6-1-011.5N	L6-1-022N	L6-1-072N	M5-11-021N	M5-12-031N	M5-8166-011N	M5-8166A-B-C-031N	M5-8166D-041N	M5-8166E-012N
			Parent Sample														
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	191	27.5	35.4	7.2	NA	156	74.9	54.9	20.2	288	22.7	6.3	3.8	31

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	J6-8136-04	J6-9-01	J6-941A-01	L5-6-02	L5-6-05	L6-371-01	L6-9-01	H6-8247-02	H6-8247-05	J6-1-04	J6-2-03	J6-2-03	J6-2245-05	J6-3-02
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft
			Collection Date	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/11/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
			Sample Name	J6-8136-042N	J6-9-012N	J6-941A-012N	L5-6-021N	L5-6-052N	L6-371-011N	L6-9-011N	H6-8247-020.5N	H6-8247-050.5N	J6-1-042N	J6-2-032N	J6-2-032FD	J6-2245-052N	J6-3-021.25N
			Parent Sample												J6-2-032N		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	467	1710	29.8	2260	2630	35.4	2850	NA	NA	30.1	129	126	19.7	143

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	J6-6-01	J6-6-05	J6-8134-01	J6-8134-04	J6-8134-05	J6-9200-02	J6-942A-04	L6-3-02	L6-370-05	K6-529-02	C13-2-06	C13-2-11	C13-2-16
			Depths	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/13/2000	4/14/2000	4/18/2000	4/18/2000	4/18/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	J6-6-011N	J6-6-051N	J6-8134-012N	J6-8134-041.25N	J6-8134-051N	J6-9200-021N	J6-942A-040.5N	L6-3-021N	L6-370-051.5N	K6-529-021.5N	C13-2-062N	C13-2-112N	C13-2-162N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	34.8	35.8	17.9	219	39.2	56.4	NA	39.2	15	347	8.9	11.2	14.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	L6-4-02	L6-5-01	G7-2-01	J6-2340-02	J6-2340-02	J6-2340-04	J7-2133-01	J7-2133-06	J7-2324-06	J7-8281-02	N7-2-06	N7-2-07	N7-2-10
			Depths	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	4/18/2000	4/18/2000	4/20/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	4/27/2000	5/2/2000	5/2/2000	5/2/2000
			Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	L6-4-021N	L6-5-011.5N	G7-2-011N	J6-2340-021.5N	J6-2340-021.5FD	J6-2340-042N	J7-2133-011.5N	J7-2133-061.5N	J7-2324-062N	J7-8281-021N	N7-2-061N	N7-2-071N	N7-2-101N
			Parent Sample					J6-2340-021.5N								
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	142	46.9	46.4	53.3	39.7	321	1950	1570	744	46.2	210	942	95.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	N7-2-13	N7-2-14	N7-2-17	N7-394-01	N7-573-01	O7-2-02	O7-2-02	O8-3-04	O8-3-06	O8-3-09	O8-3-12	O8-3-13	O8-3-15	O8-3-18	O8-3-20
			Depths	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Collection Date	5/2/2000	5/2/2000	5/2/2000	5/2/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000	5/4/2000
			Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	N7-2-131N	N7-2-142N	N7-2-171N	N7-394-011.25N	N7-573-011N	O7-2-022N	O7-2-022FD	O8-3-041N	O8-3-062N	O8-3-091.25N	O8-3-122N	O8-3-131N	O8-3-152N	O8-3-181N	O8-3-201.5N
			Parent Sample							O7-2-022N								
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	59	12.3	629	22.9	274	14.2	26.6	12.6	39.9	48.3	23.4	60	31.6	35.8	10.8

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**O8-732-01**	**R5-2-01**	**R5-2-03**	**R5-2-05**	**M6-1-06**	**N7-5-02**	**N7-571-03**	**N7-572-01**	**N7-574-02**	**O7-395-02**	**O7-9319-01**	**O7-9319-01**	**O5-6-02**	**O6-1-02**
			Depths	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-1.3 ft**	**0.0-2.0 ft**	**0.0-1.0 ft**
			Collection Date	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/4/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**5/5/2000**	**5/10/2000**	**5/10/2000**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**
			Sample Name	**O8-732-012N**	**R5-2-011N**	**R5-2-031N**	**R5-2-051N**	**M6-1-061N**	**N7-5-021N**	**N7-571-031.5N**	**N7-572-012N**	**N7-574-022N**	**O7-395-021N**	**O7-9319-011.25N**	**O7-9319-011.25FD**	**O5-6-022N**	**O6-1-021N**
			Parent Sample												**O7-9319-011.25N**		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	42.8	94.5	79.3	108	53.5	75.7	20	15.9	7.4	88.7	534	1580	11.5	38.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	O6-649-02	O6-650-03	O7-396-02	P6-541-05	Q4-2-03	S6-1-05	S7-1-02	M7-2-02	M7-2-04	M7-2-05	M7-2-11	M7-2-13	M7-2-15	M7-2-18	M7-2-20
			Depths	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/10/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000	5/11/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	O6-649-021.5N	O6-650-031.5N	O7-396-022N	P6-541-052N	Q4-2-032N	S6-1-052N	S7-1-021N	M7-2-021N	M7-2-042N	M7-2-051N	M7-2-111.5N	M7-2-131N	M7-2-152N	M7-2-181.5N	M7-2-202N
			Parent Sample															
Chemical	Cas Number	SSESC	Units															
Lead	7439-92-1	488	mg/kg	19.8	9.8	39.3	NA	20.9	13.6	42.7	806	36.9	1980	51.2	120	44.2	280	1790

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	O5-5-03	O5-534-04	O5-580.5-02	M8-2-05	M8-3-01	N5-3-03	N5-533-05	N5-581-01	N5-582-02	O8-2247-04	O8-2247-05	O8-2252-02	O8-2274-01
			Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft
			Collection Date	5/11/2000	5/11/2000	5/11/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/12/2000	5/16/2000	5/16/2000	5/16/2000	5/16/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	O5-5-031.25N	O5-534-041N	O5-580.5-022N	M8-2-051.5N	M8-3-011.5N	N5-3-031.5N	N5-533-052N	N5-581-012N	N5-582-021.5N	O8-2247-041.5N	O8-2247-051N	O8-2252-022N	O8-2274-012N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	11.1	310	13.9	822	33.5	16.8	67.3	17	225	24.6	9	11	4.9

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	O8-4-02	L10-8215-02	L11-2091-02	L11-2091-05	L11-2226-02	L11-2226-02	L11-2303-03	M10-6-02	M9-3-01	L11-2225-02	L11-2225-05	M11-3-02
			Depths	0.0-0.5 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	5/16/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/18/2000	5/25/2000	5/25/2000	5/25/2000
			Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N
			Sample Name	O8-4-020.5N	L10-8215-021N	L11-2091-020.5N	L11-2091-051N	L11-2226-021.5N	L11-2226-021.5FD	L11-2303-031N	M10-6-022N	M9-3-011.25N	L11-2225-021.5N	L11-2225-051N	M11-3-021N
			Parent Sample						L11-2226-021.5N						
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	11.6	32.3	16.3	16.2	3.4	4.6	16.9	459	49.2	24.3	17.4	128

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**N8-2304-01**	**N8-2304-05**	**O8-2268-05**	**H6-8116-02**	**I5-8-02**	**C12-8229-01**	**D11-7-02**	**D11-B232-06**	**D12-1-01**	**E10-2-04**	**E11-2-02**	**E11-8228-05**
			Depths	**0.0-1.0 ft**	**0.0-1.0 ft**	**0.0-1.5 ft**	**0.0-1.3 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.5 ft**
			Collection Date	**5/25/2000**	**5/25/2000**	**5/26/2000**	**6/21/2000**	**6/21/2000**	**6/22/2000**	**6/22/2000**	**6/22/2000**	**6/22/2000**	**6/22/2000**	**6/22/2000**	**6/22/2000**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**
			Sample Name	**N8-2304-011N**	**N8-2304-051N**	**O8-2268-051.5N**	**H6-8116-021.25N**	**I5-8-022N**	**C12-8229-012N**	**D11-7-022N**	**D11-B232-062N**	**D12-1-012N**	**E10-2-042FD**	**E11-2-021.5N**	**E11-8228-051.5N**
			Parent Sample										**E10-2-042N**		
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	19	9.5	34.3	114	565	20.7	32	175	149	51.3	36.8	30.2

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E12-298B-02	D12-2073-01	D12-208D-01	D12-3-02	D13-264A-03	D13-3-02	E12-9317-01	D10-14-03	D10-16-02	D10-2007-04	D10-2227E-02	D10-2233-02
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft
			Collection Date	6/22/2000	6/28/2000	6/28/2000	6/28/2000	6/28/2000	6/28/2000	6/28/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	E12-298B-022N	D12-2073-012N	D12-208D-012N	D12-3-022N	D13-264A-032N	D13-3-022N	E12-9317-012N	D10-14-032N	D10-16-021.25N	D10-2007-042N	D10-2227E-022N	D10-2233-021.5N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	16.5	38.4	30	125	111	13.5	135	127	169	71	11.3	125

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	D10-2233A-02	D10-2233B-02	D10-2233C-02	D10-2233D-02	D10-9119-02	E13-2078-04	E13-5-03	F12-2039-01	F13-236B-01	F13-8209-02	F13-8209-02
			Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft
			Collection Date	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000	6/29/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	FD
			Sample Name	D10-2233A-022N	D10-2233B-021N	D10-2233C-022N	D10-2233D-021.25N	D10-9119-022N	E13-2078-042N	E13-5-032N	F12-2039-011.25N	F13-236B-012N	F13-8209-021.5N	F13-8209-021.5FD
			Parent Sample											F13-8209-021.5N
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	143	386	187	68.6	49.4	44.3	26.6	4.28	12.5	8.34	14

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	F13-8230-03	C10-10-02	C10-241A-05	C10-241C-03	C11-4A-02	C11-N3-02	E10-2031B-01	E10-2031C-03	B14-128-02	B14-3-02	C14-1-03	C14-121-04
			Depths	0.0-1.3 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft
			Collection Date	6/29/2000	6/30/2000	6/30/2000	6/30/2000	6/30/2000	6/30/2000	6/30/2000	6/30/2000	7/6/2000	7/6/2000	7/6/2000	7/6/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	F13-8230-031.25N	C10-10-021N	C10-241A-051.5N	C10-241C-032N	C11-4A-022N	C11-N3-021N	E10-2031B-011.5N	E10-2031C-031.5N	B14-128-022N	B14-3-022N	C14-1-031N	C14-121-041.5N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	27.7	120	68.7	12.3	52	129	80.6	27.4	49.6	65.8	30	8.38

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	C14-125-04	C14-4-03	D14-120-03	D14-129-03	D14-129-03	D14-360-01	D14-6-02	J5-4-01	J6-1-01	J6-2245-03	J6-9200-01	K6-529-01	L6-3-01
			Depths	0.0-1.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-2.0 ft
			Collection Date	7/6/2000	7/6/2000	7/6/2000	7/6/2000	7/6/2000	7/6/2000	7/6/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000	7/7/2000
			Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N
			Sample Name	C14-125-041.5N	C14-4-032N	D14-120-032N	D14-129-032N	D14-129-032FD	D14-360-012N	D14-6-022N	J5-4-011N	J6-1-011.5N	J6-2245-031N	J6-9200-011N	K6-529-011.5N	L6-3-012N
			Parent Sample					D14-129-032N								
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	20.9	86.9	89.3	71.6	72.4	23.9	7.98	28.6	14.4	6.46	59.4	321	75.8

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**L6-370-03**	**L6-370-03**	**L6-371-02**	**L6-4-03**	**L6-5-02**	**M5-8166-03**	**M5-8166A-B-C-01**	**M5-8166E-02**	**N4-2-01**	**N4-3-03**	**E11-11-02**	**E11-218B-02**
			Depths	**0.0-1.5 ft**	**0.0-1.5 ft**	**0.0-2.0 ft**	**0.0-1.5 ft**	**0.0-1.3 ft**	**0.0-1.0 ft**	**0.0-1.3 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**	**0.0-0.8 ft**	**0.0-2.0 ft**	**0.0-2.0 ft**
			Collection Date	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/7/2000**	**7/12/2000**	**7/12/2000**
			Sample Type	**N**	**FD**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
			Sample Name	**L6-370-031.5N**	**L6-370-031.5FD**	**L6-371-022N**	**L6-4-031.5N**	**L6-5-021.25N**	**M5-8166-031N**	**M5-8166A-B-C-011.25N**	**M5-8166E-022N**	**N4-2-012N**	**N4-3-030.75N**	**E11-11-022N**	**E11-218B-022N**
			Parent Sample		**L6-370-031.5N**										
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	450	604	7.83	125	9.27	13.8	6.94	16	109	30.7	59.2	944

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	E11-4-02	E11-5-01	E11-52-04	E11-7-02	E12-325B-02	E12-325B-02	F12-6-06	F12-6-12	D11-112-05	H6-8285-05	H6-8285-07	H6-8285-08	L5-1-01
			Depths	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-0.8 ft	0.0-0.8 ft	0.0-1.0 ft	0.0-1.0 ft	0.5-1.0 ft
			Collection Date	7/12/2000	7/12/2000	7/12/2000	7/12/2000	7/12/2000	7/12/2000	7/12/2000	7/12/2000	7/13/2000	7/13/2000	7/13/2000	7/13/2000	7/14/2000
			Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	FD
			Sample Name	E11-4-022N	E11-5-012N	E11-52-042N	E11-7-022N	E12-325B-022N	E12-325B-022FD	F12-6-062N	F12-6-122N	D11-112-050.75N	H6-8285-050.75N	H6-8285-071N	H6-8285-081N	L5-1-010.5FD
			Parent Sample						E12-325B-022N							L5-1-010.5N
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	54.5	237	242	61400	15	21.8	6.86	4.75	14.9	165	608	108	NA

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	J7-8281-01	J7-F1-02	E10-2314-01	M8-3-02	N5-3-01	N5-533-01	N5-581-05	O5-5-02	O5-580.5-05	O6-649-03	O6-650-01	O8-2252-01	O8-4-01
			Depths	0.0-0.5 ft	0.0-2.0 ft	0.5-1.0 ft	0.0-1.3 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.5 ft	0.0-1.5 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-0.5 ft	0.0-1.0 ft	0.0-1.0 ft
			Collection Date	7/20/2000	7/20/2000	7/21/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000	7/25/2000
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	J7-8281-010.5N	J7-F1-022N	E10-2314-010.5N	M8-3-021.25N	N5-3-012N	N5-533-012N	N5-581-051.5N	O5-5-021.5N	O5-580.5-051N	O6-649-031N	O6-650-010.5N	O8-2252-011N	O8-4-011N
			Parent Sample													
Chemical	Cas Number	SSESC	Units													
Lead	7439-92-1	488	mg/kg	74	20.2	NA	21.1	64.4	187	19.8	37.5	15.6	25.3	31.8	10.6	4.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

				Location ID	N7-394-03	N7-571-02	N7-574-03	O7-2-01	O7-395-03	O7-396-03	O8-732-04	P6-541-01	R5-1-03	E12-286D-07	E12-286D-07	S7-1-01	L10-8215-01
				Depths	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.0 ft	0.0-1.5 ft	0.0-1.0 ft
				Collection Date	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/26/2000	7/27/2000	7/27/2000	7/27/2000	8/2/2000
				Sample Type	N	N	N	N	N	N	N	N	FD	N	FD	N	N
				Sample Name	N7-394-032N	N7-571-021N	N7-574-031N	O7-2-011N	O7-395-031N	O7-396-032N	O8-732-042N	P6-541-011N	R5-1-031FD	E12-286D-071N	E12-286D-071FD	S7-1-011.5N	L10-8215-011N
				Parent Sample									R5-1-031N		E12-286D-071N		
Chemical	Cas Number	SSESC	Units														
Lead	7439-92-1	488	mg/kg	45.2	47.2	16	17.6	63.9	52.6	685	455	41.1	50.9	45	108	31.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	M11-3-03	O8-2268-01	D11-112-01	E11-4-01	O5-534-02	SD-C14-1-01	SD-P4-1-01	SD-C10-1-01	SD-C9-1-01	SD-C11-1-01	SD-D10-1-01	SD-C10-3-01
			Depths	0.0-0.5 ft	0.0-0.5 ft	0.0-2.0 ft	0.0-2.0 ft	0.0-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	8/2/2000	9/12/2000	9/27/2000	9/27/2000	9/27/2000	4/12/2001	4/23/2001	4/25/2001	4/25/2001	5/1/2001	5/1/2001	5/2/2001
			Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	M11-3-030.5N	O8-2268-010.5N	D11-112-012N	E11-4-012N	O5-534-021N	SD-C14-1-011N	SD-P4-1-011N	SD-C10-1-011N	SD-C9-1-011N	SD-C11-1-011N	SD-D10-1-011N	SD-C10-3-011.5N
			Parent Sample												
Chemical	Cas Number	SSESC	Units												
Lead	7439-92-1	488	mg/kg	490	25	4.34	239	65.5	NA	NA	NA	68.8	NA	62.8	5490

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-L11-01	SB-R-L11-02	SB-R-N9-01	SB-R-M9-02	SB-R-M9-03	SB-R-M8-01	SB-R-H6-01	SB-R-H7-02	SB-R-I6-01	SB-R-I7-02	SB-R-I7-03
			Depths	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	3/23/2006	3/23/2006	3/29/2006	3/30/2006	3/30/2006	4/6/2006	4/7/2006	4/7/2006	4/7/2006	4/7/2006	4/11/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-L11-011.5N	SB-R-L11-021.0N	SB-R-N9-011.0N	SB-R-M9-021.0N	SB-R-M9-031.0N	SB-R-M8-011.0N	SB-R-H6-011.5N	SB-R-H7-021.0N	SB-R-I6-011.0N	SB-R-I7-021.0N	SB-R-I7-031.5N
			Parent Sample											
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	7.52	41.8	32.2	46.2	7.41	50.4	63.3	15.3	18.4	21.1	15.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-J7-01	SB-R-J7-04	SB-R-K7-02	SB-R-K7-03	SB-R-L6-01	SB-R-L6-02	SB-R-M7-01	SB-R-M7-02	SB-R-N7-01	SB-R-N8-01	SB-R-O8-01
			Depths	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft
			Collection Date	4/11/2006	4/11/2006	4/11/2006	4/11/2006	4/13/2006	4/13/2006	4/17/2006	4/17/2006	4/17/2006	4/17/2006	4/17/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-J7-011.0N	SB-R-J7-041.0N	SB-R-K7-021.5N	SB-R-K7-031.5N	SB-R-L6-011.0N	SB-R-L6-021.0N	SB-R-M7-011.0N	SB-R-M7-021.0N	SB-R-N7-011.0N	SB-R-N8-011.5N	SB-R-O8-011.0N
			Parent Sample											
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	21	7.76	2.99	5.02	7.7	44.5	24.6	159	7.51	20.6	16.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-O6-01	SB-R-O7-01	SB-R-O7-02	SB-R-O7-03	SB-R-O7-04	SB-R-O8-02	SB-R-P6-02	SB-R-P7-02	SB-R-J6-01	SB-R-J6-02	SB-R-K6-01
			Depths	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/20/2006	4/20/2006	4/20/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-O6-011.0N	SB-R-O7-011.5N	SB-R-O7-021.0N	SB-R-O7-031.5N	SB-R-O7-041.0N	SB-R-O8-021.0N	SB-R-P6-021.5N	SB-R-P7-021.0N	SB-R-J6-011.0N	SB-R-J6-021.0N	SB-R-K6-011.0N
			Parent Sample											
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	12.3	10.4	5.29	5.6	23.2	4.39	4.62	17.7	43.3	610	9.89

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-L5-01	SB-R-L6-03	SB-R-L6-03	SB-R-L6-04	SB-R-J5-01	SB-R-K5-01	SB-R-P6-03	SB-R-Q7-01	SB-R-R7-01	SB-R-R7-02	SB-R-O5-01
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	4/21/2006	4/21/2006	4/21/2006	4/21/2006	4/24/2006	4/24/2006	4/25/2006	4/25/2006	4/25/2006	4/25/2006	4/26/2006
			Sample Type	N	N	FD	N	N	N	N	FD	N	N	N
			Sample Name	SB-R-L5-011.0N	SB-R-L6-031.0N	SB-R-L6-031.0FD	SB-R-L6-041.5N	SB-R-J5-011N	SB-R-K5-011N	SB-R-P6-031.0N	SB-R-Q7-011FD	SB-R-R7-011N	SB-R-R7-021N	SB-R-O5-011.0N
			Parent Sample			SB-R-L6-031.0N					SB-R-Q7-011N			
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	13.4	6.8	6.67	3.41	20.2	7.67	6.48	8.24	19.2	53.5	25.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-O5-02	SB-R-O6-02	SB-R-P5-02	SB-R-M7-03	SB-R-N5-01	SB-R-N6-01	SB-R-N7-02	SB-R-N7-03	SB-R-O5-03	SB-R-O8-03	SB-R-K5-02
			Depths	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	4/26/2006	4/26/2006	4/26/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/28/2006	5/2/2006
			Sample Type	N	N	N	N	N	N	N	N	FD	N	N
			Sample Name	SB-R-O5-021.5N	SB-R-O6-021.0N	SB-R-P5-021.0N	SB-R-M7-031.25N	SB-R-N5-011.0N	SB-R-N6-011.0N	SB-R-N7-021.5N	SB-R-N7-031.5N	SB-R-O5-031.0FD	SB-R-O8-031.0N	SB-R-K5-021.0N
			Parent Sample									SB-R-O5-031.0N		
Chemical	Cas Number	SSESC	Units											
Lead	7439-92-1	488	mg/kg	22.2	12.7	7.47	21.7	14	5.87	18.9	202	3.14	4.73	17.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-N5-02	SB-R-N5-03	SB-R-O5-04	SB-R-C9-01	SB-R-C9-02	SB-R-C9-03	SB-R-E11-01	SB-R-E11-02	SB-R-E11-03	SB-R-F11-04
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	5/2/2006	5/2/2006	5/2/2006	5/16/2006	5/16/2006	5/16/2006	5/17/2006	5/17/2006	5/17/2006	5/17/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-N5-021.0N0955	SB-R-N5-031.0N	SB-R-O5-041.0N	SB-R-C9-011.0N	SB-R-C9-021.0N	SB-R-C9-031.0N	SB-R-E11-011.0N	SB-R-E11-021.0N	SB-R-E11-031.0N	SB-R-F11-041.0N
			Parent Sample										
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	8.68	8.39	4.76	4.52	6.27	6.51	55.3	262	166	143

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-F12-02	SB-R-C13-01	SB-R-D13-01	SB-R-B12-02	SB-R-C9-04	SB-R-E11-04	SB-R-E12-01	SB-R-E12-01	SB-R-E12-02	SB-R-E13-01
			Depths	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	5/17/2006	5/18/2006	5/19/2006	5/23/2006	5/25/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006	5/26/2006
			Sample Type	N	N	N	N	N	N	N	FD	N	N
			Sample Name	SB-R-F12-021.0N	SB-R-C13-011.33N	SB-R-D13-011.0N	SB-R-B12-021.0N	SB-R-C9-041.0N	SB-R-E11-041.0N	SB-R-E12-011.0N	SB-R-E12-011.0FD	SB-R-E12-021.0N	SB-R-E13-011.0N
			Parent Sample								SB-R-E12-011.0N		
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	6.43	9.43	3.92	2.61	5.52	14.1	5.44	5.72	11.4	17.4

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-F12-03	SB-R-F13-02	SB-R-D12-01	SB-R-E12-03	SB-R-E13-02	SB-R-F12-04	SB-R-F13-03	SB-R-F13-03	SB-R-C12-01	SB-R-C13-03
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
			Collection Date	5/26/2006	5/26/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/31/2006	5/31/2006
			Sample Type	N	N	N	N	N	N	N	FD	FD	N
			Sample Name	SB-R-F12-031.0N	SB-R-F13-021.0N	SB-R-D12-011.0N	SB-R-E12-031.5N	SB-R-E13-021.0N	SB-R-F12-041.0N	SB-R-F13-031.0N	SB-R-F13-031.0FD	SB-R-C12-011.0FD	SB-R-C13-031.0N
			Parent Sample								SB-R-F13-031.0N	SB-R-C12-011.0N	
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	17.6	6.14	29.6	20.3	10.2	12.6	16	13.9	6.12	4.37

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	**SB-R-D11-01**	**SB-R-D11-02**	**SB-R-C10-02**	**SB-R-D10-01**	**SB-R-D10-03**	**SB-R-D10-03**	**SB-R-D11-03**	**SB-R-D11-03**	**SB-R-E10-02**	**SB-R-C13-04**
			Depths	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**	**1.0-1.5 ft**	**1.0-1.5 ft**	**0.5-1.0 ft**	**0.5-1.0 ft**
			Collection Date	**5/31/2006**	**5/31/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/1/2006**	**6/2/2006**
			Sample Type	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**FD**	**N**	**N**
			Sample Name	**SB-R-D11-011.5N**	**SB-R-D11-021.0N**	**SB-R-C10-021.0N**	**SB-R-D10-011.0N**	**SB-R-D10-031.0N**	**SB-R-D10-031.0FD**	**SB-R-D11-031.5N**	**SB-R-D11-031.5FD**	**SB-R-E10-021.0N**	**SB-R-C13-041.0N**
			Parent Sample						**SB-R-D10-031.0N**		**SB-R-D11-031.5N**		
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	288	35.6	50.5	39.9	44.3	59.8	5100	3760	36	6.06

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-D10-04	SB-R-E10-03	SB-R-E10-03	SB-R-E13-03	SB-R-E14-01	SB-R-F14-01	SB-R-F15-01	SB-R-F15-03	SB-R-B14-04	SB-R-C12-03
			Depths	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	6/2/2006	6/2/2006	6/2/2006	6/2/2006	6/5/2006	6/5/2006	6/5/2006	6/5/2006	6/6/2006	6/6/2006
			Sample Type	N	N	FD	N	N	N	N	N	N	N
			Sample Name	SB-R-D10-041.0N	SB-R-E10-031.0N	SB-R-E10-031.0FD	SB-R-E13-031.0N	SB-R-E14-011.5N	SB-R-F14-011.0N	SB-R-F15-011.0N	SB-R-F15-031.0N	SB-R-B14-041.0N	SB-R-C12-031.5N
			Parent Sample			SB-R-E10-031.0N							
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	95.7	50.8	45.3	44.9	3.82	6.33	7.95	4.7	10	50.5

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-C12-04	SB-R-C14-03	SB-R-C14-04	SB-R-D12-02	SB-R-D14-02	SB-R-F15-04	SB-R-C10-03	SB-R-F14-02	SB-R-G14-02	SB-R-D11-04
			Depths	0.5-1.0 ft	0.6-1.1 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft
			Collection Date	6/6/2006	6/6/2006	6/6/2006	6/6/2006	6/6/2006	6/6/2006	6/7/2006	6/7/2006	6/7/2006	6/8/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-C12-041.0N	SB-R-C14-031.08N	SB-R-C14-041.0N	SB-R-D12-021.0N	SB-R-D14-021.0N	SB-R-F15-041.0N	SB-R-C10-031.0N	SB-R-F14-021.0N	SB-R-G14-021.25N	SB-R-D11-041.0N
			Parent Sample										
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	15.5	159	6.32	1160	8.52	6.39	9.25	2.94	8.03	61.7

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-E12-04	SB-R-E13-04	SB-R-F13-04	SB-R-C10-04	SB-R-D12-03	SB-R-Q7-02	SB-R-O8-04	SB-R-D14-03	SB-R-E14-02	TP-R-M8-1-1
			Depths	0.5-1.0 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.8-1.3 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	6/8/2006	6/8/2006	6/8/2006	6/12/2006	6/12/2006	6/28/2006	6/29/2006	7/6/2006	7/6/2006	7/19/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Name	SB-R-E12-041.0N	SB-R-E13-041.5N	SB-R-F13-041.0N	SB-R-C10-041.0N	SB-R-D12-031.25N	SB-R-Q7-021.0N	SB-R-O8-041.0N	SB-R-D14-031.0N	SB-R-E14-021.0N	TP-R-M8-1-11.5N
			Parent Sample										
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	1.77	1.94	4.06	6.4	239	5.36	7.18	13.4	151	71.3

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	TP-R-M8-1-2	TP-R-M8-1-4	TP-R-M8-1-5	TP-R-M8-1-6	TP-R-M8-1-7	TP-R-M8-1-8	TP-R-M8-1-9	TP-R-M8-1-10	TP-R-M8-1-13	TP-R-M8-1-22
			Depths	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft	1.0-1.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.0-1.5 ft
			Collection Date	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/20/2006	7/20/2006	7/25/2006
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Name	TP-R-M8-1-21.5N	TP-R-M8-1-41.0N	TP-R-M8-1-51.0N	TP-R-M8-1-61.0N	TP-R-M8-1-71.0N	TP-R-M8-1-81.5N	TP-R-M8-1-91.5N	TP-R-M8-1-101.0N	TP-R-M8-1-131.0N	TP-R-M8-1-221.5N
			Parent Sample										
Chemical	Cas Number	SSESC	Units										
Lead	7439-92-1	488	mg/kg	37.5	8.44	19.2	77.6	7.7	11.7	5.76	7.16	10.7	446

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SB-R-N4-02	SB-R-N6-02	SO-R2-R-7-1	SO-R2-N-4-1	SO-R2-P-4-1	SO-R2-J-5-1	SO-R2-J-5-2	SO-R2-F-12-1
			Depths	0.5-1.0 ft	1.0-1.5 ft	0.0-0.5 ft	0.2-0.7 ft	0.3-0.8 ft	0.2-0.7 ft	0.1-0.6 ft	0.4-0.9 ft
			Collection Date	8/3/2006	8/3/2006	11/12/2013	11/12/2013	11/13/2013	11/13/2013	11/13/2013	11/14/2013
			Sample Type	N	N	N	N	N	N	N	N
			Sample Name	SB-R-N4-021.0N	SB-R-N6-021.5N	SO-R2-R-7-1_20131112	SO-R2-N-4-1_20131112	SO-R2-P-4-1_20131113	SO-R2-J-5-1_20131113	SO-R2-J-5-2_20131113	SO-R2-F-12-1_20131114
			Parent Sample								
Chemical	Cas Number	SSESC	Units								
Lead	7439-92-1	488	mg/kg	14.4	30.4	15.4	9.65	24.3	179	42.6	10.1

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix B-2
Terrestrial Exposure Area Dataset - Future Conditions (Excluding Redevelopment Area)
Kenvil Works Facility
Kenvil, New Jersey

			Location ID	SO-R2-C-8-2	SO-R2-B-8-1	SO-R2-C-12-1	SO-R2-C-14-1
			Depths	0.5-1.0 ft	0.3-0.8 ft	0.5-1.0 ft	0.0-0.5 ft
			Collection Date	11/14/2013	11/14/2013	11/14/2013	11/15/2013
			Sample Type	N	N	N	N
			Sample Name	SO-R2-C-8-2_20131114	SO-R2-B-8-1_20131114	SO-R2-C-12-1_20131114	SO-R2-C-14-1_20131115
			Parent Sample				
Chemical	Cas Number	SSESC	Units				
Lead	7439-92-1	488	mg/kg	15.7	8.98	19.1	28

Notes:
Exceeds Site-Specific Ecological Soil Screening Criteria (SSESC)
NA = not analyzed
mg/kg = milligrams per kilogram
ft = feet

Appendix C: Standard Operating Guideline Surface and Shallow Soil Sampling

C.1 Introduction

This guideline describes the equipment and procedures that are used by Kennedy/Jenks Consultants personnel for collecting surface and shallow soil samples.

C.2 Equipment

- Stainless steel or plastic scoops
- Hand auger
- Split-spoon drive sampler (2.5-inch or 2.0-inch I.D.) and associated drill rods, wrench and other tools needed to break down equipment
- Slide hammer
- 2.5-inch or 2.0-inch brass liners and sealing materials (plastic end caps, Teflon seals, silicon tape, zip-lock plastic bags)
- Shovel
- Post hole digger
- Pick
- Breaker bar
- Foxboro FID-Organic Vapor Analyzer (OVA)
- HNU PID-Organic Vapor Analyzer
- OVM
- Measuring tape or measuring wheel
- Stakes or spray paint for sampling grid
- Sampler cleaning equipment
  - Steamcleaner (if available)
  - Generator (if available)
  - Stiff-bristle brushes
  - Buckets
  - High priority phosphate-free liquid soap, such as Liquinox
  - Trisodium phosphate (TSD) for use if samples are oily
  - Methanol (if necessary)
  - 0.1N nitric acid (if necessary)
  - Deionized water
  - Potable water
- Insulated sample storage and shipping containers
- Personal protective equipment (as specified in site safety plan)

C.3 Typical Procedure

1. Obtain applicable drilling and well construction permits, prior to mobilization, if necessary.

2. Clear locations for underground utilities and structures by Underground Service Alert (USA) and subcontractors, if necessary.

3. Measure and mark sampling locations prior to initiation of the sampling program, as specified in the sampling and analysis plan. If sampling locations are based on a grid pattern, stakes can be used to define the grid layout.

4. Collect soil samples for chemical analysis by using precleaned scoops or a hand auger, or by driving a split-spoon drive sampler.

5. If overlying soil is to be removed (as specified in the sampling and analysis plan), use shovels, picks, or post-hole diggers, as needed.

6. Collect soil samples for lithologic logging purposes.

7. If applicable, as described in the site safety plan, use an OVA to analyze *in situ* air samples from the breathing zone and other locations as necessary.

8. Have the soils classified in the field in approximate accordance with the visual-manual procedure of the Unified Soil Classification System (ASTM D 2488-90) and the Munsell Color Classification (refer to SOG 21).

9. Prior to each sampling event, wash sampling equipment (scoops, hand auger, split-spoon drive sampler, and brass liners) with high purity phosphate-free soap. Double-rinse it with deionized water and methanol, and/or 0.1N nitric acid, as appropriate.

10. At each sampling interval, collect soil and place it in the appropriate sampling container. Fill the sample container and compact the soil to minimize air space. Minimize handling of the soil, especially if it is being collected for analysis of volatile compounds.

11. If a split-spoon drive sampler is being used, select one brass liner for potential laboratory analysis. Cover the ends of this sample in Teflon sheets, seal it with plastic caps, and wrap it with silicon or Teflon tape. Place a completed sample label on the brass liner.

12. Place the selected samples in appropriate containers and store them at approximately 4 °C.

13. As a field screening procedure (if applicable), for each sampling interval, place soil not selected for chemical analysis in an airtight container (e.g., plastic bag or jar) and allow it to equilibrate. After this, monitor the headspace in the container using either a HNU, OVM or OVA. Record the headspace concentration in the field notes (refer to SOGs 4 and 5).

14. Complete chain-of-custody forms in the field and transport the selected samples in insulated containers, at an internal temperature of approximately 4°C, to the analytical laboratory (refer to SOGs 3).

C.4 Equipment Cleaning

Prior to collection of each soil sample, the sampling equipment should be either steamcleaned or hand washed. If the sampling equipment is hand washed, wash excavation equipment with a brush, in a solution of high purity phosphate-free soap and potable water. Rinse the equipment with potable water and methanol, and/or 0.1N nitric acid, as appropriate. Follow this with double-rinsing using distilled water (refer to SOG 11).

C.5 Investigation-Derived Residuals

If sufficient volumes of soil cuttings and other residuals are generated, contain the material in appropriately labeled containers for disposition by the client. All soil samples transported to the laboratory must be returned to the client for disposition if required by the laboratory. Kennedy/Jenks Consultants is available to assist the client with options for disposition of residuals (refer to SOG 20B).

Appendix C. Standard Operating Guideline Metals Analysis Using Field Portable X-Ray Fluorescence

C.1 Introduction

This guideline identifies the procedures that will be used by Kennedy/Jenks Consultants personnel during operation of x-ray fluorescence (XRF) instruments for field screening/analysis of metals.

C.2 Equipment

- XRF Analyzer with data acquisition, processing, display and computer interface
- Testing stand
- Batteries and charger
- Sample cups (as specified by instrument)
- X-ray window film (as specified by instrument)
- Moisture content probe
- Elemental standards
- Equipment blank samples
- Method blank samples
- Calibration standards
- Mortar and pestle
- 0.25 mm sieve or finer to prepare samples
- Drying oven
- Electronic scale
- Plastic bags – collection and homogenization of samples
- Camera (video capable)
- Insulated sample storage and shipping containers
- Personal protective equipment (as specified in site safety plan)
- Field logbook
- Instrument manual
- Cleaning and decontamination supplies

C.3 Procedures

Sample Preparation

1. Measure sample contents inside zip lock bag with moisture content probe. If moisture content is greater than 20%, samples will be dried in an over prior to being sieved/homogenized.

2. Empty soil contents from sampling jar into labeled sample tray (or into a Ziploc type baggie if soil screening) and record sample information in field notebook.

3. Remove any debris (e.g., twigs, rocks) from sample.

4. If necessary due to soil characteristics (e.g., coarseness), grind sample using mortar and pestle.

5. Sieve contents using 0.25 mm sieve or finer to prepare the sample for measurement.

6. Place approximately 5 grams of sample contents into sample cups and cover tightly with x-ray window film.

7. Place sample cup under x-ray window according to manufacturer's instructions.

8. Clean sample preparation equipment according to decontamination procedures outlined in the work plan.

Calibration

1. Instrument calibration processes may incorporate any one of three types of procedures existing for XRF instruments: Fundamental Parameters calibration, empirical calibration, and the Compton peak ratio (or normalization method). The calibration procedure will be dependent upon the XRF instrument and data quality objectives (DQOs) specified. The calibration procedure in the instrument manufacturer's instructions should be followed for each specific instrument.

Sample Analysis

1. Don PPE, as required by the HASP.

2. Turn the analyzer on (per manufacturer's instructions).

3. Check battery life. If low, replace before proceeding.

4. Allow the analyzer to warm up for 15 minutes (per manufacturer's instructions).

5. Define the analyzer operating conditions in the instrument software (per manufacturer instructions). This will include entering target analytes, associated site-specific action limits (ALs), sample analysis time, and sample identification number, as appropriate or available.

6. Ensure that the appropriate materials required to perform energy calibration, calibration verification and blank analyses are available and the procedures are followed prior to or during sample analysis.

7. Remove the sample from the container and follow sample preparation procedure above.

8. Analyze samples according to specified target analytes and associated DQOs and following the instrument manufacturer's instructions. Based on the potential interference among certain analytes (e.g., Pb and As) and moisture content, sample analysis times will be determined based on the sensitivity of the XRF analyzer and level of resolution desired.

   Note: Depending on the instrument sensitivity and desired resolution (increasing the precision of the measurement), the analyzer may need to collect spectra from the soil samples from 30 seconds to a minute, or longer (5 minutes). Moisture in the samples being analyzed can cause spectral interferences and/or false elevated concentrations to be reported

9. Once the desired resolution and sensitivity has been met for the target analytes, end the analysis.

10. Remove sample cup from analyzer and return sample to the sample container.

C.4 Equipment Cleaning

Prior to the analysis of each sample, the sampling equipment should be decontaminated in accordance with the Equipment Decontamination SOG.

C.5 Investigation-Derived Residuals

Excess sample, sampling equipment and decontamination liquids generated, will be placed in appropriately labeled containers for disposal.

Appendix C: Standard Operating Guideline Terrestrial Macroinvertebrate Sampling

C.1 Introduction

This guideline describes the equipment and procedures that are used by Kennedy/Jenks Consultants personnel for collecting terrestrial macroinvertebrates in soil and leaf litter. The specific collection technique will be selected based on project specific data quality objectives.

C.2 Equipment

- Handheld global positioning (GPS) unit
- Shovel
- 1-gallon bucket or paint can
- Flagging
- 1-Gallon plastic jug or funnel (e.g., milk jug)
- 16 oz glass jar
- Mesh screen (1/4" hardware cloth)
- Ethyl acetate, Ethanol (70–95%) or Isopropanol (70%)
- Lamp with Moveable Neck (and incandescent bulb, for heat)
- Long handled tweezers
- Scissors
- Ruler
- Tape
- Collected soil sample and leaf litter
- Insulated sample storage and shipping containers
- Personal protective equipment (as specified in site safety plan)

C.3 Typical Procedure

1. Mark sampling locations with flagging and collect GPS coordinates at each location.

2. Measure the depth and width of the bucket or paint can and use a shovel to dig a hole that allows the container to fit.

3. Retain overlying soil and leaf litter for Berlese tullgren sampling.

4. Place the container in the hole and ensure it is flush or slightly above the ground surface. Cover the lip of the container with soil.

5. Place a small layer of soil or leaf litter in the bottom of the trap for incidental reptile and amphibian capture.

6. Use care when checking traps and use long handled tweezers or similar to check leaf litter for venomous/biting/stinging insects and reptiles. Remove unwanted species.

7. Empty terrestrial invertebrates collected in the traps into glass sample jars with lids. Tape a sponge soaked in ethyl acetate to the side of the container to euthanize invertebrates for tissue sampling. Use ethanol or isopropyl in the jar to preserve invertebrates for community sampling.

8. Place a plastic funnel over a glass jar with mesh hardware cloth or window screen at the bottom. Add a few centimeters of ethanol or isopropyl in the bottom of the glass jar if preserving invertebrates for community sampling. Tape a sponge soaked in ethyl acetate to the inside of the jar for tissue sampling.

9. Tape a measuring stick to the gar and funnel so it doesn't tip over.

10. Place collected soil and leaf litter in the funnel and set the lamp over top of the funnel at least 10 centimeters away to allow for drying.

11. Once soil and leaf litter are dry remove funnel and seal jars. Complete chain-of-custody forms in the field and transport the selected samples in insulated containers, to the analytical laboratory.

C.4 Equipment Cleaning

Prior to collection of each invertebrate sampling location, the sampling equipment should be hand washed.Wash with a brush, in a solution of high purity phosphate-free soap and potable water. Rinse the equipment with potable water and methanol, and/or 0.1N nitric acid, as appropriate. Follow this with double-rinsing using distilled water.

C.5 Investigation-Derived Residuals

If sufficient volumes of soil and other residuals are generated, contain the material in appropriately labeled containers for disposition by the client. Kennedy/Jenks Consultants is available to assist the client with options for disposition of residuals.

Appendix C: Standard Operating Guideline Equipment Decontamination

C.1 Introduction

This guideline describes field procedures typically followed by Kennedy/Jenks Consultants personnel during the decontamination of sampling and monitoring equipment. Proper decontamination procedures minimize the potential for cross-contamination among sampling points on a single site or between separate sites.

C.2 Equipment

- Two or three containers (e.g., 5-gallon buckets, or 5- or 10-gallon plastic tubs) for dip rinsing, washing, and collection of rinse water.
- Two or three utility brushes or test tube brushes for removal of visible contamination. A test tube brush (or similar) can be stapled to the end of a dowel and used to clean the inside of a bailer.
- Non-phosphate Alconox, Liquinox, or trisodiumphosphate (TSP) to be mixed with potable or distilled water.
- Rinse solutions, such as methyl alcohol (methanol), dilute nitric acid (0.1 molar), deionized or distilled water, and/or tap water. Deionized water is preferable to distilled water because the deionization process typically results in greater removal of organic compounds as discussed below:

  Acid rinse (inorganic desorption) 10% nitric or hydrochloric acid solution reagent grade nitric or hydrochloric acid and deionized water (1% to be used for low carbon steel equipment).

  Solvent rinse (organic desorption isopropanol, acetone, or methanol; pesticide grade).

  Deionized water is preferable to distilled water because the deionization process typically results in greater removal of organic compounds.
- Multi-gallon storage containers filled with potable water to be used for rinsing or washing.
- Spray bottles, squirt bottles, or garden sprayers to apply rinse liquid. A separate bottle should be used for each liquid.
- Solvex or neoprene gloves that extend, as a minimum, halfway up the forearm. In cooler weather, it is advisable to use different resistant chemicals neoprene gloves that provide better insulation against cold temperatures.
- Paper towels to wipe off gross contamination.
- Garbage bags, or other plastic bags, and aluminum foil to wrap clean sampling equipment after decontamination, to store sampling equipment or and to dispose of decontamination debris.

- Sample bottles for rinsate blanks. For these blanks, Laboratory Type II (millipore) water should be used. Purified water from the selected analytical laboratory is recommended. This water is often filtered and boiled to remove impurities.

- DOT-approved container (e.g., 55-gallon drum) to store contaminated wash and rinse water. Contained decontamination should be labeled appropriately.

- Steamcleaner with power source and water supply.

C.3 Procedures

In most cases, the following procedures are adequate to remove contamination.

1. Preclean sampling equipment. If there is gross contamination on equipment, wipe it off with paper towels and/or rinse it off with water. Additional internal decontamination may be possible by circulation of water or cleaning solutions.

2. Wash all parts of equipment with detergent water and scrub with brushes. Take equipment apart when appropriate to remove visible contamination.

3. Steamclean sampling equipment. The steamcleaner is effective in removing contamination, especially volatile hydrocarbons. Steamcleaning is highly recommended in most cases and sometimes is the only method for decontaminating equipment that is grossly contaminated with hydrocarbons.

4. Rinse equipment by dipping in rinse solution, spraying, or pouring solution over it. Dip rinsing can introduce contaminants into solution. Spraying might not allow a thorough rinsing of the equipment, but it is a more efficient rinsing method because less rinse solution is used. Appropriate rinsing solutions are specified in the project sampling and analysis plan. Some typical solutions are indicated in the equipment section of this SOG.

   Methanol (used to remove organic compounds)

   Dilute acids (used to remove metals and other cations)

   Tap water

   Deionized/distilled water.

5. Rinse the sampler with generous amounts of deionized water. Pouring water over the sampler is best, although spraying or using a squirt bottle to apply rinse water might be adequate if you are trying to minimize waste.

6. Prepare rinsate blanks. To ensure proper decontamination, submit a rinsate blank for analysis. It is best to do this just before sampling. The blank should be analyzed for the same chemicals the samples are being checked for and for the chemical used to decontaminate equipment, if appropriate.

   [Note: The heading for this section indicates procedures to remove contamination.]

To prepare a rinsate blank, pour millipore analyte-free water through or over the into the sampler. Collect the rinsate water in a clean bottle. Pour the collected rinsate water into the appropriate sample container(s). It is advisable to prepare one rinsate blank every day in the field. Use water specifically for blank preparation.

7. Wipe sampling equipment with a paper towel or allow it to air dry.

8. Place samplers in clean plastic bags or sealed containers, or wrap them in aluminum foil for storage in an undisturbed location that is free of contamination.

C.4 Investigation-Derived Residuals

For details of handling investigation-derived residuals refer to the project sampling and analysis plan.

C.5 Special Notes

- To reduce the potential for cross-contamination, samples should be collected so that the least contaminated stations areas are sampled first. Subsequent sampling should be completed in the order of increasing contamination. Areas that typically have lower levels of contamination include those upgradient of source, background areas, and the periphery of the contaminated area.

- Prepare rinsate blanks. To ensure proper decontamination, submit a rinsate blank for analysis. It is best to do this just before sampling. The blank should be analyzed for the same chemicals the samples are being checked for and for the chemical used to decontaminate equipment, if appropriate.

- To prepare a rinsate blank, pour analyte-free water through or into the sampler. Pour the collected rinsate water into the appropriate sample container(s). It is advisable to prepare one rinsate blank every day in the field. Use water specifically for blank preparation.

- Monitoring instruments that come into contact with sampled materials must be decontaminated, along with sampling devices. They should be washed, or at least rinsed before monitoring other sampling sites.

- As determined from analysis of rinsate blanks, decontamination using soap and water is adequate in removing detectable quantities of contaminants. This type of decontamination has been compared to laboratory procedures for decontaminating sampling bottles. Using methanol as a rinse does help in cases of contamination with organic compounds.

C.6 References

U.S. Environmental Protection Agency. 1987. *Handbook: Groundwater*. U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, Ohio.

Washington Department of Ecology. 1982. *Methods for Obtaining Waste Samples*. Ch. 173-303 WAC. Washington State Department of Ecology, Olympia, Washington.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sequential Extraction Procedures (SEP) For Up To Twenty Three Metals in Sediment and Soil

Introduction

Sequential extraction procedures are a valuable and validated method of investigating metal concentrations in sediment and soil. For sediments and soils, reductions in metal concentrations and/or toxicity typically occur through dispersion, dilution, sorption and/or redox processes. One way to determine the geochemical fractionation of these metals in laboratory scale operations is through the use of a SEP.

TestAmerica Knoxville is at the forefront of developing various SEPs for metals. The lab has analyzed more than 150 samples over the last three years for as many as 23 different elements including those listed in the Contract laboratory Program (CLP) target analyte list (TAL). TestAmerica Knoxville's SEP approach is a form of the method evaluated for radionuclides by the National Institute of Standards and Technology (NIST) speciation workshop.

A wide variety of SEP methods have been developed to target metals bound to specific functional fractions of soil and sediment. The data allow clients to evaluate the geochemical relationships that are used to understand the conditions under which contaminants may be released to the surrounding environment. SEP methods define each fraction based on the way in which metals are bound to the substrate and the types of metallic compounds that are formed. The advantage of the SEP for metals is that it provides a more holistic picture of metals chemistry in environmental media. SEP is most useful for sediments and sources in transitional states where understanding chemical form will aid in predicting fate, transport, and bioavailability.

Existing studies provide numerous examples of how fractionation data from SEP can be used to enhance estimates of bioavailability and toxicity, predict metal fate and transport under expected conditions, and refine sediment management and remediation options. While this procedure cannot be used to identify the actual speciation of a given metal in a sediment or soil, it is useful in grouping metals into immobilization phases or fractions. SEP data have been used to:

- Identify causes of observed toxicity in cases where total metals data fails to be predictive;
- Predict potential metal releases from dredged sediment as it undergoes oxidation and to quantify associated risks;

TestAmerica's Sequential Extraction Procedures [SEP] Laboratory for Metals:

TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Technical Points of Contact:

Ms. Robyn Wagner
Operations Manager
P 865.291.3000
Robyn.Wagner@TestAmericaInc.com

Dr. Chris Rigell
Laboratory Director
P 865.291.3000
Chris.Rigell@TestAmericaInc.com

Mr. John Reynolds Customer Service Manager
P 865.291.3004
John.Reynolds@TestAmericaInc.com

Ms. Patricia McIsaac
Product Manager
P 703.623.3872
Patricia.McIsaac@TestAmericaInc.com

Rev 04 Aug 2012.

- Gauge the likely success of remedial strategies that are based on regulating contaminant mobility;
- Refine wildlife exposure estimates in risk assessments;
- Assess natural attenuation as a remedial action alternative;
- Develop benchmarks for use in remediation.

Quality control associated with SEP Analysis

TestAmerica Knoxville developed a SEP method that incorporates the blank and check samples typically associated with a rigorous promulgated method. TestAmerica's quality assurance (QA) program is incorporated into the method to include the following quality control samples in each batch of samples prepared using the SEP: method blanks, laboratory control sample/laboratory control sample duplicates and a laboratory duplicate.

Summary of the Procedure

The specific SEP steps vary based on the data needs of each project. The seven potential steps in the TestAmerica Knoxville SEP are presented below. In each step, the sediment or soil is extracted sequentially and the resulting sample residue is digested using method 3010A and analyzed by method 6010B and/or 7470A and reported on a dry weight basis.

The Seven Potential Steps for SEP Metals

- **Step 1 -Exchangeable Fraction**: An aliquot of sample is extracted with 1M MgSO4, centrifuged and filtered.
- **Step 2 -Carbonate Fraction**: The sample residue is extracted in 1M NaOAc/HOAc, centrifuged and filtered.
- **Step 3 -Non-crystalline Materials Fraction**: The sample residue is extracted with ammonium oxalate, centrifuged and filtered.
- **Step 4 -Metal Hydroxide Fraction**: The sample residue is extracted with 1M hydroxylamine hydrochloride solution in acetic acid, centrifuged and filtered.
- **Step 5 -Organic-bound Fraction**: The sample residue is extracted three times with NaClO, centrifuged and filtered.
- **Step 6 -Acid/Sulfide Fraction**: The sample residue is extracted with a solution of HCl-HNO3-H2O, centrifuged and filtered.
- **Step 7 -Residual Fraction**: An aliquot of the sample residue is digested using HF, HNO3, HCl and H3BO3.
- **Totals**: A 1.0 gram aliquot of the original sample is digested using HF, HNO3, HCl and H3BO3.

The results obtained from the SEP are compared with the total metal levels. The cumulative concentration of metals extracted sequentially by the seven SEP steps generally agrees very well with the total metals results.

Sample Size/Mass, Bottle Requirements and Holding Times

The sample holding time for metals is 180 days for the ICP metals and 28 days for mercury from the date of collection to the date of analysis. A minimum of 10 grams of sample material is needed for analysis. TestAmerica recommends using a 125 ml (4 oz.) wide mouth clear glass container.

Soil or sediment samples do not require preservation but may be stored at 4 °C ± 2 °C until the time of sample preparation.

TestAmerica Knoxville
7 Step Sequential Extraction Procedure Summary

Step 1 - Exchangeable Phase: This extraction includes trace elements that are reversibly sorbed to soil minerals, amorphous solids, and/or organic material by electrostatic forces. These forces may be overcome by exposing the soil to a concentrated electrolyte solution, such as 1M $MgSO_4$ that displaces the trace elements from solid surfaces.

Exposure Time/Temperature: 1 hr/ambient.

Step 2 - Carbonate Phase: This extraction targets trace elements that are sorbed or otherwise bound to carbonate minerals. This phase is soluble in a mild acid solution (1M NaOAc solution in 25% HOAc at pH 5).

Exposure Time/Temperature: 3 hr/ambient.

Step 3 – Non-Crystalline Materials Phase: This extraction targets trace elements that are complexed by amorphous minerals (e.g. iron). This phase is extracted with 25 mL of 0.2M ammonium oxalate (pH 3).

Exposure Time/Temperature: 4 hr/ambient.

Step 4 - Metal Hydroxide Phase: Trace elements bound to hydroxides of iron, manganese, and/or aluminum are extracted using a solution of 1M hydroxylamine hydrochloride in 25% v/v acetic acid.

Exposure Time/Temperature: 6 hr/ 95°C $\pm$ 5°C.

Step 5 - Organic Phase: This extraction targets trace elements strongly bound via chemisorption to organic material. Oxidation of soil organic matter (using pH 9.5; at 5% NaOCl), will bring into solution metals bound to organic functional groups.

Exposure Time/Temperature: 1 hr/ 95°C $\pm$ 5°C.

Step 6 - Acid/Sulfide Fraction: The extraction is used to identify trace elements precipitated as sulfide minerals. Metals associated with sulfide minerals will be extracted by leaching the soils with a 3:1:2 v/v solution of HCl-HNO_3-H_2O to dissolve the metal sulfide minerals.

Exposure Time/Temperature: 1 hr/ 95°C $\pm$ 5°C.

Step 7 - Residual Fraction: Trace elements remaining in the soil after the previous extractions will be distributed between silicates, phosphates, and refractory oxides. These residual metals can be removed from the soil through total dissolution with HF, HNO_3, HCl and H_3BO_3.

Exposure Time/Temperature: 3 hr/ 95°C $\pm$ 5°C.

Appendix.
Back-Calculated EPC - Lead (based on American Robin)
Hercules LLC Kenvil Works Facility
Kenvil, NJ

Body Weight (kg)	Dietary Composition	Dietary Composition					Daily Ingestion Rate (kg/day)	Soil Ingestion Rate (kg/day)	SUF	Daily Dietary Dose (mg/kg/d)	Soil Bioaccessible Fraction	Worm Bioccessible Fraction	TRV (mg/kg-d)	EPC (mg/kg)	HQ
	Inverts	Plants	BAF_{invert}	BAF_{plant}	C_{invert} (mg/kg)	C_{plant} (mg/kg)							LOAEL		LOAEL
0.081	37.5%	62.5%	e^(0.807 * LN(Cinvert) - 0.218)	e^(0.561 * LN(Cplant) - 1.328)	118.73	8.54	0.016	0.003	0.67	11.3	0.53	0.73	11.3	**488**	0.99999

Notes:

Equation:

$$EPC = \frac{HQ_{LOAEL} \times TRV \times BW}{SUF \times \left(IRsed + \left[IRfood \times \left[\left(BAF_{invert} \times \%diet\right) + \left(BAF_{plant} \times \%\,diet\right)\right]\right]\right)}$$

EPC = exposure point concentration
TRV = toxicity reference value
BW = body weight (kg)
SUF = site use factor
IRsed = Sediment Ingestion Rate (kg/day)
IRfood = Daily Ingestion Rate (kg/day)
BAF = Bioaccumulation Factor
%diet = Dietary Composition

USEPA. 1993. Wildlife Exposure Factors Handbook. EPA/600/R-93/187a. Office of Research and Development, Washington, DC. http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=2799

USEPA. 1997. Interim Final, Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments. Office of Solid Waste and Emergency Response. EPA 540/R-97/006. Office of Solid Waste and Emergency Response, Washington DC. http://www.epa.gov/oswer/riskassessment/ecorisk/ecorisk.htm

USEPA. 2016. Recommendations for Sieving Soil and Dust Samples at Lead Sites for Assessment of Incidental Ingestion. Office of Land and Emergency Management. July 2016.

USEPA and USFWS. 2004. Ecological Risk Assessment for Range 17 (Trap and Skeet Range). Patuxent Research Refuge, Laurel, Maryland.

Attachment 9

Updated Screening Summary & Recommendations Package

Summary of Findings – ERAWP Desktop Evaluation					
Subarea	Original Screen (SEL)	Original Risk Characterization	Updated Screen (LEL)	Updated Risk Characterization & Rationale	Recommendations
Northern Drainage Area					

Northeast Ponds	--		Cu, Pb, Zn Pyrene, Phenanthrene	<u>Metals:</u>
				• AVS/SEM results correlated strongly to OC content
				• 24/24 samples with OC > 0.1% yielded results <130 µmol/g
				• NE Ponds OC content range: 3.9 to 54%
				• Lower COPEC concentrations, similar OC content
				• Feature in undisturbed/undeveloped area beyond operational influence
				
				<u>PAHs:</u>
				• 3/6 detections for Pyrene and Phenanthrene
				• Conservative EqP approach using 13-PAH dataset and CF
				  • 1 of 6 ESBTU > 1 with 95% correction factor (high detection limits for SD-R2-O-4-1 where ESBTU = 2.34, used ½ detect limit for PAHs ND)
				  • 5 of 6 ESBTUs < 0.5
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 0 of 6 NE Ponds 13-PAH ESBTU > 8
					No further investigation

Western Tributary*	--		Cd, Cu, Pb, Hg, Zn	<u>Divalent Metals (Cd, Cu, Pb, Zn):</u>
				• AVS/SEM results correlated strongly to OC content
				  • 24/24 samples with OC > 0.1% yielded results <130 µmol/g
				• 3 separate features make up Western Trib subarea
				  • Western Tributary
				  ▪ OC content range: 0.98-29% (Average: 11.25%)
				  ▪ Cd, Cu, Zn max detect SD-R-K5-10 OC: 7.5%
				  ▪ Pb max detect SD-R-L5-11 OC: 20%
				  • K5-1 Pond
				  ▪ OC content range: 0.4-18% (Average: 7.69%)
				  ▪ Cd, Cu, Pb, Zn max detect SD-R-K5-18 OC: 11%
				  ▪ Zn HQ LEL ≤ 1 in this feature
				  • Unnamed stormwater feature along Patrol Rd
				  ▪ OC content range: 0.29-29% (Average: 10.8%)
				  ▪ Cd max detect SD-R-K5-09 OC: 29%
				  ▪ Cu max detect SD-R-K5-17 OC: 3.4%
				  ▪ Pb, Zn max detect SD-R-K5-20 OC: 15%
				
				<u>Mercury</u>:
				• Max detected concentrations is less than the lowest NOEC in Conder et al. (2015)
					No further investigation

Summary of Findings – ERAWP Desktop Evaluation					
Subarea	Original Screen (SEL)	Original Risk Characterization	Updated Screen (LEL)	Updated Risk Characterization & Rationale	Recommendations

Duck Pond	--		As, Cd, Cu, Pb, Hg, Zn, PAHs	<u>Arsenic:</u>
				• 95UCL consistent with local background threshold value soil concentrations (see Attachment 1)
				
				<u>Mercury</u>:
				• Max detected concentrations is ~20% of the lowest NOEC in Conder et al. (2015)
				
				<u>Divalent Metals (Cd, Cu, Pb, Zn):</u>
				• AVS/SEM results correlated strongly to OC content
				  • 24/24 samples with OC > 0.1% yielded results <130 µmol/g
				• Duck Pond OC content range: 2.5 to 30%
				• Lower COPEC concentrations, similar OC content
				• Areas of sediment metals enrichment along shoreline to be removed to address potential human health exposures
				
				<u>PAHS:</u>
				• 34-PAH datasets unavailable in Duck Pond; conservative approach using 13-PAH dataset and CF
				• ESBTU calculation using 13-PAH dataset (ND@0.5DL):
				  • ESBTUs: 0.47 to 4.6 (n=8)
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 0 of 8 Duck Pond 13-PAH ESBTU > 8
					No further investigation

Eastern Tributary	--		Cu, Pb	<u>Divalent Metals (Cu, Pb)</u>: • AVS/SEM results correlated strongly to OC content • 24/24 samples with OC > 0.1% yielded result <130 µmol/g • Eastern Trib OC content range: 0.6 to 7.3% (Average: 2.57%) • Low OC samples (n=2) collected from bottom of Shooting Pond along sheetpile wall – consolidated sediment bottom, not suitable to support infaunal benthic community	No further investigation

Unnamed Ponds*	Pb, Hg, Zn	<u>Divalent Metals (Pb, Zn):</u>
		• AVS/SEM ratios <130 µmol/g
		• No further evaluation recommended
		• Benthic community survey proposed for Hq will provide supplemental LoE
		
		<u>Mercury:</u>
		• HQs greater than 1 using NJDEP ESC
		• HQ less than 1 based on lowest NOEC value in Conder et al. (2015)
		• Benthic community survey recommended to provide additional line of evidence
			As, PAHs, Cd, Cu	<u>Arsenic:</u>
				• Max detected concentration consistent with As observed in historic fill material at other areas of the Facility
				• Average As concentration greater than Facility background threshold average concentrations (see Attachment 1)
				• Benthic community survey proposed for Hq will provide supplemental LoE
				
				<u>Metals:</u>
				• Rely on existing data
				• AVS/SEM ratios <130 µmol/g
				• Benthic community survey proposed for Hq will provide supplemental LoE
				<u>PAHs:</u>
				• 34-PAH datasets unavailable in Unnamed Ponds; conservative approach using 13-PAH dataset and CF
				• ESBTU calculation using 13-PAH dataset (ND@0.5DL):
				  • ESBTUs: 0.68 to 4.0
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 0 of 4 Unnamed Ponds 13-PAH ESBTU > 8
				• Benthic community survey proposed for Hq will provide supplemental LoE
					Benthic community survey (focused on assessment of Hg per previous recommendations)

Summary of Findings – ERAWP Desktop Evaluation					
Subarea	Original Screen (SEL)	Original Risk Characterization	Updated Screen (LEL)	Updated Risk Characterization & Rationale	Recommendations
Southern Drainage Area					
Development	--		As, Pb, Hg	Pb: • AVS/SEM results correlated strongly to OC content • 24/24 samples with OC > 0.1% yielded results <130 µmol/g • Development OC range: 0.091 – 5.2% (average: 1.98%) • OC content at location of Pb max detect: 0.3% • Lower Pb concentrations, similar OC to MNG (0 of 3 AVS/SEM samples > 130) Mercury: • 10/14 detections, 4 exceedances of LEL, 0 exceedances of SEL • Max detected concentration and 95UCL below lowest observed NOEC in Conder et al. (2015) Arsenic: • 95UCL consistent with local background threshold value soil concentrations (see Attachment 1)	Arsenic, Pb, Hg: no further investigation

Maintenance-Dynamite East* (MDE)	--		Cu, Pb, Mn, Hg, PAHs, Cr, Ag	Divalent Metals (Cu, Pb; incl. monovalent Ag):
				• Similar conditions to Maintenance-NG Ditches (3 AVS/SEM samples, ratios less than 130 µmol/g)
				• AVS/SEM results correlated strongly to OC content
				  • 24/24 samples with OC > 0.1% yielded result <130 µmol/g
				  • OC content range in MDE: 0.03-7.9%, with 2.3% average (n=46)
				
				Chromium:
				• Toxicity and bioavailability based on valence state, sediment conditions generally favor less mobile and less toxic trivalent state
				
				Manganese:
				• Small dataset (n=6), single elevated detection (7xSEL), remaining values less than LEL
				• Location of max detect is at former rail crossing culvert/area of historic fill material
				
				Mercury:
				• Max detected concentrations is within range of NOECs in Conder et al. (2015)
				• 95UCL is less than the lowest NOEC in Conder et al. (2015)
				
				PAHs:
				• 34-PAH datasets unavailable in MDE; conservative approach using 13-PAH dataset and CF
				• ESBTU calculation using 13-PAH dataset (ND@0.5DL):
				  • ESBTUs: 0.83 to 13.2
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 2 of 4 MDE 13-PAH ESBTU > 8
					Cu & Pb; Ag; Cr: Sediment sampling for AVS/SEM, Cr speciation
					
					Mn & Hg: no further investigation
					
					PAHs: Sediment sampling for 34-PAH dataset

Summary of Findings – ERAWP Desktop Evaluation					
Subarea	Original Screen (SEL)	Original Risk Characterization	Updated Screen (LEL)	Updated Risk Characterization & Rationale	Recommendations

Maintenance-Dynamite West* (MDW)	Hg	<u>Mercury:</u>
		• HQs greater than 1 using NJDEP ESC
		• HQ less than 1 based on lowest NOEC value in Conder et al. (2015)
		• Benthic community survey recommended to provide additional line of evidence
			As, Cu, Pb, PAHs	<u>Arsenic:</u>
				• 95UCL consistent with local background threshold value soil concentrations (see Attachment 1)
				<u>Divalent Metals (Cu, Pb,):</u>
				• AVS/SEM ratios from -36 to 20 (0 of 3 > 130/1300 toxicity thresholds)
				<u>PAHs:</u>
				• 34-PAH datasets unavailable in MDW; conservative approach using 13-PAH dataset and CF
				• ESBTU calculation using 13-PAH dataset (ND@0.5DL):
				  • ESBTUs: 0.73 to 44.4 (n=5)
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 1 of 4 MDW 13-PAH ESBTU > 8, corresponds to location with lowest OC
				Benthic community survey will provide supplemental LoE for all COPECs
					<u>Metals:</u> no further investigation.
					<u>PAHs:</u> conduct full 34 PAH sampling
					Benthic community survey (focused on assessment of Hg per previous recommendations)

Maintenance-NG Ditches (MNG)	Cu, Pb, Hg	<u>Mercury:</u>
		• HQs greater than 1 using NJDEP ESC
		• HQ less than 1 based on lowest NOEC value in Conder et al. (2015)
		• Benthic community survey recommended to provide additional line of evidence
		<u>Divalent Metals (Cu, Pb):</u>
		• AVS/SEM ratios <130 µmol/g
		• No further evaluation recommended
		• Benthic community survey proposed for Hq will provide supplemental LoE
			As, PAHs, Ag, Zn	<u>Arsenic:</u>
				• See attachment re: Arsenic in historic fill as it relates to site concentrations exceeding regional background levels
				• Benthic community survey will provide supplemental LoE
				<u>PAHs:</u>
				• 34-PAH datasets unavailable in MNG; conservative approach using 13-PAH dataset and CF
				• ESBTU calculation using 13-PAH dataset (ND@0.5DL):
				  • ESBTUs: 0.40 to 5.9 (n=3)
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 0 of 3 MNG 13-PAH ESBTU > 8
				• Benthic community survey proposed for Hq will provide supplemental LoE
				<u>Zinc:</u>
				• Divalent metal, previous AVS/SEM data <130umol/g
				<u>Silver:</u>
				• 4/15 detections
				• SD-R2-E-10-1: 8.68 mg/kg (only exceedance of LEL)
				• Benthic community survey will provide supplemental LoE – targeted location near Silver exceedance
					<u>Arsenic:</u> no further investigation
					<u>PAHs:</u> no further investigation
					Benthic community survey (focused on assessment of Hg per previous recommendations)

Misc. TNT Ponds	Pb		As, Hg	Area considered terrestrial, not aquatic	No further evaluation as part of this report

Summary of Findings – ERAWP Desktop Evaluation					
Subarea	Original Screen (SEL)	Original Risk Characterization	Updated Screen (LEL)	Updated Risk Characterization & Rationale	Recommendations

TNT-PETN-NG Ditches* (TPND)	As, Pb, Hg	<u>Mercury:</u>
		• HQs greater than 1 using NJDEP ESC
		• HQ less than 1 based on lowest NOEC value in Conder et al. (2015)
		• Benthic community survey recommended to provide additional line of evidence
		
		<u>Divalent Metal (Pb):</u>
		• AVS/SEM ratios <130 µmol/g
		• No further evaluation recommended
		• Benthic community survey proposed for Hq will provide supplemental LoE
			Cu, PAHs. DNT, Cd	<u>Divalent Metals (Cu, Cd):</u>
				• AVS/SEM ratios <130 µmol/g
				• No further evaluation recommended
				
				<u>PAHs:</u>
				• 34-PAH datasets unavailable in TPND; conservative approach using 13-PAH dataset and CF
				• ESBTU calculation using 13-PAH dataset (ND@0.5DL):
				  • ESBTUs: 0.43 to 4.4 (n=4)
				• Comparison to CDB 34-PAH ESBTU
				  • 34-PAH ESBTU = 1.0, using same dataset 13-PAH ESBTU = 8.83
				  • 0 of 4 TPND 13-PAH ESBTU > 8
				
				<u>Arsenic:</u>
				• See attachment re: Arsenic in historic fill as it relates to site concentrations exceeding regional background levels
				• Benthic community survey will provide supplemental LoE
				<u>DNT:</u> detected in sediment at a single location (0.4 mg/kg)
					<u>Metals:</u> no further investigation.
					<u>PAHs:</u> no further investigation
					
					Benthic community survey (focused on assessment of Hg per previous recommendations)
					<u>DNT:</u> additional evaluation of potential sources conducted, benthic sample will be taken near exceedance

Misc. Offsite Streams – Lower (MOSL)	--		Pb, PAHs	<u>Divalent Metal (Pb):</u>
				• Similar conditions to TPND where AVS/SEM ratios <130 µmol/g
				• AVS/SEM results correlated strongly to OC content
				  • 24/24 samples with OC > 1% yielded result <130 µmol/g
				  • OC content range in MOSL: 0.22 to 43%, average 12.6% (n=58)
				
				<u>PAHs:</u>
				• 13 PAH ESBTU calculation is conservative (95%CF overestimates risk)
				  • CDB 34 PAH ESBTU = 1.0, 13 PAH ESBTU = 8.83
				  • MOSL range: 0.66-25.02 (4 of 5 >1.0, 2 of 5 > CDB 13 PAH benchmark)
					<u>Lead:</u> no further investigation
					
					<u>PAHs:</u> conduct full 34 PAH sampling

Misc. Offsite Streams – Upper (MOSU)	Pb	<u>Divalent Metal (Pb):</u> • 4/5 AVS/SEM ratios <130 µmol/g • 1/5 AVS SEM ratio >130 umol/g and <1300 umol g • At this location, Pb concentration < LEL • No further evaluation recommended	Cu, Hg, As, Ag	<u>Divalent Metal (Cu):</u> • AVS/SEM ratios <130 µmol/g <u>Mercury</u>: • Max detected concentration is ~30% of the lowest NOEC in Conder et al. (2015) <u>Arsenic:</u> • Avg and 95UCL below calculated regional background levels <u>Silver:</u> • 2/21 detections, 1 exceedance of LEL	No further investigation

Summary of Findings – ERAWP Desktop Evaluation					
Subarea	Original Screen (SEL)	Original Risk Characterization	Updated Screen (LEL)	Updated Risk Characterization & Rationale	Recommendations
Central Drainage Basin (CDB)	PAHs, Pb, Hg	<u>Mercury:</u> • HQs greater than 1 using NJDEP ESC • HQ less than 1 based on lowest NOEC value in Conder et al. (2015) • Benthic community survey recommended to provide additional line of evidence <u>Divalent Metals (Pb):</u> • AVS/SEM ratios <130 µmol/g • No further evaluation recommended Benthic community survey proposed for Hq will provide supplemental LoE <u>PAHs</u> • Existing data ESBTU = 1, toxicity unlikely • No further evaluation recommended	As, Cu, Mn, Cd, Zn	<u>Divalent Metals (Cu, Cd, Zn):</u> • AVS/SEM ratios <130 µmol/g (n=11) <u>Arsenic:</u> • Historic fill placed around CDB to support an extensive former railway and road network • See attachment re: Arsenic in historic fill as it relates to site concentrations exceeding regional background levels • Benthic community survey will provide supplemental LoE <u>Manganese:</u> • Small dataset (n=2), single elevated detection (2xSEL), remaining value at LEL • Location of max detect is at former rail crossing culvert/area of historic fill material	**Benthic community survey (focused on assessment of Hg per previous recommendations)**

Sample ID	Subdrainage Area	Organic Carbon (%)
SD-ERA-E14-CDB-05	Central Drainage Basin	45.6
SD-ERA-C13-TPND-04	TPN Ditches	41.6
SD-ERA-D13-CDB-03	Central Drainage Basin	40.9
SD-ERA-N7-UP-04	Unnamed Ponds	40
SD-ERA-E14-CDB-06	Central Drainage Basin	35.5
SD-R-B15-02	Misc Offsite Streams Lower	32
SD-ERA-E14-CDB-07	Central Drainage Basin	31.4
SD-R-M6-02	Duck Pond	30
SD-ERA-M7-UP-01	Unnamed Ponds	25.1
SD-R-K-5-1	Western Trib	24.4
SD-R2-0-4-1	NE Ponds	22.7
SD-ERA-N7-UP-02	Unnamed Ponds	22
SD-ERA-D14-CDB-01	Central Drainage Basin	19.2
SD-R-K-5-2	Western Trib	19.2
SD-R-L6-09	Duck Pond	19
SD-ERA-D14-CDB-08	Central Drainage Basin	18.2
SD-ERA-D14-CDB-09	Central Drainage Basin	16.2
SD-ERA-D12-MDW-02	Maint-Dyn West	14.2
SD-ERA-D11-MNG-02	Maint-NG Ditches	13.2
SD-ERA-N7-UP-03	Unnamed Ponds	12.9
SD-ERA-E13-CDB-04	Central Drainage Basin	11.5
SD-ERA-N7-UP-05	Unnamed Ponds	11.4
SD-ERA-D13-CDB-02	Central Drainage Basin	10.9
SD-R2-0-4-2	NE Ponds	10.5
SD-ERA-D13-MDW-01	Maint-Dyn West	10.2
SD-ERA-E14-MOSU-01	Misc Offsite Streams Upper	8.99
SD-ERA-D13-MDW-01	Maint-Dyn West	8.34
SD-R2-F-14-1	Maint-Dyn East	7.87
SD-R-M5-02	Eastern Tributary	7.3
SD-ERA-D13-CDB-02	Central Drainage Basin	6.81
SD-R2-G-12-4	Maint-Dyn East	6.08
SD-R-L7-08	Duck Pond	5.5
SD-R-I6-01	Development Area	5.2
SD-ERA-E14-MOSU-02	Misc Offsite Streams Upper	5.14
SD-ERA-D11-MNG-01	Maint-NG Ditches	4.71
SD-R-M5-06	Duck Pond	4.5
SD-R-I5-04	Development Area	4.1
SD-R-H6-02	Development Area	4
SD-R2-0-4-3	NE Ponds	3.95
SD-I5-2-01	Development Area	3.94
SD-G12-1-01	Maint-Dyn East	3.9
SD-R-N5-03	Eastern Tributary	3.5
SD-ERA-D13-TPND-05	TPN Ditches	2.89
SD-ERA-E15-MOSU-03	Misc Offsite Streams Upper	2.85
SD-R-L5-01	Duck Pond	2.5
SD-R-I6-03	Development Area	2.4
SD-R-H6-01	Development Area	2
SD-R-I5-05	Development Area	1.9
SD-R-I5-02	Development Area	1.7
SD-R-N5-05	Eastern Tributary	1.6
SD-R-B14-01	Misc Offsite Streams Lower	1.5
SD-R-N5-02	Eastern Tributary	1.5
SD-R-B16-01	Misc Offsite Streams Lower	1.4
SD-I5-1-01	Development Area	1.4
SD-I5-2-01	Development Area	1.12
SD-R-E16-01	Misc Offsite Streams Lower	1.1
SD-R-H6-01	Development Area	0.92
SD-R-N5-04	Eastern Tributary	0.86
SD-R-I6-04	Development Area	0.67
SD-R-C15-01	Misc Offsite Streams Lower	0.66
SD-R-N5-01	Eastern Tributary	0.63
SD-ERA-E14-CDB-10	Central Drainage Basin	0.478
SD-R-I6-05	Development Area	0.42
SD-R-I6-02	Development Area	0.38
SD-ERA-F14-MOSU-05	Misc Offsite Streams Upper	0.31
SD-R-I5-03	Development Area	0.3
SD-R-A15-01	Misc Offsite Streams Lower	0.28
SD-R-I5-01	Development Area	0.091
SD-ERA-E14-MOSU-04	**Misc Offsite Streams Upper**	**0.0767**
SD-ERA-E10-MNG-03	Maint-NG Ditches	0.0695
SD-R-G12-08	Maint-Dyn East	0.028

Notes:

$(\sum SEM\text{-}AVS)/f_{OC}$ result calculated

$(\sum SEM\text{-}AVS)/f_{OC}$ result greater than 130 µmoles/g_{oc}

Sample ID	Subdrainage Area	ESBTU (13-PAH dataset with CF)	TOC (%)
SD-R-M7-01	Duck Pond	56	0.40
SD-R-D12-07	Maint Dyn West	44	0.30
SD-R-C15-03	MOSL	25	0.38
SD-R2-F-14-1	Maint Dyn East	13	7.9
SD-F13-1-01	Maint Dyn East	11	2.3
SD-R-C15-05	MOSL	9.7	1.5
SD-R-D14-CDB-1*	CDB	8.8	19
SD-R-B16-01	MOSL	7.6	1.4
SD-R-E11-07	Maint NG	5.9	5.8
SD-R-D13-11	TNT PETN NG Ditches	5.1	1.4
SD-R-M5-05	Duck Pond	4.6	1.6
SD-R-C12-04	TNT PETN NG Ditches	4.4	2.3
SD-R-C15-04	MOSL	4.0	2.6
SD-R-N7-05	Unnamed Ponds	4.0	2.7
SD-R-L5-12	Duck Pond	3.6	19
SD-R-M5-09	Duck Pond	3.0	27
SD-R-M5-15	Duck Pond	2.9	9.0
SD-R-M5-11	Duck Pond	2.7	23
SD-R-L7-05	Duck Pond	2.0	2.5
SD-R-M7-05	Unnamed Ponds	1.5	36
SD-R2-G-12-3	Maint Dyn East	1.5	3.4
SD-E11-1-01	Maint NG	1.4	3.3
SD-R-C12-05	TNT PETN NG Ditches	1.3	3.6
SD-R-D13-08	Maint Dyn West	1.1	6.5
SD-R-M7-03	Unnamed Ponds	1.0	13
SD-R-D12-03	Maint Dyn West	0.87	6.6
SD-G12-1-01	Maint Dyn East	0.83	3.9
SD-R-D13-10	Maint Dyn West	0.73	6.6
SD-R-N7-10	Unnamed Ponds	0.68	17
SD-R-D15-01	MOSL	0.66	12
SD-L6-1-01	Duck Pond	0.52	9.6
SD-R-L7-07	Duck Pond	0.47	11
SD-R-D13-12	TNT PETN NG Ditches	0.43	21
SD-R2-E10-1	Maint NG	0.40	22

Note:

* - ESBTU calculated using the 34-PAH dataset = 1

ESBTU - Equilibrium-based Sediment Benchmark Toxicity Unit

Throughout numerous periods of expansion and development, historic fill from multiple local sources was used onsite to increase grade, eliminate shallow ponds/wet areas, improve drainage, increase compatibility of the soils to allow construction of large manufacturing complexes, and establish both narrow gauge and standard gauge rail beds throughout the Facility. Coal combustion byproducts from the local iron foundries made up the majority of historic fill material brought onsite. Historical record confirm that blast furnaces at local foundries burned primarily Anthracite coal (Bayley 1910).

The use of coal combustion byproducts as historic fill, and presence of arsenic in historic fill material is well documented (USGS 2015, NJDEP 2013). USGS (2006) found relatively high arsenic levels in northern Appalachian coal and its combustion byproducts. USEPA (1998) found Anthracite coal to contain arsenic at an average concentration of 8 milligrams per kilogram (mg/kg). NJDEP's historic fill database includes records of arsenic in historic fill samples at over 1,000 milligrams per kilogram.

The SI/RI soil dataset was evaluated to assess potential links between arsenic concentrations onsite and the presence of historic fill material. The following table summarizes a series of datasets representative of areas onsite.

SI/RI Dataset	No. of Samples	Range of Detects	Average	95UCL
Entire Facility	2836	0.707-1150	17.11	NA
Mapped as HF	1079	0.707-1150	26.14	35.95
Not Mapped as HF	1757	0.856-675	11.81	15.53
Local Background	131	1.6-164	7.526	7.335
Regional Background	13	NA	NA	7.32*

Data presented in mg/kg
HF – historic fill
Local and regional background datasets from Hercules (2019)
* - 90th percentile concentration

Arsenic occurs at a range of concentrations within the former manufacturing areas of the Facility with no discernable pattern linking former operations to arsenic concentrations. As illustrated above, arsenic concentrations are higher in areas of historic fill placement, and consistent with local and regional background beyond the footprint of historic fill.

Surface-water drainage pathways onsite cut through areas of historic fill, flow in streambeds confined by historic fill, and discharge through culverts anchored/embedded in historic fill material. These interactions with upland/soil sources, and the influences of erosion, bedload sediment transport, and deposition, appear to be responsible for the presence and distribution of arsenic in Facility sediment. Arsenic in site sediments is likely attributable to historic fill surrounding and within aquatic features.

Doughten et al. (2015) identify pentavalent arsenic (As(V)) as the dominant form in coal combustion byproducts. As(V) is less bioavailable and less toxic than trivalent arsenic (As(III)), and does not readily leach from coal combustion byproducts (USGS 2006, Doughten et al. 2015; Shah et al 2007). Additionally,

reduction of As(V) to the more soluble and toxic As(III) occurs slowly, even in reducing environments, and is readily inhibited by the binding of As(V) while As(III) is rapidly oxidized to As(V) (Brannon 1987, Battelle & Exponent 2000). Arsenic is readily bound by a number of metals, including sulfides and manganese (Nriagu 1994, Battelle & Exponent 2000*).* Manganese is regionally elevated in soils and sediments (Sanders 2003) and is present in sediment onsite. Sulfides are also present across aquatic features onsite and likely serve as a binding complex for divalent metals as well as arsenic. Arsenic is not present above screening standards in surface water in aquatic features onsite, further supporting its presence in sediment in an immobile and insoluble form.

References:

Battelle and Exponent. 2000. Guide for Incorporating Bioavailability Adjustments into Human Health and Ecological Risk Assessments at U.S. Navy and Marine Corps Facilities. Prepared for Naval Facilities Engineering Service Center, Port Hueneme, CA and Engineering Field Activity West (NAVFAC) San Bruno, CA. Prepared by Battelle, Columbus, OH; and Exponent, Bellevue, WA. June.

Bayley 1910. Iron Mines and Mining in New Jersey. Part VII of the Final Report Series of the State Geologist. Geological Survey of New Jersey.

Brannon 1987.

Hercules 2019. Wetland Arsenic Evaluation Technical Memorandum (DRAFT). Dated March 7, 2019.

NJDEP 2013. Historic Fill Material Technical Guidance. Site Remediation Program. Version 2.0, April 29. 2013.

Nriagu J.O. 1994. Arsenic in the Environment, Part I: Cycling and characterization, and Part II: Human health and ecosystem effects. John Wiley & Sons; New York.

Sanders 2003. Ambient Levels of Metals in New Jersey Soils. NJDEP – Environmental Assessment and Risk Analysis Element – Research Project Summary. May 2003.

Shah et al. 2007. Speciation of Arsenic and Selenium in Coal Combustion Products.

USEPA 1998. Locating and Estimating Air Emissions from Sources of Arsenic and Arsenic Compounds. Office of Air Quality. EPA-454/R-98-013. June 1998.

Doughten et al. 2015. Trace elements in coal ash: U.S. Geological Survey Fact Sheet 2015–3037

USGS 2006. Arsenic in Coal – Fact Sheet 2005-3152

Attachment 10

Aquatic ERA Supplemental Sampling Memorandum

27 June 2019

Memorandum

To: Mr. Edward Meeks – Hercules LLC

From: Mr. Scott Larew – Kennedy Jenks Consultants

Subject: Hercules-Kenvil Aquatic ERA Work Plan Addendum
KJ 1540001*60

Background

On behalf of Hercules LLC (Hercules), Kennedy Jenks Consultants (KJ) prepared this technical memorandum summarizing proposed supplemental sampling activities to be completed as part of Aquatic Ecological Risk Assessment (ERA) Work Plan (Work Plan) implementation at the Hercules Kenvil Works Facility, located in Kenvil, Morris County, New Jersey (the Facility). Hercules completed Work Plan field sampling activities in 2017 and presented analytical results and a revised risk characterization in a draft report submitted to the Facility's Licensed Site Remediation Professional (LSRP) in February 2018. Hercules received comments from the LSRP in April 2018. Hercules and the LSRP developed and agreed to responses and resolutions documented in a Screening Summary & Recommendations Package provided March 26, 2019. The recommendations and resolutions therein provide the basis for the methods and locations associated with this supplemental sampling plan.

ERA activities occur as a component of ongoing environmental remediation at the Facility (Program Interest No. 000741) in accordance with New Jersey Administrative Code (N.J.A.C.) 7:26E – New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (2012), NJDEP Ecological Evaluation Technical Guidance (Version 1.3, February 2015), and United States Environmental Protection Agency (USEPA) Ecological Risk Assessment Guidance for Superfund (2003). The Work Plan was submitted to NJDEP in May 2016 with the Ecological Evaluation/Ecological Risk Assessment (EE/ERA) in the Phase II Remedial Investigation Report (Phase II RIR) (Hercules 2016).

Field Sampling Objectives

Supplemental sampling is proposed in seven subdrainage areas onsite to further evaluate potential risk to benthic macroinvertebrate communities in these areas. In certain areas, this includes additional chemical analyses, while in other areas biological data (invertebrate community composition) will provide an additional line of evidence.

© Kennedy/Jenks Consultants, Inc.

The proposed sampling plan for each subdrainage area is presented in **Table 1**. The following table outlines the COPECs driving sampling and the proposed sample type within each subdrainage area:

Subdrainage Area	COPEC	Sample Type	No. of Locations
Unnamed Ponds	Hg	Benthic community survey, surface water	3
Maintenance Dynamite East	Metals, PAHs	Sediment	3
Maintenance Dynamite West	PAHs, Hg	Benthic community survey, sediment, surface water	2
Maintenance NG Ditches	Hg, Ag	Benthic community survey	2
TNT-PETN-NG Ditches	Hg, DNT	Benthic community survey	3
Misc. Offsite Steams - Lower	PAHs	Sediment	2
Central Drainage Basin	Hg	Benthic community survey	2
Northeast Ponds	--	Benthic community survey (reference location)	2
Development Area Stream	--	Benthic community survey (reference location)	2

Sediment sampling will provide:

- Acid Volatile Sulfide/Simultaneously Extracted Metals (AVS/SEM), pH, grain size, and total organic carbon (TOC) data to evaluate the bioavailability of metals in subdrainage area sediment
- Polycyclic aromatic hydrocarbon (PAH) data (list of 34 parent PAHs and alkylated families) for the calculation of equilibrium partitioning sediment benchmark toxicity units to evaluate the bioavailability and potential toxicity of PAHs in subdrainage area sediment
- Chromium speciation data to evaluate the bioavailability of chromium in subdrainage area sediment

Surface water sampling is proposed in two subdrainage areas and will provide an additional line of evidence regarding the form and bioavailability of mercury (Hg) in these areas.

Benthic community surveys are proposed in five subdrainage areas where risks to benthic communities remains uncertain. Sample locations will be compared to applicable reference locations to help refine understanding of potential risks to benthic invertebrate communities.

© Kennedy/Jenks Consultants, Inc.

Sampling is proposed to take place during summer of 2019 using the methods and locations outlined below.

Field Sampling Methods

Surface Water

Seven surface water samples will be collected from two subdrainage areas, Unnamed Ponds and Maintenance-Dynamite Area - West. Surface water sampling will be conducted in accordance with NJDEP Field Sampling Procedures Manual (FSPM) (NJDEP 2005) and will include surface water sample collection via bottle transfer. Locations will be sampled at six inches above sediment surface. If insufficient water (less than 3 inches), a surface water sample will not be collected. Proposed surface water sample locations are collocated with proposed sediment and/or benthic community samples, and represent locations where methylmercury (MeHg) analysis was proposed in 2017 but not conducted due to an analytical laboratory error (**Figures 1 and 3**).

Surface water sampling locations will be accessed by land working from the most downstream location to upstream and will be collected prior to conducting collocated sampling for benthic community surveys and/or sediment chemistry analyses. A handheld GPS unit will be used to record each sampling location. Horizontal coordinates will be referenced in feet to the North American Datum of 1983 New Jersey State Plane Coordinate System. Prior to sample collection, *in-situ* water quality parameters will be recorded from six inches above the sediment surface at each sample location if standing water is present. *In-situ* parameters include temperature, pH, dissolved oxygen, oxidation-reduction potential, turbidity, conductivity, and salinity. A combination water quality meter will be lowered to the appropriate depth and allowed to equilibrate prior to recording the readings in the field notebook.

Surface water samples will be collected and submitted to Eurofins Lancaster Laboratories Environmental (Eurofins) in Lancaster, PA, a New Jersey Environmental Laboratory Accreditation Program (NJELAP)-accredited laboratory. Surface water samples will be analyzed for total and dissolved MeHg by USEPA Method 1630. The laboratory will prepare “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

Sediment Sampling

Seven sediment samples will be collected from three subdrainage areas. Sediment sampling will be conducted in accordance with the current NJDEP FSPM (NJDEP 2005). Samples will be collected from 0-0.5 ft below ground surface after recording in-situ water quality parameters from six inches above the sediment surface at each location where standing water is present. In-situ parameters include temperature, pH, dissolved oxygen, oxidation-reduction potential, turbidity, conductivity, and salinity.

© Kennedy/Jenks Consultants, Inc.

Proposed sediment sample locations were selected based on hydrology and proximity to historical sample locations (**Figures 2, 3, 6**). Sample locations may be relocated by field personnel based on observed environmental conditions (e.g., presence of historic fill material) and will be recorded using a differential global positioning system (GPS) unit.

Sediment samples will be collected by driving polycarbonate tubing to desired collection depth using manual techniques (i.e., rubber mallet). If the polycarbonate tubes do not appear to be collecting adequate sample volume, then other sampling methods may be used (i.e., hand auger, piston core sampler or sample tubes with a check valve attachment). At each sediment sampling location, water depth, sediment core recovery and description will be measured and recorded. A new polycarbonate tube will be used at each sample location.

Sediment samples will be submitted to Eurofins in Lancaster, PA, a NJELAP-accredited laboratory. Sediment samples will be analyzed for pH, grain size, TOC, and PAHs using USEPA Methods 9040C, D422 ASTM, Lloyd Kahn, and 8270SIM, respectively. AVS/SEM and chromium speciation analyses will be conducted in accordance with EPA-821-R-100 and USEPA Methods 6010D and 7196A, respectively. The laboratory will prepare “reduced” laboratory data packages as required per N.J.A.C. 7:26E-2.1(a)16.ii.

Benthic Community Sampling

Benthic community surveys will occur at nine sample locations in five subdrainage areas (**Figures 1, 3, 4, 5, 7**). In addition, two samples will be collected from each of two on-site reference locations in the Development Area and Northeast Ponds (**Figures 8 and 9**). These locations occur near the perimeter of the Facility and represent local, ambient conditions beyond the influence of former Facility operations. Reference sample locations will target similar substrate types and hydrological conditions as the proposed sample locations in the five subdrainage areas.

Sampling technique will be dependent on the type of substrate present at the target sample locations. A Petite Ponar dredge will be used in slow moving or standing water bodies when soft sediment or hard bottom (i.e. sand, clay) substrates are present, and a D-frame dip net will be used in cobble substrate (i.e., riffles and runs) where velocity of water will transport dislodged organisms into the net. Three discrete samples will be collected at each sampling location from the biologically active zone (BAZ) and composited to create a single sample to reduce biases attributable to spatial variability within the sampling area. The area and volume of each sampler used will be recorded such that community metrics can be calculated on a per square meter basis to facilitate comparison.

Samples will be preserved using isopropyl alcohol. Samples will be transferred under chain-of-custody procedures to Normandeau Associates in Stowe, Pennsylvania for identification to the

© Kennedy/Jenks Consultants, Inc.

lowest practicable taxon and enumeration. Normandeau Associates will provide benthic community data in tabular format (*.xls or *.csv).

Schedule and Reporting

Field sampling is targeted for mid/late summer when benthic community diversity and biomass are at/near their peaks. Upon completion of sampling, sediment chemistry data will be combined with the existing datasets (as appropriate) and evaluated in concert with benthic community metrics to update the aquatic risk characterization for the Facility. The evaluation will be presented in an Aquatic Areas Summary Report. The summary report will provide recommendations regarding next steps and risk-based scientific management decision making.

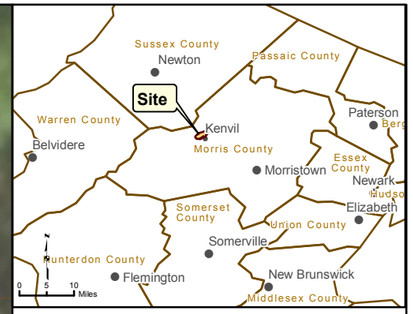
Enclosure(s) (10)

- Figure 1 – Unnamed Ponds Sample Locations
- Figure 2 – Maintenance Dynamite West Sample Locations
- Figure 3 – Maintenance Dynamite East Sample Locations
- Figure 4 – Maintenance NG Area Sample Locations
- Figure 5 – TNT PETN NG Ditches Sample Locations
- Figure 6 – Miscellaneous Offsite Streams Lower Sample Locations
- Figure 7 – Central Drainage Basin Sample Locations
- Figure 8 – Northeast Ponds Sample Locations
- Figure 9 – Development Area Stream Sample Locations
- Table 1 – Proposed Sampling Plan

cc: Lora Sterner, Kennedy Jenks

© Kennedy/Jenks Consultants, Inc.

Figures



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road

2017 Sample Locations

- Colocated Sediment and Surface Water Sample
- Tissue - Composited Samples

2019 Proposed Samples

- Colocated benthic community & surface water sample

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

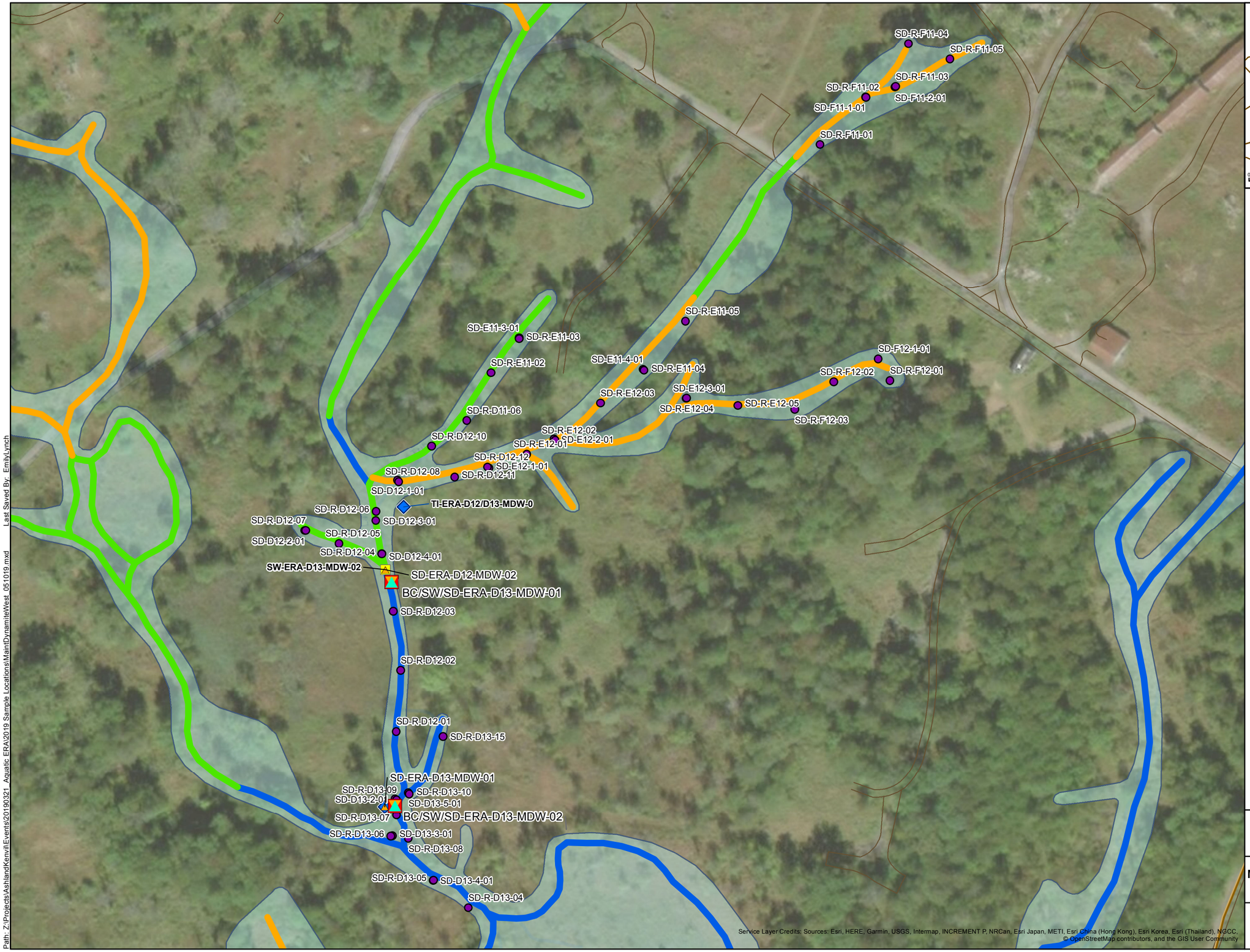
ERA WORK PLAN ADDENDUM

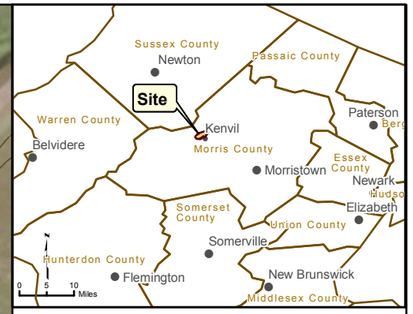
UNNAMED PONDS SAMPLE LOCATIONS

HERCULES

FIGURE 1

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\UnnamedPonds_051019.mxd Last Saved By: EmilyLynch





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Surface Water Samples
- Tissue - Composited Samples
- 2017 Sediment Samples

2019 Proposed Samples

- Colocated benthic community, surface water, and sediment sample

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 40 80 160
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

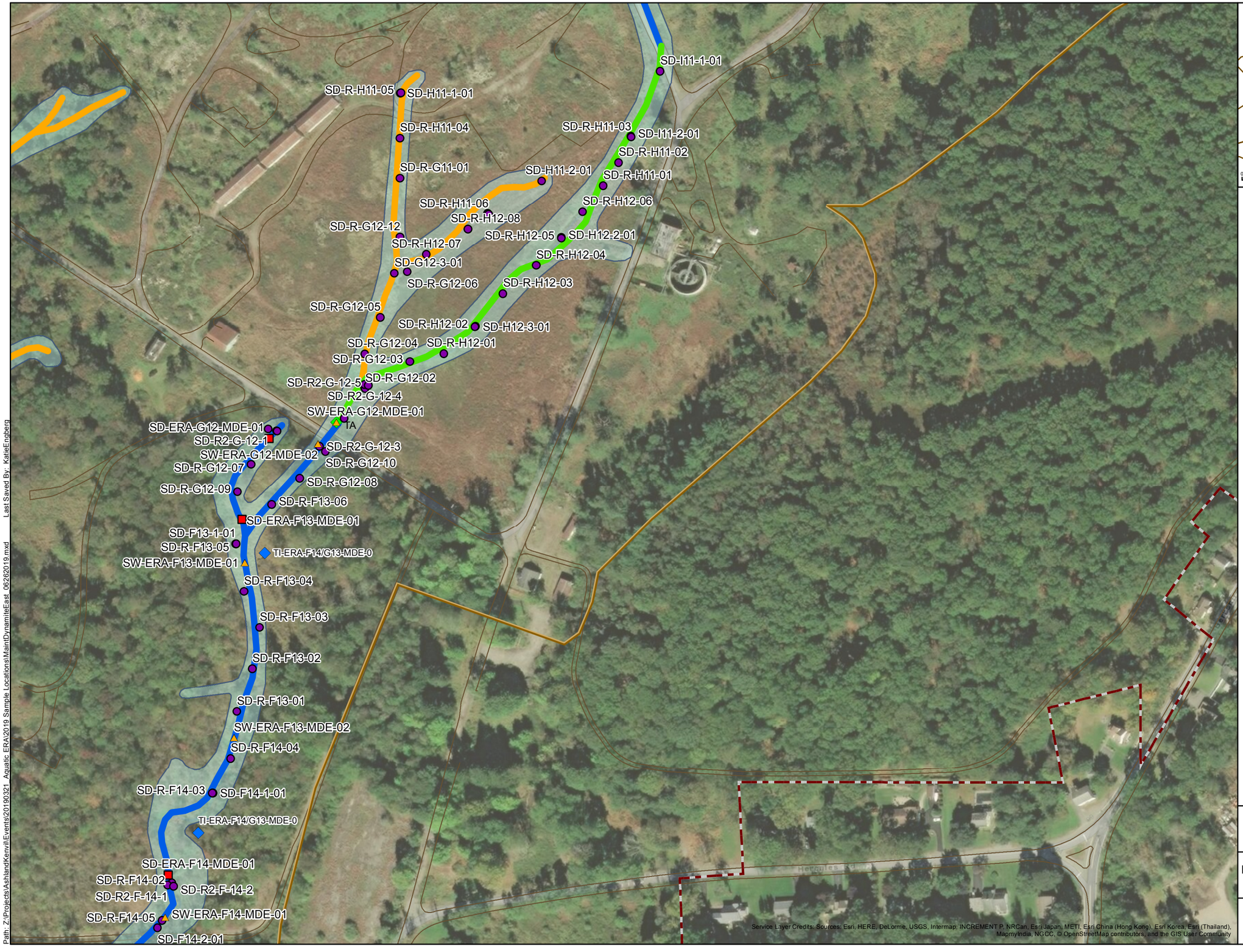
ERA WORK PLAN ADDENDUM

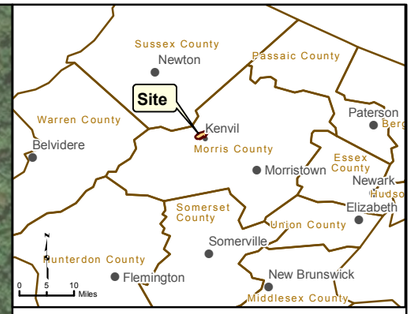
MAINTENANCE - DYNAMITE AREA - WEST SAMPLE LOCATIONS

HERCULES

FIGURE
2

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\Main\DynamiteWest_051019.mxd Last Saved By: EmilyLynch





Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Surface Water Samples
- Tissue - Composited Samples
- Tissue - Non-Composited Samples

2019 Proposed Samples

- Sediment

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 50 100 200
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

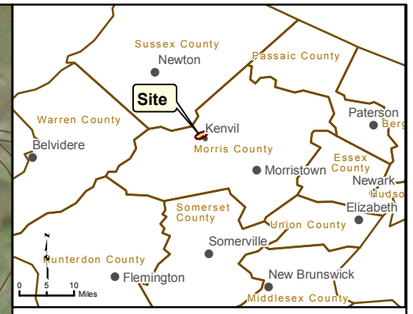
ERA WORK PLAN ADDENDUM

MAINTENANCE - DYNAMITE AREA - EAST SAMPLE LOCATIONS

HERCULES

FIGURE
3

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\Maint\DynamiteEast_06262019.mxd Last Saved By: KatieEngberg



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Sediment Samples
- Tissue - Non Composited Samples

2019 Proposed Samples

- Benthic Community

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 35 70 140
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ERA WORK PLAN ADDENDUM

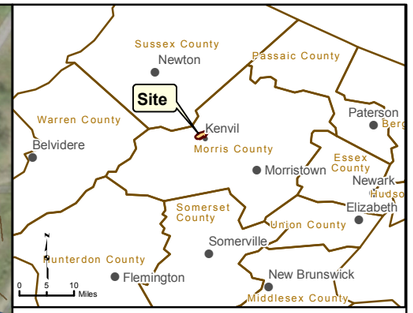
MAINTENANCE-NG AREA SAMPLE LOCATIONS

HERCULES

FIGURE 4

Path: Z:\Projects\AshlandKenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\MaintenanceNGArea_051019.mxd Last Saved By: EmilyLynch

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\TNT_PETN_NG_Ditches_051019.mxd Last Saved By: EmilyLynch



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2017 Sample Locations

- Surface Water Samples
- Tissue - Non-Composited Samples
- Sediment Samples

2019 Proposed Samples

- Benthic Community

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 60 120 240
Feet

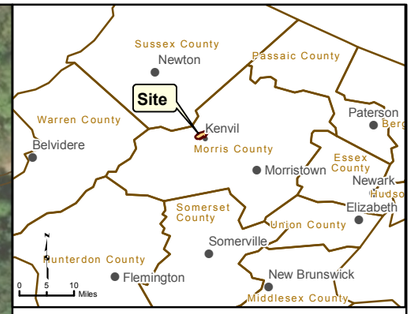
HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ERA WORK PLAN ADDENDUM

TNT - PETN - NG DITCHES SAMPLE LOCATIONS

HERCULES

FIGURE
5



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2019 Proposed Samples

- Sediment

Stream Channels

Category

- Flowing Water
- Intermittent
- Dry

N

0 50 100 200
Feet

HERCULES INCORPORATED
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ERA WORK PLAN ADDENDUM

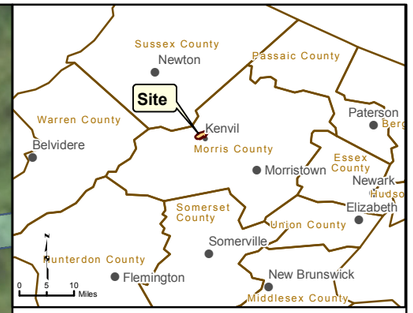
MISCELLANEOUS OFFSITE STREAMS - LOWER

HERCULES

FIGURE
6

Last Saved By: KatieEngberg

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\MiscOffsiteStreamLower_06242019.mxd



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Road
- Historical Sediment Samples

2019 Proposed Samples

- Benthic Community

2017 Sample Locations

- Sediment Samples
- Tissue - Non-Composited-Samples
- Tissue - Composited Samples

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 25 50 100
Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ERA WORK PLAN ADDENDUM

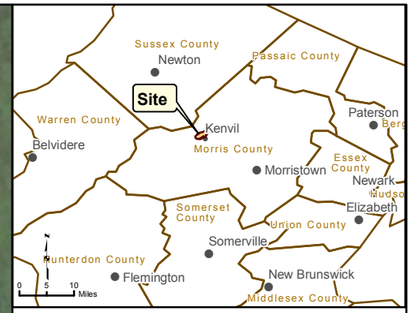
CENTRAL DRAINAGE BASIN SAMPLE LOCATIONS

HERCULES

FIGURE 7

Last Saved By: EmilyLynch

Path: Z:\Projects\Ashland\KenvilEvents\20190321_Aquatic ERA\2019 Sample Locations\CentralDrainageBasin_051019.mxd



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Pond
- Road
- Historical Sediment Samples

2019 Proposed Samples

- Benthic Community Reference Samples

N

0 40 80 160

Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ERA WORK PLAN ADDENDUM

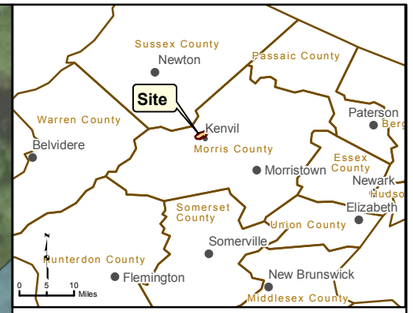
NORTHEAST PONDS SAMPLE LOCATIONS

HERCULES

FIGURE 8

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Path: Z:\Projects\Ashland\Kenvil\Events\20190321_Aquatic ERA\2019 Sample Locations\Northeast\PondsREF_051019.mxd Last Saved By: EmilyLynch



Index Map

Legend

- Site Boundary
- Remedial Area Boundary
- Stream/Water Feature
- Pond
- Road
- Historical Sediment Samples

2019 Proposed Samples

- Benthic Community Reference Samples

Stream Channels

- Flowing Water
- Intermittent
- Dry

N

0 35 70 140

Feet

HERCULES LLC
KENVIL WORKS FACILITY
KENVIL, NEW JERSEY

ERA WORK PLAN ADDENDUM

DEVELOPMENT AREA STREAM

HERCULES

FIGURE
9

Path: Z:\Projects\Ashland\KenvilEvents\20190321_Aquatic ERA\2019 Sample Locations\DevAreaStreamREF_051019.mxd Last Saved By: EmilyLynch

Tables

Table 1. Proposed Sampling Plan
Aquatic ERA Work Plan Addendum
Hercules LLC., Former Kenvil Works Facility
Kenvil, NJ

Exposure Area	Subarea	Loc_name	Sample Type	Benthic Community	Surface Water	Sediment					
					MeHg	TOC	pH	grain size	chromium speciation	PAHs	AVS/SEM
Northern Aquatic	Development Area										
		BC-ERA-I5-REF-01	Benthic Community	x							
		BC-ERA-I5-REF-02	Benthic Community	x							
	Unnamed Pond										
		BC-ERA-M7-UP-01	Benthic Community	x							
		BC-ERA-N7-UP-05	Benthic Community	x							
		BC-ERA-N7-UP-02	Benthic Community	x							
		SW-ERA-M7-UP-01	Surface Water		x						
		SW-ERA-N7-UP-05	Surface Water		x						
		SW-ERA-N7-UP-02	Surface Water		x						
	Northeast Ponds										
		BC-ERA-R4-REF-01	Benthic Community	x							
		BC-ERA-Q4-REF-01	Benthic Community	x							
Southern Aquatic	Central Drainage Basin										
		BC-ERA-E13-CDB-01	Benthic Community	x							
		BC-ERA-D14-CDB-01	Benthic Community	x							
	Maintenance-Dynamite Area - West										
		BC-ERA-D13-MDW-01	Benthic Community	x							
		BC-ERA-D13-MDW-02	Benthic Community	x							
		SW-ERA-D13-MDW-01	Surface Water		x						
		SW-ERA-D13-MDW-02	Surface Water		x						
		SD-ERA-D13-MDW-01	Sediment			x	x	x		x	
		SD-ERA-D13-MDW-02	Sediment			x	x	x		x	
	Maintenance-Dynamite Area - East										
		SD-ERA-G12-MDE-01	Sediment			x	x	x	x	x	x
		SD-ERA-F13-MDE-01	Sediment			x	x	x	x	x	x
		SD-ERA-F14-MDE-01	Sediment			x	x	x	x	x	x
	Miscellaneous Offsite Streams-Lower										
		SD-ERA-C15-MOSL-01	Sediment			x	x	x		x	
		SD-ERA-B16-MOSL-01	Sediment			x	x	x		x	
	Maintenance-NG Area										
		BC-ERA-E10-MNG-01	Benthic Community	x							
		BC-ERA-E10-MNG-02	Benthic Community	x							
	TNT-PETN-NG Ditches										
		BC-ERA-C12-TPND-01	Benthic Community	x							
		BC-ERA-C13-TPND-01	Benthic Community	x							

Notes:
MeHg = methyl mercury
TOC = total organic carbon
PAHs = polycyclic aromatic hydrocarbons
AVS/SEM = acid volatile sulfide/simultaneously extracted metals

Attachment 11

New Jersey Natural Heritage Program Database Search Results

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE PARKS, FORESTS & HISTORIC SITES
OFFICE OF NATURAL LANDS MANAGEMENT
501 East State Street
P.O. Box 420, Mail Code 501-04
Trenton, New Jersey 08625-0420
Tel. (609) 984-1339 * Fax (609) 984-1427
https://www.nj.gov/dep/parksandforests/natural/index.html

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

SHAWN M. LATOURETTE
Commissioner

August 11, 2025

Emily Lynch
Kennedy Jenks Consultants, Inc.
212 Carnegie Center, Suite 200
Princeton, NJ 08540

Re: Former Kenvil Works Facility
Roxbury Township and Mount Arlington Borough, Morris County

Roxbury Block(s)	**Lot(s)**
4002	5
6701	1, 3, 4, 5
6802	4, 5
7201	1, 2
7204	1, 2
8901	5
12702	4, 5
Mount Arlington Block(s)	**Lot(s)**
70.01	1

Emily Lynch:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.4) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the map(s) submitted with the Natural Heritage Data Request Form into our GIS. We do not typically verify that your project bounds are accurate or check them against other sources.

We have checked the Landscape Project habitat mapping for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Biotics Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Biotics Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are

documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1 and 2 (attached) to determine if any priority sites are located on or in the immediate vicinity of the site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from https://nj.gov/dep/parksandforests/natural/heritage/database.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from https://nj.gov/dep/parksandforests/natural/docs/nhpcodes_2010.pdf.

Beginning January 6, 2025, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.4. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL, https://dep.nj.gov/njfw/landscapeapp/, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

Occurrences of Bald Eagle nest and roost habitat have "special concern" rank and are included in Landscape Project Version 3.4. The DEP also recognizes that the U.S. Fish & Wildlife Service maintains additional jurisdiction pursuant to the Bald and Golden Eagle Protection Act (BGEPA). They provide guidance to avoid negative impacts in the "National Bald Eagle Management Guidelines" document found at https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines_0.pdf. They also provide a screening tool to help identify activities that may require a Federal permit, at https://www.fws.gov/media/northeast-bald-eagle-project-screening-form.

For occurrences of Osprey nests and other bird nests that persist year to year, active nests continue to be protected from disturbance that can result in "take" (i.e., disturbance that can cause abandonment or loss) pursuant to the NJ Endangered and Nongame Species Conservation Act (ENSCA) and the Federal Migratory Bird Treaty Act. As a result of delisting of Osprey to "stable" conservation status, Osprey nests are not represented in Landscape Project maps, but nest locations are available online at www.Osprey-Watch.org.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html.

Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements (species and/or ecological communities) or their locations. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Robert J. Cartica
Administrator

c: NHP File No. 25-4007486-34290

Table 1: On Site Data Request Search Results (6 Possible Reports)

Report Name	Included	Number of Pages
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.4 Species Based Patches	Yes	2 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.4	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.4 Stream Habitat File	No	0 pages included

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.4 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Amphibia								
	Marbled Salamander	Ambystoma opacum	Occupied Habitat	2	NA	Special Concern	G5	S3
Aves								
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
Insecta								
	Eastern Arogos Skipper	Atrytone arogos arogos	Breeding/Courtship	4	NA	State Endangered	G2G3T1T2	S1
	Eastern Arogos Skipper	Atrytone arogos arogos	Casual Flyby	4	NA	State Endangered	G2G3T1T2	S1
	Eastern Arogos Skipper	Atrytone arogos arogos	Nectaring	4	NA	State Endangered	G2G3T1T2	S1
Mammalia								
	Big Brown Bat	Eptesicus fuscus	Active Season Sighting	2	NA	Special Concern	G5	S3
	Big Brown Bat	Eptesicus fuscus	Maternity Colony	2	NA	Special Concern	G5	S3
	Bobcat	Lynx rufus	Live Individual Sighting	3	NA	State Threatened	G5	S2

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.4 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Bobcat	Lynx rufus	On Road	3	NA	State Threatened	G5	S2
	Bobcat	Lynx rufus	Physical evidence	3	NA	State Threatened	G5	S2
	Indiana Myotis	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2G3	S1

Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.4

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	2622
Potential vernal habitat area	182

Total number of records: 2

Table 2: Vicinity Data Request Search Results (6 possible reports)

Report Name	Included	Number of Pages
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	Yes	1 page(s) included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.4 Species Based Patches	Yes	3 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.4	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.4 Stream Habitat File	No	0 pages included

Immediate Vicinity of the Project Site
Based on Search of Natural Heritage Database
Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Regional Status	Grank	Srank	Identified	Last Observed	Location
Vascular Plants									
Phlox pilosa var. pilosa	Downy Phlox		E	LP, HL	G5T5	SH	Y	1937-06-15	ON WEST SIDE OF RR, NORTH OF SUCCASUNNA.

Total number of records: 1

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.4 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Amphibia								
	Marbled Salamander	Ambystoma opacum	Occupied Habitat	2	NA	Special Concern	G5	S3
	Marbled Salamander	Ambystoma opacum	Vernal Pool Breeding	2	NA	Special Concern	G5	S3
	Spotted Salamander	Ambystoma maculatum	Occupied Habitat	2	NA	Special Concern	G5	S3
	Spotted Salamander	Ambystoma maculatum	Vernal Pool Breeding	2	NA	Special Concern	G5	S3
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Black-throated Blue Warbler	Setophaga caerulescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Golden-winged Warbler	Vermivora chrysoptera	Breeding Sighting	4	NA	State Endangered	G4	S1B,S1N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Nesting Colony	2	NA	Special Concern	G5	S3B,S4N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Red-shouldered Hawk	Buteo lineatus	Non-breeding Sighting	2	NA	Special Concern	G5	S1B,S3N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.4 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting-Confirmed	2	NA	Special Concern	G4	S3B,S4N
Insecta								
	Eastern Arogos Skipper	Atrytone arogos arogos	Breeding/Courtship	4	NA	State Endangered	G2G3T1T2	S1
	Eastern Arogos Skipper	Atrytone arogos arogos	Casual Flyby	4	NA	State Endangered	G2G3T1T2	S1
	Eastern Arogos Skipper	Atrytone arogos arogos	Nectaring	4	NA	State Endangered	G2G3T1T2	S1
Mammalia								
	Big Brown Bat	Eptesicus fuscus	Active Season Sighting	2	NA	Special Concern	G5	S3
	Big Brown Bat	Eptesicus fuscus	Maternity Colony	2	NA	Special Concern	G5	S3
	Bobcat	Lynx rufus	Live Individual Sighting	3	NA	State Threatened	G5	S2
	Bobcat	Lynx rufus	On Road	3	NA	State Threatened	G5	S2
	Bobcat	Lynx rufus	Physical evidence	3	NA	State Threatened	G5	S2
	Eastern Red Bat	Lasiurus borealis	Active Season Sighting	2	NA	Special Concern	G3G4	S3
	Indiana Myotis	Myotis sodalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2	S1

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.4 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Indiana Myotis	Myotis sodalis	Hibernaculum	5	Federally Listed Endangered	State Endangered	G2	S1
	Little Brown Myotis	Myotis lucifugus	Active Season Sighting	4	NA	State Endangered	G3G4	S1
	Little Brown Myotis	Myotis lucifugus	Hibernaculum	4	NA	State Endangered	G3G4	S1
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Endangered	State Endangered	G2G3	S1
	Northern Myotis	Myotis septentrionalis	Hibernaculum	5	Federally Listed Endangered	State Endangered	G2G3	S1
	Tricolored Bat	Perimyotis subflavus	Hibernaculum	4	NA	State Endangered	G3G4	S1
Reptilia								
	Bog Turtle	Glyptemys muhlenbergii	Occupied Habitat	5	Federally Listed Threatened	State Endangered	G2G3	S1
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G2G3	S2

Vernal Pool Habitat
In the Immediate Vicinity of
Project Site Based on Search of
Landscape Project 3.4

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Vernal habitat area	2622
Vernal habitat area	2641
Vernal habitat area	2710
Potential vernal habitat area	182

Total number of records: 4

Revisions to Plant Species Nomenclature – September 2024

The scientific names of 48 State Endangered plant species have been updated to reflect currently recognized nomenclature for these species. These species continue to be listed as State Endangered plant species – only the scientific names have been revised.

The nomenclature changes are as follows:

From:	To:
Andromeda polifolia var. glaucophylla	Andromeda polifolia var. latifolia
Aster borealis	Symphyotrichum boreale
Aster praealtus var. praealtus	Symphyotrichum praealtum var. angustior
Aster radula	Eurybia radula
Atriplex subspicata	Atriplex dioica
Botrychium multifidum	Sceptridium multifidum
Carex aquatilis	Carex aquatilis var. substricta
Carex laxiculmis var. copulata	Carex copulata
Chenopodium rubrum	Oxybasis rubra var. rubra
Clitoria mariana	Clitoria mariana var. mariana
Cornus amomum var. schuetzeana	Cornus obliqua
Crataegus succulenta	Crataegus succulenta var. succulenta
Eleocharis compressa	Eleocharis compressa var. compressa
Eriophorum gracile var. gracile	Eriophorum gracile
Gnaphalium helleri var. micradenium	Pseudognaphalium helleri ssp. micradenium
Gnaphalium macounii	Pseudognaphalium macounii
Hieracium kalmii var. fasciculatum	Hieracium umbellatum
Isanthus brachiatus	Trichostema brachiatum
Isoetes melanopoda	Isoetes melanopoda ssp. silvatica
Ledum groenlandicum	Rhododendron groenlandicum
Megalodonta beckii	Bidens beckii
Melanthium virginicum	Veratrum virginicum
Milium effusum	Milium effusum var. cisatlanticum
Muhlenbergia capillaris var. capillaris	Muhlenbergia capillaris
Neobeckia aquatica	Rorippa aquatica
Nuphar microphyllum	Nuphar microphylla

Onosmodium virginianum	Lithospermum virginianum
Ophioglossum vulgatum	Ophioglossum pycnostichum
Oryzopsis pungens	Piptatheropsis pungens
Panicum aciculare	Dichanthelium aciculare
Panicum boreale	Dichanthelium boreale
Panicum dichotomum var. yadkinense	Dichanthelium yadkinense
Panicum hirstii	Dichanthelium hirstii
Panicum longiligulatum	Dichanthelium longiligulatum
Panicum xanthophysum	Dichanthelium xanthophysum
Polemonium reptans	Polemonium reptans var. reptans
Polygonum densiflorum	Persicaria densiflora
Prenanthes racemosa var. racemosa	Nabalus racemosus
Pycnanthemum torrei	Pycnanthemum torreyi
Ranunculus flammula var. filiformis	Ranunculus flammula var. reptans
Rhexia mariana var. ventricosa	Rhexia ventricosa
Schoenoplectus maritimus	Bolboschoenus maritimus
Smallanthus uvedalius	Smallanthus uvedalia
Streptopus lanceolatus	Streptopus lanceolatus var. lanceolatus
Tofieldia racemosa	Triantha racemosa
Trichomanes intricatum	Crepidomanes intricatum
Triosteum angustifolium	Triosteum angustifolium var. angustifolium
Zigadenus leimanthoides	Stenanthium leimanthoides

Attachment 12

Professional Resumes

Scott M. Larew

Principal Ecologist/Vice President

PROFESSIONAL SUMMARY

Scott is KJ's Natural Resource Management Practice Leader and brings 25 years of professional experience in natural resource management, with a strong focus on designing and implementing programs and projects in complex physical and regulatory environments. His ecological assessment, program management, regulatory understanding, and communication skills facilitate regulatory and stakeholder engagement and project success. He has served as a trusted advisor for governmental, industrial, and institutional clients throughout the US.

TOTAL YEARS OF EXPERIENCE
25

EDUCATION
BS, Marine Science/ Biology, Richard Stockton College of New Jersey, 1998

PROJECT EXPERIENCE

Ecological Risk Assessment and Site Remediation, Confidential Client, Northern NJ | *Principal Scientist – Client Service Director*

Leading ecological investigation, risk assessment, and remediation of a 1,100-acre former energetics manufacturing facility. Ecological risk assessment incorporated identification and exclusion of areas of presumed ecological risk to focus quantitative assessment. Led a team of engineers to develop conceptual remedial approaches for the areas of presumed ecological risk, and scope and implement pre-design activities to inform the development of remedial action plans. Coordinated and led regulatory communications related to land use permitting for multiple large remedies. Responsible for technical team leadership, client and regulatory communications, and program coordination.

Ecological Risk Assessment and Tidal Creek Restoration | *Program Manager*

Managed ecological investigation and risk assessment of a tidal creek associated with a former manufactured gas plant site. The risk assessment included a phased field data collection program, the results of which were evaluated in a BERA that reduced the area under consideration for remedial action (e.g., dredging) by more than 50 percent. Data collection included benthic invertebrate and fish community surveys, ecological benchmarking, and sediment toxicity testing. Led a team of ecologists and engineers that collaboratively developed an ecologically-beneficial remedial dredging design that effectively streamlining the permit process and remedial schedule and enhancing the ecological value of the creek. Obtained multiple NJDEP - Division of Land Use Regulation and United States Army Corps of Engineers permits authorizing the dredging and restoration. Valued restoration options using Habitat Equivalency Analysis in anticipation of an NRD settlement. Conducted and coordinated quality assurance oversight during remediation and habitat restoration, and implementation of an ongoing adaptive management program to monitor and maintain the restoration project. Cost: Restoration $650,000, Total $23M

Sediment Investigation and Ecological Risk Assessment, Confidential Industrial Client, Williamsburg, VA | *Principal Scientist*

Lead ecologist on ecological risk assessment of zinc impacts potentially attributable to a former chemical manufacturing facility located on an estuarine creek (secondary tributary to the James River). Responsibilities include design and implementation of field sampling, data reduction and analysis, development of technical content for client/agency briefings, and strategic approach to ecological risk assessment and associated risk management decisions. Investigations involved

collection of sediment for chemical analyses, bioavailability evaluation and benthic community composition. Additional activities include watershed review to select candidate reference creeks and field reconnaissance of candidates to select representative reference habitats.

Biological System Assessment – Southeastern US | *Senior Ecologist*

Performed wildlife and habitat assessment following USEPA's Rapid Bioassessment Protocols (RBP) at a former manufacturing facility and associated aquatic habitats. Efforts spanned the site (~80 hectares), which included 28 miles of creek and floodplain. Activities included soil sampling, electrofishing, terrestrial and benthic invertebrate sampling, habitat characterization, and adjacent land use evaluation. Desktop planning relied on detailed GIS mapping to evaluate ecological systems and adjacent land uses to select field survey locations. Conducted wildlife observations/tracking along 26 miles of creek. Planning involved detailed GIS mapping of historical field data and floodplain transect evaluations. Field surveys included habitat characterization, wildlife tracking, and assessment of terrestrial and aquatic communities.

Habitat Delineation, Assessment and Monitoring | *Environmental Scientist*

Member of ecological field team in multi-decade study of riparian, wetland, and subaquatic habitats along a 40-mile stretch of a major northeastern US waterway. Submerged aquatic vegetation and unconsolidated bottom evaluations incorporated aerial photointerpretation, underwater videography, physical characterization, and benthic quadrat sampling. Performed qualitative assessments of shoreline habitats, including delineation and sampling. Currently conducting post-restoration monitoring to evaluate the success of natural recruitment and active restoration areas.

Remedial Investigation/Ecological Risk Assessment, Confidential Client, Confidential Superfund Site (USEPA Region 2) | *Senior Scientist*

Managed development and implementation of a field sampling program in support of a comprehensive remedial investigation (RI) at a former paper mill site. Program implementation required coordination with state and federal agencies during preparation of land use permit equivalency applications for various activities including installation of soil borings, demolition of structures, and regrading and restoration of disturbed areas of the site. Responsible for regulatory compliance and ecological restoration elements of a large remedial action indirectly resulting from the RI implementation and risk assessment results. Responsibilities included identification and contracting of suppliers, and working with construction management to balance construction sequencing for purposes of regulatory compliance and cost control.

Remedial Investigation/Ecological Risk Assessment/Feasibility Study, Georgia-Pacific Wood Products, LLC, Hardwood Sawmill Sites, NC | *Senior Scientist*

Managed ecological risk assessments for two hardwood sawmill sites, specifically addressing the sites' potential impacts to adjacent surface water bodies. Led the design and implementation of ecological field studies on the sites and in adjacent water bodies. Coordinated with regulatory agencies, adjacent property owners and town officials. Contribute technical and financial information as part of the client's decision framework related to future site uses, remedial strategy and path to closure. Developed remedial action plans for both sites, coordinated with the state agency through the public participation and approval processes. Currently managing implementation of the remedial action plans and closure of the sites.

Amanda Emert

Environmental Toxicologist (Risk Assessment Scientist)

PROFESSIONAL SUMMARY

Amanda is an environmental toxicologist specializing in ecological and human health risk assessment. Her work has involved synthesizing animal, epidemiological, and mechanistic evidence, performing Benchmark Dose (BMD) modeling, and developing toxicity and risk assessment strategies. Previously, as a Graduate Research Assistant at Texas Tech University, Amanda conducted deterministic and probabilistic ecological risk and human health assessments, developed procedural guidance for risk assessment methodology under the USEPA FIFRA regulatory framework, and performed multimedia sampling and analyses. She has also provided technical guidance on EPA analytical applications and supervised field labs and projects.

TOTAL YEARS OF EXPERIENCE
8

EDUCATION
BS, Natural Resources, Texas Tech, 2018

PHD, Environmental Toxicology, Texas Tech, 2023

CERTIFICATIONS
40-hour HAZWOPER Training, OSHA (2311191497793)

8-hour HAZWOPER Refresher Training, OSHA (2411025497793)

Geographic Information Science and Technology, Texas Tech University

PROJECT EXPERIENCE

Ecological Risk Assessment, Confidential Client, NJ | *Risk Assessment Scientist*

Providing ecological investigation and risk assessment support of a 1,100-acre former energetics manufacturing facility. Ecological risk assessment incorporated identification and exclusion of areas of presumed ecological risk to focus quantitative assessment.

Ecological Risk Assessment, Confidential Client, NJ | *Risk Assessment Scientist*

Providing ecological investigation and risk assessment support for a Facility under the oversight of New Jersey Department of Environmental Protection (NJDEP) Contaminated Site Remediation and Redevelopment (CSRR) Program. Updated historical risk characterization of metals in wetland sediment and presented field and analytical data focused on metals delineation in sediment.

Preliminary Assessment, Confidential Client, NJ | *Risk Assessment Scientist*

Prepared a Preliminary Assessment Report (PAR) for a Superfund site under NJDEP oversight in accordance with the NJDEP Green Acres Program. The PAR is supportive of the Natural Resource Damages settlement agreement process currently underway for a portion of the Site.

Human Health Risk Assessment, Confidential Client, PR | *Risk Assessment Scientist*

Performs quarterly human health risk reviews of contaminants of potential concern (COPCs) in groundwater for monitoring wells included in the long-term monitoring program.

Technical Support, NJ | *Staff Scientist*

Prepared Technical Memorandum request for a Technical Review Panel for a Facility under the oversight of the NJDEP Contaminated Site Remediation & Redevelopment (CSRR). Chronicled site investigation and remedial actions of multiple entities, resolution efforts, and technical bases for client position of items under dispute.

Phase II Site Assessment, Washington State Department of Ecology, WA | *Staff Scientist*

Prepared a Sampling and Analysis Plan/Quality Assurance Project Plan and Phase II Environmental Site Assessment (ESA). This Phase II ESA incorporated multiple environmental

media (i.e. surface water, sediment, surface and shallow soil, subsurface soil, and groundwater), with specific focus on metals and PFAS contamination.

PREVIOUS RELEVANT EXPERIENCE

Goldbelt Apex, LLC. (supporting Defense Centers for Public Health – Aberdeen) | *Toxicologist*

Led development of perfluorooctane sulfonic acid (PFOS) hazard assessment and supported development of perfluorooctanoic acid (PFOA) hazard assessment in support of partners project by the Defense Health Agency and Veterans Health Administration. Performed literature reviews, characterized dose-response information, and provided clear and accurate synopses. Synthesized animal, epidemiological, and mechanistic evidence of PFOS toxicity to system endpoints, integrating these lines of evidence to develop points of departure. Performed BMD modeling using EPA software and conducted study evaluations with the Health Assessment Workspace Collaborative (HAWC) system. Coordinated with DCPH-A TOX directorate on Population, Exposure, Comparator, and Outcome (PECO) statement and strategy development and provided timely summary reports and presentations to interagency leadership for interim review.

Texas Tech Institute of Environmental and Human Health | *Graduate Research Assistant*

Designed and implemented ecological risk and human health assessments and environmental justice analyses for agroecosystems and isolated wetlands adhering to EPA Office of Pollution Prevention SOPs. Developed procedural guidance and policy recommendations pertinent to CWA, CAA, CERCLA, EPCRA, and FIFRA for assessments supporting pesticide registration and CAFO risk evaluation. Conducted multimedia sampling and analyses of agrochemicals. Provided technical guidance on EPA analytical application, methodology, and QA/QC procedures for analyses of metals in biological tissue; supervised acid digestions. Performed amphibian and aquatic invertebrate surveys, wetland habitat quality assessments, aboveground biomass surveys, and small mammal community surveys.

Daniel B. Stephens & Associates, Inc. | *Project Assistant II*

Drafted technical reports, scope of work, and line-item subcontractor budgets under direct supervision of senior staff for TCEQ-managed LPST, DCRP, and CERCLA program sites primarily in Phase II, assisting with Phase I due diligence, as needed. Performed data entry and QA/QC of NELAC-accredited groundwater and soil analytical reports. Provided client and subcontractor billing and administrative support.

RELEVANT PUBLICATIONS

(1) **Emert, A. D**., Griffis-Kyle, K., Portillo-Quintero, C., & Smith, P. N. (2024). USEPA CALPUFF validation and dispersion modeling of beef cattle feedlot PM10 and PM2.5 emissions factors. Atmospheric Environment, 316:120189 https://doi.org/10.1016/j.atmosenv.2023.120189

(2) Green, F.B., Peterson, E., **Emert, A**., Subbiah, S., and Smith, P.N. Bee pollinator mortality due to pesticide-laden particulate matter from beef cattle feedyards. Environmental Science and Technology, 57(40): 14839–14848 https://doi.org/10.1021/acs.est.3c03135

(3) **Emert, A.D**., Green, F.B., Griffis-Kyle, K., and Smith, P.N. (2023). Atmospheric transport of particulate matter and particulate-bound agrochemicals from beef cattle feedlots: human health implications for downwind agricultural communities. Science of the Total Environment, 894:164678 https://doi.org/10.1016/j.scitotenv.2023.164678

(4) Ansley, R.J., Rivera-Monroy, V., Griffis-Kyle, K., Hoagland, B., **Emert, A.D.**, Fagin, T., Loss, S., McCarthy, H., Smith, S., and Waring, E. (2023). Assessing impacts of climate change on selected foundation species and ecosystem services in the South-Central USA. Ecosphere 14(2):e4412 https://doi.org/10.1002/ecs2.4412

(5) **Emert, A.D**., Subbiah, S., Green, F.B., Griffis-Kyle, K., and Smith, P.N. (2022). Atmospheric deposition of particulate matter from beef cattle feedlots is a likely contributor of pyrethroid occurrence in isolated wetland sediment: source apportionment and ecological risk assessment. Environmental Pollution 316(1):120493 https://doi.org/10.1016/j.envpol.2022.120493

(6) Peterson, E.M., Green, F.B., Subbiah, S., **Emert, A.D**. and Smith, P.N. (2022), Agrochemical occurrence on collocated wildflowers and wild bees collected near beef cattle feed yards and row crops. Integrated Environmental Assessment and Management 18:163-173. https://doi.org/10.1002/ieam.4436

(7) Kabat, K.L.; Roth, S.; **Emert, A.D**.; Sutor, S. 2020. Geographic distribution: Sistrurus tergeminus (Western Massasauga). USA: Texas: Floyd Co. Herpetological Review 51(4): 783-784.

(8) **Emert, A**., Green, F.B., and Smith, P.N. 2022. Aerial transport of pyrethroids and avermectins in particulate matter >12 km downwind of beef cattle feedlots [Presentation]. Society of Toxicology and Chemistry North America 43rd Annual Meeting. November 13-17th, 2022. Pittsburgh, PA, USA. p. 441, ISSN 1087-8939

(10) **Emert, A**. 2021. Atmospheric deposition of PM10 emanating from beef cattle feed yards into isolated wetlands of the Southern High Plains of Texas: environmental risk assessment and contaminant dispersion modeling [Research proposal]. Annual meeting of the Texas Academy of Science.

(11) Peterson, E., Green, F.B, Subbiah, S., **Emert, A**. and Smith, P.N. 2020. Risk to pollinators from agrochemicals emanating from beef cattle feed yards [Presentation]. Annual meeting of the Society of Environmental Toxicology and Chemistry, North America.